

Assessing resource conditions and visitor preferences of backcountry campsites in Western Prince William Sound

Paul Twardock¹, Christopher Monz², Maryann Smith³

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Prince William Sound, Alaska (PWS) is an important region for tourism and outdoor recreation. The wild nature and wilderness character of PWS are a primary attraction for visitors seeking multi-day, undeveloped camping experiences. The USDA Chugach National Forest manages most of the uplands of PWS, including the 800,000 HA Nellie Juan Wilderness Study Area. In addition to the National Forest, there are State Marine Parks, Alaska Native village and regional corporation lands, municipal lands, private lands and state university lands adjacent to PWS.

Although current use data are lacking, past use trend analysis and anecdotal information suggest that PWS has remained in high demand for backcountry camping experiences over the last two decades. For example, Twardock & Monz (2000) reported a near doubling of total kayak visitor use days during an eleven-year period from 1987-1998. More recently, USDA Forest Service outfitter/guide user data has shown a consistent increase since 2004 (C. Headon, Girdwood, AK USA, 2009, personal communication). Moreover, construction of road access (c. 2000) to the port town of Whittier has increased tourism traffic, with available data indicating that between 2000 and 2007 vehicle use increased an average of 4% per year from 176,106 vehicles to 248,188 (AKDOT 2009).

Since 1995 the authors and their colleagues have conducted an interdisciplinary investigation of biophysical conditions and visitor preferences on visitor created, backcountry campsites in western PWS. The biophysical component of this research used campsite assessment protocols suggested by Cole (1989) and Marion (1991) with minor modifications to adapt the methodologies to coastal Alaskan environments. Assessments were performed during the summer growing season (June-August). Measurement of vegetation cover and soil exposure followed the ocular measurement approach suggested by Marion (1991) and for each campsite an undisturbed adjacent area was selected as a control for vegetation loss calculations. For measurement of the campsite areas we employed the variable radial transect method (Marion 1995). Condition class measurements were obtained by ocular estimation on a standard condition class scale (e.g., 1 through to 5 numerical ratings from minimal to severe impact) as suggested by Marion (1991).

Analysis of the biophysical data indicates that impacts such as multiple trailing, tree and shrub damage and large sites are prevalent in the study area. The intensity and extent of impact tends to vary by environment type, with campsites on soil substrates in upland forests exhibiting less vegetation cover loss, mineral soil exposure and total area of impact than campsites found on cobble substrates with beach grass vegetation. Comparative analyses of resource conditions over time suggest increases in areal extent of impact, including the development of new sites, but decreases in impact intensity. These findings suggest that over the long term in PWS, the at-large camping strategy may not be effective at containing site spread and proliferation; the impacts often considered the most important to limit. The study results, field observations over the

¹ Outdoor Studies Department, Alaska Pacific University, 4101 University Drive , Anchorage AK 99508, USA, pault@alaskapacific.edu

² Department of Environment and Society, Utah State University, Logan, UT 84322, chris.monz@usu

³ Environmental Science Department, Alaska Pacific University, 4101 University Drive , Anchorage AK 99508, msmith200@alaskapacific.edu

duration of the study, and established recreation use-impact theory suggest that confining camping activities to already impacted cobble substrates devoid of vegetation will result in the least additional disturbance. These results have region-wide implications for the management of coastal recreation in Alaska and throughout the northwestern North America, given the similarity of environments and management strategies.

The second component of the study explored visitors' perceptions and preferences of campsite conditions. The USDA Forest Service has begun campsite hardening at highly impacted sites in order to mitigate campsite spread and proliferation. Visitors were interviewed on-site at both hardened and natural campsites. Symbolic and functional aspects of campsites were explored. Most visitors' appreciated the functionality of hardened campsites (82%), but some evidence of a perceived cost to the symbolic nature of wilderness character was apparent. About half of those camped at hardened campsites expressed an appreciation that hardened campsites were not present in more remote areas of PWS. Evidence of coping mechanisms emerged. Displacement, product shift or rationalization was evident in 55% of interviews. Public support for campsite hardening was driven by the enhanced functionality of the campsite and an understanding that campsite hardening is intended to mitigate negative impacts. These findings highlight the importance of using visitor perspectives as a component of the decision process in campsite hardening and management efforts.

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