

A comparison of 5 western US *Wild and Scenic River* users: Trip characteristics, opinions and satisfaction levels

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Background

Managing for high quality recreation experiences typically involves the use of traditional social carrying capacity variables; crowding, conflict, satisfaction, expectations and trip experience Shelby, (Graefe, Kuss & Vaske, 1990; Manning, 2011; Shelby & Heberlein, 1986). Rivers, similar to federally designated Wilderness areas, or other specially designated recreation areas demand tailored management (Whittaker & Shelby, 2007).

The purpose of this study was to examine river use on selected rivers in the western US. This river use study was part of a larger study conducted on selected US Forest Service (USFS) land and water-based recreation sites in Region 5 (Pacific Southwest Region) and Region 6 (Pacific Northwest Region). We examined data collected on five western US rivers with the intent of examining differences across the settings and to determine satisfaction in these settings.

Data were collected over a period of three years (2009-2011) in the US states of Washington, Oregon and California. The rivers settings included the Grand Ronde River, Oregon (n=166), Klamath River, California (n=135), Skagit River Washington (n=567), White Salmon River (n=1056), Washington, and the North Umpqua River Oregon (n=653). All five of the rivers are designated as “Wild and Scenic” rivers. The settings range from a more developed recreation setting (White Salmon River) to a river that is much more closely related to a “semi-wilderness” setting. No sections of rivers included in this study were located within federally designated Wilderness areas, although the North Umpqua River borders a Wilderness area. On-site interviews were conducted with a total of 2,577 river users from May through August over a three year period (2009-2011). The survey days were stratified across weekday and weekend periods, as well as morning, mid-day and evening timeframes.

Results

A great deal of variation was seen in socio-demographics and trip characteristics across these five rivers. Though still significantly different, fewer differences were noted across the satisfaction and trip experience variables. The proportion of first time visitors ranged from a high of 24.1% on the White Salmon River to a low of 59.3% on the White Salmon River ($P=147.699^{***}$). River users on three of the five rivers reported being first time visitors between 33.6% (Skagit River), and two rivers were similar, with 40.7% first time use on the Klamath River and 41.8% on the North Umpqua River. A similar range of responses ($P=335.505^{***}$) was noted when inquiring about the trip type (day use or overnight), with nearly all (93.9%) of Grand Ronde River respondents on overnight trips and 60.0% of North Ump-

qua River users on overnight trips. On the opposite end of the spectrum, just 27.1% of Skagit River respondents on overnight trips, while about a third (34.5% of White Salmon River users were on overnight trips. The number of days recreating on the river on which the respondents were interviewed was significantly different as well. Skagit River visitors reported the highest number of visits (mean=16.1) days per year, followed by N. Umpqua River visitors (mean=13.0) and White Salmon River respondents (mean=10.1). Klamath River (mean=6.2) and Grand Ronde River (mean=7.4) visitors reported the lowest number of days recreating on their respective rivers ($F=6.043^{***}$). Day users stayed an average of 4.2 hours, with significant differences noted. North Umpqua River visitors reported the longest duration of stay (mean=6.0 hours), followed by Skagit River visitors (mean=5.2). Klamath River visitors (mean=2.7) reported the shortest duration visits, followed by Grand Ronde (mean=4.4) and White Salmon River respondents (mean=4.7; $F=39.226^{***}$). Quality and satisfaction ratings were all significant at the .000 level, as described below. Klamath River respondents reported the lowest quality ratings for four of the five quality items, while the Grand Ronde visitors rated the same items highest for four of the five items. Overall satisfaction can be considered very good to excellent for all rivers (mean=5.07 on a 6-pt. scale). North Umpqua River respondents reporting the lowest overall trip experience ratings (mean=4.26) and White Salmon River respondents reported the highest trip experience ratings (mean=5.56). The primary reason for visiting was understood by asking respondents their most important reason for visiting. Again, numerous significant differences were noted across the various rivers. The results showed that participating in the chosen recreation activity was more important than simply enjoying the place itself, although variation was noted across the rivers. Over half of White Salmon River respondents (56.3%) indicated that the activity was most important, while nearly half (48.7%) of both North Umpqua River and Skagit River users were activity-centric. Conversely, just 29.8% of Klamath River and 36.4% of Grand Ronde River users reported the activity as their primary reason. On none of the rivers was place the most important reason for more than one-third of the respondents. River respondents were also less likely to indicate that their primary reason for recreating was for social reasons (35% or less from all river users). When queried about whether there was an adequate balance between social and biological values regarding management of the rivers, the Klamath River (62% agree/strongly agree) was rated much lower than the other four rivers (Grand Ronde=78.2%, White Salmon River=75.4%, Skagit River=74.2%, and N. Umpqua River=71.1%). Finally, we wanted to understand if the ‘setting experience resource

managers are providing is that sought by visitors on a continuum of wilderness to social recreation. Recreationists on the Grand Ronde River felt that river should be managed more closely to wilderness/semi-wilderness (62.4%) than the other four rivers. Still, about half of the respondents on the other four rivers indicated their preference that the rivers be managed more closely to wilderness/semi-wilderness than for scenic or social recreation.

Discussion

Significant differences were noted in the socio-demographic and trip characteristics across the five rivers. White Salmon River users were more likely to be first time visitors and Klamath River visitors reported lower satisfaction levels, and Grand Ronde River users were most likely to be overnight users. Potential reasons for these differences are discussed and contrasted with Wilderness and front-country settings.

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