WEST COAST RIVER TOURING

ROGUE RIVER CANYON AND SOUTH

BY DICK SCHWIND

1700 MILES OF RIVER RUNS FOR CANOE, KAYAK AND RAFT

PREFACE

River touring, hiking, climbing, and skiing are all methods of traveling through wilderness. Like skiing and snow and rock climbing, river touring has developed greatly in the last generation with the creation of new techniques and materials. Inflatable rafts and fiberglass white-water boats have opened up many new rivers for touring. During the 1972 World Olympics, the world's best kayakers and canoeists demonstrated to millions via television their amazing control of fiberglass boats. New though this sport was to most viewers, I estimate that the popularity of river touring is less than a generation behind that of skiing and climbing.

Just as touring on the land has extremes varying from traveling well-defined trails to ranging over mountain peaks that test the skills of the climber on rock, snow, and ice, river touring also has its extremes. There is the Sunday canoe trip on flat, calm water, and, at the other extreme, rivers that test to the utmost the skill of the boater and his physical and psychological endurance. Walt Blackadar's article in *Sports Illustrated* (August 14, 1972) telling of his amazing adventure down the Alsek River in Alaska is probably the most outstanding example of the limits of this endurance.

For touring on land, various types of guide books are available that are geared to the hiker's capabilities. Thus, there are books to interest the person who can climb El Capitan and others for the Sunday hiker. The river guides published to date, however, have made no such distinction. This guide attempts to include both the easy and the difficult descents. Timid canoeists may find the recommended water flows high and the run distances long; the most aggressive boaters, on the other hand, will want much higher water than recommended to obtain large hydraulics in the streams.

A word of caution – this guide or any such guide should be considered only as a convenience for planning trips. It is not a substitute for skill. I have tried to point out the most challenging rapids in almost every run and to transmit a feel for each section of the river, so that the reader can judge whether the run is appropriate for his group. Probably one-third of the time you will find something in the river – a tree, snag, or unnoted rapid – that provides more challenge than any of the rapids or obstacles I have described here.

River beds can change with flood waters, and even low flows will cause changes over many years' time. To improve the quality in any revised editions, I beseech everyone making these runs to note changes that should be made and send them to me. To make these changes most useful, a form is provided at the end of the book.

Dick Schwind
April 1974

What use are rapids?
What use are we if we remain indifferent to challenge?
What are we worth if we won't feel exhilaration?

from the narration by David Brower, Jeffrey Ingram, and Martin Litton for the Sierra Club film "The Grand Canyon"

How to Read the River Run Headings

SAMPLE HEADING:

9. TRINITY RIVER (continued)

a. **9. Hawkins Bar to South Fork**

b. **Class 2 with 1 Cl 3 rapid at optimum: 1350 cfs**

c. **Same class for run 5/29/70 at 1250 cfs**

d. **Maps: Willow Creek; Six Rivers NF**

e. **Average optimum flow date 6/8; also see Fig. 8-e**

f. **8.4 miles, spring & summer run**

g. **Scenery: A, short shuttle**

h. **Drainage: 1730 mi^2 at take-out**

i. **Canoes: OK, possibly 1 portage**

j. **Rafts: OK**

KEY:

a. **9**: Ninth river run in the Trinity River chapter; also labeled 9 on the map for that chapter (see list of maps on the next page).

b. **Class 2**: Rating of the river run (see rating criteria starting on page 32).

with 1 Cl 3 rapid: One Class 3 rapid; the Class 2 boater will most likely enjoy the run and not mind portaging the rapid if he decided not to run it.

at optimum: 1350 cfs: The ideal flow for this run is 1350 cubic feet per second – if the river were 135 feet wide and an average depth of 2 feet, the current would be 5 feet per second; e.g., 135 x 2 x 5 = 1350. Having the optimum flow is not important for Class 1 rivers, but the river ratings of runs that are Class 3 and 4 at optimum flow can change considerably with different flows. See page 34.

Also sometimes found on line b: **with 2 P's**, indicating that there are 2 portages.

c. **Same class for run 5/29/70 at 1250 cfs**: The date and flow for the author's run.

d. **Maps: Willow Creek**: 15 minute USGS maps at 1-inch-per-mile scale and with contours. **Six Rivers NF**: U.S. Forest Service map – usually one-half inch per mile and no contours. These are a best buy; see page 55.

e. See **f.**

f. **Spring and summer run**: The flow characteristics of all the river runs are described as rainy season run, spring runoff run, summer run, or dam-controlled flow. Sometimes, as in this heading, two characteristics are applicable. See Chapter 6 for flow prediction information. During most storms, the flow in the rainy season run will greatly exceed the optimum, then return to optimum several days after the storm. The listed **drainage area, average annual rainfall,** and **runoff factor** from the heading are needed for Table 4 (page 43) for predicting the number of days after the storm that the flow should be optimum.

The **spring runoff** stream reaches its optimum flow for the last time in the spring quite some time after the last major storm. The **average optimum flow** date is listed in the heading, and Table 2 (page 37) is a chronological list of spring runoff runs. How to adjust this list forward or backward, depending on how early or late the spring runoff, is described in Chapter 7. Figure 8 (page 44) shows maximum, average, and minimum summer flows for streams that can be boated in the summer. Runs that are strongly regulated by upstream dams, and are difficult to classify as one of the above three types, are labeled **dam-controlled flow.**

g. **Scenery: A**: Approximate, subjective scale of the scenery – see Chapter 5.

short shuttle: Not much, if any, longer than the river run.

h. **Drainage: 1730 mi^2**: The square miles of area drained by the stream down to the point indicated, the take-out in this case.

i. & j. **Canoes, Rafts**: Whether or not the run is advisable for an open canoe or raft. The boater(s) still needs the requisite skills indicated by the class of the run.

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Klamath River Town Hall to Horse Creek	8.8	1	B+	S	81	C-4
Horse Creek to Sarah Totten Campground	7.4	1	A	S	81	C-5
Sarah Totten Campground to Seiad Valley	8.9	2½	A	S	82	C-6
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Fort Goff to Thompson Creek	3.2	3	A	S	82	C-8
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River Run	length, miles	class*	scenery	boating season†	page	map key††
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Rogue — Rogue River Canyon	34.5	4	AA+	S	58	A-1
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Calpella to Ukiah	8.8	2	B	R,S	174	F-2
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River Run	length, miles	class*	scenery	boating season†	page	map key††
San Antonio – Above San Antonio Reservoir	10.7	2½	A	R	219	J-18
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Fort Jones to Scott River Canyon	10.3	1	A	Sp	92	C-24
Scott River Canyon to Jones Beach	3.5	3½	AA	Sp	92	C-25
Kelsey Creek to Scott Bar	10.5	4½	AA	Sp	93	C-26
Scott Bar to Klamath River	3.6	3	A	Sp	94	C-27
Shasta – Below Yreka	6.8	3	B	R	90	C-21
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Stony Gorge Reservoir to Grindstone Creek	6.6	2	A–	D	195	H-11
Trinity – Tangle Blue Creek to Eagle Creek	6.3	3½	A	Sp	100	D-1
Eagle Creek to Clair Engle Lake	7.3	3–	AA	Sp	101	D-2
Lewiston to Douglas City	16.3	2½	A	S	101	D-3
Douglas City to Junction City	14.0	2	A	Sp,S	105	D-4
Junction City to North Fork	7.0	1½	A–	Sp,S	105	D-5
North Fork to Big Bar	8.4	3½	A+	Sp,S	106	D-6
Big Bar to Big French Creek	5.4	2	AA	Sp,S	106	D-7
Big French Creek to Cedar Flat	10.0	2	AA	Sp,S	107	D-8
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South Fork: East Fork to Forest Glen	16.6	4	AA	Sp	110	D-10
South Fork: Klondike Mine to Hyampom	16.0	3–	A	Sp	112	D-11
South Fork: Hyampom Valley	5.3	1	A	Sp	113	D-12
South Fork: Underwood Creek to low level bridge	12.1	4	AA+	Sp	114	D-13
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Willow Creek to Tish Tang Campground	8.7	1½	A	S	116	D-16
Tish Tang Campground to Hoopa Valley	8.0	1½	A	S	116	D-17
Hoopa Valley to Weitchpec	8.3	2	AA	S	116	D-18
Van Duzen – West Fork to second bridge	7.2	3	A+	R,Sp	128	D-10
Second bridge to Dinsmores	13.1	1	A–	R,Sp	130	D-11
Near Bridgeville to Grizzly Creek	5.0	1½	A	Sp	131	E-12
Grizzly Creek to second bridge	5.2	2½	A	Sp	132	E-13
Strong's Station Area	6.5	1½	A	Sp	132	E-14
Strong's Station Area to Carlotta	5.3	1	B	Sp	132	E-15

*Not including portages or a few more advanced rapids that can be portaged; see individual river run descriptions.

†R: Rainy season run; Sp: Spring runoff run; S: Summer run; D: Dam-controlled flow.

††Map letter (see List of Maps for the page) and run number on that map.

Without slipping forward, the author and his wife have back ferried into position immediately above one of the slots of Skinny Chutes rapid (photo by Carl Trost). This is on the Middle Fork run of the Eel River.

PART I. TO THE RIVERS

1. Introduction

Along the Pacific Coast of the United States runs a nearly continuous chain of mountains. Water flows from these peaks westward into the Pacific Ocean and in Northern California, eastward into the Sacramento River. This book provides a comprehensive description of the boating on the streams and rivers flowing in both directions from the coastal mountain range, from the Rogue River Valley in Oregon to and including the Salinas River Valley in California. The upper Sacramento River itself is included along with the Sacramento Valley tributaries on the west side.

Nearly every creek or river with at least 100 square miles of drainage area is considered here. Some streams have been omitted because they have too steep a gradient or too low a water flow even in winter. Of the 1,700 miles of river described, all but 80 miles have been run by the author. This guide is intended to satisfy the needs of a wide range of boaters – those who paddle canoes or kayaks or row rafts or dories. These different types of boats and associated equipment are described in Chapter 2. Techniques for maneuvering white-water boats are presented in Chapter 3.

The author has made most of the river runs described in the book in a fiberglass kayak, but has also made many runs in a white-water canoe, open canoe, raft, or river rowboat. With the exception of the rowboat, all of these craft are suitable for running most of the rivers described. The fiberglass kayaks and white-water canoes are suitable for essentially all the runs. The heading of the description for each run indicates whether open canoes and rafts can be used on that stretch of river.

Each river run has been assigned a difficulty classification. These classifications represent the author's interpretation of the rating system developed by the International White-Water Federation. They range from Class 1, which is essentially flat water with riffles, to Class 4½, which is well beyond the point of enjoyment for most boaters. Because it can be misleading to classify runs according to the characteristics of the rivers, the author has departed from the traditional approach and has described each class in terms of the degree of skill needed by the boater (see Chapter 5).

The difficulty of a run varies greatly with the level of water. Most river guide books do not deal with this situation beyond warning the boaters that other conditions may exist at the time of their trip. In this book the problem is considered in great detail. The author's solution is to classify each river run both at the level at which it was boated and at the level considered optimum for that river. The optimum flow criteria are described in Chapter 5.

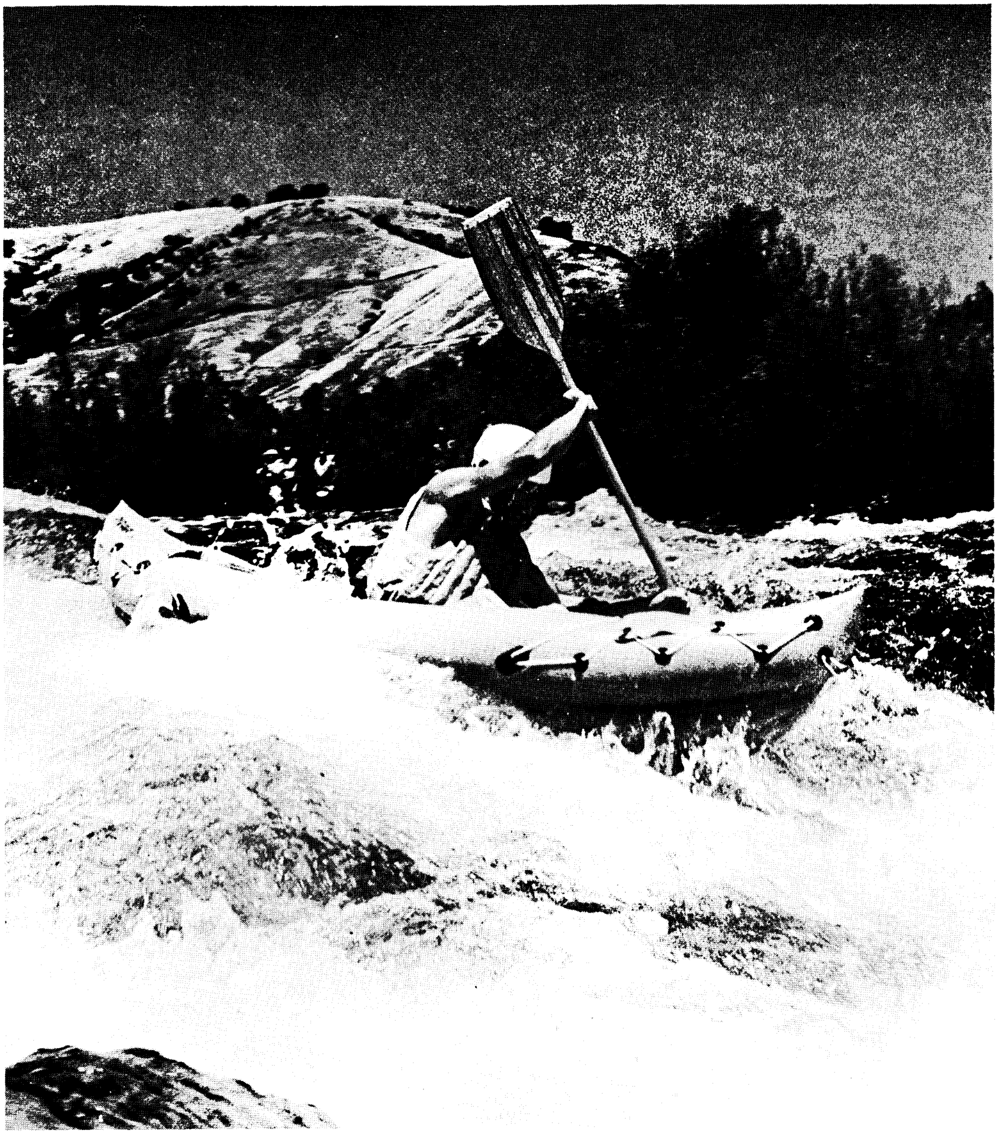
Flows in the coastal streams are determined by various combinations of rainfall, melting snow and dam releases. River flows can be predicted from information on (1) how wet the winter and spring have been, (2) how much rain fell during the last storm, and (3) how a river has behaved in the past. Chapter 6 of this book tells where to obtain the necessary data and how to make flow predictions.

Knowledge of equipment, difficulty classifications, and river conditions all contribute to safety in boating. While on the river, the basic rule of safe boating is simple but not very obvious and often ignored: Do not start down a rapid unless certain that either you can run the entire rapid, or can pull into an eddy which you have previously observed, or that you are willing to swim if capsized. Other important safety principles and personal experiences are presented in Chapter 4.

While many of the access points and campsites along rivers are on public lands, there are also places, particularly on the smaller streams, where access must be gained over state highway property or through a right-of-way along county roads. The boater should know his legal rights for access and for running rivers. The legal aspects of river touring are described in Chapter 7.

The final chapter of Part I gives an overview of the various river systems, and presents information regarding maps that are useful to the river tourer. Also, the federal and state Wild and Scenic Rivers Acts are described.

Part II contains detailed descriptions of 170 river runs including the major rapids and directions on where to put in and take out. Historical notes about early explorations and gold mining, along with conservation issues, will add to the interest of planning a trip.



An inflatable kayak bounces over white water (photo by Carl Trost).

2. *Boats and Equipment for Paddling and Rowing Rivers*

River touring has yet to gain the vast popularity of skiing, hiking, and climbing. Except on a few very popular rivers, such as the Rogue, Russian and some of the Sierra streams, the West Coast river tourer seldom meets another boater on the water. Consequently, in many areas, there is a lack of convenient access to equipment and training. The easiest way to gain access is to join a river touring group. Such groups generally have worked out supply problems and have training programs. A comprehensive coverage of river touring equipment and technique for the various important types of white-water craft would require an entire book. The subject is covered only briefly here.

Comparison of River Touring Craft

No one boat is best for all river touring situations. The author has enjoyed boating streams that started off narrower than the length of his kayak, while other boaters have run the Grand Canyon in a kayak of the same design. It is, undoubtedly, the most universal river touring boat. Much less experience is necessary, however, to navigate a large, difficult river in a raft. Ideally, the "complete river tourer" would have an armada of boats ranging from kayak to raft or dory to choose from, depending on the river to be run, the length of the trip, and the like – much as a golfer has different clubs.

Ten types of river craft are compared in Table 1 for their boating characteristics, typical cost, and weight. The strengths and weaknesses of each are described below.

A husband and wife team in a 2-man fiberglass kayak on the Rogue river (photo by Carl Trost).

Open Canoes

The undecked, or open canoe (referred to as "canoe" throughout the rest of the book, as compared with the white-water canoe) was developed by the American Indian, as the kayak was by the Eskimo.* The Indians had many types of canoes, ranging from small craft that accommodated a single person out hunting to large boats for transporting goods. The canoe is probably the most popular boat for river touring. It is thought of as a family boat, a craft for lakes and for fishing. It is an appropriate boat for the very cautious river tourer, but its limitations quickly become evident in waves high enough to swamp it or when it tips over. It then becomes a most fragile craft which is easily contoured around a rock or other obstacle. Rescue before that happens is very difficult, and afterward, a winch is usually needed. All the other boats, except some river rowboats, have many times more buoyancy than the canoe.

White-water canoeing groups originated in the thirties and forties in the Northeastern United States, and these groups are still very active. It is impressive what rough, difficult water an expert canoe team can handle with an open boat. Canoes can also be decked to handle large waves. The heading for each run described in Part II of this guide indicates whether a run is advisable for an open canoe with paddlers of the class of skill designated for the run. "No" means that there are too many drops and rapids with waves too high that would require portaging to make a worthwhile trip. Generally, a run of class 2½ to 3 is the upper limit for a canoe. (When the word "canoes" appears in a description of a run it refers to open canoes.)

A canoe for river touring preferably should be 15 to 17 feet long for best versatility, and be constructed of aluminum, fiberglass, or tough plastic. It should have no keel extending down from the center line. The aluminum river canoe has more ribs than the lake canoe, a thicker skin which should be of higher temper, and a "shoe" keel (just a reinforcing molding along the center line). Modest dents can be worked out, but repair of major damage requires the help of an expert aluminum welder. However, even an expert cannot return the metal to the proper temper. The Royalex plastic canoe is expensive, but has the useful characteristic of returning to its original shape when heated.

Fold Boats

One- and two-man fold boats are far more susceptible to damage in low water than any other river craft except the rowboat. Some boaters say that they should be considered for river touring only if a boat must be carried on an elevator to its storage place. But the cautious boater who stays off rivers that are too low can do well with a fold boat. They have been run successfully through the Grand Canyon.

Both ends of fold boats should be filled with flotation air bags. In the two-man style, the paddlers are seated much too close together, so the paddles collide unless the paddling is synchronized. It is also impossible to maneuver them around tight turns, so they should only be used on medium-sized and larger rivers where the course is more open. With fold boats, the optimum flow listed in the heading for each run should be increased by 25 to 50% on the smaller rivers (those less than 200 square miles) to reduce the chance of scraping rocks.

Kayaks and White-Water Canoes

The fiberglass white-water boats – the kayak and one- and two-man canoes (usually called C-1 and C-2, respectively) – have rapidly become the most popular craft for the avid white-water enthusiasts. They are inexpensive to buy or to make (if a mold is available), withstand considerable abuse on the river, and are easy to repair. Their biggest disadvantage is that more skill and training are required to handle them. Boaters in these craft quickly become used to the less comfortable quarters offered. It is important to have a well designed seat. The kayaker may want a back rest for comfort, and it is essential to have the proper weight distribution between the knees and the seat in the white-water canoes. Canoes offer much more space than kayaks for storing gear. However, a boater carrying light-weight backpack gear can travel in a medium-sized slalom kayak for a week with 40 pounds of gear.

Kayaks are available in a multitude of shapes and sizes. Most designs, however, are of the

*Many readers will be interested in the excellent book, *The Bark Canoes and Skin Boats of North America,* by Adney and Chappelle (Bulletin 230, Smithsonian Institution).

minimum standard width and length established by the International Canoe Federation (ICF) – that is, 2′ x 13′ 1½″ for the slalom, 2′ x 14′ 8″ for touring kayaks. The minimum ICF dimensions for canoes are 2′ 4″ x 13′ 1½″ for the one-man canoe and 2′ 8″ x 15′ for the two-man canoe.

To the uninitiated, white-water canoes may look the same as one- and two-man kayaks. Indeed, the main differences between the two craft are minor and stem from differences in the two styles of boating. The kayaker sits in the bottom of the boat and uses a two-bladed paddle, while the canoeist kneels (actually, most of his weight is on a seat) and uses a canoe paddle. The canoeist is a foot higher in his boat so he can see the waves ahead much better. The added height and larger volume of the canoe result in less inundation for the canoeist – at least, until he tips over. The Eskimo roll (rolling a boat right-side-up using only the paddle) is more difficult in a canoe since the center of gravity of the body is much farther from the center of the boat. Nonetheless, good C-1 boaters are expected to be able to roll, and expert C-2 teams do it regularly.

The two-man white-water canoe is the most difficult boat to handle, because the problems of developing the necessary teamwork are compounded by the need for precise balancing during many maneuvers. The open canoe does not require nearly as precise a balance, and the kayak does not require teamwork. Nearly all aspiring white-water canoeists develop teamwork in the open canoe or balance and instinctive bracing in the kayak. Teamwork, the most basic element of both the open and white-water canoes, is the element that attracts their users. It is an exciting experience to run a challenging rapid perfectly with neither partner needing to say a word. The stern paddler receives a message from his partner through the rhythm and position of the strokes; similarly, the bow paddler recognizes the paddle responses from the stern.

A warning is appropriate here. A husband-wife canoe team learning the required teamwork, especially in a white-water canoe, can face one of the most severe tests of their marriage. Walt and Kay Harvest, both former U.S. kayak champions in men's and women's slalom, named their white-water canoe "The Divorce Court." But they make a nonetheless great team.

If the C-2 has a center hole, it can also be used as a C-1 or for carrying a third person in easy water or in unusual circumstances.

The two-man fiberglass kayak offers a husband and wife team a much easier way to start running rivers because the balancing requirement is reduced. The white-water canoe can be readily converted to the more easily handled kayak by lowering the seats and cutting longer holes in the deck; however, it would be more desirable to have a slightly lowered deck as well. The white-water canoe is also faster if used as a two-man kayak. Unlike the two-man fold boat, the paddlers in the converted canoe are at the ends of the boat where they can maneuver it effectively. Kayakers are at home with this arrangement, but canoeists tend to find it frustrating because they cannot see as well or reach out as far for that big draw stroke.

Using the same optimum flow condition, the white-water canoes and two-man fiberglass kayaks described above can generally make any run just as easily as the one-man kayaks can.

Inflatable Kayak

The inflatable kayak, which was introduced about 1969, is essentially a raft made in the shape of a kayak. It does not have a deck, but is very stable and buoyant in rough white water. As in the conventional kayak, the boater is seated in the bottom of the craft and uses a double-bladed paddle. The author has had some limited experience with this boat. It is a very acceptable way of running many rivers, although, in the two-man version, the boaters are still located too close together. The inflatable kayak is easy to handle and thus training requirements are simple. As compared with the conventional kayak, however, it is slower and not as maneuverable.

Unfortunately, the above two boat characteristics can be a dangerous combination. With virtually no experience, a paddler in one of these boats could tackle some advanced river runs with apparent success. However, on other runs of the same class of difficulty, this novice in such a slow boat probably would not recognize potentially dangerous situations in time to maneuver around them. This boater should carefully heed the rating systems given in Chapter 4 and would do well to stay on the runs rated as satisfactory for rafts until he has

Table 1 — Comparison of Various River Touring Craft Characteristics

Characteristics	Open 15-ft Canoe	2-man Foldboat	1-man Foldboat	Fiberglass Kayak	White Water 1-man Canoe	White Water 2-man Canoe	Inflatable Kayak	Rowed '4-man' Raft	Rowed '10- or 15-man' Raft	Dory: Rogue/ Colorado
Amount of balance required	Some	Some	Some	Much	Much	Much	None	None	None	None
Maneuverability	E	F	E	EEE	EE	EE	G	G	F	G
Ease of learning boat control	F	F	F	P	P	PP	G	E	E	F
Usability in low water	F[1]	P	F	EE	E	E	F	P	PP	PPP
Usability in big white water	PP[2]	E	E	E	E	E	G	EE	EEE	E/EEE
Usability on small, brushy streams	F	P	G	E	G	F	F	PP	PPP	PPP
Speediness, independence from head winds	G	E	E	E	P	G	P	PP	PPP	P
Comfort	G	F	F	F	P	P	G	E	E	EE
Gear storage capacity	E	G	P	P	G	E	P	E	EE	EE/EEE
Ability to withstand impact	G	F	F	E	E	E	E	EE	EE	PP
Ease of repair	P	P	P	E	E	E	G	G	G	P
Ease for Eskimo rolling	—	—	G	E	F	P	—	—	—	—
Typical cost of new boat	350	500	400	250	250	300	75	400	1200	600/1200
Cost of boat if you make it[3]	140	—	—	80	100	120	—	—	—	—
Weight (including float bags, columns 2-6)	75	60	45	33	40	55	25	40[4]	175[4]	250/400

[1] Too easily dented, but in gravelly, easy streams, good for hopping out and dragging to next pool.
[2] If canoe is decked, rating is F.
[3] Fiberglass boats; includes $20 mold fee.

E, Excellent; G, Good; F, Fair; P, Poor.

developed well-proven river skills with the inflatable kayak.

Rafts

No craft includes such a range of sizes as the raft. From the "two-man" drugstore special, they increase in size to 37-foot-long monsters propelled by outboard motors which some commercial groups use to run the Colorado River through the Grand Canyon.* The difficulty ratings listed in this guide do not completely apply to rafts, because this type of craft requires entirely different maneuvering and no balancing skills. Properly handled rafts have less trouble with big white water than any other craft but are unable to perform the rapid, tight maneuvers that frequently are necessary on many of the smaller rivers. This defect in the ratings is partially corrected with a note in the heading as to whether the river in question is runnable by raft.

Rafts are constructed of neoprene- or hypalon-coated cotton or nylon, the latter being much tougher and the more expensive. The cheap yellow rafts sold by many stores cannot take the beating that the rivers deliver. Many medium-sized and larger rafts that are seen on the rivers are military surplus. It should be noted that military rafts hold only about half their rated capacity of people in white water.

Small rafts are usually equipped with only a couple of inadequate molded eyes for holding oars. A wooden or metal rowing frame should be installed immediately so that powerful rowing strokes can be comfortably delivered. While having all the passengers use canoe paddles is adequate on open rivers, this method is generally inferior to rowing when the course becomes tricky. Any rowing frame, of course, needs to be securely tied to the raft.

River Rowboats

River rowboats – or more appropriately, dories or driftboats – are seen on the medium-sized and larger western rivers and have specific names such as Rogue, McKenzie, or Colorado River boats. They are high-sided, lightweight wooden boats with a lot of curvature, or rocker, in the bottom as viewed from the side. The angle of the sides is very critical. These boats are favored by river guides for fishing and are often seen on the Rogue and Klamath rivers. Although at least 500 miles of the rivers described in this guide could be run in these craft, generally no trailer ramps are available for easily launching these boats. A river rowboat is a much more graceful craft than any raft. They can be turned as easily as a raft and move faster in slow water. Aside from the Rogue River Canyon run, however, they are not considered in this book because of the difficulty of portaging them. But the owners of the rowboat can probably estimate from the descriptions in this guide and the size of the rivers which runs are feasible – provided he has the manpower to carry his boat to and from the river. These boats have the obvious disadvantage that they are generally too heavy to be carried around all but the simplest portages; if they are not run through a rapid, they must be lined through it.

Two basic types of dories are included as the last type of white water river craft in Table 1. The Rogue and McKenzie dories are essentially the same and are typically 6 feet wide by 15 or 17 feet long. The Colorado River dory is 6½ feet by 17 feet. Unlike the Rogue and McKenzie dories, the Colorado is decked over and compartmented except at the passenger seats. Thus, three-fourths of the boat is flotation, which is an outstanding advantage in very big white water. All gear is stowed in the compartments. The Colorado River dory was adapted from the other dories and developed by Martin Litton of Portola Valley, Calif. (Grand Canyon Dories, Inc.) for use in the Grand Canyon.

Boat Accessories

The rescue of an upturned boat can become an impossible task if the rescuer cannot conveniently grab onto something other than the smooth slippery hull. Canoes should have bow and stern lines. Most fold boaters, kayakers and white water canoeists prefer end loops rather than lines (this safety problem is discussed in Chapter 4). Inflatable boats usually have a cord running around at least part of their perimeter.

Decked boats should be equipped with flotation, or air displacement bags, before the first

*The U.S. National Park Service, which regulates the boating through the Grand Canyon, is in the process of eliminating all motors there, so the largest rafts are expected to disappear.

river run. These large, air tight bags are made of 12 to 20 mil vinyl and are blown up like an odd-shaped balloon to the shape of that part of the boat for which they are intended. Thus, for a fold boat, kayak, or C-1, there is one bag for each end, and the set displaces 5 or more cubic feet of volume. In a kayak, the flotation amounts to about one-half volume of the boat, or about 300 pounds less weight if the boat fills up with water.

A set of kayak bags typically costs $15 to $20. For the C-2 or fiberglass K-2 there may be small bags in the ends, but the 10 to 20 cubic feet in the center should be filled with 1 bag or with 2 bags if there is a center hole. In all boats, particularly the C-2, these bags, when fully inflated, add greatly to the strength of the boat. The single center bag in the C-2 can help prevent the boat from wrapping around a rock. When storing gear, the bag is simply blown up tightly against or around the baggage.

An air mattress, beach balls or folded inner tube stuffed into the end of a boat is simply no substitute for flotation bags, because these items displace only a small fraction of the volume of the flotation bags. By eliminating sharp points and edges on the inside of the boat and inserting the bags carefully, they can be made to last longer than the boat. They should be trapped inside the boat by some obstruction, such as the seat, foot brace, or a strap. The author has yet to see a bag punctured in a boating accident. He has watched the two halves of a broken boat, including the one that he had been sitting in a few moments before, bouncing down a river, each half with its flotation bag. On the other hand, a full bag in a boat that is transported to high altitude or exposed to the hot sun can rupture a fiberglass boat, so air should be removed before this occurs.

Canoe paddles should be of hard wood such as ash or maple, fiberglass with a 1¼" diameter tempered aluminum shaft, or laminated wood such as the paddles manufactured by Josef Sedivec (he and his wife are former world champions in the C-2 mixed white-water slalom). The paddle should reach the boater's chin, or a little lower for the C-2, and have a blade 7 to 8 inches wide.

Kayak paddles should be between 78 and 84 inches long. The blades should be made of fiberglass or molded plastic; the shaft preferably should be of one piece and constructed of wood or fiberglass or a tempered aluminum tube that has been wrapped with plastic or fiberglass. The spare paddle must be a two-piece one to fit in the boat. When touring against a wind – which somehow seems to happen at least 90% of the time – a "feathered" kayak paddle is a great help. In this type of paddle, one blade is rotated 90° on the shaft compared with the opposite blade so that the unused blade in each stroke slices edgewise through the air. It only takes a few minutes longer to learn to use this type of paddle even though the boater must loosen his grip on the paddle with one hand and allow it to rotate with each stroke. Experts usually prefer a curved, or spooned, blade because it gives them a better feel of the water, but it is much harder to learn to Eskimo roll with such a blade.

Most small rafts are sold with paddles or oars that should be outlawed. They are completely inadequate for white-water use. Oars should be comparable to those used in rowboats of similar width. For the Navy surplus "15-man" raft, which is 7½ feet wide, 9 or 10 feet is a good length for the oars.

Rafts and canoes should carry an extra paddle or oar where it can be easily reached and put into action immediately, even in the middle of a rapid.

For each group of boaters on a river there should be at least one brightly colored rescue line; 100 feet of ¼" polypropylene rope (which floats) in a kayaking group or 150 feet of 3/8" for a group with open canoes or rafts should be adequate except on the largest rivers. The rope should have a weighted, padded end that will float so that it can be thrown effectively.

The automobile roof rack for transporting the boat should be firmly clamped to the gutter of the vehicle. Suction cups are unsatisfactory. Clamps also may be inadequate for large loads on steep, bumpy shuttle roads. Insert small screws into the gutter of the vehicle to prevent the rack from moving. A layer of foam on the cross bar tends to reduce creeping of boats on the rack, as does the use of heavy rubber "tie down" or "truckers" straps. There should also be a back-up holding arrangement of bow and stern lines to the ends of the vehicle and an extra line for any rubber straps, as they do occasionally break. With a good rack, the author has carried two white-water canoes and two kayaks on a VW bug, with all boats tipped on their sides and resting on the cross bars.

Personal Accessories

The beginner on a Class 1 or 2 river soon learns that swimming rapids isn't nearly as fearful as it looks, and can even be a lot of fun. On an advanced river, in a big rapid with bubbly water, however, with waves tending to pitch a person forward and with reversals and currents sucking him under, he may be submerged much of the time despite his life jacket. It is important not just to have a life jacket, but to have a superior one for river touring. A new federal boat safety act became effective in 1972 requiring river tourers to carry life jackets with a minimum buoyancy of 13 pounds for an adult (an interim standard*). Of course, carrying it in the boat does not do a bit of good – after a tip-over you can hardly reach in, pull it out, and put it on, even in calm water.

U.S. Coast Guard-approved jackets are so marked. There are two basic standards: "life preservers," which must have a minimum of 22 to about 30 pounds buoyancy for adults, depending on the buoyancy material, and "buoyant vests," which have 15½ pounds minimum buoyancy.† Both must have 70 to 75% of the buoyant material in the front of the jacket. Often the rear buoyancy is in the form of a collar, which is very bothersome in river touring. Contrary to popular belief, "life preservers" and particularly "buoyant vests" do not necessarily turn an unconscious person face up from the face-down position.

When swimming a rapid, the swimmer floats on his back and back paddles, keeping the feet downstream to fend off rocks. If the face is well out of the water, the front part of the life jacket will be out of the water also, so it is important to have some buoyancy on the back. In life jackets that are made specially for river tourers, the buoyancy material is cut into many pieces and sewn into the vests so that they are comfortable during boating and yet fit closely to the body. The above requirements of good fit and some buoyancy on the back, plus adequate buoyancy throughout, would seem to be essential for river touring.

The boater who expects to boat "big water" should be particularly concerned about the amount of buoyancy and possibly try to find a jacket with about 18 pounds of buoyancy. Some boaters in very big white water wear two life jackets. A wet suit does have a small amount of buoyancy, but not nearly enough to negate the need for a life jacket.

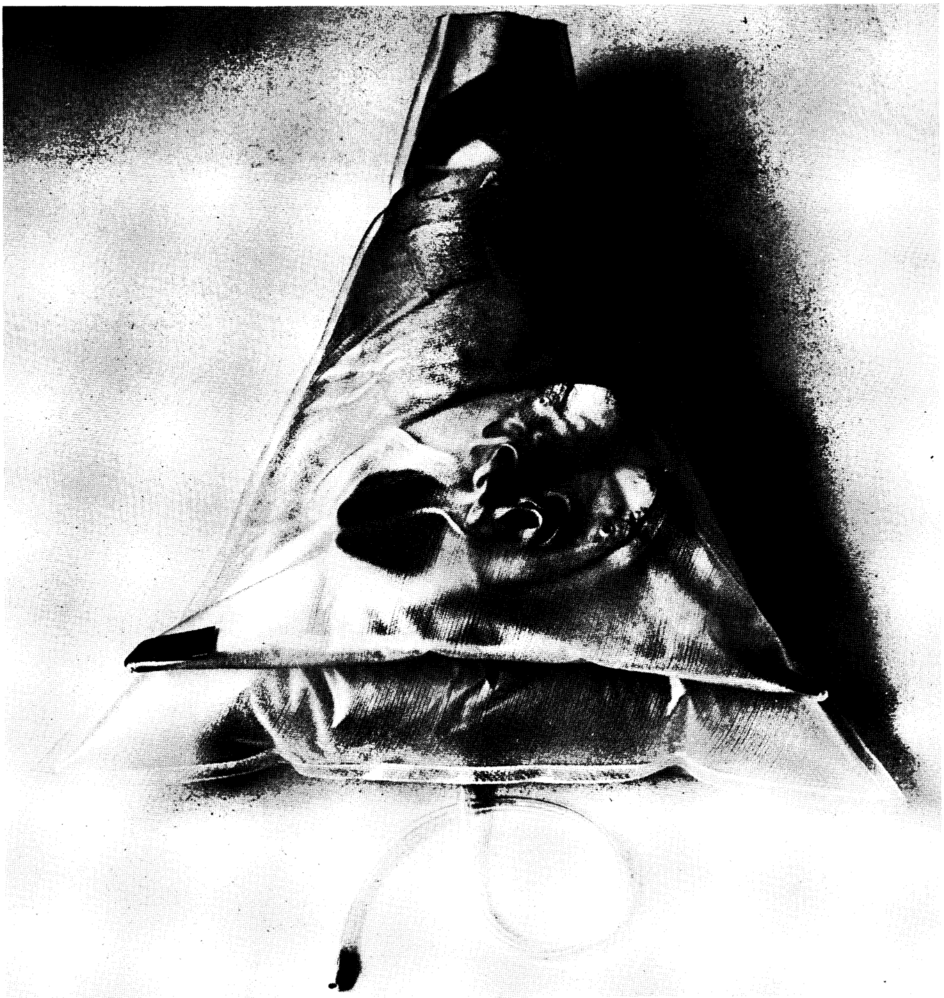
The life jacket should fit well to minimize any danger of catching on snags. It should be tied around the waist so that it does not ride up. Sitting in a kayak nearly all life jackets will push down the spray sheet and create an unnecessary depression for a puddle of water that will gradually leak into the boat. It is nice to have a jacket in which the part below the waist tie can be folded up over the tie to eliminate this.

Wool clothing is warmer than cotton when wet. Swimming in cold water can quickly sap a person's strength. The canoeist should at least wear wool "long johns" for spring boating. The kayaker is closer to the water and invariably gets at least a little wet, and will only be comfortable for winter and spring boating with a wet suit jacket. The best wet suit thickness is 3/16"; it should have a lining for strength and for ease in getting it on and off. All boaters should have an unpadded parka, just a nylon shell, for a windbreaker. Swimming while wearing padded clothing or boots is very awkward and dangerous. Sneakers or tennis shoes are the proper foot gear for all river tourers. For any craft that the boater does not fall out of automatically when it tips (kayak, C-1, C-2), wearing a helmet is highly advisable.

For carrying gear, rectangular surplus bags of rubberized fabric are very popular for kayakers and rafters. They are made waterproof by carefully folding up the open end and buckling it under a flap. Lighter, waterproof fabric bags with sealed seams are also available (see the suppliers list). Plastic trash bags also make a satisfactory waterproof carrier. Two of them, one inside the other, are each folded and tightly closed with strong rubber bands. They are then placed inside a cloth bag to protect the fragile plastic. All bags and gear should be securely fastened into the boat.

*At press time, a new standard is to go into effect July 1, 1974. The boater in a decked boat may be required to wear an approved vest, or the requirement may be delayed.

†This life jacket information is abstracted from a very excellent article by Carl Trost, "Life Jackets?" *American Whitewater,* Spring 1972.



A novel type of flotation bag equipped with a waterproof storage area; photo by Greg Thomas.

River touring periodicals

American Whitewater, Box 1584, San Bruno, CA 94066

Canoe, Suite 3200, Tribune Tower, 435 N. Michigan Ave., Chicago, IL 60611

River Touring Section News Bulletin, 3962 Fordham Way, Livermore, CA 94550

3. *Boating Techniques for River Touring*

Steering and bracing strokes are the building blocks for maneuvering all paddled river craft mentioned previously. When the aspiring boater has developed the ability to perform these strokes with ease, to "read the water" (currents, eddies, submerged rocks, etc.), to select the course and run it in the manner planned, to rescue others or himself and has a working knowledge of safety principles, he possesses a new freedom – the freedom to tour rivers safely, without fear of disaster. All the above skills cannot be learned from a book, but there is also little chance of advancing beyond the intermediate stage ability without help from someone or a "how to . . ." book or of becoming an expert boater without help from a river touring club or frequent association with an expert. This chapter is a synopsis of techniques that are explained much more fully in the five books that are listed at the end of this chapter.

Steering Strokes

A good paddler usually uses only two or three basic strokes besides paddling straight ahead or backward. These strokes are shown in Figure 1 (in the top views the solid curve indicates that the paddle is in the water, and the dotted curve is the return stroke).

For steering from the canoe bow there is the draw (1) and (7), cross draw (2) and (8), or pry (3). Because it takes much too much time to trade the paddle from one hand to the other to draw on the opposite side when in fast water, the cross draw is used. For this stroke the paddle grip remains unchanged, the body is rotated about the hips as the paddle crosses over the bow in a nearly horizontal position and is then dipped into the water on the opposite side, but with the blade far forward (8). The shoulders are now about parallel to the keel. The paddle is then drawn to the boat. Since the blade is a couple of feet farther forward than in the draw (compare [1] and [2]), and thus farther from the center of the canoe, this stroke is actually the bow's strongest turning stroke. In the Olympic C-2 slalom, this stroke was not seen because, for experts in races, it also takes too much time; consequently, they use the pry. In the shallow water, however, the pry stroke catches rocks and so the cross draw is more appropriate.

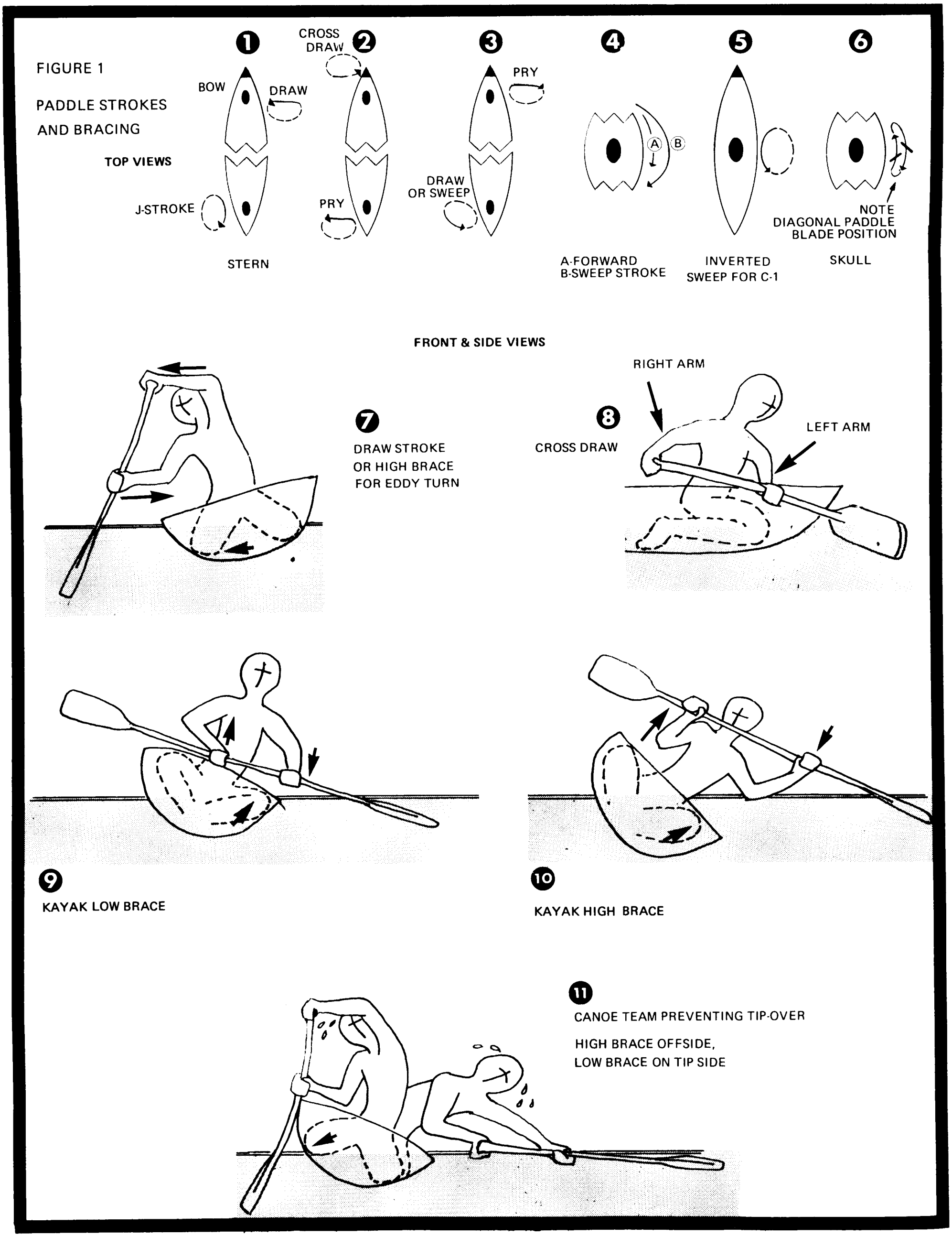
The bow-man should perform a draw with the paddle nearly vertical (7). The stern-man automatically tilts the top of the paddle forward for his draw and he may also lean back to position the blade farther back and make it easier to rotate the boat (3). In the stern, the pry is a particularly powerful turning stroke when, again, the paddler gets his paddle far back (2).

A more sophisticated stroke than the draw is developed by sculling the paddle (6) – that is, oscillating the paddle forward and aft at arm's length with the blade angle constantly being set to resist the inward pull. The pull is always against the same side of the blade. This maneuver saves the time of the return sweep when drawing and results in a much smoother stroke. Combinations of these strokes with paddling forward or backward are also employed, but they come naturally after the basic strokes are mastered. A particularly useful combination is an extended forward stroke ending in a partial draw; what is called a sweep stroke (5). These basic strokes should be practiced on still water so that the paddler sees what happens to the boat without the current to help or hinder. The paddler of a C-1 frequently uses the inverted sweep stroke (4) to keep his momentum while turning in the opposite direction from the sweep stroke.

In boats that are steered with a double-bladed paddle (kayak, fold boat and inflatable kayak) all strokes can be accomplished on either side of the craft, so there is no need for any stroke like the canoe bow cross draw or pry. In the single boat a long, wide forward sweep stroke (5) is used to create a moderate turn without losing speed. A pry like that in the stern of the canoe (2) turns and slows the boat. For sideways movement and sharper turns, the paddler reaches far forward, opposite, or somewhat to the rear when starting the draw stroke.

Bracing Strokes

Bracing strokes are often combined with steering strokes, but are separated here to



emphasize the necessity for bracing. They are used for three circumstances. First, when the paddler does not have the boat at the proper angle, as when entering waves, varying currents, etc., he braces to regain balance. Bracing strokes are used for making some turns and in anticipation of the need for providing more stability to resist tipping over. A brace for the last case is always on the downstream side of the boat.

The kayaker, fold boater, or canoeist braces either "high" or "low," depending on which surface of the paddle blade is down. The front surface of the paddle, as viewed during the forward stroke, is down for the low brace, with the wrists being rotated forward and the palm down, so the paddle shank is automatically low. The boater *pushes* down on the paddle with the outside hand (9). For the high brace, which is more difficult but more powerful, the wrist rotation is in the opposite direction. The shaft of the paddle is brought up around the face (10) of the kayaker, and the outside hand pulls down on the paddle. The high brace is also the position in which the Eskimo roll is completed. By sculling in this brace position, changes in the current can be used to great advantage to turn the boat. Note that the force tending to right the kayak in (9) and (10) is applied to the *deck* through the lower knee.

Intentional braces are always partly draw strokes. They are used when turning and entering and leaving eddies and are always made on the downstream side of the boat. To the novice, it may sometimes seem that a boater is bracing upstream, but on observing more closely it can be seen that the boat is slipping over the water so that the paddle is effectively on the downstream side.

The paddler cannot apply strong steering and bracing strokes unless his body is firmly braced in the boat. The boat must move with the hips. The proper way to be braced in an open canoe, a C-1, or a C-2 is to spread the knees wide apart and plant them firmly on the bottom of the canoe (actually, close to where the hull starts curving steeply upward; foam blocks are carved out to fit the boat and the knees for comfort). Most of the weight can still be on the seat, but some must be on the knees. In open canoes, boaters usually use knee pads strapped to the legs. Foam knee pads and pads for the thighs are usually built into C-2's. The kayak seat is just off the bottom of the boat, so the kayaker braces his knees into foam pads on the deck and pushes his feet against a foot rest.

When tricky currents or an unexpected maneuver causes a canoe to tip a little more than the beginner is used to, his immediate reaction is to let go of the paddle with one or both hands, grab the gunwales, and push himself back upright. This is wrong. In doing this, he pushes on the lower gunwale and helps turn the boat over. Sketch (11) illustrates the correct paddle bracing for a twosome. If the boat is tipping to one paddler's side, that paddler should lay his paddle out flat on the surface of the water and lean over on it in a low brace, bending sharply at the waist. The action of throwing most of the body over the paddle will help right the canoe. If the brace is done correctly – that is, so the hands are in or nearly in the water, the paddle will sink very slowly – the paddler will win or lose the struggle before the paddle sinks more than a few inches (unless the brace happens to be on the upstream side of the boat, in which case a strong current comes in over the paddle and causes it to sink rapidly).

During the foregoing maneuver, the other canoeist (11) always feels most uncomfortable. He would like to reach out for a strong sapling that he could use to pull himself up over the high side of the boat. Next best – and not bad at all – is to reach far out over the gunwale and use his paddle in a high brace. With good braces, both partners will automatically have most of their weight on their right knees (left side in this view from the bow). C-2's are easily "saved" even when tipped up 90° on their side.

The Back Ferry and Eddy Turn

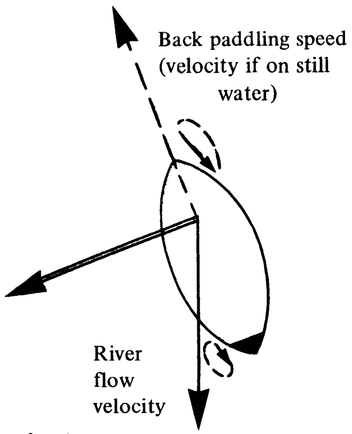
There are three ways to move down a river: faster than the current, at the same speed, or slower. Moving faster is the most natural and easiest; the boater turns the boat and speeds ahead to miss an object, then turns back on course. Moving with the current is similar to sitting at rest on a lake with objects moving toward the craft that must suddenly be dodged by drawing or prying the boat sideways. There is more time to maneuver with this second choice than there is when moving faster than the current, but it requires greater effort to move sideways the same distance. If the boater paddles backwards (called back ferry) on a river, he gains much more time to make decisions and does not hit obstacles as hard.

Back ferrying is difficult for some to learn, particularly in a canoe, C-2, or other two-man boats. Turning when moving faster than the current often results in turning too far, thus greatly increasing chances of a broadside hit. To be a good intermediate boater, one needs to master some technique that will allow the boat to travel more slowly than the main flow. This technique could be either the eddy turn (see next section) or the back ferry, and preferably both. The ability to accomplish both is definitely required of the Class 3 boater.

As indicated by its name, back ferrying is back paddling. If the stern of the boat is turned to the left or right of the main flow while back paddling, the boat moves diagonally sideways in the same direction. This is shown in the sketch. By doing this just once or twice, the boater immediately grasps the advantage of back ferrying. He quickly learns to judge how far sideways he can move in the remaining distance to an obstacle.

The difficulty with back ferrying is in setting the correct angle for the boat and holding it. In two-man boats, setting the right angle is the job of the stern paddler since he can see much more of the boat and its relation to the current than his partner can. He must give the commands to his bow-man. If all goes well, the bow-man only back paddles, but if the angle is not great enough or is too great, the stern paddler may ask for a quick "pull left" or "pull right."

The Back Ferry



The rower in his river rowboat, and particularly in his raft, does not have the maneuverability of most of the paddled boats. Being unable to make a quick draw stroke or pry to move a little sideways, he must plan further ahead. In fast water, he faces forward and usually back ferries to gain extra time to work his way through rapids.

Eddies are regions of a river where there is upstream flow. That flow usually, but not always, is considerably slower than the main-stream velocity. An imaginary line separating the downstream and upstream flows is called the "eddy line." River tourers soon gain a sense of where the eddies are – behind obstructions, on the inside of bends and along irregularly shaped banks – and where the eddy line of each is located.

To make an eddy turn, the boater(s) paddles briskly forward on a diagonal into the eddy. Just as soon as the bow enters the eddy the boater leans to the upstream side of the main stream (downstream side with respect to the flow in the eddy). A strong torque on the boat due to the two opposing flow directions acting on the bow and stern quickly rotates the boat as it continues to glide into the eddy. If the boater does not lean as he enters the eddy the boat will probably tip over, depending upon how stable the boat and how swift the currents. The tipping direction will be to the outside of the turn, opposite to the proper side for the lean. This is much like the cyclist, runner or skier leaning into a turn. Besides just leaning into the turn, the boater uses his paddle to brace so as to turn more quickly.

Only one of the many possible maneuvering situations that occur on rivers is described here, but it demonstrates the importance of using an eddy (region behind an obstacle with a slow upstream flow). Figure 2 shows two very different ways of running a rapid where the boaters must make use of an eddy. A line of rocks extends out first from the left bank, then from the right bank. The current is too swift and the turns too sharp to run the course without making use of the eddy behind the large boulder. The currents pass by the eddy on each side, leaving a calm spot in the rapid immediately downstream of the rock. (The dotted line behind the boulder shows the edges of the eddy.) The paddle strokes for a two-man boat are shown using the back ferry or eddy turn.

In the left sketch, the paddlers, whether in a canoe, kayak, C-2, or K-2 (or the rower if the scale of the rapid is larger), back ferry toward and into the eddy, then paddle diagonally forward out the other side. The bow of the boat in each position is indicated with a black triangle, and the direction of the strokes for a canoe, C-2, or K-2 team are indicated.

In the right sketch, the boaters paddle forward, starting from near the right edge and taking a diagonal course to enter the eddy, then brace on the side toward the boulder as the rear of the boat is turned downstream by the current in an eddy turn. In a canoe, the bow-man will scull or do a draw stroke (or cross draw stroke if paddling on the right side) on the boulder side while leaning that way, which is bracing toward the boulder. He should virtually stop the bow, and the stern will whip around. If the stern-man is paddling on the right, as shown, he is now suddenly on the "upstream" side as the boat skids around. He then pulls his paddle out of the water and should enjoy the ride. A properly performed eddy turn is ecstasy – simply intoxicating.

After paddling part way out of the eddy, the bow-man again braces (or draws) the bow on downstream. The expert C-2 or kayak team, kayaker, or C-1 boater will be able to catch

FIGURE 2 TWO WAYS TO RUN A TIGHT RAPID USING THE EDDY

BACK FERRYING INTO EDDY AND THEN PADDLING FORWARD ON DOWN STREAM. PADDLE STROKES SHOWN FOR CANOE.

PADDLING FORWARD AND TURNING INTO THE EDDY, THEN TURNING OUT OF IT. "B" INDICATES PADDLE·BRACE.

eddies behind rocks that are only 2 or 3 feet wide.

If you must hit a rock, hit it with the bow of your boat, not broadside, since that is the way nearly all boats are badly damaged.

Eskimo Roll

"He overturns himself quite, so that his head hangs perpendicular underwater; in this dreadful posture he gives himself a swing with a stroke of his paddle, and raises himself aloft again on which side he will." This first recorded description of an Eskimo roll by a European missionary in 1767 goes on to describe nine other methods used by Greenland Eskimos to recover after mishaps at sea.* Seldom does the expert river touring kayaker today know more than one or two kinds of Eskimo rolls. To the Eskimo, however, not to roll up was to die in the icy Arctic waters. To a Romanticist, it is sad to realize that the outboard motor and rifle have led to the near extinction of the very highly developed art of kayaking in Eskimo cultures. It is rumored that the best Eskimo hunters could roll up without a paddle and with a pebble in each hand to show that they did the roll with clenched fists. This feat is most difficult even in our sleek kayaks and is much more difficult in their larger crafts.

Chapter 5 lists the skills required for each class of boating difficulty. Proficiency in the Eskimo roll is not required until the boater reaches Class 3½. Thus it is not necessary on 85% of the runs listed in this river guide. Nonetheless, nearly every aggressive beginner wants to learn the Eskimo roll first, even before learning the paddle strokes. Although not necessary,

*E. T. Adney and H. I. Chappelle, *The Bark Canoes and Skin Boats of North America,* Smithsonian Institution, Washington, D.C., 1964; p. 223.

the aspiring kayaker would do well to learn the Eskimo roll early in his boating career since he will then have much greater confidence while boating, which will result in his learning the necessary skills much faster. Although the Eskimo roll is not as easy to learn as it appears, a competent instructor might be able to teach a good athlete how to roll in just a few minutes.

The different Eskimo rolls use different methods of holding the paddle and sweeping it. The basic maneuver in all cases is a sweeping underwater paddle brace stroke, coupled with a strong flip of the hips. The kayaker rotates the boat as far as possible ahead of his body. The more he bends sideways at the waist to accomplish this, the less force he must exert on the paddle to roll. The hip flip should be practiced in a swimming pool while sitting in a boat without a paddle, but holding onto the pool gutter (or a friend can hold the paddle at the surface for use as a grab bar). The procedure is as follows: (1) lie on the water (see Figure 3-a) and twist the boat over toward the water until it flips over the balance point; (2) *without raising the head,* rapidly flip the boat back over the balance point. The torsion is applied to the boat through the knees, so it is important to be snugly fitted into the boat. This practice is essential for learning all kinds of rolls in all rollable boats – both canoes and kayaks.

Pawlatta Roll

The Pawlatta roll is included here because it is a favorite for teaching the beginning kayaker. The paddle is held as in Figure 3-b. Note that both wrists are fully flexed outward so that the face of the paddle blade which is forward during a regular stroke is facing inward, parallel and against the side of the deck. Without rotating the paddle from this position, lower it over the side of the deck to the water level. Lean well forward.

Before tipping over, practice the sweep stroke that will right the boat. Place the cheek on the shoulder that is forward. Sweep the forward paddle blade up and over the boat in a smooth arc. If the shoulder is held to the cheek, the back arched during this sweep, and the paddle blade not allowed to go behind the body, the paddle will follow the correct course. Probably more important than the correct paddle sweep is the blade angle, which can be maintained by keeping the wrists fully flexed throughout the first half of the sweep. The stroke should be practiced repeatedly while the boat is right side up so that it will be nearly automatic during the roll.

Next try to roll up. Until the roll-up is mastered, the paddler should begin with the paddle held rigidly along the deck in the starting position. He should not start the sweep until fully inverted. When sweeping, he should concentrate on giving a strong hip flip during the sweep. If the paddle pulls very heavily, there is not enough wrist flex; if it slices easily downward, there is too much flex in the wrist. More hip flips may be needed to complete the roll-up. A sweep forward may also be added at the end, using the forward face of the paddle with blade tilted up as in a scull stroke. It is important in this maneuver to learn to relax unneeded muscles. Once the end of the roll begins, the forward stroke should be de-emphasized or eliminated to minimize reliance on it. See Figure 3-c.

Techniques for Rowed Craft

On a touring trip of several days, the kayaker would consider himself heavily burdened if he had to propel half again his own weight in boat and equipment. In a heavily loaded 15-foot canoe, this additional weight could equal the weight of the two paddlers. In a "15-man" raft or a 17-foot river dory, the rower may be moving up to 10 times his weight. Consequently, rafts and river rowboats are less agile than small boats that are paddled. However, a significant part of this weight disadvantage is made up in the large boats by replacing one of the hands on the paddle (which is mostly acting as a pivot) with an oar lock, so a hand is freed to pull on a second oar. With the seat and foot brace properly positioned, efficient use is made of the powerful leg muscles. The large weight disadvantage thus becomes manageable, but the freedom to use a variety of strokes as with the paddle is forfeited.

The seat and foot brace should be arranged so that the legs are fully stretched out at the end of the stroke. When the rower leans well forward with arms outstretched, ready to dip the oars into the water, the oar handles should be somewhat farther in front of the oar locks than they are behind them at the end of the stroke.

The rower faces the front of the boat and can only push or pull on each oar. He pushes

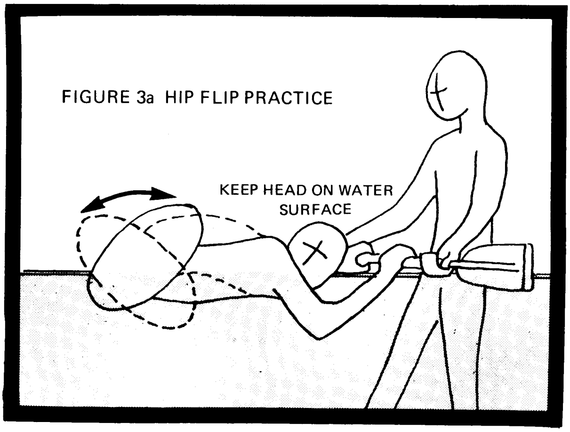


FIGURE 3a HIP FLIP PRACTICE

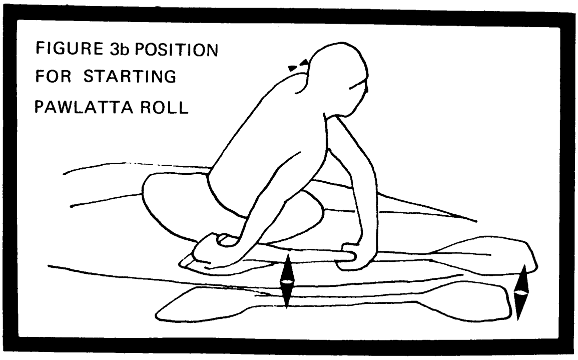


FIGURE 3b POSITION FOR STARTING PAWLATTA ROLL

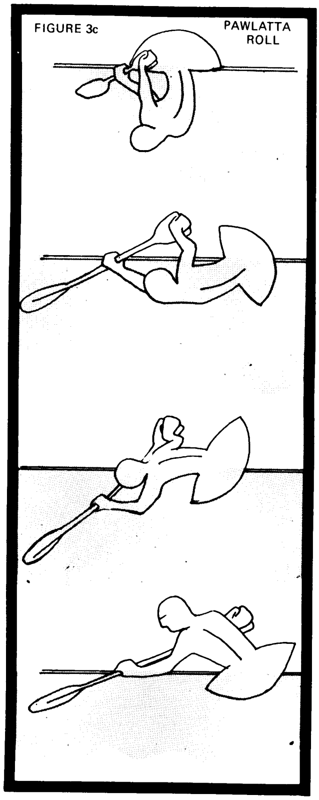


FIGURE 3c

on the oars to row forward (in a casual manner) in slow water, but little power can be applied because the legs are inactive. The proper method of maneuvering a raft or rowboat is by back ferrying rather than by rowing forward, so that the rower not only has more time to move his boat into position, but can use his leg power. With this in mind, elementary rowing technique is straightforward. The boat is rotated to the proper ferry angle to avoid the next approaching obstacle. It is back ferried and straightened out as much as possible before going through any large wave or souse hole.*

An experienced rower develops the ability to judge just where the current will take the boat, what back ferry angle to set, and most important, timing so that maneuvers are started at the proper moment.

One advanced rowing technique is to row backward diagonally downstream for short distances, so as to be pulling on the oars, in order to power into small eddies. The eddies must be larger than those for the kayak to make such an eddy turn.

White-Water Boating Technique Books

Alan Byde, *Living Canoeing,* Adam and Charles Black, London, 1969, kayak and canoe – most complete book, aimed at competition boater (the English call the kayak a "canoe").

John T. Urban, *A White Water Handbook for Canoe and Kayak,* Appalachian Mountain Club, 1965, 5 Joy St., Boston, Mass. 02108; write directly.

Robert E. McNair, *Basic River Canoeing,* American Camping Assoc., Inc., 1968, Bradford Woods, Martinsville, Indiana 46151; write directly.

Peter D. Whitney, *White-water Sport,* Ronald Press, New York, 1960; fold boat and canoe – now somewhat out of date.

William McGuinnis, *Whitewater Rafting,* Quadrangle, New York, 1974; the author informed me of this pending publication.

*See the description and corresponding sketch of a souse hole in the next chapter.

4. *Safe River Touring*

River touring is a fun sport, but far too many tragic accidents are occuring on the rivers. As in any sport with safety rules, the mature person will be grateful for their presentation, and many of the rest of the boaters will completely neglect them. River touring clubs always seem to have excellent safety records, although perhaps with some much luck is involved. The following is what the author has presented to the American Whitewater Association as a proposed revision to their present safety code.

Safety Code

Personal Preparedness and Responsibility

1. **Be a Competent Swimmer** with ability to handle yourself underwater.
2. **Keep Your Boat under Control** so as not to enter a rapid, or section of a rapid if you have the skill to travel from eddy to eddy, until you can evaluate that you can safely navigate it, or safely swim it in case of an upset.
3. **Have a Frank Knowledge of Your Boating Ability,** and don't attempt waters beyond this ability. Learn paddling skills and teamwork coordination, if in a multiply manned craft, to match the level of river touring difficulty you plan to boat.
4. **Be in Good or Excellent Physical Condition** consistent with the difficulties that may be expected.
5. **Wear Your Life Jacket,** and if boating in a craft that requires balancing skill, wear a crash helmet if upset is likely. The crash helmet is absolutely essential if you plan to stay in an inverted boat and Eskimo roll back upright. Wear light shoes, such as tennis shoes, to protect your feet while swimming if upset.
6. **Be Protected from Cold Water and Weather Extremes;** dress accordingly. Rubber wet suit or long woolen underwear may be essential for safety. Avoid the use of boots and thick or padded clothing that will be very heavy when water logged and hinder swimming.
7. **Be Practiced in Escape** from an overturned boat, in rescue and self-rescue, and in artificial respiration.
8. **Never Boat Alone.** The preferred minimum is three per craft.

Boat and Equipment Preparedness

1. **Test New and Unfamiliar Equipment** before relying on it for difficult runs.
2. **Be Sure that Craft Is in Good Repair** before starting a trip.
3. **Have Strong, Adequately Sized Paddles or Oars** for controlling your craft, and sufficient spares for the length of the trip.
4. **Install Flotation Devices in Non-Inflatable Craft,** securely fixed and designed to displace as much water from the craft as possible.
5. **Have Bow and Stern Lines,** although end loops should be substituted for these lines on kayaks and white-water canoes to prevent possible entanglement unless these lines are fastened without slack along the boat surface (such as each fastened with an elastic clamp). Rafts and dories should have perimeter grab lines.
6. **Be Sure There Is Absolutely Nothing to Cause Entanglement** when coming free of an upset craft – that is, the spray sheet will not release or is too large and entangling around the legs, loose life jackets; straps and buckles, clothing or shoe heels caught on sharp objects or wedged in; the collapse of a kayak deck of inadequate strength trapping the boater's legs, or entanglement in a buckled raft that is not fully inflated.
7. **Respect Rules for Craft Capacity** and know how these capacities should be reduced for white-water use (life raft capacity must generally be halved).
8. **Car Top Racks for Boats Must Be Strong** and positively attached to the vehicle, and boat tie-down arrangements must be equally strong. Suction cup racks are poor. Secondary, or safety, lines should be used. The entire arrangement should be able to withstand all but the most violent vehicle accident.

Leader's Preparedness and Responsibility

1. **River Conditions:** Have a reasonable knowledge of the difficult parts of the run, or if on an exploratory trip, examine maps to estimate the feasibility of the run and inform the participants. Be aware of possible rapid changes in flow conditions resulting from rain or dam release fluctuations, and know how these changes can affect the difficulty of the run. If important, determine the approximate flow level. If the trip involves important tidal currents, secure tide information.
2. **Participants:** Inform participants of expected river conditions and determine whether the prospective boaters are qualified for the trip. All decisions should be founded on group safety and comfort. Difficult decisions on the participation of marginal boaters must be based on the total group strength.
3. **Equipment:** Plan so that all necessary group equipment is present on the trip: rope, first aid equipment, extra paddles, repair material, and survival equipment if appropriate. Check equipment at the put-in, particularly life jackets, boat flotation, and any item that could prevent complete escape from the boat in case of upset.
4. **Organization:** Keep the group compact so that any boater can be rescued in the minimum possible time. If the group is too large, divide into smaller groups, each of appropriate boating strength, and designate group leaders and sweeps.

In Case of Upset

1. **Evacuate Your Boat Immediately** if there is imminent danger of being trapped against logs, brush, or any other form of strainer.
2. **Hold on to Your Boat**; it has much flotation and is easy for rescuers to see. Stay on the upstream side so that it cannot crush you against obstacles.
3. **Extend Your Feet Downstream** when swimming rapids to fend against rocks. Avoid possible entrapment situations, such as rock wedges or fissures, souse holes, brush, or logs. Use every opportunity to work your way toward shore.

Some Tips for Safe Boating

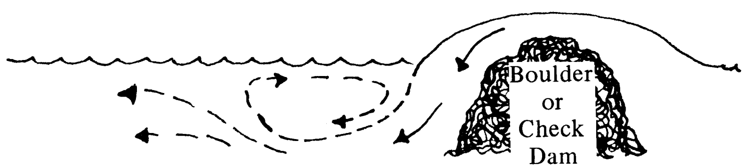
It is always easy to look back after an accident or near accident and note which rules were violated, but the novice cannot be expected to foresee and guard against dangerous situations, so some specific items are described here. Safe river touring might be restated as: (1) keeping yourself and your group out of trouble, (2) getting yourself and other boat occupants out of trouble, and (3) getting others out of trouble. Virtually all deaths in boating are caused by lack of air to breathe or hypothermia.

As pointed out in Chapter 1, ". . . do not enter a rapid . . . until you have evaluated that you can safely navigate it, or safely swim it . . . " is the key to keeping out of trouble. It is easy to slip into making such convenient rationalizations as "This would be an awful swim, but my chances of making it without tipping over (or coming out of my boat, in case of the Eskimo roller) are pretty good," or much worse "I'm tired of scouting these blind turns that always turn out okay, so let's just run this one."

There are three tricks to remember if you misjudge your course with respect to a rock. First, if you must hit the rock, hit it with the end of the boat, not the side. The author has had a kayak instantly snap in two in very fast water when he hit a rock sideways. Had the boat hit bow first it would have been damaged but repairable – and the experience would have been much less traumatic. Most open canoes are lost on rivers by being wrapped around a rock after hitting it sideways, but those with crunched bows are still going strong. After hitting with the bow, the boat will pivot slowly backward, usually putting you in an excellent position to catch the culprit's tail – the eddy behind the rock – and then you have time to regain your composure. If in an open canoe, each boater should be prepared to rotate to face downstream if the stern becomes the bow after any hang-up. If a rock is hit sideways, the water will rush up over the upstream gunwale and tip the boat upstream unless the boater acts quickly. This problem can be avoided with an exaggerated downstream lean.

So you didn't make it, and now you are in the water. You need air and must either do an Eskimo roll or come free of your boat without any possible entanglement. Many canoeists have caught their heels under a projection on the seat. Kayakers have become entangled in the cord that ties in their sponge, or in a loose painter.

Souse Hole or Reversal



To the advanced boater, the most feared obstacle in rivers is a phenomenon variously known as "souse hole," "reversal," or "suck hole."* The mechanics of this phenomenon are shown in the accompanying sketch. Fast water falls over a boulder or check dam and plunges to the bottom before turning downstream. The fast current gradually returns to the surface, but some of the flow reverses and returns near the surface to the falls. The whole region above the jet at the bottom is very turbulent and can be likened to a "horizontal tornado." A fall of only a foot or so can create a potentially dangerous souse hole. Boaters should shun them, although it is useful to play around in small, narrow ones to explore their characteristics.

If a white-water boat tips over in a souse hole, the most effective maneuver is to extend the paddle down deep into the jet to be pulled out. If the boater is sucked out of the boat, he should conserve breath, as he will probably be tumbled, not see much of the surface, and have little idea of which way is up. If the souse hole is narrow, he will soon be bounced to one side or the other and come out. He should try to hold onto the boat although he will tend to be yanked away from it. If the reversal occurs behind a dam or wide obstruction, the situation is extremely serious, since there is probably little chance of working to one end or the other. (The author has seen baggage tumbled around in a reversal at the base of a falls for hours.) The best chance for escape is to be carried back upstream into the falls and then dive down and follow the fast water downstream.

River enthusiasts should practice rescuing other boaters. Open canoeists trying a "chancy" rapid should have a friend on shore with a throwing rope. A rigid boat can best be rescued by looping the stern painter of the rescuing craft through the end loop of the boat to be rescued and ferrying upstream to shore. Another alternative is to push with your bow against the side of the distressed craft in such a way that it maintains an upstream ferry position.

River running is not a sport for loners. Safety comes in numbers, and a club provides those numbers. If there is no club in the boater's area, the aspiring boater might consider starting one within the local Sierra Club chapter. It is a logical place to begin since there already are about four such groups in California. They should be able to provide help, movies, speakers, and so forth. Once such a club is initiated, safety standards must be kept high.

Biennially, every club or group should have a fire department representative give a practice session on mouth-to-mouth resuscitation. If the boater is suddenly thrust into the position of life saver, he must act quickly. In giving resuscitation the rescuer can be certain when the air is getting to the lungs because of the obvious rising and falling of the chest. If this is not evident, the passageway is blocked, probably by the lower part of the tongue. The shoulders should be supported so that the head hangs free. The lower jaw bone may also need to be raised and dentures, if present, should be removed.

Hypothermia is the rapid, progressive mental and physical collapse accompanying the chilling of the inner core of the human body. It is the number-one killer of outdoor recreationists as a whole group. When the boater tips over in icy water, the body will fight hypothermia by greatly reducing the blood flow to the arms and legs, and soon the muscles in the limbs become ineffective.

The rescued swimmer suffering from hypothermia (uncontrollable fits of shivering; slow, slurred speech; incoherence; drowsiness; apparent exhaustion) must receive heat to recover. He should be kept awake, given warm drinks and placed in a sleeping bag with all wet clothing removed. In very serious cases, the most effective treatment is skin-to-skin contact with warmth donors, two at a time, inside a double-width sleeping bag.

A good rule of thumb is that a wet suit is a necessity if the water-plus-air temperature is less than 100°F (110°F for some people).

*The Class 3 boater should read the excellent article "Souse Holes – The Ins and Outs," by Jim Sindelar and Walt Harvest, *American White Water,* Spring, 1971 (v. 16, no. 1).

5. *River Rating System and Best Flow Criteria*

Rating System for Boating Difficulty

As in other wilderness sports, rating systems have been developed to classify the difficulty of river runs. There appear to be two important rating systems in the United States. Rafters on the larger rivers in the mountain states use a one-to-ten rating system. Canoeing and kayaking groups in both the Eastern states and Pacific Coast states use the system employed in this guide – the International Water Classification, which rates rivers as Class I to VI. In both systems, Class I is the easiest to run.

Unfortunately, there is little standardization among boating groups using the International system, which is very vague to begin with – for example, "Class II. Easy. Rapids of medium difficulty, with passages clear and wide . . . ." Ever-changing water levels greatly complicate any efforts to standardize. Most clubs tend to rate their best boaters as Class IV talent and work down from there. No one would be so foolish as to boat Class V rapids and Class VI is often interpreted as a waterfall. The weakness in a system that classifies rivers by height of the waves, length of rapids, and maneuvering required is that it is too easy for the new boater to think he is a much better boater than he actually is, possibly not realizing his mistake until partway down a wilderness run and in real trouble.

The International system was adapted for use in this guide by dividing each class in two – that is, 1, 1½, 2, 2½, etc. – and by listing the *skills* needed by the paddler boating rivers of a particular class to feel reasonably comfortable, but still challenged. In an established river touring group, the trip leader would consider a boater with these skills as an asset, or one without them as a liability to the safety and strength of the group. This system replaces the classic definitions based on river difficulty and omits Classes V and VI, which are almost synonymous with "unrunnable."

The skills for each class (in addition to those in the previous classes) for the paddler are listed below (not directly applicable to rowed craft).

Class 1 paddler:

Has: Knowledge of basic boating safety
At least moderate swimming ability

Can: Paddle in a straight line without excessive steering strokes
Turn the boat in a new direction and paddle around single, major obstacles – for example, bridge piers in current

Class 1½ paddler:

Has: Effective sweep, pry, and draw strokes and low brace (single paddler and canoe stern)
Moderate self-rescue ability

Can: Maneuver around well-spaced rocks and avoid brush in mild current
Spot eddies and has knowledge of their effect on the boat as entering and leaving them

Class 2 paddler:

Has: Moderate ability to spot submerged rocks that should be avoided
Ability to plan route in short rapid with several well-spaced obstacles, then boat the route planned
Effective draw stroke at canoe bow
Moderate ability to judge which rapids can be safely negotiated

Can: Ferry across moderate currents facing upstream
Cross eddy lines of moderate strength with some confidence
Estimate, if in an open canoe, what waves will ship water

Remain stationary in moderate current or greatly reduce speed in fast current by back paddling

Class 2½ paddler:

Has: Effective cross draw or pry stroke at canoe bow
Effective high brace (single paddler)
Ability to effect simple rescues of others that are upset

Can: Brace instinctively on either side in kayak, low brace in canoe bow, and high brace in the stern
Confidently take straight, reasonably symmetrical vertical drops of 2½ feet in white-water boats
Back ferry across moderately swift current
Catch small eddies in mild current or medium-sized eddies (2 boat lengths) from swift current or jet
Boat through short rapids with closely spaced rocks

Class 3 paddler:

Has: Good ability to evaluate difficulty of rapids and make independent judgments as to which should not be run
Ability to rescue another boat in most situations
Strong swimming ability
Good physical condition

Can: Accurately judge effects on boat of large hydraulics (4-foot-high waves, reversals, fast jets)
Maneuver and brace well in big water (4-foot waves that are well spaced)
Confidently enter very swift current from an eddy
Catch small eddies (behind 3-foot-wide rock) in swift current

Class 3½ paddler:

Has: Strong paddling abilities
Ability to surf fairly large standing waves
Knowledge for handling unusual circumstances: reversals, side currents, turning drops
Finesse in boat placement, using current to maximum advantage

Can: Perform adequate Eskimo roll in unplanned tip-over

Class 4 paddler:

Has: Very strong swimming ability
Excellent physical condition
Good rolling ability

Can: Back ferry across very swift currents
Scull out of small reversals

Class 4½ paddler:

Has: Very reliable rolling ability on either side
Ability to stay in boat in very turbulent water for third and fourth attempts at roll
Very expert development of all boating skills

Can: Perform very deep skulling strokes
Catch almost imperceptible side eddies while boating through very big white water

Not all of the abilities in each class through Class 3 will be needed for every run that is rated at that class – that is, many Class 3 runs will not have 4-foot waves. At least one-third of the Class 3 runs are listed as runnable, usually with some modest amount of portaging, for open canoes. It is assumed that the canoe is paddled by a team that has the abilities listed above.

The classification of a run can vary greatly with water height, particularly for the more difficult runs. Therefore, the heading for each run usually has two classes and flows listed, the class for the flow when the author ran it, and the estimated class at optimum flow. The closer the two flows are, the more accurate the estimate is.

The flow listed at the time of the author's run is nearly always the flow at the nearest USGS gaging station. If this figure is not appropriate, the flow is listed as an estimate (est.) based on the flow upstream, downstream, or in surrounding streams, and should be accurate to within about 20%.

Flow Criteria

Flow is measured in cubic feet per second (cfs). It is the volume of water moving past a line across the river during each second. If the width and average river depth are known, they can be multiplied to obtain the cross section of the river (e.g., the river has a 2-foot average depth and is 75 feet wide, the cross section is 150 square feet). Multiplying this value by the average current would give the cfs (i.e., the average current is 4 feet per second, then the cfs is 600). Actually, seldom does anyone go through this mental process to estimate cfs.

To learn to judge cfs the beginning boater should boat with persons who are used to judging. He should make an estimate – even a wild estimate – and compare it with the estimates of the others. These flow estimates and the date of the run should be recorded (a table for recording such information is provided at the back of the book). To obtain the correct flow, occasionally write the USGS: Chief, Menlo Park Subdistrict, Water Resources Division, U.S. Geological Survey, 345 Middlefield Rd., Menlo Park, CA 94025. Simply list the river, the name of the town where the closest gaging station is located (provided in the heading of nearly each river run), and the date.

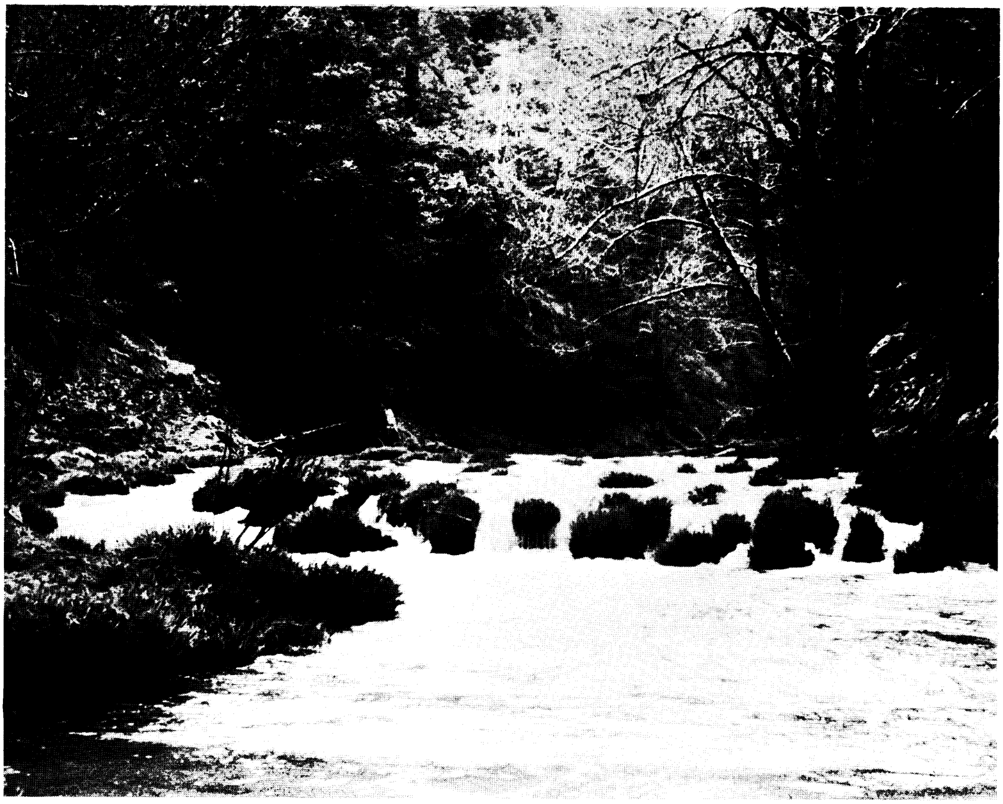
The boater can also work backward to make his first estimates. What fraction of more or less flow is preferred? This ratio is then applied to the optimum flow given in the heading. The boater becomes an expert at estimating flows when he can come within 25% of the correct flow 80% of the time.

Of course, it is not necessary to play hydrologist or engineer in estimating cfs to enjoy river touring. The boater can usually tell as soon as he arrives at the put-in if the river flow is right for him. He does not even have to know how to estimate cfs to apply the rules given in Chapter 6 for predicting when the flow will be at optimum.

At high flows all coastal streams are muddy. At optimum flow, the streams usually have become moderately clear – usually a translucent blue or bluish gray – which for most boaters adds to the enjoyment of the trip. Rafters generally prefer a flow at which the river is still muddy, although beginning to clear.

At optimum flow, there should be plenty of water to cover all but the widest shallow regions and eliminate most of the picky rock dodging that occurs when the river flow is too low. The water should not be so high as to cover all the rocks or wash out many eddies since they provide the rock dodging that makes the sport exciting and the small eddies that are fun to try to "catch."

The above description of optimum flow is still vague. The canoeist may now have pictured in his "mind's eye" the perfect trip he has been on at optimum flow on a moderately small stream, and the rafter has pictured it, but on a larger river; each would be horrified at the other's idea of optimum flow. Some smaller rivers may become passable for rafts when all the interesting rocks and obstructions are flooded over. Conversely, difficult, mighty rivers are sometimes humbled at very low flows to the point of being runnable in an open canoe. Since the open canoe is most sensitive to water level, the optimum flows used through Classes 1–2½ for small and medium-sized rivers apply to the canoe. When the hydraulics become too large for the canoe, the flows apply to the kayak, C-1 and C-2. Except possibly on the largest streams, the rafter will want about 1½ or 2 times more flow for his optimum. Fold boaters and many kayakers and white-water canoeists will prefer 25 to 50% more flow. The optimum flow for most Class 1 and 1½ rivers is a vague quantity and



Clumps of sedge form miniature water falls on the upper part of Big River. Boats can pass through the chute on the left of the photo.

difficult to determine. On the more difficult runs agreement between boaters on a percentage change needed for an optimum flow was found to be good.

All the resulting optimum flows from our observations were plotted on the basis of the area drained by the river. Values from this correlation have been used for the optimum flow listed in each run heading, making allowances for unusually narrow or wide stream beds. This system has not been used on the Klamath River since it has a very large drainage, much of it in dry Oregon country, and using the above correlation did not seem appropriate. Its summer water level permits good boating over its whole length.

Scenic Rating System

Aside from the enjoyment of boating through challenging rapids, most river tourers appreciate good river scenery. In this guide, the following simple, very approximate scale has been used for judging the scenic beauty of the various rivers:

AA: Exceptionally beautiful scenery, negligible signs of the effects of man

A: Beautiful scenery

B: Average, pleasant scenery

C: Below average, uninteresting scenery; unusually muddy water

D: Very poor; ugly banks; objectionable, polluted water

These ratings have been applied as a very rough guide, and no doubt many inconsistencies can be found. Changes occur along a river with the seasons, particularly as the deciduous bushes and trees repeat their annual cycle. Besides, it is difficult to appreciate the scenery on a cold, wet day. Changes occur as new logging scars are created and old ones gradually heal. Finally, it was not the author's intention to rate all streams with polluted water with the scenic rating of "D."

6. *When Rivers Flow Best for Touring*

Listed in the heading for nearly all river runs is an optimum flow. How this was arrived at is described in the previous chapter. As explained there, this is not particularly important to the Class 1 boater. During the same three or four weeks each spring (on rivers without dam control) he can have enjoyable trips on each of his favorite runs even though the water level may vary by a factor of three or four. As the river runs become more difficult, usually the acceptable margin of flow greatly decreases, and experienced boaters grasp at every bit of information offered to save making the frustrating discovery at the time of put-in that the flow is unacceptably high or low. Probably some day information on stream flows will be available much as ski condition reports are now.

Examples of the flow in the Middle Fork of the Eel for the rainy seasons of 1965-66 and 1966-67 are shown in Figure 4. Rainfalls for 3-day periods are shown, and the bands drawn across the figure show the dates when the flow was between 1½ and 2/3 of optimum. The shape of these curves is typical of that resulting from the rapid flow fluctuations caused by rains for all streams that are not controlled by dams. The magnitude of the flows and the position of the optimum flow band depends on the size of the stream.

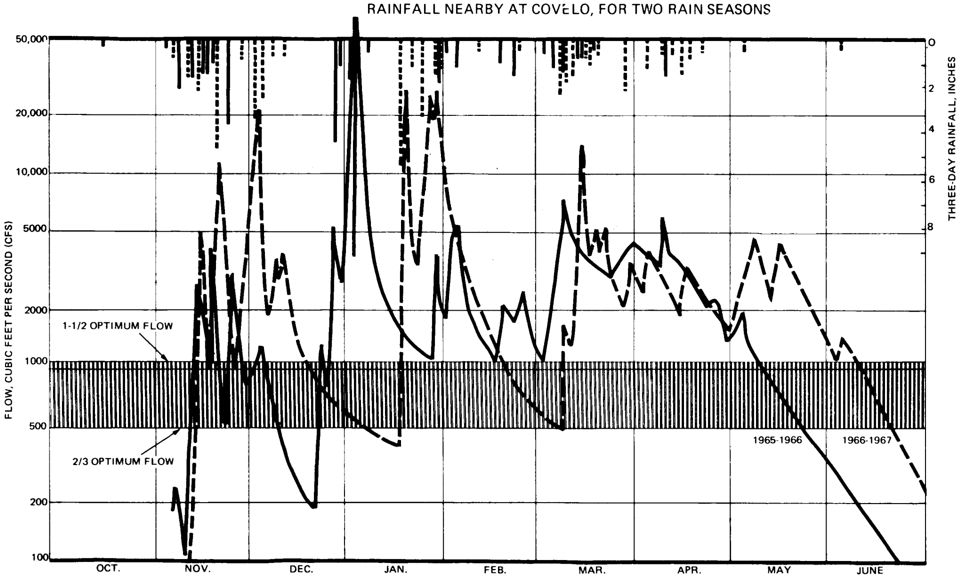
Hydrologists can reasonably predict stream flows such as these, but it is not easy. They use computer programs that incorporate much information for each stream, which is distilled from past flow records, and require detailed rainfall data during each storm. Charts and figures are presented in this chapter for use in predicting the approximate flow to expect for various weather situations. The techniques used here are simple and coarse; so is the weather information that is usually available to the boater. In any case, when the resulting prediction is too far off, the boater can have back-up plans and know where to go for a more desirable river run.

Even though many streams fall into more than one category, it is convenient to classify streams at the time they are near optimum flow as: (1) snow melt or spring run-off streams, (2) rainy weather streams, or (3) summer streams. Each type of stream is treated in turn below. Sources of information needed to use the techniques are described at the end of the chapter.

Snow Melt or Spring Run-off Streams

About one-third of the river runs described in this guide are at their best flow for the last

FIGURE 4. MIDDLE FORK EEL RIVER FLOW AT DOS RIOS AND RAINFALL NEARBY AT COVELO, FOR TWO RAIN SEASONS



time in the spring quite a while after the last major snow or rainstorm of the season. The melting of the winter snow pack saturates the ground over an appreciable part of the drainage basin, and this water slowly seeps to the nearest gully, brook, or stream. The gradual release of water from the snow, and then from the ground, results in a gradually decreasing flow over a period of several weeks. The resulting hydrograph (graph of flow versus time as in the previous figure) looks very similar from year to year, but is shifted in time depending on how high the snow pack and how late rainfalls occur. The final run-off for the Middle Fork Eel River shown in Figure 4 is a good example of this. The final run-off for 1966 was very close to average for the river, while that for 1967 was very late. There was even .89 inches of rain in early June, 1967, which caused the jog in the curve at that date. In both cases, the flow is in the optimum flow band for about 14 days.

The major problem in predicting this type of run-off is in determining when all the important storms are over and the river is beginning to decrease to its summer time flow. It is then easy to choose the best weekend to make a run. Table 2 lists in chronological order the average date of the last optimum flow of the season for the Oregon and many of the California North Coast streams. Some rivers, such as the Navarro, have no snow melt season, but are included to indicate the range of their seasons. The earliest and latest dates of this optimum flow are given over a six-year span, generally from 1965 to 1970 (by comparing with 10-year records for several cases, it was noted that few of these early and late dates would change and that the average optimum date would seldom change by as much as one day). The spread between earliest and latest dates for each stream varies from as much as 2½ months for some of the early streams to only about one month for the last streams.

In all cases but one in the table, 1967 was the latest year. That year, the month of April was exceptionally cold and wet, setting records around the entire state. For example, Eureka received 5.3 inches of rain, or twice the normal rainfall, and the average temperature was generally 9° below normal. The monthly snow pack records usually peak with the April 1

Table 2 – Optimum Flow Dates for Spring Runoff Streams

River Run	Class at optimum flow[1]	Optimum cfs[2]	Average optimum date	Deviation 1966	Deviation 1967	Earliest optimum date	Latest optimum date	Pages
Navarro[3]	1½	500	3/30	–9	34	3/13	5/28	167
Middle Fork Cottonwood Creek[4]	3	550	4/10	–8	35	3/7	5/20	190
Grindstone Creek[4]	3½	350	4/12	1	40	3/2	5/21	196
Van Duzen: West Fork–Dinsmores[4]	3,1	500	4/14	0	28	3/11	5/11	128-30
S. Fork Eel: Hermitage–Leggett[4]	2	600	4/14	1	27	3/20	5/11	151
S. Fork Cottonwood Creek[4]	2½,1	400	4/15	–4	40	3/3	5/25	190-4
Van Duzen: Strongs Station Area–Carlotta	1	800	4/16	1	35	3/17	5/21	132
S. Fork Eel: Leggett–Piercy	2	500	4/16	1	27	3/23	5/13	151-2
Eel: Outlet Creek–Dos Rios[5]	3	800	4/16	4	37			141
N. Fork Eel	3	400	4/18	0	37	3/20	5/25	146
Mad: Ruth Reservoir–USFS Rd.[5]	2,3	400	4/18	2	32	3/16	5/20	126
Mattole: Honeydew–Petrolia	1	700	4/20	–2	28	3/23	5/17	161-2
Hayfork Creek: Hayfork Valley	1	500	4/20	–6	21	3/19	5/18	119
Hayfork Creek: Hayfork–bridge	4	500	4/22	–4	20	3/22	5/20	119
S. Fork Eel: Piercy–Main Eel	2,1½,1	850	4/23	3	23	3/27	5/16	152-4
Van Duzen: Near Bridgeville–Strongs Stn. Area	1½-2½	500	4/24	–4	31	3/22	5/25	131-2
Russian: Ukiah–Pieta Creek[5]	1	500	4/24	–9	21	3/26	5/15	175
Pieta Creek–Asti[5]	3,1	500	4/26	–9	20	3/27	5/16	176-8
Russian: Asti–Mirabel Park[5]	1	700	4/26	–9	21	3/28	5/16	178-80
Mirabel Park–Austin Creek[5]	1	1000	4/26					181-2
N. Fork Smith	4	500	5/2	5	23	3/15	5/25	70
Mad: Swinging bridge–Blue Lake	4,1½	600	5/4	–9	21	4/15	5/25	127-8

Table 2 (continued)

River Run	Class at optimum flow[1]	Optimum cfs[2]	Average optimum date	Deviation 1966	Deviation 1967	Earliest optimum date	Latest optimum date	Pages
Redwood Creek: Lacks Creek–Orick	3½	650	5/5	–13	25	4/9	5/30	124
S. Fork Trinity: E. Fork–Forest Glen	4	200	5/7	–14	18	4/2	5/31	110
Eel: S. Fork–Rio Dell	2	2200	5/9	5	34	4/8	6/12	156-7
Eel: Dos Rios–S. Fork	3,1½	1600	5/9	4	34	4/1	6/12	147-9
Middle Fork Eel	3	750	5/14	3	35	4/2	6/18	141
S. Fork Trinity: Klondike Mine–Hyampom	3–	300	5/16	–16	14	4/2	5/24	112
Canyon Creek	4	250	5/17					117
Scott: Callahan–Etna	2	330	5/18	–4	35	2/28	6/22	91
Middle Fork Smith	4	350	5/20	–10	10	5/3	5/30	68
N. Fork Smith	4	500	5/20					70
Trinity: Douglas City–Junction City[5]	2	600	5/21	9	42	4/1	7/1	105
Junction City – N. Fork[5]	1½	1000	5/21	9	42	4/1	7/1	105
New	4	350	5/21	1	30	4/13	6/20	118
Scott: Canyon–Jones Beach	3½	1100	5/22	7	31	3/7	6/22	92
S. Fork Trinity: Hyampom Valley	1	750	5/23	–3	20	4/18	6/12	113
Scott: Etna–Canyon	1	1000	5/24	–5	31	4/9	6/24	91-2
S. Fork Trinity: Low bridge–Trinity R.	1	900	5/28	0	21	5/14	6/22	115
Illinois	4	1250	5/29	–1	18	5/16	6/16	63
Smith: N. Fork–S. Fork	2	500	5/29	–7	13	5/14	6/11	71
S. Fork Smith	3	650	5/30	–7	13	5/15	6/12	72
S. Fork Trinity: Underwood Creek-Low bridge	4	550	6/1			5/12	6/22	114
S. Fork Salmon near Cecilville	3	250	6/2	–3	20	5/1	6/22	96
Trinity: S. Fork–Willow Creek	1	2000	6/6	–3	28	5/8	7/4	115
Big Bar–Cedar Flat[5]	2	1100	6/8					106-7
Hawkins Bar–South Fork	2	1350	6/8					109
N. Fork Salmon	3–	300	6/9	–8	18	5/21	6/27	97
Smith: S. Fork–US 101	1½	900	6/10	–7	12	6/3	6/22	73
Trinity: Willow Creek–Hoopa	1½	1800	6/10			–	–	116
Indian Creek	3½	250	6/11	8	16	5/21	6/27	94
Trinity: Above Clair Engle Lake	3½,3–	450	6/11	–11	18	5/29	6/29	100-1
N. Fork–Big Bar[5]	3½	1000	6/12	–11	22	5/22	7/4	106
Sacramento: Box Canyon–Sims Flat	4,3	300	6/13	–13	18	5/31	7/1	186-8
Trinity: Hoopa–Weitchpec	2	1600	6/15	5	25	5/17	7/10	116
S. Fork Salmon at Methodist Creek	3+	450	6/15					97
Scott: Kelsey Creek–Klamath R.	4½,3	550	6/17	–6	14	5/30	7/1	93-4
Sacramento: Sims Flat–Lake Shasta	4,3	550	6/17	–8	20	6/9	7/7	189
Salmon: Forks of Salmon–first bridge	2–	1200	6/20	–1	16	6/6	7/6	97
Wooley Creek–Klamath	3+	750	7/3	–4	12	6/20	7/15	98
first bridge–Wooley Creek	4+	600	7/7	–1	13	6/24	7/20	98

[1] Not including portages or a few more advanced rapids that can be portaged. See individual river run descriptions.

[2] See individual run description to determine location of this flow. Rafters generally need 1½ to 2 times this flow, which will usually occur about 10 days earlier.

[3] Run included in list for reference purposes, but not a spring runoff run.

[4] Marginal spring runoff run.

[5] Strongly influenced by dam control.

survey, but that year it increased from 100 inches for the average California North Coast snow survey on that date to 140 inches on May 1. The earliest year was 1970. That year, the March and April rainfalls were, respectively, 50% and 10% of normal. There can be a significant difference in the season rainfall and resulting snow pack between the northern and southern streams in the table. If there is a considerable change, adjust the relative positions of streams in the list to reflect as much as a one-week shift in optimum dates.

It is possible to get a general idea of whether optimum flows can be expected early or late from two factors: ski reports that compare the spring snow pack to the average, and how cold and wet, or how warm and dry, the spring is.

By calling the California Department of Water Resources (DWR), the boater can obtain data on the present flows at about a dozen North Coast gaging locations, as described more completely in the last section of this chapter. With these reports, the optimum flow period for several streams can be determined. The entire list of optimum dates can then be moved forward or backward in time on the basis of this information.

The boater should consider his planning efforts successful if he selects a run date when the flow turns out to be between 2/3 and 1½ times the optimum. Generally, these limits allow about two weeks of boating for the more southern streams and three weeks on the northern streams of the list.

Rainy Weather Streams

Nearly all streams in this guide that are not strongly controlled by a dam will have flows greatly exceeding the optimum for boating immediately after most mid and late rainy season

Table 3 — Rain to Start Rivers Flowing: Fall and Early Winter, 1968

	October		November			December		
	12–13	29–30	2	12	15–16	9–11	14–15	23–25
Fort Bragg rainfall:								
previous total, inches	0	1.1	1.8	2.8	3.9	6.1	9.4	12.2
new storm, inches	.9	.7	.7	1.1	.6	3.1	2.6	5.9
Navarro peak flow*	38	52	110	54	113	4450	4430	11,700
Cloverdale rainfall:								
previous total, inches	0	1.7	2.7	4.2	4.6	6.0	10.1	14.5
new storm, inches	1.5	1.0	1.3	.4	1.3	4.1	4.4	4.7
Russian at Healdsburg flow*	213	239	308	260	320	5890	8860	17,400
Standish Hickey rainfall:								
previous total, inches	0	3.1	4.6	6.2	7.5	12.5	19.3	23.0
new storm, inches	2.6	1.5	1.2	1.3	1.9	6.6	3.7	4.0
S. Fork Eel at Leggett flow*	150	99	215	285	530	9490	7060	15,100
Boulder Creek rainfall:								
previous total, inches	0	1.7	2.3	–	4.0	6.8	9.1	12.5
new storm, inches†	1.7	.6	1.6	–	2.4	2.2	3.2	3.1
San Lorenzo flow*	43	22	60	–	122	177	350	295
Big Sur rainfall:								
previous total, inches	0	1.3	1.8	–	4.0	5.3	6.7	10.0
new storm, inches†	1.3	.5	2.1	–	1.1	1.4	3.0	2.9
Big Sur flow*	16	15	35	–	28	39	111	170

*Peak 24-hour average flow, cubic feet per second

†Storm dates for Boulder Creek and Big Sur are generally 1 or 2 days late

For reference, drainage areas are (square miles): Navarro 303, Russian 795, S. Fork Eel 248, San Lorenzo 111, Big Sur 46.

storms. On about one-third of these rivers the flow decreases to near optimum in only a few days. Several days later they are too low to run, and the boater must wait for the next storm to pass. Generally, this restriction means that they must be boated between December and April 15. The snow-controlled streams, on the other hand, usually reach optimum after April 15 (except in dry years). The question we seek to answer here is, "How many days after a storm will my favorite North Coast run reach optimum flow, if I know how much it rained in Crescent City, Eureka, or Santa Rosa, or all three?"

For the region covered by this guide, there is virtually no rain all summer, with the rain coming in about a half-dozen large storms intermingled with small storms during the winter. The streams farther north come up to a runnable level sooner and are runnable later in the year, because the rainy season is longer in the north. For example, Eureka and Santa Rosa have essentially the same average annual rainfall, 38 and 37 inches, respectively: However, Eureka averages 3.2 inches in October and 2.2 in May, while Santa Rosa only receives 1.5 and 1 inch, respectively.

Nearly all of the precipitation from the first few storms is retained in the soil to increase the soil moisture. If a stream does rise during this period, it recedes very quickly compared with later in the season. Therefore, predicting flows before 8 to 12 inches of rain have fallen is very difficult and is not attempted here. This early season rainfall effect is shown in Table 3 for several streams.

The rest of this chapter is concerned with the mid and latter parts of the rainy season. The run-off from several selected streams for two very different types of storms is shown in Figure 5. The horizontal axis indicates the number of days after the middle of a storm. The vertical axis indicates flow (cfs) divided by both the river drainage area above the gaging station where the flow is measured and the rainfall at a nearby weather station.

The January-February 1968 storm (Figure 5-a) was a typical, moderately large, mid-season storm. There had not been any precipitation over more than 3 weeks before. The flows for both small and moderately large streams with rainfalls between 2.8 and 7.5 inches are well correlated by plotting the results this way. The other run-off plot (Figure 5-b) is for a small storm at the end of the rainy season, and there is a wide divergence between the vertical positions of the curves. The flows before this rain were still appreciable, even though there had only been one small rain in the previous month. Other storms that fit one or the other of these two criteria fit closely to the corresponding plot.

Figure 6 shows the average curve for four types of storms. The two types just described are labeled "B" (large, mid-season storm) and "C" (small, late-season storm). Type "A" is a large storm in December or January after the ground moisture has nearly risen to its average winter level (about 10 inches of previous rain) and so is particularly appropriate for the first large winter storm if there has been roughly the same previous rainfall. Curve "D" resulted from a small storm (1½ inches on the Russian, to 4 inches on the Eel at Leggett) January 23–25, 1965. After the worst North Coast flood of the century in December, there was a second small flood two weeks before this storm. This curve is much out of line with the other curves because of the large effect of the previous storms. It will not be used in the flow prediction scheme, but a method is described at the end of this section for treating a storm that occurs before the run-off from a previous storm reaches a small value.

In the heading for rainy season river runs, three quantities are listed that are needed for predicting flows on streams that reach their optimum level after rain storms. They are: drainage area in square miles (mi^2), average annual rainfall in inches, and the run-off, which is the average annual flow in cfs per square mile of drainage area.

All the pieces of information that are needed for the flow prediction method have now been presented. They are put together in an orderly fashion in Table 4, "Examples of Flow Prediction Method and Comparison with Actual Flows after Rains."
boater in data and prediction calculations.

Since TV, radio, and newspaper accounts of storms seldom identify the region that was at the center of a storm or how it tapered off at the edges, it is best to work with the rainfall from two or three cities around the river in question. Total the rainfall at each city (published in many newspapers; additional sources are described later) for the entire storm, and enter these totals in the appropriate column 6 to 10 (also use your own rain gage values for rivers nearby).

The adjusted rainfall values for columns 11–15 use these rainfalls multiplied by the ratio

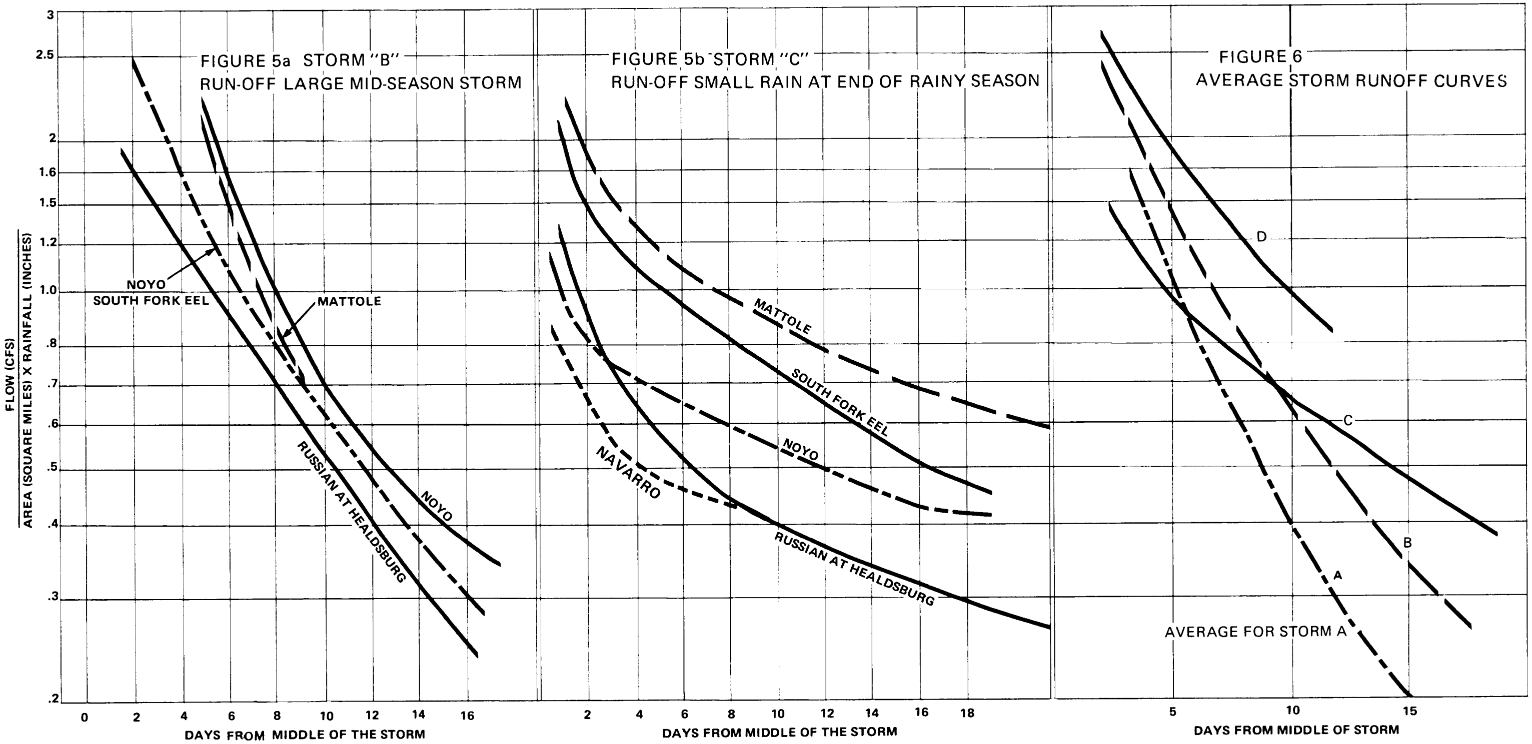
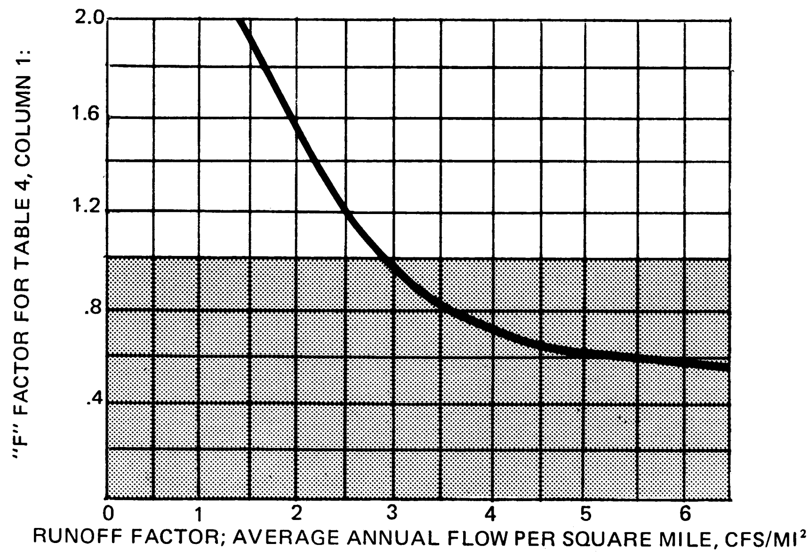


FIGURE 5a STORM "B"
RUN-OFF LARGE MID-SEASON STORM

FIGURE 5b STORM "C"
RUN-OFF SMALL RAIN AT END OF RAINY SEASON

FIGURE 6
AVERAGE STORM RUNOFF CURVES

FIGURE 7. FUDGE FACTOR FOR FLOW PREDICTION METHOD FOR SMALL, LATE SEASON STORMS



of: the corresponding city annual average rainfall (listed at the bottom of the table) divided by the river annual average rainfall copied from the river run heading into the third column. This step adjusts for the fact that some areas are naturally wetter than others. It is assumed that rainstorms that blanket a large area seemingly "uniformly" will actually yield rainfalls in the river basins in that region in proportion to the individual river basin annual rainfall. If a very large area was blanketed by the storm, all the adjusted values will be fairly close. For a localized storm, the city nearest the storm center will show the greatest adjusted rainfall for the river basin. The estimated river basin rainfall based on these adjusted values is entered in column 16. For instance, if columns 11, 12, and 13 have values of 6, 6, and 4 inches, respectively, a value of 5 inches would be appropriate for an upper South Fork Eel River run.

The quantity in column 17 is column 2 multiplied by column 16 and then divided into column 1. This value is located on the vertical scale in Figure 6, and a point opposite that value is selected between curves "A" and "C" based on a judgment of the type of storm that has occurred, as described previously. The number of days on the horizontal scale (from the center of the storm to the time when the river is at optimum flow) is the answer if it is a large storm.

For small storms that occur near the end of the rainy season (in April or possibly May in years with a late rainy season), the run-off value of column 4 is used to determine the fudge factor "F" from Figure 7 (see column 5). Column 17 is multiplied by "F" and the result is used in Figure 6. This procedure accounts fairly well for the spread between the curves in Figure 5-b, which results from the variation in minimum stream flows between well-spaced storms because of large differences in annual rainfall. For storms of intensity and seasons between types "B" and "C" a point is chosen between the two curves, and a multiplication value is used that is part way between unity and the factor determined above.

Storms that follow each other by only a few days are best handled by combining them. The total rainfall is determined and a day is selected that is halfway between the storms if they are of equal rainfall; if they are not, the date chosen should be closer to the larger storm; this date is used for the date of the center of the storm. The resulting prediction cannot be depended on if the optimum flow occurs only a day or two after the end of the second rain. If two storms are more than a few days apart, each should be treated separately with the optimum flow split between them.

Table 4 shows the results of applying the method to several situations.

Table 4 — Examples of Flow Prediction Method and Comparison with Actual Flows after Rains

Storm Dates / River Run	Chapter	Run Number	Optimum Flow CFS	Drainage Area A	Average Annual Rainfall	Runoff Factor	F Fudge Factor	Days to Previous Storm	Middle of Storm	Rainfall for Entire Storm: Crescent City	Eureka	Santa Rosa	Redding	Sacramento	Adjusted River Basin Rainfall (city rainfall) × (river annual ave. / city annual ave.): Crescent City	Eureka	Santa Rosa	Redding	Sacramento	Estimated River Rainfall H	Final Value for Large Storms CFS/(A×H)	Fx Modified Value for Small Storms CFS/(A×H)	Days to Optimum Flow after Middle of Storm	Actual Flow that Day	Percent Error
Column:			1	2	3	4	5			6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
			from river run heading																						
January 1968 (large, mid-season storm)								14	1/30	4.3	2.2	3.2	4.6	1.8											
S. Fork Eel to Hermitage	14	12	1350	248	76	3.7									4.5	4.4	6.6	9.0	8.0	6	.91	–	7½	1700	+26
Rancheria Creek	15	9	250	65	50	1.7									3.0	2.9	4.3	5.9	5.3	4	.96	–	7	265	+6
Putah Creek	17	18	1000	113	52	1.9									3.1	3.0	4.5	6.1	5.5	5.5	1.6	–	4	700	–30
February 1968 (larger, mid-season storm)								17	2/20	7.5	2.9	4.3	2.9	1.8											
Russian at Asti	16	7	700	793	47	1.8									4.9	3.6	5.5	3.5	–	5.3	.17	–	23	*	
Noyo	15	6	300	106	55	2.0									5.7	4.2	6.4	4.1	–	5	.56	–	11	235	–21
Tomki Creek	14	36	175	44	51	2.3									5.3	3.9	5.9	3.8	5.4	5	.80	–	8	127	–27
Elder Creek	17	9	300	93	36	1.1									3.8	2.8	4.2	2.7	3.8	3.2	1.0	–	7	248	–17
April 1966 (small, late-season storm)								19	4/11	2.15	1.33	1.31													
Russian at Asti	16	7	700	793	47	1.8	1.6								1.63	1.64	1.66	–	–	1.65	.53	.85	6½	750	+7
Navarro	15	10	500	303	50	1.7	1.7								1.74	1.75	1.77	–	–	1.75	.94	1.6	2	400	–20
Mattole at Honeydew	15	3	700	240	82	5.7	.6								2.9	2.9	2.9	–	–	2.9	1.00	.60	11½	530	–24
Eel at Leggett	14	14	550	248	76	3.7	.75								2.6	2.6	2.6	–	–	2.6	.85	.64	10½	350	–36
Annual average rainfall:										72	38	37	39	17											

*Would have been an accurate prediction, except a new storm arrived on the 20th day.

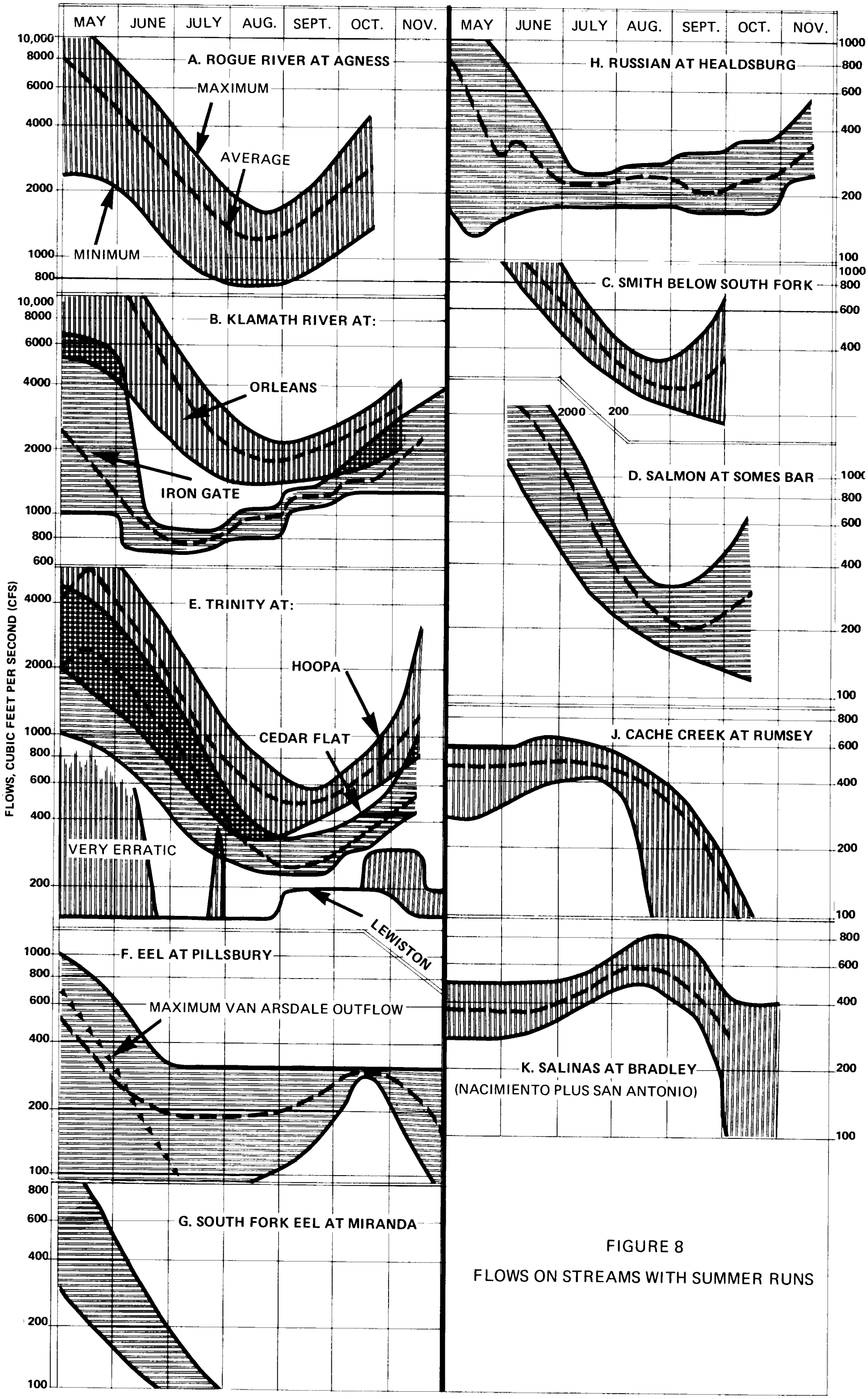


FIGURE 8

FLOWS ON STREAMS WITH SUMMER RUNS

Streams That Can Be Boated During the Summer

Streams that are runnable in the summer are fed either from reservoirs or deeper ground water reserves or both. Some streams have Class 1 or 2 river runs that are at optimum height after winter rains or during the spring run-off but can still be boated at reduced flows through at least part of the summer. They are also included here.

Figure 8 shows maximum, average, and minimum flows at various gaging stations for the summer boating season on 10 streams. There are about 55 possible summer river runs on these streams. The top of each band represents the maximum flow and the bottom, the minimum flow; the dashed line in between is an average flow (these curves are based on weekly averages over a 5-year span). The flow can be expected to be within this shaded range 95% of the time. The driest and wettest years out of about every 30 years will fall somewhat outside the band. Wet, late rainy seasons will result in flows near the top of the band, and vice versa for dry years. The actual flow must be obtained from the appropriate government organization, water district, or power company (this is explained in the final section of this chapter). For most situations, however, a general knowledge of how wet or dry a year is and the following information will produce an adequate prediction of flows.

Rogue River

Figure 8-a shows the maximum, average, and minimum flows at the take-out for the Rogue River Canyon run. The flow at the put-in will be about three-quarters as much. No year will have flows that follow any of these curves because of rains. The minimum is nearly always recorded in mid-August, and only subsequent rainfall can increase the flow.

Klamath River

Figure 8-b shows that large, late spring flows are brought under full regulation by Iron Gate dam by mid-June. There is a strong tendency for the regulation to hold a constant flow each summer month, then quickly change at the end of the month to a new value. Far down stream at Orleans (run nos. 16, 17) the flow year after year gradually decreases to a minimum in the last week of August. The average for this minimum is 1700 cfs.

At Seiad Valley (run nos. 6, 7) the flow is usually close to half that at Orleans during June and July, and two-thirds that during August and September. The flow for runs between the above three points on the Klamath (Iron Gate, Seiad Valley, Orleans) can be estimated by proportioning the increasing flow with the distance downstream. Below the Salmon and Trinity Rivers, their flows should be added in. At the mouth of the Klamath River, the flow during the summer is typically 60% greater than it is at Orleans.

As an example, let us consider the flows on August 26, 1971. In the Klamath, it was 1000 cfs at Iron Gate, 1360 at Seiad Valley, 2100 at Orleans, and 3380 at Klamath Glen; 295 cfs entered from the Salmon River, while one run up the Trinity at Hoopa there was 635 cfs. Note that two-thirds the Orleans value is 1400, compared with the actual 1360 cfs at Seiad Valley. From the flow difference of 740 cfs between Orleans and Seiad Valley, the Salmon River flow is deducted for a net increase of 445 cfs, or approximately a 50 cfs increase for each run between Seiad Valley and Orleans. This increase per run is also good above Seiad Valley. Adding 60% to the flow at Orleans gives 3360, which is to be compared with the actual 3380 cfs at Klamath Glenn, the final Klamath River take-out (agreements above are fortuitous – an error of a couple of hundred cfs would probably be more typical). This amounts to a 100 cfs increase per run below Orleans, in addition to the Trinity River flow.

Salmon and Smith Rivers

The Salmon and Smith Rivers are the only two California coastal streams that are unregulated with respect to dam water release, but are boatable all through the summer. The runs on the Salmon below Forks of Salmon are the last of the spring run-off streams runs to reach optimum flow (see Table 2). From the Trinity River north, rains large enough to affect boating plans do occur in June and September. Otherwise, the flow decreases in a regular pattern from June until early September, following a curve that can be sketched into Figures 8-c and 8-d by proportioning the flow between the mean and the maximum or minimum curves. The flow will continue downward very slowly until the next season's rains come.

The author's final run on the Salmon (no. 35) on Labor Day weekend in 1971 was fairly rocky, but still enjoyable, but 1971 was a very wet year. For the easy run starting at Forks of Salmon (no. 32), which is probably a Class 1½ river at low flows, the flow during the summer months will be one-third that at Somes Bar.

The Smith River has a very similar flow behavior to that of the Salmon River. Since the South Fork of the Smith River has half the drainage and half the total flow, there is only very unrewarding rock picking above the junction of the South Fork after early August, even in the wettest years. However, the last run on the Smith should always have enough water in August for a leisurely trip.

Contact the Eureka office of the USGS for flow information on both rivers.

Trinity River

Figure 8-e shows the flow ranges for three locations on the Trinity River: Lewiston, Cedar Flat, and Hoopa. The uppermost 700 square miles of the Trinity River drainage are virtually severed from the rest of the river by Trinity Dam, which creates Clair Engle Lake. The reservoir holds the two years' run-off from that part of the river. Four-fifths of it is diverted to the Sacramento River through Whiskeytown Reservoir. The minimum legal flow at Lewiston is 150 cfs, and the flow is kept at that with few exceptions until September, when it is raised to 200 cfs for several months. On wet, late springs, there can be releases as great as 2500 cfs for short periods and lesser flows for longer times. The timing of these releases is erratic and unpredictable, but never seems to occur after mid-June. Lewiston sponsors an annual 5-mile raft race, apparently always on the last Saturday in July. For this event, the flow is increased by about 100 cfs for a day or two. The flow at Lewiston during the spring can be obtained from the U.S. Bureau of Reclamation, Sacramento, phone (916) 485-4522. During mid and late summer, the flow increases only very slowly in the first two runs below Lewiston, so boating on these runs is very rocky.

Canyon Creek and the North Fork of the Trinity drain high peaks from the Salmon-Trinity Alps region and thus have a late run-off (Canyon Creek has a run and is listed with the snow-controlled streams in Table 2). For Trinity runs 6 and 7, between the North Fork and Cedar Flat, the flow curves in Figure 8-e can be used for Cedar Flat (where the gaging station is located – the USGS calls it "Burnt Ranch") with no correction necessary. Note that the average flow there is essentially half that of Hoopa for the summer season.

For the Trinity runs below the South Fork, 15 through 18, the flow at Hoopa is appropriate. The South Fork has nearly one-third of the total drainage of the Trinity River, but because of its more southern drainage which dries out earlier, the South Fork only contributes one-fourth to the flow at Hoopa during the summer. The runs to the confluence on both the Trinity and South Fork (nos. 8 and 14) also have summer boating possibilities, and the flow can be estimated from the above information.

The USGS office at Eureka should be contacted for Trinity River flow information for "Burnt Ranch" and Hoopa.

Eel River

Scott Dam with its reservoir, Lake Pillsbury, controls the upper Eel River. The flow from it is shown in Figure 8-f. In most years, mid-October is the best time for the first two runs on the Eel, but in wetter years, it can be run satisfactorily all summer. The first 300 cfs is diverted at Van Arsdale through the Potter Valley Power House and into the Russian River, so the East Fork Russian River run (no.1) can be boated if the first two runs on the Eel are runnable. For information on the flow through the Potter Valley Power House, call PG and E in San Francisco, Hydro-Generation Department, (415) 781-4211.

There is no flow left in the Eel below Van Arsdale (see Eel River run no. 3), and consequently, there is no summer boating on the Main Eel. The strong headwinds, particularly below Dos Rios, are particularly discouraging to the boater who prefers very low water levels.

The South Fork does not seem to suffer much from headwinds, and boating is sometimes possible until July on the last couple of runs through the redwoods (see Figure 8-g). The USGS in Eureka should be contacted for information on the flow at Miranda.

Russian River

The flow release from Lake Mendocino (Coyote Dam) on the East Fork of the Russian River near Ukiah has a major influence on the Russian River, so its flow pattern is described along with that shown for the Russian at Healdsburg in Figure 8-h. In dry years, the flow during April and May can be as low as 75 cfs and in wet, late springs it may reach 500 cfs at the dam. In the first half of April the flow from the dam usually contributes about one-sixth of the flow at Healdsburg, and this fraction gradually increases to about one-half at the end of May.

Systematic regulation of the dam release begins in earnest about the first of June, and until mid-October the flow is almost always between 200 and 300 cfs at the dam. At Healdsburg, there is always a hump upward in the curve for the run-off in early June; typically it takes 3 weeks for the Russian to return to the average flow value for the last week of May. From July 1 until October, irrigation between Ukiah and Healdsburg subtracts 10% of the flow from the dam, and none is added to the stream as ground water.

The Warm Springs Dam, which is being built on Dry Creek, should eventually increase the flows on the Russian below Healdsburg. However, so much of the river in that section is affected by summer dams that the flow rate makes little difference.

The USGS in Santa Rosa should be contacted for information on the flow at Healdsburg. This location is one where they have up-to-date flow values. For the flow from the dam, contact the U.S. Corps of Engineers, San Francisco, phone (415) 527-2211.

Cache Creek

Past conflicts have led to the establishment of maximum and minimum heights for Clear Lake during the summer months. In dry years, this can have a particularly large effect on the flow in Cache Creek in late summer. In 1973, the flow was essentially turned off in early August. The water released is used for irrigation below all the runs on Cache Creek, so by early June the flow rate changes only insignificantly between the dam and Guinda. As long as it is not an unusually dry year, the flow (see Figure 8-j) is fairly dependable. For the flow release for Cache Creek the Yolo County Flood Control and Water District, Woodland, should be contacted at (916) 662-0265.

Salinas River

The flow release from the reservoirs on the Nacimiento and San Antonio Rivers during the summer is usually just enough so that the river dries up at the town of Salinas. The flow at Bradley (Figure 8-k) includes the releases from both reservoirs. While the combined flow is fairly dependable, any proportion of water may be coming from one reservoir or the other. Nonetheless, it is possible to make at least one of the two runs between the dams and the Salinas anytime during the summer. To obtain the flows out of the Nacimiento and San Antonio reservoirs, contact the Monterey County Flood Control and Water District, P.O. Box 930, Salinas, CA 93901, phone 408/424-0866.

There are a number of nice Class 2 rapids like this one on the upper San Antonio River.

Sources for River Flow Information

The Water Resources Division of the U.S. Geological Survey is charged with the responsibility of measuring stream flows and water quality. They maintain approximately 1,000 gaging stations in California that record water height. A station usually consists of a vertical section of large corrugated steel pipe alongside a river. Approximately once a month (more often during stormy periods) each station is inspected by a field hydrologist. He collects the recorded height measurements (obtained several times per hour) and traverses the river via a nearby cableway to obtain about 50 flow velocity measurements. These measurements are used to keep an accurate river calibration of flow versus height.

Average daily river flows are published annually for the water year, which is October through September. There is one volume for Oregon and two for California entitled *Water Resources Data for California (or Oregon) – Part 1. Surface Water Records.* The first California volume includes all the Pacific Slope river basins and the second includes the Sacramento River basin. These are available from the District Chief, Water Resources Division, U.S. Geological Survey, 855 Oak Grove Avenue, Menlo Park, CA 94025. Unfortunately, these large paperback books are not available until one to one and one-half years after the end of the water year. More useful books for the serious boater who wants to become more familiar with river flow patterns are the three volumes of five-year records: *Surface Water Supply of the U.S. 1966–70:* Part 14: *Pacific Slope Basins in Oregon and Lower Columbia River Basin* and Part 11: *Pacific Slope Basins in California,* volume 2: *Basins from Arroyo Grande to Oregon,* and volume 4: *Northern Central Valley Basins.* These are available from the U.S. Government Printing Office, Washington, D.C. 20402, at $4.25 per volume.

The boater is urged to learn to judge river flows in cfs. Record your estimates in the table at the back of the book. To obtain the correct flow, occasionally write the USGS: Chief, Menlo Park Subdistrict, Water Resources Division, U.S. Geological Survey, 345 Middlefield Road, Menlo Park, CA 94025. List the rivers, the closest town to the nearest gaging stations (see the river run headings), and the dates of your runs.

In spite of the fact that gaging station records are only collected monthly, it is the author's experience that the USGS field men have a fairly good idea of what the current river flows are. Contact their field offices. The locations are (Water Resources Division, U.S. Geological Survey):

Oregon:

a. Rogue River basin	1019 N. Riverside, Medford, OR 97501; 503/779-2351

California:

b. Northwest corner to Seiad Valley, Weaverville, Alderpoint	P.O. Box 1307, Eureka, CA 95501; 707/443-0668
c. South to Golden Gate, east through Clear Lake dam release	P.O. Box 1298, Santa Rosa, CA 95403; 707/544-1330
d. North central area	640 Twin View Blvd., Redding, CA 96001; 916/246-5282
e. Central area of Central Valley	Room W2235, Federal Bldg., 2800 Cottage Way, Sacramento, CA 95825; 916/484-4606
f. Southern San Francisco Bay Area	713 Santa Cruz Ave., Menlo Park, CA 94025; 415/323-8111
g. Salinas Valley and environs	P.O. Box 5027, Salinas, CA 92901; 408/422-3413

In California, the Department of Water Resources is charged with the responsibility of predicting flood heights, predicting the amount of spring runoff for best impoundment of flows, and selling water. Their Flood Operations Center installs radios at about 60 gaging stations (mostly at the USGS stations, but some are their own) for the rainy season. From November 1 through April 30, they query each station at about 6 a.m. each weekday for the flow height. This information is then available by telephone (about 7 a.m. to 3:30 p.m.), 916/445-3553. Please do not bother them during times of flood – that is when they work around the clock to gather data and compute flood crests – and when the boater should be staying off the rivers. Ask for the flows you desire, in cfs. You may also want some of the flows from the previous day (or the 24-hour change may be more readily available). A few stations also measure precipitation. The following is a list of their radio-controlled gaging stations within this guide book area, and the corresponding drainage areas.

Location	Drainage Square Miles
Smith near Crescent City	609
Klamath at Orleans	8,475
at Klamath	12,100
Trinity out of Lewiston	720
at Hoopa	2,854
Redwood Creek at O'Kane	67
at Orick	278
Mad out of Ruth Dam	119
at Arcata	485
Van Duzen at Bridgeville	222
Eel out of Lake Pillsbury	289
at Fort Seward	2,107
S. Fork Eel at Leggett	248
at Miranda	537

Location	Drainage Square Miles
Eel at Scotia	3,113
E. Fork Russian near Calpella	92
Russian at Ukiah	100
at Healdsburg	793
at Guerneville	1,340
Napa near St. Helena	81
at Napa	218
Cottonwood Creek	927
Cache Creek at Rumsey	955
Monticello* *inflow*	566
Salinas at Bradley	2,535
at Spreckles	4,156

The Flood Operations Center is interested in floods, which occur when flows are greater than about 50 cfs per square mile. The boater usually wants less than five percent of that, and the calibrations that they use can be coarse at such low flows. Also, some gages may not be operating properly. Therefore, always ask for values at several gaging stations in the general region of interest.

By dividing each flow by the corresponding drainage area, one obtains the ratio flow per square mile. These ratios will be largest in the wettest river basins (see the runoff factor in the headings of the rainy season runs) and in the center of the storm. The boater can easily learn to tell where the edges of the storm are located, in order to judge which readings are of dubious value, and to use the ratios for estimating flows in other streams in the region. This provides a check on flows predicted in Table 4.

Besides obtaining rainfalls from the Flood Operations Center, television, newspapers, and calls to the Weather Bureau (now the National Weather Service), consider purchasing your own rain gage (they cost about $5.00) and keeping records. The National Climatic Center, Federal Building, Asheville, N.C. 28801, can supply a value for the average rainfall at your location and a state rainfall map. Your rainfall value can also be used in Table 4 for flow prediction.

The California Department of Water Resources also makes snow depth surveys on about the first of each month from mid-winter through spring, and then compiles the data in "Water Conditions in California," available the 10th of the month, February through May. The boater can obtain an indication of whether an early or late spring runoff will occur by inquiring of the Flood Operations Center what percent of normal the snow pack was at the beginning of the month (particularly April). However, how early the weather turns warm and dry plays a large role in the timing of the optimum flows for the spring runoff.

*Their name for Lake Berryessa. At the put-in, the Putah Creek run should have about 40% of this inflow.

7. *Legal Aspects of River Touring*

No river tourer should take his right to navigate a stream so seriously as to enter into an argument with a landowner. The "right" to run a stream is not so well established as might be supposed. Consider the experience of Randy Carter during an encounter he once had with a property owner.

> Many years ago I created an unpleasant (to say the least) situation by not using a little tact. On a narrow stream I passed, in my canoe, by a man's house close to the bank. He said, "Get the hell outa here!" and I said, "This ain't your G– D— river!" With that he jumped up and ran into the house, saying "I'll show you whose G– D— river this is." He came out with a shotgun pointed at my head, and said, "Now git!" I looked down the dark depth of that long barrel, and seemed to see a white tombstone with my name on it. . . . I left under full steam. I could feel my back crawling with the expectancy of a load of hot buckshot stabbing into me. A soft answer would have avoided this situation.*

To help the boater avoid such situations, this chapter presents a comprehensive report on the status of the law in California concerning river touring.†

Navigable Rivers, Portages and Stops

The commerce clause of the Federal Constitution is the basis for federal jurisdiction over navigable waters. It has been interpreted by the federal courts as prohibiting interference with navigation on streams that have the capacity to support interstate or interstate-related commercial navigation, either in their natural condition or with reasonable improvements. Most state courts, including those in California, have adopted much more liberal standards to protect public small-boat navigation. To properly explain the present status of the law in California, it is necessary to present some background and quote from various court cases.

The federal act admitting California to the Union requires freedom of navigation. It reads:

> That the said State of California is admitted into the Union upon the express condition . . . that all the navigable waters within said State shall be common highways and forever free, as well as to the inhabitants of said State as to the citizens of the United States. . . .

There are not yet any California decisions applying this language to small boat navigation. Wisconsin courts, interpreting a similar act, have reviewed it as requiring freedom of small-boat navigation on shallow small streams.

The California Constitution makes a brief negative statement concerning persons preventing the freedom of navigation (Article XV, Section 2):

> No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right-of-way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water; and the Legislature shall enact such laws as will give the most liberal construction to this provision so that access to the navigable waters of this State shall be always attainable for the people thereof.

The California Civil Code, Section 3479, declares obstructions to navigation to be a nuisance and subject to removal or modification on court order.

Three California court decisions in the past 22 years have dealt with the freedom of navigation, what is a navigable river, and incidental rights of the boater. In February 1938, the San Joaquin River broke through the levee and flooded the delta island called Frank's Tract (and it has remained flooded). Fishermen proceeded to fish there from row boats and larger craft. The lessors then tried to charge the boaters a fee, which led to the "Frank's

*Randy Carter, *Canoeing White Water in Northern Virginia and Northeastern West Virginia,* Blue Ridge Voyageurs, Fairfax, Va., 1963, 4th ed., p. 22.

†The author is deeply indebted to R. Frederic Fisher, a San Francisco attorney, who furnished the legal materials for this chapter and has reviewed the substance of it. He has been very active in legal battles in this field, playing a part in the Fall River appeal and the Russian River cases referred to, and in the implied dedication case of Gion v. City of Santa Cruz.

Tract" case – Bohn versus Albertson.‡ The appeals court held that this shallow overflow land was navigable, and therefore a fee could not be collected. The State Supreme Court has since referred to this decision with approval.†

In a second case, owners along the Fall River in northeast California, an excellent trout stream, had the river blocked off to boaters and fishermen. The district attorney of Shasta County brought suit and obtained an order barring interference by property owners with small boat navigation on the stream. The Superior Court and Appeals Court in People versus Mack* found the river to be navigable and hence free for the public to boat upon, regardless of ownership of the banks and bed of the river. The Court of Appeals upheld an order of the lower court barring any interference with navigation.

A third case was tried in early 1973 – Hitchings, et al., versus Del Rio Woods Recreation and Park District, et al. This case involves the question of whether the Russian River from Alexander Valley to Del Rio Woods is navigable and open to public boating, whether boaters have the right to take out boats at Del Rio Woods because of the summer dam that the District constructs, and whether the public also has the right to portage around the dam and to have access to the river over public property. The Sierra Club and Bill Trowbridge, owner of a large local canoe rental service, were also plaintiffs in this suit.

In People vs. Mack the court stated:

> The modern tendency in several other states, as well as here, is to hold for use of the public any stream capable of being used for recreational purposes. . . .*

Often landowners hold title to the land to the center of a river. The court noted that even though they pay taxes on the river bed, that has no bearing on the question of navigability and the public right of passage. The common law right of navigation has been restated by the American Law Institute, which describes the public right of navigation as an exception to trespass – that is, as a privilege to pass over another's land:

> A person is privileged to navigate in a reasonable manner navigable waters situated on land in the possession of another. . . . (T)he privilege of navigation is one which inheres in every navigable stream without dedication, condemnation, or prescriptive user.

The court in People versus Mack stated the test of navigability as follows:

> The modern determination of the California Courts, as well as those of several of the states, as to the test of navigability can well be restated as follows: members of the public have the right to navigate and to exercise the incidents of navigation in a lawful manner at any point below high water mark on waters of this state which are capable of being navigated by oar- or motor-propelled small craft.

The author has been assured by two attorneys involved in that case that the reference to "oar-propelled" would apply equally to "paddle-propelled" small craft, such as canoes and kayaks. Frequently, one hears that the test of navigability is whether the stream will float logs. This has been used as a test in other states and in California, but the above court pointed out:

> With our ever-increasing population, its ever-increasing leisure time (witness the four- and five-day week), and the ever-increasing need for recreation areas . . . it is extremely important that the public not be denied use of recreational water by applying (a) narrow and outmoded interpretation of "navigability."

California Pleasure Boating Law, a study by Continuing Education of the Bar, states flatly:

> It is becoming popular to use for navigation by canoe or kayak small, swift streams that could not accommodate any larger craft. Neither the existence of rapids or sandbars, nor the necessity of portages to circumvent obstructions like rocks or waterfalls, nor the availability of the stream only at certain times during the year, impairs whatever right of navigation otherwise exists.

This statement is soundly based on the decisions of the first two cases described above and

‡Bohn v. Albertson, 107 Cal.App.2d 738, 238 P.2d 128 (1951).
†Marks v. Whitney, 6 Cal.3d 251, 98 Cal.Rptr. 790 (1971).
*People v. Mack, 19 Cal.App.3d 1040, 97 Cal.Rptr. 448 (1971).

other cases. Finally, the Harbors and Navigation Code, Section 131, states:

> Every person who unlawfully obstructs the navigation of any navigable water is guilty of a misdemeanor.

From the above, it might be simply concluded that if you are boating a particular stream, then it is navigable. But it is well to remember that the courts view the public right of navigation as being a factual question which must be determined individually for each section of river where a dispute arises. Often, as in the Fall River and Russian River cases, the local judge will personally inspect and boat upon the river. Numerous cases of very small streams being found navigable by courts in other states are cited in the plaintiffs' brief for the Russian River case. However, some of the small, ephemeral brushy streams and difficult streams described in this guide can be safely navigated only by skilled river tourers without passengers. At some point, there may be a limit in the size of streams that judges will be willing to call navigable. In any case, it is probably to the decided advantage of the river tourer that the courts are interpreting what is navigable. It is the author's opinion that, if the state legislature were to legislate a minimum size for judging a navigable river, we would lose many excellent runs that are included in this guide.

To boat safely on many streams it is important sometimes to beach your boat and walk along shore to scout the difficulty of a rapid, decide how to run it or whether to portage, and to use the shoreline for rescues. For comfort, it is also necessary to make lunch stops on shore. For long trips, of course, there is a need to camp. In the Fall River case the court stated emphatically:

> It hardly needs citation of authorities that the rule is that a navigable stream may be used by the public for boating, swimming, fishing, hunting and all recreational purposes.

In an earlier navigation case concerning a slough in the lower Napa River* the State Supreme Court ruled "wherever . . . (a person) may lawfully go he may do that which is lawful."

The question, however, is where, other than on the water itself, may boaters exercise these public recreational rights? The plaintiffs in the Russian River case assert specifically that the public right extends to sand and gravel bars on beaches below high-water mark and within the banks of the river because the Court of Appeals in the Mack case unmistakably declared that the public right to exercise the "incidents of navigation" extends to "any point below high water mark on waters of this state which are capable of being navigated by oar or motor-propelled small craft."

This test was clarified and in effect ratified by the California Legislature recently in amending Harbors and Navigation Code, section 100. The amendment reads:

> However, the floodwaters of any navigable river, stream, slough, or other watercourse, while temporarily flowing above the normal high-water mark over public or private lands outside any established banks of such river, stream, slough, or other watercourse are not navigable waters. . . ."

The amendment further defined "floodwaters" as elevations of water occurring at extraordinary times of flood and not annual or recurring high waters. The high-water mark referred to is quite obvious on nearly all streams.

If a dam or other obstruction has been constructed across a stream, the boater has the right to go above the high-water mark to portage around it. This is a common law rule, and it may well be part of the constitutional right of navigation set forth in Article XV, section 2, of the California Constitution. This right is being asserted by plaintiffs in the Russian River case. Similarly, according to the common law rule, boaters have the right to portage around natural obstructions in navigable streams.

> The privilege of navigation carries with it the ancillary privilege to enter on riparian land to the extent that this is necessary for the accomplishment of the principal privilege.†

Fortunately, it is a very rare portage that requires going above the high-water mark. It only occurs on small streams or in the headwaters of large streams, and in most of these cases property adjacent to the river is public land.

*Forestier v. Johnson, 164 Cal. 24, 127 Pac. 156 (1912).

†Restatement of Torts, Second, § § 193(b), 193(d).

On an occasional stream, particularly in a county park, there may be a county ordinance prohibiting boating. The state rulings take precedence and if the streams are navigable, the county ordinances are probably illegal, unless they are in effect to alleviate a significant safety hazard.

River Access

Most of the put-ins and take-outs used in this guide are located on state or county roads. The state has title to the land its highways are on and almost always owns 50 feet from the center on each side. If there is a fence alongside the road it will be on that line. If the boater stays within this public property, there is absolutely no doubt as to the legality of these accesses. Of course, it is illegal to stop along a freeway except for an emergency. Usually the county does not own the property that its roads are situated on, but has only a right-of-way from the property owner. In Mr. Fisher's opinion, the public has the right of access to the river over public right-of-way at these points.† This opinion may be controversial. The right-of-way total width is noted for many of the run descriptions involving county road accesses.

On state and county roads, fences are occasionally built between the right-of-way and a bridge structure. They are constructed to prevent cattle from wandering onto the road, and boaters gaining access to the river should be careful not to damage them. The same applies to cattle fences across small streams. Ranchers have told the author that boaters sometimes cut their river fences. This is highly unsportsmanlike behavior. If a boater is too lazy to make short carries around cattle fences, he should make his run in the winter after a high-water storm. Such storms usually knock out all fences. The ranchers generally rebuild them in the spring only after the danger of another high water is past. The best solution is to pick runs that are not in cattle country.

Where a state highway lies along the bank of a stream, it is generally safe to assume that the state owns or has an easement to it. Nearly all public land may be crossed to reach a stream, such as national forests and Bureau of Land Management (BLM) property. However, the boater does not necessarily have the right to cross a mining claim on these lands.

Dams can create miles of backwater and destroy navigation for pleasure on a river. It is generally accepted that the river tourer has the right to portage his boat around a dam, using the most reasonable route. The Russian River case involves exactly this contention. The local judge has ruled that the river is not navigable, but this decision is being appealed (as of March, 1974).

There is another, very important way to establish by law both an access to a river and its availability to the public for boating. That is by "implied dedication through adverse use." This principle was specifically spelled out by the State Supreme Court in a case involving public crossing of private property to reach a beach in Mendocino County and public use of a beach parking lot in Santa Cruz.* It stated that under common law an implied dedication of property to public use occurred if the public openly and notoriously used the property for public recreational purposes for more than five years, without asking or receiving permission from the owner thereof and without the owner's taking effective steps to interfere with such use. Upon plaintiffs' showing of public use for a five-year period, the burden shifts to the property owner to show that the public use was either with his express permission or that he took substantial steps under the circumstances to prevent it. The users of the access must show that they believed they had the right to use the property.

In 1971, California passed a statute ending implied dedication through adverse use except along ocean beaches. Therefore, to use this principle the public must have started to use the access at least five years previous to the statute, that is, by mid-1966.

The River Tourer and the Landowner

The boater should understand that nearly all landowners will have little grasp of the law of public navigation over their properties. Some will be convinced that the boater is trespassing. Since the landowner no doubt has for years been finding trash thrown onto his land or having his fence across the river continually cut, he will very likely be angry when he

†A new case will test this point: People vs. Sweetser, Kern County Superior Court, Appellate Division (1974).

*Gion v. City of Santa Cruz, 2 Cal.3d 29, 84 Cal.Rptr. 162, 465 Pac.2d 50 (1970).

confronts you. If there is anger on both sides, there is certain to be trouble. The landowner probably knows the local sheriff personally, which is not to your advantage. If he has you arrested for trespassing, you may be tried by only a Justice of the Peace, if it is a small county. The criminal appeal process is imperfect, and you cannot necessarily appeal to the next court level, the Appellate Division of the Superior Court. Even if you win the case, the next boater can be stopped and might go through the same process.

You should try to reason calmly with the landowner and perhaps show him the previous two sections about navigation law. Then explain that if he requires you to leave the river, it is an imposition on your group. Believing you are right, you will ask the district attorney to seek an injunction against the landowner requiring him not to infringe on boaters' rights. If he forces you off the river, you should do just that. If the district attorney will not take action (usually he will not; in fact, he may be on the property owner's side for political reasons), then consider starting court action yourself or through organizations to which you belong. First, talk to a competent trial attorney, preferably with an office in or near the county in which the problem arises, to see whether this case should be taken to the courts and what it will cost. Many attorneys are not familiar with the law of public navigation, and you may wish to give the attorney the authorities referred to earlier in this chapter. Be sure to make detailed financial arrangements in advance, since these actions can become expensive. The important thing in selecting an attorney is not his immediate familiarity with the law, but his reputation for competence and his willingness to fight for you. If funds are limited, one of the following conservation legal defense groups may be interested in helping:

Sierra Club Legal Defense Fund, 311 California Street, San Francisco, CA 94104;

Environmental Defense Fund, 2728 Durant Avenue, Berkeley, CA 94704;

Natural Resources Defense Council, Inc., 664 Hamilton Avenue, Palo Alto, CA 94301;

Center for Law in the Public Interest, 10203 Santa Monica Blvd., Los Angeles, CA 90067;

Public Advocates, Inc., 433 Turk Street, San Francisco, CA 94102.

A husband-and-wife team in a white-water canoe (photo by Carl Trost).

8. *River Geography, Maps, and Wild Rivers*

The largest river within California, the Sacramento, cuts through the Coast Range and into San Francisco Bay. The area south of the Bay is generally denoted as the California Central Coast region; the area north of the Bay to Oregon is called the California North Coastal region. The latter is dominated by the Klamath River system and the Eel and Russian Rivers. The Trinity is actually part of the Klamath, but is discussed in a separate chapter because of the large geographic area covered by this great river system. The South Fork of the Trinity, upper parts of Redwood Creek, Mad, and Van Duzen Rivers all closely parallel each other. The Van Duzen is actually part of the Eel, but, together with its close neighbors, the Mad River and Redwood Creek, it is considered separately. The Eel River flows north, and the Russian, whose headwaters adjoin those of the Eel, flows south. They cut off a long, narrow coastal redwood area which is drained by numerous small rivers, including seven discussed here that lie between the Gualala River and the Bear River.

The Coast Divide between the rivers that flow directly to the ocean and those that flow into the Sacramento is a far distance east in the Coast Range. Although large drainages do occur in the streams flowing east, they are called creeks. This is appropriate in view of their size in comparison with other tributaries of the Sacramento, such as the Feather River. Cache Creek runs nearly all summer with more flow than the Russian River, so is an important stream; the others should not be neglected by the river tourer.

South of the Eel and the narrow coastal section, the quality of the rivers and scenery deteriorates considerably. Moreover, the country to the south is drier, and the streams do not run as much of the year unless they are dam controlled. In general, the streams in the California Central Coastal region are inferior in quality to the North Coastal rivers.

Maps

The usual oil company road map leaves out many of the access roads described in this guide. All the public roads are shown on the regional AAA maps – Northwest California, North Bay, Peninsula Points, and Sequoia.

The U.S. Forest Service issues two-color maps of each national forest. The Siskiyou, Six Rivers, Klamath, Trinity, Shasta, Mendocino, and Los Padres National Forest Maps cover a majority of the runs in this guide. These maps also include many neighboring runs that are outside of the national forests. They show all USFS roads and indicate the various quality of the roads. These maps are available from the U.S. Forest Service, Division of Information and Education, 630 Sansome Street, San Francisco, California 94111. Ordered as a group they are 15 cents each; separately, they are free. Also, these maps are often available at district ranger stations in each national forest, but their offices are seldom open on weekends. The maps, which have a scale of one-half inch equals one mile, are a "best buy," and it is advisable to have them before attempting to reach put-ins on upper river runs in the national forests.

In the heading for each river run, U.S. Geological Survey (USGS) maps in the 15-minute series, if available for the run, are listed, and then the U.S. National Forest map. Only the USGS maps have contour lines. The "Army series" have a scale of one-quarter inch equals one mile. The rivers have good detail, but the roads on these maps are particularly inadequate. Five maps cover the north Coastal area: Weed, Eureka, Redding, Ukiah and Santa Rosa. For the South Coastal area one would need Santa Cruz, San Francisco and San Luis Obispo. These maps cost $1 each.

The more detailed USGS maps of 1:24,000 and 1:62,500 scale (the latter is essentially 1 inch to the mile) cost 75 cents each. Only the most avid river tourer and map reader would want to start collecting the dozens of these maps needed to cover this guide. The USGS maps are available by mail along with a free index to their maps of California from the U.S. Geological Survey, Federal Center, Denver, Colorado 80225. USGS over-the-counter sales (and some mail order sales) are conducted at: 7638 Federal Bldg., 300 N. Los Angeles St., Los Angeles, California; 345 Middlefield Road, Menlo Park, California; 504 Custom House, 555 Battery Street, San Francisco, California. The California index lists about 100 dealers

Scouting the rapids from the road far above upper Stony Creek can be deceiving because there is little by which to judge the height of the waves and the force of the water (photo by Greg Thomas).

that carry partial stocks of maps, and also several dozen libraries that have reference collections of USGS maps.

It is usually impossible for the boater to determine his position by orienting and examining a map every couple of hours unless he has noted major topographic features along the way. Besides, he must also be a very good map reader. The boater should keep track of elapsed boating time, as he can soon develop a sense of his speed and use this to estimate his position. The distances to major landmarks and rapids listed in each run description indicate to the boater his progress.

Wild Rivers

In 1968, Congress passed the "landmark" legislation – the Wild and Scenic Rivers Act for protecting certain rivers. Eight rivers in the United States were selected and included as "Wild and Scenic Rivers," including the Rogue River and Middle Fork of the Feather on the West Coast. Procedures were established for including other rivers in the future. Each river included has been divided into sections denoted as:

Wild – primitive and generally inaccessible except by trail.

Scenic – largely undeveloped and accessible in places by roads.

Recreational – some development and readily accessible by road.

Up to an average of 100 acres per mile of property can be purchased along the river, plus scenic easements. In 1973, Congress increased the original $17 million appropriation for protection of the wild rivers to $37 million.

In 1972, the State of California passed the California Wild and Scenic Rivers Act. This act provides that rivers be classified in the above three categories and prohibits the building of dams and water-diversion structures. No provision is made in the Act for the purchase of property or scenic easements. Most of the Smith, Klamath, Salmon, Trinity, South Fork Trinity, and New Rivers, as well as the best sections of the Scott and North Fork American Rivers were given permanent coverage by the act. Most of the Van Duzen River and the South, Middle, and North Forks of the Eel River, as well as the main stem, were included in the act, but with the special provision that the legislature review the need for water supply and flood control dams in 1984. The State may delete sections of the Eel and Van Duzen at that time.

PART II. DOWN THE RIVERS

9. *Rogue River Canyon and Illinois River*

The Rogue River Canyon probably has the most beautiful scenery of any West Coast river. It was chosen as one of the original rivers to be protected by the federal Wild and Scenic Rivers Act.

Lodges along the way specifically for the river traveler and hiker make this river unique. It is also the only river covered in this guide that has any appreciable number of commercial river touring trips available. (Contact Medford District, Bureau of Land Management, U.S. Department of the Interior, 310 W. Sixth St., Medford, Oregon 97501.)

The Rogue has two major tributaries which drain most of the area south to the Klamath River. The Applegate River enters the Rogue several miles below Grants Pass. Downstream from this point, there are 84 miles of federally protected waterways reaching to Lobster Creek, which is 10 miles from the ocean. All of these waterways provide exciting boating, but the wilderness center section described below offers the most outstanding run. The other tributary is the Illinois River, which has a long wilderness run.

The spectacular growth of river touring is well demonstrated by the great surge in numbers of people who annually run the Rogue River (6,700 in 1972). In contrast, during the author's first two trips on the Rogue in 1967 and 1968, he saw no more than two dozen other people. It is a sad but inevitable consequence of the great popularity of this river run that controls are being placed on its use, similar to those in effect on the Colorado Grand Canyon and Middle Fork of the Salmon River runs.

1. ROGUE RIVER

1. Rogue River Canyon
Class 4 at optimum: 3000 cfs
Class 3 with 2 Cl 4 rapids at 1000 cfs
Maps: Rogue River Wild and Scenic; Siskiyou NF, Galice, Marial, Agness

34½ miles, summer run (see Fig. 8-a)
Scenery: AA+, long shuttle
Drainage: 3940 mi^2 near take-out
Canoes: no; Rafts: excellent
Boated 3 times 1100 to 4000 cfs

Memorial Day weekend of 1973 was especially exciting. My white-water river touring experiences started just 20 years earlier with an Appalachian Mountain Club group that may be the original white-water recreational boating club in America. Begun in the early Thirties, this group used canvas-covered wooden canoes. In the Forties they shifted to aluminum canoes – these craft could be salvaged even after being wrapped around a rock. Decked fiberglass boats have provided further freedoms to the river tourer. Now, with the purchase of a 17-foot river dory, I was returning to wood for this run on the Rogue.

The Rogue River Dory has a long history and is especially preferred by the fishing guides on the river. Outfitted with all sealed baggage compartments, this boat was the Colorado River model and was built in Grants Pass. I knew that even moderately light collisions with rocks could damage the craft, but I was fascinated with the challenge of precise handling that is demanded by this boat. I had had too little rowing experience to be attempting this run with a dory. But I managed to reach the take-out at Foster Creek with just a few scrapes and one small hole.

Access Points

Four miles north of Grants Pass, Oregon, on Route I5, turn west to Merlin and on to Galice, the last community selling gasoline along the river (16 miles from Route I5). Continue 7 miles on downstream to the bridge over the river at Grave Creek and put in there; this is the last possible put-in for this run. Actually, I prefer to put in 3 miles upstream at Almeda Bar so as to have an easy warm-up before running Grave Creek Falls. Both sites have launching ramps.

The Rogue River Wild and Scenic map is an excellent map of the river (free from the U.S. Department of Interior office in Medford or the USFS office in Grants Pass), but only the

Siskiyou NFS map shows the road for the shuttle. From just upstream of Galice take the good, but very long and slow, Forest Service (abbreviated USFS or NFS throughout the book) road nearly to Agness. It would be 23 miles by air, but is nearly twice that distance by road. Since many roads fan out from the one you are seeking, you should have the Siskiyou NFS map with you, although there are some signs.

Buy gas before you reach the shuttle as there are no service stations along the route unless you go on to Agness. Tire chains for mud or snow may be needed as late as mid-June. When you see the Rogue River, which is just a mile or two upstream from the take-out for the Illinois River run, go upstream and, after several miles, cross the Rogue. Continue upstream 3 miles, about 1 mile beyond the Illahe NFS Campground. Just at the bottom of the hill, a few hundred feet before crossing Foster Creek, turn right and go the short distance to an unorganized parking area where a launch ramp is located. This is the take-out and is usually referred to as Foster Creek.

One can continue downstream the 6½ miles of easy boating to Agness, where the Illinois River enters. From Agness, access to the coast is by road, by 22 miles of relatively easy river boating, or by large jet boats.

The Run

Grave Creek Falls consists of a rapid of medium difficulty which is located shortly below the Grave Creek put-in. It is an impressive but easy symmetrical drop of roughly 5 feet.

Rainie Falls (listed as "Ramey Falls" on older maps) is 1½ miles farther downstream following a long stretch of calm water. Before this falls, the boater must pull in on the right. It has a vertical drop of about 10 feet and a very deadly reversal at the bottom. I observed one foolhardy rafter (15-man Navy raft) upset and forced to swim for his life here. The water churned so violently that, even though he was wearing a life jacket, he did not come to the surface until 300 feet downstream. He said afterward that he had nearly blacked out before surfacing. I also saw one rig run this falls magnificently. It was a raft constructed of a menagerie of large inner tubes; its owners described it as "15 truck inner tubes and a spare." (It was actually very well constructed.)

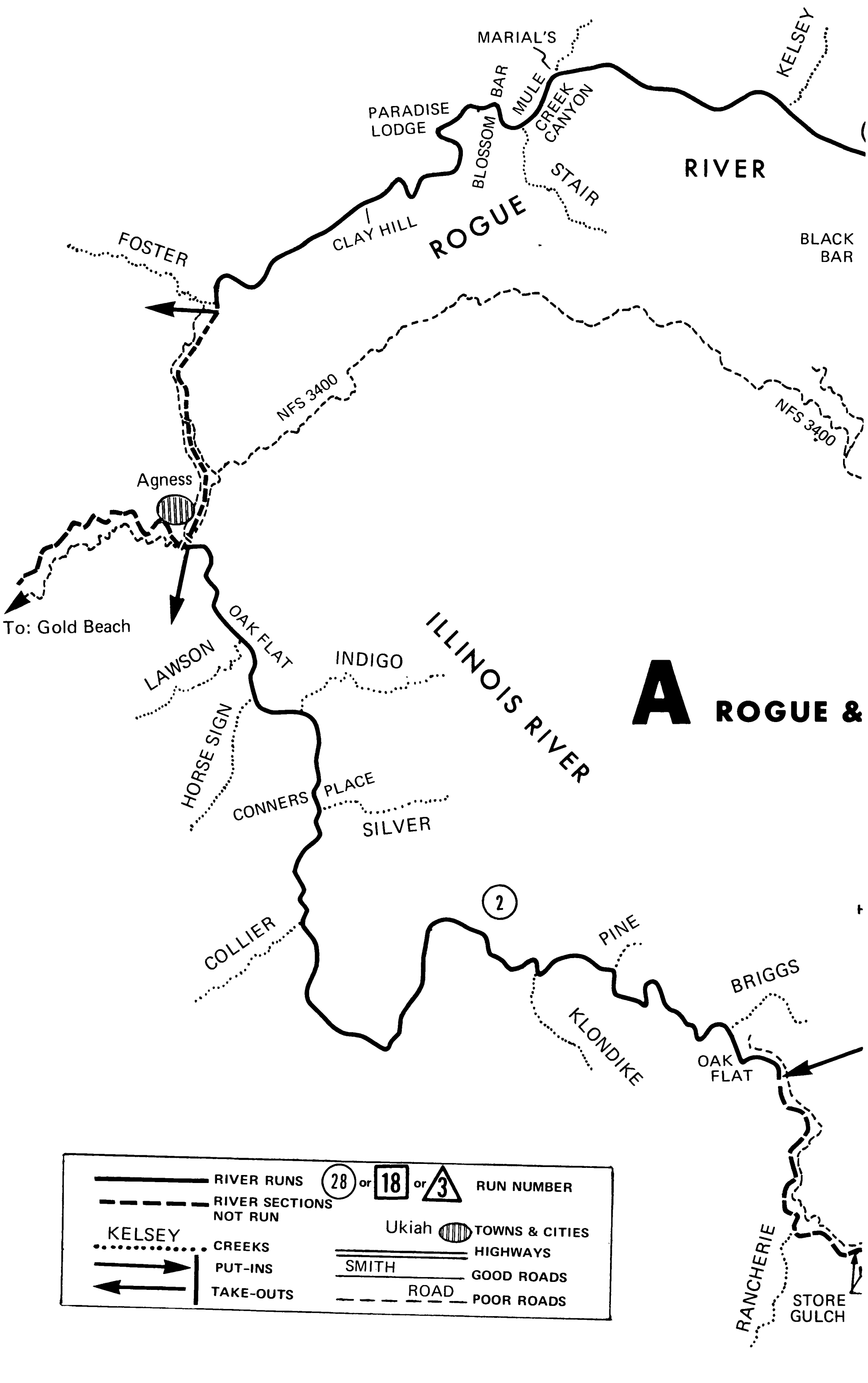
The "fish ladder" along the right side provides a rocky chute for boating around the falls at higher water or for lining at lower water. Dories must line the fish ladder, which is a very narrow, rocky, natural looking chute (but probably blasted open many years ago for lining dories). The guides line their boats through by themselves with only 100 feet of line, but six of us found it to be a struggle and used 200 feet of rope. Rafters and kayakers simply bump their way through.

Tyee Rapid, 2½ miles downstream from Rainie Falls, is a thriller. Located at the start of a left zig-zag, the flow splits around a small island with very little water flowing to the left. The boater cannot see much of the rapid on the right side – the main channel – until he is part way into its sharp left turn. If he wishes to scout from this point, the boater should take out on the right.

Shortly below Tyee comes Wildcat – a long, tough, rocky rapid that can usually be run on either side of its island. Next, Russian Creek enters from the right at a left turn, and there follows a series of large (at least at higher water) harmless haystacks. The next couple of miles contain a substantial drop near Howard Creek and two very narrow channels carved into rock. The swirling currents in these channels provide a good warm-up for the run that lies 13 miles ahead in Mule Creek Canyon.

The 4½ miles between Tyee and Black Bar are a busy stretch of water for the boater although the drop averages only 21 feet per mile. Considering the small gradient, this stretch is probably the most difficult boating around; many smaller rivers with three times that gradient are easier boating, particularly for the kayaker.

Upper Black Bar Falls comes just above a major right turn in the river at mile 12 from Grave Creek. Here, most of the water runs to the right side where there is a wall. Entering the rapid correctly so as to avoid the wall on the right and a large boulder below takes some planning. Take out on the right for scouting, and carefully note the currents at the top. Even after scouting this rapid, you will probably have some difficulty identifying your desired position at the top. Lower Black Bar Falls, which is at the end of the right turn, is an anticlimax. Black Bar Lodge is located on the left bank (reservations


MARIAL'S
KELSEY
BAR
MULE
CREEK
CANYON
PARADISE
LODGE
BLOSSOM
STAIR
RIVER
ROGUE
CLAY HILL
BLACK
BAR
FOSTER
NFS 3400
NFS 3400
Agness
To: Gold Beach
OAK FLAT
LAWSON
INDIGO
ILLINOIS RIVER
A
ROGUE &
HORSE SIGN
CONNERS PLACE
SILVER
2
COLLIER
PINE
BRIGGS
KLONDIKE
OAK
FLAT
RANCHERIE
STORE
GULCH
RIVER RUNS
28 or 18 or 3
RUN NUMBER
RIVER SECTIONS
NOT RUN
Ukiah
TOWNS & CITIES
KELSEY
CREEKS
HIGHWAYS
PUT-INS
SMITH
GOOD ROADS
TAKE-OUTS
ROAD
POOR ROADS

1
CANYON
WHISKEY
TYEE
GRAVE
FALLS
WILDCAT
RAINIE
HOWARD
ALAMEDA
BAR
Galice
INDIAN MARY
Merlin
ROGUE RIVER
ILLINOIS RIVERS
5
WHITE HORSE
PARK
Grants Pass
NORTH
3 MILES
APPLEGATE
RIVER
199
NFS 3504
Selma
To: Crescent City

must be made in advance for all lodges).

The next 11 miles are fairly smooth, except for Kelsey Falls, a good rapid located 2 miles below Horseshoe Bend or 4 miles below Black Bar Falls.

Just as you enter a sharp left turn 19½ miles from Grave Creek, Mule Creek enters on the right. It is the sharpest turn since Horseshoe Bend. Around the turn, Marial Lodge is on the right. After that, the river gathers speed. The sides close in, and one-half mile below the entry of Mule Creek you are plunged into Mule Creek Canyon (Class 4)! There is nothing like this passage in any other river I know. The rapids are nearly continuous as the gorge narrows. Then powerful swirls appear and disappear suddenly, and white water keeps the boater working hard. All of these contortions on the surface tell of the ravaging of water and rock far below.

All but the best oarsman is nearly helpless throughout most of this narrow gorge. Everything would be fine if he could steer a course down the middle, since the canyon is at least 20 feet wide. But any boat is pitched back and forth, first toward one wall and then toward the other, and the oarsman can usually stroke only ineffectively with one oar. It is 1½ miles and 35 vertical feet from the start of the Mule Creek Canyon entrance to the end of the frantic paddling or rowing at the sharp right turn where Stair Creek enters on the left. The climax of this part of the run occurs just before Stair Creek. It is called the "Coffee Pot" because of its churning and boiling. On our run with the dory, we spaced ourselves far behind a "15-man" raft, but we caught up with it here – the raft had been caught by the whirling action and was just spinning around helplessly in the Coffee Pot.

On some occasions, first-timers have arrived at Stair Creek Falls (the falls is not in the river, but in Stair Creek) with a frantic look, asking how far it is to the Coffee Pot! Sometimes the Coffee Pot perks along merrily; other times it turns off. A tip-over at the start of the canyon means a certain swim to Stair Creek, so for much of the boating season a wet suit should be worn through here. A life jacket is also a must. Even if a capsized boater could reach an eddy along the way, he would need rock-climbing equipment to scale the walls. It may be possible to scout parts of this canyon from the Rogue River Trail on the right side, but I doubt if this can do much good. Portaging around this run is highly improbable. The only answer is to boat it or swim it. Good luck!

It should be added, however, that at lower flows the swirls and boiling action may disappear. In two runs with a kayak the author felt that other places on the river were more difficult.

The gorge continues below Stair Creek, but the water is calm. This is one of the most beautiful places on the river, especially looking backward. One mile below Stair Creek, at the end of a left turn, is the second most famous spot on the river. It is not known as ". . . Rapids" or ". . . Falls," but simply as Blossom Bar (Class 4). Take out on the right to scout this one. The view of the river is excellent from the scouting point, but the point is so far above the river that it all looks trivial and not like the most powerful hydraulics on the river. The route is obvious: the boater enters the left channel around the huge rock at the entrance and keeps to the right by back ferrying, so as to go down the center of the big chute. He then paddles out to the left to avoid a large boulder, or its hole, if it is submerged. That innertube raft that did so well at Rainie Falls didn't fare well here. Its 8 or 10 paddlers had no controlled back ferry, and consequently were swept into the rocks on the left of the big chute. It looked as though they would have to wait for the winter's high water to get off or cut their lashings and float out singly. But it only took them about 20 minutes to jiggle and bounce themselves over into the main chute.

Immediately below Blossom Bar, there is a small drop in the right turn called "Devil's Staircase." Paradise Lodge is located on the right a mile downstream, and the next mile has a number of large, bouncy, easy waves.

For a 4½-mile stretch below Paradise Lodge the river swings back and forth in large turns and then straightens out for an equal distance. Just at the point where it straightens out, Tate Creek enters on the right, followed by Tacoma rapid. Clay Hill, one-half mile downstream from where Tacoma enters, is a deceptive rapid. It seems as if the river has spent its energy, but this one, in a left turn, has a punch. From Clay Hill, there is 5 miles of easy boating to the take-out at Foster Creek.

The steep drop of Black Bar Falls (Rogue River) catapults the oarsman of this raft from his seat. Note head under the hat in the front of the raft (photo by Carl Trost).

2. ILLINOIS RIVER

2. Oak Flat to Agness
Class 4 with 7 P's at optimum: 850 cfs at put-in
1250 cfs at take-out
Average optimum flow date: 5/29
Maps: Pearsoll Peak, Collier Butte, Agness; Siskiyou NF

35 miles, spring runoff run
Scenery: AA+, very long shuttle
Drainage: 988 mi^2 at take-out
Canoes: no
Rafts: medium OK, but extra P's

This river run description has been supplied by a long-time boating friend, Carl Trost. He ran it with John Googins and Phil Jonik June 12-14, 1972. Carl loves to explore a new river run or return to a little-known one every few years. He gives proper respect to the possible dangers of a river and is one of the very few boaters from whom the author can accept a river run description and feel confident that his descriptions and classifications are consistent with the remainder of the guide. There is a strong resemblance between the river bed description of this river and the North Fork of the Smith River.

The Illinois River is typified by sparkling rapids and deep, blue-green pools. Visible through the clear water in the depths of these pools are huge boulders covered with a light-green, hair-like moss. In some sections 20-foot rock walls replace the usual river banks and sand bars. Side streams frequently join the main river by cascading down steep slopes or forming beautiful falls.

Access Points

The car shuttle is long, close to an all-day round trip. It includes the entire shuttle outlined for the Rogue River Canyon, plus the drive to Selma and the put-in. The take-out is at Agness on the Rogue River opposite the confluence with the Illinois. To reach the put-in from Grants Pass, take US 199 West to Selma, turn right on USFS 3504 and put in where the road touches the river just before Oak Flat, between signs denoting Connor and Oak Flat Creeks (probably opposite Baker Creek on the maps). This is 15 to 20 miles from Selma.

A very interesting and pleasant day can be spent by continuing on US 199 to Cave Junction and visiting the Oregon Caves National Monument.

The maps and the views from the roads indicate that the 20 miles upstream should offer a variety of river running. However, the country seems to have rock strata that form abrupt drops and falls. In the preceding year, we spent an afternoon on a pleasant sampling of the Illinois between Sixmile Creek (below what appeared to be a rocky falls) to a take-out at a footbridge at Rancherie Creek. This is about half way between Selma and Oak Flat. In the last mile of that three-mile run there was one rock-walled chute that we had to study and Illinois Falls, which is hardly worth the hike for a tourist to visit but is definitely a falls worth portaging.

The Run

In the first afternoon, we made eight miles to Pine Creek. The rapids (Class 3 and 4) were boulder bars about one-third mile apart with impressive drops of 5 to 10 feet in the last 50 to 100 feet of the bar. We studied two and portaged two, and later learned that one in this group was called "Indian Falls" (probably the first one studied).

Just below Pine Creek is a 45-degree, rock-walled chute with a boat-stopping wave at the bottom that almost ended our trip. Against my better judgment, we ran this for John Googins and his camera, immediately after breakfast at noon on our second day. Unexpectedly, Phil Jonik came through backward. I was stopped and had to deliberately capsize to escape. Deservedly, it was Googins and his kayak that were "eaten alive" by the hole.

Two hours and ten yards of repair tape later, we started a concerted push to make the 12 miles from Klondike Creek to Collier Creek. In the first half of this section, the going is easier in spite of the narrower, steeper canyon, rapids of the bedrock type, a portage or two, some gravel bars, and a noticeable paucity of camp sites. About midway, where the river swings sharply from southwest to northwest (sec. 14, T37S, R11W), there is a large landslide area that typically ends with a boulder strainer that rafts would have to portage. About a mile farther is a steep, rough, but apparently runnable drop with a blind run-out. A portage should be made, as the penalty for capsizing or failing to take out immediately at the bottom of the drop is to be forced down a narrow slot and drop, followed by a rocky stretch ending in a dangerous, rocky drop. A 500-yard portage can be made on the left. A sheer rock wall is on the right. The remaining rapids were largely rock-slalom, technical 4s without any problem from hydraulics at the level of water we were running, and one short portage. However, there were four or five rapids that only a kayak could slip through; rafts would have to portage. We saw no camp sites, although we may have overlooked some small ones as our goal was Collier Creek.

Collier Creek was a disappointment when we arrived at 8:00 p.m. The left bank was a vertical wall and the right, a 45° boulder field. Continuing down river, we were flanked by smooth, vertical, 20-foot rock walls – a magnificent canyon except when the boater is looking for a campsite. Finally, we stacked our kayaks in a rocky niche with a 3-foot beach, scaled the wall, and camped on a small but delightful terrace, complete with rushing stream that split and plunged into the river in twin falls.

On the last day of the run, we were more occupied with the beautiful rock canyons than with rapids. However, there is a rocky field and a Class 3 boulder field in the bend past

A good time is had by all the crew of this unwieldy homemade raft of giant inner tubes (photo by April Elliott).

Conners Place and a big drop with large waves (Class 3+) into Box Canyon. From there on, the high rock walls are impressive, but the water is flat. After a mile, the canyon ends and the river rounds a bend into a boulder strainer (Class 4) just above Horse Sign Creek.

In the last five miles, the river opens and runs through wide gravel bars, becoming wide, flat, uninteresting, and slow. The gaging station can barely be seen – it is a small green house half hidden on a bluff where the map leads one to believe the road through Oak Flat (a second Oak Flat) touches the river. The boater must watch carefully for the staff gage in the river. A cable crossing is located a half-mile past this gage, and there is an abandoned staff gage and station near the cable.

We made a total of six portages (should have made seven!). Another kayak group reported running this river at about the same time and had to make 13 portages. Earlier running would mean colder and swifter water. Although half of our portages were necessitated by thin water, that would be more than offset by powerful hydraulics and reversals. While struggling through several boulder fields during our portages, we could not help thinking of the ordeal professional guide Bob Pruitt must have had portaging his heavy, wooden McKenzie boats in 1957 and again in 1966.

The author in his dory pulls through Blossom Bar on the Rogue River (photo by Carl Samuelson).

10. Smith River

In the summer of 1769, the party of Don Gaspar de Portolá left Junipero Serra and the new settlement of San Diego to explore northward and find Monterey Bay as described by an early naval exploration (see the introduction to Chapter 18). They did not recognize that landmark but did discover San Francisco Bay. Portolá had traversed virtually all of California as the Spanish and Mexicans would know it for the next 60 years. The next important exploration of California was by the American, Jedediah Strong Smith, possibly America's most remarkable explorer.

Jedediah Smith, the discoverer of Smith River, was a 23-year-old greenhorn in 1822 when he was recruited by William H. Ashley and Andrew Henry for their fur-trapping venture in the upper Missouri region. In his biography of Smith, Morgan* summarizes his achievements.

> During his eight years in the West, Jedediah Smith made the effective discovery of South Pass; he was the first man to reach California overland from the American frontier, the first to cross the Sierra Nevada, the first to travel the length and width of the Great Basin, the first to reach Oregon by a journey up the California Coast. He saw more of the West than any man of his time, and was familiar with it from the Missouri River to the Pacific, from Mexico to Canada. He survived the three worst disasters of the American fur trade, the Arikara defeat of 1823, the Mojave massacre of 1827, and the Umpqua massacre of 1828, in which no less than forty men fell around him, only to die a lonely death on the Santa Fe Trail under the lances of the Comanches.

Before describing his exploration through Northern California, one event should be noted to show the remarkable stamina of Smith, which might have been typical of the survival power of most of the fur trappers. In the late fall of 1823, while exploring and trapping in the Black Hills of S. Dakota, Jedėdiah met a large grizzly bear face to face. The grizzly grabbed him by the head with his mouth and pitched him to the ground, then made a swipe at the midsection before being shot by one of the party. Part of Smith's skull was laid bare and one ear nearly torn off. A member of the party gave this account: "I asked the Capt. what was best and he said one or two [go] for water and if you have a needle and thread git it out and sew up my wounds around my head which was bleeding freely*. . . ." and this was done. Continuing, ". . . the captain being able to mount his horse and ride to camp . . . ," and there he rested for 10 days. On the next March, many hundreds of miles farther, Smith found South Pass, the first known westward passage by an American. Through this portal in the Continental Divide in southern Wyoming, the Oregon Trail would pass.

After the annual trappers' Rendezvous in July 1826, Smith and his party started out to the southwest from the Great Salt Lake to explore for new beaver country. They walked down the Virgin River to the Colorado and down the Colorado to the Mojave Villages. Hearing from the Indians that the Missions of California were not far away, they traveled on to Mission San Gabriel (near Los Angeles), arriving in late November. Smith traveled to San Diego to seek permission from the governor to trap in California. After a long delay the governor, who saw his eastern barrier of mountains and desert disintegrating, ordered Smith to leave California the way he had entered. He retraced his path only until he considered himself out of the governor's province, then turned to the north and entered the San Joaquin Valley, where Indians had told him there were many beaver.

By the following May, Smith's party had 1,500 pounds of pelts. They were stopped by heavy snows on the first attempt to cross the Sierra via one of the American River canyons, but made it on the next route, which was up the Stanislaus. Smith took two men and left the rest to keep trapping. He survived traveling through central Nevada and Utah, an area often destitute of game and water, and back to the Rendezvous with only one of his men, one horse, and few pelts.

Eighteen men started out with Smith on his return to the camp on the Stanislaus.

**Jedediah Smith and the Opening of the West,* copyright 1953 by D. L. Morgan, reprinted by permission of the publisher, The Bobbs-Merrill Company, Inc.

**Ibid.*, p. 84.

Traveling the same route as in the previous year to avoid the great wasteland of Nevada, they returned to the Mojave Villages. The Indians seemed friendly as before, but some had been killed when they had attacked the party of another famous trapper, Ewing Young, who had passed through this spot during the last year. On the first crossing of the river, Smith left all of his horses and ten men. The Indians, who had been patiently waiting, jumped and instantly massacred those left behind. Smith and the remaining seven fought off the Indians. Their only hope of survival, having no horses or containers for water, was to travel across the desert at night, finding the next water hole each morning. It was the genius of such a man as Jedediah Smith to find water in parched lands. Destitute, he obtained a few necessities from Indians and from the San Bernardino Rancho, then proceeded to his Stanislaus camp, arriving on September 18, two days short of four months after his spring departure.

Smith needed supplies. The next annual Trappers' Rendezvous was not for 10 months. The Californians had what he needed, and he had pelts to trade, if they could be induced to do so. He went to Monterey to see the governor. After much delay, Smith was allowed to sell his 1600 pounds of beaver skins and to obtain supplies and 250 horses and mules which he planned to drive back to the Rendezvous and sell.

There were 20 men in the party that started into the California wilderness at Carquinez Straits on December 30, 1827. After more trapping, they traveled north along the Sacramento Valley. Just above the future site of Red Bluff, they crossed the river and proceeded up the Cottonwood Creek drainage. Unfriendly Indians threatened the group and showered arrows into the pack of horses. Well known as a mild man and Christian, Jedediah tried unsuccessfully to win their friendship, but finally fired on them. Two Indians dropped and the rest ran off.

The Smith party probably passed over the divide close to the location of Route 36 and reached Hayfork Creek near Wildwood. Driving the horses down Hayfork Creek and the South Fork of the Trinity River was difficult and slow. Conditions did not improve much along the Klamath with its cover of heavy fog, brush, and timber. The men took turns cutting a pathway, and forage was often scarce for the horses. It took the party from April 17 to June 20 to travel from the Hayfork-Cottonwood divide to the river which now bears the Smith name. The story of the arrival of Jedediah Smith at the coast near the Klamath has been handed down through generations of Indians. Doris Chase, in *They Pushed Back the Forest,* shows how the Indian stories correlate well with the journals of Smith's group. The Indians held council and some urged that they attack, but the reason of the older, wiser Indians prevailed, and they extended friendship.

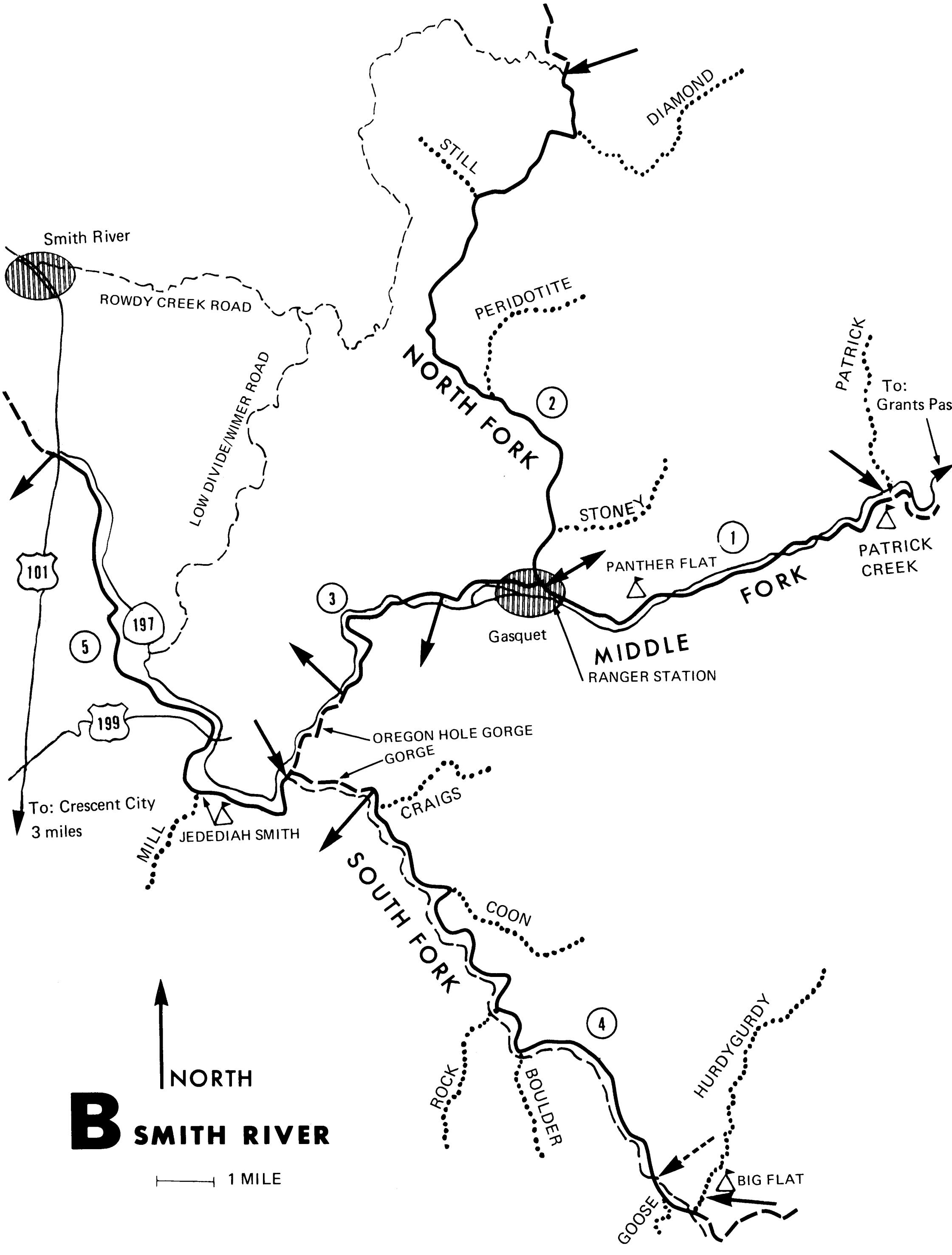
The party continued north along the coastline into Oregon, where the Indians again became troublesome. On July 12 on the Umpqua River in Oregon, an Indian stole an ax, which he was forced to return. Two days later, while Smith was out scouting with two of his party, the Indians attacked the camp and massacred 14 men, with only one man escaping. On their return to camp, Smith and his two men also were attacked, but escaped. The four survivors made their way to the Hudson's Bay Company at Fort Vancouver on the Columbia River. A recovery party was sent out from there. A small amount of equipment, 38 horses, and Smith's and Rodger's diaries were recovered. Smith sold his pelts and horses to the rival trapping firm, the Hudson's Bay Company, and rejoined his partners in the Rocky Mountains. Before the next year was out, others were following his trails. The trips of Jedediah Strong Smith to California had been a monumental financial failure, but he, more than any other American, was responsible for opening up the Far West to trappers, and within another decade, to the American settlers.

1. MIDDLE FORK SMITH RIVER

1. Middle Fork Smith River
Class 4 with 1 P est. at optimum, 350 cfs
(2000 cfs est. at gaging station below S. Fork)
For run 6/26/69, Cl. 3 with 6 P's at 150 cfs
Maps: Gasquet; Six Rivers NF
Average optimum flow date: 5/20

7.9 miles, spring runoff stream
Scenery: B, short shuttle
Drainage: 130 mi^2 at take-out
Canoes: no; Rafts: OK

Traveling east on US 199 from Gasquet, which is 19 miles northeast of Crescent City, one stays very close to the river, crossing it three times in seven miles before reaching Patrick


Smith River
ROWDY CREEK ROAD
LOW DIVIDE/WIMER ROAD
STILL
DIAMOND
PERIDOTITE
NORTH FORK
2
STONEY
1
PATRICK
To: Grants Pas
PANTHER FLAT
FORK
PATRICK CREEK
Gasquet
MIDDLE
RANGER STATION
3
101
197
5
199
OREGON HOLE GORGE
GORGE
CRAIGS
To: Crescent City
3 miles
MILL
JEDEDIAH SMITH
SOUTH FORK
COON
4
ROCK
BOULDER
HURDYGURDY
BIG FLAT
GOOSE
NORTH
B SMITH RIVER
1 MILE

Creek. The California Division of Highways roadside marker indicates 22 miles* (CDH 22). Put-in is at the National Forest Service (NFS) campground there. It is well worth going a mile upstream to see the gorge you are missing – a vertical, rock-walled, boater's nightmare.

The flow was too low when we ran this river, and we constantly scraped and banged, doing a considerable amount of fatigue damage to our boats as we performed minute maneuvering antics to work our way downstream. However, the most severe rapids for optimum flow conditions were recognizable and are listed here:

1. At 2 miles, immediately above the first bridge
2. In the turn below the bridge, the portage rapid
3. At 2.7 miles, just above and under the second bridge
4. Below this bridge, and around the corner, there had just been a fresh slide bringing huge new boulders into the river
5. One-half mile farther, just after the river returns to the road and runs close along it
6. At 5.0 miles, just above the third bridge.

In addition to the above six, there are many tough rapids, and some boaters may not agree with my selection of the "top six." Reinforcing rods which extend out from concrete ruins of past bridges are a particular hazard. In fact, the omnipresence of the highway detracts tremendously from this run, making it the poorest quality run on the Smith. Three bridges and about 1½ miles of the highway were destroyed in this canyon during the 1964 flood.

Below the third bridge, at 0.7 mile, just after pulling away from a steep bank at a left turn, is Panther Flat NFS Campground, a place where we have spent several rainy days while running various sections of the Smith.

The 2.2 miles to the junction of the North Fork are similar to those above the campground, but somewhat easier. Three or four rapids of moderate drop are encountered, the first soon after passing under a suspension foot bridge. When we made our run, a section of the new highway was being located right along the river, and the gravel operations along the river have certainly changed the character since then.

The take-out is at the bridge in Gasquet, just off the main highway, near the NFS Gasquet Ranger Station.

2. NORTH FORK SMITH RIVER

2. North Fork Smith River
Class 4 at optimum: 500 cfs at take-out
(2700 cfs est. at gaging station below S. Fork)
For run 5/25/71, Cl 3½ at 300 cfs at take-out
Maps: Gasquet, Crescent City; Six Rivers NF
Average optimum flow date: 5/20

13.0 miles, spring runoff stream
Scenery: AA, long shuttle
Drainage: 157 mi^2 near take-out
Canoes: no; Rafts: medium OK

To reach the put-in at "Major Moore's," one mile south of the Oregon border, go east from the town of Smith River on Rowdy Creek Road (half dirt) 5 or 6 miles to the junction of Low Divide or Wimer Road. This junction can also be reached by a good but narrow dirt road that apparently is not used by logging trucks. It starts from Route 197, 2½ miles west of US 199. Continue east from the junction on a good dirt road about 13 miles to the river. Two miles east of the above junction, there are abandoned buildings that mark the site of Altaville, a copper and chrome mining center in the 1860s. A half-mile beyond Altaville, the road swings north and travels along the ridge overlooking the North Fork Canyon with the river 1,500 feet below.

Major Moore has sold his property, but it apparently is still known as his place. The 40 or so acres of private land here is the only private river frontage until Stoney Creek, 11.7 miles away. Put in directly under the bridge on the east side.

The scenery of the North Fork Smith River valley is remarkably different from that of other river valleys. In spite of the tremendous rainfall, the trees are stunted because of the very poor red soil. The trees have no economic value, so there are no roads – not even logging trails come anywhere close to the river. Erosion is extensive, but the area is

*Most California state highways have frequent roadside reflectors mounted on posts and marked with the mileage from the county line and the county initials.

unaffected by man. The North Fork is the only stream in coastal California that the author has boated where the pools are deep and unfilled with gravel. This condition has to be more than a coincidence. Natives along many rivers say that there used to be many deep pools in their streams, but they were filled during the floods in '64, '55, or earlier. What size flood does it take to do major destruction – a 100- or 1,000-year flood? And, how long does it take a river to repair itself? They must eventually repair, since there always have been floods, yet the pools are remembered. And did the floods before the white man stripped the forests do such damage? The flood flow of December 1964 in the North Fork was not determined, but it probably was close to the 320 cfs per square mile measured on the Middle Fork. This value was typical of the streams experiencing the worst flooding in that disastrous event, yet only here does the damage not show.

Besides the merit of the complete wilderness setting, this river run is of superb quality, having dozens of rapids, many of which are very long and of uniform difficulty. Most of the better rapids are either steeper, more powerful drops in narrow-walled gorges or the "trail-finding" type through long boulder fields in the more open sections of the river. The boulder fields often end with a steep drop. We entered these long rapids cautiously, paddling from eddy to eddy until we could evaluate the remainder of the rapid. On the few occasions when that was not possible, we scouted from the shore. We portaged two rapids, which were probably no more difficult than others that we ran – we just looked at them too long!

Diamond Creek, the largest tributary, enters down river at 1¼ miles and adds one-third to the flow. Prior to this creek, there are a couple of steep rapids at left turns toward granite walls; the second has a surprisingly big drop. One enters the first narrow, rock-lined gorge at a sharp jog left about one-third mile below Diamond Creek. With its large boulders and sharp drops, this was the longest and most difficult of the roughly half dozen gorges. Still Creek enters on the right at 3¼ miles. The second gorge starts about 1¼ miles past the end of the first one.

About mile 7, soon after starting the leg of the trip in the southeasterly direction, the boater passes a high (20 to 50 feet) vertical gravel bank on the right. There are large flat areas above, on both sides of the river. Several particularly long boulder fields come next. Peridotite Creek enters from the left at 8.5 miles just at the corner of a sharp left with an overhang straight ahead. A mile farther, there is a shallow cave on the right that was cut out of conglomerate and granite. On our run, we boated in to this cave. In another mile, several conglomerate boulders were noted in the river in a gorge section. Stoney Creek enters on the left at 11.7 miles, and houses appear in another half mile.

The Middle Fork junction is at 13.0 miles. At this point, the boater has the choice of carrying 500 feet upstream to the bridge and making arrangements to take out on private land either at the houses just passed or just ahead, or boat on 1.7 miles to where the river runs alongside the road for one-fourth mile. The boater can take out at the end of this section just before the river turns away. (Good home-made pies are sold at a roadside business just downstream of the take-out.)

Before making this run, we stopped at the USFS Gasquet Ranger Station for information and met Art Leys, the Resources Assistant at that time. He had floated the North Fork in an inner tube in mid-August 1969 (a wet year). He was anxious to know how we had done on this run, and we shared river stories over a spaghetti feed at his home that evening.

3. SMITH RIVER (continued)

3. Gasquet to Oregon Hole
Class 2 with 2 or 3 Cl 3 rapids at optimum: 500 cfs
(1300 cfs approx. at gaging station below South Fork)
Same class for our run 6/27/69 at 300 cfs
Maps: Gasquet, Crescent City; Six Rivers NF
Average optimum flow date: 5/29

6.1 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 287 mi^2
Canoes and Rafts: OK

Immediately below the bridge at Gasquet over the Middle Fork, there is a short, steep rapid at the junction of the North Fork of the Smith. The two forks usually have nearly equal flow rates. For the next mile or two, the river, which has now left the highway, is particularly beautiful with springs dropping down the banks, producing lush flora. We occasionally saw clumps of orchid-like flowers. The river returns to the highway for a short distance; the take-out for the North Fork run is located at the end of this section. A short,

Passengers on a commercial raft trip enjoy the main chute at Blossom Bar on the Rogue River (photo courtesy of Wilderness Water Ways).

symmetric, bouncy rapid is at the turn where the river leaves the road. After passing under the US 199 highway bridge at 2.6 miles, the river enters a pretty section of lined bedrock, returns to the highway, and leaves again at a left curve at 4.5 miles.

The take-out is in 1.6 miles, as the river is reapproaching the road, but, if memory serves, before the road is visible. Two very short, steep, rocky Class 3 drops occur in the two sections that flow away from the roads, but they are easily portaged, if desired. If you are not planning to run the gorge ahead, which is known as "Oregon Hole" (it looks to be Class 4 or 5 at this level), scout the take-out and note good landmarks so as not to miss it. There is a path to the river at this point which is at the pull-off 1½ miles above the South Fork, at CDH 9.1.

4. SOUTH FORK SMITH RIVER

4. South Fork Smith River
Class 3 at optimum: 650 cfs at take-out
(1200 at gaging station below South Fork)
For run 5/24/71 Class 3½ at 1200 cfs
Maps: Ship Mtn., Gasquet, Crescent City; Six Rivers NF
Average optimum flow date: 5/30

12.5 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 291 mi^2 at take-out
Canoes: no; Rafts: excellent

About 4 miles east of Route 197 on US 199, turn south on South Fork Road, crossing the Smith River immediately and the South Fork in one-third mile. Stop to look into the gorge along the next mile. At the water level when we ran this section, the big drop right near the beginning of this mile looked like certain disaster – a turning drop that would force you to throw a useless brace into a reversal. It might look more feasible for a kayak at 400 cfs with the water going around instead of over some of the important boulders, but even then the water would have much power.

Two miles from US 199, there is a Forest Service scaling station on the left. Immediately upstream near a pull-out are trails leading from the river. Take out there. Note the details of where you wish to land, because the brush is thick. An old USGS gaging station, just upstream and across the river, makes an effective general landmark. We did not know about it and missed this take-out even after carefully scouting before the run. We entered the gorge before realizing our mistake. After executing a very carefully planned upstream ferry from the other side of the stream, we pulled our boats up to the road using an emergency rope.

Ten miles from the take-out, there is a good put-in at the bridge across the South Fork. Excellent views of many of the rapids are to be seen from the road on the way. The next bridge 1 mile farther up provides exceptionally poor put-in possibilities (but mileages are listed from there). The bridge over Hurdygurdy Creek did not appear favorable, either, so we put in above on a creek in the Forest Service campground and bumped down one-fourth mile to the Smith River. In the first half mile, after the South Fork bridge and before Goose Creek, are two exhilarating, short warm-up rapids. About three-fourths mile after passing the recommended put-in bridge (at 1 mile), there is a huge slide on the left with a good rapid that can be seen from the road. Tree snags were encountered in a right-left turn rapid a half mile farther. The river gradually sweeps left over the next 2½ miles with a steeper gradient, but no unusual rapids were noted. This section ends with a sharp right at Boulder Creek and a rapid that we took little note of from the road but which made us hustle with surprise when we encountered it. It was possibly the roughest rapid because it was one of the few that required maneuvering in stronger hydraulics.

Rock Creek is at 6 miles. Opposite the second flat on the left that separates the river from the road is another notable rapid (8 miles). The next rapid, which lies in a Northeast direction, is 1½ miles farther at the tip of a narrow peninsula aimed Northeast. Finally, the last 1½ miles before the take-out has several very good rapids, including one short drop with particularly large waves.

The foot bridge shown on the USGS map just before the take-out no longer exists, but the gaging station can be used as a take-out landmark.

4. SMITH RIVER (continued)

5. South Fork to US 101
Class 1½ at optimum: 900 cfs at P.I.
For run 5/26/71, Cl. 2 at 2030 cfs
Maps: Crescent City; Six Rivers NF
Average optimum flow date: 6/10
For summer flow, see Figure 8-c

11.5 miles, spring runoff and summer run
Scenery: A, short shuttle
Drainage: 609 mi² at put-in
Canoes and Rafts: OK

Put in at the first bridge on the route up the South Fork. A dirt road starting at the US 199 junction on the downstream side of the bridge leads most of the way to the river.

The South Fork enters one-third mile after the first rapid, and Jedediah Smith State Park is located on the left beginning at 1½ miles. There is another rapid at 2½ miles just before Mill Creek enters on the left. (Our high-water level made it difficult to tell, but it appeared that all the rapids on this run had a constantly shifting gravel base which could cause their positions to change.) The Mill Creek redwoods area of 6,700 acres was obtained through donations from the Save-the-Redwoods League. At the right turn immediately following Mill Creek is the start of the campground. Boats can no doubt be launched by carrying them the short distance from the campsites to the river. At the next corner, also a right turn, is another rapid. At mile 3½ comes the iron Hiouchi Bridge.

During our run, considerable road construction was underway shortly below the bridge with the realigning of part of Route 197. A small rapid and a small but high peninsula jutting out from the left bank occur at 5½ miles. We enjoyed our lunch from this wooded vantage point. The park extends along the left side of the river for 5 miles.

At 7½ miles, after passing under power lines, there is a rapid just before a sharp right turn with a hill directly ahead. We took out at mile 10 where the river sweeps against the bank close to Route 197. The final take-out is at US 101.

11. Klamath River Country

The California Department of Fish and Game publishes an excellent pamphlet, "Anglers' Guide to the Klamath River," by Millard Coots. Quoted here are his description of the river and a brief history of its past 120 years.

> The Klamath River originates in Lake Ewauna, near Klamath Falls, Oregon. After entering northern California the river flows through two man-made reservoirs and continues for almost 200 miles to the Pacific Ocean. The drop in this section of stream is about 2,700 feet in elevation, varying from 10 to 80 feet per stream-mile with numerous riffles, rapids, glides, and pools. Iron Gate Reservoir, 188 miles from the sea, is the last impoundment on the river. In its course to the ocean, the river flows through a narrow, forested canyon which is usually less than half a mile in width. With the exception of the broad estuary, which extends upstream from the mouth for about four miles, the river is generally 150 to 300 feet wide.
>
> The Klamath River is the second largest stream in California and is exceeded only by the Sacramento River. Gaining water from over 200 tributaries, the mean annual runoff increases tenfold in California. The principal tributaries are the Shasta, Scott, Salmon, and Trinity Rivers. Most of the Klamath drainage in California is situated in the Klamath Mountains complex, which features rugged peaks, many lightly fished alpine lakes, and cascading streams. Here are located the Salmon-Trinity Alps and Marble Mountain Wilderness Areas, which are managed by the Forest Service to preserve their primitive and natural characteristics and are accessible only by trails.
>
> The discovery of gold in the Klamath Mountains and the opening of the northern mines in the 1850's resulted in a large influx of miners and the development of associated activities. Mud and tailings were sluiced directly into the Klamath and tributaries. The effect on aquatic life was highly detrimental. Documented reports mention the failure of the salmon runs, creating a hardship for the Indians. Gold mining continued sporadically until, with the increase in the price of gold in 1932, it increased by leaps and bounds. A law was passed to control pollution, muddying, and roiling the waters of the Trinity and Klamath River District between July 15 and November 30, which coincides with the peak of the fishing season. Realizing the importance of recreation to their economies, Humboldt and Trinity Counties have enacted ordinances regarding siltation of streams. Presently, very little gold mining occurs in the drainage, but traces of past activities, such as dredger tailings, old mills, buildings, flumes, and ditches, still remain. One of the greatest changes brought about on the Klamath River was the construction of the Copco dams and hydroelectric developments on the Klamath River near the Oregon border in 1917, which cut off an important segment of salmon and steelhead spawning and nursery area both in California and Oregon. The normal stream flow pattern below these peaking power developments was greatly changed, resulting in downstream fluctuations of flow. Such fluctuations stranded fish, hampered spawning in the river, and created hazardous conditions for the angler. In 1961 Iron Gate Dam was constructed about six miles downstream from the Copco developments. This facility, which includes a power plant and a fish hatchery, reregulates the flow resulting from upstream peaking plant operations. In order to protect and prevent destruction of the important salmon and steelhead resource, in 1924 the people of the State of California adopted an initiative act which prohibits the construction of dams in the river downstream from the Shasta River, which is 175 miles from the sea.
>
> As a regulatory measure to insure sufficient breeding stock each year, the commercial net fishery in the estuary was abolished by legislation in 1934. The state paid several hundred thousand dollars for the purchase of canneries and equipment of the fishermen in order to preserve the Klamath as a sport fishing stream.
>
> In the 1950's an aggressive program was begun to remove abandoned mining dams which blocked migratory fish. After years of nonuse and the passage of many floods, some of the dams were still intact, which attests to the ingenuity of the rough and able miners who worked under primitive conditions. Over 200 miles of spawning and nursery stream were opened up with a minimum of cost.

> Some of the finest spawning grounds in the whole Klamath drainage are now accessible in the Salmon River, including areas in the tributaries which meet the exacting environmental requirements of spring-run salmon and summer steelhead to hold over. Additional spawning areas are being made accessible by blasting or laddering natural barriers and removing log jams.

The river can be thought of as consisting of four segments that are mainly distinguished by the size and shape of the river bed and the power of the river flow. The first section to the Scott River is generally wide and shallow for the amount of flow; the river basin is too shallow and Route 96 is uncomfortably close. Boating this section is unsatisfying to many, as compared with the vast majority of North Coast river runs. Algae resulting from upstream impoundments give the river an unattractive brownish hue. It is neither a small, intimate stream nor an "old man river" capable of much destruction. There are many other access points to the river than noted here, and the selection of runs listed is rather arbitrary.

The second section extends to Happy Camp, and the third, to the Trinity River. Below the Scott, the river is large and the road nearly always far enough above that it does not interfere with the boater's enjoyment of the wilderness along the water's edge. The first two sections generally provide ideal boating for canoeists (see ratings of the individual runs), but below Happy Camp the waves and power of the water increase considerably. This third section is ideal for rafts, particularly since the river flows south and southwest and avoids the prevailing winds from the north. Even so, there can be appreciable wind in this deep river canyon.

In its last few miles, the Trinity River has a large river bed and the consequent flow capacity is added to the Klamath. The river turns northwest into the prevailing winds, and fog often extends this far up the valley. Large slides into the river are frequent.

With shuttle distances minimal on the Klamath, except for the final run to the ocean, and a good current nearly everywhere, it seems easy to cover 20 miles a day. The author has covered 30, and the annual canoe and kayak race in the early sixties covered about 50 miles. Covering these larger distances does not lend itself to obtaining much detailed information about the rapids in the river, so the following run descriptions are not as complete as the others in this guide.

For their size, probably the least known rivers in the state are the Klamath tributaries, the Scott and Salmon Rivers. Beautiful scenery and white water are found here. Although the Trinity River is a tributary to the Klamath, it is so large that a separate chapter has been devoted to it and its tributaries.

Fishing in the Klamath River system is a tremendous recreational resource. The Department of Fish and Game pamphlet previously quoted states that on the average, 168,000 king salmon enter the river, of which 28,000 are caught (mostly in the estuary). Almost half enter the Trinity River. About the same number of steelhead are caught, although one-quarter million steelhead enter the river. Jim Freeman, sports writer for the *San Francisco Chronicle,* has published an excellent guide, *Klamath River Fishing.*

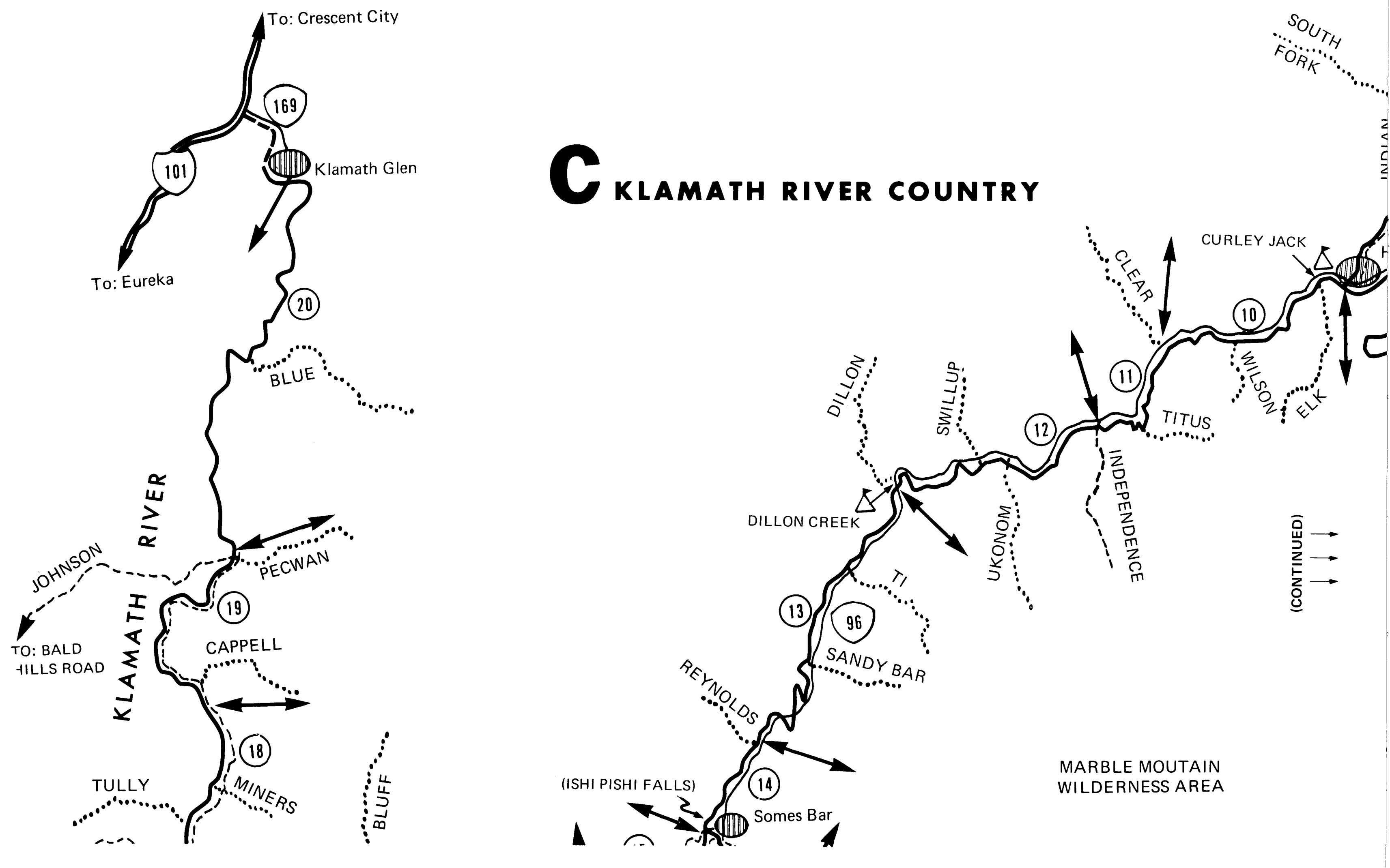
1. KLAMATH RIVER

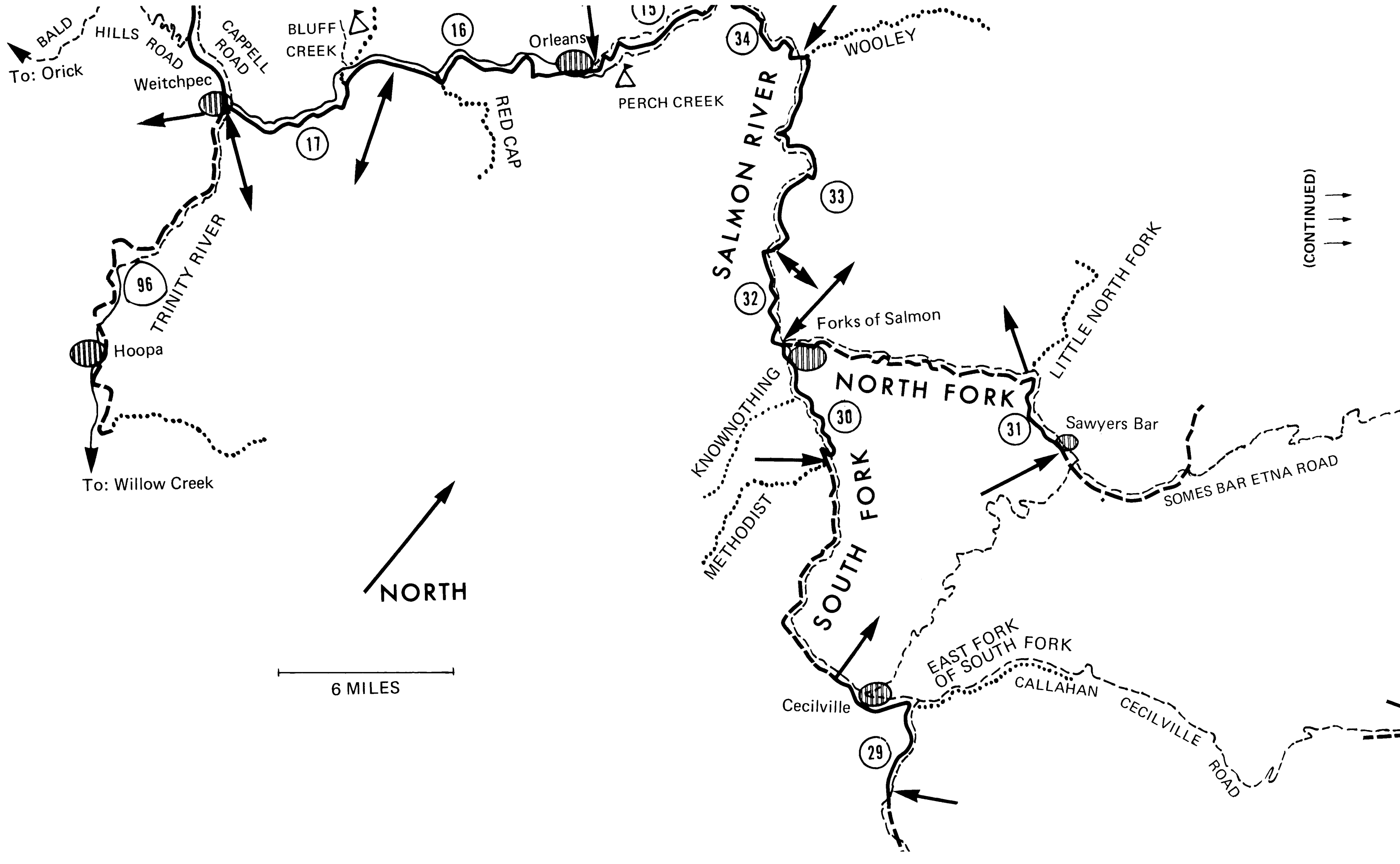
1. Iron Gate Dam to Interstate 5
Class 1 with 1 or 2 Cl 2 rapids at 1330 cfs for run of 9/5/70
Maps: Copco, Hornbrook; Klamath NF

10.5 miles, summer run (See Fig. 8-b)
Scenery: A–, short shuttle
Drainage: 4630 mi^2
Canoes: OK below 1500 cfs; Rafts: OK

From Interstate 5 at Henley or Hornbrook (6 miles south of the California-Oregon border) go east on Copco Road to the bridge just below Irongate Dam where the put-in is located. First, however, visit the Irongate salmon and steelhead hatchery which was built by the Pacific Power and Light Co. and is operated by the State Department of Fish and Game. When we made the run, the gaging station, which is just downstream from the hatchery, registered a height of 3.4 feet.

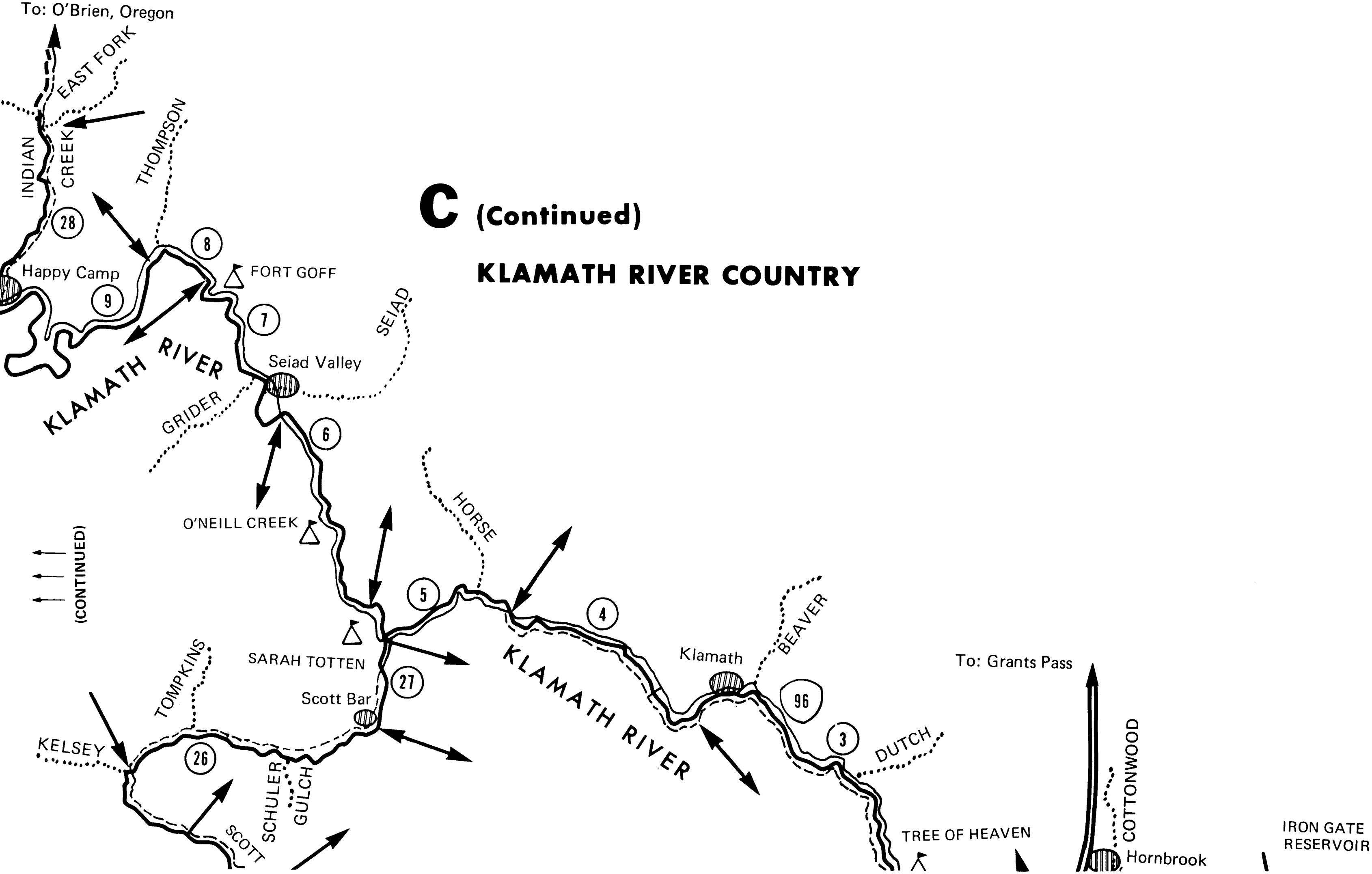
The Klamath River at this point, near its entrance into California, already has 1½ times the drainage of the Eel River near its mouth. In view of this, it is surprising that the river bed is so small. True, it is a much dryer river basin than many others. Its annual average discharge of 2,070 cfs compares closely only to that of the South Fork Eel at its mouth, but there the similarity ends. Along this first run, the Klamath has grass growing nearly to the edge of the

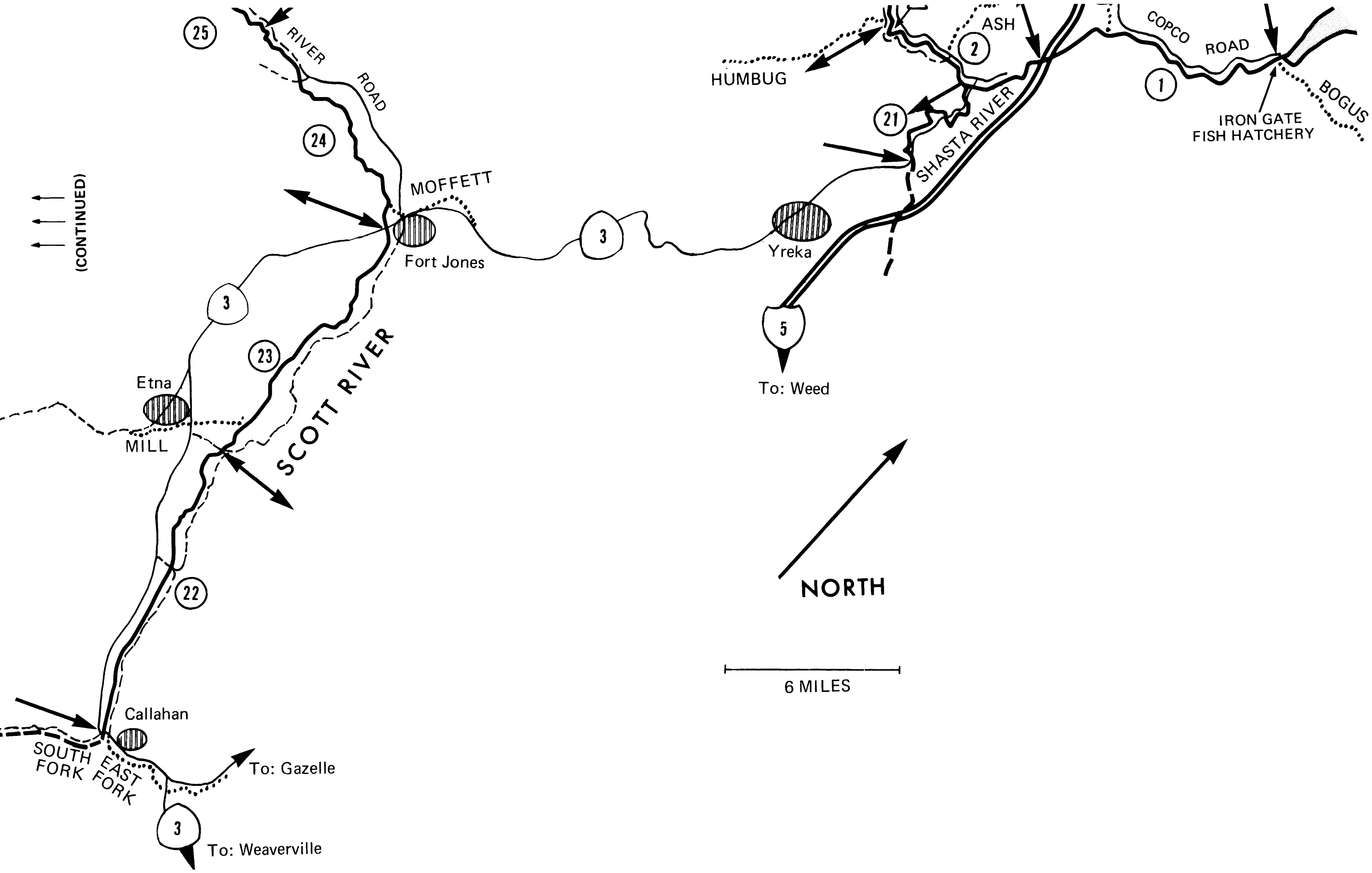

C KLAMATH RIVER COUNTRY
To: Crescent City
169
101
Klamath Glen
To: Eureka
20
BLUE
RIVER
JOHNSON
PECWAN
19
TO: BALD
HILLS ROAD
KLAMATH
CAPPELL
18
TULLY
MINERS
BLUFF
SOUTH
FORK
CURLEY JACK
CLEAR
10
11
WILSON
ELK
TITUS
DILLON
SWILLUP
12
INDEPENDENCE
DILLON CREEK
UKONOM
(CONTINUED)
TI
13
96
SANDY BAR
REYNOLDS
14
(ISHI PISHI FALLS)
Somes Bar
MARBLE MOUTAIN
WILDERNESS AREA


BALD HILLS ROAD
To: Orick
CAPPELL ROAD
Weitchpec
BLUFF CREEK
16
Orleans
15
PERCH CREEK
34
WOOLEY
17
RED CAP
SALMON RIVER
33
(CONTINUED)
TRINITY RIVER
96
Hoopa
32
Forks of Salmon
LITTLE NORTH FORK
NORTH FORK
KNOWNOTHING
30
31
Sawyers Bar
To: Willow Creek
METHODIST
SOUTH FORK
SOMES BAR ETNA ROAD
NORTH
6 MILES
EAST FORK OF SOUTH FORK
CALLAHAN
CECILVILLE ROAD
Cecilville
29

C (Continued)

KLAMATH RIVER COUNTRY





(CONTINUED)
25
RIVER
ROAD
24
MOFFETT
Fort Jones
3
23
SCOTT RIVER
Etna
MILL
22
Callahan
SOUTH FORK
EAST FORK
To: Gazelle
3
To: Weaverville
HUMBUG
ASH
2
21
SHASTA RIVER
Yreka
5
To: Weed
COPCO
ROAD
1
IRON GATE FISH HATCHERY
BOGUS
NORTH
6 MILES

river, houses seem too close to the edge to be safe, and old bridges appear to be too low to survive floods. The forks of the Eel all have high, scoured banks, and bridges are far above the water. The difference is that the upper Klamath, which has some regulation imposed by Upper Klamath Lake, has much of its basin underlain by volcanic rock. This apparently causes a tremendous reduction in storm peaks owing to its storage capacity. This condition is illustrated by the flood of December 1964, which only raised the river at the gaging station at this put-in by 10.2 feet for a peak flow of 29,000 cfs compared with a peak flow of 200,000 cfs at Miranda on the South Fork Eel.

For the first 7½ miles, the rapids are only riffles with an occasional rock to dodge. At 5.7 miles there is a road bridge, and at 6.6 miles, the Southern Pacific Railroad tracks cross the river. In another 1½ miles, where the new highway I5 comes into view, there is a Class 2 bouncy rapid caused by the bedrock. Many abandoned gold mines lie in the hills directly ahead.

The river turns south and flows alongside the highway. The take-out is at the picnic ground and rest area, which is on the left along the new highway just after passing under the new highway bridge. There is a rock-dodging Class 2 rapid either just before or after the take-out.

2. KLAMATH RIVER (continued)

2. Interstate 5 to Humbug Point
Class 2½ at 1330 cfs for run of 9/5/70
Maps: Hornbrook; Klamath NF

7.2 miles, summer run (see Fig. 8-b)
Scenery: A–, short shuttle
Canoes: OK below 1300 cfs
Rafts: OK

Berry bushes line many of the banks of the river along the section that Route 99 follows. There is a Class 2 rapid just before the Route 99 bridge. The Shasta River, with its very discolored water, enters just below the bridge at 2.7 miles. At 1.6 miles Ash Creek enters on the right, and a Class 2½ rapid leads up to the bridge. The topographical map indicates that there was a particularly large density of mines in the hillsides along Ash Creek, and several mine entrances can be seen from the river in the hillside on the right.

For the next 25 river miles to the Route 96 crossing of the river near Horse Creek, a road closely follows the river on the south side. There are several rough car-camping sites along it, including one about three-fourths mile upstream of Humbug Point.

Three-fourths of a mile farther, there is a rapid of note, then again in another one-third mile farther. Humbug Point is a distinct peninsula with the new Forest Service campground "Tree of Heaven" located on it. Take out at the campground after rounding the tip of the peninsula.

Starting at Ash Creek, one enters the Klamath River National Forest, but generally only alternate sections are in the National Forest. The other one-mile squares were given to the railroad when it was built. This pattern exists all the way to the Scott River. Probably three-fourths of the river to within 2 miles of the town of Klamath River is within the National Forest. From there on, nearly to the Scott River, one side or the other is private land (see Klamath NF map).

3. KLAMATH RIVER (continued)

3. Humbug Point to Klamath River Town Hall
Class 3 at 1500 cfs; for run of 7/4/69
Class 2½ with 1 Cl 3 rapid at 750 cfs
Maps: Hornbrook, Condrey Mtn.; Klamath NF

13.6 miles, summer run (see Fig. 8-b)
Scenery: A–, short shuttle
Canoes: OK below 1000 cfs with P's
Rafts: OK

For some years, the Chamber of Commerce of the town of Klamath River has been sponsoring kayak, canoe, and raft races over this 13.6-mile course. The fastest time is about 1 hour, 15 minutes, always by kayak.

Humbug Creek, which supported much rich mining, enters in about one-third mile. Starting just below the put-in and continuing for the first part of the run, bushy willows grow out of the tailings and sweep out over the water to provide a hazard to the unwary. We saw a classic tip-over at a race within a mile of the put-in when a canoe was swept into this harmless-looking brush and the occupants leaned upstream away from it. There are some rough car-camping possibilities along these bars.

At 5.1 miles, near CDH 94 (California Division of Highways roadside marker indicates 94 miles), Dutch Creek enters and near here is the first of the three or four larger rapids of the run. One-third mile below the creek is a pair of bridge abutments and beyond are a right turn and the second rapid. In another third mile is a left turn and just beyond it is Schoolhouse rapids (Class 3) on either side of the island (at CDH 93.1). With a drop of 7 feet in a couple of hundred feet, it is the most severe rapid in the upper Klamath to the Scott River. Soon after Schoolhouse, the river quiets down to Class 1 for the rest of the run. At 10.7 miles, Beaver Creek, which is fairly large, enters on the right. Good, rough campsites are available on the opposite side of the river in this region. The center of Klamath River comes in 1 mile, but the Community Hall (finish line for the race) is 2 more miles away. The river leaves the road for one-half mile to skirt around a bar. Take out where it comes back perpendicular to the road.

There are two major transitions in hillside cover in the Klamath River valley between Iron Gate and the ocean. The first, from grass and brush cover with some pine to Douglas Fir forest, occurs along the last half of this run. The second, to Redwood forests, occurs about 15 miles from the ocean.

4. KLAMATH RIVER (continued)

4. Klamath River Town Hall to Horse Creek
Class 1 at 750 cfs for run of 7/4/69
Maps: Condrey Mtn.; Klamath NF

8.8 miles, summer run (see Fig. 8-b)
Scenery: B+, short shuttle
Canoes: OK below 1500 cfs
Rafts: OK

Walker bridge, 1.7 miles from put-in, gives access to the road running along the south side of the Klamath. The river is always close to one of the roads. The riffles that can be observed during the shuttle are typical. For the first few miles, nearly all the fir timber in view has been logged in recent years. The Route 93 bridge is at CDH 73. The mileage for this run is to the Route 93 bridge, which crosses the river at Cherry Flat, an area consisting almost entirely of tailings.

5. KLAMATH RIVER (continued)

5. Horse Creek to Sarah Totten NFS Campground
Class 1 with 1 Cl 2 at 750 cfs (at Iron Gate) for run of 7/4/69
Maps: Condrey Mtn., Seiad Valley; Klamath NF

7.4 miles, summer run (see Fig. 8-b)
Scenery: A, short shuttle
Canoes: OK below 1000 cfs
Rafts: OK

More or less paralleling the river but about 10 miles to the north is the summit ridge of the Siskiyou Mountains, which rises to about 7,000 feet. This ridge is the northern boundary of the Klamath National Forest and the southern boundary of the Rogue River National Forest. Directly north of Horse Creek but virtually cut off from the rest of California is 80 miles of California that is drained by the Applegate River in Oregon. It flows north into the Rogue River.

There are two more bridges in Horse Creek, which is a Post Office stop with a store and a resort with camping. The creek for which the town is named enters from the right at 1.6 miles. The highway continues to follow the river closely. The Scott River enters the Klamath River at 6.0 miles at a wide, open bar where car-camping would be possible, but probably not desirable. The Scott River runs are included in this chapter as runs 22-27. One-third mile farther as the river flows away from the road there is a Class 2 rapid. The very pleasant Sarah Totten NFS campground is located another one-half mile farther. The first of four huge dams proposed (but shelved) for the Klamath River would be located here. This is called the Hamburg Dam site.

6. KLAMATH RIVER (continued)

6. Sarah Totten NFS Campground to Seiad Valley
Class 2½ with 1 Cl 3 rapid at 1450 cfs (in Seiad Valley) for run of 7/3/72
Maps: Seiad Valley; Klamath NF

8.9 miles summer run (see Fig. 8-b)
Scenery: A, short shuttle
Drainage: 6940 mi^2
Canoes: OK below 1500 with P's

Immediately after a right turn at 1.2 miles, there is a short, steep drop – a Class 3 rapid called Hamburg Falls. At 4 miles, the river makes a sharp left and returns to the road; this point is sometimes used as an access. Then in 0.4 mile, opposite the O'Neil Creek NFS campground, the river makes a sharp right, veering away from the road. Here is an easier rapid. In 0.3 mile at the left turn is another rapid, and there is a wide bar on the left between these two. The river again returns to the road in one-half mile, and in another one-third mile, just at a slight bulge of the land on the right into the river, is an excellent take-out. At 6.6 miles, where the road makes a sharp left to avoid the river, is a lesser rapid, the last one of note until beyond Fort Goff. The last 2.3 miles to the Route 93 bridge at the entrance to Seiad Valley is Class 1½ or 2. A take-out at the bridge splits the mileage of this and the next run fairly evenly, but an earlier take-out will be considerably easier. None of the major rapids of this run appeared to have changed between 1969 and 1972.

7. KLAMATH RIVER (continued)

7. Seiad Valley to Fort Goff
Class 1 at 1650 cfs for run 7/5/69
Maps: Seiad Valley, Happy Camp; Klamath NF

7.2 miles, summer run (see Fig. 8-b)
Scenery: B, short shuttle
Canoes: OK below 2500 cfs (estimate)
Rafts: OK

This very mild run would be good for canoeists. Since the Klamath is a large river, some prior canoeing experience is appropriate.

The river leaves the road for 2½ miles as it skirts the left side of Seiad Valley and flows through tailings. An island of dredge tailings nearly 1 mile long starts at about 1½ miles. Seiad Creek enters from the right into the right channel, and Grider Creek enters from the left into the left channel; both are average-sized creeks for the Klamath Valley.

The Seiad Valley gaging station is on the right at 4.2 miles, about 1½ miles beyond the end of the valley. The river then curves through a flat to the left, makes a sharp right, after which Portuguese Creek enters on the right. In another mile, Fort Goff Creek enters on the right. The NFS Fort Goff campground is in this area. One-half mile beyond Fort Goff Creek, the river swings right around a corner and runs north and then northeast straight toward the road. Take out on the right just before the most difficult rapid in the Scott River-to-Happy Camp section of the Klamath. Traveling west on the highway, this take-out is at a right turn two-thirds mile below Fort Goff Creek, just before you can see the rapid.

8. KLAMATH RIVER (continued)

8. Fort Goff to Thompson Creek
Class 3 with 1 Cl 4 rapid at 1650 cfs for run 7/5/69
Maps: Happy Camp; Klamath NF

3.2 miles, summer run (see Fig. 8-b)
Scenery: A, short shuttle
Canoes: no (see text, several portages)
Rafts: OK, but narrow

Starting from the above take-out, there is a short, steep, powerful Class 4 drop that is readily visible from the highway. This rapid is one of the major exceptions to the general river-touring rule that the toughest rapids are always the ones you cannot see from the highway. At the water level of our run, we could see some mean-looking, jagged rocks in the drop that had to be missed, so we avoided the main drop by squeezing through some small, tight places along the left side.

Below the pool at the base of this rapid, the river flows through a long section of exposed bedrock. Here are several rapids, particularly one in 1 mile, and a vertical drop over a ledge in another half mile. The last half of this westerly running section to Thompson Creek at 2.5 miles is again quiet. Thompson Creek is lined with private property, so continue downstream one-half to three-fourths mile to where the river comes closest to the road to take out in a small section of National Forest property along here. There is an abandoned lane down close to the river in this region, and it appears to be on this public property.

If planning a long Class 1 river trip from above Seiad Valley to Happy Camp, you may wish to examine the portaging around the few rapids in this run rather than break up the trip with a shuttle in the middle. The portages are fairly short and of only moderate difficulty.

9. KLAMATH RIVER (continued)

9. Thompson Creek to Happy Camp
Class 1 at 1580 cfs (at Seiad Valley)
for run 7/6/69
Maps: Happy Camp; Klamath NF

15.5 miles, summer run (see Fig. 8-b)
Scenery: B, very short shuttle
Canoes: OK below 2500 cfs (estimate)
Rafts: OK

As the road rises and leaves the river to cut across a shoulder of Cade Mountain, the boater enters a very beautiful, quiet, but short, rocky gorge bordered by great stands of fir trees. Later there are some interesting light-colored rock cliffs on the left. Around the corner, however, the scenery deteriorates rapidly as denuded hillsides come into view.

The river next passes around three peninsulas that lie in a southeast to southwesterly direction at 4.5, 7.4 and 9.8 miles. A road from Happy Camp generally follows the river upstream on the south side to the second point.

The road returns to the river at 12.9 miles, and it is possible to take out along the next half mile. Continuing, two lumber mills are passed at the east edge of Happy Camp.

There is one bridge in Happy Camp. Indian Creek enters immediately below the bridge. Take out on the downstream side of the confluence. A dirt road leads down to the river here.

10. KLAMATH RIVER (continued)

10. Happy Camp to Clear Creek
Class 3+ at 1600 cfs (at take-out)
for run 7/3/72
Maps: Happy Camp, Ukonom Lake; Klamath NF

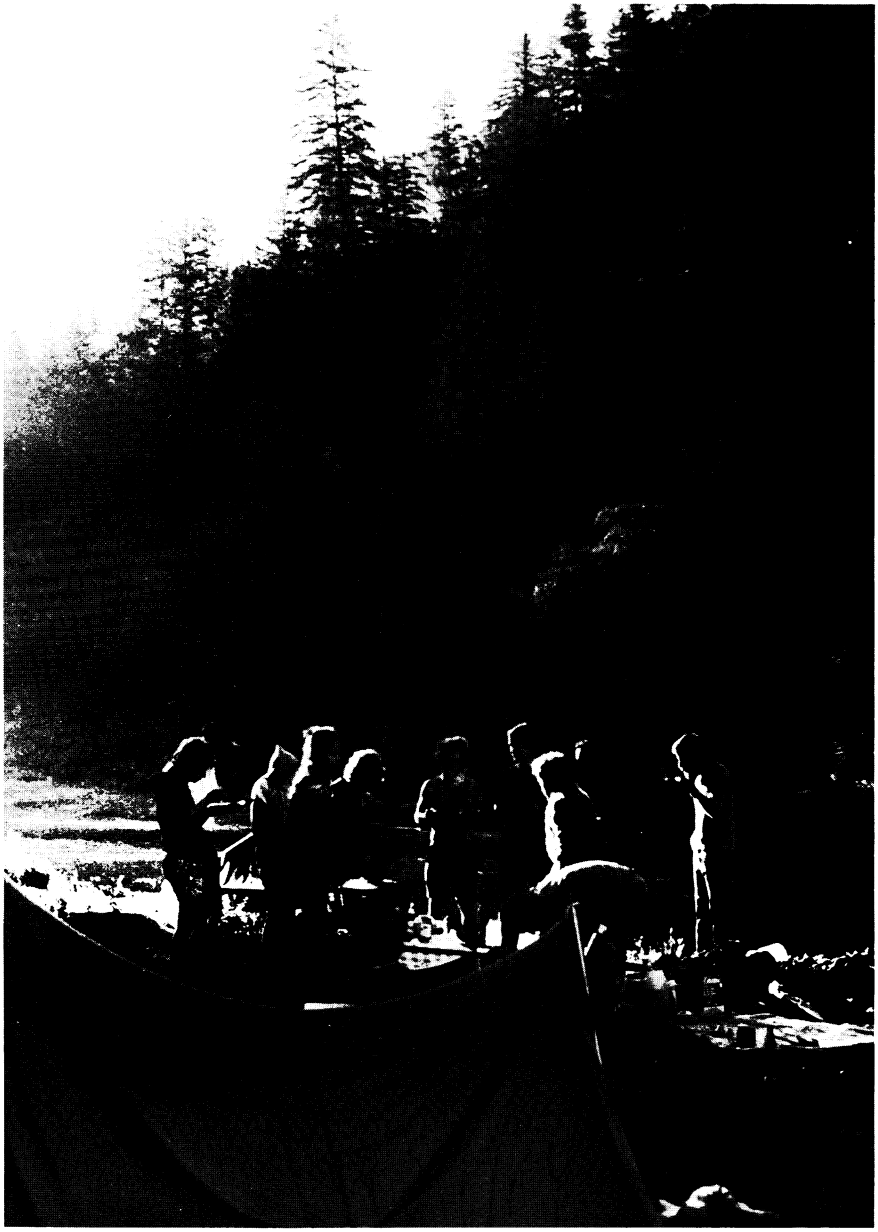
7.9 miles, summer run (see Fig. 8-b)
Scenery: A, short shuttle
Drainage: 7400 mi^2 at take-out
Canoes: no; Rafts: OK

Starting at Happy Camp (71 miles west of Yreka) – the beginning of the third general section of the river – one can expect the rapids, which are composed of loose rock and small boulders, to change from year to year. However, the river gradient does not change, so one disappearing rapid can be expected to be replaced by a new one not far away.

In the first couple of miles, there are a few Class 2 rapids. Curley Jack NFS campground starts on the left a half-mile farther. It is the first such campground on the river since just below the Scott River. Elk Creek enters at the end of the campground. At 2½ miles, the river enters a rocky gorge which contains a series of well-spaced rapids continuing all the way to Clear Creek. Several of these rapids are Class 3+ with very strong hydraulics, and good views of some of them are possible from the highway, which from this point on is higher above the river (typically 100 feet).

Just where the road comes alongside the river at 2½ miles, there is a relatively easy warm-up rapid. A concrete latticework holding in fill to support the road is located 1.3 miles farther. Immediately beyond is the first large rapid. This rapid has had a large souse hole in its center both times the author has made the run; however, it does not seem to be particularly dangerous. Very shortly, around the next turn, is the second big rapid. Most of the water in the river converges upon a large boulder near the bottom. Do not go over the top of it! The final one of the three largest rapids comes in another half mile (at 5.0 miles, near Wilson Creek). On one run, the big wave in this rapid hit me square on, and slammed my paddle shaft into my face.

Clear Creek has a fairly large drainage that extends to the Smith River basin. Take out on the downstream side of the creek where there is an abandoned road down to the river. Soon after entering the gorge at 2½ miles, the boater passes the proposed (now shelved) Happy Camp Dam site. The 100-mile point from the ocean is located 4 to 5 miles farther. From the beginning of the gorge to the Salmon River, 80 to 90% of the land along the river is in the Klamath National Forest.



Morning glow at a campsite on the banks of a river (photo by April Elliott).

11. KLAMATH RIVER (continued)

11. Clear Creek to Independence Creek
Class 2 at 1600 cfs (at put-in)
for run 7/3/72
Maps: Ukonom Lake; Klamath NF

4.5 miles, summer run (see Fig. 8-b)
Scenery: A, short shuttle
Canoes: OK to 2000 cfs (estimate)
Rafts: OK

This section is the easiest run on the Klamath River between Happy Camp and Cappell Creek. It can be fairly easily negotiated by open canoe. A few waves are too large, but they can be avoided. The first rapid of the next run, which can be seen from the bridge at the take-out, is much larger than any on this run (but an inconsequential rapid for the next section).

Put in at the last take-out, at Clear Creek. The largest rapid of the run is at about 2 miles. A sharp right turn comes at 2.9 miles, and a cabin or shed is seen on the left side. Titus Creek enters on that side, but is not easily seen.

This 4.5-mile segment of the river was selected as a run because of its canoeing potential. There is no road to the river bar at Independence Creek (there is a parking lot and highway rest stop at the bridge), so it is a strenuous take-out. There are several river access points along this run that are marked on the highway.

12. KLAMATH RIVER (continued)

12. Independence Creek to Dillon Creek
Class 3 with 1 Cl 3½ rapid at 2000 cfs for run 7/3/72
Maps: Ukonom Lake, Dillon Mtn.; Klamath NF

9.5 miles, summer run (ses Fig. 8-b)
Scenery: AA, short shuttle
Canoes: no; Rafts: OK

It is a fairly long carry to the river at the Independence Creek bridge, but that is where the action begins to pick up again. The river makes a long, gradual arc to the left for 2 miles; at that point the highway leaves the river and there is a bouncy rapid. Bedrock and some large boulders appear at the right bend in another half mile to form one of the toughest rapids on the Klamath. I could discern no change in the rapid between 1969 and 1972. A large prow rock is flanked by smaller boulders to form several passageways. The rapid deserves careful scouting; the routes through it are twisting and an entry selected from the bank looks different from a boat. Somewhere in the next mile is a rapid with very large waves.

Ukonom is one of the major creeks in this third section of river. It enters on the left at 4.1 miles in a particularly beautiful, rugged section of the river. It is a difficult hike up the creek, but very worthwhile. There are cascades about 0.2 mile up the creek, and apparently a falls somewhat farther on.

The Ukonom access point to the river is very convenient and is located about 0.7 mile farther downstream. Swillup Creek is about one-half mile farther (5.3 miles). The largest rapid in the second half of the run occurs in another half mile. Two other interesting rapids are located at 7½ and 8½ miles.

The take-out is immediately below Dillon Creek, which enters on the right just beyond a moderately large, blunted peninsula on the left. The Dillon Creek NFS campground is located on the other side of the road. If the drive to the river is washed out, it may be preferable to continue on to an easier take-out.

13. KLAMATH RIVER (continued)

13. Dillon Creek to Reynolds Creek
Class 3 at 2000 cfs for run 9/6/70
Maps: Dillon Mtn., Orleans, Forks of Salmon; Klamath NF

14.0 miles, summer run (see Fig. 8-b)
Scenery: A, short shuttle
Canoes: no; Rafts: OK

There are about a half dozen access points along the Dillon-Reynolds Creek run, but the bar opposite Reynolds Creek is the last take-out before Ishi Pishi Falls. Those who have a distaste for long portages but want to run nearly all the river will find this take-out useful.

Anyone boating a considerable length of the Klamath will observe that the flow in the river increases at a greater rate than the side streams could account for – which it does. More than half of the increased flow between Seiad Valley and this region stems from groundwater during the summer.

There is a drive to the river bar just downstream of Dillon Creek – if it has not washed out. Put in there. The rapid here and the others in the first mile are characteristic of those on the run. The highway crosses to the left side of the river just below the put-in, and there are other possible accesses at the second, third, and fourth miles. Impressive rocks occur in a rapid at 3 miles, but the rapid is not particularly difficult. Ti Bar is a long bar on the east side of the river opposite the Guard Station and above Ti Creek. It comes at 3¾ miles and is a favorite access. One-half mile below the creek is one of the more difficult rapids of the run. Another is located at 8 miles – below Sandy Bar Creek and near the end of a 2-mile-long straight section of river.

Two large peninsulas occur at 9½ and 12 miles. The new highway crosses the river twice at the second peninsula, and this peninsula also is an access point. One-half mile after the highway bridges, the river turns left. From there, it is only 1 mile to the take-out at a bar on the left (one-half mile before Reynolds Creek). A dirt road runs down the steep hillside in a downstream direction and onto the bar. This access road joins the highway about 1 mile south of the last bridge.

Most of these bars offer good camping, particularly if the river rapids eliminate the highway noise and there is some shelter from the wind.

14. KLAMATH RIVER (continued)

14. Reynolds Creek to Salmon River
Class 3½ with 1 long portage at Ishi Pishi, at 2000 cfs for run 9/7/70
Maps: Orleans, Forks of Salmon; Klamath NF

4.4 miles, summer run (see Fig. 8-b)
Scenery: AA, short shuttle
Canoes: no
Rafts: OK, but long portage

Continuing south on the highway from the put-in (which is the last take-out), the boater sees Sugarloaf Mountain a couple of miles away. It rises 700 feet nearly symmetrically above the river and 400 feet above the highway, which passes through the saddle between Sugarloaf and the mountainous area on the left. Just before this saddle is a restaurant on the river side with a beautiful view of Ishi Pishi Falls. Even binoculars do not do this giant rapid justice. On the trail to the rapids, small Indian boys can be seen in the fall, carrying or dragging salmon that are nearly as big as they are up the hill. It is interesting to watch the Indian men net these large fish at the big drop near the top of the rapid.

Originally, this area was known as Ish-Pish, meaning "end of the trail," because different tribes lived on each side of the river. We talked to an inebriated resident of the area – it was a holiday – who claimed he had run the falls in an inner tube, but I personally doubt whether anyone has successfully negotiated it – I think it would be "ish-pish" to anyone who tried. The main drop is sharp and deep, plunging through large, jagged boulders, and the water forces are tremendous even at the lowest flows.

The members of my group were all excited as we left Reynolds Bar for the Ishi Pishi portage. Even though we were convinced that we would not be swept into the rapid, there must have been some hidden fear in each of us. Anyway, my notes are a blank on the white water leading to the big drop, but there were interesting rapids. I remember that we scouted one of them, and I think we did run it.

Since the rapid is right at the base of Sugarloaf Mountain, there is no mistaking its location. At 3¼ miles, the river makes a jog to the left. The boater must finish making these turns on the left side of the river and must stay close to the bank as he approaches the falls. At the flow rate we had, we were able to avoid part of the portaging by bumping along in our kayaks through rocky pools on the left opposite the falls for some distance. Next, boaters must portage to the pond at the base of the cliff, boat through this pond, and then portage back to the river below Ishi Pishi. It is a unique portage since it is broken by the crossing of the pond, after which the portage continues. It is long, but we did not consider it to be an excessive effort and thought it well worth the effort for the joy of the run and the chance to see all of the fishing activity at the falls. We also examined the opposite bank, but could not find a reasonable portage route.

The several rapids remaining in the short run down to the bridge looked small, but only because our perspective had been altered by the big drop. But these little rapids had surprising strength. The take-out is on the right side under the bridge, as a lane (usually in poor condition) leads down to the bar from the end of the bridge.

Continuing on past the restaurant on the Klamath River road, the river runner turns right at the junction, where the general store is located, onto the Ishi Pishi Road and thence to the bridge a half mile farther where the take-out access is located.

Obviously, no boater who is not sure of his ability to keep from being swept into Ishi Pishi should make this run.

15. KLAMATH RIVER (continued)

15. Salmon River to Orleans
Class 4 with 1 portage at 2100 cfs for run 9/7/70
Maps: Forks of Salmon, Orleans; Six Rivers NF

6.8 miles, summer run (see Fig. 8-b)
Scenery: AA, short shuttle
Drainage: 8480 mi^2 at take-out
Canoes: no; Rafts: OK

The first half of the Salmon River to Orleans run is through a particularly deep, narrow gorge, after which the country opens up and there are frequent large bars down toward Orleans.

The put-in could be made at the highway bridge on the Salmon River. However, the author recommends putting in under the Ishi Pishi bridge because the powerful current of the lower Klamath can be felt immediately and the boater can practice upstream ferries before starting into the run. The Salmon has a small flow except in the early summer. Consequently, if the boater is entering from the Salmon he will be thrust into the giant Klamath at a difficult eddy line.

Immediately below the Salmon are a couple of Class 3 rapids, followed by the "Ikes." We found three big rapids and dubbed them Little, Big, and Super Ike. They come in fairly close order, all in the first 1¾ miles and can be seen from the Klamath River road 2 miles (old road mileage) downstream from the Salmon River bridge, just below a small stream named Ike's Creek. A new road is gradually being blasted into the left canyon wall very high above the river. It should be noted that these rapids are much more powerful than they look from so high above the river.

Little Ike, at 1.0 mile, consists of a double drop and deserves some careful planning. Joe tipped over in the middle and cracked his helmet before coming out of his kayak. Big Ike had a huge wave with a little wave on top of it, when we made this run. Super Ike consists of a diagonal ledge that spans the river. The base of the resulting falls appears to have a dangerous reversal. Portage should be made on the right bank.

The canyon continues to 3.5 miles. From this point, the boater has time to enjoy the river's beauty. The remaining rapids to Orleans are insignificant when compared with those already negotiated.

Take out on the left side under the bridge at Orleans.

16. KLAMATH RIVER (continued)

16. Orleans to Slate Creek
Class 2½ with 2 Cl 3 rapids at 2200 cfs for run 9/8/70
Maps: Orleans; Six Rivers NF

8.7 miles, summer run (see Fig. 8-b)
Scenery: AA, short shuttle
Drainage: 8480 mi^2 at put-in
Canoes: marginal with 2 portages, to 2500 cfs; Rafts: OK

At two-thirds mile the river leaves the road and flows to the left of a large bar of mining tailings. At about 1¼ miles, as one is approaching a ridge line that forces the river to make a right turn, there is a symmetric Class 3 rapid with the largest hydraulics on this run. At 3 miles, on the far side of the peninsula created by the above-mentioned ridge line, at a sharp right turn, a craggy, Class 2½ rapid is encountered. Two miles farther, as the river enters a spectacular canyon, the Klamath River Lodge is passed on the right, but it is out of sight. The river makes a very sharp left turn, and the boater might expect rapids. However, the flow in this canyon is calm except for one very small rapid near the right turn where Red Cap Creek enters from the left. Again, this canyon has been selected as a desirable site for a dam, and it is called the Red Cap Dam site. Take out at 2.4 miles beyond Red Cap Creek at the Slate Creek Bar. A road leads across the bar and nearly to the river's edge. This area is a popular fishing and informal camping site.

17. KLAMATH RIVER (continued)

17. Slate Creek to Weitchpec
Class 3 with 1 portage at 2200 cfs for run 9/8/70
Maps: Hoopa; Six Rivers NF

6.8 miles, summer run (see Fig. 8-b)
Scenery: AA, short shuttle
Canoes: no; Rafts: OK

One mile down the highway from Slate Creek toward Weitchpec, the road leaves the river for 2 miles, just where it meets Bluff Creek. There is a turn-out at the creek, and a temporary road that provides access to the river and is maintained when gravel is needed for road construction. Bluff Creek rapid can be viewed from here.

There is no doubt that, next to Ishi Pishi, this rapid and the Super Ike are the two most difficult rapids on the Klamath. This rapid changed entirely between the summers of 1970 and 1971. It was run both years by kayakers, and in both cases was formidable. It will probably never become less than a Class 4 rapid, and in many years it is probably unrunnable. This long rapid should be portaged on the left or at any island if the boater wishes to run the last part. This rapid is 1 mile below the put-in.

Downstream, there are a half dozen Class 3 rapids before reaching Weitchpec. Many are delightful, symmetric chutes, and all have fairly large hydraulics. The first take-out at Weitchpec is located ahead of the bridge and on the left, up a washed-out road. It is strenuous. Another possible access is private – from the end of the first driveway below the bridge on the right side of the river. (See the descriptions in the next run.)

18. KLAMATH RIVER (continued)

18. Weitchpec to Cappell Creek	**9.5 miles, summer run (see Fig. 8-b)**
Class 3 at 3500 cfs for run 9/5/71	**Scenery: AA, short shuttle**
Maps: Hoopa, Coyote Creek, Tectah Creek; Six Rivers NF	**Drainage: 11,600 mi^2**
	Canoes: no; Rafts: OK

Directly across from the store in Weitchpec, which is at the south end of the Klamath River bridge, there is a driveway past two or three houses. It continues as a washed-out road to the river. The author has carried boats to the river over this route, but the legal status of this route is doubtful. This may not be any easier than the Trinity River take-out which is located behind the store and is longer. The only other possible access is reached by crossing the bridge, turning down one of the first driveways toward the river, and asking permission for access.

The first rapid occurs in one-quarter mile where the Trinity waters join the Klamath at a sweeping right turn. About 1½ miles farther is another rapid in a straight section. The new Martins Ferry Bridge is at 3.4 miles; it is as high as the Weitchpec bridge.

One and three-quarters miles farther, the left hillside gives way to an open area as the river gradually begins bearing right. After one-eighth mile, Tully Creek enters on the left; Tully Creek rapid is the first Class 3 rapid. The largest Class 3 rapid occurs in three-fourths mile near Rube Creek. A good view of it is obtained from near the creek bridge on the shuttle road. The final Class 3 rapid is located at one-half mile near Miner's Creek. We had some exciting moments here. Four of the seven boaters in our group, consisting mainly of intermediate kayakers, were flipped over by the main wave in the upper part of the rapid. They washed into a large sweeper log that was caught up by a large boulder at the bottom of the rapid. Some exciting, dangerous moments insued, but we escaped with only a broken combing on one kayak.

The remaining 2.7 miles to the take-out at Young's or Long's Bar (we disagreed afterward as to what we had heard a fisherman call it) at Devil Creek is a very long, sweeping left turn as the river turns from north to west. Only a part of the access road is seen from the river as one is passing it, but there will probably be fishermen and vehicles at the bar.

To reach the take-out by road, the boater turns west at the junction at the north end of the bridge in Weitchpec. The access to the river from the road is at CDH 23.3, shortly beyond the Devil Creek bridge. As a landmark, the abandoned Weitchpec Lumber Co. burner is easily visible from the road about 1 mile upstream of Cappell Creek, just before the bridge and the access road.

19. KLAMATH RIVER (continued)

19. Cappell Creek to Pecwan Creek	**8.8 miles, summer run (see Fig. 8-b)**
Class 1½ at 3500 cfs for run 9/5/71	**Scenery: AA, short shuttle**
Maps: Tectah Creek; Six Rivers NF	**Canoes: OK; Rafts: OK**

One mile below the take-out for the previous run, Cappell Creek enters from the right. At 2.5 miles Roach Creek enters and at 5.2 miles, Mettah Creek; both are larger creeks entering from the left. The river points generally northeast for 1.4 miles and turns nearly 180° around the end of a ridge. Several huge rocks are on the right side of the river near this corner.

The upper end of the Klamath Jet Boat ride is near Roach Creek (see next run). The access road to the beach at Pecwan Creek is located just beyond the bridge. This is the first area in 20 miles where the road comes close to the river level and is very close to the end of the road from Weitchpec.

Funds have been appropriated to start construction of a Klamath River bridge in the take-out area. It will connect the north side of the river to US 101 near Orick via Johnson's and Bald Hill roads (see next run).

20. KLAMATH RIVER (continued)

20. Pecwan Creek to Klamath Glen
Class 1½ at 4700 cfs for run 7/4/72
Maps: Tectah Creek, Ship Mtn., Klamath; Six Rivers NF

18.3 miles, summer run (see Fig. 8-b)
Scenery: A–, very long shuttle
Drainage: 12,100 mi²
Canoes: OK; Rafts: OK, but difficult with upstream winds

There are three approaches to the put-in: by roads to the north or south side of the river or by jet boat from the take-out. The jet boat might also be used to complete a shuttle. These possibilities are dealt with in detail below (see maps *C* and *E*).

If approaching the run from the east, either by coming down the Klamath River highway or down the Trinity River, the river tourer should go to Weitchpec and from there down river to Martin's Ferry Bridge (8½ miles) on the road along the north side of the river. From here, there are two access alternatives: (1) continue along the relatively good dirt road to Pecwan Creek (15¾ miles), the take-out for the last run, return to the bridge (the last bridge across the Klamath to US 101), cross it and turn *left* and take the mostly dirt Bald Hills Road to US 101 (31 miles) and proceed north; or (2) take Bald Hills Road for 20¾ miles to Johnson Road, turn right on it (there is a California Division of Forestry fire station at the junction), go to the end (14½ miles) of this slow-traveling dirt road and carry boats to the river. Apparently, the Humboldt County Highway Department is supposed to maintain the road right to the river, although this may be under contract with the Indian Reservation. At the time of our run, we had to portage one-fourth mile to the river. Because Johnson Road is in poor condition, the first choice is the faster one for the shuttle. The 71 miles of back roads to US 101, plus 21 miles to Klamath Glen, will take about 3½ hours to drive (which is about the minimum time for a kayak to make the run). It should be noted that extra gas is needed to drive these back roads and there are no gas stations or other commercial establishments between Weitchpec and Orick. Some maps show a bridge across the Trinity River just before its confluence with the Klamath, but this bridge does not exist anymore.

When approaching this run from US 101, turn east on Bald Hills Road 1.1 miles north of the Redwood Creek Bridge in Orick. After 10.2 miles, turn left on Johnson Road and go to the end (another 14½ miles). As noted above, the road may not end at the river. At the time of our run, it ended at Johnson Creek and is apparently bulldozed down this dry creek bed to the mouth. Boaters carrying their boats down the creek bed this last one-fourth mile should examine the possibility of cutting across the densely thicketed sandbar to the river to shorten the portage. A bridge over the Klamath River near the terminus of this road will allow the boater to use the excellent access at Pecwan Creek on the north side of the river.

To reach the take-out from Bald Hills Road and US 101, go north 17 miles, cross the Klamath River, turn right on Route 169 and go 4 miles along the river to the town of Klamath Glen. Turn right on Turwer Riffle Road, left on Klamath Glen Road and left on Trinity Lane past the trailer court and on down to the river. The round-trip shuttle time to the Johnson Road access is about 4 hours.

Klamath Jet Boat Kruises, P.O. Box 6, Requa, California 95561 (tel. 707/482-4191), operates a jet boat from Requa (north side of the river at the mouth) upstream about 6 miles above Johnson's. The boat leaves at 9 a.m. and returns at 3 p.m. and "when necessary to accommodate additional guests" special cruises leave at 2:30 p.m. The charge is \$6 per person (1972 price) for passage and \$10 apiece for hauling river touring boats and equipment.

After all the shuttling, the boater might expect a particularly beautiful stretch of wilderness river, but that is not the case. The scenery has been degraded because more logging has occurred along this run than along any section of the Klamath or Trinity rivers. As a result, there are many logging roads to the river and about one residence every couple of miles.

The rapids in this run are very small, and only an incidental amount of water might splash into a canoe. There are strong boils and swirling action at the end of many rapids, however, and they might easily tip a beginning canoe team. Since there is so much flow and the river is so wide, even the Class 1 canoeist should have experience on smaller streams before tackling this run and must be sure to wear a life jacket. The strongest action came at a rapid in a broad left turn at 4 miles. (Mileages are from Pecwan Creek; the Johnson Road put-in is 1 mile farther downstream.)

Immediately after a very sharp right jog at the base of a rocky cliff, Blue Creek enters on the right at 9 miles. It is a large creek with an exceptionally wide gravel bar entrance. Simpson Timber has a private logging road into this area. In 3 more miles, the river makes a very sharp left turn, and in another 3½ miles, at 15½ miles, the boater can see an abandoned road on the hillside on the right.

The take-out is 3 miles farther, at the boat dock or just beyond. The take-out is 6 miles from the mouth of the river at Requa. For shuttling purposes, it is possible to be picked up at Klamath Glen for the cruise or to boat on to Requa. However, the river broadens considerably during the last 3 miles, and wind could be a severe problem. There was some wind during our run, but not an objectionable amount. I strongly suspect that this run is not as windy as the last two runs on the Eel River. Nonetheless, our group preferred the lower Eel River because it is more pleasant. The scars on the land made by the loggers are not as visible. A final note – boaters would be well advised to check tide tables as far upstream as Blue Creek.

21. SHASTA RIVER

21. Shasta River below Yreka
Class 3 at optimum: 400 cfs
Same class for run 5/28/71 at 385 cfs
Maps: Hornbrook; Klamath NF
Ave. annual rainfall 25 in., runoff factor .23

6.8 miles, rainy weather run
Scenery: B, short shuttle
Drainage: 790 mi^2
Canoes: OK with some portaging
Rafts: marginal, brushy

The Shasta River drains the productive, but relatively dry, Shasta Valley, and consequently has a small stream bed. The flow is strongly regulated by Dwinnell Reservoir. The water is very murky, causing the lower scenic rating. Over the length of this run, the river drops 340 feet from the Shasta Valley through a canyon to join the Klamath River.

Put in 4 miles north of Yreka at the first river bridge on old Route 99 (CDH marker 52.7). The first rapid is very difficult and complicated by a concrete structure and debris; it is advisable to carry below this rapid before put-in. There are many small Class 3 rapids throughout the run. The largest rapid is a long one in a straight section at 1 mile, soon after the river returns to and parallels the road, from which it is visible. A half-mile beyond this point, and again in another half-mile, as the river flows directly away from the road, there are two rapids that are somewhat more difficult than the average on the run.

The first operating water turbine the author has observed on a river (other than power company equipment) was found at the right turn just ahead. At one-half mile past the first highway bridge, just after a left turn, is an island covered with willows. From here on, there is considerable brush along the sides of the river, and the rapid at the next bridge tends to push the boater into this brush. The gaging station is passed 0.1 mile below the second bridge. A short distance beyond is a low cable that could create problems for inattentive canoeists or rafters. Cross the Klamath and take out in the next half-mile where the road is only a few steps above the river.

Scott River

There is a small, but rich, valley above the rugged canyon which harbors Scott Bar, where John Scott discovered gold in 1850. In 1863, W. H. Brewer* described the valley as "rich bottom, with fertile ranches, surrounded with high and very steep mountains, rough and rugged, and furrowed into very deep canyons." It still is a rich agricultural valley of unusual

*See *Historic Spots in California,* 3rd ed., by M. Hoover, H. Rensch, E. Rensch, Stanford Univ. Press, Stanford, Calif., 1966, p. 507.

beauty, although the upper five miles are desecrated by one huge heap of mining tailings.

The author first entered the valley on the poor but historic road over the Scott Mountains from the head of the Trinity River, which lies directly to the south. This route was part of the California-Oregon trail system in its early days in the 1850s. Until 1887, when the railroads were built, this pass was the primary route used by wagons and stages; passengers coming south changed to mules for the trip over the mountain at Callahan's Ranch. The hotel where the passengers stopped, which is close to the junction of the east and south forks of the Scott River, still stands. It is probably the most picturesque old stage stop on any of the rivers described in this guide. Today, the fastest way to Callahan from the Sacramento Valley is by the road from Gazelle, which is 10 miles northwest of Weed.

For the first 5 miles below the junction, the river flows through a barren area of mining tailings. The huge dredge that produced these tailings lies abandoned near Route 3. The banks of continuous rounded rock piles are not too objectionable, and the mountainside scenery more than makes up for the desolate scenery at the river's edge. Time, in the geological sense, must pass before this bed of tailings is again productive. The dredge operated up to about the beginning of World War II, and is an excellent example of these amazing floating mining factories.

22. SCOTT RIVER

22. Callahan to Etna
Class 2 with 1 portage at optimum: 330 cfs
For run 5/15/70, Cl 1½ with 1 P at 230 cfs
Maps: Etna; Klamath NF
Average optimum flow date: 5/18

12.2 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 170 mi^2
Canoes: OK; Rafts: OK

Put in at either the Route 3 bridge across the South Fork or at the bridge on the East Side Road over the East Fork where there is probably twice as much water. The first 3 miles of the run have a gradient of 50 feet per mile, but like Sierra streams that have been dredged, there are no rocks big enough to create the rapids that would be expected in a stream with this much gradient. The main characteristics of this part of the run are fast water and low waves that move into brushy corners and some snags. Possibly, this first part of the run deserves to be rated a half class more difficult under each of the flow conditions, but the waves and tighter maneuvering that the author associates with these higher classes are missing. The gradient decreases to 40 feet per mile for the next 2 miles and then to 25 for the next 4 miles.

Good access occurs at Fay Lane bridge at 6.4 miles (but prescriptive right-of-way). Below that point, the run is a half-class easier. There are fast riffles near the bridge and some snags and brush at fast corners. The first and second fences are at the first and second power line crossings. A small dam is at the fourth power line, and here about 50 cfs was being removed for irrigation. Portage on the island or on the left side.

The take-out is at a bridge (60 feet total width of county property) 5.8 miles downstream of Fay Lane. Coming from Etna, turn left on a crossroad leaving Route 3 approximately one-fourth mile after crossing Etna Creek to reach the take-out.

23. SCOTT RIVER (continued)

23. Etna to Fort Jones
Class 1 at optimum: 1000 cfs at gaging station
Same class for run 5/15/70 at 640 cfs
Maps: Etna, Ft. Jones; Klamath NF
Average optimum flow date: 5/24

11.8 miles, spring runoff stream
Scenery: A–, short shuttle
Drainage: 650 mi^2 at Jones Beach USGS Gaging Station
Canoes: OK; Rafts: OK

The mountains to the west were snow covered when we ran the river, and, although they were many miles away, we enjoyed their beauty. They contribute considerably to the scenic rating for this run. There are great numbers of cows in the fields along the river, which could create the gradual decay of water quality that seems inevitable in agricultural valleys. At the time of our run, there were great numbers of water birds at the river. The large Canada geese put on the best show. Unlike the more clever Merganser ducks, they seem to be so carried away with their own show of flapping and honking that they become hopelessly separated from their young.

The prospects for pleasant camping sites are not particularly good in this area. The river flows through pasture country; generally the river banks rise steeply from the river for 10 feet or so directly into the fields and there are no trees. At least two bridges, at 5.1 and 9.3 miles, are passed before reaching the much more substantial concrete bridge at Route 3. The take-out is at this point and can be estimated fairly well in advance because it is right where the valley narrows down between two hills that rise 1,300 to 1,500 feet above the valley floor. The take-out bridge is one-half mile west of Fort Jones and 19 miles southwest of Yreka along Route 3.

There are only riffles on this run, nothing that could be called a rapid. The gradients for this and the next run average only 8 and 6 feet per mile, respectively.

24. SCOTT RIVER (continued)

24. Fort Jones to Scott River Canyon | **10¼ mi, spring runoff run**
Class 1 with 1 portage at optimum: 1000 cfs | **Scenery: A, short shuttle**
Same class for run 5/15/70 at 640 cfs | **Drainage: 650 mi^2 near take-out**
Maps: Fort Jones, Scott Bar; Klamath NF | **Canoes: OK; Rafts: OK**
Average optimum flow date: 5/24

Camping possibilities are generally better along the river on this run. For the first 2 miles, the river skirts alongside forested Chapparal Hill. A dredge with low pipes across the river may be encountered at a gravel works close to the start of the run. The major obstacle of this run is a low dam 1 or 2 miles from the put-in. Portage on the left. At higher water it may be runnable, but the rocks are sharp. Farther on, there is a cable and post fence across the river. The second hill on the left, between 3 and 7 miles, is Quartz Hill. It contains many abandoned hard rock gold mines on the other side. The road from the Quartz Valley side crosses the river at a new concrete bridge at 7.1 miles, which is a possible access point.

For the next two miles, the hills and forests converge on the river. Where the forests meet the river, start watching for the take-out, which should be scouted in advance. There are a couple of dirt roads from the highway to the river on the right, but they are not easy to see except by looking back upstream. However, the road is close enough to the river so that a take-out can be made nearly anywhere for about a half mile in this region. This take-out region may be private property. If it is posted, take out at the Quartz Valley Road bridge (60 feet total width of county property).

25. SCOTT RIVER (continued)

25. Scott River Canyon to Jones Beach | **3½ miles, spring runoff run**
Class 3½ with 1 portage at optimum: 1100 cfs | **Scenery: AA, short shuttle**
For run of 6/23/69, Cl 3 with 1 P at 800 cfs | **Drainage: 650 mi^2**
Maps: Scott Bar; Klamath NF | **Canoes: no; Rafts: OK**
Average optimum flow date: 5/22

On this run, the Scott River abruptly changes character from an easy, valley-bottom stream to a wild, tough white-water river that flows through one of the most beautiful canyons in California.

From the previous take-out it is 0.8 mile to the gaging station on the right-hand bank. After this point, the river turns left, leaves the road, and goes down a small rapid. Immediately following the sharp right turn, there is a rapid that must be portaged. One mile farther, opposite the abandoned "Old Homestead" snack bar on the other side of the road, is an island that ends with a strong rapid on either side. A mile farther on is a long, rocky rapid. These rapids are the three most important ones on this run, but there is also substantial action between them. Take out at the beach area on the right where picnic tables can be seen. The Klamath National Forest starts just one-third mile upstream of here.

The 3.8 miles to the bridge at Kelsey Creek should be included in this run, but the author has never had the right chance to try it. Like the following run, it is probably Class 4½ at an optimum flow of 700 cfs and certainly must have portages. The middle section falls through large boulders at more than 100 feet per mile, much steeper than anywhere else in the canyon. The run can be well scouted from the road.

26. Kelsey Creek to Scott Bar
Class 4½ with 3 portages at optimum: 700 cfs at take-out (550 cfs at upstream gaging station)
For run 7/2/72, Cl 4 with 3 P at 350 cfs
Maps: Scott Bar; Klamath NF
Average optimum flow date: 6/17

10.5 miles, spring runoff run
Scenery: AA, short shuttle
Drainage: 800 mi² at take-out
Canoes: no: Rafts: very difficult — much scouting

This run is the most challenging expert run in the geographic area of this guide. The South Fork of the Eel at Branscomb would be second. Both have big drops made by large boulders, but the rapids are longer and more intricate here.

The very early Kelsey Trail followed along Kelsey Creek. It was the route from Scott Valley to the west and north. This rugged trail, which still exists, rises 4,400 feet above the Scott River in 5 airline miles and passes 1 mile north of the spectacular marble mountain peak (elevation 7,405 feet) known as Kings Castle. From there, the old trail followed Elk Creek to what has become the Happy Camp area of the Klamath River. From there, the route to Oregon was probably up Indian Creek. Six interesting hikes into the Marble Mountain Wilderness Area from the Scott River are described in *100 Northern California Hiking Trails.* *

Driving through the spectacular Scott River canyon from Scott Bar to the put-in one has a good view of the multitude of rapids to be negotiated during the first half of the trip. Put in at the bridge across the Scott River. On our run, we assumed that we would have several portages before reaching Gold Flat, after which the going would be easier. But that was not the case. We scouted and then ran the three major rapids in the 1½ miles to just below Middle Creek. Many of the rapids throughout the run require cautious descent by flitting from eddy to eddy. Since rafts cannot catch eddies like kayaks, rafting this safely – if at all – would require a great amount of scouting and very expert maneuvering. The water level would have to be several times what we had, and rowing the raft would be an absolute necessity.

The first portage comes after a right bend at 2.6 miles just opposite Tompkins Creek canyon. A long and difficult portage can best be made on the left side around this steep rapid that ends in a falls. Immediately beyond is a long, difficult rapid; Tompkins Creek enters the middle of this rapid on the left, and the rapid continues on around a right turn.

There is no let-up in the rapids, but they are not unusually difficult until Schuler Gulch enters on the right at 6.2 miles just as the river makes a left turn. The gulch makes a good landmark. Immediately, there is a very long rapid; we ran the middle section but portaged the first and last parts.

The road is now 300 feet above the river, but the left side of the canyon to the road is less steep. There is an emergency take-out here over private property from the flat just above the river. This point was our put-in for a run to Scotts Bar on 6/25/69, when there was twice as much water as on this longer run. All the major rapids on the remainder of the run were easily recognized and did not appear to have changed. The power of the hydraulics was much reduced because of the great difference in water level. These rapids all are composed of good-sized boulders, and it was encouraging to a river chronologer to see that the high waters of the last three winters had not caused any noticeable movement, erosion, or filling. This was not the case, though, in the next run.

The next rapid, which is straight and moderately short but steep, is aimed at the right bank ahead. It is different from the rest of the rapids, since it does not require any boulder dodging. At the lower water level we encountered, though, it became impossible to run cleanly, and hard hits were registered by most boaters. The author knocked out a foot brace in his kayak with one of those submerged hits that are both so surprising and jarring that it forced an involuntary "ugh."

After the next rapid, the ruins of an old flume come into view well up on the left hillside. In the next 1.8 miles there is a large flat on the left and a steep hillside on the right. After

*By Don and Roberta Lowe, The Touchstone Press, 1970, Beaverton, Oregon.

this stretch, the boater may become complacent and assume the river has reached old age. Immediately, however, there is a diagonal ledge drop, actually a small falls, that we dubbed "Harrison's Hole" after one of our group who mistakenly thought he could manage it on our first run. On the second run, when the water was lower, the impossible rolling action resulting from the diagonal orientation of the ledge was missing, and all the other boaters negotiated it successfully. With memories of the past, however, I portaged.

Take out on the right side at the bridge at Scott Bar (60 feet total width of county property).

27. SCOTT RIVER (continued)

27. Scott Bar to Klamath River
Class 3 at optimum: 700 cfs
(550 cfs at gaging station)
For run 7/1/72, same class at 350 cfs
Maps: Scott Bar, Seiad Valley; Klamath NF
Average optimum flow date: 6/17

3.6 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 800 mi^2
Canoes: no; Rafts: OK

John Scott crossed the mountains from the North Fork of the Salmon River with a party in 1850 and struck gold at Scott Bar. Indians drove him off, but soon the area was overrun with miners. Millions of dollars worth of gold were taken from the Quartz Hill Mine, and an excellent example of a stamping mill can be seen from the road at the center of this very small community.

Put in under the bridge at the far end. After the 1969 run, the author wrote: "The first rapid comes immediately and is clearly visible from the road. It really belongs to the previous run, as it is considerably more difficult than any that follow. The run seems easier than what the gradient of 40 feet per mile should offer. The river bed has apparently been smoothed out by the smaller stones, no doubt the mining tailings from another era." At that time, the author rated the run at Class 2½.

By 1972, much gravel had been rearranged; there are now many Class 3 rapids, all uniformly difficult. It has become a run of excellent boating quality. Just at the Klamath River road is the largest rapid, possibly a half class harder.

Take out under the Klamath River Road Bridge (Route 96). This is 35 miles west of Interstate 5.

28. INDIAN CREEK

28. Indian Creek
Class 3½ with 1 portage at optimum: 250 cfs
For run of 7/3/72, Cl 3– with 1 P at 110 cfs
Maps: Happy Camp; Klamath NF
Average optimum flow date: 6/11

7.6 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 118 mi^2 near take-out
Canoes: no
Rafts: Not advisable

About the center of this run, there is a very narrow, miniature stone-walled gorge containing drops over ledges and one cascade that must be portaged. Above this cascade the creek has a cobblestone bed and below it, a wider gorge with some cobblestones. The average gradient is 50 feet per mile, so there are plenty of rapids to make the run exciting.

At Happy Camp, several side streets north of Route 96 on the east side of Indian Creek feed into the road going north. This road leads to O'Brien, Oregon (approximately 39 miles), and is the fastest route to the Smith River from this area (if the road has dried out, which occurs much later than other NFS roads referred to). The road begins following the creek at 2½ miles. In another 1½ miles, just a few hundred feet above the last bridge across the stream before the logging mill (now abandoned), is the rapid that must be portaged. Examine it on your way to the put-in to check the portage and to be able to recognize it when approaching.

The south and east forks join Indian Creek at essentially the same spot. Put in at the bridge of any one of the three forks (the property along the river at the confluence is private). At 1 to 1½ miles, there is an old split in the channel, and probably one branch will be dried up. The author found a couple of log sweepers blocking the channel, but assumed that they will eventually move on. Several other sweepers, which are probably even less permanent, were found on the run. The sweepers and the narrowness of the stream make

Passengers enjoy waves on the Klamath River in a commercial tube raft.

rafting inadvisable.

At about 2½ miles, there is an abandoned, dilapidated logging burner right alongside the creek. From here, the water quality of Indian Creek deteriorates abruptly. In about one-half mile, at a right turn, comes the first ledge. Rust in the stream, apparently from the burner, made the rock here look like reddish sandstone. Immediately below starts the gorge. There are several 3- or 4-foot drops before the cascade that must be portaged. Above it, there is a pool of reasonable size and immediately ahead a shed or cabin comes into view on the left for an instant, but not long enough to serve as a good landmark. Make a short, strenuous portage, which approaches rock climbing, on the left side.

The rock gorge is as narrow as 10 feet in places but gradually widens and provides some good drops. In one of these drops, the author was stopped by a direct nose hit on a submerged rock, which knocked out the second foot brace in two days.

Homes located too close to the creek add to the water pollution. At 4.7 miles, there is a large concrete bridge; at its base lies its predecessor, a concrete ruin that nearly blocks the stream. At this point, the creek leaves the road for 1½ miles. It then makes a left turn, and there are several houses close to the river on the right. As the author's party passed one of the houses, there was an odor of sewage, which was no doubt leaking into the creek.

Take out on the right on the upstream side of the second bridge in town or a few hundred feet farther at the confluence with the Klamath.

Salmon River

The South Fork of the Salmon River drains the north side of the Salmon Mountains of the Salmon-Trinity Wilderness Area, and the North Fork drains the southern part of the Marble Mountain Wilderness Area. This very beautiful river has probably been damaged less by acts of man than any other river of its size in California in spite of early gold mining. The historian, Hoover,* notes that there were already several hundred miners in the area in the summer of 1850. Reports of rich diggings brought thousands more the following winter. Every bar, creek, and gulch along the river teemed with miners. Numerous gold mining claims are still maintained along the river; 90% of the river frontage is in the Klamath National Forest.

Only the three very small communities of Forks of Salmon, Cecilville, and Sawyer's Bar are upstream of the mouth of the Salmon at Somes Bar. These communities have to be three of the most isolated in Northern California. The river with its two forks generally alternates between Class 3 runs and unrunnable-looking gorges. There are possibly two more runs on the North Fork than the one described below.

29. SOUTH FORK SALMON RIVER

29. Near Cecilville
Class 3 at optimum: 250 cfs
(approx. 2500 cfs at Somes Bar)
For run of 5/14/70, Cl 2½ at 150 cfs
Maps: Cecilville; Klamath NF
Average optimum flow date: 6/2

6.5 miles, spring runoff run
Scenery: A+, short shuttle
Drainage: approx. 72 mi^2
Canoes: probably OK
Rafts: OK

Cecilville is 29 miles southwest of Callahan, which is 37 miles west of Weed (on Interstate 5). The major access to the Salmon River country is by the Jackson Creek Pass between Cecilville and Callahan. It is at 6,400-foot elevation – a height more typical of passes in the Sierra than those in the North Coastal area. It is plowed, at least in the spring during the boating season. Access to the west is via 36 tortuous miles to Somes Bar, then 88 miles over a considerable amount of poor road to US 101 near Eureka.

The take-out is approximately 1½ miles west of Cecilville, with a short, easy drive to the road across a flat. Other take-outs in this area are possible. To reach the put-in, leave the road to Callahan, which follows the East Fork of the South Fork, 1½ miles east of Cecilville, and go south 3½ miles along the South Fork to the first bridge. The elevation here is 2,500 feet. The oustanding backdrop of the Sawtooth Ridge of the Salmon-Trinity divide with its permanent snow fields adds to the enjoyment of this run. Possibly more mileage can be added to this run by proceeding to the next bridge 1 mile away or to the end of the road 1½ miles farther. This addition is certainly Class 4 with portages, as the average drop is 100 feet

**Historic Spots in California*, by M. Hoover et al., Stanford Univ. Press, Stanford, Calif., 1966.

per mile. The stream is small, so the portages could be short.

No particularly unusual rapids were noted on this run. Much of the first part is a lively Class 3 through tailings. The East Fork enters at 3.4 miles, and the waves become more powerful with the added water. A good take-out occurs at the bridge at Cecilville in another 1.6 miles, and the take-out described initially is located another 1½ miles farther. An additional 2 miles can be added to the run to about the spectacular Limestone Bluffs, if the boater is willing to make the very strenuous 100-foot carry to the road. Below there, the canyon is impassable by boat.

30. SOUTH FORK SALMON RIVER (continued)

30. Methodist Creek to Forks of Salmon
Class 3+ at optimum: 450 cfs
Same class for run of 5/13/70 at 500 cfs
Maps: Cecilville, Salmon Mtn., Forks of Salmon; Klamath NF
Average optimum flow date: 6/15

6.5 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 250 mi^2 at put-in
Canoes: no; Rafts: OK

The put-in is six miles up the South Fork from Forks of Salmon at a bridge on a side road spanning the river at Methodist Creek. The first 1.4 miles to the next bridge are a difficult Class 3 with a gradient of 75 feet per mile. After 1½ miles, there is a section of about 2 miles of tailings with the largest tributary, Knownothing Creek, entering on the left at 3.9 miles. After the tailings end, the run becomes more difficult for the last mile to the confluence with the North Fork. The second bridge after the put-in is passed 0.2 mile before this junction. Some of the more difficult rapids in this second stretch can be scouted from the road. Take out on the right about one-fourth mile downstream from the confluence. See the instructions for the put-in here for Salmon River run number 32.

31. NORTH FORK SALMON RIVER

31. Sawyer's Bar to Little North Fork
Class 3– at optimum: 300 cfs (2000 cfs at Somes Bar), same class for run of 5/13/70 at 250 cfs
Maps: Sawyer's Bar; Klamath NF
Average optimum flow date 6/9

3.7 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 135 mi^2
Canoes: OK; Rafts: OK

Sawyer's Bar was a picturesque 100-year-old town when it was destroyed by fire in the 1960s. The historic church remains. It is 25 miles to Etna over Salmon Mountain Summit.

This short run bounces along almost continuously through just about the only tailings on the North Fork. Put in at the bridge in town (60 feet total width of county property), and take out either a few hundred feet before or a hundred feet after the Little North Fork conflunece, both of which are on USFS property. The most difficult rapid can be seen from the road. It is 1 mile below the put-in at a sharp jog to the left in both the river and the road (traveling in either direction).

32. SALMON RIVER (continued)

32. Forks of Salmon to First Bridge
Class 2– at optimum: 800 cfs (1200 at Somes Bar), same class for run 5/13/70 at 1000 cfs
Maps: Forks of Salmon; Klamath NF
Average optimum flow date: 6/20

3.8 miles, spring runoff run
Scenery: A+, short shuttle
Drainage: 490 mi^2
Canoes: OK; Rafts: OK

About half of the river frontage along this run is private land including the put-in area. Ask permission at the store to put in, then drive across the flat opposite the school to the river. (If any difficulties develop with this put-in, ask the USFS in Forks of Salmon where there is an access.)

The flow could decrease greatly from the above optimum and this run would still be enjoyable – possibly with the slight inconvenience of having to line two or three wide bars (see Fig. 8-d and accompanying description). At 500 cfs, the run should be Class 1½. The toughest rapids come in the first half mile. A cave on the left side of the river in the early part of the run can be seen from the road.

Take out just upstream of the bridge at Crapo Creek, the first bridge below Forks of Salmon, and make the short carry to the road.

33. SALMON RIVER (continued)

33. First Bridge to Wooley Creek
Class 4+ (approx) with 3 P at optimum: 600 cfs at Somes Bar
Maps: Forks of Salmon; Klamath NF
Average optimum flow date 7/7

10½ miles, spring runoff run
Scenery: AA, short shuttle
Canoes: no; Rafts: no

The author had assumed that this section of the Salmon River was unboatable until a good friend, Steve Sanders, led a small group of kayakers through it on July 6, 1973, at about 500 cfs. Steve is an outstanding boater who went on to run the Colorado River through the Grand Canyon (Class 5+) a month later. He supplied the material for the description of this river run.

What has to be the narrowest, most cliff-hanging road with the blindest corners in all of Northern California runs along the Salmon River for much of the 17 miles between the isolated communities of Forks of Salmon and Somes Bar. Excellent views of the gorge and its rapids, often straight down 200 feet below are afforded from the road. Logging trucks often abound on this route (except Sunday), adding considerable excitement to the shuttle.

The medium-width river bed, filled with medium-sized rocks, that starts at Forks of Salmon, 4 miles upstream of the put-in for this run, continues for 1½ miles on downstream. The river character then suddenly changes to a gorge typically 15 to 40 feet wide. There are many 3-foot single drops and innumerable rapids with 10 to 15 feet of fall in about 200 feet. These are separated by short, deep pools.

Remains from a hydraulic mining operation which can be seen from the road mark the start of the gorge. The first portage around a 5-foot drop comes immediately. All three portages are short; the first one is of moderate difficulty and the others are easy. Steve actually made only one portage at about 5 miles (but for comparison, he didn't portage anything in the Grand Canyon).

For landmarks to judge progress through this gorge, there is a stubby peninsula, Tripp Point, pointing southeast at 3.7 miles, and the largest creek to enter from the left after entering the gorge, Butler Creek, comes at 6.8 miles. It is at the tip of the peninsula pointing to the southwest and having a flat area on the left. Only here is the road close to the river.

The second half of the run has a significantly steeper gradient (55 feet per mile) than the first half. There is a new, high bridge just above Wooley Creek, a major tributary on the right. The take-out is at the easiest-looking spot shortly below the next bridge, which is one-half mile farther. The take-out area is all within the Klamath National Forest.

34. SALMON RIVER (continued)

34. Wooley Creek to Klamath River
Class 3+ at optimum: 750 cfs
For run of 9/6/71, Cl 3– at 305 cfs
Maps: Forks of Salmon; Klamath NF
Average optimum flow date 7/3

4½ miles, summer run (see Fig. 8-d)
Scenery: AA, short shuttle
Drainage: 750 mi^2
Canoes: no; Rafts: OK

Put in shortly below the Somes Bar Road bridge, as described in the previous run. There are many delightful rapids on this run. All are about the same difficulty except some of the first few, which are a little more difficult. The most interesting rapid is a short one with a large boulder in the center immediately below and visible from the bridge at Somes Bar (at 3.8 miles). The river bed in this run is composed of the same head-sized rocks as in the mined areas of the upper runs. They are very unstable underfoot and probably shift around easily in high water. The individual rapids in this run could look considerably different from year to year, but the class can be expected to be the same.

The easiest take-out is at the Somes Bar Bridge, but the 1½-mile run beyond the bridge is very worthwhile. At the confluence, carefully ferry upstream across the Klamath, since the eddy lines are surprisingly strong when the flow is at the higher values in late summer. There are also rapids below to swim, in case of upset. Take out under the bridge which is on the Ishi Pishi Road (see run number 14). A very bumpy access road leads down under the bridge to this take-out.

12. Trinity River

In 1828 Jedediah Smith passed down Hayfork Creek, the South Fork of the Trinity, the Trinity, and Klamath on his way north to Oregon (see Chapter 10).

Major Reading, who discovered gold on the Trinity River in July 1848 at Readings Bar in Douglas City, was also a most unusual man. Leaving home at 14 to earn a living, he became a cotton broker in Vicksburg, and then in New Orleans, ending bankrupt both times, first because of the economic panic, and second because his partner ran off with the strongbox. He arrived at Sutter's Fort in 1843 and became clerk and trapper to Captain Sutter. An anonymous quote describes him, "In all his dangerous expeditions, Reading's bravery, intelligence, and personal appearance exercised over the hostile Indians a commanding influence that protected himself and party and secured their friendship and aid in his undertakings." The next year he was granted by the Mexican governor Buena Ventura Ranch, 40 square miles along the Sacramento River and Cottonwood Creek. This grant was the farthest north of any at that time. The following year he rediscovered the Trinity and named it thus, because he assumed it flowed into Trinity Bay. He was among the first to visit Coloma with Captain Sutter after the gold discovery in January of 1848. After discovering gold on the Trinity in July, he returned in August with 65 men, nearly all of whom were Indians, and in six weeks, accumulated $80,000 in gold. Oregon miners, who had recently been ambushed by Indians, arrived on the scene and objected violently to his employing Indians so he departed. In 1850, he returned east and paid his debts with interest, even though he had claimed bankruptcy. The following year he was the first to run a steam boat to Tehama on the Sacramento and to open up steamboat commerce above Sacramento. That year he was nearly elected governor. Redding is named for him.

By the end of 1851, all the bars and side creeks along the Trinity had been thoroughly prospected, and approximately 10,000 men were mining gold on the river. Within two years, all the gold-bearing gravel that could be easily worked by simple Placer mining had been mined. Hydraulic mining took over about 10 years later. A mining engineer of that period estimated that, if wages were $4.00 a day, the cost of washing one cubic yard of gold-bearing earth by pan would by $20.00; by rocker, $5.00; by Long Tom, $1.00; and by hydraulic means, $0.20 maximum. Large dredgers also would probably be close to the last figure.

The best-known and largest of the hydraulic mines was the LaGrange Mine in Oregon Gulch, just west of Weaverville. Operations began here in the '50s and passed through several hands. But large-scale mining began in 1893 and lasted more than 25 years. Ditches, a flume, with cross sections of about 4 feet by 5 feet, and tunnels brought water 29 miles from the Stewart Fork of the Trinity at a construction cost of $450,000. Capacity of this system was 88 cfs. The pressure to the three nozzles that were used was approximately 200 psi. These giants shot water for several hundred feet and literally brought down the mountain. The destruction from this operation can be seen westward from Weaverville on Route 299. For several miles, part of the tailings spread into the Trinity River. One hundred million cubic yards of soil were removed, compared to 29 million cubic yards used in the construction of Trinity Dam. Apparently, about 8¢ in gold was recovered per cubic yard, at a cost of 2½¢.

Dredging for gold was introduced to the Trinity River in 1898 when the first bucket dredger was brought in. Much of the area dredged is now under the lake, but the devastation created is particularly evident in the Junction City area. The Trinity River has been changed more by gold mining than any other stream in this guide. A significant fraction of each cubic yard of earth turned over must have ended up washing down the river.

Two severe floods occurred on the Trinity River a week apart in 1861, and a flood of equal magnitude occurred in 1955. The Trinity Dam began to hold back water in 1960, so the flood of December 1964 did not affect the main channel of the Trinity River between the dam and the South Fork. The 1861 flood is documented in the *Trinity Journal* and reprinted, together with an article about the 1955 flood, in the local booklet *Weaver Basin* by Donna Young. With respect to the first flood, the *Trinity Journal* states:

> Many of the ranches along the river are seriously damaged by loss of fruit trees, fences, and deposit of sand and rock, while the soil of others has been partially or entirely swept away, leaving barren sand bars where before there were very

rich alluvial bottoms. In fact, the flood has made nearly a clean sweep of the improvements along that stream and many of its tributaries.

A week later, a larger flood occurred, and the newspaper reported:

> The river in places where it was confined rose 70 feet above low-water mark. In other places where it was wide, the banks caved in and the river carried away well-cultivated ranches. It became an ocean, spreading from mountain to mountain, sweeping in its furious and resistless current farmhouses, miners' cabins, mills, men, women, and children. In truth, all that was animate and inanimate, all that the flood of last week spared, this one swept away. Every single mining improvement in the river for 100 miles has been destroyed, and more than half of the bar and river. Miners are utterly ruined.

After the 1955 flood, it was reported that the bridges at Douglas City, Junction City, Big Bar, Hawkins Bar, and Willow Creek were washed out, together with the approaches to the bridge at Lewiston. Junction City was the hardest hit area, with the homes along the road into Canyon Creek being under four feet of water. There was no gaging of the streams in the 19th century, but the USGS states that the flood peaks in the second 1861 flood and the 1955 flood were very similar. The latter flood produced 72,000 cfs at Lewiston and 172,000 cfs at Cedar Flat. From gaging on surrounding streams, the December 1964 flood would have produced 50 percent more water had the Trinity Dam not been built. At Hoopa in December 1964, the flood level was 231,000 cfs – one-third of that on the Lower Eel River.

1. TRINITY RIVER

1. Tangle Blue Creek to Eagle Creek
Class 3½ with 2 Cl 4 rapids at optimum: 450 cfs
Same class for run 6/10/72 at 410 cfs
Maps: Bonanza King; Shasta NF
Average optimum flow date: 6/11

6.3 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 149 mi² near take-out
Canoes: no; Rafts: OK

The put-in for the first run on the Trinity River is only about a half-dozen miles along Route 3 south of the summit of the Scott Mountains and 20 air miles west of Dunsmuir. There are two possible ways of reaching the area from the south: (1) drive the freeway I5 to the north end of Lake Shasta, then take Dog Creek road from Delta, which is reported to be a particularly poor road; or (2) take Route 299 west from Redding and travel north on either the east or west side of Clair Engle Lake, to its north end. A good road continues north along the Trinity for 12 miles, then suddenly deteriorates at Tangle Blue Creek, where it starts climbing Scott Mountain.

About one-half mile below the Tangle Blue Creek Bridge, there is a side road leading a few hundred feet to a river frontage road. Put in along it (possibly private land) or, to avoid the first mile, which is wide and too shallow at above-optimum flow, put in at the first highway bridge across the Trinity. The river is wide and shallow for a short distance below the bridge, and then it suddenly narrows and disappears from the road. Large boulders are encountered here, and there is a difficult entrance to a quarter-mile section of rapids which extend past Bear Creek. This section ends in the most difficult rapid of the run – a long, steep, Class 4 rapid that requires some planning.

After passing under the next bridge (the rebuilt Route 3 is not shown on the Bonanza King [1955] topographic map and these bridges did not exist on the old road), there is a very long, very enjoyable, bouncy rapid. As one member of our group expressed it, "You've got to keep up your long range planning in a rapid like that without letting the immediate situation get out of control." The remainder of the run has many of those bouncy rapids created by a uniform texture of small rocks.

Ramshorn Creek enters on the left at 5.3 miles, followed immediately by Eagle Creek on the right. One mile farther on is the take-out bridge, with the most impressive rapid (Class 4) of the run ending at the bridge. Before running this rapid, the boater may wish to take advantage of the excellent view from the bridge.

2. Eagle Creek to Clair Engle Lake
Class 3– with portages at optimum: 450 cfs
Same for run 6/23/69 at 370 cfs
Maps: Bonanza King; Shasta NF
Average optimum flow date 6/11

7.3 miles, spring runoff run
Scenery: AA, short shuttle
Drainage: 149 mi² near put-in
Canoes: OK, some added portages
Rafts: Take-out at 3.9 miles

The take-out for this run is at the bridge across the upper end of the lake – 4 miles north of Trinity Center on Route 3. Proceeding north, the bridge over Coffee Creek is located at 2½ miles and the Trinity River bridges are at 3, 4, and 6 miles. The put-in is one-half mile beyond the last bridge at a side road to a small bridge that connects to the road on the other side of the river.

No rapids in this run are as difficult as the one immediately upstream and visible from this access. The run starts down a narrow, fast section and then widens some. It then has a uniform bottom composed of medium-sized rocks that result in bouncy rapids.

Immediately after the third bridge at 3.9 miles, the river changes drastically. It spreads out in many channels through a large, wooded, swampy flat; all of the channels are probably choked with brush or clogged with sweepers. Even at the flow at which we made this run, which was below optimum, there was a swift current. At any flow level it would be easy to be forced suddenly into a dangerous entrapment. Rafters should avoid this area. After about 1/2 mile, the various channels gradually coalesce alongside the left bank.

Coffee Creek enters through several channels and adds appreciably to the flow with its drainage of 107 square miles. Coffee Creek originates in Big Flat a dozen miles to the west which is also drained by the South Fork Salmon River. The headwaters of these two streams are unusual in that they come within a mile of each other and share the run-off from this valley.

The last couple of miles are easy. Earlier mining activity on the left bank can be observed. If the lake is full, the last three-fourths mile to the bridge can be through slack water.

3. TRINITY RIVER (continued)

3. Lewiston to Douglas City
Class 2½ at optimum: 550 cfs
For run 5/10/70, Cl 2 at 160 cfs
Maps: Weaverville; Trinity NF

16.3 miles, summer run (see Fig. 8-e)
Scenery: A, short shuttle
Drainage: 720 mi² at put-in
Canoes and Rafts: OK

Lewiston is 6 miles north of Route 299 and 26 miles west of Redding. Put in at the gaging station at the northern bridge in town – the one on the route to Lewiston Lake. The sign at the gaging station is irritating: "Stream flow measuring station measures release to Trinity River from Lewiston Reservoir. Operated by U.S. Geological Survey for U.S. Bureau of Reclamation." The implication is that they are allowing some water (legal minimum flow: 150 cfs) to be diverted to the Trinity River. Fishermen should demand "equal time" and have a reading there of the flow that is being robbed from the Trinity, which is typically 3,000 cfs all summer.

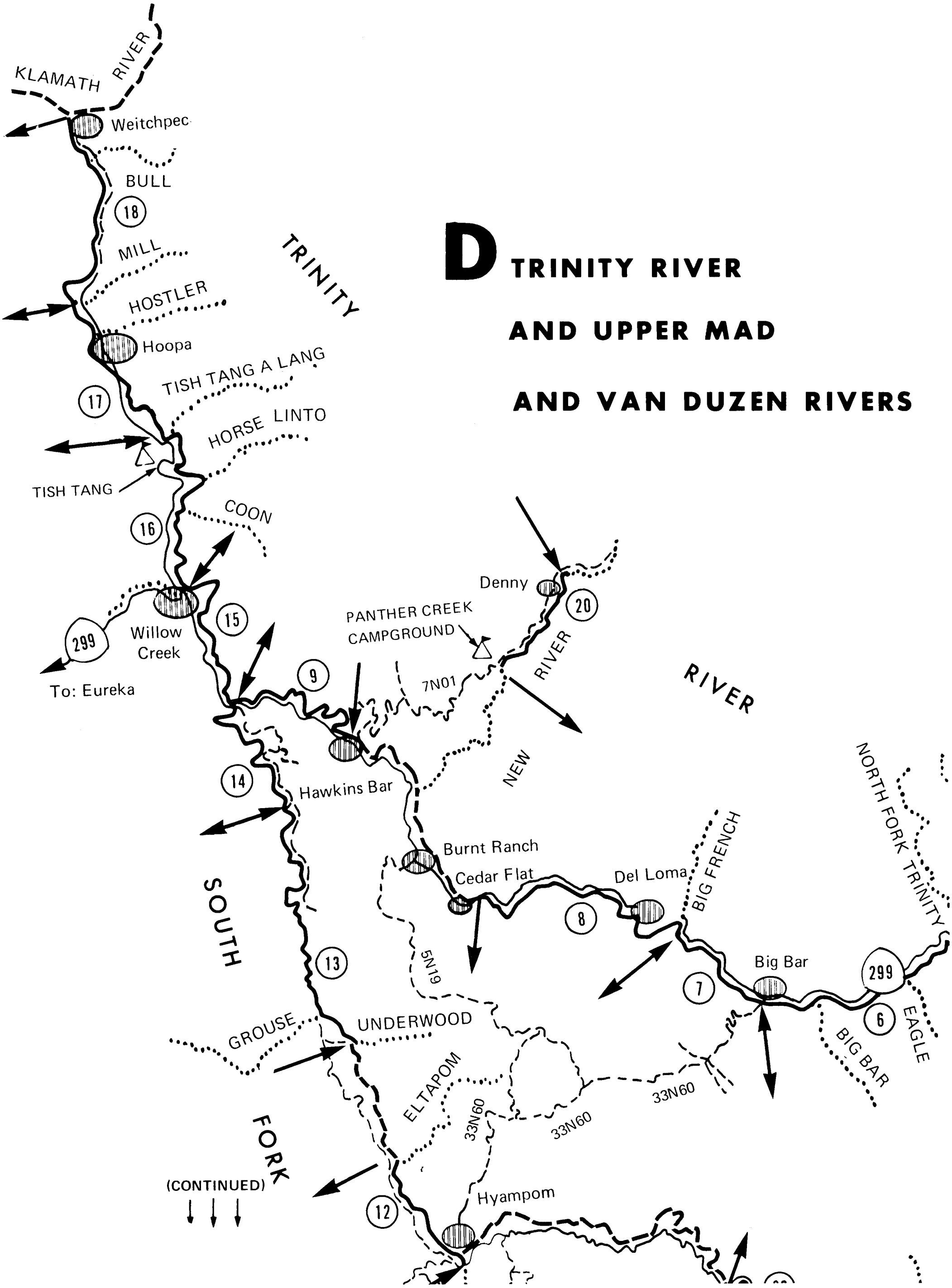
Lewiston sponsors an annual raft race on the first five miles of this run on the last Saturday in July (write the Chamber of Commerce).

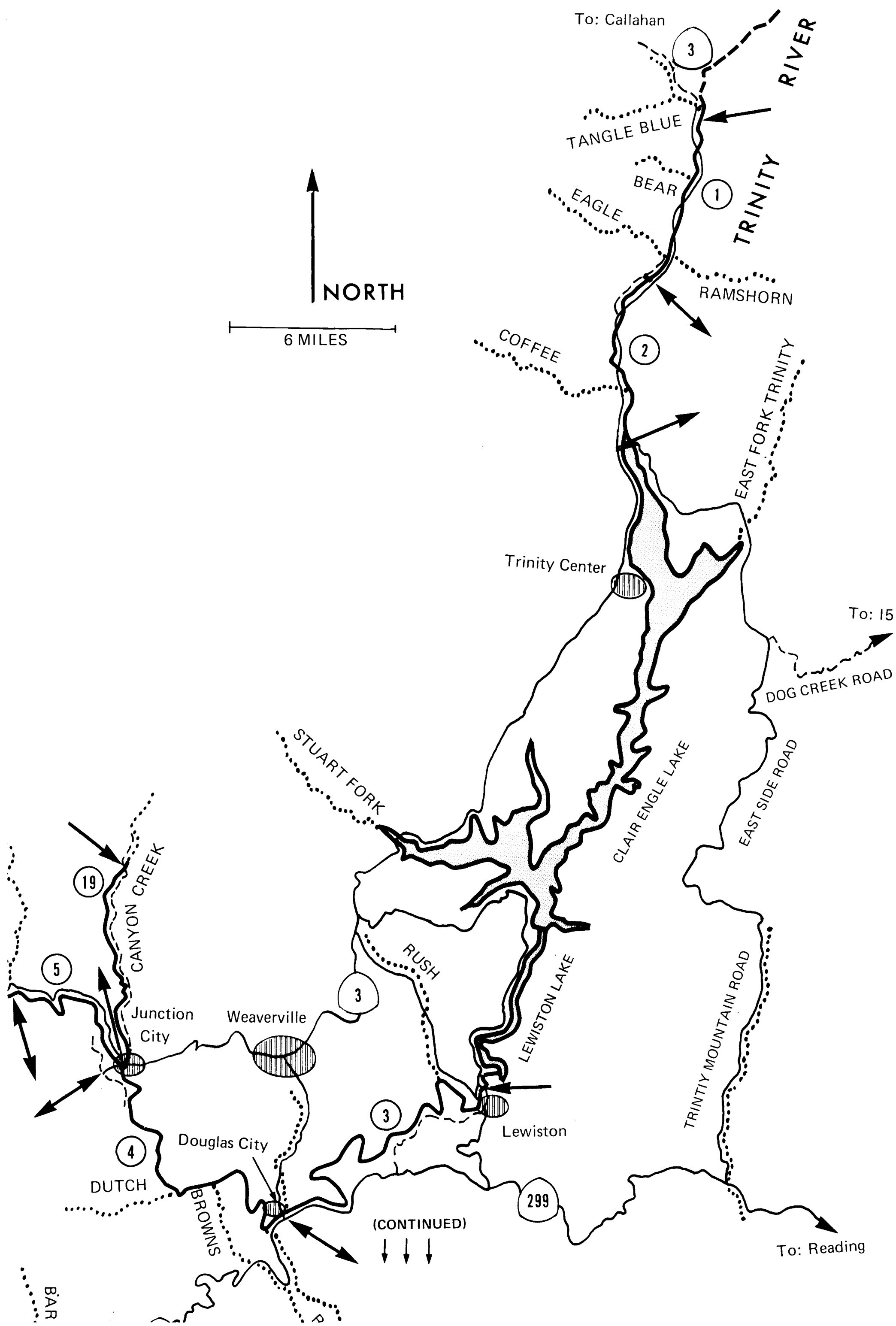
Although gold mining changed the river irrevocably, a new and even more insidious change caused by man is now occurring. The controlled small flows are preventing the flushing action that would normally occur with high winter flows. Silt is covering the gravel, and the willows and brush are crowding into the river channel. As a result, a large part of the river apparently has been lost for fish spawning.

For the first half of the run, the river flows past tailings. From put-in, the old Lewiston bridge is at 0.6 mile, and Rush Creek enters at the tip of a broad peninsula at 2.8 miles. At 4.1 miles, at a right turn after 1½ miles of boating south, the first rapid of consequence occurs, replete with brush that usually is only found on much lesser streams than this. A bridge at 5.3 miles offers a possible put-in or take-out. This point can be reached by taking the Lewiston Road, which branches off Route 299 5½ miles east of Douglas City, then branching off to the left in 3 miles onto a side road to the river.

In the next couple of miles there are two sets of power lines and four or five rapids. At 9.4 miles – across from the tip of a northeasterly facing peninsula – are an old abandoned

D TRINITY RIVER AND UPPER MAD AND VAN DUZEN RIVERS




To: Callahan
3
RIVER
TANGLE BLUE
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1
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NORTH
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Trinity Center
To: I5
DOG CREEK ROAD
STUART FORK
CLAIR ENGLE LAKE
EAST SIDE ROAD
19
CANYON CREEK
RUSH
5
3
LEWISTON LAKE
TRINTIY MOUNTAIN ROAD
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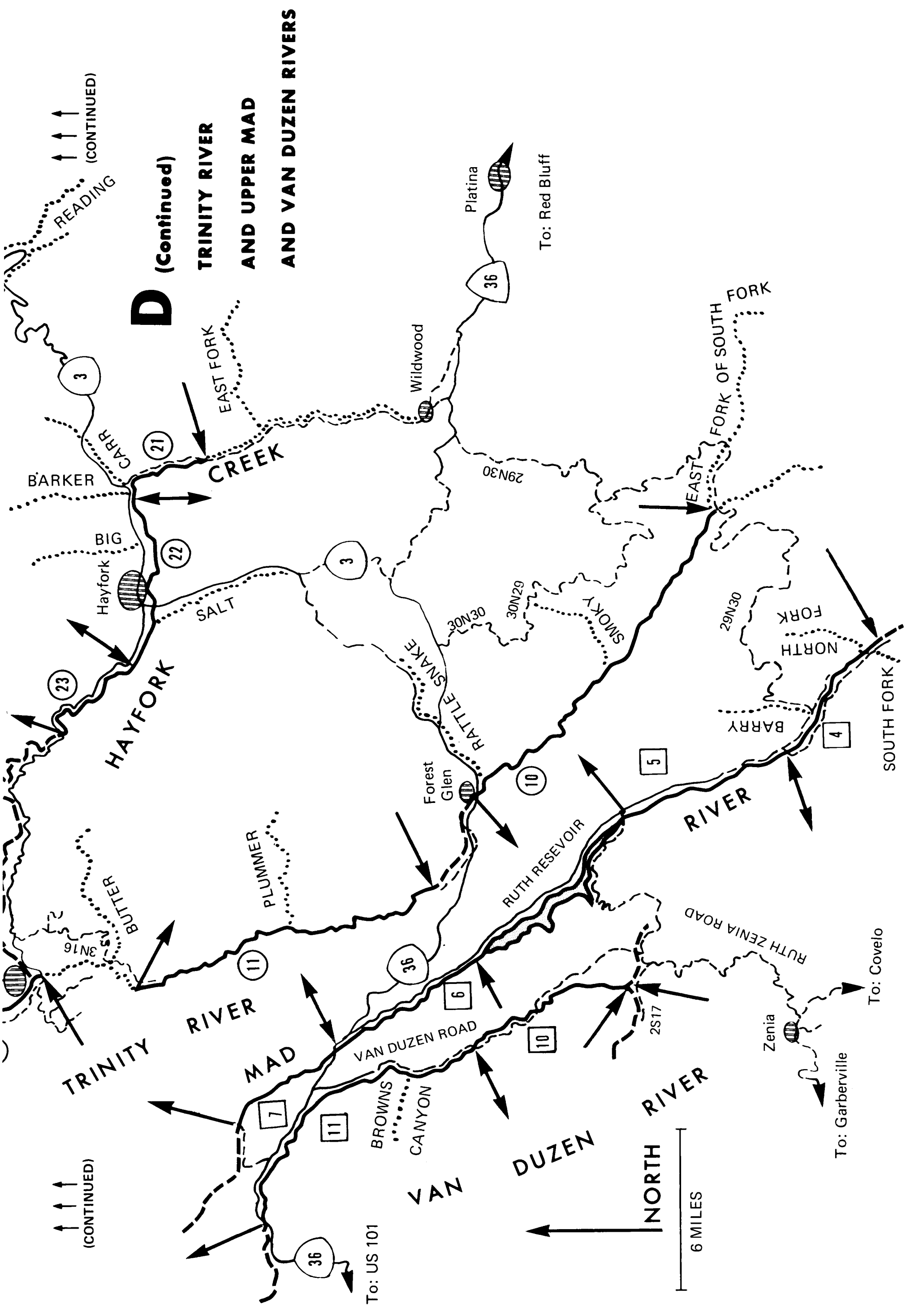
To: Reading
BAR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TRINITY RIVER
AND UPPER MAD
AND VAN DUZEN RIVERS
(CONTINUED)
READING
3
EAST FORK
CARR
21
CREEK
BARKER
BIG
22
Hayfork
SALT
HAYFORK
23
Wildwood
36
Platina
To: Red Bluff
29N30
30N29
30N30
SMOKY
SNAKE
RATTLE
EAST FORK OF SOUTH FORK
NORTH FORK
BARRY
SOUTH FORK
4
5
RIVER
Forest Glen
10
RUTH RESEVOIR
PLUMMER
BUTTER
3N16
11
TRINITY RIVER
MAD
6
7
VAN DUZEN ROAD
RUTH ZENIA ROAD
2S17
Zenia
To: Covelo
To: Garberville
BROWNS CANYON
VAN DUZEN RIVER
NORTH
6 MILES
To: US 101
(CONTINUED)

cabin and barn. The river next flows through a particularly pretty canyon section of river. At 11.5 miles, there is a roadhead on the left side, at the end of a river frontage road, which could be a take-out. Around the next corner are homes on the left and, at 13.7 miles, the river meets the highway.

The take-out is at the highway bridge at Douglas City.

4. TRINITY RIVER (continued)

4. Douglas City to Junction City
Class 2 at optimum: 600 cfs
Same class for run 4/1/72 at 400 cfs
Maps: Weaverville, Hayfork; Trinity NF
Average optimum flow date 5/21; also see Fig. 8-e

14.0 miles, spring and summer run
Scenery: A, short shuttle
Drainage midway: 1014 mi^2
Canoes and Rafts: OK

By 1858, Douglas City, then known as Kanaka Bar, was estimated to have a population of 1,200. One mile downstream on the left, immediately before Reading Creek, is a marker indicating where Major Reading discovered gold.

Put in at the bridge in Douglas City or at the BLM campground. To reach the campground, drive between the post office and restaurant and take the left fork at 0.2 mile. Both the restaurant and the campground are closed in winter. The restaurant opens on April 1. There is also a small, neat commercial campground on the river flat on the same side of the river 0.2 mile downstream of the bridge.

This run was our second coastal California river trip – a wonderful, memorable overnight trip with a Sierra Club group. The fall colors were at their best. For many boaters, this run is highly prized, and deservedly so, even though the dam-controlled flow is very small (see previous run). The many side streams greatly add to the flow from the dam to produce optimum flows during the winter and spring.

There are 6 to 12 Class 2 rapids in the first 6 miles; the river then becomes Class 1½ for the rest of the trip.

The first of the larger rapids is located at a right turn at 1 mile, just beyond Reading Creek. The campground is on the right, at 1½ miles. The river then forms a peninsula as it swings left around a ridge, and at 3 miles, passes the remains of a very small wooden dam across the left half. Between one-third and two-thirds mile beyond, there is a twisty, short rapid on the right side of an island; it is probably the most difficult rapid of the run – at least, the hardest to run cleanly.

A road follows along the right bank to the 5.8-mile point, and at 6.0 miles, Browns Creek enters on the left. This creek has the largest drainage (72 square miles) of any entering this run. Shortly after, there is a large rock monolith on the right bank with a pipe attached. Maxwell and Dutch Creeks enter on the left in the next 1 to 1½ miles, just before and after a sharp ridge on the right, called Johnson's Point, plunges into the river. The land and cabin opposite the point are privately owned, but the creeks are on USNF property and so provide good camping possibilities. This area is the first section of Trinity National Forest river frontage; another mile-long section occurs a mile farther (see the USNF map). Much of the remaining run is through slower water and areas of tailings.

At Oregon Gulch (12.6 miles), just before the river makes a sharp left in front of a small, isolated hill, the tailings of LaGrange Mine meet the river. In another mile, the river begins to run alongside Route 299, but steep banks make it impractical to take out here. Go another mile to the bridge, which is on a side road past the USFS buildings in Junction City, one-third mile from Route 299. A drive leads down to the edge of the river on the Junction City side. From this point it is one-half mile to town. If you are boating on, go another one-half mile to Canyon Creek, which enters over a large rocky bar; from there, it is a very short walk to Junction City.

5. TRINITY RIVER (continued)

5. Junction City to North Fork
Class 1½ at optimum: 1000 cfs (1300 cfs at Burnt Ranch gaging station)
Same class for run 4/1/72 at 800 cfs
Maps: Hayfork, Helena; Trinity NF
Average optimum flow date 5/21, also see Fig. 8-e

7.0 miles, spring and summer run
Scenery: A–, short shuttle
Drainage: 1120 mi^2
Canoes and Rafts: OK

Put in at the Junction City Bridge, the take-out for the previous run. Most of this run is through the tailings of a dredger that worked this area in the 1920s or 30s. Afterwards, the dredger was used in an area that is now inundated by the upper end of Clair Engle Lake. The river is of constant width through the dredged sections and is lined with willows which cause only a small amount of brush hazard, as the turns are not sharp. Riffles come occasionally. The boater is out of view of the highway more than would be expected, and the surrounding hills are beautiful. The gravel bars are generally unappealing for hiking and camping, but there are suitable camping sites. The Junction City NFS campground is right along the opposite side of the road. It can be reached by walking across the gravel flat from the right bend in the river immediately after the mile-long straight section of river following Canyon Creek.

The river exits from the generally wide valley of the Junction City area at a very distinct, southerly pointing peninsula at 5 miles. Just at the end of the peninsula after a sharp right turn, a large, low rock outcropping, which becomes an island at high water, and a small rapid are located here.

Take out in the willows on the right bank just as the bridge on the North Fork of the Trinity comes into view. There is a drive off the road into this access area just east of the bridge (this may be private property – if it is posted, continue downstream just past the North Fork, as that is NFS property).

6. TRINITY RIVER (continued)

6. North Fork to Big Bar
Class 3½ with 1 Cl 4 rapid and 1 P at optimum: 1000 cfs at gaging station
Same class for run 5/3/70 at 1070 cfs
Maps: Helena, Hayfork; Trinity NF
Average optimum flow date 6/12
also see Fig. 8-e

8.4 miles, spring runoff and summer run
Scenery: A+, short shuttle
Drainage: 1440 mi^2 at Burnt Ranch gaging station
Canoes: no; Rafts: OK

Put in to the Trinity at the North Fork, which is 14½ miles west of Weaverville. In 1 mile, the river enters a beautiful canyon that stretches to the South Fork. Almost immediately, there are some easier rapids on which to warm up. At 2.9 miles, Eagle Creek enters on the left. There is a sign identifying it along the road. The first big action comes 0.3 mile before Eagle Creek with a single, symmetric drop of moderate size. Most of the rapids on this run are easily visible from the highway.

Three-quarters of a mile past Eagle Creek, a large drop occurs that is nearly steep enough to be called a falls. The river makes a large, wide pool just above it. Friends had run it in kayaks and 15-man rafts at higher water, but at the water level on our run it looked particularly dangerous, so we portaged. In another three-fourths mile, in the right bend where Sailor Bar Creek enters, there is a moderately long rapid which requires scouting and careful route planning. A Class 4 rapid lies at 4.7 miles.

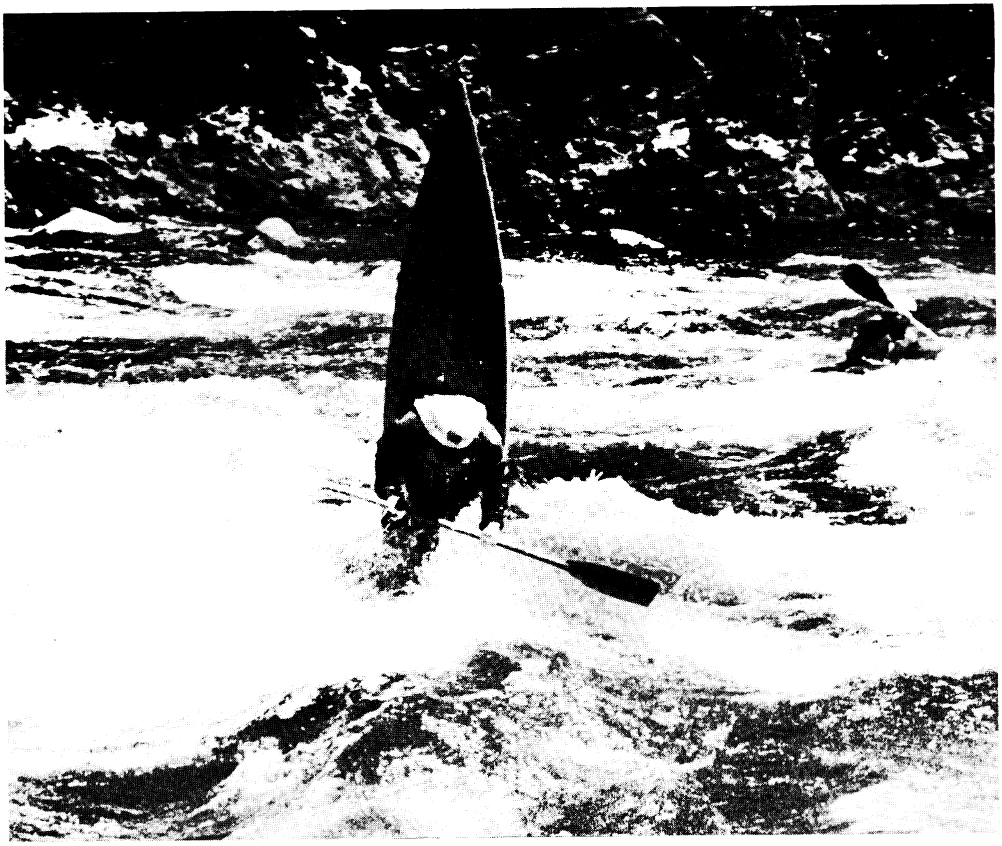
The remainder of this delightful run is decidedly easier. Big Flat campground is on the right across the highway at 5.7 miles, and Big Bar Creek enters from the left at 6.7 miles. The bridge at Big Bar is located at 8.4 miles. There are several take-out possibilities for this run. It should be noted that a very acceptable dirt USFS road, 33N60, leads from Big Bar to the South Fork at Hyampom, a distance of 24 miles (see the description in the South Fork Trinity, run number 13).

Put-in and take-out possibilities are numerous along this run since the road is usually only a short but steep boulder-hop away. Nearly all the land along the river from this put-in to Hawkins Bar is USFS property.

7. TRINITY RIVER (continued)

7. Big Bar to Big French Creek
Class 2 at optimum: 1100 cfs
Same class for run 5/20/70 at 1050 cfs
Maps: Hyampom, Ironside; Trinity NF
Average optimum flow date 6/8
also see Fig. 8-e

5.4 miles, spring and summer run
Scenery: AA, short shuttle
Canoes and Rafts: OK



Charlie Martin* playing in a souse hole. He finds himself in a vertical nose stand (photo by April Elliott).

The author split this short run between upstream and downstream runs when mapping the river, using the Whites Bar NFS picnic area for access. This is 2.2 miles below the bridge at Big Bar, the nominal put-in for this run, though it may be easier to reach the river upstream at the Big Flat NFS campground. This run is the easiest between the North and South Forks. Take out at French Bar where most convenient, as the road is very close to the river here.

French Bar is a peninsula jutting northeast and has a tunnel through it. Dug by Chinese laborers, it was to divert the river and mine the exposed river bed. The tunnel is seen from the highway.

8. TRINITY RIVER (continued)

8. Big French Creek to Cedar Flat
Class 2 with 3 Cl 3 rapids at optimum: 1100 cfs
Same class for run 5/12/70 at 1050 cfs
Maps: Ironsides; Trinity NF
Average optimum flow date 6/8, also see Fig. 8-e

10.0 miles, spring and summer run
Scenery: AA, short shuttle
Drainage: 1440 mi^2 at take-out
Canoes and Rafts: OK

Instead of using the take-out of the previous run for access, one may prefer to use the Whites Bar NFS picnic area, which is 3 miles upstream of Big French Creek. At 1.2 miles, a foot bridge over the river marks the approach of Del Loma. The river skirts the left side of a rather large flat before the road returns to the river a mile downstream below Del Loma. A mile farther, the highway cuts through rocky terrain; small pinnacles appear on the river side. This is Tony's Point (3.3 miles), and as the river makes the last half of the turn around the point there are two Class 3 rapids not far apart. At 8.2 miles, there is a foot bridge, and

*Author and publisher of the river guide, "Sierra Whitewater."

one-half mile farther, the river makes a sharp right turn at Don Juan Point. Just around this turn is the final Class 3 rapid.

Take out at the beach just before the right turn to the Cedar Flat bridge, where a public swimming area is located. The run could continue for another mile to the county dump at China Slide, but the take-out there is unpleasant and not recommended. Do not continue past the dump since it is the last possible take-out before the Burnt Ranch Canyon, an unrunnable section of river.

Attached to the bridge is a USGS gaging station, called the Burnt Ranch gage. It is the only one between Lewiston and Hoopa.

China Slide has an interesting history. In 1881, while miners worked the rich gravels at the river, the shoulder of the very steep ridge on the south side came thundering down on them. White miners refused to work there after the catastrophe, and the land was leased to Chinese miners. In February 1890, after unusually heavy winter rains, a much more extensive slide occurred, killing two Chinese working at the time. The slide extended a half-mile up the hill and was about 1,000 feet wide. It blocked the river and created a 12-mile-long reservoir in 7 hours. At Don Juan Point, the water rose to within 10 feet of a miner's cabin which was built 150 feet above the river. The height of this natural dam was about 180 feet. Although the river soon carried it away, the scar from this landslide is still very evident.

The Burnt Ranch Gorge*
Not Recommended for Boating†

Mel in his gay "Das Schnellerwagon" and Mike in his well-worn truck pulled off at Cedar Flat to join us. Both were loaded with boats in preparation for a big Labor Day weekend of kayaking. For some years, Mel had been making Memorial and Labor Day trips to the Lower Trinity. Our plans for this very special trip shaped up rapidly – lightness was the word – no spare paddle, but plenty of rope. At 10 a.m., we carried to the river and launched.

Their boats seemed like feathers compared with mine, but I was carrying some extra insurance. In a long-unused box of equipment in the attic, I had found a small, well-selected collection of pitons on a carabiner, which had been assembled a year or so before just in case the opportunity arose for this run. These, my piton hammer, and a pair of light weight climbing boots were in my wet bag; I had never taken such precautions before, although I had joked about it on occasion. We might want to put up a fixed line for a traverse on steep rock.

The 8½ miles ahead were known as the Burnt Ranch Gorge section of the river; the local residents would go out of their way to warn boaters about its dangers. In spite of its reputation and my precautions, we were approaching the run as a day's outing, admittedly tougher than the usual, but definitely not as an expedition.

As we glided down the easy first mile to China Gulch, I had a chance to contemplate. Mel was an explorer of boating technique, designs, construction, and men's minds. He was a keen observer, a master at teaching boating, and a self-made philosopher. Like hundreds of other boaters, I felt as if he were a close friend, although we had never spent more than a few hours together – that was his knack. He was not a "river run bagger" and had not been on many standard river runs much closer to home. However, all of his trips past the Gorge had stirred that universal urge to explore. He had mentioned it to me a year ago; a cautious trip through the Gorge in low water with expectation of plenty of portaging. The 350 cfs at the put-in was fine.

Mike was a superior boater and would no doubt do most of the leading. In spite of having just read that brilliant novel *Deliverance,* I wasn't the least bit nervous about the run. In the first long rapid our teamwork was shaky, but we quickly worked out a set of paddle signals, decided on our approach, and I began to feel good about our team.

After the left turn a half mile below the County Dump at China Slide, we saw Box Canyon. At its entrance was our first portage. We decided on having Mike portage it quickly and boat on to explore around the corner, then boat back. To portage a rapid in the canyon would require a lot of time and long-lost skill behind those pitons – the vertical rock walls

*Reprinted from the *Sierra Club River Touring Section News Bulletin,* September, 1971.
†Some portages are on steep rock that will be impossible to walk on if wet.

plunged directly into the water. The portage would have to be up a long way and then a half-mile to the other end. It was a big break that it was okay to run.

A combination of several Class 3 and 4 rapids and about three portages brought us to the Burnt Ranch Falls section. It is not a falls, but a series of four big drops spaced out with some runnable rapids between the first two. Reg Lake had hiked down from the Burnt Ranch USFS campground to join us and the many fishermen. After portaging the first rapid, Mel took a short swim just above No. 2. Mike ran the second drop. It consisted of a Class 4 entry, then a 7-foot, narrow, clean-looking chute alongside a house-sized boulder and into crazy turbulence at the bottom. We guessed what it would do to him, but all got a surprise. Some uncle of the Loch Ness Monster must live in that hole; he simply pulled the boat in so far that Mike's bright blue helmet was barely visible, then popped his spray sheet and flipped him over.

With two strenuous portages after lunch, we cleared the Falls area. The 3.6 miles covered in 3½ hours didn't mean much; it was the elevation drop that was important. We had covered half of the 380 feet. The 1.4 miles to the New River were exceptionally strenuous for all of us; there were four or five portages before the river shifted back to Class 4. Only one more portage remained, Gray's Falls, which came in about a mile. The fishermen were having particularly good luck there at hooking big salmon, so paid little attention to us nuts in boats.

The river immediately became easier. The canyon walls widened and we began to relax as we finished out the last couple of miles.

"You know," said Mel, "this is going to be the high-water mark of my boating career. I don't really expect to explore another river; I'll leave that to you younger guys. This is the one I wanted to do."

We were all tired. Mike and I had helped Mel as much as he would allow; he had felt uncomfortable about being helped. That was opposite to the way he lived.

The Hawkins Bar bridge appeared around the final corner. It was 5 p.m. Fishermen asked us about our run. We were modest, but proud of our accomplishment. We would be in camp shortly to greet the arriving boaters. Mel and I pulled out under the bridge.

Three minutes later, a sudden, unscheduled trip of a different nature began. While Mike scouted the lower take-out a quarter-mile away and I was draining water out of my leaky boat, Mel collapsed. "Mel, what's wrong? Just a minute, you'll be okay!" He doesn't hear me. Not breathing. No pulse, I don't think. Pound on the chest. Artificial respiration. What's plugging the air passage? There, now it works! No response, but keep it up. Mike, Jan, Reg arrive. Ambulance. Resuscitator. Long ride.

"I'm sorry, . . . he's dead."

9. TRINITY RIVER (continued)

9. Hawkins Bar to South Fork
Class 2 with 1 Cl 3 rapid at optimum: 1350 cfs
Same class for run 5/29/70 at 1250 cfs
Maps: Willow Creek; Six Rivers NF
Average optimum flow date 6/8; also see Fig. 8-e

8.4 miles, spring and summer run
Scenery: A, short shuttle
Drainage: 1730 mi^2 at take-out
Canoes: OK, possibly 1 portage
Rafts: OK

At Hawkins Bar, 45 miles west of Weaverville, a side road crosses the river and leads to Denny. Put in at that bridge using the trail to the right at the near end of the bridge, which leads down past an old bridge pier. Better yet, opposite the grocery store there is a small road over USFS land that leads to a bar at the river one-fourth mile downstream.

At 2.3 miles, after boating directly away from the road and then making a sweeping left turn, there is a huge slide on the right hillside. This slide is easily seen from Route 299 and is forested. Just below it is the only Class 3 rapid on the run. It can be easily portaged.

On the topographic map, the highway follows the river for much of the run, but the canyon is deeper than it is above Cedar Flat, so the road generally is 100 feet or more above the river and essentially inaccessible.

A take-out at the Salyer Bridge (7.2 miles) would be difficult. Continue on to where the South Fork enters at 8.4 miles. Take out right at the point of entry and climb up a short distance to a narrow, poor road that leads to the highway a few hundred feet east of the bridge.

10. SOUTH FORK TRINITY RIVER

10. East Fork Confluence to Forest Glen
Class 4 with many P's at optimum: 200 cfs at put-in
For run 5/22/71 Cl 3 with many P's at 100 cfs
Maps: Black Rock, Dubakella Mtn., Picket Peak; Trinity NF
Average optimum flow date 5/7

16.6 miles, spring runoff run
Scenery: AA, long shuttle
Drainage: 83 mi² at put-in, 208 mi² at take-out
Canoes: no; Rafts: no

The many portages make this run unrewarding – in fact, unrunnable for all but those who love to portage. However, Forest Service roads to the put-in are good. The put-in is at the bridge over the South Fork of the Trinity at the confluence of the East Fork. The best approach starts 2½ miles west of the Shasta-Trinity county line on Route 36 at the crossing of Hayfork Creek. The road, FS 29N30, follows the creek south about 8 miles to a ridge with many road intersections and then through the Prospect Creek and East Fork of the South Fork basins for about 10 miles to the South Fork Trinity bridge. The approach from Forest Glen is to use FS 30N30 which goes south from Route 36 six miles east of town for about 18 miles before intersecting 29N30 on the ridge.

A third access to the put-in is from the Mad River. From the south end of Ruth Reservoir proceed upstream, staying on the east side of the Mad River to Barry Creek, then take 29N30 east about 14 miles to the put-in. It is expected that these roads, particularly the first two, will be dried out and easily passable by the time the spring runoff is down to the optimum flow (all dirt roads should be avoided for one or two days after any rain).

After the put-in at the bridge across the South Fork, the river wastes little time before making an introduction – a short but difficult rapid is around one of the first bends. (The author began a week's boating trip with a tip-over here.) The river continues with occasional rapids. At 2¼ miles, there is a vertical slat fence on the right, marking the Bramlet Place. At 4½ miles, where Red Mountain Creek enters on the right, there is a cabin and a cable with a self-propelled seat. The creeks entering from the left had much more water in them at the time of our run than those entering on the right – no doubt because they were gathering snow run-off directly from a higher ridge that includes South Fork Mountain.

For another mile past Red Mountain Creek, the river continues to twist and turn. Then it flows through a relatively straight canyon heading west-northwest for 2 miles. Nearly a mile into this straight section difficult portaging among large boulders begins in earnest. We entered a blind rapid with a log jam across much of the river up high on the boulders and dodged between eddies, before realizing that we faced a long portage around a tremendous rapid with about a 25-foot drop. It seemed that there was more unexpected portaging on this run than any the author had previously made. The run continued with frequent rapids, and much scouting was required.

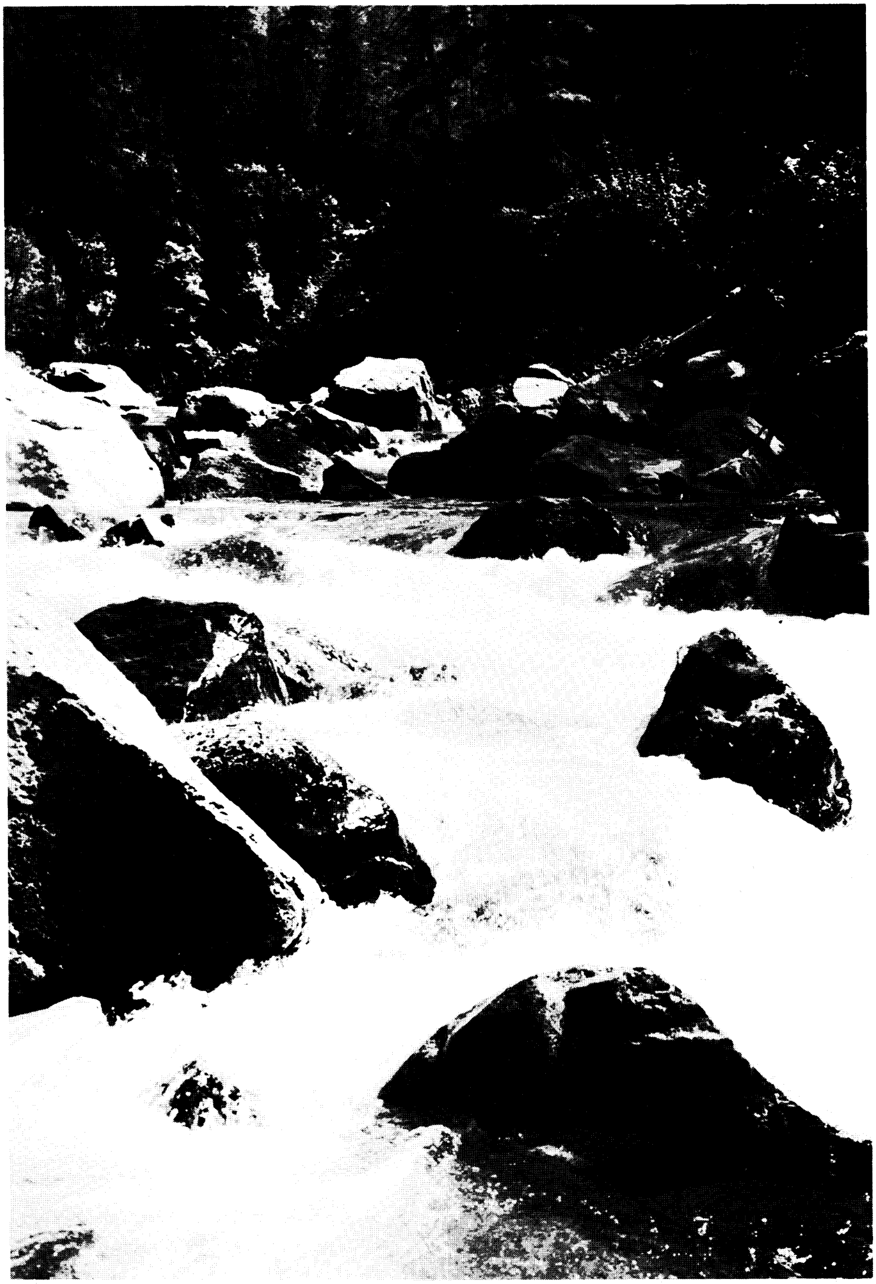
Rough Gulch enters from the left at 7.6 miles and Smoky Creek from the right at 8.6 miles. The latter has a well-defined creek bed. Around the next corner, we faced another portage rapid. In another one-half mile (9.5 miles), Silver Creek enters on the right and very shortly a dirt road comes down to the river level. There is an emergency take-out here over private land.

This marks the end of the portage rapids, except for a possible portage six miles ahead.

An old-timer in Forest Glen told us that many years ago fishing for summer salmon was excellent in the deep pools in the region of the East Fork of the South Fork, but that the salmon had disappeared, probably because of blasting used to take them in great numbers. The deep pools have disappeared, too – probably filled with gravel from flood waters. However, starting at the swinging bridge we did see some beautiful pools.

In about 1 mile, there is a small, hard rock miner's cave. It is probably the southernmost sign of gold mining that the author has observed in the North Coastal region. At 12 miles, just after a right turn, a creek enters from the left and large boulders form a Class 4 rapid. One-third mile farther is a new foot bridge, and a less difficult rapid is located at 13 miles. In another half-mile, there is a steep rapid at a left turn. As it is made up of smaller rocks, we found it surprisingly easy to run.

Foot bridges are located at 14¾ miles and at 15½ miles. A road along the river on USFS land ends at the bridge farther downstream, providing the first possible take-out. At 15½



Rocks and white water on the South Fork of the Trinity River.

miles, Rattlesnake Creek enters; it is the largest tributary in terms of drainage area next to the East Fork. The USFS Hellgate campground here makes this a good take-out.

Continuing on downstream, almost immediately there is a warning rapid extending around a curve, a very short, flat section, and then a short, steep, powerful drop over large boulders. The drop can be easily portaged on the right.

Take out on the right side at the Route 36 bridge.

11. SOUTH FORK TRINITY RIVER (continued)

11. Klondike Mine to Hyampom
Class 3– with 2 Cl 4 rapids at optimum: 300 cfs at Forest Glen; same class for run 5/2/70 at 175 cfs
Maps: Pickett Peak, Hyampom; Trinity NF
Average optimum flow date 5/16

16.0 miles, spring runoff run
Scenery: A, long shuttle
Drainage: 342 mi^2 near take-out
Canoes: OK with a few portages
Rafts: OK

The put-in for this run is at the abandoned Klondike Mine, 4.4 miles downstream of the Route 36 bridge. In May 1972, the author returned to the South Fork to test whether the 4.4 miles between Forest Glen and the Klondike Mine really were unrunnable. With a total gradient of 350 feet and the last two miles, each having a gradient of 100 feet per mile, there was only a remote chance that the drops would be spread out in many long, runnable rapids, rather than in fewer, unrunnable, steep falls. Sometimes, nature is kind to boaters and surprisingly steep river beds can provide excellent boating for experts. One hundred feet per mile, however, is about the limit. On this run, we spent five hours in strenuous portaging around 13 unrunnable rapids. Our conclusion was that boaters would be well advised to avoid the stretch between Forest Glen and the Klondike Mine.

In considering runs that require extensive portaging, a good rule of thumb is that the average portage consumes about the same amount of time as 1 mile of continuous boating but requires considerably more effort.

The Put-in

Although the trip from San Francisco to Forest Glen is about 20 miles shorter via Red Bluff than via US 101 to Route 36, the Red Bluff route is probably an hour faster. The distance to Forest Glen from Interstate 5 is 79 miles and from US 101, 66 miles. Both sections of Route 36 are equally bad.

From the Route 36 bridge, go west 2½ miles (just 0.2 mile after Clear Creek) and turn into the first road leaving Route 36 on the right, which is FS 1N18. (This road is marked as 3N19 on the Forest Service map.) Bear right for 1.8 miles on an unmarked road. In the first half-mile, the road crosses several small rivulets and then follows the left side of the gully to the river a half-mile farther. The driver must be alert since there is a false turnoff in each direction. In 1970 we had to carry our boats the last half-mile because the first part of this section, which crosses through a wet area, had slid out. In 1972, there were deep ruts in this section, but it was passable. If you can negotiate this section, you pass an occupied cabin, apparently at the old mine site, and then have to carry the last 200 yards. Carry boats across the creek that has formed in the gully and continue past another group of cabins, then down a steep road to a wide bar at the river. This put-in and the access to it are on USFS property.

The Run

Looking upstream from the put-in, there is a fairly long and involved rapid, typical of many that we ran to reach this point. It is about three-fourths mile before the canyon floor widens, and several rapids in this area are the most difficult of the run. We had to portage several rapids because of low water, but the portages were very short and easy. The center section of the run seemed surprisingly devoid of interesting rapids, although the gradient is typically 40 feet per mile.

At about 2½ miles from the put-in, we observed three or four new houses on the left, probably summer residences. Five of the larger flats along the river are private inholdings of the Trinity National Forest, and some cattle were seen. By far the largest side stream along this run is Plummer Creek. It enters from the right at 7.2 miles, immediately after a very sharp left turn.

The Take-out by Water and Land

At 11.5 miles, just after Sulphur Glade Creek enters from the left, the river swings sharply right, around a very narrow peninsula pointing east. French Ranch is at the top of the peninsula. In another 2-1/3 miles, the boater turns left and boats directly south for several hundred feet for the only time during the entire run. He must follow this course to circumnavigate a small peninsula. The take-out is on the right in 1.5 miles, just before the river makes a sharp left turn that is almost a U-turn, at the base of a 300-foot high, steep, rocky bank. Maps show a foot bridge located 0.4 mile before this point at Johnson Creek, but no sign of it now exists. The take-out is at Oak Flat at a point that is believed to be abandoned private land. Buildings may possibly be seen on the right 1 mile earlier at St. John's place, the end of the road, and for the next one-half mile there is a moderately strenuous take-out on USNF land.

It has been noted that put-in should not be made before Klondike Mine. It is equally important on this run not to take out too late, and that is why so much attention is given to the take-out clues. Many groups making the run will have a shuttle driver since the one-way shuttle time is 2 hours. Something may delay the driver, and the boaters could arrive here first. An emergency take-out can be made across private land 1 mile farther at the fairly large Butter Creek by hiking up several hundred feet to the road. In another mile the canyon walls cinch up on the river, causing a series of unrunnable rapids that would be difficult to portage. Those interested in seeing these rapids can walk in from the very steep Wintoon Flat Road on the other side of the river.

To reach the take-out, go east on Route 36 from Forest Glen for 10 miles, left on Route 3 12 miles to Hayfork, then west 20 miles toward Hyampom (3¼ miles past Camp Trinity and 2 miles before Hyampom). Take the USFS road (a major road, but dirt) 3N16, called Deep Gulch Road, south. At a junction at 1½ miles, 3N08 goes left, but continue straight ahead for 5.7 miles before seeing the river and crossing Butter Creek. Turn right 0.6 mile farther, climb over a ridge for three-fourths mile, and about 1,000 feet after reaching the flat on the other side, bear right onto a lane that gradually descends past abandoned mining shacks one-fourth mile to the river. This point is just above the sharp U-turn in the river described earlier.

The USFS road can be slippery in spots when wet. Unless there has been a very recent rain, however, the road can be expected to be in good shape when the river is at the right flow. The condition of the road can be checked at the Hayfork District Ranger Station in Hayfork.

12. SOUTH FORK TRINITY RIVER (continued)

12. Hyampom Valley	**5.3 miles, spring runoff run**
Class 1 at optimum: 750 cfs (not boated)	**Scenery: A, short shuttle**
Maps: Hyampom; Trinity NF	**Drainage: 764 mi^2 near take-out**
Average optimum flow date 5/23	**Canoes and Rafts: OK**

An early, important pack trail, the Hyampom Trail, connected the coast at the Eel River with Hayfork Valley and the upper Trinity area. From Hydesville, this trail ran east up the Van Duzen through Carlotta, along the Redwood House Road, then via a rugged route now abandoned across the Mad River, up Pilot Creek and over South Fork Mountain to Hyampom. The 23-mile-long automobile road between Hyampom and Hayfork was not opened until 1922.

Coming from the south up Interstate 5, it is said to be faster to reach Hayfork via Redding, Route 299 to Douglas City, and then Route 3, rather than via Route 36 from Red Bluff and then the Wildwood Road. Upon approaching Hyampom, bear left at the junction just after entering the valley floor. Put in at the bridge in one-half mile. If the flow is very low, put in below Hayfork Creek junction from either side at the bridge piers 1 mile downstream.

The river meanders through a wide, uninviting gravel bar. The author did not make this run but scouted it carefully from the road. From a boat, surprisingly little of the gravel will be seen but much of the valley scenery. That was the case for a similar gravelly section of the upper Van Duzen. There is an average gradient of 10 feet per mile and, since no rapids or brush were observed, it is expected to be a very easy Class 1 run.

Take out at the Big Slide campground, 1½ miles after the hills close in and the valley ends. The campground can be reached from the put-in by the road along the west side of the river.

13. SOUTH FORK TRINITY RIVER (continued)

13. Underwood Creek to Low Level Bridge
Class 4 with 3 P's at optimum: 550 cfs
Same class for run 5/31/70 at 340 cfs
Maps: Pilot Creek, Willow Creek; Trinity NF, Six Rivers NF
Average optimum flow date 6/1

12.1 miles, spring runoff run
Scenery: AA+, long shuttle
Drainage: approximately 880 mi^2
Canoes: no
Rafts: OK, but much scouting

The remainder of the South Fork Canyon possesses exceptional beauty. It was through this rugged canyon that Jedediah Smith, with 17 companions, drove about 300 horses and mules in late April 1828. In his biography of Smith,* Morgan summarizes the problems of travel through this region.

> The animals would go through narrow passes in a squirming mass, frantically trying to keep from being precipitated down the vertical cliffs, and inevitably knocking off one or two of their number to be crumpled on the rocks or drowned in the river below; they would get tangled in brush or timber, tied up in cul-de-sacs, their feet, legs and bodies cruelly mangled by sharp rocks or broken branches; and rarely would they find an open space in which to feed. To advance one mile might require a day's labor on the part of the whole company, and the horses would be unfit for travel for days after. When possible, Jedediah moved along the bank of the river, but often he had to twist and turn up over rocky, steep ridges, then down again through thickets and deep ravines; and though it was now late April, the horses occasionally floundered through snow three or four feet deep.

Between the last take-out and this put-in are 5 steep miles of river that the author considers to be unrunnable. Starting from the last take-out, travel downstream on a good Forest Service road; in 6 miles, the road passes under large power lines. Take the second right only a few hundred feet farther, and go down the hill for 1 mile almost to the river, right opposite Underwood Creek. Boats must be carried the rest of the way down a steep bank; the put-in is close to the swinging foot bridge (on USFS property).

The first big rapid occurs 1¼ miles, after the first definite left turn. The optimum flow for this run, almost all of which is in a narrow channel, is not sufficient to run this rapid. Some of us portaged. A short distance around the next corner is the largest rapid of the run and a definite portage, much of which can be lined. The rapid drops about 25 feet in a couple of hundred feet through large boulders.

After another couple of rapids, the river cuts through vertical strata of porous, moist rock. These exposed strata are covered with the most beautiful, lush, hanging gardens that are shrouded with water sprays from above.

At 2.8 miles, there is a 4-foot falls just upstream of a small horseshoe bend in the river, created by a steep, craggy ridge line that plunges into the river from the right side.

From there the rapids are frequent and interesting all the way to the suspension bridge at 6.5 miles. One of our group "eddy scouted" where necessary – that is, he made use of his very precise skill of going from one small eddy to another down those rapids that could not be viewed in their entirety from above. They tended to be short, tight rapids, and any one of them could have had a log sweeper. A rafter, of course, cannot begin to perform this eddy hopping and can only safely boat this run if he scouts all blind rapids.

In 1969 we put in and in 1970 we took out at a suspension bridge at 6.5 miles, but there is a long carry here (directions to it are included later).

Entering on the left at 9½ miles, there is a small creek that has deposited an unbelievable pile of silt and rock on the river bank. Immediately below this point are three difficult rapids. The last is probably a portage rapid at all water levels.

To reach the put-in from Route 299 at the South Fork, go east 12 miles to just past the

Jedediah Smith and the Opening of the West, Copyright 1953 by D. L. Morgan; reprinted by permission of the publisher, The Bobbs-Merrill Company, Inc.

NFS station at Burnt Ranch, and turn right onto Underwood Mountain Road (USFS 5N19). In about 15 miles, turn right onto USFS 33N60, which ends in Hyampom, 11 miles away.

The one-way shuttle distance is a slow 58 miles, but well worth the effort. However, one final challenge to this outing must be noted. The Forest Service road between Burnt Ranch and Hyampom is the key to this run. If 100 feet of this road is unrunnable, it cannot be portaged! We were told that once the road dries out in the spring, it takes 24 hours to dry out again after a subsequent rain. If unable to judge conditions, write or call the USFS Ranger Station, Big Bar, (916) 623-6106. This office is open from 8 a.m. to 6 p.m. weekdays and from 9 a.m. to 6 p.m. on Sundays after about May 1. It is possible, however, to back-track and proceed via Douglas City to complete the shuttle.

The take-out comes in another 1½ miles at a low-water bridge on USFS land. The access road is private but is kept open. There is another access in 1½ miles; this road is owned by PG&E but is open for public use.

The take-out can be reached as follows: Start from the Route 299 bridge over the South Fork. Turn south a few hundred feet east of the bridge and proceed 3½ miles. Continue right on USFS road 5N03. In another 3.3 miles, turn off on a road to the right, one-fourth mile to the low-water bridge. To reach the access at the suspension bridge, continue on 5N03 another 3½ miles. This is just beyond the top of a miniature ridge perpendicular to the road, and the road is cut down into the ridge. Turn right onto what is presently a very poor road with deep ruts, but I have been informed by the USFS that by press time they will have improved this access road and then plan to maintain it. It passes through an abandoned mining claim.

14. SOUTH FORK TRINITY RIVER (continued)

14. Low level bridge to Trinity River | **7.9 miles, spring and summer run**
Class 1 at optimum: 900 cfs | **Scenery: AA, short shuttle**
Same for run 6/28/69 at 350 cfs | **Drainage: 909 mi^2**
Maps: Willow Creek; Six Rivers NF | **Canoes and Rafts: OK**
Average optimum flow date 5/28; also see Fig. 8-e

The put-in for this run is at the take-out of the previous run (see above). We ran this section after having negotiated the three big rapids just above, so all of it seemed very flat. We encountered a small amount of hazard from snags and sweepers. To help in gaging progress, there are two very sharp right turns on the run, at 2.1 miles and 6.5 miles. The second is at the tip of a very long peninsula pointing to the west.

This run through beautiful, wooded country ends right at the junction with the Trinity River. Carry up a poor dirt road that comes almost to the river on the right side of the junction. There is no place to turn around a vehicle on this narrow dirt road so boats may have to be carried up to Route 299. Park along the highway on the opposite side of the road, or ask permission to park near a house that is farther from the road. From this take-out, the distance to San Francisco is 325 miles by either US 101 or Interstate 5.

15. TRINITY RIVER (continued)

15. South Fork to Willow Creek | **5.8 miles, summer run**
Class 1 with 1 Cl 2 rapid at optimum: 2000 cfs | **see Fig. 8-e**
Same for run 5/20/70 at 2050 cfs at Hoopa | **Scenery: A, short shuttle**
Maps: Willow Creek; Six Rivers NF | **Drainage: 2640 mi^2 at Hoopa**
Average optimum flow date 6/6 | **Canoes and Rafts: OK**

The drainage area of the South Fork of the Trinity River is 909 square miles, or nearly half as much as the Trinity to this junction. The addition of the South Fork creates a noticeable increase in the size of the riverbed. This run is flat and uneventful with only one Class 2 rapid at about 1 mile.

Take out on the far side of Willow Creek. Access is from the entrance to a gravel works just north of the creek bridge on the road to Hoopa. This access is possibly over private property. If it is posted, try the poor access at the Trinity River bridge on a side road a half-mile upstream.

16. TRINITY RIVER (continued)

16. Willow Creek to Tish Tang Campground — **8.7 miles, summer run**
Class 1½ with 1 Cl 2 rapid at optimum: 1800 cfs — **see Fig. 8-e**
Same for run of 5/30/70 at 2050 cfs at Hoopa — **Scenery: A, short shuttle**
Maps: Willow Creek, Hoopa; Six Rivers NF — **Drainage: 2640 mi² at Hoopa**
Average optimum flow date 6/10 — **Canoes and Rafts: OK**

From the take-out of the previous run, there are 4.1 miles of valley before the hills close in on the river. This first part of the run is Class 1 with some nice practice riffles. This section ends at Coon Creek, which enters from the right. Opposite the creek is Knight's, a quiet trailer and camping resort 3½ miles north of Willow Creek. Its owner, Taylor Knight (Star Route, Willow Creek, 95573), is a kayaker and kayaking groups often camp here for a nominal fee.

The remainder of the run is Class 1½ and very beautiful. In 1.5 miles, the moderate-sized Horse Linto Creek enters on the right at a left turn. The creek has cut an entrance through rock to gain access to the river. Just below on the opposite side is a cabin overlooking the river. The most difficult rapid, Class 2, is one-half mile farther. Sugar Bowl Ranch is passed in three-fourths mile and the take-out is at 8.7 miles at a wide gravel bar on the left. Tish Tang a Tang Creek enters from the right near the end of the bar. The road up to the NFS campground and highway is located ahead of where the creek enters. This access to the river is 7½ miles north of Willow Creek.

17. TRINITY RIVER (continued)

17. Tish Tang Campground to Hoopa Valley — **8.0 miles, summer run**
Class 1½ with 1 Cl 2 at optimum: 1800 cfs — **see Fig. 8-e**
Same for run of 9/4/71 at 2050 cfs — **Scenery: A, short shuttle**
Maps: Hoopa; Six Rivers NF — **Drainage: 2865 mi²**
Average optimum flow date 6/10 — **Canoes and Rafts: OK**

From the above access, the river swings back to the road and enters the Hoopa Valley Indian Reservation. The river is surprisingly unspoiled in this valley. The Indians undoubtedly have a much deeper appreciation of nature than the newer race of Californians. However, they have put up many steel posts in the river to hold their fishing nets. These posts can be very damaging to boats. We saw several Indian dug-out canoes along the river. These substantial boats have a form that is aesthetically very pleasing.

The boater travels directly away from the road upon entering the valley and then turns left. A 1¼-mile straight section follows. About two-thirds of the way through this section, just before the logging mill, there is a tricky rapid that runs into a brushy bank. Several minor rapids occur between here and the bridge, which make pleasant boating. The USGS gaging station is at 4.1 miles, opposite the center of the community.

The highway bridge is at 5.3 miles. Put-in can be made there or behind the Post Office. A rapid leads into the next corner, and a mile farther, Hostler Creek enters from the right and provides a good take-out. There is a small rock buttress on the right. In the next 1.4 miles, there is another rapid and Soctish Creek and Mill Creek enter together from the left and right, respectively. The best take-out is here on the right just downstream of the creek. A short access road from the highway is just downstream of the Mill Creek bridge.

18. TRINITY RIVER (continued)

18. Hoopa Valley to Weitchpec — **8.3 miles, summer run – see Fig. 8-e**
Class 2 with 1 Cl 3 rapid at optimum: 1600 cfs — **Scenery: AA, short shuttle**
Same class for run 5/30/70 at 2050 cfs — **Drainage: 2865 mi²**
Maps: Hoopa; Six Rivers NF, Klamath NF — **Canoes: OK, with 1 portage**
Average optimum flow date 6/15 — **Rafts: OK, but long carry at take-out**

Two miles past the take-out for the last run, which is the put-in for this run, the river leaves Hoopa Valley and enters a canyon. The road is now several hundred feet up the side of the canyon wall and appears to be only lightly pasted on in several places. In a few years, it will no doubt be upgraded in quality along with the Klamath River Road. It is hoped they do not ruin this great section of river when they widen and straighten it.

Piles of debris stretching far up on the banks attest to the height and power of the flood waters of the Trinity.

Two-thirds of the way through the canyon, Bull Creek cuts through a high gravel bar to enter on the right; in this region the bank is not so steep. Below this creek is an easy Class 2 rapid. On approaching it, the author thought that it was the big one he had been told of and that it had been filled in like many others. But the big one is one-half mile farther at the end of a straight section and is the final rapid of this great river. It is a Class 3 rapid with a portage on the right that is relatively easy.

Take out one-fourth mile before the Klamath and climb up on the long hillside to the road, starting just to the left of the prow of the hill, then traversing to a trail leading to the road. This take-out is a strenuous one that leads to the Weitchpec store at the Klamath River bridge.

19. CANYON CREEK

19. Canyon Creek
Class 4 at optimum: 250 cfs
For run 6/11/72, Cl 3½ with 1 Cl 4 rapid at 175 cfs
Maps: Helena, Hayfork; Trinity NF
Average optimum flow date 5/17

8.9 miles, rainy season & spring runoff run
Scenery: AA, short shuttle
Drainage: 65 mi^2 at take-out
Canoes: no
Rafts: OK, but 1 long portage

Canyon Creek Road branches north off Route 299 at Junction City. When scouting the take-out at the Route 299 bridge, the boater should not be discouraged if the flow looks low. This wide, lower part must be "thin" if the middle and upper sections are to be at the optimum flow.

Follow Canyon Creek Road upstream for three miles to a sharp right jog in the road just above an impressive rock chute. No one should try to run the miniature gorge below without first scouting, so, if the flow here looks right, decide now where you will take out to examine this most interesting rapid of the run. The last part of the gorge cannot be seen from the road. It will be about as difficult to portage around the rapid with a kayak if it is found to be too difficult, or is blocked by a log, as to climb down from the road over very loose, steep road fill to scout the rapid in advance.

Proceeding upstream by road, most of the creek for the next 2 miles consists of a succession of rapids with cobblestones or larger rocks and is visible from the road. The average gradient is 80 feet per mile for the 6.3 miles of the run and the total drop is 620 feet.

Put in 9 miles up the road from Route 299 at the first bridge crossing. No appreciable increase in the flow rate was noted between the put-in and take-out. All the water must have been coming from the high elevations where the creek drains peaks of 8,900 feet. The rapids on this run are particularly unusual in that they repeatedly run straight into rock outcroppings on the banks. Consequently, the boater is forced to boat directly toward the outcropping down the last drop, and then make a right-angle turn in the last 5 or 10 feet. We often had to push away from these walls with our paddles. Rubber boats probably have an advantage here because of their ability to bounce off such walls, but this manuever will generally turn the boat in the wrong direction for the next rapid. At the flow we experienced, we did much rock banging. All of us occasionally got hung up on, or bridged between, rocks (but we could pry ourselves loose). At a higher flow, we would not have had this problem, but negotiating the corners would have been more difficult.

About one-half mile below the put-in is the site of Canyon City, originally called Jackass Bar. Gold was discovered here in 1851, and by 1852 the town had 800 miners and 12 stores!

The original naming of the town provides an interesting sidelight. It was thought that mules could not be brought into this rugged canyon, but a persistent miner brought in a jackass, and thus the name. Later a mule trail was established, but the original jackass became the town mascot. At daybreak each morning, he woke the camp with braying and then wandered among the miners for handouts. When any of them wanted to move their equipment, they would go get old Jack.*

*This story is abstracted from tales from "The Mountaineer," by Jake Jackson, an excellent collection of old stories, on sale at the museum in Weaverville. The China Gulch and Major Reading information was taken mainly from this source.

At 3.3 miles, there is a foot bridge on a USFS trail. At 5 miles, a small peninsula juts out several hundred feet to the right. The road is close by at this point, but high above the creek. Just beyond the peninsula, the creek changes to a small rock-lined gorge with short, sharp rapids. It continues like that for one-fourth mile to a foot bridge and cabin on the right. Three-fourths of a mile farther, in a right turn with the road very close, there is a drive down to the river. This is a good take-out if 450 feet of vertical descent has tired you or if you do not care to portage the big gorge in 0.4 mile (3.4 miles from Route 299).

On our run, we pulled into an eddy that we had previously selected part way into the gorge rapid. Careful scouting showed that the gorge was runnable for us. It ends with a very narrow, good-sized drop. There would be very little time for executing Eskimo rolls between the very closely spaced drops, but at least swimming the gorge did not appear impossible. It all went very fast and nearly as planned, except that one of our group had to roll up after misjudging the last drop. This drop is the climax of the run. After it, the gradient decreases and the river occasionally widens. There are two possible take-outs – one at the bridge at 7.0 miles on a short-cut road to Route 299 and the other 1.9 miles beyond that at the Route 299 bridge.

20. NEW RIVER

20. New River	**4.3 miles, spring runoff**
Class 4 (estimate) at optimum: 350 cfs	**Scenery: AA, short shuttle**
For run 6/29/69, Cl 3½ with 5 P's at 130 cfs	**Drainage: 173 mi^2**
Maps: Ironside; Trinity NF	**Canoes: no**
Average optimum flow date 5/21	**Rafts: OK**

The New River drains the western quarter of the Salmon-Trinity Wilderness Area with its peaks up to 7,500 feet in altitude. The river makes a spectacular, foamy entrance into the Trinity in the Burnt Ranch Gorge area. For a good view of this, go 1 mile west of Burnt Ranch on Route 299. The New River has the horrendous drop of about 200 feet in the last mile, twice as steep as the worst part of the Burnt Ranch Gorge. However, the section of the New River around the small community of Denny offers a short, challenging run.

At Hawkins Bar, on Route 299 10 miles east of Willow Creek, take the side road north toward Denny. At 1½ miles, USFS 7N01 goes off to Denny. Because of the many side roads, it is advisable to have a topographic or USFS map. There is a sharp turn back to the right at 6 miles. Panther Creek campground, 12½ miles from Route 299, is the take-out. A steep trail a couple of hundred feet long, with a railing, provides access from the river to the campground. In another one-half mile, there is a good view of one of the more difficult sections of the run. This point on the road is also visible from the river and is a warning that the take-out is close.

The store at Denny is 4 miles up the road from the take-out. Continue about another one-fourth mile to the school which is on the right, and put in behind it at a bridge and the USGS gaging station.

For about the first two miles, the stream bed is composed of small rocks. Near the end of this section, we passed through a small, very beautiful inner gorge lined with rock walls. The second part of the run is more difficult; the river is full of large boulders and narrow, tricky passageways requiring frequent scouting. At our exceedingly low water level, we made five relatively easy portages, mostly because of submerged logs and snags. In this section, the river runs straight for two-thirds mile and then turns left at the base of the viewpoint noted earlier. The take-out is about another one-fourth mile. It is a strenuous carry up to the campground.

21. HAYFORK CREEK

21. Wildwood Road Bridge to near Hayfork	**4.5 miles, rainy season run**
Class 3 with 3 Cl 4 rapids at optimum: 250 cfs	**Scenery: A, short shuttle**
Same class for run 3/20/71 at 250 cfs	**Drainage: 87 mi^2 at put-in**
Maps: Hayfork; Trinity NF	**Canoes: OK with portages**
Average annual rainfall 40 in., runoff factor 1.3	**Rafts: OK**

When approaching this stream from Red Bluff, turn right off Route 36, just after entering Trinity County. Follow the paved road past the Wildwood store and to the bridge across Hayfork Creek. This location may appear to be an ideal put-in after the brushland of the

Cottonwood Creek. However, 3 miles downstream the creek enters a canyon and drops 200 feet in less than 1½ miles. The East Fork enters 8 miles downstream at Wildwood Road, and there is a good put-in at the side road bridge one-fifth mile farther downstream. On our run, we put in 2½ miles beyond that point at the Wildwood Road bridge but only because we were short of time.

At 2 miles, the stream abruptly turns left, flows directly away from the road and then around a peninsula for one-third mile before returning to the road. Beginning at this section, the gradient is 60 feet in three-fourths mile. There is a short, easy rapid just before the turn around the end of the peninsula and then a couple of sharp Class 4 drops where the stream turns back. Log sweepers may be a problem in this region.

In another mile, Carr Creek enters. One-third mile farther is a sharp drop that should be scouted. Take out immediately below this point, where the creek comes alongside the road. This may be private land – if it is posted, obtain permission to use this access or continue on to a bridge in town.

22. HAYFORK CREEK (continued)

22. Hayfork Valley
Class 1 with Cl 2 rapids at put-in at optimum: 500 cfs
Same class for run 3/20/71 at 500 cfs
Maps: Hayfork; Trinity NF
Average optimum flow date 4/20

7.5 miles, rainy season and spring runoff run
Scenery: B+, short shuttle
Drainage: approx. 250 mi² at take-out
Canoes and Rafts: OK

Trinity National Forest surrounds Hayfork, but the property in the valley is nearly all private property. This run may not be feasible without obtaining access permissions. See the description of the take-out in the previous run; it is the put-in for this run. Immediately, there is a Class 2 rapid which can be seen from the road. There may be one or two more Class 2 rapids in the next mile, so the boater may prefer to put in farther downstream. The tailings along the river tell the story of the former mineral wealth of Hayfork Valley, but the stacks of logs at its lumber mill indicate where its present wealth originates. The line-up of logging trucks facing the highway, waiting for the opening of the season, was very impressive. Fortunately, unlike many such communities, the hills in view from this beautiful valley have not been logged over.

Soot from the burner rained on us as we quickly paddled past the mill. A few eroded banks and bridge piers are reinforced with wrecked cars. Two or three fallen trees probably provided the most serious hazard. A rapid at a right turn near the far end of the valley is the only one after the put-in region.

The author was most impressed with how the water seemed to flow almost continuously from the bank as we floated along. The valley floor must have been completely saturated, even though there had not been a major storm in weeks. Take out 3 miles west of Hayfork, where the road, running right alongside the river, bears right and starts climbing.

23. HAYFORK CREEK (continued)

23. Hayfork to bridge
Class 4 with 2 or 3 P's at optimum: 500 cfs
Same for run 3/20/71 at 850 cfs
Maps: Hayfork, Hyampom; Trinity NF
Average optimum flow date 4/22

5.5 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 300 mi² (estimate)
Canoes: no; Rafts: OK

If the take-out of the previous run is found to be private property, put in at the Route 3 bridge in Hayfork. This adds 2.5 miles to the run length.

Soon after the previous take-out, one or two warm-up rapids are encountered, followed by a long quiet section. Just after a right turn comes the first good rapid. A short distance farther, the stream widens briefly (a farm house is across the road) and then enters a severe drop that we portaged on the left. We took out just below here (over private property) because of darkness. The road follows the creek closely the rest of the way to the bridge over Hayfork Creek. The intensity of the rapids appears to increase and one portage drop was observed, with very fast water leading to it. The river gradient for the last 2 miles is 50 feet per mile.

Between the take-out bridge and Hyampom Valley, Hayfork Creek plunges through two narrow, unrunnable gorges with gradients of 200 feet per mile.

13. Redwood Creek, Mad and Van Duzen Rivers

The last redwood forests in the public domain were allowed to slip into private ownership at about the turn of the century. Even before that time, the cousin of the redwood, the giant Sequoia, was being preserved in two large National Parks: Yosemite and Sequoia. John Muir once wrote:

> Any fool can destroy trees. They cannot run away, and if they could they would still be destroyed – chased and hunted down as long as fun or a dollar could be got out of their bark hides, branching horns, or magnificent bole backbones. . . . God has cared for these (Sequoias), saved them from drought, disease, avalanche, and a thousand straining, leveling tempests and floods, but He cannot save them from fools – only Uncle Sam can do that.*

The struggle to buy back groves of redwoods began in 1900 and culminated with the establishment of the Redwood National Park in 1968. The Sempervirens Club of California was formed in 1900, and in just two years had convinced the state to appropriate $250,000 to buy 3,800 acres of redwoods to form Big Basin State Park near Santa Cruz. In 1918, the Save-the-Redwoods League started its persistent and highly effective effort to collect private funds for buying redwood groves. This group was instrumental in the passage of a $6 million bond issue in 1928 to provide matching funds for donations. The group worked with the lumber companies, which often saved the desired groves until the money could be raised. Much of the park land along the South Fork Eel River was purchased over several decades from the Pacific Lumber Company of Scotia.

By the early 1860s, the Save-the-Redwoods League had helped save 100,000 acres of redwoods for the state parks, but time for preserving the virgin redwoods was rapidly running out. The events leading to the winning of the National Park are described by Edgar and Peggy Wayburn:*

> At the Biennial Wilderness Conference, sponsored by the [Sierra] Club in 1963, Secretary of the Interior Stewart L. Udall announced his intention to see such a park created. The National Park Service, with a grant from the National Geographic Society, was already engaged in a field study to identify the park possibilities still remaining in the redwood region. The study, made public in September, 1964, was called simply *The Redwoods*. It recommended a 54,000-acre Redwood National Park at Redwood Creek – and documented the reasons why. The club concurred, but urged that a larger, more significant portion of Redwood Creek be included in a 90,000-acre park.
>
> Traditionally, the establishment of a national park has taken 15 to 25 years. In the case of the redwoods, it was plain that the country could not afford to wait that long. The forests of Redwood Creek were being logged while the Park Service studied them. Logging continued there after the park recommendations were made public. While the pros and cons were aired from Capitol Hill to Crescent City, the great trees fell ever faster. The chance for a major park diminished every day. Time, sometimes the great ally, was the great enemy in the fight for the redwoods. The Sierra Club mounted one of the most intensive conservation campaigns in its history, and one of the most difficult.
>
> The redwoods battle turned out to be one of the most dramatic on record. No park proposal, Director of the National Park Service George Hartzog noted, ever occasioned a greater flood of letters pro and con. In the redwood region, families were split over the park idea, friendships were made and broken, and political careers won and lost.
>
> There was also the question of the economic impact of a national park on the redwood region. The timber industry predicted ruin. Conservationists, and many economists, believed a national park would provide greatly needed economic diversity to a depressed, single-industry area.
>
> In view of the complexity of issues and the fierce emotions involved, the battle was surprisingly brief – four fiery years. Reflecting the public's feeling for the redwoods, the bill for a 58,000-acre Redwood National Park (which included

*The material herein has been extracted and quoted from "The Last Redwoods," Sierra Club, 1963 and 1969.

three state parks) passed the Senate unanimously – and the House by 327 to 1. On October 2, 1968, President Johnson signed it into law.

Though not optimum, the legislation gained a certain reprieve for the redwoods. It recognized that areas of superlative beauty should belong to all the people, and should not be exploited for the profit of a few.

[The park] boundaries are by no means adequate. The $92,000,000 invested by Congress in a Redwood National Park could only buy so much. More of the remaining primeval forest was left out than was taken in. Much of the unbroken sweep of forest "lawn" of Redwood Creek and the small, exquisite watershed of Skunk Cabbage Creek were necessarily omitted, but with the hope that they could one day soon be acquired. And the day must come soon.

The total acreage of virgin redwoods that has been preserved amounts to 8 or 9 percent of the original forests.

Redwood Creek

Redwood Creek flows through several small valleys of ranch land and recently timbered wilderness country. It would deserve little attention here if it were not for the last 12 miles, most of which is lined with virgin forest – majestic redwood giants that are now part of the Redwood National Park. Only the Eel South Fork can compare in stands of old-growth redwoods along a boatable stream.

There may be ways to shorten the very long run no. 2 on Redwood Creek. From the first take-out described below, the public road continues another 10.6 miles along the river (without crossing it) before departing from the stream. It may be possible to obtain permission for access at this point of departure, which is Stover Ranch. The author expects that eventually the USFS will open a road into the upper end of the park, creating a Class 1 run of outstanding scenic value.

1. REDWOOD CREEK

1. Route 299 to Bair Rd.
Class 2 at optimum: 200 cfs
Same class for run 5/8/71 at 160 cfs
Maps: Blue Lake; Six Rivers NF
Average annual rainfall 72 in., runoff factor 3.9

5.4 miles, rainy season run
Scenery: A, medium shuttle
Drainage: 67 mi^2 at put-in
Canoes and Rafts: OK

The put-in is on Route 299, about 25 miles east of US 101 at Arcata. The new highway (not shown on the Blue Lake topographic map [1951] in the region of this put-in) crosses Redwood Creek 1 mile upstream of the old highway. Put in from a dirt road that leads down toward the stream on the west side of the bridge. The run is pleasant with the creek being fairly narrow. Logged-over fir country with much bank erosion and slippage is the setting for this run. Several sharp turns and short rapids provide most of the challenge. An easier put-in is at the old highway bridge in 1 mile. At 4.1 miles, pass under an abandoned iron bridge whose approach on the right bank has been washed out. Take out at the concrete bridge (Bair Road) in another 0.3 mile (prescriptive right-of-way). Bair Road joins Route 299 1 mile east of Lord Ellis summit, which is about 2¼ miles west of the river.

2. REDWOOD CREEK (continued)

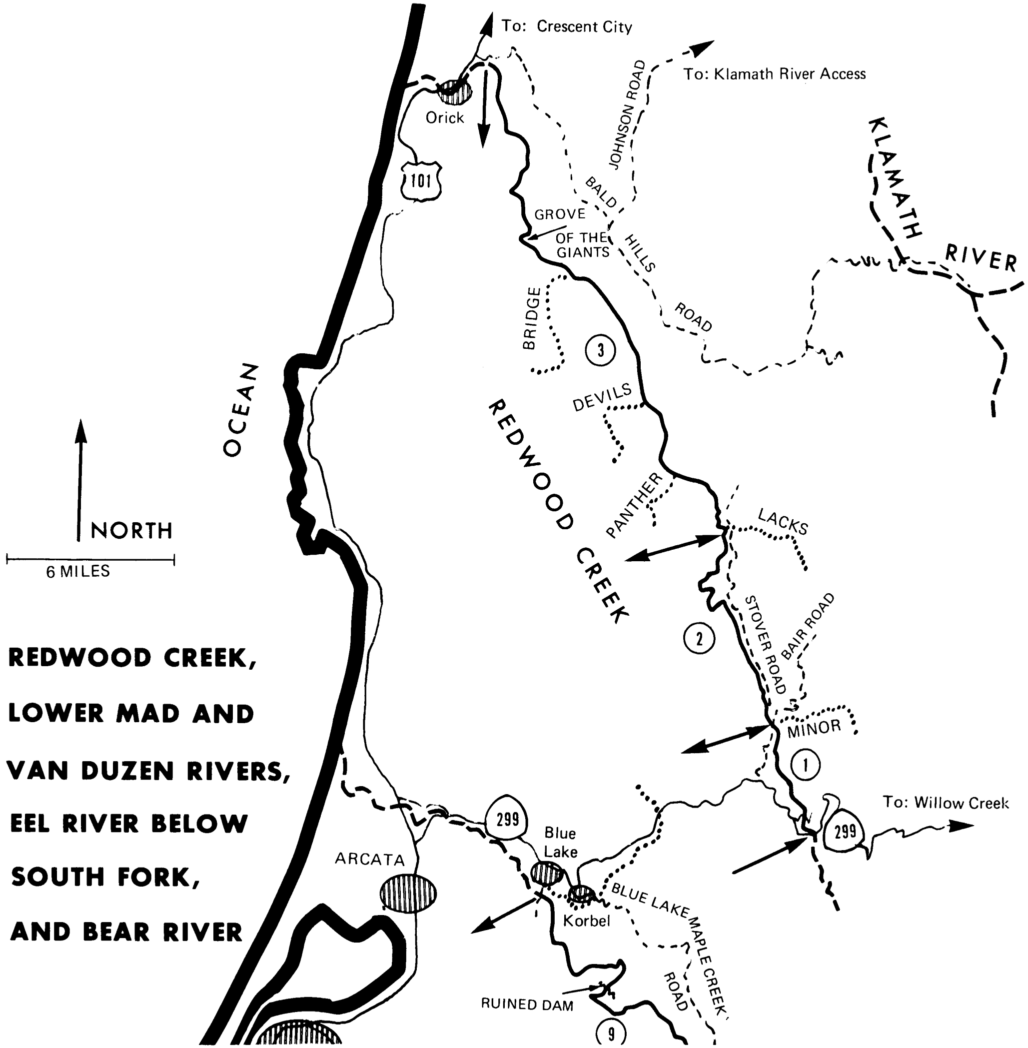
2. Bair Road to Lacks Creek
Class 1½ at optimum: 200 cfs at Rt. 299
Same class for run 5/8/71 at 160 cfs
Maps: Blue Lake, Coyote Peak; Six Rivers NF
Average annual rainfall 72 in., runoff factor 3.9

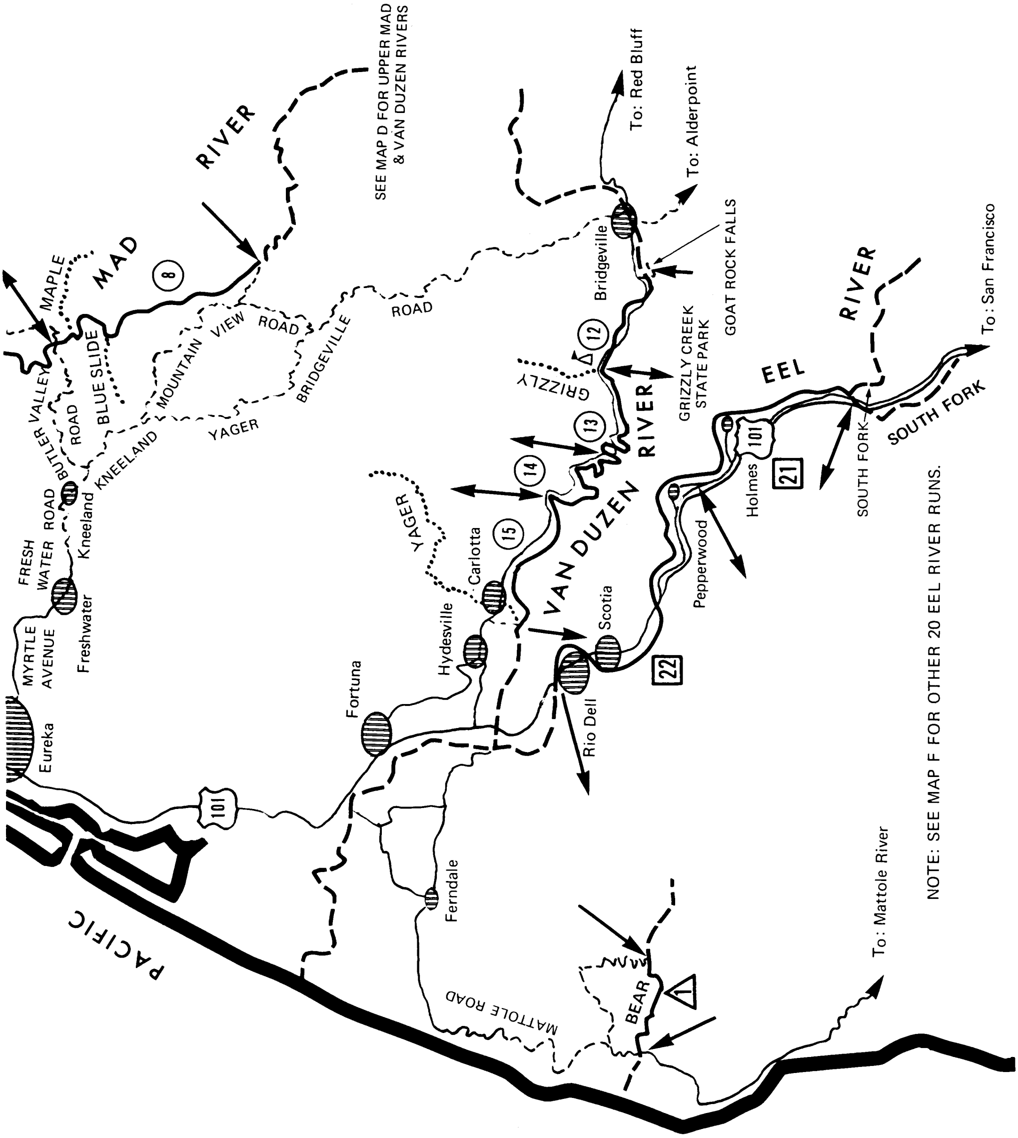
10.5 miles, rainy season run
Scenery: A, short shuttle
Drainage: 67 mi^2 at Rt 299
Canoes and Rafts: OK

Stover Road branches off Bair Road just east of Redwood Creek and extends 7 miles to a dead end at Stover Ranch, just short of Lacks Creek. Residents at Stover Ranch have generously given permission to individual groups that have asked to put in over their private access.

Put in at the take-out for the preceding run. The road to Stover Ranch closely follows the creek for 4 miles. The timber turns from fir to redwood. The stream then flows around two peninsulas extending out to the west and returns to the road just after a field on the right. Stover Ranch is one mile farther.

E REDWOOD CREEK, LOWER MAD AND VAN DUZEN RIVERS, EEL RIVER BELOW SOUTH FORK, AND BEAR RIVER





MAD
RIVER
8
SEE MAP D FOR UPPER MAD
& VAN DUZEN RIVERS
To: Red Bluff
To: Alderpoint
GOAT ROCK FALLS
Bridgeville
12
GRIZZLY CREEK
STATE PARK
GRIZZLY
13
14
15
VAN DUZEN
RIVER
YAGER
Carlotta
Hydesville
Scotia
Rio Dell
22
Pepperwood
Holmes
101
21
EEL
RIVER
SOUTH FORK
SOUTH FORK
To: San Francisco
NOTE: SEE MAP F FOR OTHER 20 EEL RIVER RUNS.
To: Mattole River
BEAR
1
MATTOLE ROAD
Ferndale
Fortuna
Eureka
101
PACIFIC
MYRTLE
AVENUE
Freshwater
FRESH
WATER
ROAD
Kneeland
BUTLER VALLEY
ROAD
KNEELAND
MAPLE
BLUE SLIDE
MOUNTAIN
VIEW
ROAD
BRIDGEVILLE
ROAD
YAGER

3. Lacks Creek to Orick
Class 3½ with 1 or 2 P's at optimum: 650 cfs
Same flow for run 5/9/71
Maps: Coyote Peak, Rodgers Peak and Orick (7½ min.); Six Rivers NF
Average optimum flow date 5/5

25.1 miles, spring runoff run
Scenery: AA to D, long shuttle
Drainage: 278 mi^2 at US 101
Canoes: no (OK with 6-10 P's)
Rafts: OK

Put in at the last take-out (see the description in the previous run). Lacks Creek enters from the right at the first left turn and 1,000 feet farther is a right turn. Both turns contain Class 2½ rapids. These rapids are typical of those occurring in the next 13 miles, but they occur more frequently after the second logging bridge. Most of the timber has been logged in the creek valley all of the way to the park boundary, and pleasant campsites are not readily available. At 2.3 miles, where Garret Creek enters, there appears to be a good one.

At 4.0 miles immediately above Panther Creek, which enters from the left, there is a logging bridge. Another bridge is located at 7.3 miles, shortly below Devils Creek, which also enters from the left. In 1968 a group of us obtained permission and put in here in high water, more than twice the flow for the run described here.

About 2 miles below this bridge, there is a rocky outcropping about halfway up the hillside on the right. If the area had not been logged, it probably would not be visible. Shortly beyond is a sharp left turn with a rapid. At this point begin 3 miles of Class 3½ boating and one or two portages. Many large boulders cause the drops and block the view. We were forced to portage one rapid very early in this section because of unavoidable sharp rocks. In the next mile, there are oak flats above much of the right bank that should provide good camping (mile 10-11).

Of particular note in the Class 3½ section which follows are two vertical drops of 3 to 4 feet and two long rapids. Both of the rapids have a rocky shoulder extending into the stream from the right side, and in both cases the whole rapid cannot be seen as it is entered. They should be scouted. The second one is the big portage rapid. At the optimum flow experienced on our run, the midsection of the rapid was choked with rocks. At a higher flow, the chute at the end of the rapid slams into the bottom of the rock shoulder on the right side. Because the rock face is undercut, the flow lacks the usual water cushion. In 1968, Bryce Whitmore, a very expert river guide, rowed a 12-man raft (empty) through the rapid, down the chute, purposely bounced off the wall, and continued on. He turned, displaying an ear-to-ear grin and twinkling eyes, beckoned, and cried out, "Come on, you kayakers!" knowing full well that we did not dare to hit that rock face. Only one expert kayaker tried it successfully, doing a perfect back ferry down the chute. It took the rest of us nearly two hours to make the miserable portage. This was the first trip for the author and his wife in a C-2, a harrowing experience. Several lesser rapids occur in the next half-mile. The stream then enters its final stage, all Class 1.

In the second half of the Class 3½ section, the boater finally enters the virgin redwood forest and crosses the National Park boundary (11.1 miles). Several metal tags marked "U.S. boundary NPS" were found here during our second run.

About a mile below the rapids, Bridge Creek enters from the left at 13.9 miles. On the right at 16.4 miles, just before a right turn, is the Grove of the Giants. Directly ahead on the opposite side of the stream is a logged-over area. NPS signs that can be seen from Redwood Creek mark the area of the Howard Libbey Tree. The tallest living thing in the world, it was 364 feet high in 1964 when discovered by the National Geographic Society. We noted that the trunks of some of these giants did not flair out at the bottom as they usually do and surmised that their bases must be buried by past floods. With this exceptionally strong foothold, they may have been able to carry their heights better. From the creek, you would not suspect these trees to be the tallest, and many other groves look even more beautiful from a boat.

In a visitor log at the tallest tree, we noted that two other groups had already run Redwood Creek that year – one group put in at the last bridge (a private put-in) and the other, a group from the University of Oregon, put in at Stover Ranch. This latter group had anticipated a pleasant 3-day weekend, but they wrote of spending 5 days covering 16 miles in high water, mentioning that they had been cautious and made many portages.

Besides visiting old-growth groves, boaters should visit one of the areas that have been recently logged, and there are too many of these within the park boundary. The heavy machinery used in the logging has utterly destroyed the forest floor. Each area appears to have been the scene of a great battle with the bodies of wasted losers scattered about. You wonder if so much destruction is necessary and why more of the timber is not removed.

The remaining 8.7 miles are a quiet journey, mostly through old growth, and it would be nice to have twice as much water. However, an alert boater can easily avoid grounding on the gravel bars. Take out on the right side opposite the logging mill at the junction of Bald Hill Road and a side road 0.4 mile east of US 101. This is 1 mile north of Orick.

4. MAD RIVER

4. Three Forks to Double A Ranch
Class 3 at optimum: 300 cfs
Same class for run 2/20/72 at 200 cfs, estimate
Maps: Black Rock Mtn., Kettenpom; Six Rivers NF
Average annual rainfall 60 in., runoff factor 2.7

5.8 miles, rainy season run
Scenery: A, short shuttle
Drainage: 47 mi^2 below N. Fork
Canoes and Rafts: no, too brushy

There are three approaches to the upper Mad River area (see Map **D**) – from the east, north, and west. When coming from Red Bluff, follow the instructions to the put-in for the first run on the South Fork of the Trinity River (at the East Fork of the South Fork). From there, continue west for about 16 miles on USFS road 29N30 to the Mad River bridge at the Double A Ranch, which is the take-out. During wet weather, immediately after a rain, or when snow is at the 4,500-foot level, avoid this road and continue west on Route 36 to the Mad River and follow the north approach. For this approach, from Route 36, 61 miles east of US 101, follow up the river past Ruth Reservoir to the bridge at the Double A Ranch, a distance of about 28 miles. The road is nearly all paved. The approach from the west is through Alderpoint and Zenia from Garberville. Follow the instructions to the first put-in on the Van Duzen River (run no. 10) to USFS road 2S17; then continue east through Hettenshaw Valley and north to the west side of Ruth Reservoir. Go south along the reservoir where the road (a good one) crosses the Mad River and joins the road coming from Route 36.

The bridge at the Double A (or Flying Double A) Ranch is the last one across the river going upstream. Cross to the west side here and continue upstream on a dirt road for 5 miles to the South Fork. There is a well-fenced and posted private inholding within the National Forest for the last one-third mile. Opposite it the North Fork enters. Either use an alternate put-in below this private ranch (one-fourth mile below the North Fork), or put in above it. For the latter, continue south and take the first left after the South Fork and follow this lane to the river. Although the two forks below may add 30 to 50 percent more water, the stream, which is exceptionally narrow here, widens so there is no particular change in the rockiness if the flow is low.

Probably the most interesting rapid comes in a right turn just a few hundred feet below the put-in. It contains a very narrow, turning, vertical drop of several feet. Actually, although there is some rock dodging and an occasional rapid, negotiating the excessive amount of brush is the main challenge of this run and that is what makes it Class 3.

The North Fork enters on the right in 0.7 mile, and 1 mile farther the river widens, lessening the brush hazard. We emerged from such a tangle of brush just at the North Fork that it seemed the fork was some channel of flow returning to the main course. Barry Creek, which enters on the right at 3.7 miles, drains the summit region of the west side of South Fork Mountain. At the time of our run, it had more flow than any other tributary. The river valley widens out just before the take-out bridge.

5. MAD RIVER (continued)

5. Double A Ranch to Ruth Reservoir
Class 1½ at optimum: 1000 cfs
For run 2/20/73 Class 1 at 450 cfs
Maps: Kettenpom, Pickett Peak; Six Rivers NF
Average annual rainfall 60 in., runoff factor 2.7

6.2 miles, rainy season run
Scenery: B, short shuttle
Drainage: 65 mi^2
Canoes and Rafts: OK, some brush

The exceptionally large optimum flow in comparison with the small drainage indicates the character of the river bed – very wide and composed of gravel. There is a rapid under the bridge at the put-in. At 2½ miles, a group of houses and a lumber mill are seen on the right on the far side of the road. In another 1½ miles, the river swings close to the road, and three-fourths mile farther, just after a left turn, it divides into many channels. When we made this run, it soon combined into two channels that formed an island one-third to one-half mile long. Our party split, and it was a good 10 minutes before we were reunited. Follow the channel with the most flow. There are some rapids in this section, but they will certainly change.

Take out just below the bridge on the right side. The access at that point runs almost to the river. The take-out bridge is on the road that leads around to west of the reservoir and on west to Zenia (see Map **D**). For an alternate take-out, continue on one-half mile farther to just above the reservoir. Roads into a park-like area there may be passable very close to the river.

6. MAD RIVER (continued)

6. Ruth Reservoir to Route 36
Class 2 at optimum: 400 cfs
Same flow for run 2/21/72
Maps: Pickett Peak, Blocksburg; Six Rivers NF
Average optimum flow date 4/18
Average annual rainfall 60 in., runoff factor 2.7

7.5 miles, rainy season and spring runoff run
Scenery: A, short shuttle
Drainage: 143 mi^2 at take-out
Canoes and Rafts: OK

Ruth Reservoir was built in 1961 to provide water for Eureka. It has a capacity of 52,000 acre-feet; the average annual flow at Route 36 is 273,000 acre-feet, so only a small amount of the inflow can be controlled. No effort appears to be made to regulate storm flows. During the summer, 10 to 50 cfs is usually released down the river to be pumped out below Blue Lake. This amount is too small for river touring.

The dam is 8 miles upstream from the Route 36 bridge across the Mad River. This is 61 miles east of US 101. There is no reasonable put-in right at the base of the dam, which is a fairly long distance down a private road. Put in from a side road, a distance one-half mile downstream of the reservoir.

This run is much more pleasant than would be expected, particularly driving along the road and looking down on the river. There are some brush and snags at turns, but not an unusual amount. A dozen or so short rapids that do not require much maneuvering are scattered throughout the run. Some of these rapids are in gravel bars and are certain to be moved by flood waters. A good example is an 8-foot drop spread out over about 100 feet right at the put-in. Other rapids occur among medium-sized rocks and are more permanent. None of the rapids are particularly difficult.

At the time of our run, the two NFS campgrounds on the lake were closed, but the very good Mad River campground at 2.8 miles from the put-in was open. It can be recognized from the river by a 25-foot high rock monolith along the river on the right, which is at the upper end of the campground. This is after a large cut into the right bank for the Mad River road.

A sawmill is located on the right at 6 miles. Take out on the left on the upstream side of the Route 36 bridge and carry up a washed-out drive. This run, along with the two previous and the following run, are all included on Map **D**, which is located in the Trinity River chapter.

7. Route 36 to Forest Service road
Class 3 at optimum: 400 cfs
Same flow for run 2/21/72
Maps: Blocksburg, Pilot Creek; Six Rivers NF
Average optimum flow date 4/18
Average annual rainfall 60 in., runoff factor 2.7

4.7 miles, rainy season and spring runoff run
Scenery: AA, medium shuttle
Drainage: 143 mi^2 at put-in
Canoes: OK with 1 portage
Rafts: OK

Put in at the Route 36 bridge across the Mad River. A private road follows along the east side of the river to near the take-out, but use the public USFS road that leaves Route 36 opposite the trailer court in Dinsmores (1½ miles east of the landing strip). This 1½-mile-long dirt road to the take-out bridge does not wash out, but may become littered with rocks. We negotiated it with little trouble just a few hours after a heavy rain.

This short run is without gravel bars and is lined with beautiful hills, although we saw several abandoned autos along the way. It provides a modest amount of exciting action for the Class 3 boater. At 2.1 miles comes the first interesting rapid, a long one around a left turn. There are large rocks here at the start of the first canyon. Another long rapid follows in another mile. A mile farther, the first canyon ends as the river turns left to run parallel to a ridge on the right and past a house and barns. In one-third mile comes the second canyon with a short Class 3 drop among large boulders which nearly block the entire stream. Around the next corner is the take-out bridge.

Another 4½ miles might be added to this run by continuing on to Anderson Ford. The gradient steepens to about 45 feet per mile, so it should be about Class 3½. However, the private dirt road to Anderson Ford is not open in the winter; by the time it can be negotiated in the late spring, the river will usually be too low to run. Below here, the Mad River is impassable for about 20 miles, with a gradient in several places of 200 feet per mile. There is also no access in this area.

8. MAD RIVER (continued)

8. Swinging Bridge to Butler Valley Rd.
Class 4 with 1 Cl 4½ and 2 P's at optimum: 600 cfs
Same class for run 4/28/73 at 270 cfs
Maps: Iaqua Buttes, Blue Lake; Six Rivers NF
Average optimum flow date 5/4

10.3 miles, spring runoff run
Scenery: A, medium shuttle
Drainage: 352 mi^2 at take-out
Canoes: no
Rafts: marginal

This excellent expert run is characterized by many tight drops caused by great numbers of large boulders. They have been created by what is probably the worst erosion along any river that the author has yet boated.

To reach the put-in, go east on Myrtle Avenue at the north end of Eureka. After 15 miles, turn right at a junction onto the Kneeland-Yager-Bridgeville Road. Continue on for 3 miles, then turn left on Mountain View Road (follow signs to the airport but continue on past). After 8 miles, bear left on a dead-end road that ends in 2 miles at a county swinging bridge across the river. Access is via a steep path on the near, downstream side of the bridge. The legal status of this access is not known.

The take-out may be reached by turning left at the above-mentioned junction onto Butler Valley Road and continuing for 7 miles to the Mad River. The take-out is under the west end of the bridge (40 feet total width right-of-way).

The run starts with a continuous series of delightful drops among large boulders. One at one-half mile requires a short portage. At 2 miles, a field extending down to the river comes in view straight ahead as the river turns right. Boulders as large as houses appear in one-fifth mile, pushing the stream against the right bank and creating a rapid. The author found this rapid runnable, but it is so narrow that it could easily be blocked by logs. It should be scouted. Almost immediately around the next bend to the right, there is a large, unrunnable boulder cascade that we portaged on the right bank in two parts. Several difficult rapids follow in the next one-third mile where the river zig-zags to the left. The total gradient in this last mile is about 125 feet.

Immediately around the following right turn, there is a long, continuously difficult rapid that must be scouted if run. It is Class 4½. A beautiful rock gorge appears in another one-half mile. From that point, the rapids become considerably easier as the river valley opens up. Blue Slide Creek enters on the left at 6.7 miles, with a huge, sloped alluvial fan, indicating tremendous erosion in that creek basin.

Take out on the left side at the bridge, where there is a gaging station.

9. MAD RIVER (continued)

9. Butler Valley Rd. to Blue Lake
Class 1½ with 1 P at optimum: 600 cfs
Same class for runs 2/22/70 & 4/29/73
Map: Blue Lake
Average optimum flow date 5/4

16.2 miles, spring runoff run
Scenery: A, medium shuttle
Drainage: 352 mi^2 at put-in
Canoes and Rafts: OK

The second-growth trees all along this run are old enough to make this a very nice river run through redwoods. Its beauty is marred by a large concrete monument to man's unsuccessful attempt to dam its waters – the former Sweesey Dam. The dam was built in the late thirties to provide water to Eureka. The tree stumps that were under the reservoir for 1½ miles above the dam appear to be well preserved. When the author first made this run, the dam had been abandoned because the reservoir had filled with silt. The portage around it was very difficult. In 1970 or 1971, the dam was blasted apart, probably to allow salmon and steelhead access to the river above.

The take-out of the previous run is the put-in for this run. At 3.2 miles, at a right turn, there are large boulders, the typical warning of action ahead. This section is followed by a left turn and passage through a narrows, where the boater should stay left and immediately take out on that side for a moderate portage. The rapid has some nasty rocks to dodge and is probably Class 4 at optimum water level. (It is unrunnable at both high- and low-water levels.) The lower half of the rapid is Class 3. Just below is an easy rapid. There is a steep U-turn around a peninsula at 9 miles, and shortly beyond are the remains of the dam. Much concrete still remains.

At the time of our second run, even though there had been a small flood in 1972, the bottom of the dam was still buried in silt. Gradually the silt will be washed away, and the rough concrete with jagged pieces of reinforcing rod could become exposed, creating a giant obstacle course for boats. There is nothing more efficient than reinforcing rod for puncturing boat hulls of all types. A rapid should gradually appear just below the position of the dam.

The rest of the run is very flat and through pleasant forest. At 1½ miles above the take-out, the wilderness abruptly ends as the hills part. A state fish hatchery is located on the left.

Take out at the bridge one-half mile south of the town of Blue Lake, which is on Route 299, 6 miles east of US 101. To reach this point by vehicle, go east from the put-in (see previous run) for three-fourths mile. Make a sharp left onto Blue Lake-Maple Creek Road, which leads to Blue Lake. Turn left at the center of town toward the sawmill to reach the take-out bridge (40 feet total width right-of-way).

Eureka had plans to construct a large dam on this run, but the local voters have rejected the project.

10. VAN DUZEN RIVER

10. West Fork to second bridge
Class 3 at optimum: 125 cfs
Same class for run 3/19/72 at 100 cfs (estimate)
Maps: Pickett Peak, Blocksburg; Six Rivers NF
Average last optimum flow date 4/14
Average annual rainfall 70 in., runoff factor 4.6

7.2 miles, rainy season & spring runoff run
Scenery: A+, short shuttle
Drainage: 23 mi^2 at put-in
Canoes: OK with several P's
Rafts: OK after first bridge

From Garberville, the put-in for this run can be reached via Alderpoint, which is 20 miles east of Garberville. (See the description in the following run for access from Route 36.) Continue another 17 miles to the Zenia NFS Ranger Station, then about another 10 miles on the Ruth-Zenia Road to USFS 2S17. That road goes off to the left and leads to Watts Lake and Grisley Mountain. Follow it for 1.3 miles; the first part runs along the Van Duzen River. It may appear disappointing because of a very small amount of flow, but most of the flow is in the West Fork. After the road leaves the river, turn right on a lane and strike out cross

A kayaker negotiates a Class 4 rapid on the Mad River in April (photo by Joe Bauer).

country (USFS property) for one-third mile across a flat of even, firm ground to the junction of the West Fork and the Van Duzen. (If you go too far before striking off through the woods, you will start traveling *up* the West Fork.) Boats will probably have to be carried the last 200 feet on a partially washed-out logging trail. There is a small informal camping area right at the put-in.

To reach the take-out by road from the junction of 2S17, continue on the Ruth-Zenia Road for about another half-mile, and cross the river. Continue around the Hetten Rock and north on what becomes the Van Duzen Road.* The river comes into view again in a couple of miles and is frequently in view for the 17 miles to Route 36. The second bridge is the take-out for this run.

*At the time of this writing, there is considerable construction and washing out of roads in this general area. The other road at this junction continues east into Hettenshaw Valley, then over a hill to Ruth Reservoir on the Mad River.

The put-in is just at 3,000 feet. There is exceptionally small drainage area upstream of the junction of these two forks, but the West Fork seems to have an exceptional flow for its drainage. The stream bed alternates between very narrow and narrow for the first 2 miles, and there will probably be about three tree portages. The intimate feeling of running a very narrow stream adds to its beauty, but this section can be avoided by using an alternate put-in from the Van Duzen Road where the river first comes into view. The first bridge is at 3.8 miles. By that point on our run we estimated that the flow had more than doubled. The first gaging station is at the take-out of the second run, so there is no way of checking flow estimates this far upstream.

Just below the first bridge, the boater enters a beautiful miniature canyon and very soon comes to some excellent Class 3 rapids. The first is around large rocks and just out of view from the bridge. It should be scouted. The second Class 3 rapid is a tricky, short, turning drop, but not as tricky as the first. Next comes a large slide on the right and another Class 3 rapid. Just above the second bridge, there is a wide rapid, which will be a little thin at optimum flow. Take out at this bridge.

The newer part of the Van Duzen Road along this run is not shown on the 1954 Pickett Peak topographic map. On the map this take-out is one-third inch off the edge of the map. This and the following runs are shown on Map **D**.

11. VAN DUZEN RIVER (continued)

11. Second bridge to Dinsmores	**13.1 miles, rainy season & spring runoff run**
Class 1 at optimum: 500 cfs	**Scenery: A–, short shuttle**
Same class for run 3/19/72 at 360 cfs	**Drainage: 85 mi^2 at take-out**
Maps: Blocksburg; Six Rivers NF	**Canoes and Rafts: OK**
Average last optimum flow date 4/14	
Average annual rainfall 70 in., runoff factor 4.6	

From the Van Duzen Road-Route 36 junction, it is 59 miles to Garberville along the river and through Zenia on all-weather, good but rough NFS and county roads. Driving time is two hours. It is said to take the same amount of time to go the other way, 96 miles through Bridgeville, Carlotta, Fortuna, and down US 101.

Put in at the last take-out. This is at the *first* Van Duzen River bridge, 6½ miles up the Van Duzen Road, from Route 36 (the second bridge coming downstream from the West Fork). From the above junction it is 5 miles west to the center of Dinsmores, which is just past a landing strip. It consists of a gas station, moderate-sized general store, and a group of cabins across the road. We took out behind these cabins, with permission, but the regular take-out is at the bridge 1 mile farther west.

After viewing the unscenic, exceedingly wide gravel bars along the river, you will certainly wonder how this could have a scenic rating of A–. Seldom has the author's original impression of a stream been so changed by running it. Before the run, I was apologizing profusely to my partner for having dragged him into such beautiful country to run such a ridiculous river. However, unlike the Russian, for instance, the river has cut down into the gravel bars, so the boater only sees a short, steep gravel bank and then the beautiful wooded surrounding hills. The river, not the road, is the place from which to view this valley.

On the left at 2.2 miles, there is a cabin gradually falling into the river. At 3.0 miles, Brown's Canyon Creek, probably the largest side stream, enters on the left through a small flat. At this point the river widens considerably. Obstinate brush was noted in another three-fourths mile, and shortly beyond is a large island. Two buildings straight ahead were noted at 5.8 miles sitting directly on the flood plane. We wondered how high the water rose in these buildings in 1964.

In another mile, there is a general change in direction at a left turn as the river begins to follow Route 36. The first of several possible take-outs occurs where the river comes close to the road in another three-fourths mile. There are occasionally large islands with some brush along the sides as the river splits into several channels. A cleat mill is passed at 8.5 miles, the first of two mills in town. Because of our hired shuttle, we took out at 11.9 miles, opposite the Dinsmores store and behind some small, private cabins. To reach the final take-out, continue on 1.2 miles to the Route 36 bridge, where the valley abruptly comes to an end. The gravel bar character of the river continues almost to the bridge, and most of this section of the river can be scouted from the road. Take out just before the bridge on the right side; this access is moderately strenuous.

Approximately 75% of each of the two upper runs on the Van Duzen is within the Six Rivers National Forest, which ends one mile before Dinsmores. There are excellent camping spots along the river, and, in clear weather, even on some of the islands in the middle of the river, which are well wooded.

Below the bridge the river is absolutely unrunnable. The road leaves the river as it turns into a steep canyon. Then the bottom drops out – there is a drop of 400 feet in 1 mile, and the local residents say that there are large falls in this region. Portaging around falls in a canyon with such unstable soil would be virtually impossible.

12. VAN DUZEN RIVER (continued)

12. Near Bridgeville to Grizzly Creek
Class 1½ at optimum: 500 cfs
For run 2/1/71, Class 2 at 710 cfs
Maps: Weott; Six Rivers NF
Average optimum flow date 4/24

5.0 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 222 mi^2 at take-out
Canoes and Rafts: OK

Carlotta is 5 miles east of US 101 on Route 36. Grizzly Creek State Park, the take-out, is 13 miles farther east. Three and one-half miles beyond, the highway crosses the river for the last time before Bridgeville. In one mile, turn right, cross an old iron bridge, and go to the upstream end of a little development and put in there, if it is not posted – this may be private property. There are other possible put-ins and take-outs than those listed in this and the next three runs.

A kayaker slithers through a chute on the Eel River run below Lake Pillsbury.

To view the Goat Rock Falls, continue on the highway, climb a hill and pull off at a clearing. It is not actually a falls, but a *very* unrunnable cascade.

The rapids in the first half-mile, all of which can be seen from the iron bridge, are typical of those on this run. There are ugly scars of large earth slides, but there are also wide, quiet gravel bars. Take out at the second bridge (not counting the one at the put-in) or a mile beyond at Grizzly Creek State Park camping area.

13. VAN DUZEN RIVER (continued)

13. Grizzly Creek to second bridge
Class 2½ at optimum: 500 cfs
For run 2/1/71, Class 3 at 710 cfs
Map: Weott
Average optimum flow date 4/24

5.2 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 222 mi^2 at put-in
Canoes and Rafts: OK

The toughest rapids in this run can be scouted from a large observation point very near the put-in (the previous take-out), one-half mile downstream from Grizzly Creek. The rest of the run is a quiet Class 1½.

The peninsula of land sandwiched between the road and river and the first and second bridges, on the left coming down the river, is part of a stand of 390 acres of old-growth redwoods very generously given by the Georgia-Pacific Corporation to the Nature Conservancy in 1969. The latter is a very worthy organization that purchases key pieces of endangered wilderness for park land; the organization has a regional office in San Francisco (see Eel River run no. 12). This preserve is being held for the state and is open to the public.

Take out on the east side of the second bridge downstream of the put-in. This is 1¼ miles upstream of Strong's Station.

14. VAN DUZEN RIVER (continued)

14. Strong's Station Area
Class 1½ at optimum: 500 cfs
Same class for run 2/1/71 at 710 cfs
Maps: Weott, Iaqua Buttes
Average optimum flow date 4/24

6½ miles, spring runoff run
Scenery: A, short shuttle
Drainage: 222 mi^2 upstream
Canoes and Rafts: OK

Put in at the previous take-out, which is the bridge on Route 36, 7½ miles east of Carlotta. This redwood-lined run is the prettiest of the four sections of the Van Duzen between Goat Rock Falls and Carlotta. The river is often far from the road. Vertical rock walls occasionally line one side or the other, and there are some interesting rock alcoves near the beginning of the run.

Twice the river sweeps alongside the road. The mileage listed for this run is to the second one of these possible take-outs, 4½ miles east of Carlotta.

15. VAN DUZEN RIVER (continued)

15. Strong's Station Area to Carlotta
Class 1 at optimum: 800 cfs
Same class for run 2/1/71 at 710 cfs
Maps: Iaqua Buttes, Fortuna
Average optimum flow date 4/16

5¼ miles, spring runoff run
Scenery: B, short shuttle
Drainage 222 mi^2 upstream
Canoes and Rafts: OK

Put in at the previous take-out. A rapidly advancing fog bank engulfed the beautiful day, just as we started this run, reminding us what made the redwoods grow that we had been enjoying on the previous runs. The river also changes in this region as it enters flatter country. It becomes an uninteresting, wide, flood-ravaged, shifting stream much like its sister, the Mad River, at Blue Lake.

We arrived at the take-out, the mouth of Yager Creek, at dark. With such a wide river bed, we were concerned that we might miss the creek entrance. However, it is unmistakable, as it adds 127 square miles of drainage area.

To reach the take-out, go west from the Yager Creek bridge in Carlotta 0.9 mile up a hill and turn left on Fisher Road. The paving ends, but the road continues out over the flood plain to the river, nearly a mile from the main highway.

14. Eel River

During November and the first half of December 1964, Northern California had above-average rainfall but not an unusually large amount. The Eel at Scotia fell to 4,500 cfs on December 18. Then, the cold rain started. There was substantial snow down to about 5,000 feet, but gradually the rains became warm, the freezing level rose to well above the highest North Coast peaks, and the snow melted. Between December 19 and 23, parts of the Smith, Eel, and Russian River basins all received more than 25 inches of rain, and at Ettersburg on the Mattole River nearly 50 inches were measured.

On December 22 at Scotia the Eel rose at the rate of about 105,000 cfs every 6 hours! Logs at the Pacific Lumber Company in Scotia broke loose, as they did at nearly all lumber mills in that area of California. Some of the 70-ton giants, the huge virgin redwoods, collided with the piers of the two downstream bridges on US 101. The bridges were closed, and a few hours later the spans collapsed.* At 2:00 a.m. the flood peaked at 752,000 cfs at Scotia.

Twenty-four lives were lost in North Coastal California, and flood damage was more than $195 million. About half of the cost stemmed from damage to highways and bridges. About 7,900 families suffered losses. Approximately 2,000 homes, 400 trailers, and 400 businesses were severely damaged or destroyed. The towns of Metropolitan, Myers Flat, and Pepperwood on the Eel, and Klamath Glen, Camp Klamath, and Requa on the Klamath, were destroyed. Severely damaged areas included Healdsburg and Guerneville (1,000 summer homes damaged or destroyed) on the Russian River; Weott, South Fork, Holmes, Stafford, Shively, Scotia, Alton, and Phillipsville on the Eel; Orick on Redwood Creek; Sawyer's Bar on the Salmon; Orleans and Weitchpec on the Klamath; Hoopa, Willow Creek, and Hyampom on the Trinity; and Gasquet on the Smith.

The principal industrial damage was to the lumber companies which are invariably located on flats at the edge of the river. At Scotia, the Pacific Lumber Company lost 23 million board feet of lumber and 18 million board feet of prime redwood logs. Logs from the Eel River basin were reported to have floated up the coast as far as the Columbia River.

Essentially all the flats along the Eel River were flooded, a total of 95 square miles, and agriculture suffered as well as homes and equipment. About 4,000 head of cattle were lost. The ranchland and industry that were left were cut off from the rest of the state. Most river bridges were destroyed along with miles of road. The Northwest Pacific Railroad, which follows beside the river from Outlet Creek to Rio Dell, lost 3 major bridges and 30 miles of track and roadbed. It took a half-year to restore service.

The rivers carried away not only equipment, homes, trees, logs, and bridges, but also the land. Rampaging rivers are massive hydraulic miners. As numerous river banks collapsed, the soil was carried away. Huge slides also occurred. Eleven miles upstream of Gasquet on the Smith River, a 2-mile-long slide, up to 700 feet wide, destroyed 7 million board feet of virgin timber. A 2- to 3-million cubic-yard landslide occurred on the Salmon River 6 miles upstream from the mouth. This slide formed a dam, which was breached about 12 hours later and then washed out. The suspended sediment load, normally measured in parts per million, reached 3.2% on the Eel at Scotia. For the period of December 19-27, 140 million tons of sediment passed this point. This volume would cover 140 average city blocks 80 feet deep, or is equivalent to 84 tons of soil lost per acre within the entire Eel River drainage basin. As the flood waters receded, large deposits of debris and silt, sometimes several feet deep, were deposited on the flats. The river beds, either scoured out or thickly covered with deposits, were seldom recognizable to the boater. A gradual redistribution of these deposits has been taking place with every high flow over the years.

The December 1964 flood devastated a very large area. All the rivers of Northern California, Oregon, most of Idaho, the southeastern corner of Washington, and the Truckee River in Nevada were flooded. Generally, however, the Eel River was hardest hit. On Deadman Creek at Central Ferry, Washington, the suspended sediment load reached the phenomenal peak value of 36%. The loss per acre, however, did not approach that of the Eel.

*Most of this flood information is from the USGS Water Supply Paper no. 1866, "Floods of December 1964 and January 1965 in the Far Western States."

This flood is the largest recorded in Northern California. On the Eel, the peak flow was 39% greater than that in 1955 and comparable to the winter floods in 1861-62 (see the Trinity River introduction); it was widely acclaimed to be a "1,000-year" flood. It may be that such a large flood on the Eel River will not be repeated except on an average of every 1,000 years. However, extensive changes and damages have been done by man during the past 75 years, mainly logging at a very rapid rate, poor logging practices which destroy excessive amounts of top soil, clearing woodland, then overgrazing the fields, and road-building. Such practices all increase the frequency with which destructive floods will occur.

The passage of the federal Flood Insurance Act of 1968 has provided for the offering of subsidized flood insurance for existing homes on flood plains. The federal government pays the premium above about $5 per $1,000. Homes built since 1968 cannot obtain this subsidy. This type of insurance provides an alternative to the building of huge dams for flood prevention. There was much controversy in Humboldt County, where most of the Eel River flood damage occurred, when the Dos Rios Dam was proposed in 1968. Many thought that the proposed flood control allocation for the dam would be better used for additional flood insurance. Had the Dos Rios High Dam been in existence in 1964, the flood height on the lower Eel River would have been decreased only by about 2 feet. This would have decreased the inundation by only a relatively small amount.

1. EEL RIVER

1. Lake Pillsbury to Bucknell Creek
Class 3 at optimum: 400 cfs
Same class for several runs 150 to 320 cfs
Maps: Lake Pillsbury, Potter Valley; Mendocino NF

5.7 miles, summer run (see Fig. 8-f)
Scenery: AA, short shuttle
Drainage: 290 mi^2
Canoes: no; Rafts: only above approx. 800 cfs, marginal

The water from Lake Pillsbury flows down this run and into the small Van Arsdale Reservoir, where it exits from the Eel through a tunnel to the powerhouse in Potter Valley. The powerhouse capacity must be 310 cfs, and the river flow does not appreciably exceed that figure summer and fall until the winter rains set in. This is a delightful run that is popular with river touring groups, requiring much tight, tricky maneuvering. Boats can easily become trapped and broken, so this run should always be treated with respect.

To reach this upper part of the Eel River from US 101, 5 miles north of Ukiah, go east on Route 20. In 5 miles, turn left toward Potter Valley, and about 6 miles farther bear right on the Eel River Road. This road climbs over the low divide between the Russian and Eel River drainages. Keep to the right at the divide. In 1 mile, the boater has a choice between two roads that run from the Van Arsdale Reservoir up the Eel River to the bridge one mile below Lake Pillsbury, which is the put-in. The road on the south side runs along the river for the first three miles to Bucknell Creek, the take-out. The road on the north side does not pass the take-out and is considerably longer than the road on the north side. However, the south side route is a USFS logging road that is closed to the public Monday through Friday, 6:00 a.m. to 6:00 p.m. Thus, during the week the following three miles must be added to this run. The bridge where the road on the north side crosses the river, one-fourth mile from the above-mentioned split, is then the take-out (a prescriptive right-of-way).

Put in at the bridge one mile below Lake Pillsbury. The first 1½ miles consist of very simple water, followed by two, 3-foot falls through narrow slots. Soon after these falls there are two complicated, closely spaced rapids that may need scouting. Assuming that the river does not change, the second rapid is a simple chute ending at a boulder that nearly blocks the passage. This can require the trickiest maneuver on the run. For the next couple of miles, the river has many rapids.

At about 4 miles, after passing some steep slides on the left and boating around a slight right turn, two forested ridge lines come into view ahead. The first is on the right side and slopes down toward the river. The second is far beyond, higher, and has a flat crest. "Double Falls" rapids is just ahead, and should be scouted. At low flows, it is too rocky to run.

The last mile of river before the take-out, like the first 1½ miles, is not difficult. Take out at Bucknell Creek, which enters from the left, at a right turn. The property here may be private. If it is posted, continue to the bridge 3 miles farther downriver.

2. EEL RIVER (continued)

2. Bucknell Creek to Van Arsdale — **3.1 miles, summer run n (see Fig. 8-f)**
Class 1½ at optimum run: 400 cfs — **Scenery: A+, short shuttle**
Maps: Potter Valley; Mendocino NF — **Canoes and Rafts: OK**

This easy, short run through a beautiful, small valley should appeal to the novice boater looking for an alternative to the Russian River during the summer and early fall.

As explained in the previous run, Bucknell Creek, the put-in, can only be reached on weekends. Traveling east from Van Arsdale, follow the left branch where the road splits to reach the take-out. This is at the bridge in one-fourth mile. The two tricky places on this run can be observed from the road. The first is a rapid only a couple of hundred feet below the put-in. The second is a mile downstream where there is a considerable amount of brush in fast water at a left turn. This hazard can be seen for some distance as it is approached, and it should not be underestimated by the beginning boater.

3a. EEL RIVER (continued)

3a. Van Arsdale to Hearst — **11.4 miles, dam-controlled flow**
Class 2½ at optimum: 500 cfs — **Scenery: A–, long shuttle**
Same class for run 3/21/70 at 305 cfs — **Drainage: 349 mi² at put-in**
Maps: Potter Valley; Mendocino NF — **Canoes: OK; Rafts: brushy**

To reach the put-in, bear left at the top of the pass between Potter Valley and the Eel River (see description to this point in run no. 1). Just below the dam at the Van Arsdale Reservoir, there is a state fish hatchery station and, a few hundred feet farther, a small building with a gaging station. Put in at the gaging station.

Like many other runs below dams where the water is diverted to another river basin, the flow is at good boating levels for only a short time. Here, the shortness of the spring run-off is exaggerated by the adding of boards to Scott Dam at Lake Pillsbury, which raises the height another few feet. Permission to do so is granted annually by the California Department of Water Resources. When the boards are added, the outflow is reduced essentially to that required by the Potter Valley powerhouse.

The flow for this run is usually acceptable for about a week before the boards are added, and on years with wet springs, that is usually in late April. The Department of Water Resources and Pacific Gas and Electric Company (see addresses in Chapter 6) monitor the flow from Scott Dam and know when the boards are to be added.

As an example of how drastically the flow changes when the boards are added to the dam, in 1968, a dry year, the flow at this gaging station was 434 cfs on March 31 and only 4 cfs five days later. For the rest of the summer, the flow remained at the amazingly low levels of 1 to 4 cfs.

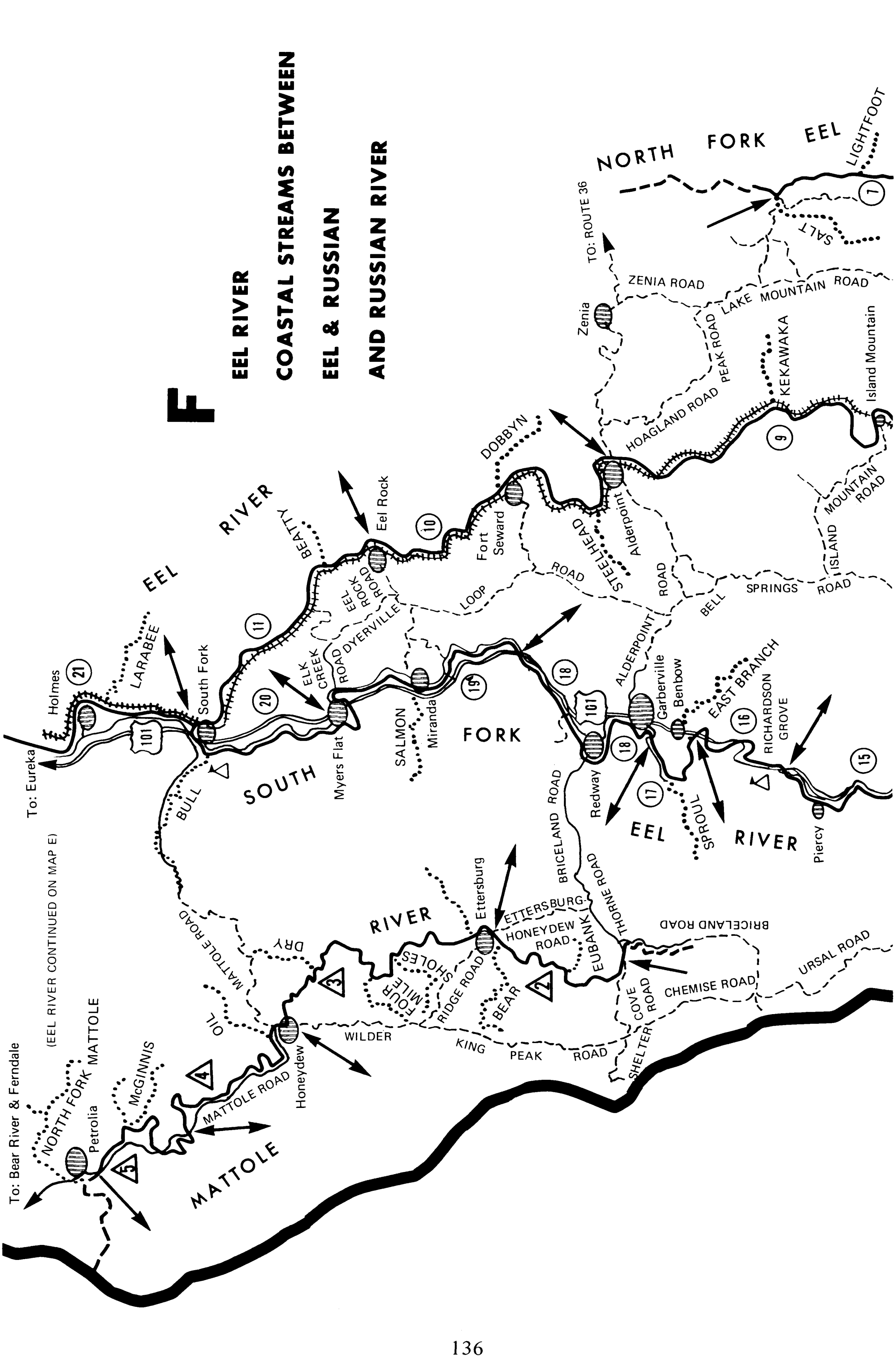
The section from the dam to Tomki Creek is very brushy and tricky. It has the only bad brush on any of the Eel River runs. A hike up Tomki Creek is a nice addition to the run. Downstream, a large slide into the river from the left looked as though it might add action to the run, but no appreciable amount developed. The best rapid occurs after the river turns west, just opposite the Emandal Resort, 2 miles from the take-out.

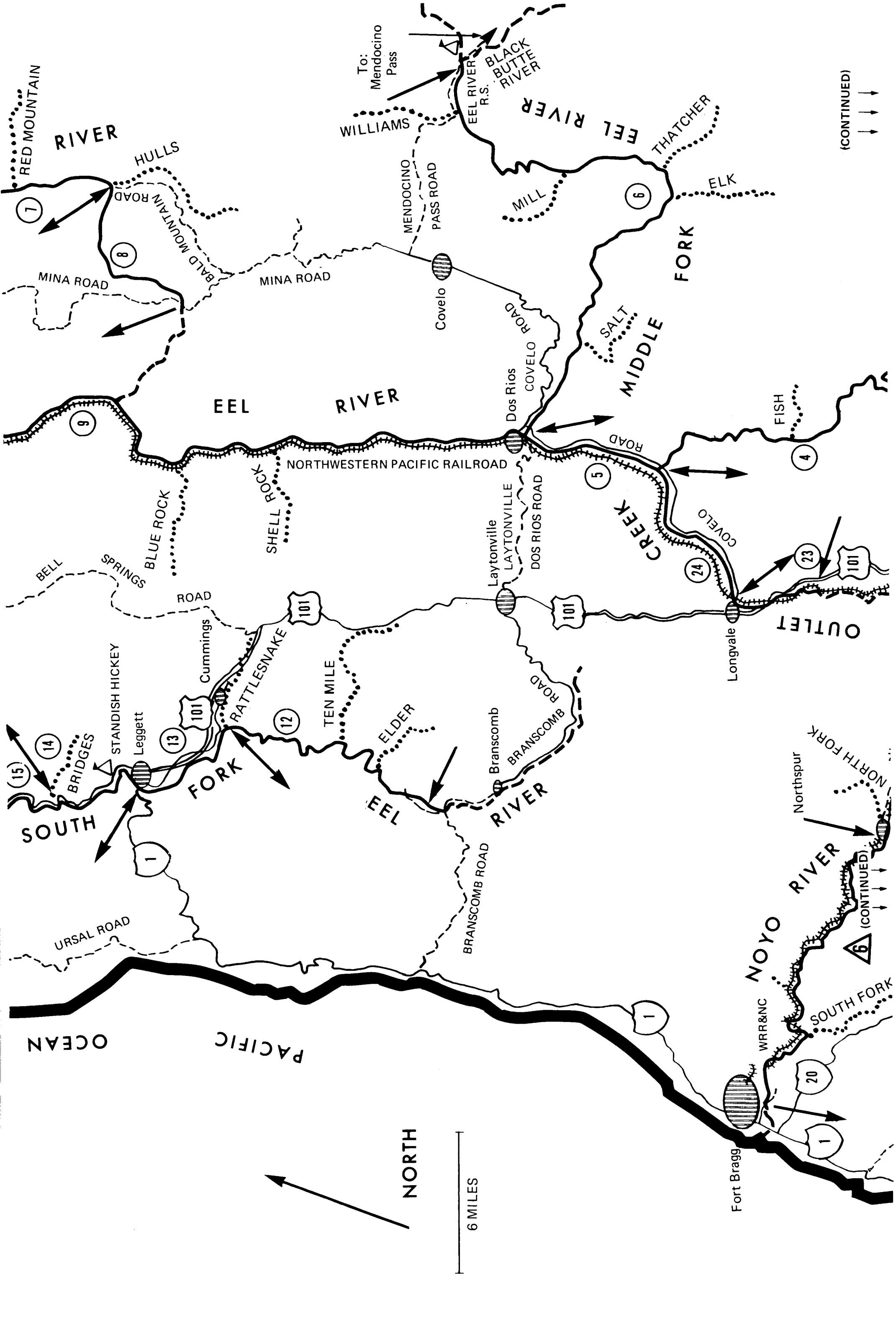
The description to the take-out is given in run no. 4. The shuttle is very long for this run, about 1½ hours each way, but if added to run number 4, it could make a nice 2- or 3-day wilderness adventure.

3b. EEL RIVER (continued)

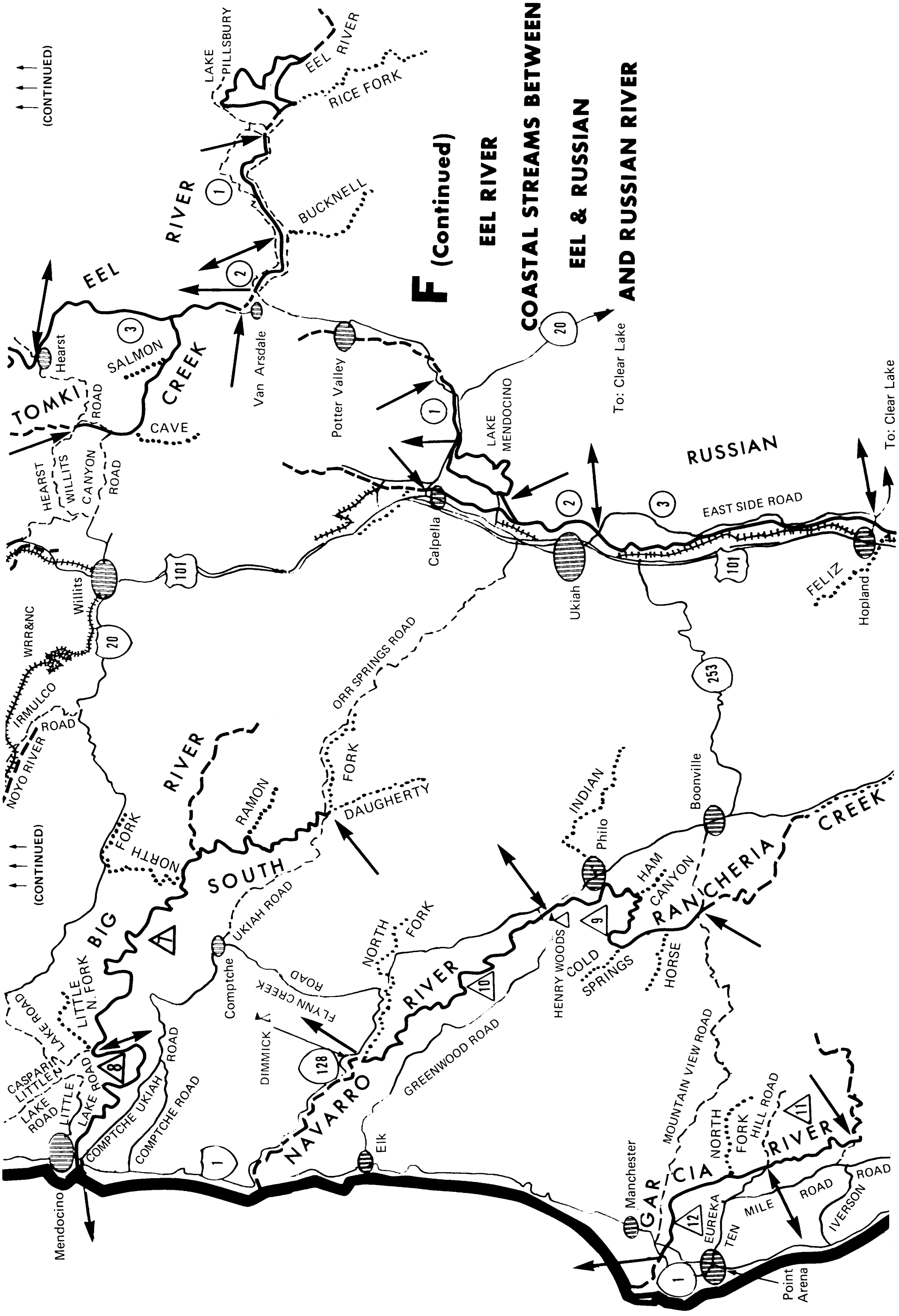
3b. Tomki Creek and Eel River to Hearst — **16.8 miles rainy season run**
Class 3½ with 1 P at optimum: 175 cfs — **Scenery: A, very short shuttle**
Map: Potter Valley — **Drainage: 44 mi² near put-in**
Average annual rainfall 51 in., runoff factor: 2.3 — **Canoes: no; Rafts: no, too narrow**

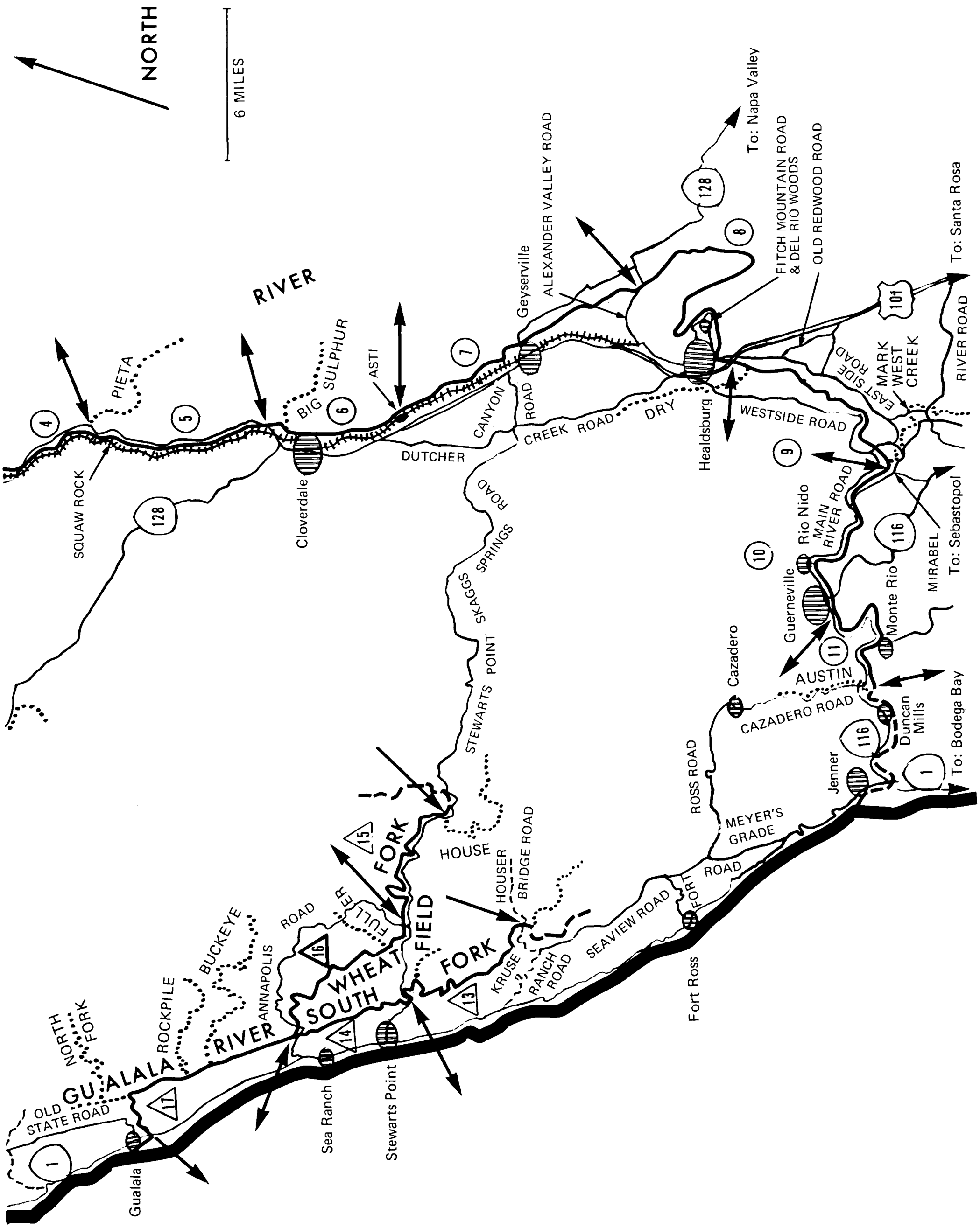
In February 1972, Joe Kilner and Ralph Eshenbach explored this run, which is a prettier, more interesting route to Hearst than the run from Van Arsdale. It also has a very short shuttle. Because of the exceptionally small drainage at the put-in on Tomki Creek and large drainage at the take-out on the Eel River, it is desirable that the first half of the run have a small flow, because even then the second half will have a flow far above optimum.


F
EEL RIVER
COASTAL STREAMS BETWEEN
EEL & RUSSIAN
AND RUSSIAN RIVER
NORTH FORK EEL
LIGHTFOOT
SALT
TO: ROUTE 36
ZENIA ROAD
LAKE MOUNTAIN ROAD
Zenia
PEAK ROAD
HOAGLAND ROAD
KEKAWAKA
Island Mountain
DOBBYN
MOUNTAIN ROAD
ISLAND
SPRINGS ROAD
BELL
ROAD
ALDERPOINT
Alderpoint
STEELHEAD
Fort Seward
LOOP ROAD
EEL RIVER
BEATTY
Eel Rock
EEL ROCK ROAD
DYERVILLE ROAD
ELK CREEK
LARABEE
Holmes
South Fork
To: Eureka
101
Myers Flat
Miranda
SALMON
SOUTH FORK
Garberville
Benbow
EAST BRANCH
RICHARDSON GROVE
Redway
SPROUL
EEL RIVER
Piercy
BRICELAND ROAD
THORNE ROAD
EUBANK
ETTERSBURG
HONEYDEW ROAD
Ettersburg
RIVER
DRY
SHOLES
FOUR MILE
RIDGE ROAD
BEAR
BULL
MATTOLE ROAD
OIL
WILDER
KING PEAK ROAD
COVE ROAD
SHELTER
CHEMISE ROAD
URSAL ROAD
Honeydew
MATTOLE ROAD
MATTOLE
McGINNIS
NORTH FORK MATTOLE
Petrolia
To: Bear River & Ferndale
(EEL RIVER CONTINUED ON MAP E)



To:
Mendocino
Pass
BLACK
BUTTE
RIVER
EEL RIVER
R.S.
EEL RIVER
(CONTINUED)
RED MOUNTAIN
RIVER
HULLS
WILLIAMS
THATCHER
ELK
MILL
7
BALD MOUNTAIN ROAD
8
MENDOCINO
PASS ROAD
6
MINA ROAD
MINA ROAD
Covelo
FORK
COVELO ROAD
SALT
MIDDLE
EEL
RIVER
9
Dos Rios
FISH
ROAD
4
NORTHWESTERN PACIFIC RAILROAD
5
BLUE ROCK
SHELL ROCK
LAYTONVILLE
DOS RIOS ROAD
Laytonville
CREEK
COVELO
BELL
SPRINGS
ROAD
24
23
101
101
101
OUTLET
Longvale
Cummings
RATTLESNAKE
TEN MILE
STANDISH HICKEY
101
ROAD
BRANSCOMB
12
ELDER
Branscomb
NORTH FORK
14
Leggett
13
BRIDGES
15
FORK
EEL
RIVER
Northspur
SOUTH
1
BRANSCOMB ROAD
NOYO
RIVER
(CONTINUED)
6
URSAL ROAD
1
WRR&NC
SOUTH FORK
OCEAN
PACIFIC
20
Fort Bragg
1
NORTH
6 MILES


F (Continued)
EEL RIVER
COASTAL STREAMS BETWEEN
EEL & RUSSIAN
AND RUSSIAN RIVER
(CONTINUED)
LAKE PILLSBURY
EEL RIVER
RICE FORK
EEL RIVER
BUCKNELL
SALMON
CREEK
CAVE
TOMKI
ROAD
Hearst
Van Arsdale
Potter Valley
HEARST WILLITS CANYON ROAD
To: Clear Lake
LAKE MENDOCINO
RUSSIAN
EAST SIDE ROAD
To: Clear Lake
Calpella
Ukiah
Hopland
FELIZ
Willits
WRR&NC
IRMULCO ROAD
NOYO RIVER
101
20
1
2
3
253
ORR SPRINGS ROAD
RIVER
RAMON
FORK
DAUGHERTY
NORTH FORK
SOUTH
BIG
UKIAH ROAD
Comptche
FLYNN CREEK ROAD
NORTH FORK
INDIAN
Philo
Boonville
HAM CANYON
RANCHERIA CREEK
HENRY WOODS
COLD SPRINGS
HORSE
RIVER
NAVARRO
GREENWOOD ROAD
DIMMICK
128
LITTLE N. FORK
CASPAR LITTLE LAKE ROAD
LITTLE LAKE ROAD
COMPTCHE UKIAH ROAD
COMPTCHE ROAD
Mendocino
Elk
MOUNTAIN VIEW ROAD
NORTH FORK
HILL ROAD
GARCIA RIVER
Manchester
EUREKA
TEN MILE ROAD
IVERSON ROAD
Point Arena
8
9
10
11
12



NORTH
6 MILES
RIVER
PIETA
BIG SULPHUR
ASTI
Geyserville
ALEXANDER VALLEY ROAD
To: Napa Valley
128
FITCH MOUNTAIN ROAD & DEL RIO WOODS
OLD REDWOOD ROAD
To: Santa Rosa
101
RIVER ROAD
MARK WEST CREEK
EAST SIDE ROAD
WESTSIDE ROAD
Healdsburg
DRY CREEK ROAD
CANYON ROAD
DUTCHER
Cloverdale
SQUAW ROCK
4
5
6
7
8
9
10
11
13
14
15
16
17
1
116
SKAGGS SPRINGS ROAD
STEWARTS POINT
Rio Nido
MAIN RIVER ROAD
MIRABEL
To: Sebastopol
Guerneville
Monte Rio
Cazadero
AUSTIN
CAZADERO ROAD
Duncan Mills
To: Bodega Bay
Jenner
ROSS ROAD
MEYER'S GRADE
FORT ROAD
SEAVIEW ROAD
Fort Ross
HOUSER BRIDGE ROAD
HOUSE
FORK
FIELD
WHEAT
SOUTH
FORK
KRUSE RANCH ROAD
FULLER ROAD
ANNAPOLIS
BUCKEYE
ROCKPILE
NORTH FORK
GUALALA RIVER
OLD STATE ROAD
Gualala
Sea Ranch
Stewarts Point

Instructions to the put-in and take-out are given in the next run description; the distance between them is 5 miles. Put in at the ford. The following description of the run was supplied by Joe.

The first 1½ miles (nearly to the bridge) are easy, all gravel bottom, and – despite a small flow – was generally deep enough. Just above the bridge on Tomki Creek and extending a short way below it, there is brush, and the course is rocky and tight. Then it is easy boating until the end of the valley in another mile. At this point there is an old lumber mill burner on the right and a pile of debris in a narrow, rocky spot. The stream turns left (east) at 2½ miles to flow toward the Eel. A larger creek enters on the right. The river enters a pretty canyon which has Class 2½ rapids and some brush.

Salmon Creek enters on the left with a spectacular falls at 6.7 miles, but just before that, long, rocky, Class 3½ rapids start to be encountered and continue to the Eel at 9.0 miles. Some scouting is necessary. The final drop in about the first of these rapids was portaged. Some very thin, rocky spots were run, and "rock slithering" was performed occasionally.

At the mouth, the flow in Tomki Creek will have more than doubled, and there will usually be about 12 times as much flow in the Eel as at the put-in. Two miles above the take-out is a long rapid with large waves. At the water level experienced in this run, the rapid was Class 3.

4. EEL RIVER (continued)

4. Hearst to Outlet Creek
Class 2½ at optimum: 600 cfs
Same class for run of 5/3/69 at 400 cfs
Maps: Potter Valley, Eden Valley, Laytonville

17.3 miles, dam-controlled flow
Scenery: AA, medium shuttle
Drainage: 528 mi² at take-out
Canoes: OK, but several portages
Rafts: OK

This beautiful run has three problems. First, in many years the boating season is extremely short. Second, Mr. Ramsing, whose property is located at 1¾ miles, has tried, often successfully, to stop boaters from boating past his property. Finally, the US Bureau of Reclamation would like to build a high dam at English Ridge, which would bury the first part of this run and the previous one. With our diligence, it may never happen.

To reach the put-in, turn right at the center of Willits and note your mileage. In 1.5 miles, turn left, and at 2.5 miles the road makes a right turn. In another 0.7 mile, the Red Hill-Hearst Road goes off to the left, but continue straight on. This road also goes to Hearst but has a ford, which may not be passable. At 4 miles, the road abruptly leaves the basin of Little Lake Valley, where Willits is located, and enters a small canyon. There is an intersection at 7.5 miles, with Tomki Creek lying directly ahead. Turn left and cross the bridge over Tomki Creek in one-fourth mile. At 9.4 miles, the road is opposite the ford. This is the put-in for the alternate route for the previous run, Tomki Creek to Hearst. After a right turn at 11.5 miles, the road crosses Salt Creek and follows it to Hearst, where there is a bridge across the Eel (prescriptive right-of-way). This is 14½ miles from Willits.

Put in under the bridge. After boating 1.5 miles, there is a walk bridge, and in another one-fourth mile the Class 1 boating abruptly ends at a large prow rock in the center of the river. All the water seeming to disappear around it, it is the most difficult rapid on the run, requiring maneuvering and balance. Cautious Class 2½ boaters will scout a rapid like this, since the prow rock entirely blocks the view of what is below. However, Mr. Ramsing lives in a house in the field on the right and owns property on both side of the river. "Go back!" he has told some groups (see Chapter 7 concerning navigability and portaging). If you have the skill, check the fast water around the rock for snags as you approach it, boat around the rock and into an eddy, check the rest of the rapid below for obstructions, and quickly continue on through a series of Class 2½ drops spaced between short pools. In a few hundred feet, the river turns left and you are soon out of Mr. Ramsing's way. (This section in total may rate a low Class 3.) The most beautiful stretch of the run now begins; here the river has rock side walls which continue for about 2 miles. The rest of the run has only occasional Class 2 rapids.

We made the first part of this run on an unusually windy day and found that the northwesterly facing sections of the river acted as funnels. Often we were forced to wait for a momentary lull to paddle past sandy beaches that were giving off fierce blasts of sand.

At 5.3 miles, a creek bed enters on the right in a left turn, and in one-half mile the river turns right, around the point of English Ridge (watch for bear in this region). This location is where U.S. Bureau of Reclamation would like to build a 553-foot-high dam. With a total capacity of 1.8 million acre-feet, the resulting reservoir would extend to within a mile or two of Lake Pillsbury. A 12-foot diameter, 14.2-mile-long tunnel would divert up to 850 cfs southeast into the Clear Lake Basin. The water would serve this area and also be conducted down Cache Creek.

The residents of Clear Lake have been greatly in favor of this project, as it would help clean out the pollution and algae in the lake. However, a study performed by the Federal Water Pollution Control Administration in 1969 showed that, if Clear Lake residents treated their wastes as well as is done in the Lake Tahoe area (tertiary treatment, and possibly exportation), it would do more good than importing the 190,000 acre-feet yield of the English Ridge Reservoir. The Eel River water in addition to the clean-up would help, but still not produce a "clean-looking" lake.

The passage of a state Wild Rivers bill in 1972, which places a moratorium on the building of dams on the Eel River, will prevent the English Ridge Dam from being built for at least 12 years.

The Bureau of Land Management oversees a patchwork of land parcels for the public trust in the Eel River basin. Upon turning southwest (left) 0.8 mile after the broad point of English Ridge, the river flows through BLM land for one mile. Fish Creek enters on the right at 9.5 miles.

Take out at the bridge on Covelo Road, a state highway, or possibly one-half mile downstream where a dirt road leads down to the river (legal status unknown). To reach this area by road from Willits, proceed north on US 101 13½ miles, turn right onto Covelo Road and continue for 8 miles to the Eel River bridge.

5. EEL RIVER (continued)

5. Outlet Creek to Dos Rios
Class 3 at optimum: 800 cfs
Same class for run of 4/8/73 at 960 cfs
Map: Laytonville
Average optimum flow date 4/16

6.3 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 689 mi^2
Canoes: no
Rafts: OK

The road and railroad follow the river the entire length of the trip, detracting somewhat from the enjoyment of this run, which is of excellent boating quality. As in the two previous runs, the boating season is cut short by the control of the flow from Lake Pillsbury (see run no. 3a). The typical rapid has about a dozen or so large boulders rather widely spaced and a drop ranging from moderate to considerable. There are probably a dozen such rapids with little variation in difficulty, although they can change from year to year. At the flow we experienced, only one rapid required precise maneuvering, and that was at CDH 11.1 miles. This run can be thoroughly scouted from the road.

Put in at the Eel River bridge (the take-out of the previous run). The take-out is at a dirt road leading down toward the river one-half mile before the Middle Fork confluence. Sometimes you can drive down close to the river here, but more often than not the road is washed out. From the river, the take-out is just a few hundred feet beyond where the Eel River bridge at Dos Rios comes into view.

6. MIDDLE FORK EEL RIVER

6. Black Butte Road to Dos Rios
Class 3 with 1 Cl 4½ rapid at optimum:
750 cfs at take-out
Boated at several water levels in '68, '69, '70
Maps: Covelo, Eden Valley, Laytonville
Average optimum flow date 5/14

30.4 miles, spring runoff run
Scenery: AA, medium shuttle
Drainage: 367 mi^2 at put-in,
745 mi^2 at take-out
Canoes: OK, with 3 to 5 portages
Rafts: OK, with 2 portages

The Middle Fork originates 20 airline miles north of the put-in on the slopes of 7,000-foot mountains in the Middle Eel Wilderness Area – a birthplace of rivers and river-sized creeks. There, the Middle Fork meets the drainages of Thomes and South Fork Cottonwood Creeks to the east, the Mad River to the northwest, and the South Fork of the Trinity River directly to the north. Since it drains a high, snowy section of the crest of the north coast range of mountains, the Middle Fork has a later spring run-off than any stream as far south as this.

This 30-mile run is one of the author's favorites. It is a river with great scenic value, although not as spectacular as some. With a few portages it can be handled by advanced intermediate boaters and open canoes at optimum flow (it quickly becomes more difficult at higher flows). It may be the longest river run for the intermediate boater through wilderness, with no public access, in all of California. It is bound to become the popular river run it should be.

Dam Plans

The Middle Fork is unique in terms of its water resource. It has become the "pièce de résistance" for the California Department of Water Resources (DWR). A 730-foot-high dam just above Dos Rios was proposed jointly by the DWR and the Army Corps of Engineers in April 1968. It would have flooded Round Valley with its Indian Reservation and the town of Covelo, displacing 1,500 persons, to produce the largest reservoir in the state – 7,600,000 acre-feet of water. Two plans for moving the water over the Coastal Divide and into the Central Valley were proposed. The favored plan involved blasting a 21-mile tunnel, 17 feet in diameter, to the east so that the water could flow into Grindstone Creek, which empties into the Sacramento River through Stoney Creek. From there the water would have flowed south and be portioned out in the California Water Project diversions. The dam would flood 36 miles of the river and block 36,000 salmon and steelhead from their spawning grounds. The inflated value of 2,000,000 recreation days a year (ultimately) was used to help justify the plan.

Conservationists immediately began fighting the proposed dam, but generally were not expecting to succeed. But the Corps of Engineers and DWR had met their match this time, because of conservationists such as Richard Wilson, a well-educated rancher of Covelo. Under his leadership, it was shown that the benefit-to-cost ratio was not the inflated 1.4 to 1 ($1.40 benefit for every $1.00 spent to develop the project) reported by the Corps of Engineers, but 0.7 to 1.* Finally, in May 1969, after much citizen pressure, Governor Reagan announced that he was against the proposed Dos Rios High Dam, and he ordered the DWR to consider "all alternatives." Fortunately for the river tourer, smaller dams that would not flood Round Valley are even less economically feasible.

In April 1970 (a dry year), the author organized a two-day boat-in to protest all plans to dam the river. Eighty-seven boaters, intermediate and advanced, covered the 30-mile run in kayaks, white-water and open canoes, and rafts with rowing frames. The trip was a great success in introducing so many people to this outstanding river run. Fortunately, the Middle Fork from the Middle Eel-Yolla Bolla Wilderness Area is protected until review in 1984 under the California Wild and Scenic Rivers Act.

Access Points

From Willits go north on US 101 for 13½ miles and turn right on the Covelo Road. Cross the Middle Fork of the Eel at 15½ miles. The take-out is at this bridge or downstream 0.3 mile at the bridge over the main Eel. To reach the put-in, continue on for 13 miles, through Covelo, and turn right in 1½ miles onto the Mendocino Pass Road. The river comes in view in about 9 miles. The put-in is 3 miles farther upstream at a gravel flat where sheds stand across from an old home with a gas pump out front. Ask for permission to use this private put-in from Whit Ham, the wonderful, talkative old-timer who lives there. If necessary, put in at the bridge or at the back end of the NFS Eel River Ranger Station campground. To the east, the Mendocino Pass is at 5,000 feet on a gravel road and most likely will still be closed when the river is at the right flow for running (check with Mendocino NF Headquarters, Willows, Calif.).

The author was amazed to learn that the bridge at the put-in was 53 feet above the river bed when it was built in the '30s, but now that distance has shrunk to 23 feet. Gravel from slides along the river and its creeks has buried the earlier river bed everywhere but at the major rapids on nearly all of the Eel River.

*An enlightening, 100-year history of the Corps' civil projects has been written by the first chairman of the Tennessee Valley Authority, Arthur E. Morgan, *Dams and Other Disasters*, 1971, Porter Sargent, Publisher, Boston.

The Middle Fork of the Eel River winds its way through some beautiful countryside (photo by Joe Bauer).

A group of expert Sierra Club boaters explored this run some years before the 1964 flood. Even though the flow was probably somewhat higher than the optimum used in this guide, they had a very difficult time and came away calling it a Class 5 that should be avoided. The flood on December 22, 1964, reached a peak flow of 270,000 cfs at the mouth of the Middle Fork at Dos Rios, or an average of 360 cfs per square mile. It is the consensus of the "before and after" boaters that all the intermediate and advanced runs on the Eel became easier by about 1 class.

Black Butte River joins the Middle Fork just below the put-in, adding 162 square miles to the 367 square miles of the Middle Fork. Black Butte originates about 22 miles to the southeast on 5,500-foot Kneecap Ridge, the divide with the Main Eel above Lake Pillsbury. Except for the bridge across the river about two-thirds mile above the junction, there is no access to the river.

The Run

The river follows the road for 2.9 miles to where Williams Creek enters. There is some tricky maneuvering in fast water around large boulders 1 to 2 miles beyond this junction. At about 6 miles, the river leaves the open, grassy, rolling hills and enters stands of fir on the north and east exposures. There are 3 large, but progressively tighter, S-turns to mile 9. The largest rapid in the first two-thirds of the run, a fairly long Class 2½, comes at mile 10 just after the country along the river opens out to some extent. The rapid goes around a left turn, and the boater may wish to scout it. Just below this rapid, Mill Creek enters from the right, but is well hidden. A private dirt road in poor condition (for emergency access only) follows Mill Creek through Judge Weber's property.

Starting back at the second S-turn, at 7 miles, all the land on both sides of the river to 15½ miles (0.4 mile above Elk Creek) is U.S. Bureau of Land Management (BLM) property, except for one-quarter mile on each side of Mill Creek. Thus, boaters are not restricted to camping right on the beach as is the case when boating through private land. There are also three short sections of BLM land below Elk Creek at 17.5, 19.5 and 27.5 miles. Since the river water is drinkable in the spring, even if not running clear, there are many good camping places all along the river. The surrounding woodland generally turns to brush around mile 11½, and at mile 14 there is a beautiful, rock-lined narrows.

There is excellent camping at Thatcher Creek, which enters from the left at 14.7 miles. While this is nearly halfway through the run in miles, it is not that far in effort. From 3 miles to this point, the boater usually has a down-river wind, a great and rare treat on the Eel River. Strong head winds for most of the next 8 or so miles make rowing frames in rafts a necessity. These winds are usually weaker or non-existent in the mornings.

The river is Class 1 or 1½ from Mill Creek to mile 23 except for a couple of small Class 2 rapids around mile 21. Elk Creek enters at 16 miles, and the river then bears in a consistent northwesterly direction for 5 miles. Shortly after turning west and near Round Mountain, which extends 1,000 feet above the river and is only one-fourth mile from it, a slide of blue rock on the right bank marks two easy Class 2 rapids. In the next mile, "wild" angora goats that have been stocked for hunting can be seen. The thin green vein running through the rocks, particularly at one larger slide on the right, is reported to be good quality serpentine.

The river flows southwest for 1 mile to mile 22, turns right, and after another mile arcs around the left side of a wide boulder bar. In the field above the bar is the final emergency access road, across private property (Mendocino River Ranch). It can be impassable during the time the river is runnable.

In 1¾ miles comes what the author's wife has dubbed "Skinny Chutes," the first four advanced rapids. The river suddenly splits with the left branch, turning abruptly left and dropping down to a lower level. In a couple of hundred feet this side passes through two short, powerful, very narrow drops. Class 3 at optimum flow, that are runnable, if they are not blocked, only by kayak or white-water canoe. The right branch fans out with the flow tumbling over a single, unrunnable drop, but portaging along its edge is short and easy. A big slide on the left bank right above the rapid makes a useful landmark.

Ahead, on the right, is a small peak jutting out from the side of the hill to 600 feet above the river. Coal was mined from the far side of this hill several decades ago. Passing around the end of the ridge that extends down from this peak, there is another wide gravel bar on the right. At a right angle turn at 25.4 miles (one-half mile below Skinny Chutes), Salt Creek enters on the left with its channel cut through gravel. In one-fourth to one-half mile there is a moderately long Class 3 rapid. Below this rapid there is ample room even for self-rescue, but the thought of that big one coming up should keep any boater from dallying.

Coal Mine Falls, as we have named it because the natives refer to it as "the big rapid just below the old coal mine," is a long, difficult Class 4½ rapid with a long, tough portage. There is good notice of the rapid with the appearance of large boulders in and along the river. Take out on the right for scouting and portaging. The big, turning drop near the top has tricky hydraulics, so a reliable Eskimo roll is highly desirable. Besides kayakers, expert rafters with rowing frames have run this under optimum conditions (note that this rapid, like any other, could change). The rafter's problem is turning out of the main flow immediately after this first turning drop so as not to be squeezed into a too-narrow chute on the far side where much of the flow goes. The author has seen an expert with a 15-man raft get caught in the chute and spend some very fast, anxious moments while the rowing frame broke, the raft folded in two and started to sink as water poured over the rear, before it broke free and washed on through. The portage is about 100 yards over very large boulders.

At the end of Coal Mine Falls, the river enters a canyon, which continues to deepen and become narrower for the next 1¼ miles to the site of the proposed Dos Rios High Dam (mile 27½). Of course, it is a beautiful, spectacular canyon; dam builders seem to have good taste in picking their sites.

The four remaining miles from Coal Mine Falls contain frequent Class 2 and 2½ rapids. A mile below, there is a steep buttress on the left that marks the end of the narrow canyon; the river turns right and then swings sharply left around a 150-foot-high monolith known as Swallow Rock. A good view of the Class 3 rapid at its base is obtained from the road, and from there the main drop looks easy – or so we thought on examining it before our first run. The author was second coming around the corner and, to his horror, found a riderless kayak standing vertically as it bounced in the hole at the bottom of the drop. One of our group had tipped over there and been rolled about in the reversal before being released from its grips. The drop has surprising punch, probably because of the large boulder only 20 feet below that partially blocks the way. One wonders if the monolith was named for the birds that nest there or for the surprised boaters that are swallowed by this hole.

Take out at either bridge. The purist who wishes to boat the entire Middle Fork will probably choose the lower one; there are good rapids between them.

You have just completed one of the very best river runs left in California. If run in a year that has a late runoff, the warmer weather and new growth will add even more to its beauty.

7. NORTH FORK EEL RIVER

7. Salt Creek to Hulls Creek
Class 4 with 2 P's at optimum: 900 cfs at Mina
Same class for run 4/7/73 at 420 cfs at Mina
Maps: Kettenpom; Six Rivers NF
Average annual rainfall 60 in., runoff factor 2.5

12.0 miles, rainy season run
Scenery: AA, long shuttle
Drainage: 80 mi^2 at put-in, 250 mi^2 at Mina
Canoes and Rafts: no

It will take the unusual boating nut to be tempted to make this run. Once he arrives at one of the access points, it is about a 1¾-hour shuttle over gravel roads each way. There is one-half mile of lining and carrying from the road to the put-in, and it is impossible to avoid the poison oak. After all that there is one long portage and a horrendous portage over large boulders and through mud. However, the boater is rewarded with a river of unusually excellent scenic beauty and, toward the end, with 5 miles of some of the best white water in California. From several miles above this put-in, the North Fork is included in the California Wild and Scenic Rivers Act.

To reach the take-out, see the description of the put-in for the next run. To reach the put-in from the North Fork Eel bridge (the take-out for the next run), continue north on the Lake Mountain-Mina Road for 22.3 miles; then take the turn-off to the right into Hoaglin Valley. After passing along the west side of this little valley to the entrance to Kettenpom Valley at 2.6 miles, turn right at the junction, then bear right again very shortly toward Salt Creek. Cross the creek in 2½ miles and continue uphill to the first sharp turn. This turn is the starting place for the put-in. (We examined the possibility of reaching the river farther upstream, but the only access is private and impassable at the time of the year when the river is runnable.)

All the shuttling and obstacles in this run make for a very long day, so it is a great help to have a shuttle driver for each vehicle. In that case, about an hour can be saved when coming from the south by traveling to the put-in via Garberville. Leave US 101 there and cross the Eel River at Alderpoint. In 3 miles, take Hoagland Road to the right; this road turns into Lake Mountain Road at a junction in 12 miles. Turn left into Kettenpom Valley in about 4 miles. From there, it is 3 miles to the junction at the south end of this valley where the shuttle road joins, just north of Hoaglin Valley.

We close-tied the ends of our boats together and lined them down the hill to Salt Creek, then lined, carried, and boated the one-half mile to the North Fork. This stretch takes one-half to three-fourths hour and is over USFS land. There is also a trail along the left side of the creek from the bridge crossing upstream on Salt Creek to the point where we slid our boats down, but we concluded that our way was easier.

Just as we reached Salt Creek, the third member of our party developed problems with a recurring back condition. He was able to slowly hobble back to the road while we dragged his boat back uphill.

The first half of the run is easy with a gradient of 30 to 40 feet per mile; it took us less time than the next half-mile. The first good landmark comes at 3.5 miles where a small, knife-edged ridge appears to block the stream. The river flows around it on the right, then along its back side. Lightfoot Creek, which enters on the left at 4.7 miles, is in a definite valley, and just beyond and on the right is a small creek entering over waterfalls. The first cliff then appears on the left, and we expected the rapids to become much more difficult since the map shows that the gradient increases to 80 feet per mile (well into the troublesome range). Instead, nothing happens for 1 mile below Lightfoot Creek.

Upon rounding a right bend where a 400-foot pinnacle peak comes into view straight ahead, you are at the first portage rapid. The second portage occurs in about one-fourth mile and is long and very strenuous. Use the right bank. The mileage here is about 6¼.

By the time we had finished these portages (about 1½ hours required), it was 5:00 p.m.

We had been going continuously since breaking camp near the North Fork bridge at 7:00 a.m. We were convinced that we had just arranged our first river trip bivouac as we expected more portaging and it would be impossible to finish half the mileage in 2 hours. We did not know that our luck was changing, and we did finish before dark, even though we spent time rescuing a boat that got pinned when a paddle snapped in two in the middle of a rapid.

After the second portage, the river suddenly seems to change its character. The rest of the river has innumerable, exciting, rocky slalom rapids. Precise boat control and reliable back ferrying are essential. This stretch is a rare gem of particularly delightful boating.

There are two landmarks along the second half of the run – a striking, diamond-shaped rock jutting up out of the center of the river at about 8¼ miles and an old dirt road cut into the hillsides with only small concrete bridge piers left at the river at 10.1 miles. An isolated section of a log bridge perched up on tall boulders is seen within 1 mile of the end of the run.

Take out where Hulls Creek, the major side stream, enters. The river makes a major turn westward here. Since this access is important and private (see next run), it would be very appropriate to have some small gift for Mr. Henderson, the owner; scratching a living out of these highly erodable hillsides is no easy trick. Notice that there are no electric lines anywhere in this "back country."

8. NORTH FORK EEL RIVER (continued)

8. Hulls Creek to Mina
Class 3 at optimum: 400 cfs
For run 3/22/70, Cl 3– at 270 cfs
Maps: Kettenpom, Spyrock
Average optimum flow date 4/18

8.4 miles, spring runoff run
Scenery: AA, long shuttle
Drainage: 250 mi^2 at take-out
Canoes and Rafts: OK

To reach the put-in from Covelo (see Middle Fork put-in description), continue north 3½ miles on the road to Round Valley. At the end of the valley, the road turns left and begins climbing. The road climbs continuously for 4 miles. At 5½ miles, the Hulls Valley Road goes off to the right, but continue on. At 9 miles, just at the end of the small Summit Valley, is the Bald Mountain Road junction, which is the road to the put-in. The take-out is reached by continuing 5 miles farther on to the bridge. All the roads after Round Valley are unpaved. After one-half mile, Bald Mountain Road travels the crest of a narrow ridge for a mile, then descends steeply to a lower section of the ridge. This public road passes through two closed but unlocked cattle gates (be sure to leave them as you found them). About 6 miles down Bald Mountain, the road passes through a farm yard with a house on the right and at 9½ miles, a farm yard with a house immediately on the left, marking the end of the county road, an hour's drive from Covelo. Ask permission here of Mr. Henderson to put in at the river, which is still another one-half mile away. He is a very friendly person; plan to spend a few minutes chatting with him.

Put in at the end of the road, which is at the junction of Hulls Creek and the North Fork. (The Six Rivers NFS map erroneously shows the road continuing on the other side of the river.)

After the first 1½ miles, downriver, all of the land on the left side is part of the Round Valley Indian Reservation. There are only 3 or 4 rapids of note on this very beautiful wilderness run. There are rapids for the first half-mile ending with a long straight one into an interesting rock narrows. At 2 miles, another rapid occurs and another at 5.2 miles, following a one-fourth-mile section of river that flows southeast. This last rapid is wide and will probably require considerable rock-dodging.

The river makes a major turn from south to west to make its descent to the Main Eel one-third mile before the take-out. Large boulders become more numerous as the take-out is approached, but the big rapids that they can cause do not occur.

The remaining 6 miles of the North Fork are unexplored. It has a couple of miles with a gradient greater than 100 feet per mile. To explore this very difficult run when it has adequate flow would require boating the swollen Main Eel River at least to Island Mountain Falls.

9. Dos Rios to Alderpoint
Class 3 with 1 Cl 4 rapid at optimum: 1600 cfs at Fort Seward; same class for runs 5/67, 5/69, 5/71*
Maps: Laytonville, Spyrock, Kettenpom, Alderpoint
Average optimum flow date 5/9

46.3 miles, spring runoff run
Scenery: A, long shuttle
Drainage: 2107 mi^2 at Fort Seward
Canoes: OK, several portages
Rafts: OK

For at least a decade, the run from Dos Rios to Alderpoint was a favorite biennial 4-day Memorial Day weekend trip of the Sierra Club River Touring Section of the Bay Chapter. Only in the wettest years is that the best time to run it.

The change in rapids is more evident from year to year on this run than any other run that the author has made more than once. Only four rapids were recognizable after only two years when it was rerun in 1969. New rapids appeared and others had disappeared. One rapid, in fact, had moved downstream by 300 yards. Consequently, except for the four unchanged rapids, only the region of the probable larger rapids can be indicated. The mileage signs every mile on the Northwestern Pacific rail line provide an excellent gage of progress. At the put-in, the mileage is between 165 and 166.

To reach the put-in from Willits, go north on US 101 for 13½ miles and turn right onto the Covelo Road. At 15 miles, one-half mile from the bridge over the Middle Fork, there is an access road to the river, although it may be washed out. This is the traditional put-in, although its legal status is unknown (if it is posted, put in at either of the two nearby bridges in Dos Rios, which are on state property). When the run is at optimum flow, virtually all the water comes from the Middle Fork – the upper part of the Main Eel having been brought under control at Lake Pillsbury. Typically, the flow at put-in is less than 100 cfs, so the one-third mile to the junction with the Middle Fork requires minute rock dodging for small craft and the nudging along of larger rafts. At optimum flow for the rest of the run, the Middle Fork will still be a gray, silty color, but turning toward a transluscent green.

On our 1967 trip, we had a boat collision under the Main Eel bridge just below the junction. An expert kayaker inadvertently speared his sharp-nosed craft completely through the lower tube of a 15-man raft. Both tears had to be patched both inside and out, and that delayed our trip by about 2½ hours.

The stretch to Spyrock is the easiest part of this run. The largest rapid should be at about 2 miles; the USGS gaging station is on the left at 2.5 miles. The river follows an unusually direct northwesterly course for the next 5½ miles to a small peninsula extending to the right which the railroad tunnels through.

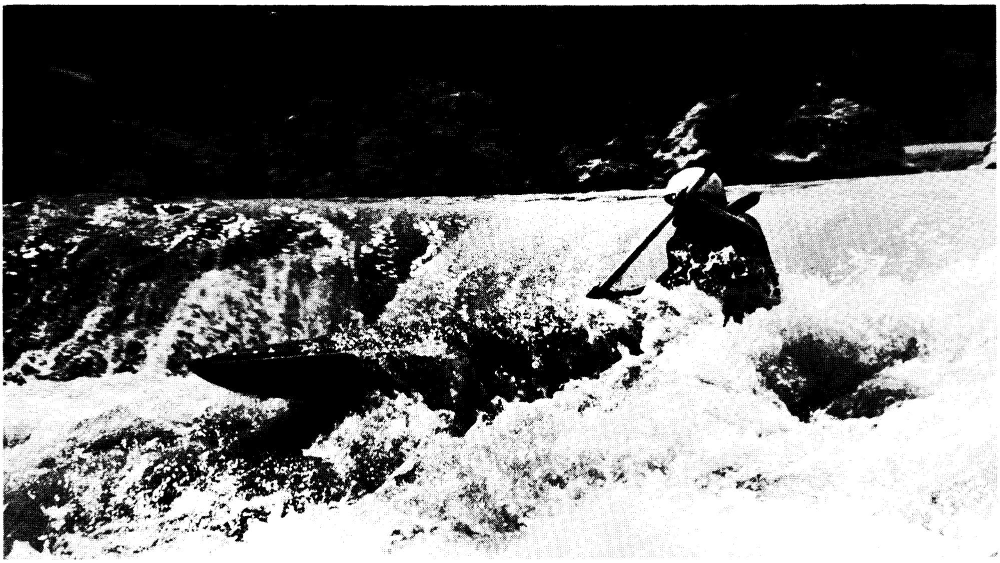
A large, excellent beach for camping is on the left at Shell Rock Creek at 12.7 miles, just where Spyrock comes into view. Spyrock, in 0.6 mile, makes a good, but steep, 600-foot rock scramble, but the boater must beware of rattlesnakes. It seems that on almost every Eel River trip someone nearly steps on a large rattler at one of the stops. The AAA map shows a road from opposite Spyrock out to US 101, but it has a locked gate.

From Spyrock to Island Mountain is probably the most active part of the river. Blue Rock Creek enters from the left at 17.6 miles. It creates a rapid that is a narrow chute against the rock wall on the right and has good waves. Below this Joe's notes read, "Shortly after the Blue Rock Creek rapid we scouted and ran a rocky rapid, but not too cleanly; it probably changes yearly. We scouted another with three holes – which required hard paddling. Easier rapids continued to the North Fork."

By the time the Main Eel is at optimum flow, the boating season on the North Fork will have been over for about a month, but its small flow of clear, warmer water makes great swimming. There is a large beach here for camping, but it is somewhat exposed. The mileage at the North Fork is 22.8 (railroad miles 188).

There are more rapids on the way to Island Mountain, with the river running northwest with no major turns for 6½ miles. About one-half mile after it turns to the northeast is located Island Mountain Falls, the largest rapid on the Main Eel. It is at 29.7 miles (railroad miles 194). A small butte between the railroad tracks and the river helps in locating it, but the huge boulders blocking the view ahead would make any sane boater approach it cautiously. It should be scouted from the left bank. It consists of a couple of minor drops,

*Run last date by Joe Kilner and Bob Gunton, whose notes were used to help make this description more complete.



The author powers his way through Island Mountain Falls on the main stem of the Eel River (photo by Carl Trost).

followed by the big one. For the three runs on which this description is based, there was an impressive but easy drop (for its size) on the left and about a 6-foot straight drop toward the right side. Kayakers taking the right drop have a great ride. The first part is simple, but when the bow pops out and the tail is driven down into the hole by falling water, staying upright is as difficult as remaining on top of a bucking bronco bolting into a rodeo ring.

The railroad bridge across the Eel is located one-half mile farther. Part of an old bridge lies in the river some distance downstream from the railroad bridge. A long road leads out from Island Mountain to Bell Springs Road, which eventually joins US 101. The next 3.7 miles are through wilderness around a large peninsula that the railroad tunnels through for 0.8 mile. From the bridge, the river flows southwest for 1.4 miles to a right turn, where there will probably be a rapid. In three-fourths mile it makes a 45° turn to the northeast. One-half mile farther, just before it turns fast and starts around a right bend, take out on the right to look at Kekawaka Falls (Class 3), a long rapid that requires maneuvering. Before the '64 flood, this rapid was much more difficult, requiring the boater to catch an eddy just before the final turn, then to ferry upstream to the opposite side for the final drop. It is a mystery why the creek for which this rapid is named is 5 miles downstream.

In one-half mile, the railroad rejoins the river. The remaining rapid of note, the "Mile 201" rapid, is about 5 miles farther – one-half mile below railroad mile 201. It consists of several drops among large rocks. From railroad mile 206 on, the river is Class 1, and that Eel River wind can stop rafts (see descriptions in lower runs). Take out 1.3 miles below the final railroad bridge, about where the road bridge at Alderpoint comes into view. A dirt road comes down to the river on the left at a wide gravel bar (see next run for access directions).

10. EEL RIVER (continued)

10. Alderpoint to Eel Rock	**17.9 miles, spring runoff run**
Class 1½ at optimum: 1600 cfs	**Scenery: A, long shuttle**
Same class for run of 5/30/71 at 1530 cfs	**Drainage: 2107 mi^2**
Maps: Alderpoint, Blocksburg	**Canoes: OK**
Average optimum flow date 5/9	**Rafts: marginal, windy**

Wind, rather than rocks and white water, is usually the challenge to the boater from Alderpoint downstream on the Eel River. Even above Alderpoint, there are reports of rafters being blown back upstream while rowing full strength against the wind. On the author's first attempt to run from South Fork to Rio Del in a kayak, he gave up immediately and could barely stand against it to carry his kayak up the river bank. It is usual to have an upstream wind while touring a river in California, but the Eel and Salinas winds are probably the worst. Both stream beds are large and the general direction of the river is to the northwest, right into the prevailing fair-weather winds. Extra time should be allowed for wind when planning a trip on the lower Eel. Most travel should be early in the day, because the mornings usually are relatively quiet. Because of the wind, run at a water level higher than normally would be considered optimum. Open canoes should shoot for 1,500 cfs, and rafters will prefer 3,000 cfs or more. In wet years, however, canoes have run it as late as July 4 with only 300 cfs, with some lining of boats being required, and the whole trip being of marginal satisfaction (one boater exclaimed, "We should have run it from Eel Rock to Alderpoint!").

Alderpoint is 19½ slow miles from Garberville, mostly on gravel road. The general store at this very small river town is reasonably well equipped. Proceed upstream past the bridge about one-half mile to the road that leads to the river, the first likely looking one. The lower part has a large "No Trespassing" sign, but a native informed me that the water company put it up to discourage any tampering with their equipment, and everyone puts in there. By now, the author expects that the right to use this for put-in and take-out on river trips is established by implied dedication. Sierra Club groups have been using it for more than 15 years. A path leads upstream to the river from the east end of the bridge, providing another put-in possibility (80 feet total width right-of-way).

For camping, exposed, wind-blown beaches are prevalent; good, sheltered ones often require a few more miles of paddling. We beach in a section where the river does not flow north to west. All the land in this region is privately owned.

At 2½ to 3½ miles in a right turn, there is a swift current into some brush and protruding rocks. Steelhead Creek enters on the left at 3.9 miles and immediately below is a symmetric rapid with the biggest waves between Alderpoint and South Fork. On our trip, one rather heavily laden canoe with two occupants filled and sank, but mainly because of the boaters' aggressive forward paddling.

At Fort Seward (8.6 miles) there appears to be a good take-out on the left about one-fourth mile before the bridge (legal status unknown). The Fort Seward USGS radio gaging station is on the east side at the bridge. This station seems to be dependable and works well for determining water levels on the lower main Eel and the Middle and North Forks.

Dobbyn Creek, the largest tributary between the North and South Forks, enters from the right at 10 miles. In 2 miles, with Yellow Jacket Butte on the right, is the site of the proposed Yellow Jacket Dam, 734 feet high. Planned to hold 8,680,000 acre-feet, it would back up water 4½ miles up the Middle Fork. The author used to be able to enjoy boating between bluffs, through a gorge or narrows, but now he has become paranoid. The Department of Water Resources planners have always been there before him, it seems. Again, these plans are in limbo until 1984 because of the California Wild and Scenic Rivers Act.

In one-half mile, the little rapid at the sharp right turn has a sharp eddy line, as experimentally determined by an 11-foot wooden Old Town canoe on our trip – over it went. At 16.2 miles, there is the last rapid before Eel Rock. The take-out is at an obvious road leading from the sand bar on the left. (See the next run for how to reach Eel Rock.)

11. EEL RIVER (continued)

11. Eel Rock to South Fork	**14 miles, spring runoff run**
Class 1½ at optimum: 1600 cfs	**Scenery: A, medium shuttle**
Same class for run of 5/30/71 at 1530 cfs	**Drainage: 2107 mi^2 at Fort Seward**
Maps: Blocksburg, Weott	**Canoes: OK**
Average optimum run flow date 5/9	**Rafts: marginal, windy**

Several roads lead to Eel Rock from the Avenue of the Giants between Phillipsville and Myers Flat. None of them is direct, and it is probably best to inquire locally about the route. Also, see the enlargement, "Main Redwood Grove Area," on the Northwestern California AAA map. The following is one possible route to the put-in. Proceed upstream 2 miles from Myers Flat on the Avenue of the Giants to Bolling Grove and take Elk Creek Road, which climbs slowly up to a junction on a ridge in about 3 miles. Go right on the Mail Ridge Road, or Dyerville Loop Road for about 4 miles to the turnoff to the left for Eel Rock, which is another 4 miles.

After the river rounds the corner at Eel Rock it flows almost in a straight line to South Fork, and this section can be windier than even the previous run. With this river bed, which is considerably larger than the usual, it could be very easy to underestimate distances traveled. At 3 miles, just before Beatty Creek, there is a rapid with the current converging on a sharp turn around a rock. At 4½ miles, in fast water at a right turn, there are old pole pilings that must be avoided. A summer bridge crosses at 7.8 miles, and creates the most interesting rapid on its downstream side. The boater must carry across the bridge, which is at water level. It is opposite the site of McCann, which is on the left. There is a road out from here along the river to South Fork.

At mile 9½, there is a sharp left, and at mile 12½, a sharp right. Take out at the summer bridge at South Fork, which is one-half mile before the railroad bridge and three-fourths mile before the confluence of the South Fork Eel River. To reach this access, go to Founders Grove, which is just south of the South Fork of the Eel at US 101. Drive through the grove, and after one-half mile turn left across the railroad tracks and continue on a gravel road through a barren flat (used to be the town of South Fork before the flood) and down to the river.

South Fork Eel River

The South Fork originates in the Laytonville area with very little of its drainage above an altitude of 3,000 feet. From the Branscomb put-in to its confluence with the main Eel is a distance of 85 miles. The first run described is one of the very best expert runs in the North Coastal region. The first third of the South Fork lies in a fairly deep canyon, and rich stands of protected redwoods line much of the lower third. The scenery is generally excellent, but too often scarred by recent logging of poor practice, slides that are often caused by this logging, and the new US 101 highway.

JUDD SMITH:
2 hrs 10 mi Cr to S Fk
2¼ hrs to Hermitage

12. SOUTH FORK EEL RIVER

12. Branscomb to Hermitage (private take-out)
Class 4 at optimum: 1350 cfs at Leggett
Same class for run of 4/3/71 at 1120 cfs
Maps: Branscomb, Leggett
Average annual rainfall 76 in., runoff factor 3.7

15¼ miles, rainy season run
Scenery: AA, long shuttle
Drainage: 44 mi² near put-in,
248 mi² at Leggett
Canoes: no
Rafts: OK, but many rapids to scout

USGS gage
10 mi @ 101
ft cfs
2.0 - 60
2.5 - 100
4.0 - 175
4.5 - 270
5.0 - 400
5.5 - 550
6.0 - 750
6.5 1000
7.0 1350
OK
8.1 - 2500
9.0 5560
10.0 12800

From US 101 at the center of Laytonville, turn west on the Branscomb Road and pass through Branscomb in 13 miles. In 2½ miles, cross the Eel. In another one-third mile, the Wilderness Lodge Road branches north along the river. The author suggests putting in here, or possibly at the bridge 1½ miles farther downstream. We put in 3¼ miles downstream of the road junction, but it was on private land and that nearly got us into considerable trouble. The road is shown as a public road on the AAA maps. However, a native claims that the right-of-way was never deeded to the county and so the owners think it is a private road. The county, no doubt, has a prescriptive right-of-way – one established through use over a period of years. So, while the author has not run it, the largest difficulty of the first 3¼ miles with its gradient of 25 feet per mile will probably be possessive landowners who do not think the river is navigable.

The USGS gaging station is located at 3¼ miles; the drainage area here is only 44 square miles. The next 5 miles are rather trivial Class 2½ boating with insufficient water at the recommended flow but through beautiful wilderness forest. Almost 4,000 acres along the river and up Elder Creek, which enters from the right, is owned by the Nature Conservancy, a conservation organization that buys key pieces of endangered wilderness land around the United States. This piece is called the Northern California Coast Range Preserve, and you must have permission to hike on it. Write the West Coast office: Nature Conservancy, 215 Market Street, San Francisco, CA 94105.

The river changes character completely with the first big rapid just as Ten Mile Creek enters on the right and adds about two-thirds more flow. Ten Mile Creek flows north out of the Laytonville Valley and runs along US 101 before turning west and flowing 6 miles to the confluence. John Googins of Moraga led a group of expert boaters on this run in high water in 1970. The last mile has 100 feet of drop and is very difficult. Moreover, the water in this creek will be even less adequate than that in the South Fork route when there is an optimum flow in the canyon below. Yet, for experts making a run in mid-winter, its shorter total run and much shorter shuttle will make it appealing, particularly if the water is high.

The rest of the run is an amazing, wonderful collection of innumerable rapids of good drop caused by large boulders. The water tends to channel into two or three chutes forming rapids of only short or moderate length with nice pools below. There are probably about two dozen such rapids in the remaining 7 miles. Often the route is not obvious, and the boater must either catch an eddy part way into the rapid to check the remainder of the route or get out to scout it. There could always be that sweeper waiting for the boater who is out of control.

About 2 miles from the end at a left turn, there is a cabin up on the high right bank. Some of the rapids from here on become longer and are challenges in terms of route finding. On more than one occasion, part way through a rapid, we were forced to make long upstream ferries nearly across the river to get to the appropriate chute.

Take out at The Hermitage, right at Rattlesnake Creek. From the Cummings exit of the US 101 freeway, follow the old road north 1½ miles to the drive with The Hermitage sign. This place probably was a fishing camp at one time. Mr. Perry is the caretaker and has been most generous in granting us permission to use this take-out on private land. You may write him in advance (The Hermitage, Leggett) to advise him that you will be coming, but he will want to see you before granting permission, so you must catch him or his wife there. If you do not find him, you must boat on to Leggett, an unwanted task for most boaters after the exertion of this run. This access is probably the most important private access in this guide, so your consideration is essential, preferably with some modest token of appreciation to the Perrys.

13. SOUTH FORK EEL RIVER (continued)

13. Hermitage to Leggett (private put-in) — **6½ miles, spring runoff run**
Class 2 with 2 Cl 3 rapids at optimum: 600 cfs — **Scenery: AA, short shuttle**
Same class for run of 2/1/71 at 475 cfs — **Drainage: 248 mi^2**
Map: Leggett — **Canoes and Rafts: OK**
Average optimum flow date 4/14

See the description of the previous run for directions to the put-in. Since it is such an important access to the river over private property, every boater must do his utmost to preserve the present good relationship with the caretaker.

Immediately below the Hermitage are two Class 3 rapids that are a continuation of the type in the lower part of the upper run. The river character changes after these rapids. Rather than basing the optimum flow on these two rapids alone (which need twice as much to make them optimum), the author has based it on the rest of the run. Class 2 boaters would be well advised to line their boats through these rapids.

The first part of the run is scarred by large slides. The author had expected the huge cut and fill of the new section of the freeway also to have left scars along the river, but much to his pleasant surprise, no such scars were noticed. Instead the river flows through a beautiful canyon. At 1½ miles, there is a horseshoe turn in the river with a Class 2 rapid. There are homes in the horseshoe.

There are two or three private roads down to the river in the last half of the run. Hollow Tree Creek, of moderate size, enters one-half mile before the Route 1 bridge at Leggett, which is the take-out. It is just off US 101.

14. SOUTH FORK EEL RIVER (continued)

14. Leggett to Bridges Creek — **5.0 miles, spring runoff run**
Class 2 at optimum: 500 cfs — **Scenery: A+, short shuttle**
Same class for run of 2/1/71 at 475 cfs — **Drainage: 248 mi^2**
Maps: Leggett, Piercy — **Canoes: OK, possibly 1 portage**
Average optimum flow date 4/16 — **Rafts: OK**

A radio-controlled gaging station is located 1½ miles downstream of the put-in. The South Fork is unique in having two of these valuable "instant information" stations with no major tributary in between; the second is near Miranda. Large boulders have been piled nearly across the river in an effort to stabilize the calibration. A fast chute is formed at the gap in the line of boulders, creating the greatest excitement of the run. This station is the only one the author has observed where the USGS has had to resort to drastic modification of a stream to obtain its readings. Like much of the rest of the South Fork, the only other challenges to the river runner are brisk currents around sharp turns, particularly when a jet bangs straight into a wall before turning.

The river passes through Standish Hickey State Park at 1¾ miles, and there are facilities on the left side. They are open only in the summer, however, and the access road from the back of the upper campground is usually locked during the spring season when this part of the river can be run.

About four groups of cabins are seen from the river in the next couple of miles. For the last half of the run, the river zig-zags sharply. At 4 miles, at an area called Redwood Flat on the topographical map where Dora Creek enters (but not marked on the old US 101 bridge), is an excellent access point. There are restroom facilities at this mini-park and the carry is minimal, as the highway is nearly at river level. At Bridges Creek, the carry is moderately long, but this bridge is well marked and there is parking off the road. Using this access divides the distance better between this run and the next. A new section of US 101 is under construction in this area. This is creating several highway bridges over the river between Leggett and Piercy.

15. SOUTH FORK EEL RIVER (continued)

15. Bridges Creek to Piercy — **11.0 miles, spring runoff run**

Class 2 with 1 Cl 3 rapid and 1 P at optimum: 500 cfs; — **Scenery: A+, short shuttle**

For run of 4/10/71 at 1750 cfs: Cl 3 with 1 Cl 4 and 1 P — **Drainage: 248 mi² at Leggett**

Map: Piercy — **Canoes and Rafts: OK**

Average optimum flow date 4/16

About one-half mile from the put-in, well around the corner and out of sight from it, is one of the two noteworthy rapids of the run, Class 3 at our level but estimated to be Class 2 at optimum flow.

A 30-acre field sloping up to the highway is on the right at 6 miles. At 8-1/3 miles, as the river starts around a large gravel bar on the right, a gravel road paralleling the river comes down onto the bar from the old highway through Piercy. Immediately after turning the corner to the right, there is a sawmill on the left and a low-level bridge over the river. At low water it may be safe to boat under it, but at our higher water, the bridge is exceedingly dangerous and must be portaged, which is very easily accomplished. Be very careful not to be swept into this obstacle. The road to the bridge is marked "private," and apparently serves homes and ranchers across the river.

Immediately after the bridge, the river swings left, heading north. In two-thirds mile, around a right bend, the last large rapid on the South Fork appears. On the right side are cabins that are part of the Resting Oak Motel. An excellent view of the rapid is obtained from the old highway at the motel gate.

The take-out comes in about a mile at an easily visible public access road a short distance from the old highway and above the old bridge. This is very close to the Cooks Valley exit from the US 101 freeway.

16. SOUTH FORK EEL RIVER (continued)

16. Piercy to Benbow — **8.6 miles, spring runoff run**

Class 1 with 1 P at optimum: 850 cfs at Miranda — **Scenery: A, short shuttle**

For run of 4/10/71, Cl 2 with 1 P at 4600 cfs — **Drainage: 537 mi² at Miranda**

Map: Garberville — **Canoes and Rafts: OK**

Average optimum flow date 4/23

After passing under the old and new highway bridges across the South Fork, the river sweeps around the right edge of a bar, and in 1 mile makes a sharp 135° left turn. Shortly beyond, starting at the next right turn, is a rapid. The many sharp turns on this run provide the rest of the challenge. At 2.6 miles (from the old US 101 bridge near the put-in), the river flows through Richardson Grove State Park, with its tall redwoods. One-half mile beyond the above-mentioned rapid, the river sweeps close to the road. There is an access to this point from the road. The park extends along the river for 1 mile. At mile 5.0, there is a bridge, but it does not provide a satisfactory access.

The remaining part of the run is quieter than the first half and is very close to the road most of the way. After another highway bridge at mile 7¼, there is a small portage around a low-level bridge. Following the next bridge, the river enters Lake Benbow, a State Recreation Area. It is right next to the stately old Benbow Inn, which is easily seen from the highway. At the time of the year when the South Fork is runnable, there will not be any lake at the take-out. See the next run description for information about the lake. Simply turn into the Recreation Area from the highway for this access, which is 2.7 miles south of Garberville.

17. SOUTH FORK EEL RIVER (continued)

17. Benbow to Garberville
Class 1 with 1 P (?) at optimum: 850 cfs
For run of 4/10/71, Cl 1½ with 1 P at 4600 cfs
Map: Garberville
Average optimum flow date 4/23

5.3 miles, spring runoff run
Scenery: AA, short shuttle
Drainage: 537 mi^2 at Miranda
Canoes and Rafts: OK

The east branch of the South Fork enters the South Fork just below the put-in (see take-out of last run). A road runs alongside for several miles but does not cross the stream, so there is no public access.

The main challenge on this run will be the portage after one-half mile around the Lake Benbow dam (if it still exists, there are plans to remove it). This dam, which is all silted in, is about 15 feet high in the winter and is absolutely unrunnable. A moderately strenuous portage can be made on the left through the yard of the damkeeper's house, which is apparently vacant during the river touring season. (The boater has the right to portage even though there are "no trespassing" signs posted.) For the summer season, boards are added to the top of the dam to create the lake.

This entire run, unlike the previous one, is away from the highway. This is a pleasant change, and the scenery is better. About one-half mile below the dam, the hillsides start receding and large flats along the river are more evident. The most interesting rapid is close to Sproul Creek, which is of moderate size and is 2 miles below the dam. An emergency take-out can be made one-third mile below this creek at a county road on the left side which goes downstream past the airport and to the take-out for this run. The take-out is on the right just upstream of the bridge on the road from Garberville to the local airport. From the center of Garberville go west across the freeway bridge. In a block or two the road turns left and gradually descends to the river. The distance from town to the take-out bridge is about 1 mile.

18. SOUTH FORK EEL RIVER (continued)

18. Garberville to Phillipsville
Class 1 with 1 P at optimum: 850 cfs
For run of 4/11/71, Cl 2 with 1 P at 2800 cfs
Map: Garberville
Average optimum flow date 4/23

10.6 miles, spring runoff run
Scenery: A–, short shuttle
Drainage: 537 mi^2 at take-out
Canoes and Rafts: OK

At the first bend below the put-in at the bridge (see last run for this access), there is considerable brush that must be avoided; at optimum flow the water may all be in distinct channels flowing around brushy islands. Two miles after a slight left turn, a pedestrian suspension bridge appears and then a low-level bridge that is easily portaged.

There is a possible take-out at 5.1 miles, which divides the run nearly in half. It is on the left and upstream of the bridge on the road from Redway to Thorn Junction and Shelter Cove. This take-out, a long carry, is in the beautiful Whitmore Grove, a unit of the Humboldt Redwoods State Park.

The Bear Butte road bridge crosses the river at 7½ miles. The section that follows is probably the least scenic area on the South Fork, with the new US 101 highway running alongside the river for several miles. Most of the rapids in this run can be seen from the new highway when driving south.

The take-out is at the southern terminus of the Avenue of the Giants Road. Going north on US 101 from Garberville, turn off just before the river bridge, the exit marked "Avenue of the Giants," and go upstream under the bridge for several hundred feet to the obvious access point.

19. SOUTH FORK EEL RIVER (continued)

19. Phillipsville to Myers Flat
Class 1 at optimum: 850 cfs
Same class for run of 4/9/71 at 2500 cfs
Maps: Garberville, Weott
Average optimum flow date 4/23, also see Fig. 8-g

14.0 miles, spring and summer run
Scenery: A, short shuttle
Drainage: 537 mi^2 at put-in
Canoes and Rafts: OK

From the previous take-out, it is only a few hundred feet to the first freeway bridge over the river. Attached to this bridge is the "Miranda" gaging station, one of the radio-controlled stations for which flow rates can be obtained from Sacramento (see Chapter 6). We put in here in a heavy rain, but we were not the only ones getting wet; the USGS field man had just arrived and was going out on the cableway just upstream of the bridge to make a flow calibration.

Damage along the South Fork was extensive during the December 1964 flood. Here the river peaked at 46 feet and had a discharge of 199,000 cfs. This volume was 15% greater than that experienced in the 1955 flood. Myers Flat, which had been rebuilt in 1956, was obliterated. Phillipsville, Weott, and South Fork were very severely damaged. The most impressive high water marker is in the town of Weott.

The first 3½ miles below the put-in are rather uninteresting. A bridge at 5.8 miles provides another access point. Salmon Creek (about 30 square miles drainage) enters on the left, opposite Miranda, at 7.3 miles. For our run in the rain, this small creek was pouring forth several hundred cubic feet per second of a thick, brown, silty mixture that rapidly muddied the entire South Fork.

Logging practices in the Salmon Creek drainage were inspected by the California Assembly Committee on Natural Resources, Planning, and Public Works during a field trip in 1966. Particularly poor practices were noted, both in and out of the creek bed. Photographs in the committee report* show the destruction and leave no doubt why this stream now carries so much silt.

Humboldt Redwoods State Park is centered on Bull Creek, which enters the South Fork just before its mouth. The southeast corner of the park is at Myers Flat, except for a continuous chain of redwood groves which extends up the river on the right side to Miranda. A couple of miles below Salmon Creek, the river narrows and the scenery improves. At a left turn there, so as to face directly west, we encountered a small rapid, but the largest one in this and the next run. The Avenue of the Giants road is close by in this region, providing possible access points.

At about 11 miles, the freeway leaves the river and takes a short-cut to Myers Flat. The next 3 miles to the take-out consist of beautiful, peaceful boating around Eagle Point peninsula, which is entirely within the park.

Pass under the freeway bridge and take out on the flat on the right in about one-half mile. This point is reached by a side road from the main street of Myers Flat above the business district (the legal status of this access is unknown; if it is posted, take out upstream in the park to the Avenue of the Giants).

20. SOUTH FORK EEL RIVER (continued)

20. Myers Flat to Eel River
Class 1 at optimum: 850 cfs
Same class for run of 4/9/71 at 2500 cfs
Map: Weott
Average optimum flow date 4/23, also see Fig. 8-g

9.5 miles, spring & summer run
Scenery: AA, short shuttle
Drainage: 537 mi^2 at Miranda
Canoes: OK
Rafts: OK, but can be windy

Eel River Country near the confluence of the North Fork (photo by Carl Trost).——►

*"Man's Effect on California Watersheds," Part III, prepared by the Subcommittee on Forest Practices and Watershed Management, 1967.

From the put-in, the river flows around a large, barren peninsula that contains all that is left of Myers Flat. It flows past an island in about 1 mile, then through Humboldt Redwoods State Park almost all the way to the main Eel. It is a very beautiful trip, but is marred by the noise from the freeway traffic several hundred feet away. This very easy run is the best touring through the giant old redwoods anywhere.

Bull Creek enters at 8.0 miles. This stream provides a most striking example of the destruction that can be caused by poor logging practices.* For thousands of years this stream bed was 50 to 100 feet wide. Then, in the late '40s and early '50s, the upper basin was completely logged off. Though most of the lower basin was "saved" from logging by early acquisition for the state park, the redwoods in the park were not saved from floods. Torrential rains are not absorbed into the earth after logging. Consequently, flood waters in 1955 ripped as much as 100 feet into each bank and toppled more than 300 large redwoods. Subsequent high waters have brought the total loss to nearly 1,000 major trees.

Take out on the right at a gravel bar a couple of hundred feet before the freeway bridge 1½ miles beyond Bull Creek. This is one-fifth mile short of the Eel River. When coming north on US 101, take the exit for the Mattole Road and Honeydew, which is the last exit before the South Fork. Turn left immediately before the intersection with the Avenue of the Giants and follow a lane down onto the bar and under the freeway. If coming from the Avenue of the Giants, do not turn into Founders' Grove, but turn in the opposite direction toward the freeway, then turn right immediately and onto this lane.

21. EEL RIVER (continued)

21. South Fork to Pepperwood
Class 2 at optimum: 2200 cfs
Same class for run of 5/14/72 at 1900 cfs
Map: Weott
Average optimum flow date 5/9

8.3 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 3113 mi^2 at Scotia
Canoes: OK, Class 1 at 1000 cfs
Rafts: no, too windy

The wind is as important as the water level when running the Eel River, particularly below the South Fork (see the comments in run no. 10). Runs should be made mainly in the morning, and more water is necessary for the optimum flow because of the wind. At our water level, the river was not muddy, but a slightly turbid blue. The South Fork junction area always seems to be windy, but this time we were fortunate; beyond the junction we only had wind occasionally. Nonetheless, combining this and the next run resulted in a strenuous day. The six rapids we ran could all be easily lined on the wide gravel bars. The position of these rapids must change from time to time. The Avenue of the Giants provides excellent scenery, but the scenic benefits on this run simply are not as great as those along a small, intimate stream.

There are many accesses to the river along this and the next run, but even after the road breaks through to the gravel bar it can be a very long carry to the water, so only the best accesses are indicated. The boater should keep his take-out options open in case the wind suddenly rises. The number of camping areas seemed more than adequate. The islands shown on the topographic maps generally do not exist.

Put in either at the take-out for the preceding run or the take-out for the Eel Rock run (no. 11). On the South Fork, just at the confluence, there are the remains of a low bridge, which can gather considerable debris and force a detour. The level of the bridge does not line up with the sandy bank which is crumbling away many feet above it. Upstream is the last rail bridge on the way to Eureka. The river is notable for its size – it is much larger than the Klamath. The riffles are often 500 feet wide, and the 1900 cfs we experienced during our run still made for thin water. At times, all the flow gathered into a sluice 50 feet wide and the full length of a kayak paddle did not reach the bottom. Typically, the river consists of straight runs 2 to 4 miles in length between turns or S-turns that eat up several miles.

High Rock comes on the left at 1.5 miles,† and there is a good access one-half mile beyond it from a road leaving the Avenue of the Giants at Maillard Grove. A bouncy rapid comes 2 miles beyond High Rock, and at 4 miles Larabee Creek enters. The creek is a

*For a more complete description see *The Last Redwoods*, Sierra Club, 1969.

†All mileages are from the junction of the two rivers; there is an extra three-fourths mile from the put-in on the Main and one-fourth mile from that on the South Fork.

tempting stream and has the requisite flow. But apparently it is served only by a private road. Access might be possible from the Alderpoint Road out of Bridgeville, but there is 300 feet of fall in only 1½ miles in the middle section of Larabee Creek.

In one-half mile, there is a washed-out bridge at Holmes and a rapid created by its remains. Ahead are spectacular cliffs at the turn and a good access across a gravel bar on the left, just after a left turn. This access can be reached from the end of Holmes Flat Road in the town of Holmes by turning left onto Tierney Road, which goes to the river. In another mile, there is a rapid and at the end of this section the river turns and follows alongside the highway. There is a good access for the take-out just north of Bear Creek from the Avenue of the Giants. The AAA regional map shows a road across the river here, but it does not exist any longer.

22. EEL RIVER (continued)

22. Pepperwood to Rio Dell
Class 2 at optimum: 2200 cfs
Same class for run of 5/14/72 at 1900 cfs
Maps: Weott, Scotia, Fortuna
Average optimum flow date 5/9

13.8 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 3113 mi^2
Canoes: OK, class 1½ at 1000 cfs
Rafts: no, too windy

Put in at the previous take-out. There is a small rapid approximately three-fourths mile after the put-in, and in 2 miles there is a rapid we dubbed "Train Wreck." Seldom can the Army Corps of Engineers be accused of not thinking big, but here the railroad company has outdone them, by placing two passenger cars diagonally in the river to protect the railroad line. It is recommended you avoid entering the back door, not because someone may be collecting tickets, but because escaping out a window might not be easy. All along the Eel there are boxcars off the tracks and on the banks. The author has often wondered how many generations it would take a family to crush enough tin cans to equal the weight of one of these rusting cars.

There is a possible access at 4.8 miles, immediately after the freeway sign, "Stafford – 1 mile"; it is reached from the south end of Stafford, but it is a long walk across the gravel bar to the water. In another mile comes the best rapid on the lower Eel, created by a single line of rocks, and the white water below it makes an excellent play spot for Class 2 and better boaters. This and all the other rapids on this run can be rather easily lined. The US 101 bridge comes at 6.6 miles, but there is no access here. Just downstream is a rapid that can be seen from the bridge. In 3 more miles, the boater is opposite the town of Scotia, the company town of the Pacific Lumber Company. A low structure extends part way out from the right bank, and there apparently is an access road, but it is probably not public. This structure is believed to be the dam where four people were drowned in February 1967. As reported by the Humboldt *Time Standard* and the *American White Water Journal,* two rafters floating down the Eel, apparently with life jackets and wet suits, were flipped in the boiling reversal below this little dam. Two men attempted to rescue them, using a small

A kayaker enters a foamy rapid on the Branscomb run of the South Fork Eel River (photo by John Bauer).

aluminum power boat. The Humboldt *Time Standard* reported:

> The two men maneuvered their small craft to within 15 yards before the back tow capsized them. The small motor was ripped from its mountings, and their oars were splintered into bits. All four persons were stranded for long moments before the suction began pulling them under in about 12 to 15 feet of water. One of the students was still alive, and three attempts to rescue him failed as three lines thrown to him slipped out of his grasp.

The power of that reversal was further demonstrated the next day when a 26-foot Coast Guard rescue boat was brought to the scene to search for the bodies. It, too, capsized, throwing six men into the river. They were rescued with great difficulty, and the boat kept rolling and spinning in the reversal for hours. It finally had to be pulled out by a bulldozer on shore. Apparently, since that time, part of this dam has been blasted out to prevent a repeat of the tragedy.

The next highway bridge is located at 10.9 miles. The USGS has its last Eel River gaging station here in the center pier. This is the location of one of the oldest gaging stations in Northern California, having been in continuous operation since 1911. On December 23, 1964, the river crested here at an estimated 752,000 cfs, with a depth of 72 feet.

There is a good access to the river in three-fourths mile. It is reached from US 101 when proceeding north by crossing the bridge into Rio Dell, turning right on Edwards Drive, and going to the end in one-third mile. Continuing on downstream, the boater passes the 1,000-foot-high Scotia Bluffs, the final obstacle for the Northwestern Pacific Railroad in its 258th mile. Take out just before or under the next bridge on the right side. When going north, there is a dirt access road off US 101 to the left, immediately after the bridge. If it is closed, turn right immediately before the railroad tracks and parallel the river for 0.4 mile to another access.

23. OUTLET CREEK

23. Above Longvale
Class 2 at optimum: 300 cfs
Same class for run of 1/1/70 at 120 cfs
Maps: Laytonville
Average annual rainfall 58 in., runoff factor 2.7

4.7 miles, rainy season run
Scenery: B, short shuttle
Drainage: 100 mi² estimated at put-in
Canoes: brushy; Rafts: no

The put-in is 8 miles north of Willits, the first access to the stream after crossing the Outlet Creek bridge 4 miles north of Willits. A railroad bridge also marks the put-in. In one-half to 1 mile, we portaged what is probably an itinerant log jam. Downstream from one highway and two railroad bridges (about one-half mile from Longvale), there are two small rock dams made of rock from highway and railroad fill. As is the case for many coastal streams of this size, the brush hazard is the main preoccupation. Take out one-half mile east of Longvale at the highway bridge on the road to Dos Rios.

24. OUTLET CREEK (continued)

24. Longvale to Eel River
Class 3 at optimum: 400 cfs
Same class for run of 1/1/70 at 200 cfs
Map: Laytonville
Average annual rainfall 58 in., runoff factor 2.7

7½ miles, rainy season run
Scenery: A, short shuttle
Drainage: 161 mi²
Canoes: some portaging
Rafts: second half OK

The first half of this run is similar in character to the preceding run – the main concern is the great brush hazard. One rapid we ran was formed entirely by clumps of roots of the brushy plants.

Halfway, where the railroad first crosses the creek to the road, would be a good place to put in, as the 4 remaining miles make a very beautiful run. The scoured banks are much like those of one of the author's favorite North Coastal runs, the adjacent Eel River run from Hearst to Outlet Creek. The run has several steep, short rapids that become very bouncy in high water. The stream gaging station for Outlet Creek is 0.9 mile above the confluence. About one-half mile down the Eel is a good take-out with a dirt road leading to the Covelo Road (the legal status of this access is unknown; if it is posted, take out at the bridge at the confluence).

15. Coastal Streams Between the Eel and Russian Rivers

In a 1912 *Mendocino Beacon,* one of the original redwood logging operators, E. C. Williams, reminisced about prospecting the redwood resource. In the spring of 1850, he traveled by canoe up the Big River

> . . . its slight ripples meeting the verdure of the shore, the tall redwoods with their great symmetrical trunks traveling toward the skies; with the bright colors of the rhododendrons profusely scattered over the hills forming the background, the clear blue sky above reflected in the placid river and over all the hush and solitude of the primeval forest – all combining to impress upon our minds the beauty and truth (in) Bryant's *Thanatopsis,* the groves were God's first temples.

Recalling this, he added, "I cannot but regret the part it appeared necessary for me to enact in what now looks like a desecration."

The boater of these coastal streams now passes through woods that have been recovering from the original logging for as long as 120 years, and some second cutting is occurring. How the old giants were reaped for harvest before our modern age of huge machinery deserves description.

The redwoods passed from public to private ownership under the Pre-emption Law of 1841, the Homestead Act of 1862, and the Timber and Stone Act of 1878. The settler could buy 160 acres of redwood forest at $1.25 per acre – the same price as any other type of land. The average acre would yield 90,000 board feet, which in turn brought $1,350. Much fraud was involved in the turning over of the land to profiteers from owners who were not actually settlers.

A scaffolding was built around the tree to be felled to get above the butt, and a pair of choppers would work for as long as three days with axes and saws to fell a giant. It was then cut into lengths, and barkers pried off the bark. Jackscrewers pushed and rolled the log into position, and teams of bulls or oxen pulled strings of these logs over the roads. Usually a Chinese water-carrier would keep the road well watered to make the logs slip more easily. The jackscrewers again rolled the logs into the river or flume. When the rains came, the loggers rushed out at any time of the day or night to guide the seething mass of logs down the river. Often dams were constructed to collect extra water, which was released to help this process. The logs, sometimes weighing 20 tons, gouged away at the river banks. How much of the damage to the streams was done by these logs and how much by later floods probably is unknown, but the total damage was immense.

As late as 1928, 20 million board feet of timber was floated down the Big River, but as early as 1880 logging railroads were becoming prevalent. Coming into use about the same time and also operated by steam was the "Dolbeer Donkey," a power winch that replaced the ox teams. From the saw mills, virtually all the lumber was loaded on ships, and much of it went to San Francisco. Much of the early, needless destruction occurred from the practice of burning the slash and bark after the trees were felled. However, the advent of the crawler tractor in 1935 and then the huge logging trucks which require large roadbeds greatly increased the rate of destruction of the precious forest soil resource.

When redwood logging began, there were 2 million acres of virgin growth. By 1964, only one-fourth million acres remained. In terms of lumber, in 1909 there was an estimated 102 billion board feet of old growth redwood standing, and in 1931, 57 billion. By 1953, the USFS estimated that old growth and usable second growth represented 35 billion board feet. In 1960 they predicted that, if logging continued at its present rate, the old growth would all be gone by 1980.

1. BEAR RIVER

1. At Cape Mendocino
Class 1½ at optimum: 500 cfs
Same class for run 1/3/70 at 350 cfs
Map: Cape Mendocino
Average annual rainfall 68 in., runoff factor 3.8

7 miles, rainy season run
Scenery: B–, medium shuttle
Drainage: 78 mi^2 at take-out
Canoes and Rafts: OK

The Bear River of this run is to be distinguished from the Sierra river with the same name that is just north of the North Fork of the American River. To reach the put-in, take Mattole Road from Fernbridge, which is 14 miles south of Eureka, through Ferndale and on another 8 miles south to Bear River Ridge Road. Go 3 miles on this road, then follow Bear River Road 4 miles to the river. The take-out is at the bridge (50 feet total width right-of-way) at Capetown, which is farther south on Mattole Road. There is also a road along the Bear River, but it is private, has locked gates, and is only passable for 4-wheel-drive vehicles during the boating season.

There are no rapids that the author can recall (only riffles), but there is considerable hazard from snags and brush. The river bed is very wide and filled with silt and gravel, making a rather poor, uninteresting run. Although the Mattole and Bear River areas receive a great amount of rain, redwoods do not grow there. In fact, the Cape Mendocino area is mostly grassland. Large ranches in this area graze sheep. Apparently fast run-off from logged areas upstream and the grass country are responsible for the unusually wide bed for a river of this size.

2. MATTOLE RIVER

2. Thorn Junction to Ettersburg
Class 3 with 2 P's at optimum: 300 cfs
Same class for run 1/2/70 at 175 cfs
Maps: Garberville, Point Delgada
Average annual rainfall 82 in., runoff factor 5.7

10.0 miles, rainy season run
Scenery: A, short shuttle
Drainage: 31 mi^2 at put-in
Canoes and Rafts: OK

The early morning sun shone directly downstream through a light mist rising from the river when Dick Sunderland and the author arrived at the Thorn Junction bridge. Along the banks, the ice-coated branches of trees and shrubs glistened, and in the water spawning salmon silently tread the stream. As beautiful as this scene was, the crystal-clear water was more beautiful. All the other streams we had seen coming north had been muddy or at least murky. We were told that "Mattole" means clear water in the native Indian language. Unfortunately, the river only remained "mattole" to Ettersburg, where muddy Bear Creek entered. This upper part of the stream is probably also muddy at high water.

From US 101 at Garberville, go west 15 miles toward Shelter Cove to the Mattole River bridge – the put-in (80 feet total width right-of-way). For the first 2 or 3 miles, the stream flows through a very beautiful, narrow rock canyon with the rapids consisting of bedrock ledges spanning the river. A good example of these ledges can be seen by hiking upstream from the put-in bridge a short distance to the first ledge. Next come 2 portage rapids. The first is a falls in a narrow, sharp turn back to the left; the second is a long, steep, bouldery rapid. Both were portaged on the right. For the rest of the run, the scenery was ordinary with scattered scars of logging damage. The river bed has been filled with gravel, as seems inevitable where logging operations have taken place. The occasional rapids gradually give way to a quiet river.

Late in the day, Dick's old and already rather porous boat began leaking badly. But we had only several miles left and were racing against the dark. So the author towed him while he alternately bailed and paddled. A ½-gallon plastic jug, such as a Clorox container, with the top on and the bottom cut out, makes an excellent kayak bailing bucket.

Take out at the only bridge (40 feet total width right-of-way), near Ettersburg. It is 6½ miles back to Shelter Cove Road, then another 2 miles on it to the put-in.

3. MATTOLE RIVER (continued)

3. Ettersburg to Honeydew | **17.2 miles, rainy season run**
Class 1½ with 2 Cl 2½ rapids at optimum: 450 cfs | **Scenery: A, medium shuttle**
Same class for run 2/21/70 at 650 cfs | **Drainage: 73 mi² at put-in**
Maps: Garberville, Point Delgada | **Canoes and Rafts: OK**
Average annual rainfall 82 in., runoff factor 5.7

This long wilderness run is a good early spring overnight trip or, combined with the run above, a leisurely 3-day wilderness trip. We made our run in moderately high water, in cold weather, and with a late start – a combination that led to a very fast 3¼-hour trip and few notes on the river. The stream bed is filled with gravel, and the river has the same character as the last 2.3 miles of the upstream run, being mostly through Douglas Fir forest with considerable evidence of logging.

At about 13 miles, there is a short, steep, Class 2½ or 3 rapid going into a right turn which could be easily portaged. A pretty falls is located on the right bank shortly below. In another mile, a long rock-dodging Class 2½ rapid occurs. Around the next turn, the road one-half mile above Honeydew comes into view. Take out at the bridge (prescriptive right-of-way; see next run).

Wilder Road – 14 miles of slow traveling – connects Honeydew to Ettersburg. It appears to be an all-weather road, but does rise to 2,200 feet, so would occasionally get snow. Honeydew is connected by Mattole Road to US 101 (23 miles) at the north end of the South Fork Eel River bridge, north of Weott.

4. MATTOLE RIVER (continued)

4. Honeydew to first highway bridge | **11.8 miles, rainy season run**
Class 1 at optimum: 700 cfs | **Scenery: B, short shuttle**
Same class for run 3/18/72 at 1350 cfs | **Drainage: 240 mi² at Petrolia**
Maps: Point Delgada, Scotia | **Canoes and Rafts: OK**
Average annual rainfall 82 in., runoff factor 5.7

Coming from US 101 on the Mattole Road, the destruction from deforestation is particularly evident, and there is much burned-off land below this put-in (see previous run). The river is wide and gravelly, certainly much changed from what the native Indians knew this river to be. The Indians, of the Athabascan tribe, were eliminated from this area by the early settlers by genocide. A particularly jolting report of this process comes from the Humboldt *Times* (Eureka, Feb. 20, 1864).

> Lt. Frazier, Co. E.C.M., with a detachment of twelve men stationed at Upper Mattole, started on a scout about the first instant, and the night of the second succeeded in finding some Indians at Whitehorn Valley, on the Mattole River about 25 miles south of Upper Mattole. At this place, he captured thirteen squaws and killed four bucks – none escaping. The Indians offered no resistance, being completely surprised.

Honeydew was an active town when the lumber mill was in operation; now it has little more than a general store. Since the store is so close to the bridge, the author suggests that you buy some gasoline or make some other purchase there and ask the owner for permission to put in on his side of the bridge, as we have done. The upper North Fork enters on the right in one-half mile. At 2 miles, the river starts around a long peninsula and returns to near the road at 3½ miles. A side road bridge at 5.4 miles provides access to the houses on the right side of the river. At 7.7 miles, there is a large boulder in the center of the river, then a rocky point on the left as the river turns left. The hills are closer to the river for the remaining 4 miles. Particularly noteworthy was a small falls in a creek entering on the right at 10 miles, where the river winds around a bulging peninsula – a roadless section of the run.

Take out at the first highway bridge over the river on the route from Honeydew to Petrolia (prescriptive right-of-way), or alternatively, at the second bridge in 2½ miles by river (90 feet total width right-of-way).

5. MATTOLE RIVER (continued)

5. First highway bridge to Petrolia — **10.3 miles, rainy season run**

Class 1 with 1 Cl 2 at optimum: 700 cfs — **Scenery: B, short shuttle**

Same class for run 3/18/72 — **Drainage: 240 mi^2**

Maps: Scotia, Cape Mendocino — **Canoes and Rafts: OK**

Average annual rainfall 82 in., runoff factor 5.7

Put in at the first river bridge on the highway from Honeydew to Petrolia. Two southerly pointing peninsulas are made by the river in the 2½ miles to the second bridge. In another 2½ miles, at the start of another large peninsula, again in a roadless section, the boater boats east and southeast, directly opposite to the general direction of the river. At 7.4 miles, McGinnis Creek enters, and one-fourth mile farther another creek enters – both from the right side. In another 1½ miles, where there is a nice stand of trees on the right, is the only Class 2 rapid in the river below Honeydew. The old bridge to Petrolia was very near here; it is still shown on the regional AAA (1971) and topographic (1950) maps. The road has been relocated and a new bridge built 1 mile downstream, directly south of Petrolia. Take out near the bridge (80 feet total width right-of-way). The maps also show the old Lighthouse Road, extending another 4 miles downstream to within about 1½ miles of the ocean. It may be tempting to boat the extra 4 miles, but the county has not maintained the road and it is now apparently private. The first oil discovered in Californa was found in Petrolia in 1861, but little has been recovered in the Mattole River valley.

6. NOYO RIVER

6. Northspur to Fort Bragg — **20.6 miles, rainy season run**

Class 2½ with P's at optimum: 300 cfs — **Scenery: AA, long shuttle**

Same class for run 4/25/71 at 135 cfs — **Drainage: 106 mi^2 near take-out**

Maps: Comptche, Fort Bragg — **Canoes and Rafts: OK**

Average annual rainfall 55 in., runoff factor 2.0

The first 7 miles of this run contain some of the most beautiful scenery of any run described in this book. Most of the rest of the run is only of exceptional beauty. The problem, however, is reaching the put-in. Eight miles west of Willits on Route 20 at CDH 26.2, take the Irmulco road north 7 miles to the put-in. Good luck – it's at least a Class 4 dirt road. The road junction is at a ridge opposite a pull-out with panoramic views north over the Noyo River and south over the Big River drainage area. Signs tacked to a tree at the entrance include one for Northspur, the train stop at the junction of the North Fork, which is also the put-in.

During the summer, the Irmulco road is well graded, but ruts develop in the winter. Apparently, the road is occasionally closed by slides after heavy rains. We turned back the first time we tried (in a large station wagon), then 3 weeks later we were successful using a VW squareback. You get a good indication of your chances of success from the slide and ruts right at the beginning of the road and a wet, rutted, narrow turn at 1 or 1¼ miles. Fortunately, the road bed always seemed solid beneath the innumerable puddles. The boater should take tire chains and a shovel, at least. The author carries a small, 1-ton cable winch with 100 feet of extra cable and a large bow saw on all explorations. Of course, using a 4-wheel-drive vehicle would considerably improve chances of success. The condition of the road improves rapidly as the river level becomes too low to run. At 4½ miles, the river is crossed, but it is exceptionally small at this point. The put-in will have five or six times as much water. The remaining 2½ miles of road also have many wet places. Do not plan to leave your vehicle at the put-in if there is any chance of rain (or to have it driven out by less than a Class 4 driver).

The very popular Skunk Railroad that runs between Willits and Fort Bragg closely follows the river for almost the entire run. Although the Super Skunk steam engine train only runs on a few Sundays in late spring and then daily through the summer, the diesel-powered Skunk cars make the run daily throughout the winter. Boaters have been permitted to load on clean kayaks at Fort Bragg and disembark at Northspur. This is the ideal way to do this shuttle.

The road ends at Northspur, the one stop on the Super Skunk run. Put in at the junction of the North Fork and the main river by following a short path starting at the railroad bridge over the North Fork. Interestingly, although the drainage areas of the branches of the river are nearly equal, three or four times as much water was coming from the North Fork when we made this run. The total drainage here is about 55 square miles.

For the first third of the run, the river is generally only about 30 feet wide. The banks come down to the well-formed river bed at a steep angle and are covered with mosses and ferns. Large, second-growth redwoods make this a supremely beautiful pseudo-wilderness boating experience. The occasional houses, cabins, and camps fit comfortably into the surroundings and interfere little with the wilderness impression, particularly since the river is only runnable when nearly all humanity is waiting for warmer weather to return. The railroad bed is often within 50 feet of the river, but has long since become part of the landscape.

The railroad crosses the river 14 times, so counting these bridges provides an easy way for the boater to gage his progress. Just beyond the first bridge (2.3 miles) there is a small rocky falls that will normally have to be portaged for lack of water or for snags or for both. At 5.5 miles, after a particularly beautiful section of rocky river bed with some small rapids, Camp Silverado appears. It has the only dam on the river. Portage on the right. All other portages can be expected to be logs and trees across the river, but all will be very short unless some great log jam occurs. In another mile, a mile of steep gradient – possibly 50 feet per mile – begins. Three rocky rapids occur leading up to railroad bridge no. 3 (6.9 miles) – the last one having considerable overall drop. The fourth rapid occurs in the corner between this and the next very closely spaced railroad bridges, and three more rapids occur shortly downstream. This section gives the river its Class 2½ rating, mainly because of the preciseness required in negotiating the twisty paths through the rapids. The water level was low during our run, which necessitated additional maneuvering. But even at the recommended optimum flow, the boater should not be faced with large hydraulics. Open canoes (with Class 2½ teams) may need to so some portaging. Lining these rapids will reduce the class of the river to 2, but there will still be considerable careful maneuvering bceause of the narrow stream bed. This ends the most beautiful section of the river, which gradually widens. A modest amount of brush grows along the stream for much of the rest of the run. A short distance downstream, there is a small section that demonstrates the capabilities of the modern bulldozer – new logging has been started here above Grove. Fortunately, this degradation does not continue for long.

Bridge no. 5 is at 10.0 miles (with odd-numbered bridges the railroad crosses to the left bank). Bridges 7, 8, and 9 are all within one-fourth mile, starting at 11.6 miles. At 12.3 miles, the Little North Fork enters; it is a very small stream. (The topographic map shows a campground opposite it.) The stream widens, where bridge no. 10 crosses. In another mile are a couple of summer, low-level bridges and pasture on both sides of the river. These accesses are private roads belonging to Boise Cascade Lumber Co., but they should provide an emergency take-out to the Ft. Bragg-Sherwood Road. In driving and boating in this area, it appears that this company owns a very sizable portion of Mendocino County.

Bridge no. 11 is at 13.3 miles, and the largest tributary, the South Fork, enters at 15.9 miles. Beaver tracks showed in the sand on the beach on the north side where the busy ones had cut and dragged brush down to the river. The USGS gaging station is located at 16.7 miles. Tidal action apparently extends to within a mile or so of this point. Bridge no. 13 is at 18.0 miles and no. 14 at 18.9 miles. Here the railroad disappears through a tunnel to Pudding Creek.

The take-out bridge is 1.7 miles farther. To drive there, cross the Noyo River on Route 1 traveling north. In one-third mile, turn right on Cypress Street, then left after the H and H Body Shop. An old Boise Cascade sign indicates that the road is private, but the gate is gone and several families live on the way to the river, which is 1 mile farther. A local resident indicated that there is no problem in going as far as the river.

On windy days, the wind may offer some problems beginning at about the Little North Fork and much more so from the South Fork on. A possible emergency take-out is a private road at South Fork.

7. BIG RIVER

7. Orr Springs Road to Little North Fork
Class 2½ with several P's at optimum: 100 cfs
Same class for run 3/11-12/73 at 60 cfs
Maps: Boonville, Willits, Comptche
Average annual rainfall 52 in., runoff factor 1.9

29.0 miles, rainy season run
Scenery: A, short shuttle
Drainage: 36 mi^2 at put-in
Canoes: OK, but added P's
Rafts: no

This run is very long, and the drainage at the put-in is unusually small. The trip must be made within a few days after a rain and the roads to the put-in are dirt, but it is well worth the extra effort to be at the put-in with a good flow.

To approach the put-in from the east, leave US 101 at Orr Springs Road one-half mile north of the last Ukiah freeway exit going north. This road starts out paralleling the private Masonite Corp. road, which extends for many miles into the Navarro River drainage. It had not rained for several days before our trip, yet the road was slippery, particularly at the descent from the Russian River – Big River drainage divide (about 2,500-foot elevation) to Orrs Springs. Any vehicle other than a four-wheel-drive vehicle should carry chains.

The put-in is at the bridge, 20 miles west of US 101. It is immediately downstream of the junction of Daugherty Creek and the South Fork of the Big River. The Orr Springs Road follows the South Fork virtually from its origin and it will look ridiculously small, but do not become discouraged and turn around.

To reach the take-out, continue west 11 miles on Orr Springs Road to Comptche, then on paved road another 14½ miles to Route 1. Go north across the Big River, pass by the picturesque town of Mendocino and turn right shortly on Lake, or Little Lake, Road. See the instructions for the rest of the way to the take-out in the description of the next run.

Another possible approach to the put-in is via Route 128 from Cloverdale. For this approach, 2½ miles north of Navarro take Flynn Creek Road to Comptche, then go east 11 miles on the dirt road to the South Fork. Since this section of the dirt road is at a lower elevation, it may be the better route.

We found only one couple living in the vicinity, about one-half mile east of the put-in, and felt fortunate to be able to leave our car overnight near their gate. The best put-in, which is far from ideal, is on the left side downstream, right near an abandoned USGS gaging station.

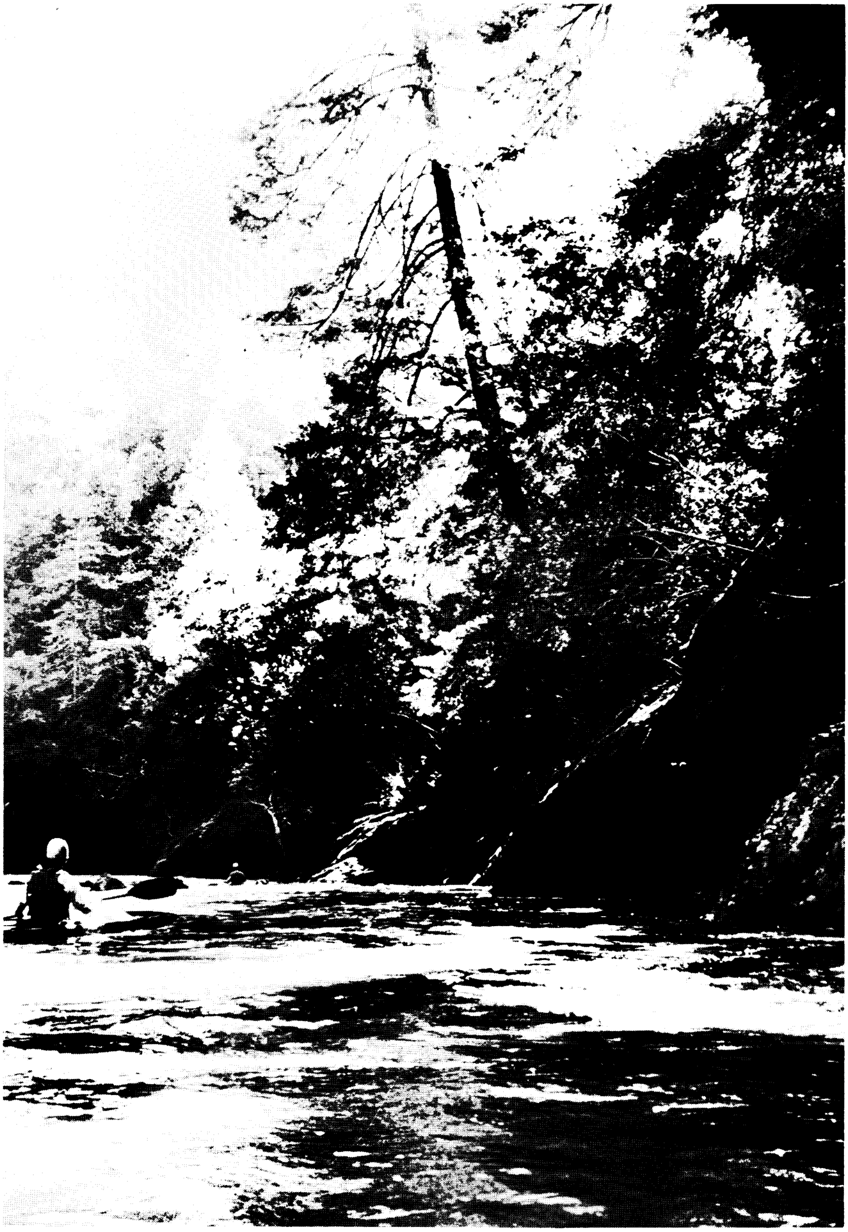
The stream bed starts out as a narrow channel within a river bed about 25 feet wide. Even at optimum flow, there will be much strenuous maneuvering around rocks, sharp corners, and some brush for the first third of the run. But the boater will be well rewarded by the beauty of this first section of the run with its narrow, moss-covered rock walls and numerous grass hummocks in the channel. There are frequent Class 2 rapids which require moderate maneuvering ability because of the narrow stream bed. We had to make surprisingly few tree portages – only 2 or 3. There are probably logging roads not far from the river since no virgin stands of timber were observed.

A 500-foot clearing appears above on the right at 0.9 mile and, after several turns, a sharp right at 2.0 miles. Immediately after it there are two Class 2½ short, tight, tricky rapids and, shortly beyond, an easier rapid. Canoeists will need to make a short, but difficult, portage on the left side.

This small river continues to twist and turn all the way to a large tributary on the right, Ramon Creek, at 7.3 miles. At this point, there is a sharp turn to the left. In the outside of the turn, on the right, a second stream enters over a falls; there is also a logging road on that side. Immediately downstream on the same side is a clearing and below it a 3-foot drop. A very substantial logging bridge is located at about 9 miles.

The South Fork joins the Big River at 11½ miles. At this point, the flow in the South Fork is about double that at the put-in, and the Big River should double again (250 cfs estimated for our run). This combined flow probably increases by another 50% in the remaining 17½ miles to the take-out. Below the junction, the river is Class 1½, and some gravel bars suitable for camping appear. Prior to this point, all campsites are above the river in the woods.

The North Fork of the Big River enters at 12.7 miles at a possible access to the rest of the run. For this approach, put in west of Willits on Route 20 where a substantial side creek crosses the road to join the North Fork – or put in in the next mile before the stream turns



The beautiful canyon section of Rancheria Creek.

south. The drainage area here is about the same as that of the South Fork put-in, so the flow is expected to be the same. Since the gradient is less, however, it could be an easier run (not explored).

Below the North Fork there are occasional cabins along the river, but none are occupied at the time of the year when the river is runnable. Wood-block and concrete piers occur at 18.9 miles and a low steel pipe bridge in another 0.1 mile, which could be a hazard since a considerable amount of flow passes through the row of pipes. Much logging activity was observed in this lower half of the run.

At 28½ miles, in the last left turn before the take-out, there is a small concrete dam abutment on the right and a level rock or concrete area with some pieces of water pipe sticking up. The Little North Fork enters in about one-half mile as a lagoon; at the time of our run, it appeared to have no flow and you could boat several hundred feet upstream. Take out anywhere near the junction, since the dirt access road follows along the river.

8. BIG RIVER (continued)

8. Little North Fork to Mendocino
Class 1 at optimum: 400 cfs
Same class for runs 5/70, 3/72
Maps: Comptche, Fort Bragg
Average annual rainfall 52 in., runoff factor 1.9

10.7 miles, rainy season run
Scenery: A+, short shuttle
Drainage: 151 mi^2 near take-out
Canoes: OK
Rafts: OK, but windy

From the town of Mendocino, go east on Little Lake Road. After 5 miles Caspar Little Lake Road enters from the left, and in another one-third mile turn right onto a good dirt road and wind along down Railroad Gulch. In 3 miles, the road forks. Go right around a house and down to the river. This land belongs to a lumber company and may be used for daytime recreation. Little Lake Road connects with Route 20 approximately 25 miles west of Willits.

We arrived at this put-in on a beautiful mid-May morning with the intention of only scouting, since it was long after the boating season for the Big River that year. But the beauty and quiet of the area were so inviting that we decided to make the run despite the ridiculously small flow.

There were many shallow spots to be scraped through, pushed across, and lined, but it was worth it. The water was crystal clear. More schools of fish were in the pools than the author had seen anywhere before. No logging apparently had occurred in scores of years, so the forests were beautiful. The author's only other run that season on the coast streams between the Russian and Eel had been a miserable Christmas-time trip on the Gualala, where very recent logging had ruined the river.

The riffles and rapids had clumps of sedge to dodge, rather than hard rocks. There were several portages around fallen trees. A private road follows the river closely on the right, but is seldom seen. At the remains of the first old log bridge, the dead water starts; power boats can probably reach this point from the ocean, but none were seen. Gradually, the river deepens, the water becomes salty, and for the last 2 or 3 miles the boater faces a very challenging and probably normal head wind.

Take out on the right just before the Route 1 bridge.

9. RANCHERIA CREEK

9. Rancheria Creek
Class 2+ at optimum: 250 cfs
Same flow for run 3/11/73
Maps: Orbaun Valley, Boonville
Average annual rainfall 50 in., runoff factor 1.7

13 miles, rainy season run
Scenery: A+, short shuttle
Drainage: 65 mi^2 at put-in
Canoes and Rafts: OK

Rancheria Creek is the major tributary to the Navarro River. Such interesting, "honest" Class 2 wilderness runs as this are rare (Class 2 rapids, rather than Class 2 brush) as are runs with such beautiful scenery. The combination makes this run a gem. For the slower boater, this would make a nice overnight trip.

To reach the put-in from Route 128, which runs northwest between Cloverdale (on US 101) and Route 1, turn west at Boonville onto Mountain View Road and go the bridge at 4½ miles. We put in on the east side, but found the residents on both sides of the bridge to be friendly. Entering from the west at the abandoned USGS gaging station is probably easier.

A broken-down log bridge crosses Horse Creek on the left at 2 miles, and a rocky cascade in a miniature chasm is seen in Cold Springs Creek on the same side at 4.2 miles. A couple of Class 2 rapids occur in another two-thirds mile. Rancheria Creek then turns and generally runs east, but in a very meandering course. The first part of this section – 1½ miles of fairly straight river called Big Canyon – is particularly beautiful. A mile farther (at 8 miles) is the hardest rapid, rated at Class 2+ or 2½. It is a short rapid composed of bedrock in a right turn. Because of the nature of the canyon, riverside campsites are scarce.

There are also a couple of rapids just before Ham Canyon Creek flows down over a rocky hillside on the right at 9.1 miles. These rapids are soon followed by one-half mile of a beautifully busy gorge that is filled with Class 2 rapids – an intermediate boater's delight. A children's camp is located near a small creek entering on the left at 10.2 miles; the gorge ends shortly below.

The major tributary, Indian Creek, enters from the right at 11 miles, and nearby is a foot suspension bridge. From this point, the boater passes through the beautifully wooded upper section of Hendy Woods State Park before reaching the bathhouse on the left which marks the take-out. (See the following run for the directions to this access.)

10. NAVARRO RIVER (continued)

10. Philo to Dimmick State Park
Class 1½ at optimum: 500 cfs
Same class for run 4/4/71 at 380 cfs
Maps: Boonville, Navarro
Average annual rainfall 50 in., runoff factor 1.7

16.2 miles, rainy season run
Scenery: AA–, short shuttle
Drainage: 303 mi² near take-out
Canoes and Rafts: OK

Two girls set out for an overnight trip on the Navarro River in their open canoe. Their duffel is neatly packed in waterproof bags (photo by Eunice Vander Meer).

This run is a favorite overnight spring trip for many Scout and river touring groups. It is a good run for beginners (who have had some previous experience) on a river flowing through wilderness country. For several years, some selective logging has been conducted in the forests of second-growth redwood that line the river for essentially the whole run; so far, the effects of this work seem to detract little from the trip.

Our first river run in California was on this stream. It was in late May 1964. The trip was a comedy of errors. We had planned to run the Russian River for a day with another couple, but hearing how popular and crowded it would be, we blindly picked this river. It was the next closest and of a reasonable length as indicated by the highway map. The canoe we planned to use was a well-aged miscarriage from Ottawa. It had a 1/32-inch phenolic sheet covering a sparse wooden frame. The other couple had planned to rent a canoe, but had failed to do so. The water was shockingly low, but the *four* of us hopped in the one canoe and started out, paddling across the pools and carrying across the shallows. With the heavy load, every bump placed a small crack in the brittle plastic skin and my patching tape soon ran out. Our routine soon developed into: paddle fast, dump, and portage. But after only a few miles, it was obvious we could not make it that way. Three of our group hiked out about 3 miles to the highway, while the fourth continued with the boat to the take-out. He arrived just as it became pitch dark. (It was nine years before they joined us on another boating trip.)

From Cloverdale on US 101, take Route 128 to Philo. Continue 2½ miles, then turn left onto Greenwood Road. The river is in one-third mile and the Hendy Woods State Park entrance is just beyond. Put in at the upper end of the park, near a bathhouse. The 1.8 miles of river to Greenwood Road are not scenic except for the large redwoods in the park, which could be better enjoyed by hiking through them. Some junk cars line the bank. The main channel of the river seems to change frequently in this section. The road bridge is another possible put-in, but it is a more difficult access.

Brush is the major challenge on this run. There are many places where the current will carry a poorly managed boat into the brush. Since the channel changes somewhat each year, only three particular brush hazards are noted here. The first is 1 or 2 miles downstream of the highway following an open field on the right, a house, and a power line crossing. The second is at about 5 miles, and the third – in the second half of the trip – is shortly beyond a large redwood stump snag in the middle of the river (it has been there for the past four years). The one riffle, or small rapid, in this part of the run is 6.7 miles from the bridge.

Excellent sand bars for camping are scattered all along the river. The most enjoyable site should be protected from westerly and northwesterly winds and be exposed to the morning sun.

Since the river is full of twists and turns, a careful navigator should be able to map his progress, but there is only one distinct, identifying feature – that is, Cape Horn, 8.3 miles from the bridge. It is a peninsula 600 feet wide and pointing west, with a large, sandy beach at the tip.

Old logging roads run along the river nearly all the way but are not very noticeable. For an emergency exit, if within 3 miles of the take-out, go downstream; otherwise, follow the maze of logging roads on the right side to Route 128.

The take-out is at the junction of the North Fork in Dimmick State Park.

Garcia River

The Gualala and Garcia Rivers have an unusual geographical feature. Much of their courses lie along a 30-mile-long straight line parallel to the coast, only 2 to 5 miles inland. They are nearly trapped from the sea in their trenches by a long, low ridge because they are located over the San Andreas Fault. In the 1906 earthquake, the left side (facing downstream) of the fault generally moved 10 to 15 feet downstream compared with the right side.

11. GARCIA RIVER

11. Near South Fork to Eureka Hill Rd.
Class 1 at optimum: 400 cfs
Same class for run 4/24/71 at 150 cfs
Map: Point Arena
Average annual rainfall 50 in., runoff factor 1.7

5.1 miles, rainy season run
Scenery: AA, short shuttle
Drainage: 98 mi^2 at take-out
Canoes and Rafts: OK

The put-in for this run is on private property, and permission should be obtained from Holm Timber Co., Gualala, Calif. Coming north to the put-in, cross the Gualala River on Route 1, go one-half mile and turn right on Mendocino Route 501 and 502. Stay on 502 (Old Stage Road) and then Iverson Road, a surprisingly good road. In 7½ miles, pass the Iverson Road junction, go 1 mile farther and turn right onto the first dirt road. It has two entrances several hundred feet apart. Go 1½ miles down the hill to a small crossroad, which is apparently the end of the public road. With permission, continue straight ahead down the very steep road to the river (VW's can easily negotiate it), or carry boats down approximately 500 feet from this point. The public dirt road is well drained and should be negotiable even shortly after a moderate rain.

Coming south to the river, turn onto Iverson Road from Route 1, 5 miles south of Pt. Arena. At the road junction at the top of the ridge, turn left and go 1 mile to the dirt road to the put-in. To reach the take-out from the same road junction, go 4 miles north to Eureka Hill Road and turn right; go 2 miles to the new bridge.

When we made this run, we were still wary of the power of the wind, remembering a defeat on the lower Eel River the previous year. As we were buffeted about in our car on Route 1, it appeared that the planned weekend of river exploration might be lost.

We arrived at the put-in on the Garcia and were delighted to see an adequate, albeit small, flow of clear-running water. The stream bed was narrow and well protected from the wind, which added to the excitement of a new, unexpected river find. All the commotion was in the tree tops. The first 3 or 4 miles are very beautiful. The one rapid in the river occurs toward the end of this section. The stream then widens, and fields extend along the river much of the way to the take-out.

The shuttle driver received a surprise as a result of the wind. A tree had fallen across the put-in road, and it took some time to hack a way through.

12. GARCIA RIVER (continued)

12. Eureka Hill Road to Route 1
Class 1 at optimum: 400 cfs
Same class for run 4/24/71 at 150 cfs
Map: Point Arena
Average annual rainfall 50 in., runoff factor 1.7

7.2 miles, rainy season run
Scenery: A–, short shuttle
Drainage: 98 mi^2 at put-in
Canoes: OK
Rafts: OK, but windy

The North Fork enters at 2 miles, and the USGS gaging station is on the left bank 0.9 mile farther. Below the North Fork, there is much open ranchland and the river bed is very wide in many places. For 2 or 3 miles, we fought our way downstream against a strong wind. We soon were wet with spray from the boats slicing into the whitecaps. Since the wind was mainly from the north, once we turned the corner at 4 miles we were protected. At Windy Hollow Road, there is a temporary summer bridge, and at this season we passed this point almost without notice. Take out on the south side of the Route 1 bridge.

13. SOUTH FORK GUALALA RIVER

13. Houser Bridge Rd. to Stewarts Point–Skaggs Springs Rd.
Class 2 with 3 Cl 2½ rapids at optimum: 250 cfs
Same class for run 3/10/73 at 150 cfs
Maps: Plantation (7½ min.), Annapolis (7½ min.)
Average annual rainfall 55 in., runoff factor 2.3

9 miles, rainy season run
Scenery: A–, medium shuttle
Drainage: 30 mi^2 at put-in
Canoes and Rafts: OK

When going north on US 101, probably the fastest way to the Gualala River is to turn off into Petaluma. From the center of town, go left on Bodega Avenue, which turns into Petaluma Valley Ford Road. Keep to the right at a "Y" at 8 miles and proceed to Route 1 in another 8 miles. It is still another 32 miles to the Fort Ross State Historical Park and about

9 miles more to the easily missed junction with Kruse Ranch Road entering from the right. Follow this road, and in about 4 miles bear left on Houser Bridge Road. From here, it is 2½ miles to the river.

To reach the take-out, continue on Route 1 to Stewarts Point. Turn inland on the Stewarts Point–Skaggs Springs Road to the river in 2½ miles. Unfortunately, autos left at both of these accesses have had their tires flattened so, for this and the next run, it is nice to have a shuttle driver. These accesses are the only ones in the entire guide where this has happened.

Put in as close to the bridge as possible. A short rapid with a 3-foot drop occurs at the first small jog to the left. In the first definite left turn at one-half mile, there is a 100-yard-long, large boulder rapid that is Class 2½. The scenery consists of pleasing second-growth redwoods alternating with bad scars from logging too close to the river. At a 30° turn to the right of the main river course at 2½ miles, the boater enters the San Andreas Rift zone. It is typically 1,000 feet wide. A series of sharp turns starts at 4 miles, and the largest tributary on this run enters on the right (still a small creek) at 8 miles. Shortly below, there is a stretch of brushy rapids and one medium-sized vertical drop. A very pretty section comes near the take-out where the river is lined with maple trees.

14. SOUTH FORK GUALALA RIVER (continued)

14. Stewarts Point–Skaggs Springs Rd. to Annapolis Rd.	**5.3 miles, rainy season run**
Class 1 at optimum: 300 cfs	**Scenery: A, short shuttle**
Same class for run 3/10/73 at 250 cfs	**Drainage: 50 mi^2 at take-out**
Maps: Annapolis (7½ min.), Stewarts Point (7½ min.)	**Canoes and Rafts: OK**
Average annual rainfall 55 in., runoff factor 2.3	

The tree shadows were stretching far out over the river as we started this run at a quarter to four. As often happens when an easier section of river is boated after a more difficult run, little is noticed along the way. It is a pretty run, and no particular obstacles were noted. The gradient is only 12 feet per mile. After the first 1½ miles, the river is unusually straight and there are no obvious landmarks.

The put-in is described in the previous run. To reach the take-out, go 4 miles north of Stewarts Point, just past Sea Ranch, and turn right onto Annapolis Road. It is 1 mile to the river; timber company signs indicate that parking is allowed at the pull-off on the left, just before the bridge. Steelhead fishermen will no doubt be here, as no fishing is allowed upstream of this area on either fork.

15. WHEATFIELD FORK GUALALA RIVER

15. House Creek to "Clarks Crossing"	**8.7 miles, rainy season run**
Class 1 at optimum: 300 cfs	**Scenery: B–, short shuttle**
Same class for run 12/27/69 at 400 cfs	**Drainage: 62 mi^2 at put-in**
Maps: Tombs Creek, Annapolis, Stewarts Point (all 7½ min.)	**Canoes and Rafts: OK**
Average annual rainfall 65 in., runoff factor 3.2	

From the take-out of the first Gualala River run (no. 13) continue east on Stewarts Point–Skaggs Springs Road. The junction with Annapolis Road comes at 7 miles; the take-out is right there at the bridge. The put-in is 5 miles east at House Creek, the largest tributary to the Wheatfield Fork. There is a house close by, "Pat's Place," so we asked and were granted permission to put in (permission is not considered necessary when putting in to House Creek at the bridge if there is enough flow so that the creek is navigable – see Chapter 7). The Wheatfield Fork comes out of wilderness country 1½ miles farther upstream along the road, and there is an excellent chance that there could be other accesses above House Creek.

This run and the next were a great disappointment to our group. Recent logging had caused tremendous damage. The stream was filled with silt – so much so that there was only one rapid on the two runs on the Wheatfield Fork. It occurs at 4 miles.

At 5 miles, buildings can be seen on the left bank which are part of a Berkeley YMCA Camp. In another mile, the river leaves the road for a large detour, then follows the road for the last mile to the bridge which is the first take-out.

A fallen tree presents a potential hazard on the South Fork Gualala River.

16. WHEATFIELD FORK GUALALA RIVER (continued)

16. "Clarks Crossing" to South Fork
Class 1 at optimum: 400 cfs
Same class for run 12/27/69 at 700 cfs
Maps: Annapolis (7½ min.), Stewarts Point (7½ min.)
Average annual rainfall 65 in., runoff factor 3.2

9.3 miles, rainy season run
Scenery: B, medium shuttle
Drainage: 110 mi^2 at take-out
Canoes and Rafts: OK

We made both this run and the previous one (18 miles) on nearly the shortest day of the year and with a late 1 p.m. start. Our race with darkness was close, and nothing particularly interesting was noted. We had to portage at a log jam, but the jam has probably disappeared by now. All but the first half-mile of the run is through wilderness, and there are many lovely second-growth redwood stands on the hillsides along the river. Landmarks are: Fuller Creek enters from the right at 1.8 miles, the river turns right to flow directly east for 0.1 mile at 4.2 miles. At 7 miles, the river flows directly north for one-half mile toward a steep 700-foot-high hill – then makes a sharp left turn.

Use the same take-out as for the second South Fork run (no. 14) or take out at the Wheatfield Fork bridge 0.1 mile upstream of the confluence.

17. GUALALA RIVER (continued)

17. Wheatfield Fork to Route 1
Class 1 at optimum: 500 cfs
Maps: Stewarts Point (7½ min.), Ornbaun Valley, Point Arena
Average annual rainfall 60 in., runoff factor 2.7

9.3 miles, rainy season run
Scenery: A–, short shuttle
Drainage: 160 mi^2 at put-in
Canoes: OK
Rafts: no, headwind

The author has not boated this wilderness run, but several of his friends have. There are no true rapids, and the average gradient is only 5 feet per mile. For directions to the put-in see run no. 14. The take-out is at the Route 1 bridge 8 miles north of the junction of Annapolis Road.

After the first half-mile, the river flows northwest for 7 miles into the prevailing fair-weather winds. Since this stretch must be the straightest 7 miles of river touring in California, it should be avoided if it is windy on Route 1 (unless a storm is approaching, in which case the wind will be in the downstream direction).

Buckeye Creek, a major tributary, enters from the right at 3.8 miles. The river leaves the San Andreas Fault at a sharp left at 7.5 miles. The North Fork enters here, flowing southeast along the fault zone. Take out on the right, just downstream of the Route 1 bridge, since it is possible to drive in close to this point. A take-out could be made one-half to 1 mile sooner onto a public road along the north side of the river. This road leaves Route 1 one-half mile north of the bridge.

16. Russian and Napa Rivers

The Russian and Napa Rivers lie close to each other and run primarily southward (unlike most rivers described in this book) through beautiful agricultural valleys. At river level, both suffer from a general decay in water quality and scenery, and both have bank erosion problems.

The Russian River is large, about 1,500 square miles in drainage, whereas the Napa is only one-seventh that size. The Russian, with its large river bed, is relatively free of trash and filth except near Ukiah. River recreation is exceedingly important in the mid and lower sections of the river, and it flows well enough to float canoes and other craft all summer. The narrow Napa River, on the other hand, has steep mud banks that continually cave in. The flow is hardly measurable in the summer, and the river appears to have no recreational value, is neglected, and during the dry season is little more than a sewer line.

History

The Russians settled at Bodega Bay in 1809 and at Fort Ross three years later. This concerned the Mexicans, who eventually built their northernmost mission at Sonoma in 1823. George Yount, an American trapper, came to California in 1831 via New Mexico. He trapped, then worked at the San Rafael and Sonoma missions, was converted, and became the first settler in the Napa Valley in 1835. His original land grant was 11,800 acres, and he added 4,500 acres seven years later. By 1844, the Russian River basin was about filled out with land grants, a 17,700-acre one being settled at Hopland that year and "eleven square leagues" being granted the following year in the Ukiah Valley.

Although grapes were grown for wine at an early date, the outstanding qualities of these valleys, particularly the Napa, for growing the best western world wine grapes was not realized until the late 1850s. Charles Krug made 1,200 gallons of wine for one ranch in 1858 and, in 1868, started his winery building, which is still in use.

The Russian River Canoeing Experience

The Russian River is by far the most popular river for touring in the western United States; it is the weaning waters for many future river tourers. Its popularity derives not from its beauty, which is somewhat lacking, but from its steady summer flow, its generally southerly flow direction, and the availability of a large number of rental boats.

Nearly all summer and fall, 200 to 300 cfs of water are released from Lake Pillsbury on the Eel River, 20 miles east of Willits. After flowing down a few miles of the Eel, it is diverted through a tunnel and a PG&E powerhouse into the East Fork of the Russian River in Potter Valley. The Army Corps dam at Lake Mendocino east of Ukiah provides some regulation, so about 200 to 250 cfs flow down the Russian all summer. That is far below the optimum flow for this river, but the low flow does not restrict its popularity, particularly with Class 1 boaters.

For many boaters, the Russian River at Asti is a first and last river touring experience, a social event – as close as one can get to an equivalent of the "bunny slopes" at a ski resort. Many use their paddles so ineffectually that it makes little difference which end they stick into the water. The small summer river flow is just enough to float a boat, give them as much time as possible to do something about an upcoming crisis, and cause as little trouble as possible with the rescue after a tip-over. Essential to this process is a helping downstream wind, or even better, none at all, as there are a few places where one turns into the prevailing wind.

A huge, efficient canoe rental service is supplied by W. C. "Bob" Trowbridge, at 625 B Street, Santa Rosa, CA 95401 (phone: 707/542-0598). On many weekends, he rents all of his 900 or so canoes. Busloads come from as far away as San Diego for the big experience. Trowbridge carries the canoes to the various put-ins, returns the drivers to their vehicles after the run, provides lunches, clears the river banks of some of the most dangerous brush, and in general, makes it as easy as possible to have an enjoyable trip. Costs vary from $12 a day to $22.50 total for 5 weekdays per canoe. Although Asti is the start of the most popular run, some boaters put in at Cloverdale and tour about 60 miles, nearly to the mouth of the

Russian River.

Mr. Trowbridge's costs are considerable. For instance, insurance is something like \$20,000 per year. He hires a welder full-time for boat repair, leases access points and campgrounds, and cleans up junk left behind by inconsiderate partying drifters. His activities even benefit those who do not boat the Russian, since he is involved in several lawsuits concerned with infringement of boating rights.

1. EAST FORK RUSSIAN RIVER

1. Above Lake Mendocino
Class 3½ at optimum: 300 cfs
Same class for run 10/26/69 at 310 cfs
Maps: Potter Valley, Ukiah

2.6 miles, summer run
Scenery: A, short shuttle
Drainage: 92 mi^2
Canoes: OK, but 2 P's
Rafts: no, too tight and brushy

This run is delightful but very short. Consider combining it with the Eel at Pillsbury or the Russian at Squaw Rock. The river is runnable in Potter Valley, even though the gradient averages only 20 feet per mile. Frequent check dams with concrete energy dissipator trenches at the base of the dams cause dangerous back-flow that can catch and smash the nose of a rigid boat or flip over a raft. Without a machete or scythe, portaging would be a very bloody experience because the brambles are never washed away as they are in any stream with a natural flow.

To reach the put-in, turn east 5 miles north of Ukiah onto Route 20, then in another 5 miles, left onto East Side Road toward Potter Valley. Put in just below the falls, which is at a left bend in the road 1 mile north of Route 20, opposite the north end of the quarry that is on the other side of the river. There is a trail to the river a short distance below the falls.

Two rapids in close succession just below the falls require precision maneuvering; in the second rapid the boater must maneuver around a tree limb. After passing under a highway bridge, the river flows for a short distance alongside Route 20, then turns away from it. The river turns left to return to the highway at 1.1 miles, and the upstream end of a long, narrow island can be seen. From there, the boater can see the amount of drop, probably 15 feet, in the next rapid. The passage on the left side of the island is so narrow as to be unrunnable because of trapped logs or sweepers. The rapid on the right side is very tricky and should be scouted from the island. It starts off with a 4-foot twisting falls – that is, a vertical drop in which the flow direction changes considerably during the drop. This rapid and "Satan's Cesspool" on the South Fork American Gorge run are prime examples of such falls. In both cases, a rock on the outside of the turn at the drop causes part of the flow to fold over onto the rest. If the boater tips and does not roll quickly, the boat will miss the correct chute below and bridge itself between a couple of rocks on the left (assuming that the rapid remains as it was in 1969. Changes to this stream probably will come slowly because of the small drainage basin size). On our run, we had one person with a throwing line ready to assist anyone who capsized in the falls and came out of his boat.

The take-out is in Lake Mendocino under the highway bridge. Take the road into the recreational area at the east end of the bridge.

2. RUSSIAN RIVER (continued)

2. Calpella to Ukiah
Class 2 at optimum: 300 cfs
For run 4/15/72, Cl 1½ at 160 cfs
Map: Ukiah
Average annual rainfall 45 in., runoff factor 1.8

8.8 miles, rainy season and summer run (see Fig. 8-h)
Scenery: B, short shuttle
Drainage: 100 mi^2 near put-in
Canoes and Rafts: OK

The first 4.2 miles of this run is the only unregulated part of the Russian River that is runnable. The East Fork then joins the Russian River with its supply of mostly Eel River water, as described previously. The first part is only runnable in the winter and spring after sufficient rain. The author recommends that this run be made in the spring when the stretch above the East Fork is runnable, since it is more scenic, has rapids and a considerably narrower river bed, and is generally a much more interesting part of the river.

To reach the put-in, cross the Russian River on Route 20 over a high bridge about one-half mile east of US 101. Turn left and double back to the river frontage road. Put in alongside the bridge; the width of the state highway property is indicated by fences. If the water level is too low, put in on the East Fork for a 5-mile run. To reach this point, take the Mendocino Drive exit from US 101 and cross the river. One mile from the freeway near the base of the dam, there is a locked gate on a lane that leads a short distance through a field to the river. Since this is public land, carry across it to the river. The author has not boated the three-fourths mile to the Russian River. A friend has run it in an open canoe without problems, but it is narrow and may be brushy.

The headwaters of the Russian River flow out of Redwood Valley and through three creeks on the west side of US 101 that come together as Forsythe Creek, which joins the flow from Redwood Valley about one-half mile upstream of this put-in. Thus, proceeding upstream, the river rapidly becomes fragmented, and only at high water could an upper portion of the Russian possibly be run.

The first 4.2 miles contain one-half to 1 dozen easy, small, short Class 2 rapids either over soft bedrock or gravel bars. One of the former type, with probably the largest drop, can be seen from the bridge at Calpella, 0.7 mile below the put-in. There is a considerable amount of brush overhanging the banks, but it does not present much hazard because the river is fairly straight. The old Ukiah gaging station is located at 3 miles and the Mendocino Drive bridge and new gaging station at 3.6 miles (there is no measuring staff here). Although river beds generally rise as a result of sediment added during periods of very high flow, the stretch at the bridge is a good example of a river bed scouring out material and deepening. It is said that this once was just a ford, and now concrete has to be occasionally added to the bottom of the footings.

The second part of the run after the East Fork enters is uninteresting. Vichy Springs Road crosses the river at 7.1 miles. There is a small rapid just upstream of the take-out at Talmadge Road. This access is described in the next run.

3. RUSSIAN RIVER (continued)

3. Ukiah to Hopland
Class 1 at optimum: 500 cfs
Same class for run 1/30/71
Maps: Ukiah, Hopland
Average optimum flow date 4/21, also see Fig. 8-h

14.5 miles, spring & summer run
Scenery D, short shuttle
Drainage: 362 mi^2
Canoes and Rafts: OK

From US 101 at Ukiah take the exit to Talmadge and go east to the other side of the river, then double back on the north side of the road in front of a concrete plant. Note that state roadside stakes indicate an unusually wide strip of state property here.

This run must set the U.S. record for the number of automobiles used to support the banks (there are probably 300 disintegrating *car*casses). Local mechanics who are looking for used car parts should ride the river. A less objectionable – although still not attractive – way of holding banks and collecting fill is provided in many places by large cables and by angle iron X-shaped contraptions that are sometimes aptly called tank traps.

The middle section of the river improves as the hills close in to the banks and the wrecked autos disappear. Where the next wrecks first appear, be particularly careful of steel rods protruding from the bottom of the river.

A gaging station on the right bank is passed at 9.8 miles; it is a state Department of Water Resources radio-transmitting station. Take out at the Hopland Road, which runs straight east out of Hopland (a state highway). Cross the river one-half mile from US 101 and double back under the bridge on the downstream side.

4. RUSSIAN RIVER (continued)

4. Hopland to Pieta Creek
Class 1 at optimum: 500 cfs
Same class for run 4/15/72 at 640 cfs
Map: Hopland
Average optimum flow date 4/21, also see Fig. 8-h

5.0 miles, spring & summer run
Scenery B, short shuttle
Drainage: 362 mi^2
Canoes and Rafts: OK

From the last take-out, the tree-lined river channel of the first section of this run is narrow and pleasant. Although there is a great deal of overhanging brush here, it presents little hazard, as the bends in the river are gradual. The river passes under the US 101 bridge at 1.2 miles, and the Northwestern Pacific Railroad follows the river closely for the rest of the run.

The major hazard in this section of river comes at 4.5 miles at a small, low bridge that we were just able to duck under. However, there are nails driven part way into the planking that could produce a nasty gash.

The take-out is in another one-half mile on the downstream side of Pieta Creek. At the flow during our run, there was a lot of tippy turbulence at this confluence. To reach this point from the highway, turn onto a lane toward the river on the southern side of Pieta Creek. The legal status of this access is unknown. If it is closed, continue on to just above Squaw Rock in 1 mile, but this additional section is Class 2½.

5. RUSSIAN RIVER (continued)

5. Pieta Creek to Cloverdale
Class 3 at optimum: 500 cfs, Cl 3– at 300 cfs
Boated several times
Map: Hopland
Average optimum flow date 4/26, also see Fig. 8-h

8.1 miles, spring & summer run
Scenery A, short shuttle
Drainage: 502 mi²
Canoes: OK at 300 cfs, 2 P's
Rafts: OK

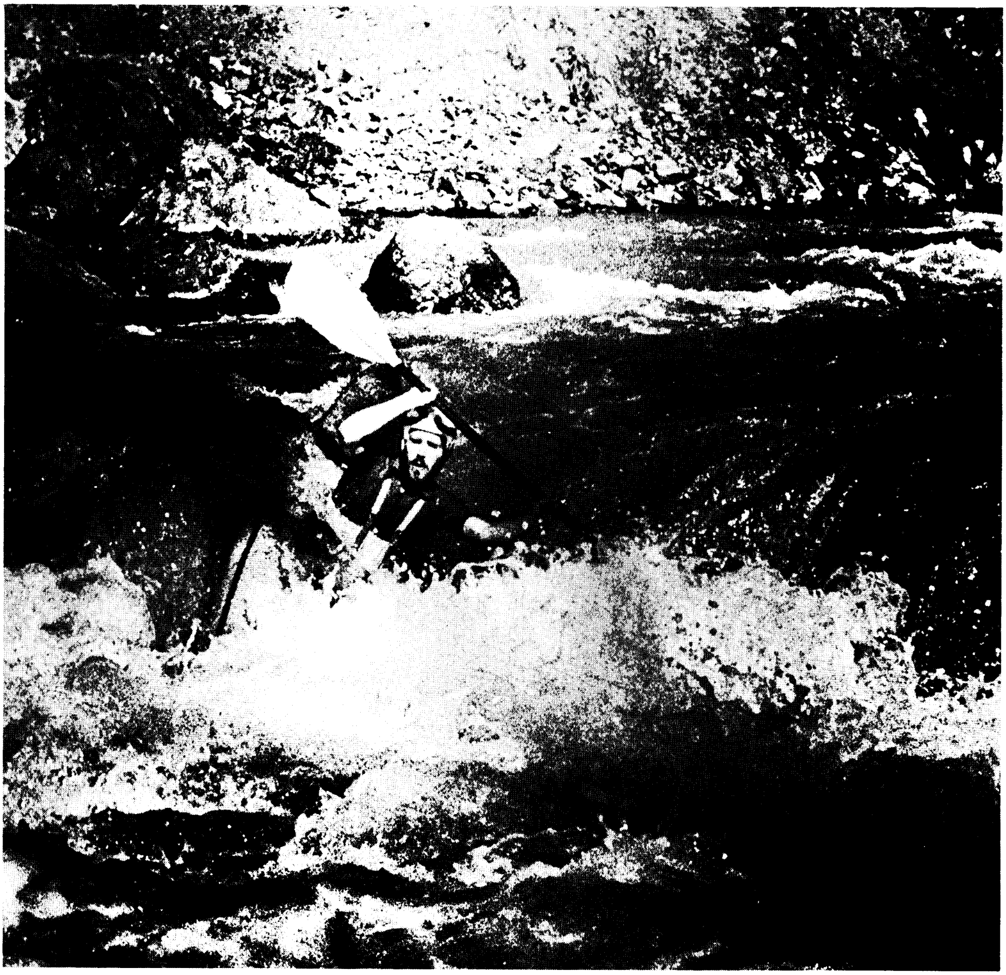
Squaw Rock, a very steep hill several hundred feet high, is located 8 miles north of Cloverdale. The side facing the river is a cliff. According to the legend, and Indian maiden jumped off the cliff because her lover was untrue to her. The rock causes a very narrow constriction in the river and the small falls known to boaters as "The Slot." The put-in for this run is usually at this point, but for a more logical division of the river begin at Pieta Creek, 1 mile farther upstream. Starting there allows the previous run to be rated as a pleasant Class 1. Adding this mile to the Squaw Rock section allows a warm-up on some tricky water before reaching the slot. The Pieta Creek access, discussed in the previous run, is 7¼ miles north of the Russian River bridge just north of Cloverdale.

Very shortly after the put-in, a huge, separated boulder comes into view. At the time of our run, the flow split, with part continuing straight ahead between the rock halves to form the easier route. The rest of the flow went right, through a narrow, brushy, very windy, tricky passage (Class 2½). Any high water could change the river bed and close off one of these channels (last run 4/72), and at low water, no doubt one of these channels dries up.

The upcoming slot is easy to recognize because you boat directly toward Squaw Rock before bearing around to the left side. There is a satisfactory take-out beach on the left for scouting a reasonable distance before the slot. The boater can line and carry around it on the right side if the flow is not too high, but it is tricky getting back into a kayak. If you have decided not to run the slot, you will probably prefer to put your boat in just downstream of it or one-half mile farther downstream after the "Graveyard." (There are several roads leading to the river along the run.)

If you elect to start at Squaw Rock, begin from the small turn-out immediately above the big Squaw Rock turn-out where part of a trail leads to a sandy beach. The slot is not the easiest of drops for its size because it is not symmetric, but it certainly is not as difficult as the "twister falls" type (see run no. 1). The next rapid, which is in two parts, is called the "Graveyard." Except at higher water levels, it requires much precise maneuvering. It ends with a set of bouncy waves. The slot and the end of the "Graveyard" must be portaged by persons using open canoes. A half-mile farther the stream converges and turns left into "Tilden Falls," a short, swift rapid where tree branches can be a problem.

At 3.3 miles, the river passes under a catwalk and cable. This signals the rapid at the next turn where the flow passes on both sides of an island. Both sides are runnable at higher water, and the right side will probably be runnable at low water. It is particularly challenging to a canoe team. It consists of a narrow chute with a boulder the size of an automobile just below and lined up with it. A good team should run this without touching that rock. The author and a favorite canoeing partner managed it, boating in a 15-foot aluminum canoe with a keel (however, the river could change). The river returns to the road, and shortly



A careful brace on the left helps the kayaker through this twisting drop on the East Fork of the Russian River (photo by John Bauer).

after, there are a couple of small, rocky rapids. In this region, the stream contains large boulders that have been very beautifully carved by the water. Considerably farther, three 40-foot-high, domed and conical rocks mark two challenging rapids just below.

A possible access is located at a low-level bridge at 5.5 miles. It is private, but the owner has been most cooperative about letting us take out and put in here. Obtain permission at the farmhouse in the middle of a vineyard a few hundred feet north and on the opposite side of the road from the bridge. This access is 2½ miles north of the US 101 Russian River bridge, at the first point where the steep ridge on the other side of the river recedes from the edge of the stream. There also is an apparently public, fairly steep gravel road down to the river shortly downstream from this bridge. This road does not show on the 1960 topographic

The remaining 2½ miles are pleasant with a few small rapids. Take out under the highway bridge on the left side.

6. RUSSIAN RIVER (continued)

6. Cloverdale to Asti
Class 1 at optimum: 500 cfs
Same class for run 3/25/72 at 480 cfs
Maps: Hopland, Kelseyville
Average optimum flow date 4/26, also see Fig. 8-h

6.0 miles, spring & summer run
Scenery: C, short shuttle
Drainage: 502 mi^2
Canoes and Rafts: OK

The author had the pleasure of running the rest of the Russian River – the 56½ miles to Austin Creek – on two separate, long days in a knobby, crooked-keeled, 15-foot aluminum canoe with Malcolm Drake. (Don't try to do it that fast at 200 cfs, or at the flow during our run without someone as strong as Malcolm.) He is employed by the Water Resources Division of the U.S. Geological Survey, and we talked about rivers during the entire run. Almost every time I picked up my pencil to note the river rushing into some steel cable or set of "tank traps" (steel X's), wondering whether or not this condition was permanent, he would inform me that 2 years ago the channel was 300 feet away, over at the other side of the stream bed. There really is nothing about the river that is permanent until Alexander Valley Bridge.

As described in the previous run, put in under the US 101 bridge 2 miles north of Cloverdale. At our water level, there were few waves that splashed even a teaspoonful of river into the boat loaded with just the two of us between the put-in and Healdsburg. Big Sulphur Creek, which drains the Geysers area, enters on the left in 1 mile. At 1.8 miles, the river passes under a bridge on the road from Cloverdale. This point is the Cloverdale terminus for Trowbridge canoe rentals. Two lumber mills are seen on the right, and at 5 miles, at the power lines, the river washed into tank traps on the right.

Take out on the right in another mile, just after the Asti Winery buildings which are fairly close to the river. There is only a summer bridge at this point, so in the winter it could be possible to miss it. The access is described in the following run description.

7. RUSSIAN RIVER (continued)

7. Asti to Alexander Valley Road
Class 1 at optimum, 700 cfs
Same class for run 3/25/72 at 622 cfs
Maps: Kelseyville, Healdsburg
Average optimum flow date 4/26, also see Fig. 8-h

10.5 miles, spring & summer run
Scenery: C, short shuttle
Drainage: 793 mi^2 at Healdsburg
Canoes and Rafts: OK

Proceed north on US 101 from Healdsburg for 3½ miles to the Alexander Valley Road which is the turn-off to the take-out. Follow this road for 2½ miles to the take-out bridge. The Alexander Valley extends from about here northward to Cloverdale. The turn-off of US 101 to Asti is marked and is 5 miles north of Geyserville. Double back on the river side of the freeway on the old highway about 0.4 mile to Washington School Road and follow it around to the river.

Most fortuitously, Asti is one of the most popular wineries in the state. Its large tasting room is located here; it is open from 8 a.m. to 5 p.m., seven days a week.

As noted in the previous run, there is little to describe about this section. The river channel meanders about the wide river bed, and high flows can cause great changes in its course, as evidenced by old cars, tank traps, and the like, that seem to be holding up the wrong bank. When these obstructions or overhanging brush are in the outside of a turn, keep toward the inside of the turn, just far enough out to keep from scraping.

If you care about where you are going and you are an inexperienced boater or boating team, review the synopsis of boating techniques in Chapter 3 or in more detail in one of the references. Then at the put-in, practice strong, even draw strokes and pry strokes in the stern of the canoe or in your kayak. Try holding your position facing upstream into the current, and, when you have mastered that, practice it facing downstream. If in a canoe, remember that if you get grounded or hit something and your boat is turned around, you and your partner can quickly turn yourself around, and kneeling, proceed on without having to turn the boat back around until it is convenient.

For a shorter run, there is a satisfactory take-out at 5.8 miles at the bridge just east of Geyserville. A large powerline crosses the river at 8.2 miles. Take out on the right at the next bridge in another 2.3 miles.

Trowbridge may be charging $1.00 or so per boat to help with legal and lease fees at these two accesses.

8. RUSSIAN RIVER (continued)

8. Alexander Valley Road to Healdsburg
Class 1 with 1 Cl 2 at optimum: 700 cfs
Same class for run 3/25/72 at 622 cfs
Map: Healdsburg
Average optimum flow date 4/26, also see Fig. 8-h

14.6 miles, spring & summer run
Scenery: B, short shuttle
Drainage: 793 mi^2
Canoes and Rafts: OK

The put-in is the take-out described in the previous run. Trowbridge has a campground at the river on the upstream side of the road on the west bank. Trees along the banks and a narrower river bed make for a pleasant section of river just below the put-in. At 2.0 miles, the river turns sharply right and a 75-foot cliff appears on the left after a short distance. In another 1¼ miles, as the hillside on the left meets the river, the current quickens, some bedrock appears, and there is an island straight ahead. The right channel is easier, if it is not choked with brush. The only rapid of note in the entire river below Cloverdale is at the beginning of the left channel. It consists of a short, easy drop if you are in the right place. If you are adventurous and come this way, keep your boat carefully lined up with the current as you turn into this channel and back paddle until you see how to negotiate the rapid, then paddle ahead. If you are a beginner, this isn't easy. Boaters who are uncertain of their abilities should stop on the left bank above this point and scout the rapid on foot. The river turns sharply back to the right at the base of this short rapid. But everything may be changed by next winter. The island, incidentally, is a good place to stop for lunch and a great place for kibitzing and picture taking since most people evidently do tip over.

From the beginning of the first run on the Russian, 58 miles upstream, the river heads south to southeast. At 5 miles, it is at the very southern tip of Alexander Valley, the hills on the left close in, and there is a wide right turn. If you have had a wind to your back helping you, or even if you have had no apparent wind but were zipping along at 4 or 5 miles an hour, you now suddenly run into head winds. We passed several canoes looping end for end and unable to make any progress, at a time fairly late in the day. Two out of three canoe teams in one group had been blown against the shore in calm water and tipped over!

Another right turn comes in three-fourths mile. Then there is a straight stretch 2.8 miles long directly into the prevailing northwest winds. Some houses are located in the middle of this section on the left, and this probably can serve as an emergency take-out. The straight section ends with a sharp left at 8.8 miles. There is another sharp left at 10.3 miles at the end of a narrow peninsula.

The community of Del Rio Woods begins on the left three-fourths mile farther. From this point on there is almost continuous emergency access to the river over private land.

A summer dam is located in Del Rio Woods at 12½ miles and water backs up for about 1½ miles. This is the location of a continuing legal controversy which is described in Chapter 7. Several years ago the Del Rio Woods Recreation and Park District began stopping boaters from passing through. Trowbridge and interested parties obtained an injunction preventing them from hindering boaters who desired to take out because of the slack water they had created and boaters who wanted to portage around their dam. The lower court decision is imminent, but this most certainly will be appealed. Before starting, it would be appropriate to check the legal status of this run with Trowbridge personnel or the Sonoma County District Attorney.

The USGS Healdsburg gaging station is a short distance below the dam. It is one of the California DWR radio-monitored gages. The flow also can usually be rapidly obtained by contacting the USGS field station in Santa Rosa (U.S. Geological Survey, Water Resources Division, P.O. Box 1298, Zip 95403). The take-out is on the left just after the old highway bridge. Carry boats up to the parking lot, which is part of the Trowbridge home base. To reach this point coming north on US 101, take the Healdsburg Avenue exit and follow it to

Canoeing on the lower Russian River is a popular sport from April to September (photo by Bob Wing).

the bridge. The Trowbridge buildings are on the right shortly before the river, and the parking lot is on the left.

9. RUSSIAN RIVER (continued)

9. Healdsburg to Mirabel Park
Class 1 with 1 Cl 2 at optimum: 700 cfs
Same class for run 4/22/72 at 600 cfs
Map: Healdsburg
Average optimum flow date 4/26, also see Fig. 8-h

10.1 miles, spring & summer run
Scenery: B, short shuttle
Drainage: 793 mi^2 at put-in
Canoes and Rafts: OK

Just below the take-out for the previous run, there is a small but unrunnable permanent dam, which is easily seen from the US 101 bridge on the upstream side. It is built up higher in the summer. Put in on either side of the river downstream of the dam. On the south side of the river, a dirt road extends from Trowbridge's parking lot to this point; the dead-end street on the other side requires much more carrying. When we made this run, a large earth-fill type of summer road had just been added below this put-in, and all the water was diverted under a bridge at the left side. Beneath the bridge is the last rapid from here to the final Russian River take-out with waves big enough (at 600 cfs) to possibly splash into a canoe. Canoes have been lost here by hitting the bridge piers broadside.

The run to the Wohler Road bridge at 8.9 miles is nearly all in a southerly direction. The river has a wide, gravelly bed and meanders through nondescript, open country. If the summer dam at Wohler Road is not yet in place, there is a good current all the way; the dam backs up water about 1½ miles upstream.

Dry Creek, the largest tributary running into the Russian River, enters on the right at 1.3 miles. This creek has nearly 200 square miles of drainage area, but the U.S. Army Corps of Engineers is building a dam on it near Geyserville. Most of the winter flows that would be high enough to run will probably be eliminated on what is left of the creek.

The following landmarks can be used to gage speed: a row of eucalyptus trees on the left bank at 4½ miles and a large gravel plant on the left at 7 miles. The two large towers just before the Wohler Road bridge are pumping stations of the Sonoma County Water District. They pump out about 50 cfs during the summer months, but a flow of at least 150 cfs is left in the river.

On the left at a right bend a mile beyond the bridge, Mark West Creek, or Laguna de Santa Rosa, enters almost unnoticed. Except at high flows, its water will probably be a different color. It is a natural water channel and overflow basin. When the water rises rapidly in the Russian River, some of it enters this storage basin, and so this body is, to some extent, a natural regulator of floods on the lower Russian. In the December 1964 flood, the water rose about 45 feet at the mouth of the laguna, and the resulting holding basin must have covered 15 to 20 square miles.

Take out on the left immediately downstream at the Mirabel Park Resort. Directions for driving to the take-out are given in the next run description.

10. RUSSIAN RIVER (continued)

10. Mirabel Park to Guerneville
Class 1 at optimum: 1000 cfs
Same class for run 4/22/72 at 845 cfs
Maps: Healdsburg, Sebastopol
Average optimum flow date 4/26, also see Fig. 8-h

8.6 miles, spring & summer run
Scenery: B, short shuttle
Drainage: 1340 mi²
Canoes: OK
Rafts: OK, but windy spots

When coming from the south on US 101, Mirabel Park is best reached by turning west 5 miles north of Santa Rosa onto River Road. You reach the river at the put-in at Mirabel Park Resort 8 miles farther. From Healdsburg, follow the old Redwood Highway on the southwest side of US 101 for 2 miles to Eastside Road; follow this road for 6 miles, then go left a short distance on Wohler Road across Mark West Creek, and then right on River Road for three-fourths mile to the put-in. Guerneville is 7 miles west on the River Road.

The lower Russian River area with its many resorts begins here. The river changes its course from southerly to westerly and winds its way to the ocean through what remains of the western half of the coastal range. The river elevation at the put-in is only about 25 feet. This averages out to close to a 1-foot-per-mile drop for the rest of the river, compared with 10 feet per mile from Cloverdale to Healdsburg, and half that for the last run. The current decreases accordingly, and summer dams, which are put in around Memorial Day, eliminate much of the free flow that remains.

Just below the put-in there is a row of posts across the river, and some skill is required to clear them. At 2.2 miles, there is a highway bridge. We stopped in some willows along the right bank in a large gravel bar area just below here for lunch. For the first time in all of the author's boating, he was told that he was trespassing and should move on, which he did, even though he was quite certain he had a legal right to stop.

The Guerneville USGS gaging station is on the left at 2.9 miles. It is one of the California DWR radio-monitored stations. In December 1964, the height of the water here reached 49½ feet above the river bed as 93,000 cfs flowed by. The Lake Mendocino Dam at Ukiah completely held back its storm flow, but even so, it only reduced the height here by less than 3 feet. One thousand summer homes along this lower part of the river were damaged or destroyed, and 500 people were homeless. The water was 4 feet high in the business district at Guerneville.

It is worth comparing the flood flow here with that in the Middle Fork of the Eel at Dos Rios in the same storm. There, with probably 1½ times the rainfall, the peak flow reached 275,000 cfs, or an average of 370 cfs per square mile of upstream drainage. Adding 14,000 cfs to the 93,000 cfs Guerneville peak to allow for flow from the East Fork if it had been uncontrolled, the resulting flow per square mile is only 80, or 22% of the Middle Fork Eel value. Imagine an Eel River-type flood on the Russian. By comparing the sizes of the river channels, it appears that this outcome would be extremely unlikely even in thousands of years.

A possible take-out comes on the right at the Hilton Resort at 3.8 miles. A summer bridge is located at 5.0 miles, and about three-fourths mile beyond, the river flows through a very pleasant narrow channel that is densely lined with trees and brush. This section has been aptly called "The Jungle." Another possible take-out is at Rio Nido, on the right at 6.9 miles.

Approaching Guerneville, the current slackens even if the summer dam is not yet prepared. Take out on the beach on the right just below the bridge at Johnson's Beach Resort.

11. RUSSIAN RIVER (continued)

11. Guerneville to Austin Creek
Class 1 at optimum: 1000 cfs
Same class for run 4/22/72 at 845 cfs
Maps: Healdsburg, Sebastopol, Duncans Mills (7½)
Average optimum flow date 4/26,
also see Fig. 8-h

6.7 miles, spring & summer run
Scenery: B, short shuttle
Drainage: 1340 mi^2
Canoes: OK
Rafts: OK, but windy spots

After negotiating the dam piers just below the highway bridge at Guerneville, the boater passes a summer bridge at 0.7 mile. Two more summer dams are built below here. There is a highway bridge and a possible take-out at 4.0 miles in Monte Rio where a road leads down under the bridge on the north side.

The river turns right at Monte Rio and flows to the northwest for 1.8 miles, then left around a sharp turn where highway cuts on the north side are very evident. Take out 1½ miles farther at a right turn at Rein's beach. As with other access points along the Russian, there is probably a charge. This beach is on a side road 0.4 miles east of the Austin Creek bridge and 6 miles west of Guerneville.

12. NAPA RIVER

12. St. Helena to Yountville
Class 3 with P's at optimum: 250 cfs
Same class for run 1/31/70 at 330 cfs
Maps: St. Helena, Sonoma
Average annual rainfall 38 in., runoff factor 1.2

9½ miles, rainy season run
Scenery: D, short shuttle
Drainage: 81 mi^2 at put-in
Canoes: marginal — brushy
Rafts: no

The great beauty of the Napa Valley has been ruined for the author since running the Napa River. This stream may take first place in the entire North Coastal region in the trash-laden division. The unfortunate selection of buried dump sites too close to the river is the cause of some debris, but most of the trash has never been buried. The author observed one farmer dumping a load of trash on the bank where the next storm would finish the job of removing it from his land. Of course, old automobiles have been used to hold banks from further erosion. If they must be used for this purpose, Detroit should supply them in earth tones.

St. Helena is 19 miles north of the town of Napa. The put-in is straight east of town at the Pope Street bridge, just below a rapid. In 1¾ miles, there is a river gaging station on the right. Downstream 200 feet, bedrock pinches the stream left into a very narrow, brush-lined rapid. Zinfandel Lane bridge is located one-fourth mile farther. All bridges on this run are brush traps. This one has a rapid consisting of 2½ drops. The first one deserves close attention, if not portaging. In about 2 miles, there is a prow of land in a left turn that is a tremendous tree and brush catcher. Much of the river has collapsing mud banks, which has resulted in more downed trees and root snags in the 18 miles of Napa River runs than the author has seen in a hundred miles elsewhere. The Route 128 bridge comes at 4½ miles. Between this bridge and the next one, we portaged through a sea of mud and roots around a newly fallen tree. It will be moved out by the next storm, but others will fall across the river to take its place. The Oakville Cross Road bridge is at 6½ miles. Next is a new bridge, then the Yountville Cross Road bridge is at 9½ miles. This bridge has been selected for splitting the two Napa River runs, although runs can be made between any combination of bridges.

Entering the first rapid of the lower section of the Putah Creek run (photo by Joe Bauer). The same rapid is shown in Martin's photo (different water level), but from the downstream left side. ⟶

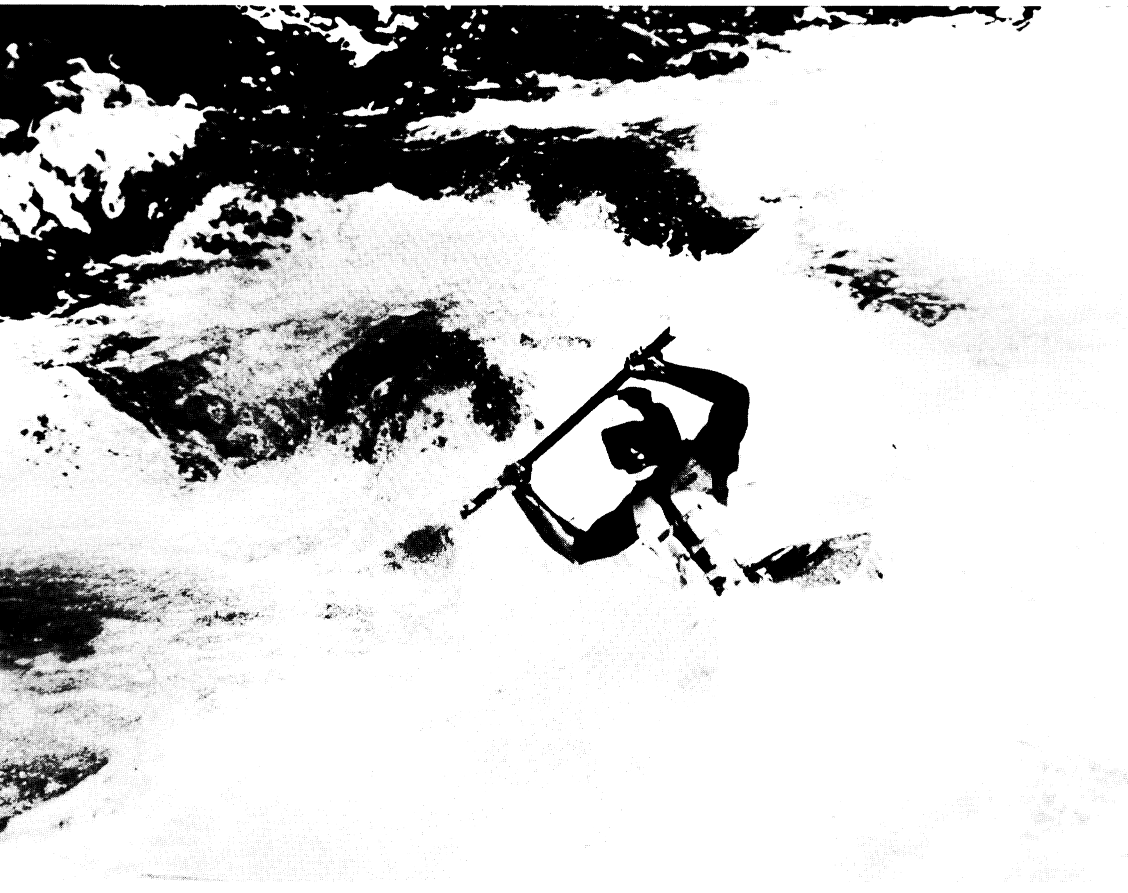
13. Yountville to Napa
Class 3 at optimum: 400 cfs
Same class for run 1/31/70 at 750 cfs
Map: Sonoma
Average annual rainfall 30 in., runoff factor 0.8

8¾ miles, rainy season run
Scenery: D, short shuttle
Drainage: 218 mi^2 near take-out
Canoes: marginal – brushy
Rafts: no

The high water for this run made the brush (including trees and snags) more dangerous, but got us down this·miserable river fast. Bedrock shelves caused what rapids there are. Below Yountville, there is a length of surprisingly narrow river bed with steep mud banks. Downstream is a rapid and one-fourth mile below another rapid in a left turn. Any boaters who survive the brush to this point will find these rapids to be an anticlimax.

The Oak Knoll Avenue bridge at 5 miles has a gaging station. Usually, brush hazard is greatest where a river is narrowest, near the beginning of a run. But on this river, the worst brush was between the last two bridges.

By the time we reached Trancas Road, we had had enough of this river. A small part of the reputation of the valley was recovered that evening with the excellent meal and a fine bottle of wine near Oakville. One final note: use your raft for rifle practice instead of running this river – it will be easier to patch and you will remain healthier.



A brace to the right keeps this boater upright as he negotiates a Class 4 rapid on the upper Sacramento River (photo by Steve Sanders).

17. Upper Sacramento River and Tributaries on the West

Clear Lake

The history of Clear Lake is interesting in terms of its geology, early settlement, and decaying water quality. It was once two lakes with the northern lake draining into the East Fork of the Russian River via Cold Creek, and the southern lake into Cache Creek. When a lava flow then dammed Cache Creek, the southern lake spilled into the northern one. In time, a large landslide blocked Cold Creek, and the lake, now 18 miles long, made a new outlet into Cache Creek. Its waters were a clear blue when large numbers of Pomo Indians lived on its shores and islands.

In 1836, General Vallejo's brother brought cattle into the area. A decade later the land was sold to two Americans, but they were killed by Indians a couple of years later. In revenge, two whale boats with howitzers were brought in overland by the militia, and about one hundred Indians on an island were annihilated. Settlement began in earnest in the 1850's, and much rich farmland was reclaimed from the marshy areas around the lake.

In 1866, the Clear Lake Water Company built a small dam near the outlet of the lake to store more water. They did not bother to buy up the farmland and houses that were flooded as a result. On Sunday, November 15, 1868, after being led in prayer by the Baptist minister, a crowd began the demolition of the dam. Litigation ensued, but the present dam was not built until 1914. The storage and release of water from Clear Lake for irrigation purposes downstream is regulated by the court decision of 1920 known as the Gopcevic Decree. It stipulates that the level of the lake shall not be raised more than 7½ feet above or lowered below its natural level, and specifies maximum levels for the first of each month.*

Logging, farming, and human inhabitation and development have gradually released silt and nutrients into Clear Lake. This has caused the water, once blue, to become cloudy and to support the objectionable growth of various blue-green algae. Some of them float on the lake as a scum, which considerably reduces the recreational value of the lake and of Cache Creek. The resulting foul water has also caused sizable fish kills. High nitrogen and phosphorus contents, which are often several times those of clean-looking lakes, are principally responsible for supporting the growth of the algae. These nutrients come from the natural run-off from forests and agricultural land and from domestic sewage. About 30% of the domestic sewage receives secondary treatment and is then applied to the land. The remainder passes through septic tanks, some of which are known to drain either directly or indirectly into the lake. As noted in the description of the proposed English Ridge Dam on the Eel River just below Hearst (see Eel River, Hearst to Outlet Creek), Clear Lake residents would like to have the water from that dam, if it is ever built, flow through the lake to reduce the pollution. This solution would not be as effective, however, as controlling their own pollution and the excess nutrients by providing tertiary sewage treatment and exporting the effluent as is done at Lake Tahoe.

Besides the gradual decay of the water quality, a sudden event associated with the use of pesticides in 1954 made Clear Lake an exemplary case in Rachel Carson's *Silent Spring.*† A small gnat near the lake was objectionable because of its sheer numbers. Various efforts to control it had failed; then, in 1949 one of the new chlorinated hydrocarbon insecticides, DDD, was mixed into the lake in a concentration of 1 part per 70 million parts (ppm) water. The gnat nuisance was temporarily relieved, but 5 years later a second application had to be made – this time at a rate of 1 part in 50 million. A third application had to be made only 3 years later.

A flock of the western grebe, the beautiful "swan grebe" with its white neck and black head, winters and mates at Clear Lake. These birds are particularly unusual since they build floating nests, and very soon after hatching, the chicks abandon the nest and climb onto the

*Most of this information is extracted from "English Ridge Project Water Control Study," Federal Water Pollution Control Admin., Aug. 1969.

†Published by Houghton Mifflin, 1962.

backs of their parents. More than 100 grebes were reported to have died in the winter of 1954, after the second application of DDD, and more after the third application. But not until someone analyzed the fatty tissue of the grebes were their deaths related to the DDD. The 1/50 ppm applied to the water had been concentrated to 5 ppm in the plankton, 40 to 300 ppm in the plant-eating fish, and 1,600 ppm in the grebes. The poison was found to disappear rapidly from the water, but even though successive crops of plankton had flowered and faded away, the DDD concentration was over 5 ppm in the plankton 2 years later. The 1,000 pairs of grebes that regularly visited the lake in the late forties dwindled to less than 30 pairs that apparently were unable to produce offspring. The California Department of Public Health, professing to see no hazard, nevertheless stopped the use of DDD in the lake in 1959.

1. SACRAMENTO RIVER

1. Box Canyon Dam to Dunsmuir*
Class 4 at optimum: 300 cfs at Dunsmuir
Maps: Weed, Dunsmuir; Shasta NF
Average optimum flow date 6/13
8 miles, spring runoff run
Scenery: AA+, short shuttle
Drainage: 135 mi^2 near put-in
Canoes and Rafts: no

The snow-mantled Trinity Mountains ringed the small valley behind us. Ahead, the stream splashed and sparkled through its gravel bed, apparently destined to run into the vertical rock wall that blocked any visible exit from the valley. At Wagon Creek we turned right and the wall split open before us, revealing a chasm into which the stream was plunging out of view at a rate of 100 feet per mile. Volcanic rock walls towered two hundred feet above us. Ferns and flowering plants grew in niches and alcoves up the walls, and tall firs crowded as close as they dared along the rim. That was before the dam builders plugged the canyon entrance with a politically motivated dam that cannot be used for power generation, water storage, nor flood control. Yet most of the beauty of the canyon remains, although boaters must substitute for the thrill of boating into the slot the somewhat dubious thrill of climbing into the canyon.

On I-5, take the "Central Mt. Shasta" exit and go west on W. Jessie, then turn south where it meets W. A. Barr Road and drive to Lake Siskiyou. From the dam the put-in is hidden from view beyond the point around which the river bends left about one-fourth mile downstream. Go back toward Mt. Shasta 0.2 mile, turn right on the dirt road, follow it straight east 0.3 to 0.5 mile to where it crosses a small drainage rivulet and then branches. Take the branch toward the canyon and follow this road to its lowest point – a branch into a dead end (an upper branch that makes a return loop up to the plateau should be avoided, as it is all but impassable). From the dead end, hike down and across the slope of cobblestones (back toward the dam) and look for the fishermen's trail along the edge. A 50-foot rope to lower boats into the canyon is advisable.

The run is exceedingly demanding, with a continuous series of chutes, drops, ledges, incessant rock dodging, and some boulders that are not possible to dodge. Blind bends should be run carefully because of the chance of a fallen tree spanning the stream (one has been found almost every year). The end of the canyon and the open, "easier" run to the access road and gage opposite Stink Creek are an illusory mid-point of the trip, for the boater has come only two miles.

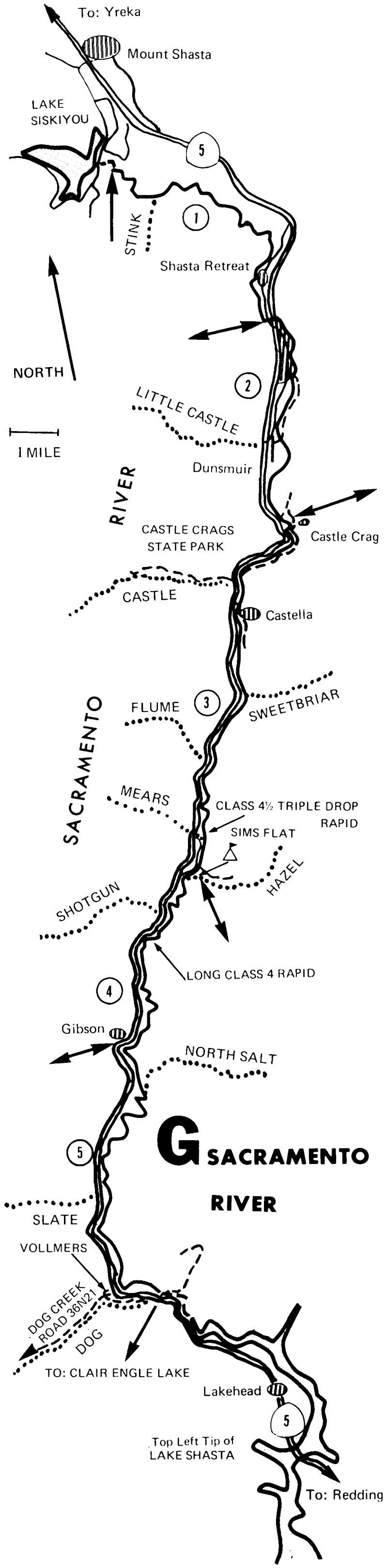
About a half-mile before Shasta Springs the river is crossed by a suspension foot bridge. The rapid near the bridge should be looked over because the approach is difficult and the drop severe.

When the river again widens, watch for the springs emerging from the greenery above the railroad tracks. If you climb up to the tracks, you may find the rotting old cupola that houses a fountain where trains used to stop so that passengers could sample the "Shasta Water." Nearby are the concrete foundations for the terminous of a funicular that carried tourists to the resort above (now a private religious retreat).

Just beyond the last (third) railroad bridge, boaters can run under beautiful Mossbrae

A lone kayaker surveys the foaming waves over an obstacle on this flooded Northern California creek (photo by Greg Thomas). →

*This run description and that for run no. 5 have been provided by Carl Trost.


To: Yreka
Mount Shasta
LAKE SISKIYOU
5
1
STINK
Shasta Retreat
NORTH
2
LITTLE CASTLE
1 MILE
Dunsmuir
RIVER
CASTLE CRAGS STATE PARK
Castle Crag
CASTLE
Castella
SACRAMENTO
FLUME
3
SWEETBRIAR
MEARS
CLASS 4½ TRIPLE DROP RAPID
SIMS FLAT
HAZEL
SHOTGUN
LONG CLASS 4 RAPID
4
Gibson
NORTH SALT
G SACRAMENTO RIVER
5
SLATE
VOLLMERS
DOG CREEK ROAD 36N21
DOG
TO: CLAIR ENGLE LAKE
Lakehead
5
Top Left Tip of LAKE SHASTA
To: Redding

Falls as it showers into 50 yards of river from its overhanging bank of greenery. (If you can't boat the river, it is worth a mile walk along the railroad tracks from Shasta Retreat.)

The take-out is the put-in for the next run (see that description if proceeding north). If traveling south on I-5, turn off onto the access road (Dunsmuir Ave.) at North Dunsmuir, just before crossing the Sacramento River bridge into Dunsmuir proper. An alternate to the put-in for the next run is to continue north on Dunsmuir Ave. to where Scarlet Way branches to the left. Pass through the entrance arch to Shasta Retreat, then onto Cave Ave. to the bridge at the river. Most boaters will have had enough at this point and will prefer to end their trip in view of Mt. Shasta rather than in the environs of downtown Dunsmuir.

2. SACRAMENTO RIVER (continued)

2. Dunsmuir to Castle Crag
Class 3 at optimum: 300 cfs
Same class for run 6/2/73 at 350 cfs
Maps: Dunsmuir; Shasta NF
Average optimum flow date 6/13

4.8 miles, spring runoff run
Scenery: B, short shuttle
Drainage: 170 mi^2
Canoes and Rafts: OK

Going north on I5, take the central Dunsmuir exit (54 miles north of Redding). Follow Dunsmuir Avenue north, under the freeway and across a bridge into North Dunsmuir. Take the first side street to the left after crossing the bridge (Stagecoach Road) and loop down to the river on Upper Soda Road. Put in under the bridge.

This run is almost entirely one uniform, continuous rapid for the first 3 miles. The river is fairly narrow and has a cobblestone-like bottom. Although no section appears to be more difficult than any other, the boater is kept continuously busy avoiding the larger rocks. This run may be the ultimate in difficulty for an expert open-canoe team. With the lack of pools, swimming after a tip-over could be bumpy, and considerable time and effort would be required to work to shore while trying to avoid being bruised on the rocks.

There are numerous bridges across the river along this run, and during our trip there were two Dunsmuir policemen waiting at each one to see that we made it safely out of town. They had had to rescue a canoe team the previous weekend. At 2.8 miles, Little Castle Creek enters on the right just before a bridge, and then the sewage disposal area is sensed on the left side. Unfortunately, this beautiful-appearing water is not drinkable, and we noted a slight odor of sewage after most rapids even 15 miles downstream. The take-out is in another 2 miles at the next bridge. This access is 1½ miles south of the Central Dunsmuir at the community of Castle Crag.

3. SACRAMENTO RIVER (continued)

3. Castle Crag to Sims Flat
Class 3½ with 1 Cl 4 rapid & 1 Cl 4½ rapid at optimum: 300 cfs at Dunsmuir
Same class for run 6/2/73
Maps: Dunsmuir; Shasta NF
Average optimum flow date 6/13

9.0 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 256 mi^2
Canoes: no
Rafts: OK, but 2 or 3 P's

The rapids become more distinct on this run, and the difficulty increases. As in the previous run, there are spectacular views of Mt. Shasta if you turn around at the proper time. Starting from the previous take-out, it is 0.4 mile to a brushy spot* that leads into a ledgy, Class 3 drop. At about 4¾ miles, there is a diagonal, ledgy drop over which we could not find a desirable course, so we portaged. Medium-sized Flume Creek enters on the right at 3½ miles, and about one-half mile farther, there is a short rapid with large waves as the river charges through a narrowing rocky chute.

At the railroad bridge at 4.6 miles (with a tunnel on the downstream side of the bridge), a Class 4 rapid with a wide, even falls occurs. The reversal below this rapid could be dangerous since it is so wide. The boater may ease a boat around it on the narrow, rocky, twisty right side, if so inclined. Around the corner is another railroad bridge, and in one-half mile, immediately upstream of Maers Creek, there is an impressive Class 4½ triple drop through a rocky chute. This section is portaged on the right; it is a difficult portage, requiring clawing the short distance up to the railroad tracks and then carrying along them nearly to Maers Creek. The take-out bridge is about two-thirds mile farther, but it is more convenient to continue downstream until just above the next rapid, then take out at the NFS Sims Flat Campground. This area is reached from the Sims Road exit from I5.

Two weeks after our run, a youth who upset somewhere above the triple drop, floated into it and was drowned.

4. SACRAMENTO RIVER (continued)

4. Sims Flat to Gibson
Class 4 at optimum: 550 cfs at Lake Shasta
Same class for run 6/2/73
Maps: Dunsmuir; Shasta NF
Average optimum flow date 6/17

5.9 miles, spring runoff run
Scenery: A, short shuttle
Canoes: no; Rafts: OK

Below the Sims Flat NFS campground, the river is more open, without the narrow, rocky chutes of the previous run. The drops tend to be greater, and at the water level during our run, were often quite powerful. At the first turn, there is a ledgy double drop that is difficult to scout (so we portaged). Next, there is a narrow island with a "chicken chute" on the right side, and a good-sized drop with a souse hole on the left. Good-sized Shotgun Creek enters on the right at 1.5 miles. A rocky rapid occurs three-fourths mile farther; this rapid necks down into a sharp right turn and disappears from sight. It turns out to go for a considerable distance, and is a major rapid in this run. At the end of this rapid, the author found a long tear in the bottom of his kayak, the worst break he had gotten in the last six years. It was probably caused by hitting some reinforcing rod in the first part of the rapid.

The railroad bridges come at 2.7 and 4.1 miles. Class 4 cowboys enroute to or from Box Canyon or the Rogue River generally prefer this one of these five runs on the upper Sacramento. To reach the take-out, follow the I5 "Gibson" exit down to the railroad tracks.

5. SACRAMENTO RIVER (continued)

5. Gibson to Lake Shasta
Class 3 with 1 Cl 4 rapid at optimum: 550 cfs
Maps: Dunsmuir, Lamoine; Shasta NF
Average optimum flow date 6/17

8.4 miles, spring runoff run
Scenery: A, short shuttle
Drainage: 425 mi^2 at take-out
Canoes: no; Rafts: OK

The put-in is the take-out for the last run. Below Gibson, with the exception of a Class 4 rapid just after the start, the river eases off to strong Class 3's, then tapers off a bit in the last three miles. Railroad bridges are passed under at 2.1 and 2.5 miles.

The take-out at Dog Creek is reached by taking the "Vollmers" turn-off at the Standard Station on I5 (about 4 miles north of Lakehead). About 0.1 mile behind the Standard Station, turn left and follow the dirt road down the Dog Creek Canyon, under the freeway, and to the bridge across the Sacramento River. This is nearly to the slack water of Lake Shasta.

6. MIDDLE FORK COTTONWOOD CREEK

6. Platina Road to North Fork
Class 3 with 1 Cl 4 rapid at optimum: 500 cfs
For run 3/21/71, Class 2½ with 1 Cl 3 rapid at 340 cfs
Maps: Chanchellula Peak, Ono
Average annual rainfall 43 in., runoff factor 1.0
Average last optimum flow date 4/10

23½ miles, rainy season & spring runoff run
Scenery: A, short shuttle
Drainage: 93 mi^2 at put-in, 244 mi^2 at take-out
Canoes: OK, several P's
Rafts: no

This surprisingly long wilderness run flows through peaceful range country. About a dozen miles upstream of the put-in, the Middle Fork of Cottonwood Creek, then very small, passes under Route 36 at Platina. However, it falls at greater than 100 feet per mile for much of the distance to its next road crossing, which is the put-in for this run.

To reach the access points for this run, go to the Cottonwood turnoff on I5, which is 14 miles north of Red Bluff. Go west on Gas Point Road about 13 miles to the right turn and

*In February 1974, Dunsmuir had its worst flood ever. Some of the bridges mentioned have probably disappeared, and this brush will probably take several years to grow back.

road junction where the main road suddenly changes its direction from west to north. Continue straight for one-third mile to the North Fork Cottonwood bridge, which is the take-out. The Middle Fork is only a couple of hundred feet downstream. Boats must be lined up the North Fork to the bridge. To reach the put-in, continue on Gas Point Road for another 7 miles to Platina Road (Route A16); turn west on Platina and continue for about 20 miles to the small bridge over the Middle Fork (prescriptive right-of-way).

About one-half mile below the put-in, there is a 2-foot-high dam. Soon after, the river passes a ranch house, but it is out of view. Considerable brush is encountered in smaller drops. The drops become larger, particularly in the second half of the 6 miles to the confluence with Beegum Creek, and much precise maneuvering is required. We had to portage one drop located far into the second half of the run, but it might be runnable with a higher flow. Much beaver activity was noted, and the streamside population of cottonwoods was being decimated. We finally spotted a beaver right at Beegum Creek.

Beegum Creek at least doubles the flow and the stream bed more than doubles in size. It should be possible to boat Beegum Creek from Route 36 for this run. Both the Beegum and Middle Fork are the same length to the confluence. Beegum Creek is considerably steeper, however, beginning with 65 feet per mile. However, boaters can launch from state highway land at Route 36.

The run changes completely at the confluence from a very narrow, brushy stream to a river with a wide bed that frequently has a washboard bottom. In fact, the washboard continues for long distances, creating regular patterns of white water like waves with whitecaps.

A half-mile below Beegum Creek the biggest drop of the run occurs; it is possibly a Class 3½ at optimum flow. Large rock outcroppings mark the spot and cause the drop. A much smaller drop occurs just around the right turn in one-fourth mile. One and a half miles farther, there is a classic, picturesque cabin on a flat on the left. A fence across the stream is located one-fourth mile downstream of the cabin. Some distance farther downstream, after a rapid with a surprise drop at the end, a third phase of easy run-out begins.

A barn is seen on the left at 17 miles. It is at a ranch site at the end of a road extending part way up this fork. No put-ins are possible from the road without crossing private property, although reasonable emergency take-outs could be made in many places in the next four miles. Another fence crosses the river, and at 21 miles an old house (occupied) stands close to the river. The river passes the USGS gaging station cableway and some time later, the gaging station itself.

An overhanging solid rock bank on the left at a right turn marks the entrance of the North Fork around the next corner. Boats must be lined 200 feet upstream to the bridge.

7. SOUTH FORK COTTONWOOD CREEK

7. Pettyjohn Rd. to Route 36
Class 2½ at optimum: 400 cfs
For run 2/19/72, Cl 2 at 250 cfs
Maps: Colyear Springs, Red Bank, Anderson
Average optimum flow date 4/15

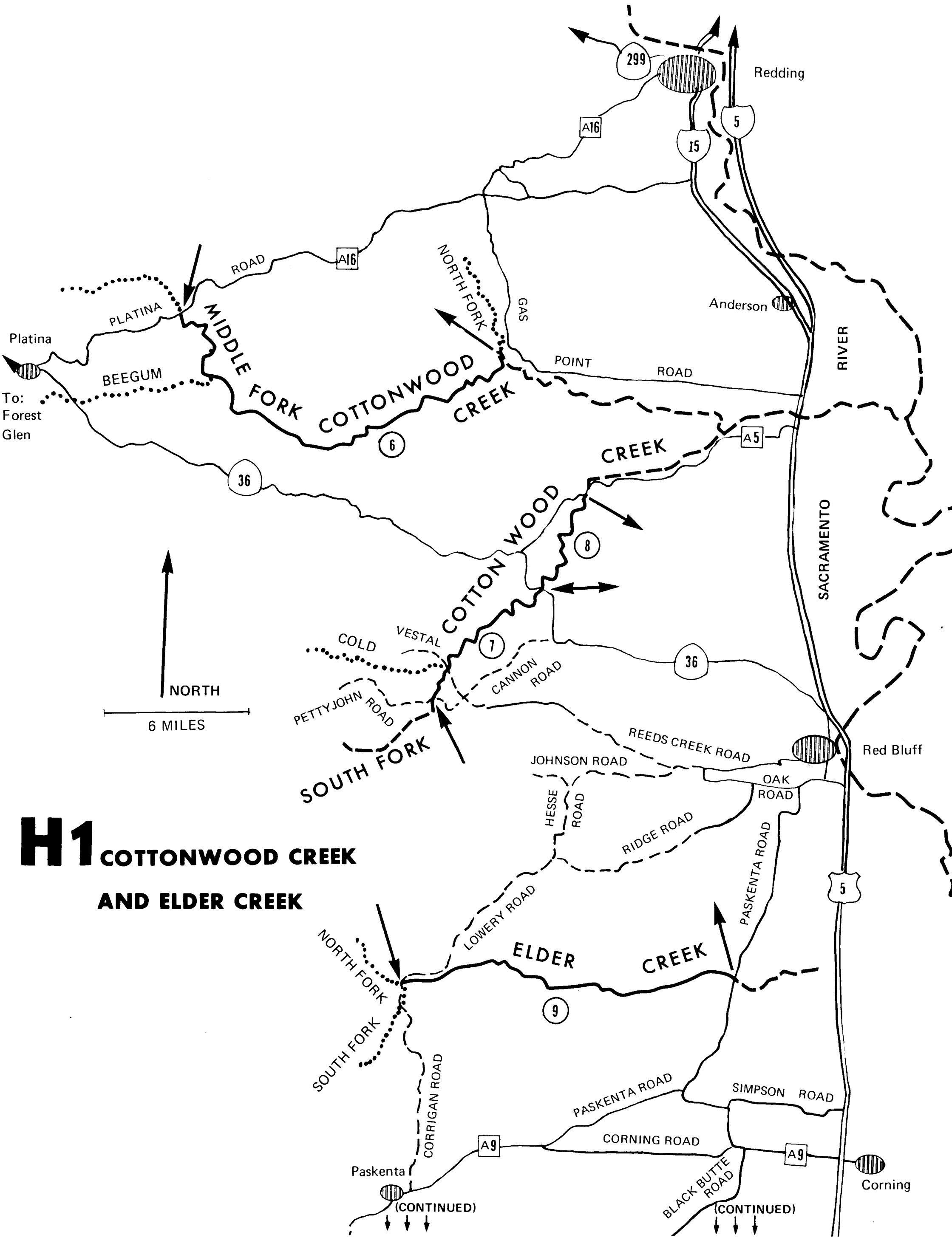
9.5 miles, spring runoff run
Scenery: A–, medium shuttle
Drainage: 217 mi^2
Canoes and Rafts: OK

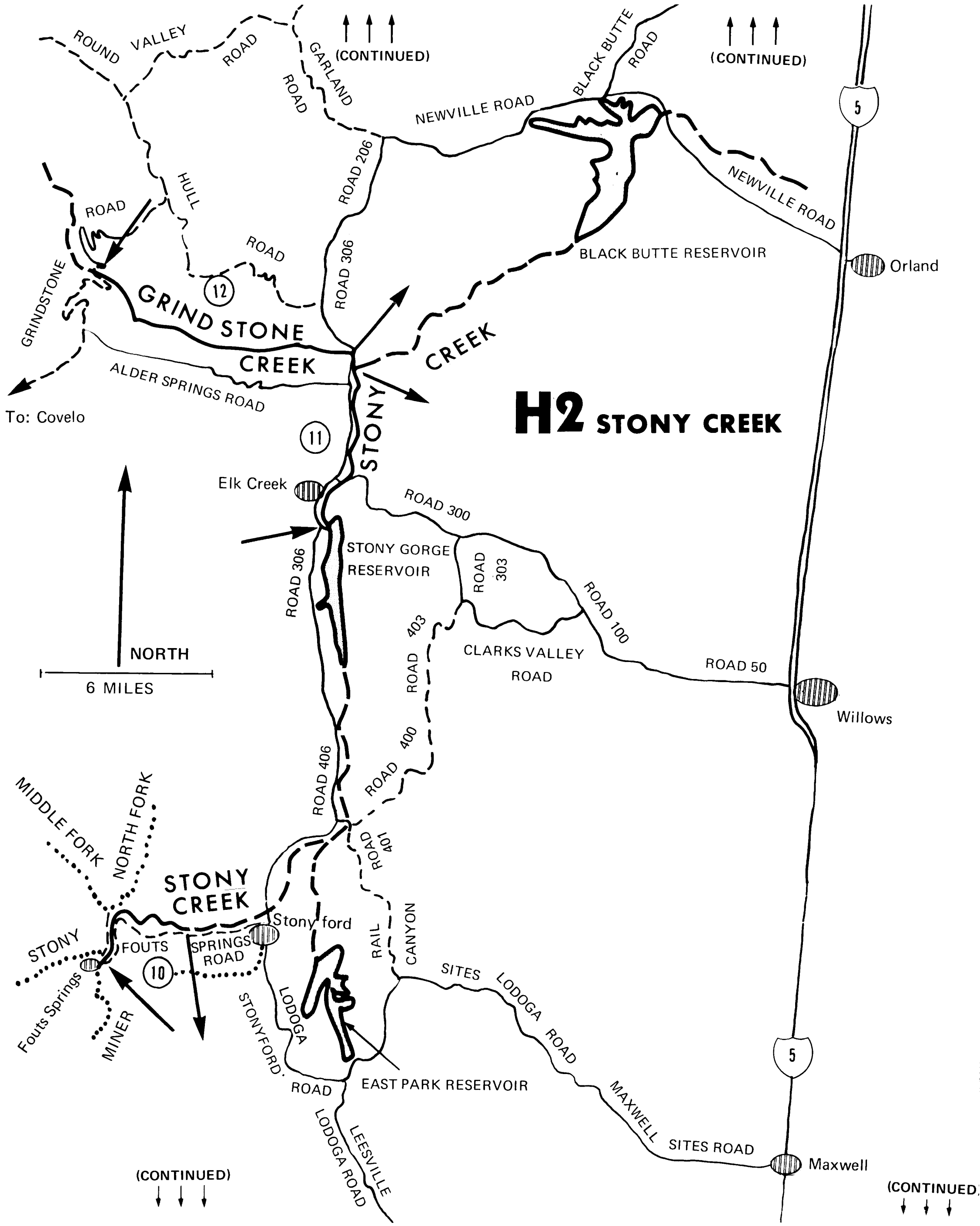
This stream drains nearly all of the Yolla Bolla Middle Eel Wilderness Area east of the Coastal Divide. Nearly all the drainage area listed above is upstream of this run, especially after the confluence of Cold Creek near the beginning. At the time we ran it, probably all the flow was from the higher elevations. Like the Middle Fork run, the two South Fork runs are past low hills in pleasant range country. Above the put-in, there are a dozen or more miles of the South Fork that should make very interesting boating for advanced or expert boaters, but there is no public access.

Fourteen miles west of Red Bluff, Route 36 makes a sharp right turn to change its general direction from west to north. It is 2½ miles farther to the South Fork Cottonwood bridge, which is the take-out. To reach the put-in, proceed straight ahead at the sharp turn onto Cannon Road for 4½ miles and pass straight through the intersection with Reeds Creek Road (or Vestal Road; maps do not show this intersection correctly) onto Pettyjohn Road. Continue 2½ miles farther to the put-in bridge.

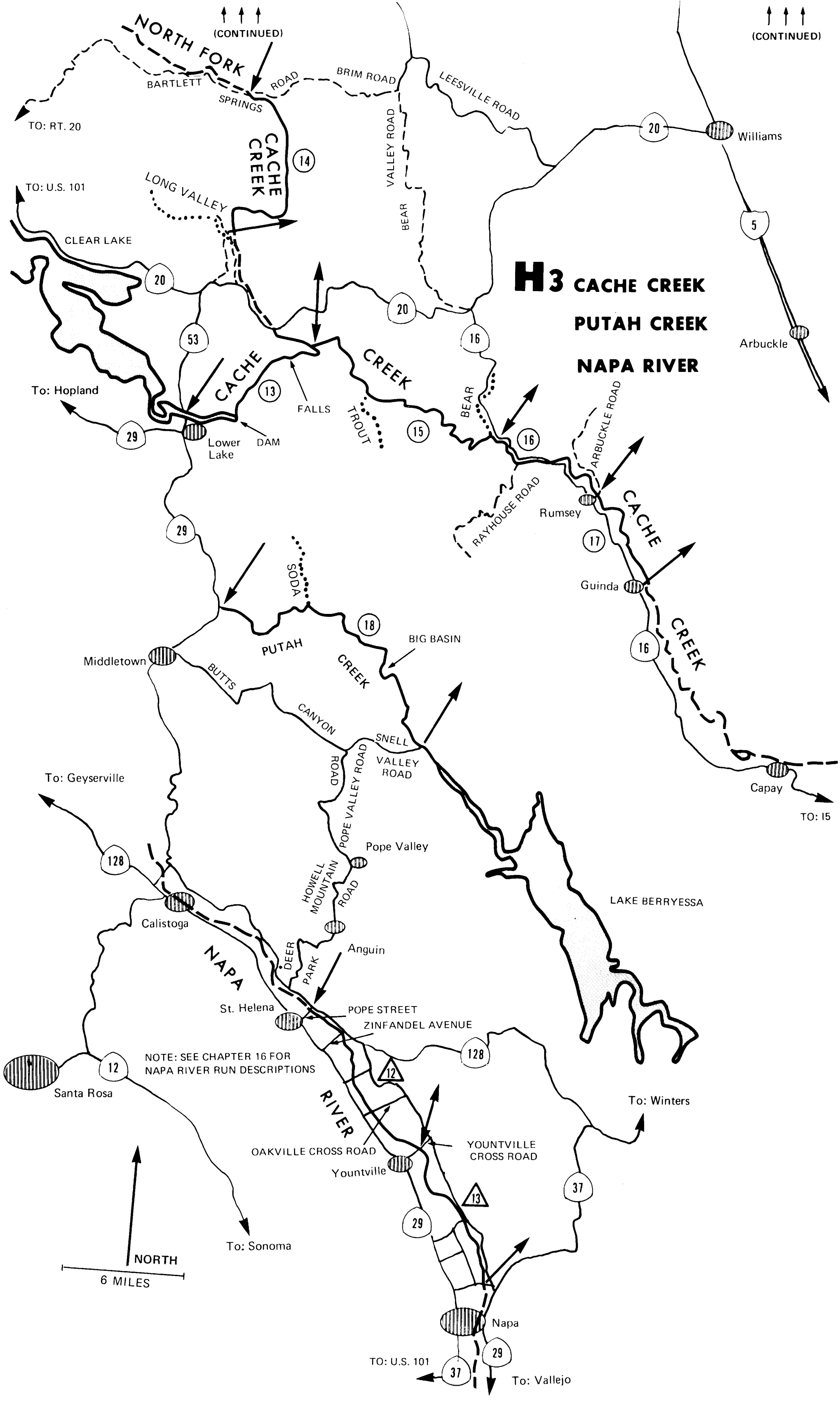
For the first third of this run, there is a moderate amount of brush, then the stream widens and the difficulty drops to Class 1½. Small rapids are found in gravel bars and surely

H1 COTTONWOOD CREEK AND ELDER CREEK





H2 STONY CREEK
(CONTINUED)
(CONTINUED)
ROUND VALLEY ROAD
GARLAND ROAD
BLACK BUTTE ROAD
NEWVILLE ROAD
ROAD 206
NEWVILLE ROAD
5
HULL ROAD
ROAD
BLACK BUTTE RESERVOIR
Orland
GRINDSTONE
12
ROAD 306
GRIND STONE CREEK
CREEK
ALDER SPRINGS ROAD
STONY
To: Covelo
11
Elk Creek
ROAD 300
STONY GORGE RESERVOIR
ROAD 306
ROAD 303
ROAD 100
ROAD 403
CLARKS VALLEY ROAD
NORTH
6 MILES
ROAD 50
Willows
ROAD 400
ROAD 406
MIDDLE FORK
NORTH FORK
ROAD 401
STONY CREEK
Stony ford
STONY
FOUTS SPRINGS ROAD
RAIL CANYON
10
Fouts Springs
MINER
STONYFORD ROAD
LODOGA
SITES LODOGA ROAD
EAST PARK RESERVOIR
5
MAXWELL SITES ROAD
LODOGA ROAD
LEESVILLE
Maxwell
(CONTINUED)
(CONTINUED)



H3 CACHE CREEK
PUTAH CREEK
NAPA RIVER
(CONTINUED)
(CONTINUED)
NORTH FORK
BARTLETT SPRINGS ROAD
BRIM ROAD
LEESVILLE ROAD
TO: RT. 20
CACHE CREEK
14
VALLEY ROAD
BEAR
20
Williams
5
TO: U.S. 101
LONG VALLEY
CLEAR LAKE
20
20
16
Arbuckle
53
CACHE
13
CREEK
FALLS
TROUT
15
BEAR
16
ARBUCKLE ROAD
To: Hopland
29
Lower Lake
DAM
RAYHOUSE ROAD
Rumsey
17
CACHE
29
SODA
Guinda
18
CREEK
16
PUTAH
BIG BASIN
Middletown
BUTTS
CREEK
CANYON
SNELL
VALLEY ROAD
ROAD
POPE VALLEY ROAD
Capay
TO: I5
To: Geyserville
Pope Valley
128
HOWELL MOUNTAIN ROAD
LAKE BERRYESSA
Calistoga
NAPA
DEER
PARK
Anguin
St. Helena
POPE STREET
ZINFANDEL AVENUE
128
NOTE: SEE CHAPTER 16 FOR NAPA RIVER RUN DESCRIPTIONS
12
Santa Rosa
12
RIVER
To: Winters
OAKVILLE CROSS ROAD
YOUNTVILLE CROSS ROAD
Yountville
37
13
29
To: Sonoma
NORTH
6 MILES
Napa
29
TO: U.S. 101
37
To: Vallejo

shift about in high water along with the moderate number of snags. Signs of beaver are frequent.

Vestal Road bridge, another possible put-in, comes at 1.6 miles, and the major tributary, Cold Creek, enters on the left, easily unnoticed, in another three-fourths mile. At 4.4 miles, the creek bears left along the base of a 200-foot-high, steep hillside on the right, and another high hillside is passed on the left at about 7 miles. There are many signs of civilization in the last mile – 2 pumping stations, autos in the river, and cables holding snags to the bank for reducing bank erosion.

8. SOUTH FORK COTTONWOOD CREEK (continued)

8. South Fork: Route 36 to Route A5
Class 1 at optimum: 400 cfs
Same class for run 2/19/72 at 250 cfs
Map: Anderson
Average optimum flow date 4/15

6.7 miles, spring runoff run
Scenery: B, short shuttle
Drainage: 217 mi^2 at take-out
Canoes and Rafts: OK

Continue on from the last take-out. The poorer quality of this part of the stream left the author too uninspired to write anything about it. There were two fences on this run, at 3¼ and 5 miles; the second one had a cable at the top of it. Whether we boated over, wiggled through these obstacles or portaged them is not recalled. One of the California Department of Water Resources radio-controlled gaging stations is attached to the take-out bridge. To reach this access from the put-in, go northwest 2 miles to Route A5 and then northeast on this highway for 3½ miles. Dry Creek enters within a mile and the river bed becomes much wider and less appealing. The gradient is less than 10 feet per mile and the roughly 20 miles of river to the Sacramento River are probably all navigable.

9. ELDER CREEK

9. Lowery Rd. to Paskenta Rd.
Class 3 with 1 P at optimum: 300 cfs
For run 3/26/71, Cl 4 with 2 P's at 1200 cfs
Maps: Colyear Springs, Red Bank
Average annual rainfall 36 in., runoff factor 1.1

17.2 miles, rainy season run
Scenery: A–, long shuttle
Drainage: 93 mi^2 near put-in
Canoes: no
Rafts: OK

The Elder Creek drainage is cut off from the Eel River drainage divide by its larger neighbors, Thomes Creek on the south and Cottonwood on the north. The author probably never would have bothered to run this stream and discover how delightful it is if a major storm had not ruined a planned run on the Eel River. Much of the North Coast had received 5 inches of rain, and all streams were very high, so we went looking for a creek to run in drier country.

Thomes Creek looked like a miserable flush – a wide, uninteresting gravel bed with water that looked brown enough to walk on. Elder Creek looked more acceptable, particularly since the day was wearing on and it was that creek or nothing. The bridge at the put-in is about 15 miles north of Paskenta on Corrigan–Lowry Road. Paskenta is on Route A9, 22 miles west of Corning. Even though we did not have a topographic map to check the gradient or determine the length, we set out with a cavalier attitude. We expected that it would be an easy, fast run and planned to meet our driver at the take-out in 3 hours. We did not know that there were 3 very interesting gorges ahead.

The run starts out as a bouncy Class 2½ with the South Fork entering almost immediately. Soon after the road swings north and away from the stream, the USGS gaging station is passed (2.8 miles). Shortly below is a warning rapid, a short, steep drop with sharp turns gouged out of bedrock (we portaged it). A short distance beyond, the crux of the run occurs – the start of a long, steep rapid, that was partially blocked with logs. It must be scouted (a good trail with good views is on the left). The first part might normally be runnable by experts; but we would have portaged it even if it had not had a log completely blocking its channel. Portage the first part of the rapid on the right bank. At our water level, the rest of the run was a very exciting ride. My partner was startled during the run by a wild goat that came bounding up along the rocky gorge. He was not certain whether the confused animal might not leap into his craft. Just below this long rapid, there are several short rapids in a section about a mile long where the river bed twists back and forth. At least one rapid has a blind entrance and should be scouted. We stopped for lunch below this section; we had not traveled 5 miles, but all of our allotted time was gone.

The second of the three gorges on this run is a beautiful, rock-walled, narrow channel with swift water flowing through. The third gorge, at 6 miles, is a similar rock-walled channel but is filled with very large boulders. The many blind turns around these obstacles make for exciting boating. The boater never knows if the channel will turn into a severe rapid (there were none) or be plugged with a sweeper. Good kayakers and canoeists will enjoy ducking into the boulder eddies at blind turns to scout the next 30 feet, but rafters should scout all blind turns.

The rest of the run is somewhat uninteresting – probably because the first part is so exciting. An occasional, isolated house trailer is parked near the stream, and at a left turn at the base of a high bank (7½ miles) are a couple of houses (they looked to be too close to that crumbling bank). Strange sights for range country, but this land is being developed. A recreation park for the development is passed and then a private road bridge at 11.4 miles.

We had not examined the take-out in advance. The AAA map indicates a road crossing shortly below this point, but it is a ford with an apparently private road leading to it, as the access was found to be blocked by a locked gate. Instead, take out 5½ miles farther at Paskenta Road, which parallels I5 about 5 miles to the west.

10. STONY CREEK

10. Fouts Springs to Dam
Class 4 at optimum: 300 cfs
Same flow for run 4/12/69
Maps: Stonyford; Mendocino NF
Average annual rainfall 42 in., runoff factor 1.6

5.1 miles, rainy season run
Scenery: A, short shuttle
Drainage: 102 mi^2 at take-out
Canoes and Rafts: no

From Maxwell, the next town north of Williams on I5, go west 23½ miles to the junction at the south end of East Park Reservoir and on another 8 miles to Stonyford. At the north edge of town, go west up Fouts Springs Road for 3.1 miles to a public campground on the right. The creek flows along the back side of the campground where the take-out is located. Take a good look at the dam there. The reservoir behind it is completely filled in, so fast water comes right up to the crest of the dam. There is little indication of this big drop as you approach the edge. We had not examined it in advance, and came within a few feet of the brink before hearing the falls and realizing its presence.

Continue west on Fouts Springs Road, which is of good quality but steep, and you will see some good views of the creek in about 2 miles. The creek is far below in the gorge. Eight miles from Stonyford, just as you enter the Fouts Springs area, cross Mill or Miner Creek and put in there as we did, or one-half mile downstream at the South Fork of Stony Creek (both accesses are USFS property). The drainages of each of these creeks is small, about 15 and 17 square miles, respectively.

Mill Creek joins the South Fork in one-half mile, but the stream remains very narrow and active as it falls at nearly 100 feet per mile. Tricky maneuvering is frequently required. One of our less experienced boaters had an unfortunate encounter here with an immovable rock. His boat got trapped and damaged, and he lost a tennis shoe. With borrowed footwear, he scaled the steep, brushy canyon wall on the left to the road. This road extends north from Fouts Springs 2 miles to the Middle Fork, which enters at 1.7 miles. From this point, the creek increases in size, turns east, is joined by the North Fork and disappears from view at the end of the road as the gradient steps up to 150 feet per mile for one-third mile. The result is a long rapid that we scouted and then ran. A tight, turning drop later on was also scouted. At 3½ miles, the gradient decreases considerably, and it is an easy run to the dam (noted earlier). It is an interesting experience to walk under the falls. This is a short but excellent early spring run for experts.

11. STONY CREEK (continued)

11. Stony Gorge Reservoir to Grindstone Creek
Class 2 at optimum: 550 cfs
Same class for run 5/9/70 at 380 cfs
Maps: Elk Creek; Mendocino NF

6.6 miles, dam-controlled flow
Scenery: A–, short shuttle
Drainage: 420 mi^2
Canoes and Rafts: OK

The town of Elk Creek is 22 miles west of Willows. One and one-half miles south of town, there is a short road up to a park next to the dam of Stony Gorge Reservoir. Walk down the steep bank to put in here. Some tricky maneuvering is required in the first few hundred feet. Opposite the town, there is an old mine on the right side. The few rapids consist of bedrock ledges, and the most interesting is at 2 miles, immediately upstream of the bridge on the road from Willows (the only bridge on the run; 60 feet total width of state property). To this point, the run is Class 2, but below here it is Class 1.

The most interesting aspect of this run is the profuse number of birds to be seen, particularly blue heron. They may have a rookery here; the author has never seen more than two of these birds at a time, plus possibly a young one, on any other stream. The cottonwoods along the river have a considerable number of beaver cuts.

At 5.2 and 6.4 miles, the river comes alongside the road, which is on the left. At 6.4 miles, there are the remains of a concrete culvert and a fence with concrete posts. In another one-fourth mile, at a right turn, Grindstone Creek enters on the left. The desired take-out is at this junction. There is an informal, junky pull-off area here from County Road 306 (4 miles north of the bridge previously mentioned), but it is private property, so it may be necessary to take out where the road is close by at 6.4 miles.

12. GRINDSTONE CREEK

12. Grindstone Creek
Class 3½ with 1 P at optimum: 350 cfs
For run 4/13/69, Cl 4 with 1 P at 580 cfs
Maps: Elk Creek; Mendocino NF
Average annual rainfall 28 in., runoff factor 1.2
Average optimum flow date 4/12

11.5 miles, rainy season & spring runoff run
Scenery: A, medium shuttle
Drainage: 172 mi^2
Canoes and Rafts: no

Ever since the author became a Class 2½ boater in a kayak, he has had an irresistible urge to explore rivers. Then, with an exciting weekend exploring Grindstone and Stony Creeks in the spring of 1969, he decided to take notes and start compiling this river guide.

Grindstone Creek received its name because as early as 1845 grindstones were quarried and manufactured here. They were then packed by mules to the Sacramento River and floated in canoes to be sold in Sutter's Fort and San Francisco.

From the town of Elk Creek, proceed 3½ miles north to Alder Springs Road – the route across Mendocino Pass to Covelo. It is highly doubtful that this pass will be open when Grindstone Creek is runnable because of its 5,000-foot elevation; the snow level during our run was at 3,800 feet. Proceed up this road for 10 miles to a sharp ridgeline where the road turns left to make a major change in direction to the south. Turn right on Grindstone Road, a dirt lane that starts out following down the ridgeline. There are other roads in the area of the turn-off, and we wandered around on one of them before we realized we were not going down the ridgeline. In 4.8 miles, Grindstone Road drops from 3,600 feet to 1,200 feet. We frequently used all riders to clear newly fallen stones from the road – a slow process. Finally, a major washout stopped the cars, and we lined our boats down through pastureland the last one-third mile, thus missing the first mile of the run from the bridge. The road continues north to Hull Road, which connects to County Road 306, thus providing an alternate access.

The first 4.8 miles of the run has an average gradient of 75 feet per mile, and thus is full of action. Generally, the larger rapids lie at the bases of the larger landslides. We found about a half-dozen submerged trees and sweepers in the rapids, making this a particularly dangerous run for rafts unless it is scouted in detail.

The first 2½ to 3 miles from the bridge, the run is a consistent Class 3 (the first mile which we missed was run by a group in 1972); we were out of our boats to scout four or five times. The next one-half mile or so is an intense Class 3 section with at least one Class 3½ rapid. Only the first half of it would be portageable. It starts at a right turn, goes about 800 feet, then around a sharp left turn with all the water funneling left around a large boulder (it could change, but it is not too likely in a stream of this size).

The run continues for another mile or so as Class 3, and then comes the portage rapid, consisting of large boulders, at the beginning of a right turn. Portage on the left. The interesting rapids end very shortly. The canyon walls finally start to separate at 7½ miles, and after a narrow spot at 8½ miles, it is a fast run-out through fairly flat country to the road. There is one surprise left, however. Six hundred feet from the take-out at the bridge, there is a 3-foot-high dam, which is apparently the control for the river gaging station there.

Even though we camped above Elk Creek, delays in reaching the put-in resulted in a very late 1 p.m. start. Iris Sindelar, then 9 months pregnant, decided to walk most of Grindstone Road to shuttle the second car, realizing we would probably be returning for it in the dark. Jim became a very proud father two days later! Jim and Iris now volunteer their time to edit the *American Whitewater,* journal of the American Whitewater Affiliation.*

13. CACHE CREEK

13. Clear Lake to North Fork	**10.8 miles, summer run (see Fig. 8-j)**
Class 3½ with 1 P at optimum: 400 cfs	**Scenery: B, short shuttle**
Same flow for run 6/18/70	**Drainage: 528 mi^2 at put-in**
Map: Lower Lake	**Canoes and Rafts: no**

Cache Creek originates at the southeast point of Clear Lake. Route 29 winds north from the Napa Valley and along the southwest side of Clear Lake, and Route 20, which connects US 101 and I5, passes along the opposite side. The put-in is from Route 53, which connects Routes 29 and 20 around the east end of the lake. The take-out is at a private campground off Route 20, 5½ miles east of Route 53. This access is open only during the summer; it is described in run no. 15.

From the Route 53 bridge across Cache Creek (1 mile north of Lower Lake), paddle 3 miles of flat water to the dam (you might be able to find a place to put in from the road on the north side and save up to a mile). The dam, which is 2 miles beyond the locked gate on the road, is operated by the Yolo County Flood Control District. You must sign their liability release form (must be 18 years or older and give your driver's license or social security number) before entering their property around the dam. Mr. Kenneth Askew, Box 425, Lower Lake, CA 95457 (phone 707/994-2219), is in charge of the dam. Our group was the first to make the run as far as he knew. The release agreement was arranged after a group of Sierra Club boaters had been illegally stopped from portaging around the dam a few weeks earlier.

The run below the dam begins with a long rock-dodging rapid which we ran but can be portaged on a trail on the left side. Later, however, brush dodging on the river will require even more finesse than needed to run this section. In about one-half mile, there is a rapid which terminates with an interesting turning drop cut into bedrock. At about 2 miles from the dam, a rock wall ahead causes a right turn, followed by a 2½-foot falls. In another 1 to 2 miles, after a left turn, there is a short, steep rapid with probably the biggest wave so far.

The author had been told about a rafter some years before who tried to make the run. He went over a falls, called by some "The Jams," and broke a leg in 11 places. Knowing this, we were doubly cautious – as the boater should always be – of rapids that disappeared around corners or into brush. After scouting several, we had arrived. In a boat, the river tourer has only about 10 yards of fast water left before sensing his impending doom. The earlier chap's smashed leg from tumbling over the rocks was a cheap price to pay for surviving this falls. The Jams consist of huge boulders that have come sliding off the hillside on the right jammed up in the stream. There are two distinct falls plus a Class 5 rapid with a total drop of about 50 feet (4.8 miles from the dam). Fortunately, a good landmark is provided 200 to 300 feet upstream by a 50-foot-high, dark monolith rock on the left side. Take out on the left, just downstream of this rock, and portage through grassland one-fourth mile (a very long portage) over the saddle to the left of the small peak flanking the stream. Portaging along the stream is impossible. Across the river from the end of the portage is a running sidestream, appropriately named "Dead Man Canyon."

A jeep road provides an emergency take-out to the north in another mile. The take-out is at the North Fork, which enters on the left 3 miles beyond the falls.

The water level for our run was near its summer irrigation high, essentially an optimum flow. Rocks were mostly adequately covered, and the many willows and cottonwoods drooping into this narrow stream could be managed by maneuvering through or around them. At twice the flow, many of these brushy spots would have to be portaged. The polluted, murky water detracts very much from the enjoyment of this trip. The water is smelly and tastes objectionable when splashed in the face. It is by far the most polluted stream (at least in appearance) that the author has run in California. However, the water greatly improves by the time it reaches the North Fork.

*P.O. Box 1584, San Bruno, CA 94066 – $5.00 subscription, bimonthly issues.

14. NORTH FORK CACHE CREEK

14. North Fork Cache Creek
Class 2½ at optimum: 375 cfs
Same flow for run 3/29/69
Map: Clearlake Oaks
Average annual rainfall 39 in., runoff factor 1.0

10.6 miles, rainy season run
Scenery: A, very long shuttle
Drainage: 197 mi^2 near take-out
Canoes: OK with some portaging
Rafts: OK

Actually, 21.3 miles of the North Fork of Cache Creek are accessible for boating down to the final take-out at the Route 20 bridge. It is a wilderness run from Bartlett Springs Road through Little Indian Valley and a canyon to a bridge on a side road off Route 20. Unfortunately, the shuttle is long – 2 hours one way – so, without a shuttle driver, we drove nearly 6 hours back and forth for this boating adventure. Furthermore, Bartlett Springs Road has a ford on each side of the North Fork, which made crossings in a VW sedan marginal even when the North Fork (which has a bridge over it) was a little low at the put-in. Therefore, the flow listed as optimum is the flow at which we made this run, although one-third more water would be desirable.

To reach the put-in, take Bartlett Springs Road either from the west end at Clear Lake just east of Nice (at the northern end of the lake) for about 20 miles, or from the east end at the Leesville Road, a distance of about 16 miles. The eastern route is probably safer, as the other way involves about a 3,500-foot pass. There was snow on the ground when we made our shuttle over the pass.

The North Fork originates at the coastal divide opposite the Eel River, south of Lake Pillsbury. Its drainage extends up to about 4,500 feet. The stream closely follows the road for the last 4.2 miles to the put-in at the bridge (prescriptive right-of-way). This part looks interesting – Class 2½ to 3 – but with all the shuttling, we did not have time to run it.

From where we put in, it is an easy, but brushy, run through Indian Valley for 6.6 miles to where the canyon starts. The current moves well as a result of the 25-feet-per-mile gradient. It is a beautiful canyon, 3 to 3½ miles long, with a half-dozen interesting rapids that are similar to those in the Cache Creek canyon above Rumsey.

The take-out is at the bridge (40 feet total width right-of-way), just after the river bends around Chalk Mountain on the left, which is at the end of the canyon. It is 4.2 miles through another valley (not boated) to the next possible take-out, where the creek comes alongside Route 20, and another 2.3 miles to the take-out at the Route 20 bridge. The remaining 2.2-mile stretch to Cache Creek is considered to be part of the Cache Creek run to Bear Creek and is included in the description of the next run.

Two roads lead north toward the bridge at the take-out from Route 20. The junctions are 1 mile and 2.5 miles east of Route 53. There is a 4-mile drive up along the North Fork to the bridge.

15. CACHE CREEK (continued)

15. North Fork to Bear Creek
Class 2+ with 1 Cl 3 rapid at optimum: 600 cfs
Same class for run 8/3/69 at 460 cfs
Maps: Lower Lake, Morgan Valley

17 miles, summer run (see Fig. 8-j)
Scenery: A, medium shuttle
Drainage: 740 mi^2 at put-in
Canoes and Rafts: OK

This wilderness run is one of the few south of the Trinity River that is still runnable in late summer. Most of the run is through Bureau of Land Management property.

To reach the put-in, starting at the west end of the Route 20 bridge over the North Fork of Cache Creek (5½ miles east of Route 53), take the dirt road to the south. Enter through the gate even though it has an ominous "No Trespassing" sign and bear left along the creek. Turn left near a cabin (~½ mile) and ford the North Fork. Shortly, you cross a unique property line that is made of bed springs, old appliances, and airplane parts. Another one-tenth mile brings you to the owner's gate. He (or his wife) charges $5.00/day (as of 1970) for camping or for access to Cache Creek, which is still one-half mile farther over loose gravel with 3 more fords of the creek. He will drive your last car back from the creek to a parking lot at his gate. His name and address is: Charles Jordan, Box 370, Clearlake Highlands, CA 95422. He does not have a phone.

Early in the season when the North Fork cannot be forded, Mr. Jordan is not there either. But the North Fork can be run from the bridge, adding 2.2 miles to the run. The North Fork flow usually decreases to a trickle in April, however, and the private access must be used during the summer season. Our later run was inappropriately timed with the opening of deer season. Eighteen rafts loaded with hunters had left from Jordan's the evening before.

Although the water of this narrow stream is very murky and somewhat polluted, the run is generally beautiful because of the reeds, cattails, and willows along the banks. There are many sharp turns where brush is a hazard. One particularly bad place occurs during the first mile. After swinging from north to south in 1½ miles, you enter a meadow area called Wilson Valley.

At 5½ miles, just after a sharp right turn with a rapid in it, the creek flows south by southwest for a short distance. A deep, narrow cut in the top of the ridgeline can be seen ahead. In one-fifth mile, at a left turn, Petrified Canyon or Trout Creek enters, but it is so small that it is easily missed. In dry years, all the side streams may dry up by August. Hike up this creek a couple of hundred feet to a small pool with a beautiful little falls. We played here for some time, having fun body-damming the stream above and then releasing the water for individual showers. Three hundred feet above, there is another falls worth visiting.

We camped in another mile on a beautiful pine flat on the right bank just above the first challenging rapid (should be scouted to get the right entry into the drop), which is just before a broad left turn. A rattlesnake found well after dark wandering toward the campfire caused some sleepless hours among the more impressionable members of our party.

We carried one gallon of water per person, as we did not know the status of side-stream flow, and Cache Creek is polluted. One boater drank water at the falls, but in hiking farther up we found animal dung partially in the stream (other members drank sparingly from other side streams and no one became sick, but this probably was luck). Boaters should probably try to check any stream for several hundred feet above the withdrawal point unless it is early in the year and there is a relatively large flow rate; better yet, purify the drinking water. Waterless camping sites are very plentiful.

At 7.6 miles, the stream enters Kennedy Flats, and at a right turn, there was a nice symmetrical chute with large standing waves – an ideal rapid to play in. In another 2 miles, a rocky rapid is located immediately above a sharp left turn, and 1½ miles farther (at 11 miles), just before another sharp left turn, you can see through a gap to a more distant hill. The peninsula known as Buck Island starts at this point. There is a public dirt road of poor quality from here out to Route 16, across the low-water bridge (see following run), which probably can be crossed if the flow is 800 cfs or less. The water begins to flow over the low-water bridge at 600 to 700 cfs.

There are a couple of interesting rapids in the next 2½ miles, and the hardest rapid of the run (Class 3) comes at 16¾ miles. It should be scouted as it is very rocky and has twice the drop of any other rapid; it requires precision maneuvering for kayaks at this level and would not be worth trying in an aluminum canoe. This rapid appears fairly suddenly at the end of a wide bend to the left. The portage is moderate over medium-sized boulders on the right side. We saw a group of rafters very cleverly line their boats part way into this rapid, then float through. Even with oars there is not enough time to maneuver a raft once it is in the rapid, so pick your channel carefully.

Bear Creek enters in one-fourth mile and Route 16 runs along the creek. This is 0.2 mile north of the Colusa–Yolo County line, which is marked on Route 16. The take-out here is over private land, and it had become the traditional put-in and take-out for Cache Creek. Although the property has recently been posted, many people were still using this site for river access, and implied dedication might apply (see Chapter 7). There is also a good take-out one-half mile downstream, past an island. A rapid with tricky currents comes at a sharp left turn halfway between these take-outs.

16. CACHE CREEK (continued)

16. Bear Creek to Rumsey	**8.5 miles, summer run (see Fig. 8-j)**
Class 2½ with 1 Cl 3 rapid and 1 P at optimum: 600 cfs	**Scenery: A–, short shuttle**
	Drainage: 955 mi² at take-out
Boated many times	**Canoes: OK, approx. 4 P's**
Maps: Morgan Valley, Guinda	**Rafts: OK for smaller sizes**

This run is easily divided into shorter sections at 3 public access points: the low-water bridge at 2.9 miles, the Route 16 bridge at 4.7 miles, and the swimming hole at 5.6 miles. The upper two sections form a very popular summertime run for San Francisco Bay Area river touring groups. The unusually warm water becomes even too warm on the hottest weekends, not providing the desired refreshment. It is also a popular winter run for experts when the flow is at several thousand cfs (Class 4+).

Bear Creek has been run by various kayakers in the winter, but there are typically only 12 days each winter when it has an acceptable flow of between 300 and 1,000 cfs. A drive up Route 16 offers good views of the rocky, difficult course of Bear Creek. The gradient is more than 100 feet per mile, so even at optimum water level it is a difficult run for experts.

From the put-in at Bear Creek (see previous run), there is a rapid leading into a left turn in one-fourth mile. "Kilner's Korner" should be its rightful name, since my most frequent exploring partner, Joe Kilner, had a terrible time mastering the tricky currents here as a learning boater. Claiming that he knew exactly the place where he would turn over each time, he still was unable to prevent it. He also knew exactly how to perform his self-rescue, always reaching shore at the same place, since he had practiced it so often. In one-fourth mile, there are several islands to boat between. This spot is opposite a large pull-off on Route 16 and has been used as a practice area by clubs for teaching beginning boaters.

Two steep, short rapids, the most difficult ones in the section to the low water bridge, are located going into major left turns at 1.6 and 2.6 miles. Between these rapids, the river seems too wide for the biggest summer flow, and considerable rock dodging is necessary. The low-water concrete bridge at 2.9 miles has several large conduits through it. They often contain brush, creating an extreme hazard to anyone sucked underneath. The author once pulled out an inattentive inner-tuber just as he was about to go through but had suddenly realized the danger. With the water low enough (~400 cfs) to allow kayak space, kayakers have first swum through to check for brush, then kayaked through upside down and rolled back up. The portage is only 15 feet.

The low-water bridge has long been used as a put-in and a take-out (prescriptive right-of-way). Access to it from Route 16 is at an open gate 2.4 miles south of the Colusa–Yolo County line; it is marked with a Bureau of Land Management (BLM) sign. A considerable amount of the dense brushland between Capay Valley and Middleton is U.S. public land managed by the BLM.

Rayhouse Road crosses the creek at the low-water bridge and traverses this wilderness toward the Morgan Valley Road. About 4 miles from this bridge, at the top of the ridge, there is a four-way intersection. Going to the right, you follow the ridgeline for several miles before falling steeply to the creek at Buck Island (see previous run). This dirt road must have a 35% grade for some distance near Buck Island and is not for autos with low torque. Because of the poor road, this route is not a suitable alternative for reaching some of the upper run. Instead, gain access at the North Fork.

After the low-water bridge, it is only a few hundred feet to the hardest rapid before the Route 16 bridge. It consists of a right-left zig-zag at the first corner. The channel does not spread out as is the case in some places above, making this section generally easier to negotiate.

From the Route 16 bridge at 4.7 miles, you see the creek running thinly between stones, converging and turning out of sight. Hiking on a short trail on the northwest side of the creek, you arrive at the crux of Rowboat Rapid, so named by the first group of winter kayakers who found the remains of a rowboat deposited here by a very foolish navigator. This is a tricky Class 3 rapid; it is easy to miss the correct chute or find yourself entering it backward. Below Rowboat, there is a fairly continual frolic rapid most of the way to the swimming hole at 5.6 miles, which is an access point. The swimming hole is 0.2 mile north of Boy Scout Camp Haswell, which is private.

Immediately below a stone cabin at the camp, the creek divides around an island. The right channel contains dangerous brush, so bear left. That side has a steep rapid that is probably second to Rowboat in difficulty in this run. There is an island in 0.4 mile and a large island (one-half mile long) in another 0.3 mile. Go around the second island on the left, where most of the water flows. At 7.2 miles, about 0.2 mile beyond the large island and after a long, easy rapid, power lines come in view and there is a more difficult short drop with a sharp right turn at the bottom. Nesting cliff swallows make good use of the banks in this area in June.

The Rumsey bridge (50 feet total width right-of-way) is at 8.5 miles. Take out on the northeast side. This bridge is on Arbuckle Road 0.1 mile off Route 16 and 2 miles southeast of Camp Haswell. The gaging station on the bridge is radio controlled during the winter months.

With a good summer flow, this run becomes a superb stream for the Class 2 and 3 boater, who can play in the innumerable jets and eddies. Such practice is the essential element for improving one's ability. The Class 4 boater may be amused, but the lack of power in the water will leave him relatively unchallenged. The lack of scary water power is what makes Cache Creek so popular with the Class 2 boater.

17. CACHE CREEK (continued)

17. Rumsey to Guinda — **7.0 miles, summer run (see Fig. 8-j)**
Class 1 at optimum: 750 cfs — **Scenery: B+, short shuttle**
Same class for run 7/24/71 at 725 cfs — **Drainage: 955 mi² at put-in**
Map: Guinda — **Canoes and Rafts: OK**

This flat-water run through the upper section of Capay (pronounced Cay-pay) Valley has a few cables and fences to hurdle. Otherwise, the better-than-average river scenery for an agricultural valley is most enjoyable. Like the Russian, the river course is downwind. Landmarks are noted here for gaging the distance. At 4.4 miles, a barn can be seen on the right bank at a left turn. At 6 miles, tires begin to appear on the left bank, first for erosion control, then a huge number in a gully below a road. At 6.2 miles, a fence spans the stream, and at our high summer level flow, we were just able to scoot across it.

Take out above the bridge at Guinda at the large, informal campsite. This is possibly the only camping site in the valley and is large enough so that there is reasonable privacy. The road to the bridge is one-fourth mile south of the center of Guinda.

It is 12 miles from Guinda to the Capay Dam, where all the water is diverted into canals. This stretch has been boated by various groups in the past. They took out on private land with the permission of a farmer, but he has since stopped this practice. The author is told that the run is flat water, but with one advanced rapid. The agency that owns the dam should allow access over their road to the dam (see legal chapter), but they may not have been approached about this.

18. PUTAH CREEK

18. Middletown to Lake Berryessa — **16 miles, rainy season run**
Class 4½ with 3 P's at optimum: 1000 cfs — **Scenery: A, short shuttle**
Same class for run 1/17/71 at 1400 cfs — **Drainage: 113 mi² at put-in**
Maps: Lower Lake, Morgan Valley, St. Helena — **Canoes and Rafts: no**
Average annual rainfall 52 in., runoff factor 1.9

This recently discovered wilderness run has quickly become a favorite winter trip of expert kayakers. It is, however, a curiously dangerous stream. Already, it may hold the dubious record of having more rapids unwillingly run by expert boaters than any other stream, as explained below.

The put-in is at the Route 29 bridge, 5 miles north of Middletown and 48 miles north of Napa. The first 2½ miles are uninteresting, with much of the left bank covered with large rock for erosion control. A smiling rancher calling "Welcome" left us stunned. The USGS gaging station is on the right at 3.2 miles. The stream leaves Coyote Valley here, and the hills close in. Rock outcroppings from both sides provide an entrance way as this "creek" prepares to test your mettle.

At 4 miles, at a left turn, you face a spectacular vertical cliff rising 300 feet. The gradient over the next three-fourths mile or so is 110 feet per mile. A short, steep rapid brings you to a right turn at the base of the cliff. The next rapid deserves scouting because it, like many to come, is badly choked with brush. Just at the end of the left turn beyond this rapid, the first portage rapid occurs. Go to the right bank. Its entrance is heavily disguised by brush; two very good kayakers have unexpectedly run this rapid (one not so successfully), and several others have avoided it by the "skin of their teeth." We retrieved one of our group who was holding onto the last clump of brush before the drop. A broken canoe paddle and pieces of aluminum along the stream for the next couple of miles told a story repeated often on this type of river.

At the next turn (to the right) there is a difficult and very long rapid that should be

Brush adds to the hazards of the difficult rapids on Putah Creek (photo by Charlie Martin).

scouted. (It can be portaged easily on the flat above the right bank.) Soda Creek enters unnoticed through the brush on the left. Brush-choked but easier rapids follow for the next mile or two. There is an emergency take-out at a pumphouse on a military reservation 1 mile below the big rapid at Soda Creek.

The creek settles down to 20 feet per mile for the uneventful but pretty middle section of the run which continues for 6 miles. Two possible emergency take-outs are located near the beginning and end of this section, each where a creek enters from the right. The second is at the start of a large flat (Big Basin) and a mile-long S-turn.

Upon swinging south for the last time and leaving Big Basin (13 miles), you soon come to a left turn with large boulders. Here, a very short but powerful drop marks the beginning of two miles of very difficult boating. Brush is no longer a problem, but there are large boulders and ledges forming big drops and long rapids. Four rapids are particularly noteworthy; the first or second has three very mean-looking diagonal ledges: portage and line boats with considerable difficulty on the left. The stream (it really is a river, not a creek as named, with 566 square miles of drainage area at the Lake Berryessa dam) splits into several parts at the next, very long rapid. Portage the first part on the left island. This rapid is the last one of note.

Take out 1 mile farther at Butts Creek. To drive to this point, take Butts Canyon Road either from the north end of Middletown or from Pope Valley (15 miles north of St. Helena). About halfway, take Snell Valley Road, which follows Butts Creek to Lake Berryessa and to a new development there.

This run may be the most difficult the author has made (at 1400 cfs). Others have had many more rapids of the same difficulty (i.e., upper Tuolumne) but this run requires more overall skill. There are numerous portages, and the boater must be especially alert because of the abundance of brush (it is so easy to think that boating blindly through each brushy rapid must be okay because others have done it).

Time is also a factor in the difficulty of this run. It can generally only be run on a few weekends in mid-winter, and is considered a one-day trip. Scouting and portaging rapidly consume valuable running time, and lack of time strongly affects scouting and portaging decisions. John Googins and Charles Martin made the first known descent of this run in January 1970. These very excellent kayakers and seasoned explorers had no reason to expect the run to be as difficult as it is, particularly the last part with its modest gradient of about 40 feet per mile. At dark, they elected to continue. Some of the rapids seemed fairly large. The next year, when Googins and Martin returned, they portaged some of the rapids they had successfully run in the dark!

Our group of six was not particularly strong or weak for the run at the water level we had. Aware of Googin and Martin's experience, we were on the river by 10 a.m. We pushed along efficiently, except for the rescue mentioned above. The author portaged much more than most – 7 times. We arrived at the take-out after sunset, but with 20 minutes before dark. Incidentally, everyone had Eskimo-rolled while running the river. The leader received a hard blow on his Toptex helmet while rolling (only had a stiff neck to show for it, fortunately) and all boats were damaged – two of them limped in with splinted noses.

18. Streams South of the Golden Gate

Portolá's Exploration of California*

Only 23 years after the Spanish conquistadores first set foot in Mexico, an expedition of two ships under Juan Cabrillo explored the sea coast of California. However, the Spaniards showed no interest in colonizing "Alta California" for another 225 years, until the Russian fur trade along the Alaskan coast began to move south. The early explorations had noted two good harbors, San Diego and Monterey. In the spring of 1769, expeditions left Baja California by land and sea to locate and settle these ports. It would be done in the usual manner. The men of the church would establish a mission to convert the Indians, and a presidio would be established for the military contingent at each location.

It was a grim situation when the parties met in San Diego on July 1, 1769. Only 16 of the 90 men of the first two ships survived scurvy, and the third ship had not arrived. The overland expedition had been on half rations. Father Junipero Serra stayed to start the mission, and Captain Portolá moved up the coast to find Monterey Bay. Portolá was a professional soldier with a distinguished career in Italy and Portugal and considered his assignment as Governor of Baja, California, to be banishment. He hoped that through extraordinary service on this exploration he would win his return to Spain, which he did. His party left by land on July 14.

They traveled slowly along the coastline for what was to be the easy half of the trip. Indians were found making sturdy canoes west of the site of Santa Barbara, and the Portolá party named the area Carpenteria. At Pismo Beach, on about September 1, they rested, scouted the route ahead, and then made a serious mistake. They were only 15 miles from the easy pass into the Salinas Valley where US 101 is now located, but they missed it. Struggling north along the coast, their route was finally completely blocked by the extremely rugged coastline 13 miles north of San Simeon.

They were forced to turn up San Carpoforo Creek, making a trail for the animals. The summit of the Santa Lucia Range there is 2,300 feet high and only 10 miles from the coast, but it took them 5 days to reach it. Some of the men were showing signs of scurvy by then. They must have been close to the "Shut-In" on the Nacimiento River. In several more days, they had passed to the northeast through Jolon Valley where the third mission, San Antonio, would be established two years later. Descending Quinado Canyon, they reached the Salinas River near the site of King City on September 26. Although they had not noted any significant amount of rain, which would be extremely unusual at that time of year, apparently the Salinas River was flowing and muddy, as they named their first camp on the river after its chocolate-looking water. (During the past 50 years, there has been much ground water pumping for irrigation. Recently, reservoirs have been built on the Nacimiento and San Antonio Rivers. Except for releases from these dams there would not be any flow in the river at that time of the year.)

A disappointed band of explorers they were, when four days later they reached the sea and were unable to compare what they saw to Vizcaino's description of 1602. The ship that was to meet them with supplies was not there either. Convinced that this was not Monterey Bay, they explored both to the north and to the south. Crossing the next river to the north, they found that the Indians had already fled, but had left a very large bird stuffed with straw. The party named the river for this apparent tribute, the Pajaro. Finally, they saw the Farallon Islands, leaving no doubt that the bay they sought was to the south.

On November 4, they discovered one of the great natural harbors of the world, San Francisco Bay, one so well protected that it had remained hidden from sailors for centuries. Then they turned back and retraced their steps the more than 500 miles to San Diego, arriving there on January 24, 1770. They had explored virtually the entire length of California that the Spanish would settle during the next 60 years.

Portolá led a second expedition that spring to Monterey Bay, now recognized as grossly exaggerated by Vizcaino. The mission and presidio founded, Portolá had accomplished his

*Much of the material for this introduction was extracted from the excellent book *Monterey, The Presence of the Past* by Augusta Fink, Chronicle Books, San Francisco, Calif., 1972.

charge, and he left with the supply boat. Doubting the success of the project, he wrote a friend, "If Russia wants California, they deserve to have it. It is impossible to send aid to Monterey by sea or land, except at the sacrifice of huge sums of money and thousands of men."

Ranchos and the American Take-over

Settlement at Monterey, later to be the capital of Alta California, proceeded slowly. Gradually settlers arrived, and they and deserving soldiers at the presidio were granted ranchos. Very sizable ranchos were granted farther from Monterey up the Salinas River valley, beginning in 1795. By 1840, all the good land was gone, and there were about 30 ranchos in that valley, all raising cattle. Although grants as large as 48,000 acres were made in the near-barren mountainous Gabilan Range (east side of the Salinas Valley), most grants ranged between 2,000 and 8,000 acres. The cattle were raised for their hides (most of the carcasses were left to rot) which were traded at the port at Monterey for all other supplies. The affluent landholders had town houses in Monterey.

The war between Mexico and the United States was concluded in 1848 with the Treaty of Guadalupe Hidalgo. In it the United States specifically promised to safeguard the private property rights of the Californians. However, men already disenchanted by the gold rush in the early 1850s were demanding that the large ranchos be broken up, so they challenged the claims, which often had very vaguely specified boundaries. In 1851, Congress created the U.S. Land Commission to review the validity of the Spanish and Mexican grants. They were very thorough, apparently fair, and very slow. Decisions could be appealed all the way to the U.S. Supreme Court. There was an average wait of 17 years to obtain an uncontested title, during which time what you did not legally own free and clear you could not sell. Meanwhile, there were floods in 1862 and droughts the next two years. The 100,000 head of cattle in the valley shrank to 13,000. Bad weather and continuing legal fees for fighting for their claims forced many of the original land grants to fall into American hands.

The Railroad, Sugar Beets, and Irrigation

Salinas was founded in the early '50s at the intersection of the Los Angeles–San Francisco and Monterey–San Juan Bautista stage coach roads. The enterprising Yankee founders waged a vigorous campaign to win over the stage line business from nearby Natividad. Similar competitions were raised all the way up the Salinas Valley between 1870 and 1890 as the Southern Pacific Railroad entered the valley and proceeded southward. By then, the Valley was no longer filled with cattle ranches, but was a very rich agricultural region producing mainly grains. Towns that became progressively wealthy and important at the end of the line, only to be eclipsed as the railroad was extended, were Salinas, Soledad, King City, San Lucas, San Ardo, and Bradley.

After the development of a hardier sugar-beet seed, Claus Spreckels built a sugar-beet processing factory in Salinas Valley in 1897. The five-story factory near Salinas cost $2,700,000 and was the largest beet refinery in the world. It provided employment for 500 people and consumed 3,500 tons of beets per day. Fields and railroad carloads of sugar beets are still a very familiar sight in the valley.

In the early 1900s, a firm of Los Angeles real estate promoters with 4,000 acres along the Arroyo Seco (translates as "dry creek") organized the California Homeseekers Association and sold 20-acre plots for $400. Renamed Clark Colony, the land was an arid, wind-swept area previously referred to as "Three Mile Flat." The buyers laboriously cleared the land of its sand to get down to the soil, and rows of eucalyptus trees were planted, but the sand blew back. To protect their investment, the developers purchased the water rights to most of the drainage basin, built a canal from the creek, and charged one dollar per year for water for irrigating each acre. This marked the beginning of irrigation in the Salinas Valley, which today is an extremely productive agricultural area.

1. ALAMEDA CREEK

1. Niles Canyon
Class 3 with approx. 4 P's at optimum: 65 cfs
Same flow for run 3/14/71
Map: Livermore
Average annual rainfall 22 in., runoff factor 0.19

4.5 miles, rainy season run
Scenery: C, short shuttle
Drainage: 633 mi^2
Canoes and Rafts: no

The author had often wondered while driving the road through Niles Canyon how ridiculous a run this stream would make. The brush seems to nearly block the channel in so many places. With that attitude, instead of his usually optimistic air, he was not disappointed when he ran it on a cold, rainy day. In fact, he was somewhat relieved that he had not been forced to make some huge portage through acres of barberry bushes – the greatest enemy of a wet suit.

We put in at the railroad bridge along Route 84, 1 mile west of Sunol. There are a dozen or so short rapids in this run, many with good drops. It would take 3 to 4 times as much water to make most of them nicely runnable. Some would be challenging rapids. We simply bumped and slipped over the rocks. The flow rate for our run, however, seemed about optimum. The innumerable, narrow, brush-choked chutes required precise maneuvering. A high enough water level to enjoy the potential of the rapids would be deadly for negotiating the brush, for three reasons: greatly reduced maneuvering time around the brush, great danger of being trapped in it, and more interference from overhead brush.

Some padded head protection is necessary for this floating bushwack. Gloves are also desirable as they would save considerable wear and tear on the knuckles. This run should be considered an exercise in dodging and thrashing through brush, not running rapids. To check the water level, stop at the gaging station about 1 mile upstream from Mission Boulevard. The usual cableway with cart and small building marks the spot. On the upstream side of the building right at water level are the water level scales (our level was just at the top of the bottom scale at 3.30 feet, but the calibration will change).

The brush seemed to be somewhat worse from the put-in to the first bridge and in the last one-half mile of the run. Under the second bridge we portaged what was probably the largest rapid. Just as you see the third bridge (this and the last one are old iron railroad bridges), watch for a row of fiberglass-chewing, iron fence-like stakes extending across the river. Very shortly below this bridge is a very low footbridge in the middle of a rapid. It may be tempting to try to run if the water is low enough, but generally it must be portaged.

A wide dam that is easily seen from the highway comes soon. The brush then closes in very close to the stream for much of the rest of the run. Our take-out was at the first conveniently wide pull-off going upstream from the Old Niles Road bridge. It was only shortly below the gaging station and well marked by trash. Shortly below, the channel opens up and the flow we found to be optimum would be woefully inadequate for running the rest of the stream.

Even a small raft has no hope of negotiating this extremely tight course. A dedicated, expert canoe team could probably do it, but a self-powered brush hook on the bow would be a great asset, and the added height of the boaters over the kayaker would be a definite disadvantage. Although we only had to portage one brush trap near the end, these portage situations are probably always changing.

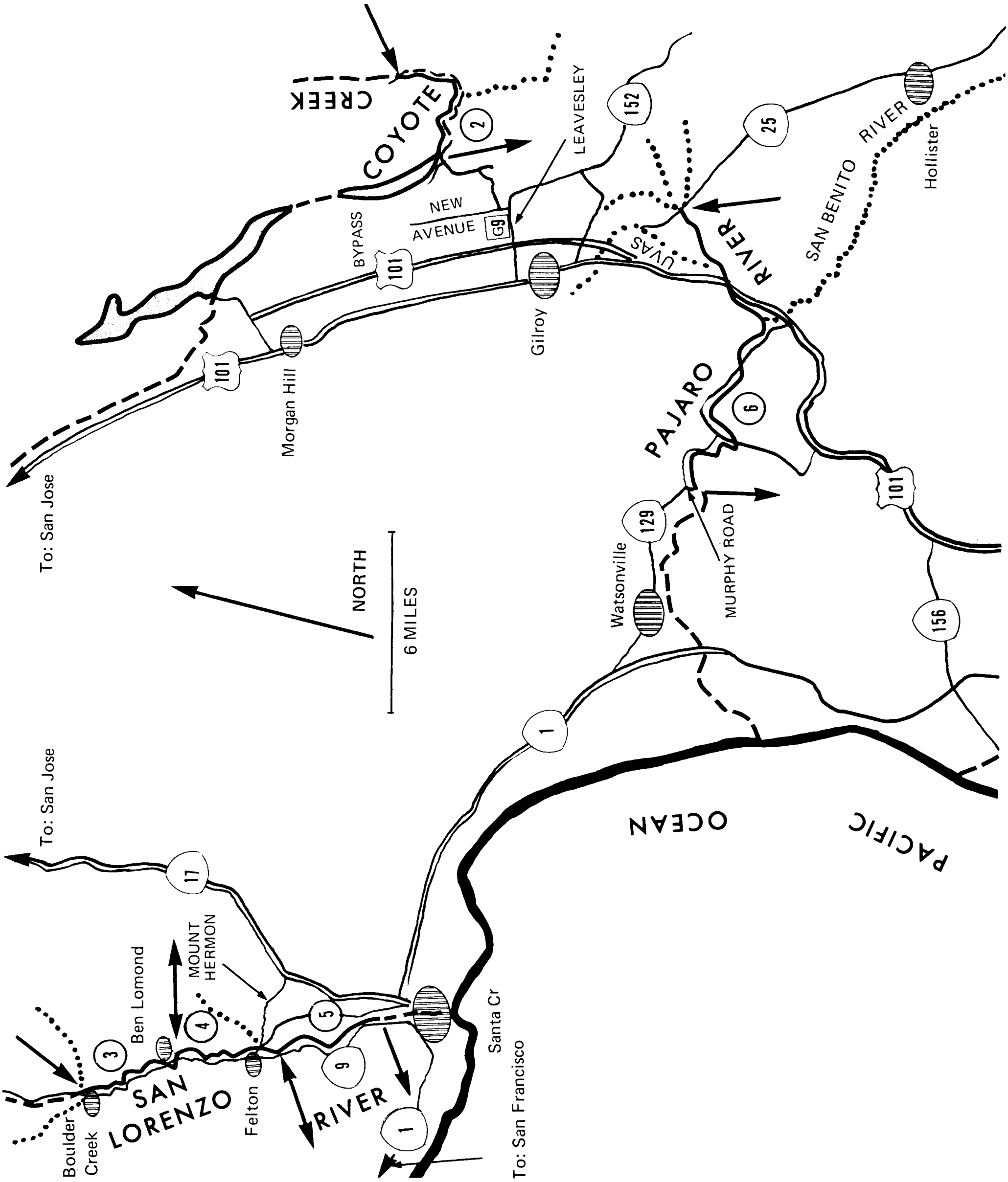
2. COYOTE CREEK

2. Above Coyote Reservoir	**4.9 miles, rainy season run**
Class 2½ at optimum: 275 cfs	**Scenery: A, short shuttle**
Same class for run 3/4/73 at 215 cfs	**Drainage: 109 mi^2**
Maps: Gilroy Hot Springs, Morgan Hill	**Canoes: OK**
Average annual rainfall 28 in., runoff factor 0.39	**Rafts: brushy, some portaging**

The Santa Clara Valley extends along the west side of San Francisco Bay and southward nearly to the Salinas Valley. The southern half of this valley has an interesting drainage pattern. The very small streams of the valley floor and west side drain southward into the Pajaro River. A low ridgeline on the east side of the valley is the drainage divide to Coyote Creek, which flows northward. It finally enters the valley after passing through Coyote and Anderson Reservoirs, then on into the southern tip of San Francisco Bay.

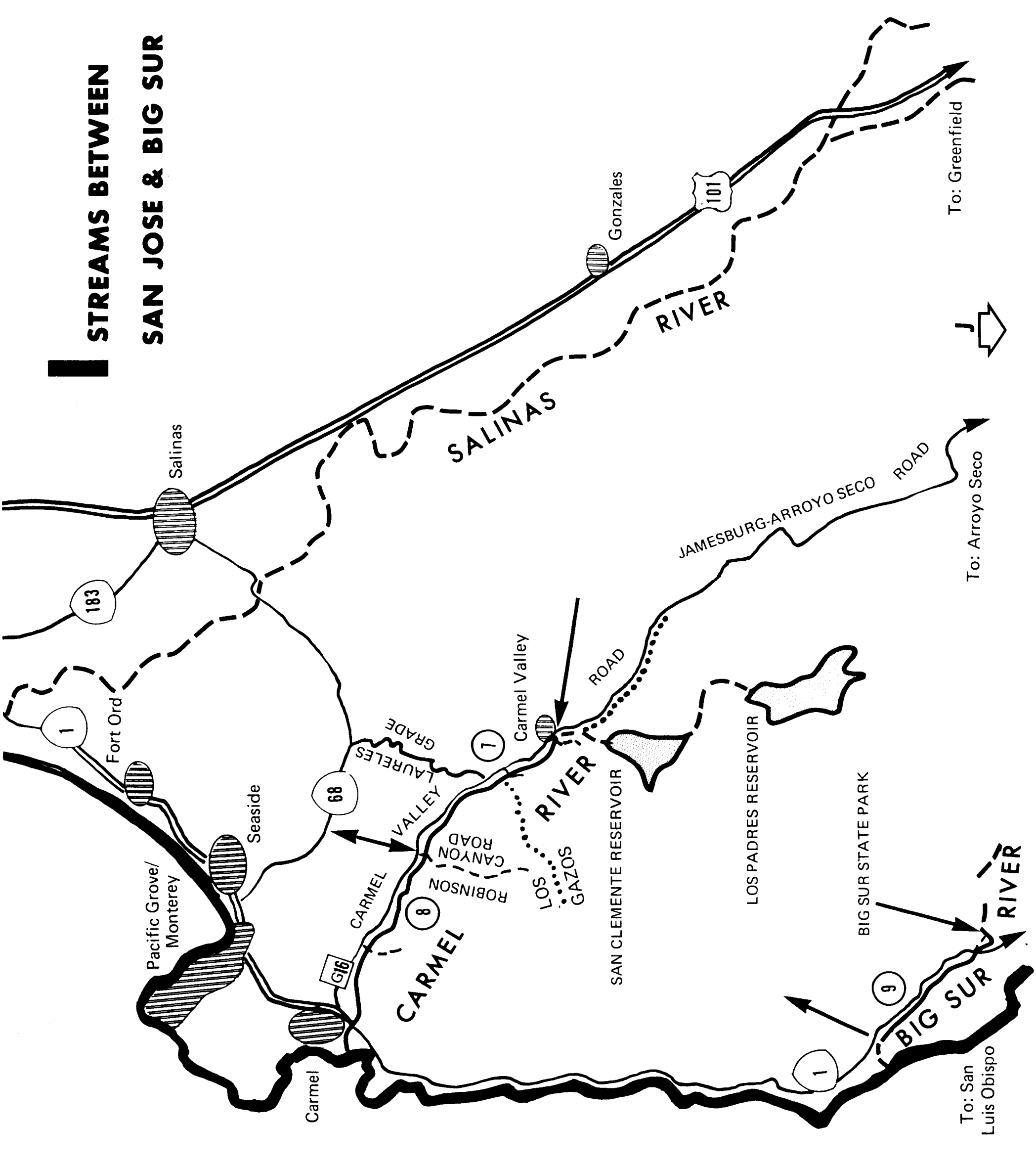
There may be a not-too-unreasonable type of run from just below Anderson Reservoir to Metcalf Road, but since the capacity of the two reservoirs is twice the average annual flow of the stream, it only very rarely flows with enough water (once every several years). The summer releases for ground water recharging are too little for river touring.

Coyote Creek originates in the 3,000-foot peaks of the Diablo Range and is of respectable size before it leaves Henry Coe State Park. Unfortunately, the AAA maps are incorrect in showing a road into the park that ends close to the river. To our dismay, the park blocked



COYOTE CREEK
2
NEW AVENUE
G9
LEAVESLEY
152
25
Hollister
SAN BENITO RIVER
UVAS
RIVER
BYPASS
101
Gilroy
Morgan Hill
To: San Jose
PAJARO
6
129
Watsonville
MURPHY ROAD
156
NORTH
6 MILES
1
PACIFIC OCEAN
17
To: San Jose
MOUNT HERMON
Ben Lomond
4
3
5
9
Santa Cr
SAN LORENZO RIVER
Felton
Boulder Creek
To: San Francisco

STREAMS BETWEEN SAN JOSE & BIG SUR



off this road many years ago at the park entrance, about 4 miles from the stream. Thus, there is only the one short run on Coyote Creek described below.

From the northern edge of Gilroy or the new US 101 freeway bypass, take Route G9 east and follow the signs to Coyote Reservoir. In 7½ miles, there is the turn-off to the left from the Gilroy Hot Springs Road to the reservoir. Continue ahead a short distance to where the road comes along the creek and there are a couple of wide spots for parking. This is the take-out. It was not clear to us whether this access is public or private property, so if it is posted (it was not posted when we made our run), take out at the reservoir, which adds a mile of flat-water paddling (if the reservoir is full). Continue 4.7 miles upstream to the put-in at the bridge across Coyote Creek.

The two or three best rapids, small rocky ones that require maneuvering, come in the first mile and are easily seen from the road. These rapids (one is quite tricky) and the abundance of brush give this run its Class 2½ rating. After the first mile, the stream is wider and the one remaining challenge is the brush; its rating is Class 2. Several fences had been washed out for the winter, but two remained. The largest side creek comes in on the left at 2.2 miles, and the first fence is just below the ranch in another half-mile. The second is shortly beyond the first. The river gaging station is at 3½ miles.

The author particularly enjoyed this run. The canyon through which the stream flows is beautiful, and the water was clear. It is worth persevering to catch this rather dry stream at the right flow. Remember, you cannot judge its flow by looking at Coyote Creek along US 101, since that portion of the creek is below the reservoirs.

San Lorenzo River

The San Lorenzo River with its three runs, each of a different class, may be the most popular river for touring described in this chapter. Three streams of about equal size – the San Lorenzo River, Boulder Creek, and Bear Creek – join just before the town of Boulder Creek, and the first run starts at their confluence.

Owning river frontage is very popular in the San Lorenzo Valley; cabins and houses dot the banks along the first two runs, many of them detracting considerably from the river scenery. There is not as much trash along the banks as the author has seen elsewhere, but with the concentration of residences, a moderate amount is inevitable. The water is fairly polluted. However, the river occasionally flows through very pretty, rock-walled passageways.

We once ran about 6 miles of the San Lorenzo River from near where it first passes under the highway down to Boulder Creek. With less than 10 square miles of drainage at the put-in, you had to find a wide place in the stream to turn around. This run is not recommended because there are too many blockages, both man-made and natural, including several dangerous dams. There are also too many houses right along the river banks.

A freak snow storm in January 1974 dumped the heaviest snow ever recorded in this area. The snow load brought many trees down across the river. However, between the residents' quest for firewood and the next small flood, nearly all of the new tree portages (about a half-dozen per run) should be eliminated.

3. SAN LORENZO RIVER

3. Boulder Creek to Ben Lomond	**4.2 miles, rainy season run**
Class 2½ with 1 P at optimum: 250 cfs	**Scenery: B, short shuttle**
Boated many times	**Drainage: 51 mi² at put-in**
Map: Ben Lomond	**Canoes: brushy, approx. 4 P's**
Average annual rainfall 28 in., runoff factor 1.2	**Rafts: no**

Coming north on Route 9 into Boulder Creek, turn right on the last side street, before crossing the bridge at the end of the main street. Put in at the park in one block, just where Boulder Creek joins the river. The first bridge occurs in one-tenth mile; it is an alternate put-in. Immediately beyond comes the first falls, a drop that is usually fun to run. It is caused by a concrete structure that is open in the middle and boarded up in the summer to create a dam. There are a number of these "open" dams in this run. This drop provides an opportunity to do some "reading of the water," since it can be tricky to pick the right spot to run.

The author's wife demonstrates the powerful cross draw stroke on Coyote Creek (photo by Dan Baker).

Around a corner the brush starts and is interspersed between dams and intermixed with small, twisty, rocky rapids. these hazards create the real challenge for this section of the river. The author began his "exploring career" on this run on a cold day in March 1967. Before finishing the run, his wife had snagged her kayak crosswise in the stream with the tips caught on willows. She escaped from the boat before that moment of danger when the seat broke and the deck collapsed – a sure way to trap your legs in a kayak.

No rapid stands out as the most difficult on this run; the combination of rocks, ever-changing brush, and downed trees creates the more difficult spots. With higher water, which can push the boater into the brush faster and harder, the run rapidly becomes Class 3 or better.

The second, larger dam is located at 0.9 mile, but is generally unrunnable because of a very rocky bottom. In about another mile and downstream past another bridge the third large dam occurs; it is an open type, and easy to run. The large, symmetric jet which flows into a large pool makes this spot the favorite place on the entire river to play and develop added boating skills. There are several more bridges than are shown on the 1968 Felton topographic map – or about eight, plus innumerable sets of old bridge piers.

The concrete works at the base of the bridge at about 3 miles deserves mention. This concrete bridge is easily recognized since it has a middle pier and wooden posts and fencing along the sides on top. The concrete at the base makes a ledge that stretches the entire width of the river, but it is divided into sections by protruding concrete ridges. At higher water, these ridges are not easily discernible, but they are boat-breakers.

After going under the Route 9 highway bridge, passing the castle and boating through a very wide, ledgy rapid, take out at the Ben Lomond town park.

4. SAN LORENZO RIVER (continued)

4. Ben Lomond to Felton
Class 2– with 1 Cl 2½ rapid & 1 P at optimum: 350 cfs
Boated many times
Map: Ben Lomond
Average annual rainfall 28 in., runoff factor 1.2

4.9 miles, rainy season run
Scenery: B, short shuttle
Drainage: 111 mi^2 near take-out
Canoes and Rafts: OK

Put in at the upstream end of the town park which is on the side street with the shops.

The run through the rock garden at the start permits the boater to judge the adequacy of the flow. It needs a little more water than the rest of the run. In about one-half mile, at the first definite right turn, an interesting one-fourth mile begins with a series of individual obstacles that are typical of the more difficult sections of the run. There are frequent small rock ledges across the river and small rapids.

At about 1¼ miles, there is a 3- to 4-foot-high natural ledge. Portage on either side. It has been run by expert kayakers, but with mixed success. At high water levels, there is a very strong and dangerous reversal. There are also rocks at the base of the dam that you are certain to hit. On one trip with moderately low water, a boater trapped the nose of his kayak between two rocks with its stern still on the top of the dam. The author walked out to him and pulled the boat back up enough to release it from this nose hold.

There is a new bridge at 1.8 miles, and in another 0.4 mile, at a sharp right turn, there is a broken dam with the most difficult rapid of the run just below it. It is well worth some study of the currents. Although most of the water appears to go to the right of the island at the base of the rapid, you must aim carefully and paddle hard to get there (it has not changed a bit in 5 years). To go left, you must dodge some grass clumps or hummocks. If you portage, do so on the right bank. Both this rapid and the previous dam are easy to spot in advance.

Just below the second bridge, in a left turn, there is an enjoyable rapid that is worth noting, as is the surprisingly high stone cliff on the right bank. At the base of the rapid is another bridge where Route 9 cuts across this turn. The stream passes under three more bridges in Felton. The second is a highway bridge (4.1 miles). The third is covered; it was built in 1892 and is the tallest structure of its kind in the United States.

One-fourth mile downstream, at a right turn, Zayante Creek enters on the left. It is the largest tributary on this run. The rest of the run is very brushy, particularly the first part, which also has a strong current. Paddle ahead aggressively to stay in the main flow. This is the hardest part of the run for many. The take-out bridge is at the entrance to the Henry Cowell State Park, just off Route 9. Actually, it is a good idea to take out on the left side at the covered bridge and avoid all the brush.

The water height on the right bridge foundation at the take-out should be 6-8 inches below the top for optimum running. Many of the rapids are filled with grass hummocks which require increasingly more skill to dodge as the flow decreases. There always seem to be two or three logs across the river on this run, usually different ones each year.

5. SAN LORENZO RIVER (continued)

5. Felton to Santa Cruz	**6.0 miles, rainy season run**
Class 4 at optimum: 550 cfs	**Scenery: A, short shuttle**
For run 12/5/70, Cl 3½ at 410 cfs	**Drainage: 111 mi² near put-in**
Maps: Ben Lomond, Santa Cruz (7½ min.)	**Canoes: no**
Average annual rainfall 28 in., runoff factor 1.2	**Rafts: OK**

Some years ago, a "boating old-timer" led some of us down the steep cliff to look at the four drops that make up the crux of this run. The author was so impressed that it took 3 years to find the right opportunity to make the run. There were 2 close, approximately 5-foot vertical drops followed by a final foamy flush. Assured that the vertical drops had "clean" pools at their bases (deep enough so that the deeply penetrating kayak bow would not slam into rocks or be caught between two rocks), one wondered who the brave soul was who first explored those drops. These memories either grew or the river decayed – as it did not look too bad when this run was finally made.

From the put-in bridge to the railroad bridge – 1.1 miles – there is no action except a small weir. Then the rapids begin. First, they are Class 3, and at our water level, frequent rock bumping was inevitable. After a bouncy drop just at the beginning of a sharp right turn 0.6 mile beyond the gaging station, you enter a one-third-mile-long straight section ending at a high, steep cliff that marks the deepest part of the gorge. In the middle of this section, there is a moderately long, steep rapid filled with large rocks. It requires strenuous maneuvering, and at optimum water, the hydraulics are powerful.

Soon after rounding the next corner, the last three of the drops referred to earlier occur. Unfortunately, the first vertical drop had its chute blocked with a new boulder (reportedly gone by 11/72), and the second drop was no longer vertical, but just a wide ramp. The third drop contained a fun-to-ride turning tongue. Portaging should be done on the left.

More but easier rapids follow, and the boater can enjoy the redwood scenery. However, just below the above drops, there is a very brushy passage, and then another one farther on. Fishing is popular throughout the canyon. The rapids end at Paradise Park, and there is a possible take-out at the covered bridge there (4.8 miles). The best take-out is at the undeveloped city park in 1.2 miles. This access is on Route 9, one-half mile upstream from the Route 17 bridge. There are many bridges in town that provide access, or you can continue 2½ miles farther to the ocean and try surfing, but the town section is particularly unscenic.

6. PAJARO RIVER

6. Route 25 to Murphy Road
Class 1½ with P's at 110 cfs at put-in, 800 cfs at mid-point
Maps: Chittenden, Watsonville E. (both 7½ min.)
Average annual rainfall 19 in., runoff factor 0.12

14.6 miles, rainy season run
Scenery: D, short shuttle
Drainage: 399 mi^2 at put-in, 1186 mi^2 at mid-point
Canoes: OK with 1 P for 2nd half
Rafts: no

The Pajaro was probably once a respectable river, but now it is so jammed with trash as to be a disgrace. This description is included only to document what we did and to assure you that this run is not worth repeating. The river can only be run well into the rainy season in wet years and then only shortly after a rain.

We put in at the bridge on Route 25, 2½ miles east of US 101 and 3 miles south of Gilroy. Almost immediately, we had to make a couple of "plastic portages" around trash. We soon found ourselves wandering aimlessly through a dense brush- and tree-filled swamp. We managed to fight our way through, though we could have used some help poling from Pogo. This led into a long canal with no current. Uvas Creek enters on the right at 2 miles with a good flow if its reservoir is filled. The US 101 bridges come at 3.2 miles.

A series of piers and an irrigation pump arrangement near the mouth of the San Benito River caused a small rapid. The San Benito drains a long, dry valley south of Hollister and east of the Salinas Valley. Even after a wet winter, there was no flow from the San Benito into the Pajaro. In fact, the confluence (at 5 miles) is so overgrown with brush that it is nearly impossible to find. Its drainage area is 650 square miles – the same size as the Middle Fork of the Eel at Dos Rios. What a difference dry country makes.

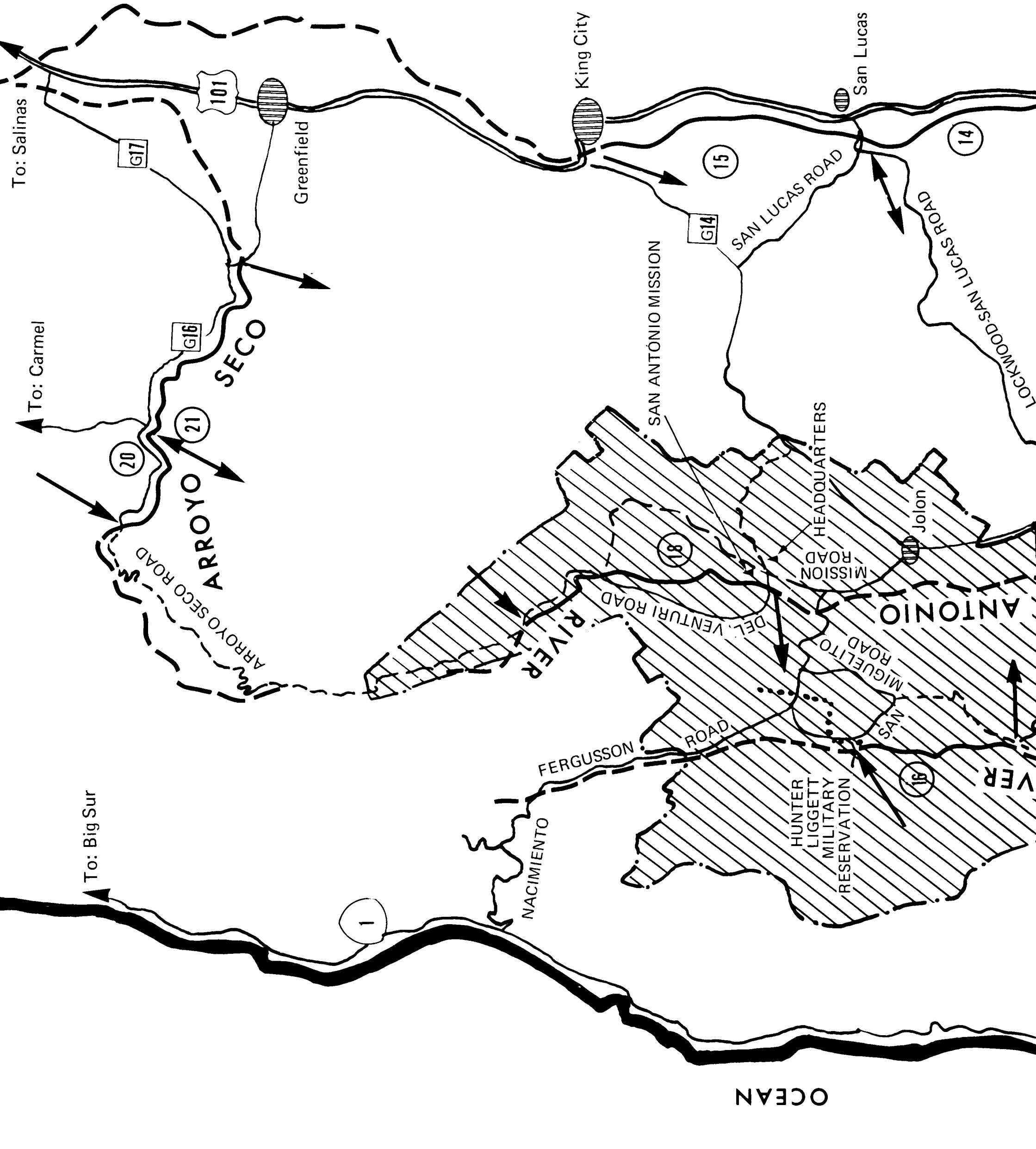
After a couple of brush and plastic portages, we reached the Route 129 bridge at 7.4 miles where there is a gaging station. Canoes could negotiate the river below here. There is a considerable amount of brush between the highway and the railroad bridges at 9.1 miles. At this point, the river comes alongside the San Andreas Fault rift zone and then crosses it. A large quarry and a gravel plant are located on the left as you pass by the end of the Santa Cruz Mountains at Pajaro Gap. The low-water bridge at the quarry (10.3 miles) must be portaged. There is a bridge at 11.1 miles, and we took out at 14.6 miles at Murphy Road. Its junction with Route 129 is one-half mile west of the edge of the foothills.

Carmel River

The Carmel River drains an area of respectable size between the northern part of the Big Sur coastal region and the Salinas Valley. Most of the drainage is upstream of two small reservoirs, Los Padres and San Clemente. These reservoirs have a combined capacity that is 10% of the total *average* runoff. In dry years, the lower Carmel is seldom runnable, but in wet years there are a reasonable number of boating days after the reservoirs fill up. This river has become very popular for river touring among residents of the Monterey Peninsula.

Since it is particularly difficult to predict flows for this river, the author has made arrangements with the Carmel River Inn to tell boaters whether there is water in the river and whether the flow is high, medium, or low. The Inn is located at the final take-out at the Route 1 bridge. The phone is 408/624-1575, and the address is Route 1, Box 20, Carmel, CA 93921. If you write, ask for a very simple reply and enclose a stamped, self-addressed postcard. You should, of course, try to patronize this motel (which also has cottages).

In wet, late springs, when the trees along the banks have leafed out, the two river runs described below are quite attractive.



To: Salinas
101
Greenfield
King City
San Lucas
G17
G16
G14
15
14
SAN LUCAS ROAD
LOCKWOOD-SAN LUCAS ROAD
To: Carmel
20
21
ARROYO
SECO
ARROYO SECO ROAD
SAN ANTONIO MISSION
HEADQUARTERS
Jolon
MISSION ROAD
18
DEL VENTURI ROAD
RIVER
ANTONIO
MIGUELITO ROAD
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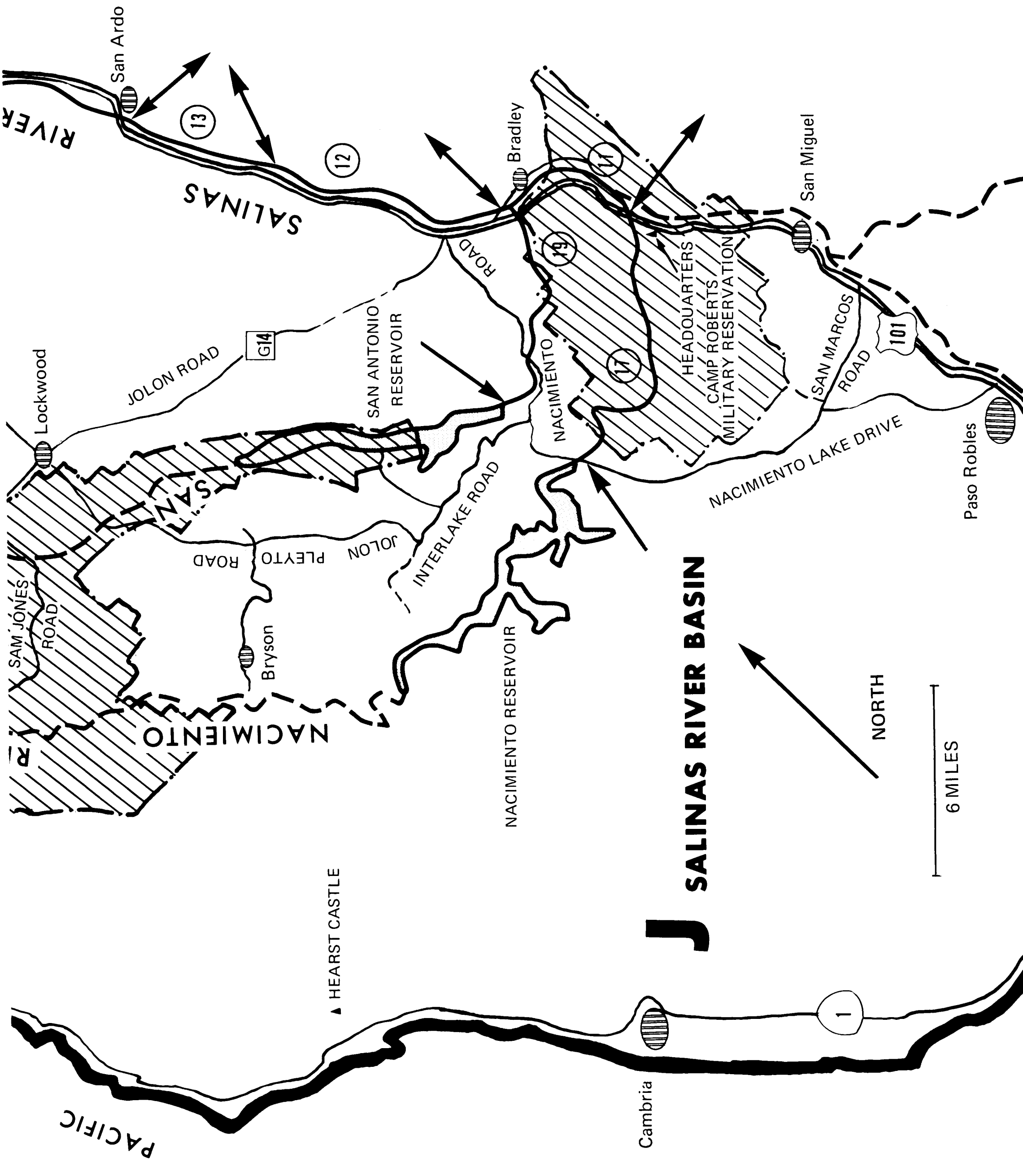
VER
HUNTER LIGGETT MILITARY RESERVATION
NACIMIENTO
To: Big Sur
1
OCEAN



J
SALINAS RIVER BASIN
NORTH
6 MILES
SALINAS RIVER
NACIMIENTO
SAN
PACIFIC
San Ardo
Bradley
San Miguel
Lockwood
Bryson
Paso Robles
Cambria
HEARST CASTLE
JOLON ROAD
G14
SAN ANTONIO RESERVOIR
NACIMIENTO RESERVOIR
NACIMIENTO ROAD
INTERLAKE ROAD
JOLON
PLEYTO ROAD
SAM JONES ROAD
NACIMIENTO LAKE DRIVE
SAN MARCOS ROAD
101
1
HEADQUARTERS
CAMP ROBERTS
MILITARY RESERVATION
11
12
13
17
19

7. CARMEL RIVER

7. Carmel Valley to Robinson Canyon Rd.
Class 2½ to Beronda Rd., then
Cl 1½ at optimum: 350 cfs
Same class for run 1/20/73 at 540 cfs
Maps: Jamesburg, Point Sur, Monterey
Average annual rainfall 24 in., runoff factor 0.38

6.3 miles, dam-controlled flow
Scenery: B, short shuttle
Drainage: 193 mi^2 at put-in
Canoes and Rafts: OK

From the east end of the shopping district in Carmel Valley, Esquiline Road leads to the river. Put in there. This is 4 miles below the last reservoir.

The river starts off as almost continuous fast water with moderately hazardous brush, which gives this run its Class 2½ rating. At the end of the first or second island (the river frequently splits on this first run), there is a narrow passage with rapids alongside a steep right bank with several houses on it. This stretch ends with a partial low dam that can cause problems for canoes if not taken in the correct place. The first bridge is at Beronda Road at 2 miles. This is an alternative put-in; the class of the river drops to 1½ below this point. Las Gazos Creek enters on the left shortly below here.

After passing under a couple of bridges, the river comes along the Carmel Valley Road at 3-1/3 miles. A large, Spanish-style house comes in view on the right at 5¼ miles. It is another mile to a new concrete bridge which is the take-out. This bridge is only a few hundred feet from the junction of Robinson Canyon Road and Carmel Valley Road, 6 miles east of Route 1.

8. CARMEL RIVER (continued)

8. Robinson Canyon Rd. to Route 1
Class 1 at optimum: 400 cfs
Same class for run 1/20/73 at 850 cfs
Map: Monterey
Average annual rainfall 24 in., runoff factor 0.38

7.1 miles, dam-controlled flow
Scenery: B, short shuttle
Drainage: 246 mi^2 at take-out
Canoes and Rafts: OK

Put in at the previous take-out. There are at least 10 bridges on this run. The Class 1 boater will find the brush along the river to be the biggest hazard.

At 1½ miles, the river makes a right turn at a cliff, and the first bridge is located very shortly downstream. A small, steep hill with short, mossy oaks comes in view directly ahead at 3.7 miles, and the river makes a left turn to avoid it. A long, old bridge is passed at 4.5 miles.

Take out on the right side under the Route 1 bridge. Since there is a severe traffic hazard along the sides of the road here, carry boats across the small field to the nearby shopping center for loading.

9. BIG SUR RIVER

9. Big Sur State Park to near Pacific Ocean
Class 2+ with P's at optimum: 250 cfs
Same class for run 2/14/70 at 175 cfs
Map: Point Sur
Average annual rainfall 51 in., runoff factor 2.0

6.1 miles, rainy season run
Scenery: A, short shuttle
Drainage: 46 mi^2
Canoes and Rafts: OK

The crest of the Santa Lucia Range, which divides the Big Sur coastal streams from the Carmel and Salinas River drainages, is generally less than 10 miles from the coast. The largest stream flowing west is the Big Sur River, with a drainage area of only 46 square miles at the put-in. It is a delightful "river" worth exploring, particularly since it runs clear if the water is not too high.

This run originates in Big Sur State Park, 26 miles south of Carmel. Enter the park, stay left and put in at the bridge 1 mile from the entrance. The stream gage at the put-in read 4.0 feet on our run (but the calibration could change). There is a nice chute in one-fourth mile and moderate brush and some logs to deal with.

The river passes under the Route 1 bridge at 1.1 miles. There are several nice rapids and one small dam in the next couple of miles. There were several tree portages in the following mile, but these will change. We took out at 4.2 miles, but since our run, the state park has acquired the property where the river leaves the road to flow to the ocean. This is 5.0 miles by river from the Route 1 bridge, and 4½ by road. This access is at a locked gate just shortly north of a driveway which angles down to a flat alongside the river (where the river first comes into view). The locked gate is the start of a hiking trail to the coast. A fairly long carry – 200 yards to the highway – is involved if this access is used.

Because of the long carry at the final take-out and the tree portages, consider making about a 3-mile run and taking out to the highway near the community of Big Sur. Ambitious boaters can repeat the run several times in a day.

10. SALINAS RIVER

10. Santa Margarita to Atascadero
Class 1 with approx. 5 P's at optimum:
1000 cfs at take-out
Class 2 with many P's for run 1/17/70 at 200 cfs
Map: San Luis Obispo (note: no map in book)
Average annual rainfall 22 in., runoff factor 0.16

9½ miles, dam-controlled flow
Scenery: C, medium shuttle
Drainage: 114 mi^2 near put-in
Canoes and Rafts: OK

Northern California rivers were near flood stage from a heavy, warm rain when the author decided it was time to try the upper Salinas. Hopes for a good run were dashed upon sight of the river at the Las Pilitas Road bridge 2 miles below the Santa Margarita Dam. The river was dry! Retreating to the Route 58 bridge 7½ miles downstream, the too-hasty decision was made that there was enough water. The author's wife drove off to visit relatives in San Luis Obispo (where we had been told it had rained every day in the past 10, but obviously, not very hard) before he started off. (This put-in is 4½ miles east of Santa Margarita, which is 10 miles north of San Luis Obispo.)

In 50 feet, the author knew that he had made a serious mistake. The muddy water was much shallower than had been expected; the flow was only about 25 cfs. But, side streams will come in, he thought, and all will soon be fine. Instead, he dragged his grounded boat to deeper water about 5 times in every mile. He did not make one stroke with his paddle all day without hitting sand or rock. He had not made such a shallow water mistake since years before on the Navarro when a group of 4 tried to negotiate it much too late in the season in an old "cardboard" canoe.

For the first 1½ miles, old auto bodies and debris did little to worsen the scenery of this destroyed river bed. The first fence was located about one-fourth mile from the bridge. In a half-mile or so, the author nearly bumped into two beavers, the first he had seen in California. They were as surprised as he, and when one thwacked his tail against the water, the author nearly jumped over the next sand bar.

Next, alongside a quarry, there were several narrow, rocky drops that might be one long rapid at higher water. A short, flat section was followed by a short, steep rapid in a sharp left turn – the final rapid in this run (and probably in the rest of the river). Three miles of pretty hill country come next, wooded with pine, oak, and some sycamores along the river bank. A half-mile below where the farm country begins, the author portaged the last barbed wire fence. Shortly below, Santa Margarita Creek enters. It quadrupled the flow but added very little depth, as the stream simply widened. Occasionally, one of the stream banks has been bulldozed back into place in this river of shifting sands. The last 4½ miles has poor scenery and poor boating at any water level. At the low level the author had, there generally was a channel meandering down the stream that was deep enough for his boat, but it seemed impossible to sense or see where it went. A resident next to the take-out bridge commented that the river had flooded a year before, with 13 feet of water flowing over the Santa Margarita dam and water nearly up to this bridge.

Take out at the Route 41 bridge just east of Atascadero.

11. SALINAS RIVER (continued)

11. Camp Roberts to Bradley
Class 1 at optimum: 1500 cfs
Same class for run 6/24/73 at 350 cfs
Map: Bradley
Average annual rainfall 22 in., runoff factor 0.16

5.9 miles, dam-controlled flow
Scenery: B, short shuttle
Drainage: 2200 mi^2
Canoes and Rafts: OK

The put-in for this run is just off US 101, inside the main gate of Camp Roberts, and is into the Nacimiento River rather than the Salinas. See the description of this take-out and the regulations of this military post in the last run on the Nacimiento River. Because of this put-in, the run can only be made when the Nacimiento is flowing. Even with that stream at maximum normal summer flow, the first part of the Salinas River will be very shallow and a moderate amount of grounding can be expected even in a boat of shallowest draft. The Nacimiento joins the Salinas River a mile below the put-in. Above the confluence, the Salinas River is dry in the summertime. The water in the Salinas picks up more sediment and is very murky. Take out on the right side at the bridge at Bradley.

12. SALINAS RIVER (continued)

12. Bradley to San Ardo Oil Field
Class 1 with 2 P's at optimum: 1500 cfs
Same class for run 8/2/70 at 650 cfs
Map: Bradley
Average annual rainfall 22 in., runoff factor 0.16

7½ miles, dam-controlled flow (see Fig. 8-k)
Scenery: B, short shuttle
Drainage: 2535 mi^2 at put-in
Canoes: OK; Rafts: no

This run has better scenery than one might expect for the Salinas in this area. There were 2 fences. At the San Ardo Oil Field, there is a low-level bridge consisting of large culvert pipe covered with fill. After a careful inspection, we ran the pipe with the best looking stream. It was not wide enough to allow paddle strokes, which added to the excitement. The white water at the outlet provides good practice jets for white-water boaters. The bridge is reached by taking the frontage road exit off the old US 101 at post mile marker 15½.

13. SALINAS RIVER (continued)

13. San Ardo Oil Field to San Ardo
Class 1 at optimum: 1500 cfs
Same class for run 8/2/70 at 650 cfs
Maps: Bradley, San Ardo
Average annual rainfall 22 in., runoff factor 0.16

6 miles, dam-controlled flow (see Fig. 8-k)
Scenery: C, short shuttle
Drainage: 2535 mi^2
Canoes: OK; Rafts: no, too windy

Put in at the previous take-out. This monotonous run with its damaged and turned-over banks along the oil fields was bad enough, but the very strong upstream wind made the run miserable. We took out at the south end of the old US 101 San Ardo bridge, carried our boats up to the road, and then found that there was no place to pull off the highway to load boats. Furthermore, walking this very narrow bridge looked much more marginal than a Class 5 rapid, considering the fast traffic. We carried back to the river, boated across and hauled our boats over the long, miserable flood plain to town. To take out at the south end of the bridge, obtain permission from the rancher on the east side of the highway to use his road to the river; otherwise, this access should only be considered an emergency take-out.

14. SALINAS RIVER (continued)

14. San Ardo to San Lucas
Class 1 with 3 fence P's at optimum: 1500 cfs
Same class for run 8/29/70 at 300 cfs
Map: San Ardo
Average annual rainfall 22 in., runoff factor 0.16

10½ miles, dam-controlled flow (see Fig. 8-k)
Scenery: C, short shuttle
Drainage: 2535 mi^2
Canoes: OK; Rafts: no, too windy

15. SALINAS RIVER (continued)

15. San Lucas to King City
Class 1 at optimum: 1500 cfs
Same class for run 8/29/70 at 250 cfs
Maps: San Ardo, King City

10.0 miles, dam-controlled flow (see Fig. 8-k)
Scenery: C, short shuttle
Drainage: approx. 2900 mi^2
Canoes: OK, but windy; Rafts: no

Nothing good can be said about these two flat-water runs, except for the occasional views of the hills and mountains that line the valley. Occasionally, the brush and small trees along one bank or the other had been killed by spraying and apparently were to be bulldozed out later for channel control. Near the put-in, we learned to detect the deeper, meandering channel and ran aground very little, but by King City we were grounding frequently enough to make it unfeasible to continue on downstream. The water release from the Nacimiento and San Antonio Reservoirs is largely based on having it all absorbed into the ground water or withdrawn for irrigation before reaching Salinas. Since King City is half way, the flow will be about half of the combined release. This condition probably occurs throughout the entire summer season. The last half of the trip was made against the strongest head wind the author has ever had to fight. In San Lucas, take out at the bridge, and in King City, at the bridge on the upstream side on the right. Signs posted here by the Health Department warn against swimming in the polluted water, but this problem may be fairly local since the King City sewer outfall is very close.

16. NACIMIENTO RIVER

16. Above Nacimiento Reservoir
Class 3 with hard P's at optimum 175 cfs at take-out
Same class for run 2/15/70 at 100 cfs
Maps: Cape San Martin, Bryson
Average annual rainfall 35 in., runoff factor 1.2

10¼ miles, rainy season run
Scenery: A+, medium shuttle
Drainage: 140 mi^2 at Bryson
Canoes and Rafts: no

We had scouted the put-in and the expected take-out for this run the previous fall. Mr. Weferling, whose property is located at the end of the road through Bryson, gave us permission for a small group to use his private road to the river for the take-out. We were delighted since this appeared to be the only place to take out before the reservoir, and once at the reservoir, we would have had to paddle the whole length of it to reach the next access point. We did not pay much attention to his warning, "But you won't be able to run it; the river is full of big rocks!" We had heard that many times before. My usual, trite reply sufficed, "But that's what we are looking for." The gradient was no more than 40 feet per mile anywhere on the run, and that had never stopped us. We might have to portage the narrow spot on the topographic map called the "Shut-In." At the time, we did not know about the access to the river at Sam Jones Road, so from the put-in described below, we expected to have a nice, 16-mile wilderness run on some warm, sunny, winter day.

To reach the put-in, take G14 from either King City or Bradley (on US 101) to Jolon. Go northwest on Mission Road for about 3 miles, then west on the Nacimiento-Fergusson Road for about 5 miles to the second junction of the San Miguelito Road. (This point can also be reached by taking the beautiful drive at the other end of the Nacimiento-Fergusson Road from Route 1 south of Lucia.) Two miles south of the junction, we used a dirt road to reach the river one-fourth mile after crossing Stony Creek. It is only a mile to the river, but Stony Creek must be forded, and this is very marginal even when the river is low (and that's not the only marginal thing about this run).

A better put-in – if you insist on trying this ridiculous run – would be from the Nacimiento-Fergusson Road 3 miles west of the San Miguelito Loop Road where the river makes its last departure from the road. Putting in here adds 4.5 miles of river run that is probably relatively easy (30-feet-per-mile gradient and no canyons).

For the first 1½ miles after our put-in, the river channel is wide (for the drainage area), and in low water, charging over sunken logs provided the main recreation. The stream then narrows for a fast, twisty section around large boulders. After a short reprieve, the main, boulder-choked canyon is entered. Frequent scouting is necessary. Short portages alternate with shorter runs that are around, in between, and under house-sized hard rock conglomerate boulders. Finally, a long, difficult portage must be made on the right bank around a section impossible to run. No amount of water would make this channel runnable, and a low water level makes more of the narrow slot maneuvering possible. The canyon ends with a short chasm cut through sandstone; these walls contain spectacular hydraulic sculpturing.

We stopped for lunch here, knowing that we had been beaten. We had covered only 2½ miles, but less than 3 hours of daylight were left with 13½ miles to go, including at least another canyon that could be expected to be worse, since it had a name, "The Shut-In." We ran on, through considerable brush in a pastoral setting for a couple of miles and took out on the left near a wooden fence and a washed-out bridge. From there, the author trotted back to the car at the put-in in one-third of the time we had spent on the river. From just north of the southeast corner of the San Miguelito Loop Road, there is a good dirt road going south for 4½ miles, at which point it joins Sam Jones Road (paved), which comes from G14, 3 miles southeast of Jolon. Our take-out was a mile above the junction of these roads on a dirt road offshoot, but the junction would be a more satisfactory take-out, and only add 1¼ miles on the river. The mileage listed for this run includes this and the 4½ miles above our put-in.

Of course, our trip was not over, since we still had to complete our shuttle and admit to Mr. Weferling that he was right. If you are a portaging buff, you will enjoy the scenery in this beautiful canyon. We found it a frustrating day and soon adopted Joe Kilner's nickname for the river, the "Nasty Pimiento."

This river run is on the Hunter Liggett Military Reservation. A permit is required for activities on the Reservation. It is free and can be obtained at the Headquarters, or on weekends at the nearby Wildlife Check Station. The hours for obtaining the permit are 6 a.m. to 6 p.m. Camping is only authorized in the immediate area of the check station, but there are National Forest campgrounds upstream of the put-in. Their address is: Commander, Hunter Liggett Military Reservation, Jolon, CA 93928.

17. NACIMIENTO RIVER (continued)

17. Below Nacimiento Reservoir
Class 1½ with approx. 3 P's at optimum: 450 cfs
Same class for run 6/24/73 at 390 cfs
Map: Bradley

10.4 miles, dam-controlled flow (see Fig. 8-k)
Scenery: B+, medium shuttle
Drainage: 322 mi^2
Canoes and Rafts: OK

All but the first couple of miles of this run are through the Camp Roberts Military Reservation. The put-in is at the base of the Nacimiento Dam, which is reached via G14 and Nacimiento Road from Bradley, or Adelaida Road and Nacimiento Lake Drive from Paso Robles (both on US 101). The author had a difficult time talking his way past the dam keeper, who lives in the house at the bottom of the dam (the driveway is marked "private.") The boater should have the right to put in here (see Chapter 7). It is probably best to write the Monterey County Flood and Water District, P.O. Box 930, Salinas, CA 93901 (phone 408/424-0866) concerning their policy for both this and run no. 19. Access quite far up the river can be gained through the Camp Roberts Military Reservation. This enjoyable summer run through pleasant scenery of willow, cottonwood, and sycamore river bottomland is mostly on slow-moving water. Two barbed-wire fences in the first couple of miles (the kayaker can probably manage to slide through them), two or three potential brush and snag traps, a couple of rocky rapids at small broken dam chutes, and a low-water bridge are the potential hazards to the boater. The first snag-blocked channel, if not cleaned out by man or flood, comes at 2 miles where a 25-foot-high diagonal line of exposed rock ledge comes to the river on the right side. The USGS gaging station is passed in another one-tenth mile, and the first bridge is at 2½ miles. There are a couple of potentially clogged-up sections of channel in the next two miles. One is at an island; the author chose the wrong channel and had to make his first portage, having wiggled through all the other obstructions.

At the end of 4 miles, the canyon opens up and there is a considerable amount of slack water. A two-foot-high brush dam – probably constructed by beaver – and a small dam made of concrete slab debris both have fast, rocky chutes as exits. The low bridge at Bee Rock Road comes at 7.4 miles. It must be portaged.

The rest of the run is easier and has frequent signs of beaver habitation. Take out at the next bridge at 10.4 miles. It is an older bridge with an unusually large number of piers and is inside Camp Roberts, near the main gate. Obtain a pass at the gate and ask for instructions to the bridge. An alternative is to continue 5.9 miles down the Salinas River to Bradley (see run no. 11).

San Antonio River

The third mission in California was founded in 1771, only two years after the first mission was founded in San Diego. Father Junipero Serra named it and the river, which is only one-half mile away, "San Antonio." This isolated but fertile valley was stumbled upon by Portolá on his first California exploration, which is described in the introduction to this chapter. By 1805, 1,300 Indians were associated with this mission, and one was granted the 43,000-acre Rancho Milpitas around the mission in 1838. Eventually, this rancho was acquired by William Randolph Hearst, who built a large mansion on a hill overlooking the restored mission.

The upper parts of the San Antonio and Nacimiento Rivers are in the Hunter Liggett Military Reservation. A permit is required for hiking and other off-highway sports, such as river touring. See the instructions for obtaining the permit and directions to this region in run no. 16.

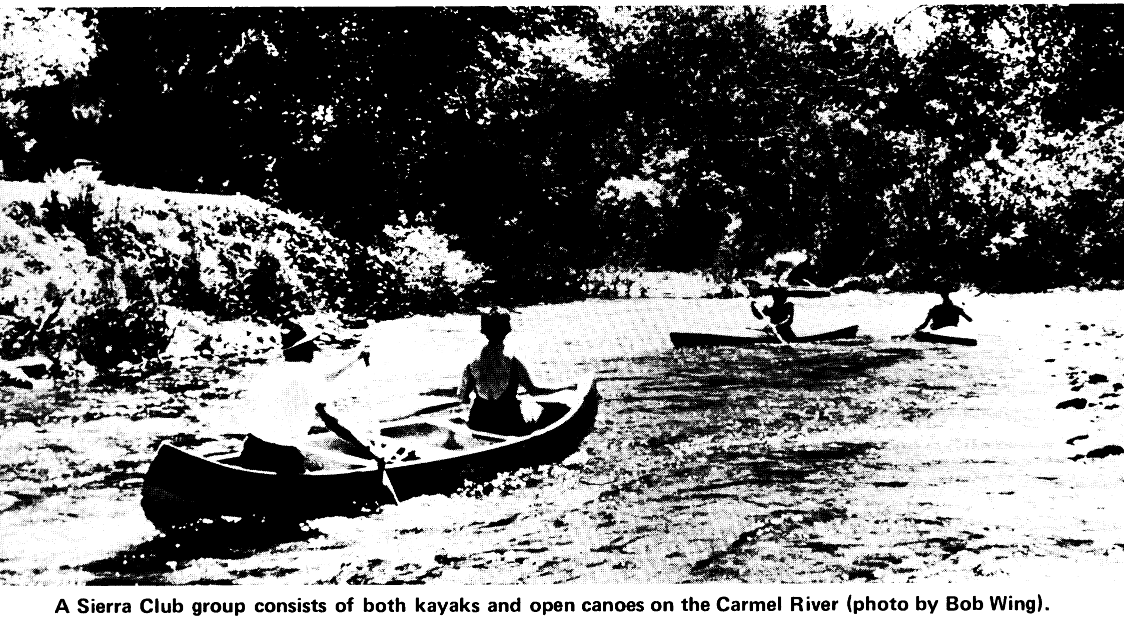
18. SAN ANTONIO RIVER

18. Above San Antonio Reservoir
Class 2½ at optimum: 450 cfs
Same class for run 2/19/73 at 350 cfs
Maps: Junipero Serra, King City
Average annual rainfall 38 in., runoff factor 1.2

10.7 miles, rainy season run
Scenery: A, short shuttle
Drainage: 70 mi^2 near put-in
Canoes and Rafts: no, too much brush

The mission and headquarters are located on Mission Road 2 miles north of the Nacimiento-Fergusson Road. A paved road across from the military headquarters leads to a ford at the river in one-fourth mile, which is the take-out. If you have adequate water for the run, this ford will probably be closed. The put-in is up this paved road, but can be reached by a back way via a dirt road of good quality. Proceed north on Mission Road past the headquarters and Mission. In 8 miles, the paved road is rejoined very near the river. This is just upstream of another ford on the paved road, which is an alternative put-in. Proceeding upstream, the river comes close to the road in 2 miles. In another one-fourth mile, turn off on a dirt lane along the river and proceed a few hundred feet to the put-in. We were stopped by an off-limits sign here; except for this sign, we would have proceeded another 1½ miles upstream to near the junction of the North Fork.

For our trip, the water was so clear that the bottom could be seen through several feet of water. Most streams are muddy after a storm, then clear with decreasing flow after several days, but do so at a much lower flow for the drainage area than here on the San Antonio.



A Sierra Club group consists of both kayaks and open canoes on the Carmel River (photo by Bob Wing).

This run is very similar to the Arroyo Seco runs (numbers 20 and 21) but easier. There is much brush, and more than one channel to choose from at almost every rapid. Thus, this run is an adventure in path-finding, requiring precise boat control to maneuver through narrow channels in short, rocky rapids that are lined with brush. No rapid can be pointed out as being most difficult. The last 3 or 4 miles become noticeably easier.

The ford described above as an alternative put-in comes at 3.3 miles. The boater next passes concrete piers for a 3- or 4-foot-high summer dam at about 7½ miles. An abandoned, covered, concrete aqueduct leads away from this dam site along the left bank. The mission and headquarters come in view a half-mile or so before the take-out at the ford.

19. SAN ANTONIO RIVER (continued)

19. Below San Antonio Reservoir
Class 1 with fence P's at optimum: 450 cfs
Same class for run 8/2/70 at 550 cfs
Map: Bradley

8½ miles, dam-controlled stream (see Fig. 8-k)
Scenery: A, short shuttle
Drainage: 330 mi²
Canoes and Rafts: OK

Turn left off US 101, 1 mile north of Bradley, and follow the signs toward the south side of Lake San Antonio. In 5½ miles, you cross the river on a county road. This access is a good put-in except that there is little space for parking along the road. In another 2 miles, bear right and about one-half mile farther, just where the road bears left and starts climbing up to the dam, park and carry boats past a private drive along the overflow duct to the river. See run no. 19 concerning the legal problem here. It is a relatively long carry to the river – about 700 feet.

The river contains a great deal of willow brush, dense clumps of small growth that seem harmless. Since the dam is so new, this growth may be just starting, but in a few years may add substantial hazard to the run.

There are 6 fences crossing the river. The first occurs in the first half-mile at a low-water road where power lines cross, and the second is under the bridge at 2½ miles. There are no river banks along part of this section of river – the fields are tipped up at a small angle right from the river. At the next fence, there are a few cottonwoods on both sides of the river. The fourth fence is located right after a narrow left turn, and cliffs can be seen ahead.

Crossing this fence, you enter the largest ranch in the area. It extends along the river from this point to 3 miles below the Salinas. This property owner calls fences across the river "water gaps" and has trouble with boaters cutting the wires. To make a comfortable living from cattle ranching, he told me you should have 300 head. In this region you need 30 acres per head, so he would need 9,000 acres. With the completion of the Nacimiento and San Antonio Dams, land values have been rising as a "spill-over" of the reservoir recreational use. There is a minor amount of subdividing in the region. Taxes have been rising, and all the ranchers are selling out or will soon be forced to sell. This story is typical of rural California; it is no wonder that many farmers and ranchers are up-tight about our running "their" creeks and rivers.

The next fence comes just at the end of a long island. The stream then passes through a delightful cottonwood grove containing the signs of beaver cuttings. Under the US 101 bridge, at the end of the grove, is the sixth fence, and just below it, the only fast water of the run, a very short and easy rapid.

By the end of the run, the water has changed from clear to a light algae green. Take out on the right side at the bridge, one-half mile after the river enters the Salinas. This is just off US 101 at the Bradley exit.

Arroyo Seco

The Salinas River roughly parallels the coast of California, but 25 miles inland. Drainage in the mid- and southern sections extends westward to the first line of mountains only 3 to 6 miles from the coast. The east side of those mountains, by far the wettest part of the Salinas River basin, is drained by three major streams – the Nacimiento and San Antonio Rivers, which flow southeastward, and the Arroyo Seco which flows generally northeastward.

At the first put-in on the San Antonio River (run no. 18) one is close to the Arroyo Seco. It is 7 miles up the road to the headwaters of the San Antonio. A dirt road through spectacularly beautiful country extends about 18 miles north to Arroyo Center, the first put-in on the Arroyo Seco. Unfortunately, this road is not maintained during the winter and becomes littered with stones and small slides. The winter access to the Arroyo Seco is described below. In January 1968, a group of us "worked" our boats down the 3 miles of beautiful canyon above Arroyo Center in very low water. It seemed as though we portaged as much as we paddled. We concluded that it was not a practical run.

20. ARROYO SECO

20. Arroyo Center to Miller's Lodge
Class 3 at optimum: 300 cfs
For runs 1/70, 1/21/73, Cl 3½ at 500 cfs
Maps: Junipero Serra, Soledad
Average annual rainfall 40 in., runoff factor 1.3

5.0 miles, rainy season run
Scenery: A, short shuttle
Drainage: 113 mi^2 at put-in
Canoes and Rafts: no

From US 101 at Greenfield, go west 6 miles on G16 to the Arroyo Seco bridge. This is the take-out for the next run. Upstream 7 miles on the Arroyo Seco Road, there is a junction where G16 goes off to Carmel. Stay left, on the Arroyo Seco Road. Miller's Lodge, the take-out for this run, is just a short distance ahead. Another 4 miles farther, the road crosses the river and there is an NFS picnic area immediately on the right. Put in at the back end of this area.

You soon learn that the woods do not stop at the river's edge on the Arroyo Seco – that is, brush and trees abound in the stream. Precise maneuvering is therefore essential. The author has boated these two Arroyo Seco runs in both a white-water canoe and a kayak with success, but there is not enough room for rafts of any size, and an inflatable kayak would be ripped to shreds (we heard of that happening near the put-in).

Chances of being trapped in the brush are greater on the Arroyo Seco than on any other stream in this guide, except Alameda Creek. Being trapped is almost always a very dangerous situation. Rescue must come fast. Group discipline is essential here to keep safety standards at their highest possible level. Like the upper San Antonio, but practically nowhere else, the water level can be high, yet the water will be clear. The first 1 or 1½ miles have the worst brush. You can take out very easily to nearby roads during the first two-thirds mile if the brush becomes intolerable. An exceptionally wide, shallow section of river comes just around the corner below the bridge. There are many possible routes to run, but both times we selected the wrong route and ended up lining boats back to the main stream. In a short distance the houses thin out and there is a blind right turn into a long rapid that deserves scouting. There are a reasonable number of rapids in this run; some look like tree slaloms.

The very friendly Mr. George Mendenhall runs Miller's Lodge. He lives in the main house on the left. Ask permission for access, since this is private property. Take out on the left just above a small dam.

21. ARROYO SECO (continued)

21. Miller's Lodge to G16 bridge
Class 3 at optimum: 400 cfs
For runs 1/70, 1/21/73, Cl 3½ at 700 cfs
Map: Soledad
Average annual rainfall 34 in., runoff factor 0.7

9.5 miles, rainy season run
Scenery: A, short shuttle
Drainage: 244 mi^2 at take-out
Canoes and Rafts: no

Put in above the little dam at Miller's Lodge (see previous run), paddle to the opposite side and portage the dam; boat the right channel. On this run, the brush is worst in the last mile. However, 2 to 3 miles downstream there are several "strainers," where the river flows through a line of trees that stretch from one side of the river to the other and create a new channel. On our first trip, tense moments developed when one young boater became trapped sideways between two trees and panicked. He soon broke loose and swam out, while we rescued his collapsed boat.

The middle section of the run is the easiest; then very brushy rapids occur in the last mile, right up to the bridge. We have twice combined both runs, which makes a long day. The first time we did this we finished well after dark, having to carry and line our boats the last half-mile.

TRIP DATA

date	river	chap-ter	run no.	estimated flow*	cfs from USGS	your class rating	boating time	notes

*Either estimated cfs or high-optimum-low-type scale is suggested.

Please send run information to the author: Dick Schwind, Rt. 2, Box 324, La Honda, CA 94020, about access, run description, ratings, or just runs made and general comments. Include run dates. They will be used to determine the flow, so if only approximate, please indicate. Note what type of boat used and other runs made to help evaluate your comments. Indicate your estimate of your boating class (see Chapter 5). You will be notified of any updating of descriptions.

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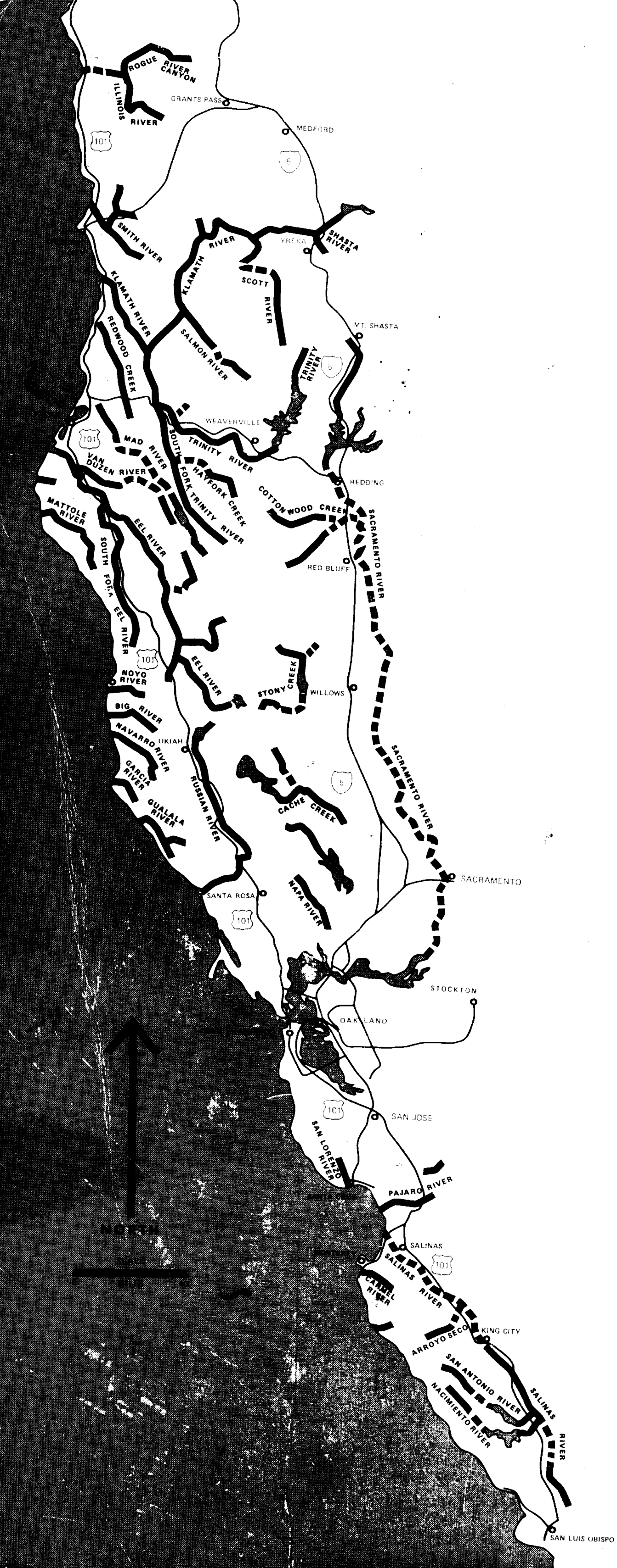

The author, a research engineer in aerodynamics and fluid flows, started white-water boating in a canoe on the streams of New England twenty-one years ago. He has been touring West Coast rivers since 1965 mainly by kayak, but also by open canoe, white-water canoe, raft and dory. He has personally boated all but eight of the one hundred seventy runs described herein.