

Using a mixed-methods approach to explore the human dimension of Willmore Wilderness Park, Alberta, Canada

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The management of a protected area involves more than just management of ecological aspects; it also requires managing the *people*. Understanding the human-dimension component of park management can be critical for achieving conservation-based targets and objectives. “An understanding of the amount, character, and distribution of recreational users is essential to wilderness management because such use is the cause of many impacts, the source of many wilderness values and potential funding” (Hendee and Dawson, 2002, pp.369). Unfortunately, it is often a challenge to gather visitor information and to learn about trends related to the characteristics, activities, and preferences of visitors to wilderness and other natural areas (Dvorak et al., 2012).

There have been few studies that have focused on park visitors in provincial wilderness areas within Alberta, Canada. Historical existing user-profile data collected for Willmore Wilderness Park are sparse and out-of-date and, due to the park’s physical remoteness, there have been few attempts to gather relevant information of this kind. As such, visitor information for Willmore Wilderness Park has been identified by park managers as an important knowledge gap in park management. Willmore Wilderness Park is approximately 4600 km² and is Alberta’s largest wilderness provincial park. It was created in 1959 (officially named in 1965) and is located in the Rocky Mountains straddling the Alberta and British Columbia provincial border. It lies adjacent to Jasper National Park which is a member of the UNESCO Rocky Mountain World Heritage Site (Figure 1). Willmore is considered to be a benchmark for protected, undeveloped, intact ecosystems in west-central Alberta (Fisher et al. 2011). Willmore Wilderness consists of rugged, remote, and extensive natural landscapes capable of providing rare and unique wilderness experiences and a wide array of recreational activities. It is popular both recreationally and politically, so a solid evidence-based management plan is required that is based on sound visitor information.

The purpose of this study is to address the need for acquiring an improved understanding of visitor use in Willmore Wilderness Park. Specifically, this study will examine the demographics, trip patterns, motivations, park management preferences, knowledge about the park, and the sense-of-place relationship of visitors to Willmore. This project utilizes a mixed-methods approach including: trail surveys, in-depth mail surveys, trail cameras, Global Positioning System (GPS) tracksticks, and in-person/telephone semi-structured interviews. Trail surveys were distributed through trailhead kiosks, local visitor information centers and through the Internet. In-depth surveys were mailed out to users who provided their contact information on the trail surveys. Visitor characteristics and visit informa-

tion were acquired by placing trail cameras (Reconyx PC) at the main trail entrance at each of the four staging areas into Willmore (on the Alberta side). GPS tracksticks were deployed to capture satellite-based route information about users and to also test their practicality within a wilderness setting. Lastly, a series of semi-structured questions, either through the telephone or in-person, were posed to park users in an in-depth interview that focused on sense of place. Interview participants were selected through a snowball sampling technique.

The fundamental research questions include the following and mainly focus on park visitors using the four main Alberta staging areas for Willmore:

1. What is the visitation level in Willmore Wilderness Park?
2. What are the visitor characteristics, motivations, level of knowledge of the park, and park management preferences of Willmore users?
3. What are the spatial patterns of visitor use?
4. What are the trip characteristics and the main activities of Willmore users?
5. What is the relationship and sense-of-place between visitors and the park?

By understanding more about users and what they prefer or desire in Willmore, this project will help balance conservation with recreation objectives. The information, summaries, figures, and conclusions from this work will be suitable to integrate directly into a Willmore Park management plan. In addition, the use of emerging technologies such as trail cameras and GPS for use in visitor monitoring is a relatively new approach in Alberta’s provincial parks. This project is an excellent opportunity to help understand the utility of these emerging instruments and how they could be applied on a more provincial level to attain visitor characteristics and information.

This presentation will review preliminary results gathered from the project study instruments. Project results related to the main research questions will be discussed with a focus on Global Positioning System (GPS) tracksticks and the utilization of Geographic Information Systems (GIS). Specifically, the effectiveness, benefits, and challenges of utilizing GPS tracksticks as a study instrument to utilize for visitor monitoring in Willmore and other Alberta Parks will be explored.

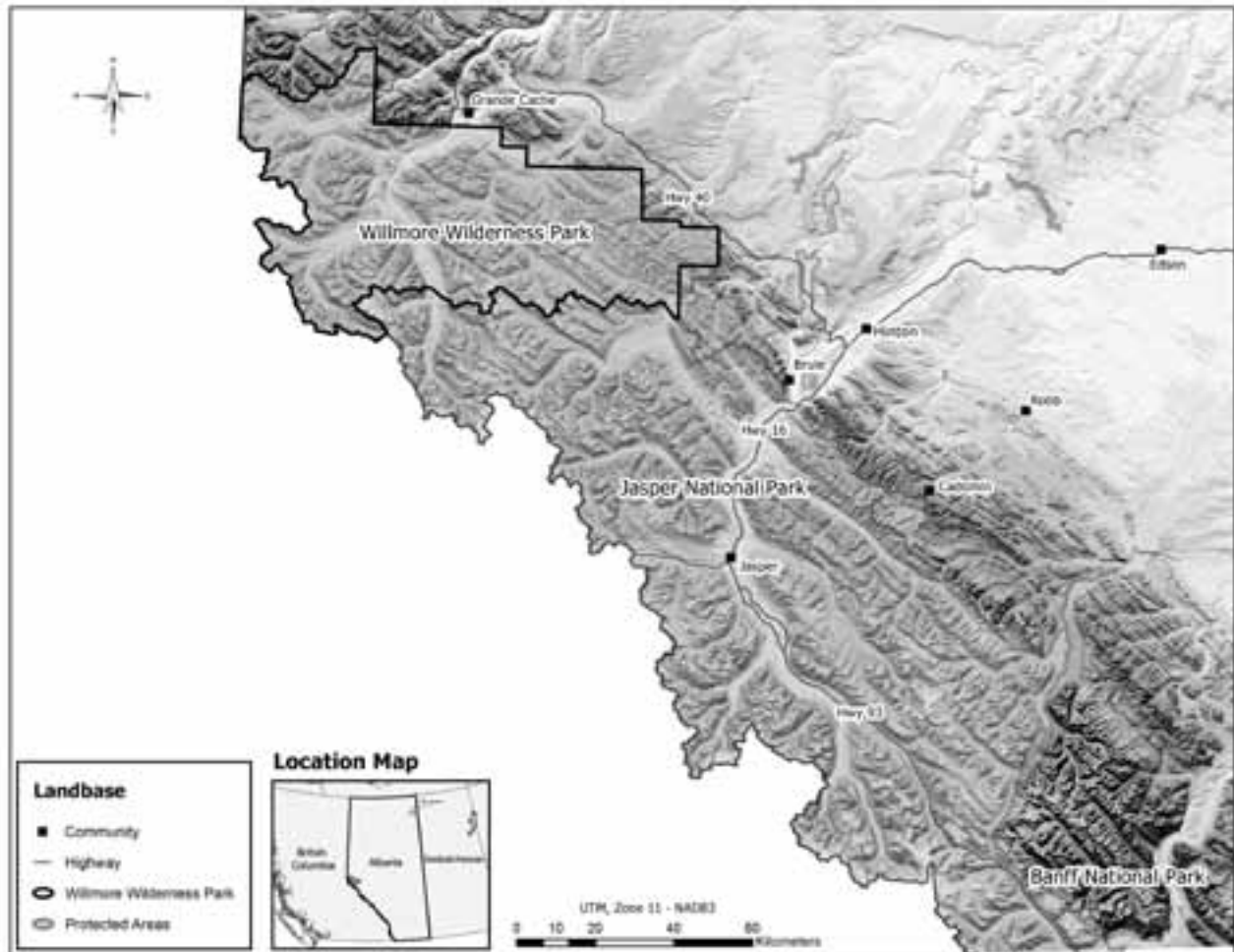


Figure 1. Study Area, Willmore Wilderness Park, Alberta, Canada.

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