Angler use and attitudes on the Mack's Inn reach of the Henry's Fork of the Snake River

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River(s):	Snake River (Henry's Fork)
Research Topic(s):	Use estimation methods, User experience, User characteristics
Type of Publication:	Report

1. Study Purpose

"The objectives of this study are to: 1) estimate angler effort on the Mack's Inn reach, 2) assess angler attitudes towards their recreational experience and recreation management, and 3) compare angler attitudes with those of floaters on the same river reach." (p. 4).

2. Findings

Response rate not reported.

2.1. Angler Use (p. 6)

- 3,978 angler-hours on weekend/holiday days and 4,949 angler-hours on weekdays, for a total of 8,927 angler-hours
- Approximately 46% of anglers were observed fishing from boats
- Approximately 59% of anglers have fished the river 9 times or less and the majority started fishing the reach within the last 9 years
- The majority of anglers fished the reach less than 5 times in the past 12 months
- Anglers expect to fish the reach either about the same amount or more over the next five years

2.2. Angler Attitude

- Overall, anglers are satisfied with their visit to the reach
- 23% indicate the quality of the area is getting worse due to such factors as:

I smaller fish

ressure/more people/too many floaters and bait fishers/possibly more crowded

I low water

overfished

I runoff and trash from parking lots

I fishing not as good/fewer fish

I high silt content in river from bank erosion

- 49% felt there were about the right amount of people on the reach, while approximately 38% felt there were too many people
- The majority of people felt the reach is not being used beyond capacity, but about 30% indicate some places may be overused
- The majority of people believe no controls for use are currently needed

3. Key Discussion Points

3.1. Use

- Use estimates for 1998 (this study) are significantly lower than numbers previously reported and appears to be declining since initial estimates in 1973
- Angler use is substantially lower than floater use
- "It is possible that some anglers have quit fishing the Mack's Inn area because of a decline in their fishing experience. Because we were only able to interview anglers who still fish the Mack's Inn reach, the attitude survey results do not provide information on anglers who have quit fishing this area." (p. 12)
- "...most Mack's Inn reach anglers fish there often and spend a substantial amount of time fishing on a variety of different rivers." (p. 12) – This contrasts with floaters who spend fewer days on the reach and fewer days per year floating on rivers in general
- "Both anglers and floaters indicated they would visit the area at least as often in the future as they have during the past few years." (p. 13)

3.2. Attitudes

- Anglers indicated a high degree of satisfaction with their experience on the reach, but it was not as high as floaters
- "...there was no significant difference between angler and floater attitudes towards the quality of the area" (p. 14)
- "In general, anglers had a greater tendency to feel that they saw too many people on the river and that the river is being used beyond its capacity. More anglers than floaters favored controls to limit use on the river, but a higher percentage of anglers than floaters responded that they did not favor controls now or in the future (37 percent of respondents versus 23 percent)." (p. 14)
- "...anglers much more strongly favored utilizing education of users as a method of reducing the impacts of increased recreation" (p. 14)
- "...anglers tend to have stronger opinions than floaters and are a more dichotomous group." (p. 14) "This is not a surprising conclusion, given that the upper Henry's Fork has been a nationally-recognized angling destination for a century, while the flat-water

floating experience offered by the river above Mack's Inn is not likely to attract the more serious floaters one observes on popular whitewater rivers such as the Middle Fork of the Salmon." (p. 14)

- Many of the responses by anglers were on the extreme ends of the scale, often canceling each other out and resulting in a neutral response. "It is likely that there are two distinct groups of anglers utilizing the Mack's Inn reach, one that strongly favors recreational use controls, including angling gear restrictions and more restrictive angling regulations, and one that is strongly opposed to such controls." (p. 15) This suggests "that the potential for conflict between these two angler groups is greater than the potential for conflict between anglers and floaters." (p. 15)

4. Management Recommendations

- "Further surveys are needed to more carefully quantify and characterize these two [angler] groups and to determine management strategies that will minimize animosity and conflict among anglers." (p. 15)
- Implement an education program for river users to decrease use impacts. "A user education program could include material on minimum impact recreational practices, floater/angler encounter etiquette, watershed management, and natural history." (p. 16)
- Explore possibilities in changing fisheries management to increase the size of fish in the reach.
- "Develop a comprehensive recreation management plan for the Henry's Fork from Big Springs to Island Park Reservoir." (p. 16) "The planning effort should involve the Targhee National Forest, Idaho Department of Fish and Game, the Henry's Fork Watershed Council, and other entities such as the Henry's Fork Foundation, area businesses, and fishing clubs." (p. 16)

5. Research Design

Survey research

5.1. Study Area

Mack's Inn reach of the Henry's Fork of the Snake River

5.2. Data Collection Instruments

- 5.2.1.For Use Estimation:
 - Random sample, stratified by weekday, weekend, and holiday and by three-hour blocks between 8:00am – 8:00pm
 - At a randomly selected time during the first 1.5 hours of the sampling period, field personnel floated the Henry's Fork from the Big Springs boat launch to the Mack's Inn bridge counting all anglers observed

- 5.2.2.For Angler Attitude Assessment:
 - "Interviews were conducted on-site on a nonquantitative selection of days and times distributed throughout the summer" (p. 6)
 - A special visit was made to the North Fork Club (an organization concerned with recreation management of the reach) to conduct interviews of some of its members
 - An interview questionnaire was used that was similar to one used in previous surveys

5.3. Study Population

Anglers on the Mack's Inn reach between June 20th - September 7th 1998

5.4. Sample Size

102 anglers were interviewed

5.5. List of Variables and Operational Definitions

5.5.1.Angler Use

Number of times fished the reach, year first fished the reach, times fished in past 12 months, number of other rivers fished, times fished any river in past 12 months, days spent on rivers in past 12 months, group size, expectation of number of visits over next five years

5.5.2. Angler Attitude

- Satisfaction used seven-point scale from "Extremely satisfied" to "Extremely dissatisified" (p. 8)
- Quality of area used three-point scale "getting better", "about the same", or "getting worse" (p. 8); also asked an open-ended question regarding reasons the quality of the area is getting worse
- Crowding/Capacity used seven-point scale from "Saw way too few" to "Saw way too many" and "Did not matter"/ "Do not remember"; also asked if the reach is "being used beyond its capacity"(p. 9) "No, it didn't appear so", "Yes, but only in a few places", or "Yes, in most places" (p. 9)
- Controls for limiting use used a closed-ended question with choices: controls are needed now to lower use, to hold at current level, not now but in the future, or no controls now or in the future.

6. Theories Used in Study

N/A

7. Cautions or Limitations

It is unclear what a "nonquantitative selection of days and times distributed throughout the summer" (p. 6) means. Additionally, the inclusion of anglers from the North Fork Club may have introduced bias into the sample if those interviewed have low variability

among the group. Therefore, the sample of anglers for interviews may not be representative of the population.