

## PARKS, PEACE, AND PARTNERSHIP: GLOBAL INITIATIVES IN TRANSBOUNDARY CONSERVATION

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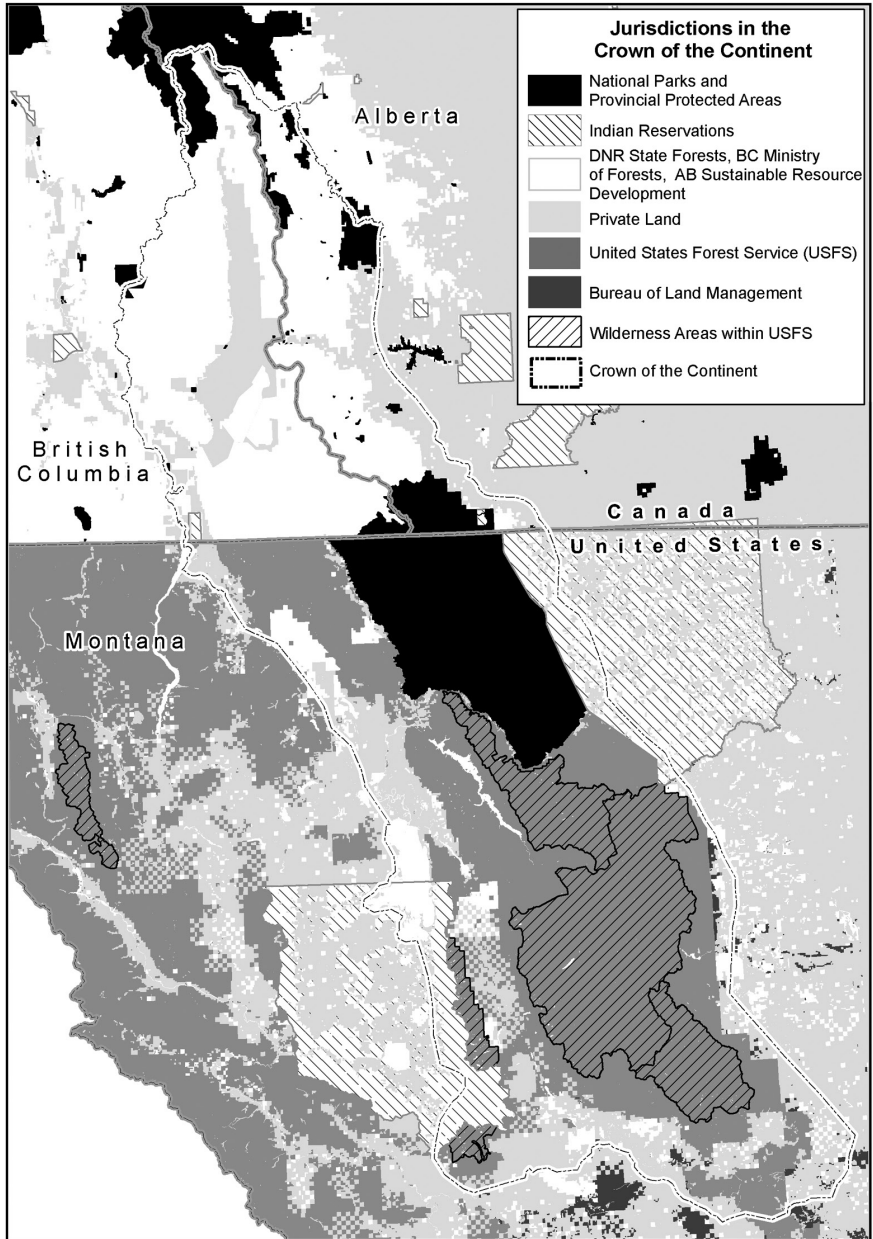
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# Transboundary Environmental Education: A Graduate Program Case Study

*Len Broberg and Michael S. Quinn*

The Crown of the Continent region of Canada and the United States covers some 43,700 km<sup>2</sup> and offers a unique confluence of biodiversity, watersheds, and human communities (Prato and Fagre 2007, 3). Stretching along the Rocky Mountain Cordillera from roughly the Highwood River on the northern end to Rogers Pass (Montana) on the southern boundary; extending east and west to include communities in British Columbia, Alberta, and Montana; and spanning the international border between Canada and the United States, the area is rich with history, scenic beauty, and intact natural communities. The intersection of northern and southern ranges of plant communities, persistence of intact large carnivore populations, history of traditional tribal/First Nations territories and confederations tied to a common history of bison use, and presence of a major modern trade and travel corridor between countries enhance the value of the region. Trans-jurisdictional management of shared water resources and far-ranging species like bull trout, grizzly bear, and wolves has evolved between neighbouring governments and agencies across the



MAP 1. JURISDICTIONS IN THE AREA OF THE TRANSBOUNDARY FIELD COURSE WITHIN THE CROWN OF THE CONTINENT (MIISTAKIS INSTITUTE).

region. The Crown of the Continent contains just 17 per cent private land with the vast majority of the landbase and its resources under the management of numerous public agencies (Map 1) at the provincial/state and federal level and Indian Tribes/First Nations (Long 2007, 17).

International and domestic borders pose numerous obstacles to management within this common ecosystem. The creation and subsequent development of the Crown Managers Partnership (CMP) promises to ease some of those challenges. The CMP is a professional network organization made up of members from federal, state-provincial, and tribal agencies with land management responsibilities in the Crown of the Continent region (CMP 2009). Initiated through a meeting in Cranbrook, British Columbia, in 2001, the CMP provides an annual forum for bringing together the agencies to meet and share experiences, activities, and goals. In addition, it is taking on a regional-level ecological health assessment encompassing many different jurisdictions within the Crown of the Continent as a knowledge-based tool to inform management. It also has spawned a Crown Invasive Plant Network and promoted the publication of a Crown of the Continent weed guide (USDI 2009). Despite the success the CMP has had in establishing relationships and improving communications among agencies in the two countries, the multiple and sometimes conflicting management mandates of the numerous institutions, the limited funding and human resources available to deal with a large landscape, and the numerous demands and desires of the public for use of the landscape continue to plague efforts to coordinate management. Such challenges are certainly not unique to management in the Crown of the Continent; Landres et al. (1998, 39–40) reviewed the issues surrounding transboundary management and found: “[a]n administrative border is like a glass wall that may not be readily apparent, but because nearly all terrestrial and aquatic ecosystems are open systems requiring continual flows or fluxes of energy and matter, differences in management goals and land-use practices on either side of the border inevitably disrupt these flows, causing changes in ecological conditions and processes.”

In contrast to the lack of formal connections between adjacent jurisdictions, two agencies in the Crown of the Continent, Parks Canada and the United States National Park Service, have been linked by their designation

as an International Peace Park. Glacier National Park (GNP) in the United States and Waterton Lakes National Park (WLNP) in Canada have a shared boundary and international recognition as a unified entity. Both Glacier and Waterton have been designated as shared International Peace Parks, Biosphere Reserves, and World Heritage sites (USDI 1999; Parks Canada 2000). In the heart of the patchwork of land management responsibilities lie two agencies from different countries working with shared ecosystems, forests, water bodies and, importantly, missions. The International Peace Park, therefore, provides a natural fulcrum to leverage coordination on a larger scale. This partnership and its public recognition provide a unique opportunity to study the evolution, potential, and limitations of shared management within a common ecosystem, together with the surrounding management authorities. This rich environment attracted scholars from across the two nations (see for example Pedynowski 2003; Prato and Fagre 2007; Sax and Keiter 2006) and then the world for the Peace Parks 2007 conference.

The Transboundary Policy, Planning and Management Initiative (TPPMI) was created to take advantage of this outstanding opportunity for research and study. Initiated in 1999 between the University of Montana's Environmental Studies Program and the University of Calgary's Faculty of Environmental Design, TPPMI is a graduate-level higher education partnership, bringing together students and faculty of the two institutions and countries to study and research the region between the two schools. Support from the Henry P. Kendall Foundation has facilitated the partnership, as have the geographic proximity of the two universities and the common interest of the two programs in land management and municipal planning within the region. This chapter will explore the role of the Peace Parks in the creation and sustenance of the initiative and the lessons learned from the partnership so far, in hopes of encouraging other universities to build programs around common protected areas and landscapes.

## THE PEACE PARK–UNIVERSITY PARTNERSHIP

The Peace Parks are at the core of the Crown of the Continent Ecosystem (CCE). This position makes them an essential partner in any landscape-scale management scheme, and thus key players in the development of the region. The public education mandates of both national park systems legitimizes staff time spent with students and facilitates the development of park-relevant research opportunities (USDI 1999). In addition, each park competes for attention and resources within their administrative region with other higher profile parks. In Canada, Waterton Lakes competes with Banff and Jasper National Parks. In Montana, Glacier competes with Yellowstone National Park. The Peace Park–University partnership brings both attention and resources to the Peace Parks. From a university unit point of view, Waterton and Glacier Parks were understudied and other universities had very active research programs in the competing parks, providing necessary space at the International Peace Park to carve out a unique course of study and research. Thus, attention to the research needs of the parks and the neighbouring management entities is mutually beneficial for the universities and the parks.

## PEACE PARKS AS A UNIQUE EDUCATIONAL OPPORTUNITY

Due to the long-standing peace park designation, the parks have a rather well-developed system of communication and shared management that is far ahead of many of the neighbouring land managers. The parks have long held regular management team meetings (B. Hayden, pers. comm.) combining staff from both agencies. They have a shared trail system and a shared border that necessitates communication and coordination (USDI 1999). Waterton Lakes National Park is roughly one seventh the size of Glacier (Long 2007, 17). WLNP is therefore dependent on Glacier National Park and other neighbouring land owners for sustaining far-ranging carnivore populations (Parks Canada 2000, 10). Fire management has also promoted communication and sharing of resources between the parks

(USDI 2003; B. Dolan, pers. comm.). This leadership in transboundary management coordination is an excellent opportunity for learning. The extensive cooperative experience of the parks provides a contrast with many other agency relationships and is fertile ground for study and research.

## TRANSBOUNDARY FIELD COURSE

The annual TPPMI transboundary field course has emerged as the flagship of the initiative, serving as an introduction to the area and prompting student interest and subsequent research. Each year we strive to take six to eight students from each program out into the CCE. This unique format intentionally combining students from the two universities in a week-long field experience has proven very powerful for the students. Experiential education in the field, speaking with the people responsible for decisions and actions that shape the state of the region, is eye-opening for students and makes it real in a way that classroom meetings cannot match. The exploration of the parks co-management efforts is a central part of each transboundary field course, but the course extends well beyond the administrative borders of the two national parks. One student commented: “traveling throughout the transboundary region was key to the success of the course, as it gave a sense of place and community to the issues at hand” (course participant). We have held meetings in rancher’s homes, city council chambers, sour-gas plants, timber company boardrooms, open-pit coal mines, and tribal wildlife offices and on roadless area ridges. The uninhabited, but managed, nature of the British Columbia Flathead Valley or the scale of an open-pit coal mine is captured when you travel through them. We meet with staff and managers in the parks and generally stay in, or on the border of, the two parks for at least half of each course. Students can grasp the spatial limitations facing WLNP managers when they stand on the shores of Waterton Lake in the Waterton town-site and look across the border into Glacier National Park, or travel in a few short minutes through the WLNP north entrance grasslands to the edge of the mountains. Moreover, the danger of fire spread from WLNP to

neighbouring properties becomes apparent to them once they experience a steady 50–100 km/h Waterton wind.

The field course format also supports an intensive learning context between faculty and students. Unlike classroom experiences that last from an hour three times a week to a three-hour session once a week, students have the leisure to listen to speakers, formulate their thoughts and then discuss them later that day or evening with peers and faculty. There is substantial testing and exploration of ideas that takes place over the week, not only for students but for faculty as well. Travel in two large vans also promotes interaction and sharing of ideas. Many intense discussions occur on the road between speakers and lodging. In view of this part of the learning experience, we encourage the two university cohorts to mix and get into different travel groups in the two vehicles exposing students to the full diversity of their peers and ideas.

We promote this digestion of information by having students journal about their thoughts during the field trip, providing blocks of time when this work can be done. Students are often adept at factual reporting, but reflective journaling is a new experience for many of them. We take the time to discuss the kind of analytical approach we are seeking in the journal at the outset of the course and throughout the trip. The journals also offer the faculty insight into learning that occurs outside of our presence. The following is a student journal entry that reflects such outcomes (names have been changed to protect the students' identities):

Good times hanging out with everyone tonight. [Fred] triggered a fantastic group discussion of what we've been exposed to so far on the trip. It lasted for at least a couple hours and it may have been the highlight of the trip so far. Once again [Sally] butted heads with some of us and we got into another discussion, the crux of it being how do we as environmentalists appeal to people who work in industry and have deep connections to the land but don't want anything to do with our 'radical approach.' I think that may be the question. It's a toughy.





SCENERY ALONG THE ALBERTA ROCKY MOUNTAIN FRONT DURING A COURSE FIELD TRIP (M. QUINN).

We build on this experience through student research papers due at the end of the course. The intensive journaling and research paper assignments encourage development of a deeper understanding tied to the experiential learning and field experience. The resultant knowledge developed by the students is less abstract and we hope more readily applicable to the actual workings of the CCE.

## TRANSBOUNDARY RESEARCH

Students sometimes go on to choose a transboundary graduate research topic focussed on the CCE, prompted by the transboundary field course experience and the insight gained from that experience. This research can benefit the parks directly or indirectly. For instance, one TPPMI student did his final project on conservation subdivision design and regional planning based on an experience on the border of WLNP (Barton 2002). While



TRANSBOUNDARY  
FIELD TRIP GROUP  
IN POLEBRIDGE,  
MONTANA (M.  
QUINN).

this topic does not deliver a product to the park directly, it could affect interactions with neighbours and lead to better coordinated management.

TPPMI also has administered a research award program, providing funding for students to do transboundary research in the Canadian and Northern U.S. Rocky Mountain region. The two units send out a request for proposals for graduate student research annually, advertising broadly across the two universities and to other universities in the region. The research funded extends beyond students in the home units of TPPMI. For instance, a student in Anthropology at the University of Montana received a TPPMI research award to study the current use of Chief Mountain

in GNP by Blackfoot tribal members (Henderson-Matthews 2005). A portion of that research was also funded through GNP, facilitated by the GNP Learning Center (L. Welling, pers. comm.). This research has been influential in GNP visitor management, thus benefiting both GNP and the Blackfoot Tribe and its members. The research award tool has extended the reach of TPPMI beyond the immediate units and has built useful research partnerships for a relatively modest investment of US\$5,000 or less in student projects.

## INTERNATIONAL EDUCATION: A PLATFORM FOR FACILITATING SHARED KNOWLEDGE

Universities around the world have long held an interest in international education for their students and international research and exchange for their faculty (Heater 1985, 266). Such programs are too numerous to mention here. However, the institutional imperative for international education and the presence of structures within universities to promote and manage such interactions cannot be discounted in the success of educational programs like TPPMI. The University of Montana mission statement includes: “integration of the liberal arts, graduate study, and professional training with international and interdisciplinary emphases” (University of Montana 2011). The University of Calgary policy on international linkage agreements concurs: “international linkages are a widespread, normal, and desirable feature of academic life” (University of Calgary 2011). In contrast with the land management agencies of the region, universities have a primary mission of education and research that is not tied to particular outcomes or states of the ecosystems in which they work. That is not to say that many higher education institutions do not have direct ties to either supporting or creating commodity markets (the land grant universities of the United States are an obvious example) or that they do not have land to manage within the CCE. The University of Montana, for instance, manages the Lubrecht Experimental Forest within the boundaries of the Crown of the Continent Ecosystem. Nonetheless, they are not viewed by the public or decision-makers as having that task as



TRANSBOUNDARY GRADUATE STUDENTS EXPERIENCE THE OUTDOOR CLASSROOM  
(M. QUINN)

a primary goal. Indeed, even the land they do manage is done so as to facilitate education and research, as is the case at Lubrecht. The tendency of universities to work across borders with a mission supporting such work cannot be overlooked as an important tool for both the schools and the agencies involved.

In the case of TPPMI, this history of international education was important in facilitating the partnership both between the programs and among the universities and the agencies, especially the two national parks that form the Waterton-Glacier International Peace Park. Glacier National Park is a member of the Cooperative Ecosystem Studies Unit (CESU), linked to the University of Montana as a member of that research consortium. Through that mechanism, GNP was able to work effectively across the border in Canada. The University of Calgary has since joined this research partnership and can therefore participate more directly in

research in GNP. TPPMI facilitated this opportunity, and it is likely that other transboundary education and research partnerships with parks of this nature can help build mutually beneficial knowledge and practice.

## CONCLUSION

TPPMI has built a productive partnership with the Waterton-Glacier International Peace Park that benefits all parties and the broader academic and management community of the region. By bringing the educational and research foci of the universities into the parks and learning from the parks' experience, TPPMI has fostered the growth and professional development of students and faculty and served the knowledge generation needs of the parks and their neighbours. The tools of a field course, research awards and CESU are prominent among the features of TPPMI that drive the success of the partnership to date. The independent, internationally focussed nature of the academy also facilitates dynamic interactions across borders that help to transcend them and to build cooperation. TPPMI and similar transboundary educational efforts are not a solution to all the challenges of transboundary management, but they can provide an important tool in resolving at least some of those issues over the longer term.

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