

Recreational Use and Carrying Capacity for the Klamath River, Part I: Summer Season, June 15 - September 15

Shelby, B. & Stein, K. (1984). *Recreational use and carrying capacity for the Klamath River, Part I: Summer Season, June 15 - September 15*. Corvallis, OR: Water Resources Research Institute, Oregon State University.

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

1. Study Purpose

To document recreational use levels and estimate carrying capacities for the Klamath River summer boating season.

2. Findings

2.1. Amount of use

- Total estimated use for the season is 23,023 people (7,319 on the upper section, 15,704 on the lower section).
- 64% of use was floaters (46% multi-day, 12% long-day, 6% short-day)
- Of floaters, 56% were private, 41% commercial, and 3% non-profit; however group size differed between types – 5 for private, 13 for commercial
- Most common boat was an inflatable kayak, followed by raft, hard shell kayak, tubes, and driftboats

2.1.1. Upper section (above Happy Camp, approx. 75 miles)

- Sundays were the busiest day of the week representing about 20% of total use (avg. 113 people) for the week
- Mostly private floaters
- Fridays/Saturdays had similar use with about 17% of total each day and equal parts private and commercial use.
- Thursdays were lowest use day.

2.1.2. Lower section (below Happy Camp, approx. 51 miles)

- Greater use overall in this section, most in the segment from Happy Camp to Ferry Point
- Saturday was the heaviest use day with an average 262 people or 22% of total use

- Primarily commercial floaters
- Sunday was the next busiest, followed by Monday and Friday

2.2. Types of use

- Short-day floaters – generally private innterubers or inflatable kayakers, averaged four hours on the river primarily between I-5 and Happy Camp
- Long-day floaters – includes private, commercial and non-profit, averaged six hours on the river, mostly below Happy Camp
- Multi-day floaters – generally commercial and averaged three days per trip, mostly below Happy Camp
- Gold mining – generally two month dredging operations occurring five days a week
- Fishing – generally occurs early morning and early evening when most floaters are not on the river
- Swimming, dispersed camping, picnicking, berry picking, and sightseeing are also noted

2.3. Spatial distribution of use

- River segments that received the most use are: Happy Camp to Ferry Point, Tree of Heaven to Klamath River, Ferry Point to Coon Creek
- The segment from Green Riffle to Ishi Pishi Bridge received the least amount of use

2.4. Carrying capacity

Capacities were assessed only for the most commonly used sites. The following issues were found:

- “Inadequate sanitary facilities at Ferry Point and Curly Jack” (p. 52)
- “Occasional crowding (exceeded physical capacity) at the launch sites of Indian Creek, Curly Jack, Chambers Flat, and Coon Creek on exceptionally heavy use weekends” (p. 52)
- “Competition for popular camping spaces on these same weekends” (p. 52)
- “Competition for road-accessible camp sites by vehicle-supported trips, especially during the tribal ceremonies when some of these sites were closed” (p. 52)

3. Key Discussion Points

- Use on the upper section peaks Friday through Sunday, while the lower section peaks Friday through Monday.
- Most river use occurs on the lower section from Happy Camp to Presidio Bar.
- Although conflicts were not a problem overall, there were a few areas that did have use conflicts due to the concentration of use at these areas.

- As resources become scarce, the potential for conflicts increases.
- “Assuming on camping party per beach norm, physical carrying capacities of popular camping beaches within a particular river section may become a limiting factor” (p. 41)
- Limiting factors on capacity for the busiest section (Happy Camp to Ferry Point) are sanitary facilities and camping beaches.
- Encounters reported by river users appear to be approaching the maximum tolerable levels.
- Majority of floaters prefer having a private camp and would be willing to travel further or reserve a site.
- Floaters appear to be more conscientious of keeping a clean site than other users (e.g., swimmers or fishermen).

4. Management Recommendations

Capacities should be established for the more heavily used sections of river and could possibly include such parameters as limiting the number of trips launching or the number of permits issued on those river segments.

5. Research Design

Survey research and purposive sampling for questionnaires; systematic sample, stratified by 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), 3.5 miles of Scott River (from Scott Bar to the Klamath River confluence), and 8 miles of the Salmon River (from Butler Creek to 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 experience.

5.3. Study Population

All river users in the study area from July 3 to September 7, 1981.

5.4. Sample Size

37 days sampled, 24 parties surveyed for the questionnaire.

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. Trip Characteristics

Location, time, number of contacts for put-ins, lunch stops, attraction sites, camp spots, and take-outs.

5.5.4. 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 parking spaces)
- 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)
- Facility – types of facilities available to minimize impacts (e.g., toilets, trash disposal)

5.5.5. 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 social carrying capacity results from the questionnaires are based on a pilot study of 24 boating parties, which was not designed to represent all Klamath River users.