

Wilderness Managers, Wilderness Scientists, and Universities

A Partnership to Protect Wilderness Experiences in the Boundary Waters Canoe Area Wilderness

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The Boundary Waters Canoe Area Wilderness (BWCAW) in northern Minnesota has a rich history of advocacy for protection as wilderness. In the 1950s, Sigurd Olsen best described the song of the wilderness in Minnesota's north country: "I have heard the singing in many places, but I seem to hear it best in the wilderness lake country of the Quetico-Superior, where travel is still by pack and canoe over the ancient trails of the Indians and the voyageurs" (Olson 1956, p. 6).

Perception of this place as wilderness extends back to well before the passage of the Wilderness Act. Of all wildernesses in the United States, the BWCAW has probably been under the eye of the public, Congress, and the Forest Service more than many others. Not everyone agreed with the restrictions on motorboats, snowmobiles, logging, and mining that wilderness designation eventually brought with it, and there have been many contested policy decisions, ranging from group size limits to permit quota systems and restrictions on glass containers and designated camping sites. The BWCAW also has a rich history of policy adjustments, legislative oversight, and scientific understanding of the threats to the wilderness character of this special place.

The BWCAW, at 1,086,953 acres (440,062 ha), is the

largest designated wilderness in the two eastern regions of the Forest Service. Located on the Superior National Forest, the BWCAW was officially designated as part of the Wilderness Act of 1964, and then enlarged in 1978 by the BWCAW Act and many incompatible uses were restricted. Researchers from the Forest Service and academic partners had been collaborating with managers in conducting research on use, distribution of use, and impacts of use well before it was officially designated wilderness (e.g., Lucas 1964).

In 1969, Stankey conducted a broad baseline visitor study at the BWCAW for his dissertation at Michigan State University, which was completed in 1971 (Stankey 1971), and later as part of a Forest Service Research Publication in 1973 (Stankey 1973), which combined results from several wilderness visitor studies. Based on research by Peterson and Gilbert (1971), a travel simulation model was established and later updated to establish launch point quotas based on maximum campsite occupancy level predictions within zones of the wilderness.

In 1991, during an era when adjustments to quotas were evaluated, group size limits were proposed to be reduced, and many proactive regulations and education efforts were implemented to protect this unique resource from increasing use, Forest Service scientists – collaborative

with scientists at the University of Minnesota – again provided an update to trends in use and users and their perceptions of wilderness conditions (Cole et al. 1995) as well as examination of likely impacts of proposed management changes (Watson 1995).

In 2007, a team consisting of Superior National Forest managers, Forest Service scientists, and academic partners realized the need and the opportunity to update information on trends in use and users and their perceptions of wilderness conditions as well as explore many new challenges facing managers at the BWCAW. For instance, the overnight recreation user fees that had been implemented, changes in the permit distribution process, and the impact of large-scale disturbances (fire and blowdowns) were explored to provide baseline information on these newer issues managers faced.

In Dvorak et al. (2012), a detailed analysis of these changes since studies in 1969 and 1991 was provided to help managers, the public, academia, and other interested parties understand some of the major changes in use and users and their perceptions of wilderness conditions at the BWCAW. BWCAW overnight visitors remain predominantly white, male, and well educated, but the proportion of full- or part-time students has decreased dramatically. The average age of adult visitors increased throughout the years of these investigations (25 years in 1969, 35 years in 1991, and 45 years in 2007). Visitors have a great deal of wilderness trip experience in the BWCAW now and in other wilderness areas as well, with relatively few being first-time visitors to the area. Visitors report seeing significantly more groups while on their trips now compared to previous years and visits (an average daily encounter rate of almost nine groups per day is double even that reported in 1991).

Although these intergroup encounter rates are mostly within the expectations visitors have for the area (more than half in 2007 said these higher encounter rates were about at the level they expected), only 38% felt conditions were not overcrowded, compared to 72% in 1969 and 44% in 1991.

The USDA Forest Service Chief's 2012 Award for Excellence in Wilderness Stewardship Research went to the team of managers (Ann Schwaller), Forest Service scientists (Alan Watson), and academic cooperators (Bob Dvorak, Neal Christensen, and Bill Borrie) that are again trying to make the best science available to managers making decisions at the BWCAW. This award recognizes the continued efforts of these managers, Forest Service scientists, and academic partners to "help the Forest Service be more effective in addressing wilderness stewardship and meeting the intent of the Wilderness Act, the 10-Year Wilderness Stewardship Challenge, and forest plan standards."

Collaboration continues at the BWCAW to further examine the effects of changes in users, their travel patterns, and management strategies. There are many other wildernesses that have benefited from the rich exchange of ideas and knowledge among our managers, our federal scientists, and our academic partners. In times of reduced budgets, shifting demographics, increasing presence of new technologies, and increasingly important benefits from protection of wilderness resources (Watson 2011), renewed emphasis on building relationships between managers, federal agency scientists, and academic partners has never been more important.

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