

Recreational Use and Carrying Capacity for the Klamath River, Part II: Fall Season, September 15 – December 15

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River(s): Scott, Salmon, and Klamath Rivers
Research Topic(s): Use estimation methods, User characteristics, Recreation experience, Encounter norms
Type of Publication: Report

1. Study Purpose

To document recreational use levels and estimate carrying capacities for the Klamath River fall fishing season.

2. Findings

2.1. Amount of use

- Total estimated use for the season is 21,632 people (9,867 on the upper section, 11,765 on the lower section)
- Peak use occurred from October 11-25th
- Fishermen reported observing an average 18 bank fishermen and five boating parties per day.

2.1.1. Upper section (from I-5 to Happy Camp, including Scott River)

- Wednesdays were the most used day (average 130 users), while Mondays received the least use (average 30 users)
- Scott River alone had a similar pattern

2.1.2. Lower section (below Happy Camp, including Salmon River)

- Sundays were the heaviest use day (average 167 users), while Fridays received the least amount of use (average 72 people)
- Weekend use was greater than weekday use overall
- Saturday was the heaviest use day on the Salmon River (average 30 users; note: most sampling on the Salmon was done on weekends)

2.2. Types of use

- Fishing accounted for 90% of river use, most of which was for steelhead

- Most of the summer time activities also occurred during the fall, but to a lesser degree and with some differences
- Bank fishing – accounted for 72% of use; typically early morning and late afternoon occurrence
- Boat fishing – accounted for 18% of use; mostly driftboats, but occasionally small motorboats, jet boats, and rafts
 - | Usually put-in 8-10:00am and take-out 4-6:00pm and decreasing hours as daylight lessened during the season
 - | Most driftboating was commercial
- River running – mostly private, typically on the river six hours a day
- Gold mining – very limited use due to weather/water level fluctuations
- Swimming, dispersed camping, picnicking, and sightseeing are also noted

2.3. Spatial distribution of use

- River segments that received the most use are: Presido Bar to Green Riffle, Ishi Pishi Bridge to Orleans, Indian Creek to Ferry Point, and I-5 to Tree of Heaven
- Presido Bar to Green Riffle was the most heavily used section in the study area with more than two times the amount of users than most sections
 - | Ti Bar Flat was the most heavily used site in this section and along the entire river – primarily dispersed camping and bank fishing
- The segment from Green Riffle to Ishi Pishi Bridge received the least amount of use of all of the segments

2.4. Carrying capacity

Capacities were assessed only for the most commonly used sites. During peak use periods, parking capacity at some sites was exceeded: mouth of the Shasta, Long Gulch, Historic Stop, and Ishi Pishi Bridge.

2.5. Type of Experience

Most users described the type of experience the area provided as “undeveloped recreation” (p. 124), while 28% said “semi-wilderness” (p. 124).

Some degree of crowding was expressed by more than two-thirds of fishermen.

3. Key Discussion Points

- Day of the week seemed to be less of a factor in determining use levels than weather or fishing quality.
- Although total use was slightly lower in the fall than the summer, users felt more crowded during the fall; this is likely due to the use being concentrated in certain locations.

- Bank fishermen felt boater encounters were less tolerable than other bank fishermen encounters; i.e., the type of use encountered was more of a factor than the overall number of encounters.
- Encounters with boaters “appear to be approaching the maximum tolerable” (p. 80)
- Fishing on the Klamath appeared to be more of a social trip than a time for solitude.
- On average, no sites were close to exceeding their physical capacity, however during peak use times several sites did approach capacity.
- Sanitation was noted as a major problem; bank fishermen were not very conscious of cleaning up their litter resulting in an “extensive amount of litter” (p. 127) along the river banks.
- Human waste was not much of an issue due to most fishermen locating themselves within easy walking distance to their RV, or camping at sites with toilet facilities.
- “If an optimum space were available for each user, the physical capacity of the river banks to support fishermen would be the primary limiting factor for seven out of ten sites examined” (p. 80).

4. Management Recommendations

N/A

5. Research Design

Survey research and purposive sampling for questionnaires; systematic sample, stratified by river segment and weekday/weekend (with emphasis on weekends) for user counts.

5.1. Study Area

The Wild & Scenic River segments of the Scott, Salmon, and Klamath Rivers – 106 miles of Klamath River (from Interstate Highway 5 to Orleans), 23.5 miles of Scott River from the Klamath River confluence, and 58 miles of the Salmon River from the Klamath River confluence.

5.2. Data Collection Instruments

On-site user counts by personal observation, “Code-A-Site” inventory forms for gathering site information, and on-site questionnaire to assess user preferences.

5.3. Study Population

All river users in the study area from September 15 to December 15, 1981.

5.4. Sample Size

50 days sampled, 50 individuals surveyed for the questionnaire (117 sampled, 43% response rate).

5.5. List of Variables and Operational Definitions

5.5.1. User Characteristics

Location, number of people and groups, activity type, number and types of boats, and types of use (private, commercial, non-profit).

5.5.2. Dispersed Site Information

Commonly used dispersed recreation sites on the river were identified and recorded by site name, location, ownership, and site type (campsite, access, or attraction site).

5.5.3. Carrying Capacity

Physical, social, ecological, and facility parameters were used to assess capacity for the river.

- Physical – actual physical capabilities of the site (e.g., number of fisherman the site can accommodate given casting distances and preferred spacing between individuals)
- Social – factors that affect the recreation experience (e.g., number of encounters with other parties)
- Ecological – capability of the site to withstand impacts from use (e.g., hardened surfaces, vegetation susceptibility to traffic)
- Facility – types of facilities available (e.g., parking spaces, boat launching capacity at launch sites)

5.5.4. User Experience

Questions asked about preferences for acceptable number of encounters and type of river experience the Klamath currently provided (response choices ranged from “wilderness” to “social recreation” experience).

6. Theories Used in Study

N/A

7. Concerns/Limitations

- The Scott and Salmon Rivers were closed to salmon fishing until November 16th due to spawning season, but were open to trout fishing.
- The social carrying capacity results from the questionnaires are based on a pilot study of 50 individuals, mostly along the Klamath River (very few using the Scott or Salmon), and was not designed to represent all river users.