

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

Edited by Michael S. Quinn, Len Broberg,
and Wayne Freimund

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Global Initiatives in Transboundary Conservation

Edited by

MICHAEL S. QUINN, LEN BROBERG, AND WAYNE FREIMUND

PARKS,
PEACE, AND
PARTNERSHIP

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FOREWORD

The number of protected areas globally has exceeded 200,000 and now covers over 14 per cent terrestrially and just over 1 per cent of the world's oceans. There is a global agreement for further expansion by 2020 to 17 per cent and 20 per cent respectively. This burgeoning protected estate is symptomatic of the world's recognition that there is value in protected areas. The principal purpose is of course conserving biodiversity. Achieving this primary objective is obligatory for a protected area, but there are many other benefits derived from a well-managed protected area.

For example, a protected area with ecological integrity yields clean water. Over a third of the most populous cities of the world depend on water flowing from an adjoining protected area. Without this ecosystem service, the cost of water treatment would be debilitating for many of these cities. Then, on the climate change front, a cautious estimate is that there is at least 15 per cent of the world's carbon stored within protected areas. Protected areas, a stable long-term land use, do not contribute to the 20 per cent of emissions originating from land use conversions. Marine protected areas keep yielding evidence of their usefulness for stocking adjoining areas and thus assuring a continued sustainable fishery. Coastal protected areas are effective in preventing erosion and severe effects from storms and indeed even tsunamis. Landslides are prevented. The genetic stock of crops is conserved. Where spiritual, cultural, and aesthetic values occur in a protected area, they uplift the human spirit. The list of benefits can go on and on.

Let me now focus on this book and its chapters that lead us to better understand another benefit of a set of specialized protected areas. These are trans-boundary protected areas that adjoining jurisdictions have agreed to establish and in many cases jointly manage. The benefits enumerated above apply equally to these areas but the trans-boundary areas have an additional importance. They yield evidence of a common purpose among people with a different background, form of government, and often culture. These areas represent an overcoming of human selfishness and a willingness of working together for a higher value than the pedestrian "what is in it for me." Nature protected beyond one's boundary

is a clear outcome. In some cases, these areas celebrate existing peaceful co-existence and others are proposed as a wish for such in the future. Each chapter in this book has been selected to explore in depth the intricacies of the establishment and the benefits of these areas. Lessons learned are shared and challenges are enumerated.

I congratulate the authors and the editors of this book. It contains the latest views of authorities on the subject of trans-boundary protected areas and will serve students and professionals alike.

Nikita Lopoukhine, Chair
IUCN World Commission on Protected Areas

ACKNOWLEDGMENTS

This volume is the result of generous efforts and contributions from many people and supporting organizations. Like international peace parks, this collection clearly represents an international, transboundary, collaborative effort. One of the perils of listing individuals here is that we are likely to miss someone; we apologize for any such omission.

First we would like to thank all of the authors and contributors to this volume for their dedication and patience. The collection of chapters presented herein was catalyzed by an international conference held at Waterton Lakes National Park in September 2007. Maddy Pinto was indispensable in her organizational efforts. We are grateful for the efforts of staff from both Waterton Lakes (Parks Canada) and Glacier National Parks (United States National Park Service); in particular, we would like to recognize Rod Blair, Dave Dahlen, Bill Dolan, Brace Hayden, Mick Holm, Dee Jessome, Janice Smith, Mark Wagner, and Melissa Wilson. Participation from members of the Blackfoot Confederacy/Niitsitapi (Piikani, Siksika, Kainai, and South Peigan/Blackfoot Tribe) was essential to the success of the event and this volume. We are grateful that they welcomed us into their territory and honoured us with a powerful and emotional headdress ceremony. Regional Rotary Clubs were not only responsible for facilitating the creation of the world's first International Peace Park but also contributed financially and organizationally to the efforts that resulted in this volume. Special thanks here are owed to Monty Audenart, Gerald Beazer, Paul Broughton, Bill Campbell, Bruce Christensen, Cliff Elle, Donald Gatzke, Dale Gillespie, Al Jensen, Marilyn Morris, Carl Prinzing, Bill Spath, Rick West, and Arlene Weber. The leadership of the Crown Managers Partnership is greatly appreciated and Ian Dyson deserves special recognition here. The IUCN World Commission on Protected Areas made significant contributions, and we would like to thank Larry Hamilton and Nik Lopoukhine in particular. Rachelle Haddock at the Miistakis Institute, University of Calgary, and Julie Tompkins from Environmental Studies, University of Montana, both made substantial contributions to formatting and editing the chapters. The Miistakis Institute was instrumental in all facets of organization

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The Editors

Introduction

Michael S. Quinn

BACKGROUND

The history of civilization is a saga of linearization or geometrization of the land. The soft curves of nature have been replaced by the hard lines of humans. What are the ecological gains and losses from this seemingly inevitable process? (Forman 1995, 106).

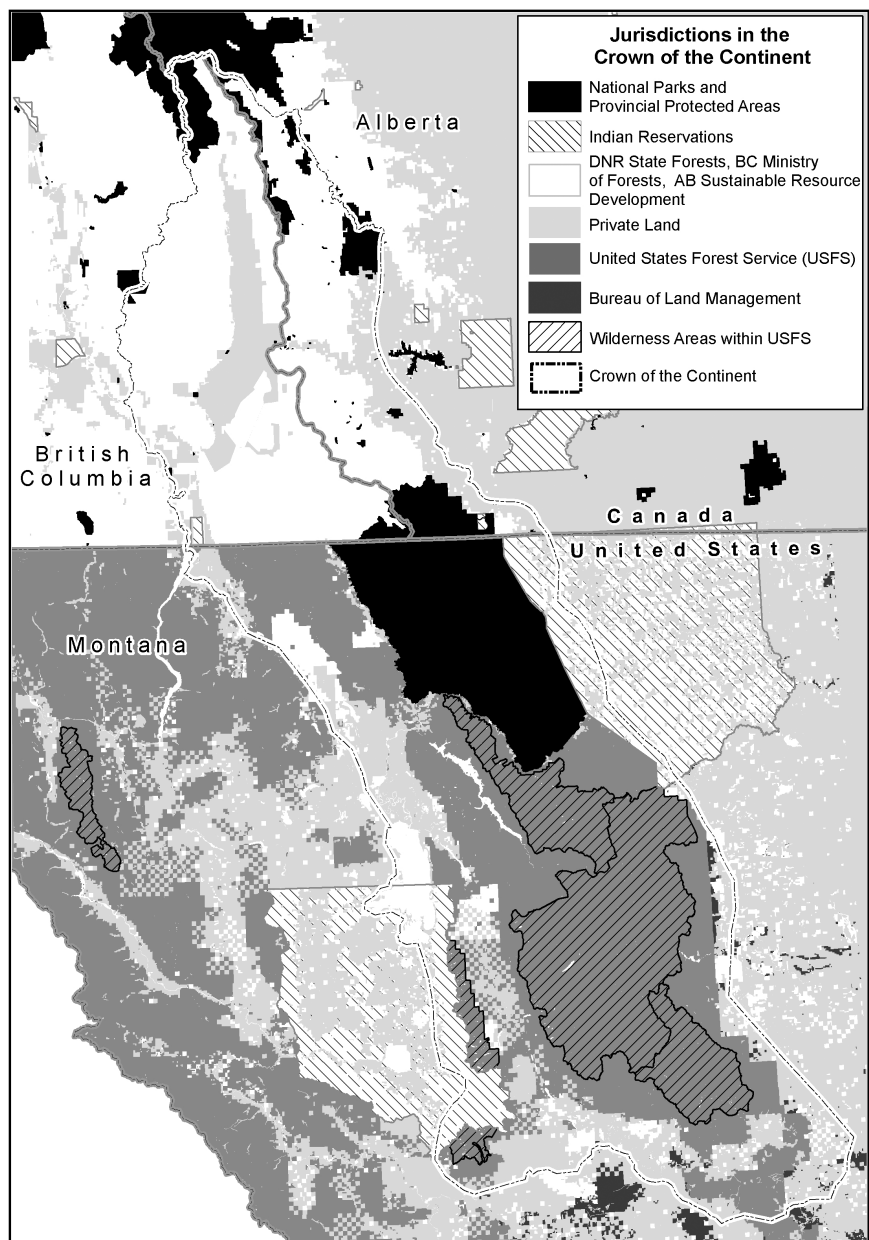
“The mountains jump right out of the prairie” is a comment often heard from an awe-inspired tourist. For the locals, the same thought is in the nerve endings (Stenson and Laycock 2006, 3).

On the eastern side of the North American Rockies, the mountains meet the prairies in an extraordinary juxtaposition of geographies. Near the centre of the 4,800-kilometre-long Rocky Mountain Cordillera, rises a flat-topped mountain that cuts a singular silhouette against the perennially

blue sky. *Ninastakis* (Chief Mountain) sits at the centre of a continuous ecological and cultural system that connects the landscapes, cultures and wildlife along and across the Rocky Mountains.

Ninastakis is the most sacred and powerful site to the indigenous people of the Blackfoot Confederacy (they call themselves *Niitsitapi*, which means ‘the original people’), a proud nation who have made this region their home for at least eight thousand years (Reeves 2007). Situated near the centre of a region the *Niitsitapi* call *Miistákis* or the ‘backbone of the world,’ Chief Mountain holds a central place in the spirituality of these people (Craig 2008). It was here that the three tribes of the Blackfoot were created. The mountain figures prominently in Blackfoot stories; for example, the first medicine pipe was given to the people by Thunder (*Ksiistsikomm*), the most powerful of the *Up-Above-People* in the long ago time, whose lodge was near the summit of Chief Mountain. The mountain, its surroundings, and the diverse biota that dwell in this special place are woven into the identity the *Niitsitapi*, and the region continues to provide a physical and spiritual home for its people.

In 1818 a convention between the United States and the United Kingdom established a sovereign border along the forty-ninth parallel between Lake of the Woods and the Rocky Mountains; a line that would come to mark the boundary between the United States and Canada. In 1846, with the signing of the Oregon Treaty, this line drawn across the map of western North America sliced through the northern flank of *Ninastakis* severing the once seamless lands of the *Niitsitapi*, and dividing the Rockies between nations. This was the first of many administrative boundaries that would come to fragment an area now known as the Crown of the Continent into smaller units of jurisdictional authority (Map 1). Although most of these boundaries are not marked by the physical presence of fences, the policy, planning, and management differences between adjoining jurisdictions have profound effects on the flow of ecological and social processes, including the traditional use activities of the *Niitsitapi* and the transboundary movement of such charismatic species as the bull trout and the grizzly bear (Grant and Quinn 2007).



MAP 1. PRIMARY JURISDICTIONS IN THE CROWN OF THE CONTINENT
(MIISTAKIS INSTITUTE).



NINASTAKIS (CHIEF MOUNTAIN) IN WATERTON-GLACIER INTERNATIONAL PEACE PARK (M. QUINN)

The special nature of *Ninastakis* and the environs of *Miistakis* captured the hearts, minds, and imaginations of the earliest explorers and pioneers as North American settlement expanded westward (MacDonald 2000). In response to the leadership of the colourful John George “Kootenai” Brown and local rancher F. W. Godsal, the Canadian government established Waterton Lakes National Park in 1895 (initially called Kootenay Lakes Forest Park). On the United States side of the border, George Bird Grinnell, a prominent conservationist, led the charge for the protection of an area he termed the “Crown of the Continent” and Glacier National Park was established in 1910.

The fact that these two magnificent national parks shared an international border was not lost on early managers and regional residents. Kootenay Brown and U.S. Park Ranger Henry “Death on the Trail” Reynolds advocated for strong international collaboration to maintain ecological continuity between the parks. Subsequently, Rotary Clubs from Alberta and Montana convened their first “annual goodwill meeting” in 1932 at the Prince of Wales Hotel in Waterton and unanimously endorsed

the notion of an international peace park. In the spring of 1932, following a very effective lobbying campaign by the Rotarians, the American and Canadian governments each passed legislation to formally establish the world's first International Peace Park (Lief and Lusk 1990; Tanner et al. 2007). The acts of both countries not only acknowledged the peace and goodwill shared between the nations, but also provided for the connectivity of the complex social ecological system that transcends the forty-ninth parallel.

PARKS TRANSCENDING BOUNDARIES

Transboundary conservation is an essential part of meeting the goals of ecological regionalism. Since natural systems transcend political borders, management approaches must also aspire to transcend physical and cognitive barriers. (Ali 2010, 25)

In short, although purely domestic approaches to biodiversity conservation have been and will be critical, protecting life on Earth will ultimately require an international approach. (Chester 2006, 3)

The notion of peaceful and collaborative arrangements for protected areas that meet along jurisdictional boundaries has been with us for a long time. For example, before the end of the eighteenth century the King of France and the Prince-Bishop of Basel negotiated a Treaty of Alliance to protect wildlife and managed forests along their shared border (Chester 2006). More formal arrangements between designated protected areas were enacted in the early twentieth century, for example, a framework for border park management between Poland and Czechoslovakia in 1925 (Thorsell and Harrison 1990) leading to Pieniny International Landscape Park in 1932, the creation of Albert National Park spanning the colonial states of Ruanda-Urundi and the Congo in 1925 (van der Linde et al. 2001), and the world's first formal International Peace Park between Waterton Lakes

National Park (Canada) and Glacier National Park (United States) in 1932 (Sandwith et al. 2003).

In recent decades, the ideas of transboundary protected areas and peace parks have spread across international borders around the globe. The 2007 list of transboundary protected areas (TBPA) compiled by the UNEP World Conservation Monitoring Centre (UNEP-WCMC) identified 227 TBPA complexes incorporating 3,043 individual protected areas or internationally designated sites covering some 460 million hectares. These protected areas contribute to the protection of biodiversity, the establishment of peaceful relations between neighbouring countries and the well-being of people living in and around the protected environs. The proliferation of TBPAs is a clear indicator that historical and geo-political constraints imposed on ecosystems, species, and communities are abating. Moreover, the experience garnered by TBPA practitioners in a myriad of ecological and socio-political contexts offers the opportunity to develop new models and approaches for effective management (Vasilijević and Pezold 2011).

There are a variety of labels applied to cross-jurisdictional collaboration for cultural and biodiversity conservation. The IUCN World Commission on Protected Areas, Global Transboundary Conservation Network (2011) proposed the following four definitions:

Transboundary Protected Area – An area of land and/or sea that straddles one or more borders between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limit of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed co-operatively through legal or other effective means.

Parks for Peace – Transboundary protected areas that are formally dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and to the promotion of peace and co-operation.

Transboundary Conservation and Development Area – Areas of land and/or sea that straddle one or more borders between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limit of national sovereignty or jurisdiction, whose constituent parts form a matrix that contributes to the protection and maintenance of biological diversity, and of natural and associated cultural resources, as well as the promotion of social and economic development, and which are managed co-operatively through legal or other effective means.

Transboundary Migratory Corridors – Areas of land and/or sea in two or more countries, which are not necessarily contiguous, but are required to sustain a biological migratory pathway, and where co-operative management has been secured through legal or other effective means.

The primary focus of the chapters in the current collection align with the Parks for Peace category; however, there are many other terms that appear in the contributions that follow. The unifying element throughout these chapters is an interest and commitment to collaborate across jurisdictional boundaries or frontiers. The particular nomenclature needs to be meaningful in the context of the socio-political realities of the region.

A PEACE, PARKS AND PARTNERSHIPS CONFERENCE

To celebrate the seventy-fifth anniversary of the world's first formal Peace Park, a group of park managers, academics and Rotarians collaborated to convene a gathering of practitioners and experts on international peace parks and transboundary management initiatives. The central idea for the conference was that the International Peace Park designation legitimized a spirit of cooperation that has been used to seek ongoing designations and other forms of cooperation that may not have been anticipated in 1932. The conference aimed to document that ripple effect and to consider

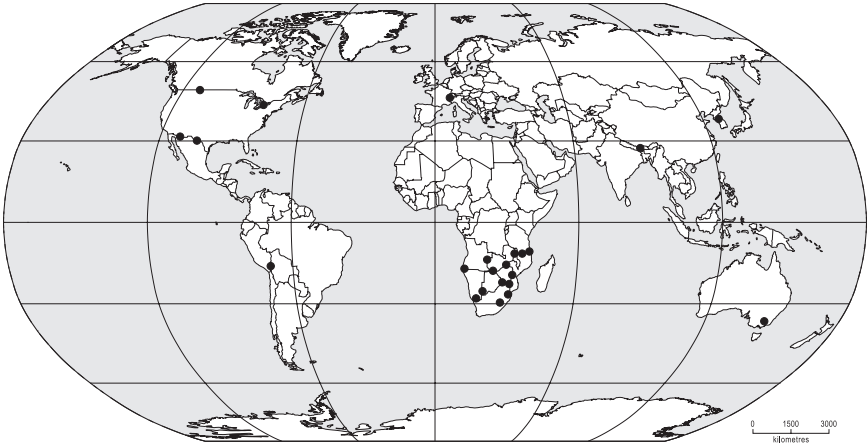


PARTICIPANTS AT THE PEACE, PARKS AND PARTNERSHIPS CONFERENCE
CELEBRATE AT THE UNITED STATES–CANADA BORDER (M. QUINN).

its potential and realization around the world. The intent was to advance the theory and practice of transboundary management, especially in the context of international peace parks.

In September 2007, the town of Waterton Park played host to nearly two hundred delegates, representing more than thirty countries, to discuss the history, best practices, challenges and future international efforts to manage for peace and conservation across borders. Beneath the shadow of *Ninastakis* the world's leading practitioners and transboundary experts shared their frustrations and successes through formal presentations, informal discussions and a full-day field trip in the Waterton-Glacier International Peace Park and its surrounding environs. The events included an emotionally moving 'headdress' ceremony wherein the superintendents of the Peace Park were initiated into the indigenous Blackfoot Confederacy. The ceremony punctuated the long history of indigenous dwelling in the landscape and emphasized the artificiality of jurisdictional boundaries.

The purpose of this volume is to capture and advance some of the ideas proffered by international transboundary experts and practitioners. We have attempted to select a suite of chapters that represent the breadth of topics and geography encompassed by current peace park initiatives. The chapters have been selected and organized under four broad themes: lessons from around the world, a special focus on southern African peace parks, peace parks and education, and proposals for new peace parks. Although the chapters adhere well to this structure, like the landscapes they represent, there are many elements and themes that cut across the topical borders we have imposed for convenience. The hope is that this volume will help to improve and advance the praxis of peace parks and other transboundary initiatives and will serve as a catalyst to convene the next international gathering on this topic.



MAP 2. LOCATIONS OF PARKS DISCUSSED IN THIS VOLUME (M. CROOT).

OVERVIEW OF THIS VOLUME

Lessons from the Field

The first section of the book is composed of chapters from a diversity of geographic locations (Map 2). The authors provide experience from existing transboundary protected areas and international peace parks as a means of communicating lessons learned. These chapters provide a wealth of experience ‘from the trenches’ in established and emerging transboundary protected area contexts.

Given the location of the Peace, Parks and Partnerships Conference in Waterton Lakes National Park, it is fitting to launch this section with Mihalic’s chapter on the history of collaboration within the Waterton-Glacier International Peace Park. The author brings his unique perspective to this story as a past superintendant of Glacier National Park. The establishment of this Peace Park in 1932 was through independent legislation in Canada and the United States. There has never been specific national or international policy to direct collaboration between the two parks, but there has long been a strong operational and ‘bottom-up’ commitment

to mutually beneficial cooperation. Rangers and wardens convene meetings and communicate to facilitate effective professional natural and cultural resource management and visitor services (e.g., interpretation, fire management, search and rescue, wildlife management). Park leadership has also been instrumental in the establishment of the Crown Managers Partnership, a voluntary organization of public land managers whose jurisdiction encompasses the greater ecosystem in which the national parks are embedded.

The following two chapters provide a shift in geographic focus from the North American Rocky Mountains to the Australian Alps. Jacobs and Anderson describe a cooperative management program across eleven protected areas and three Australian jurisdictions. A formal administrative structure that includes both top-down and bottom-up program elements provides a contrast to the preceding chapter. The success of having high-level strategic commitment through to operational implementation is clearly illustrated through this case study. The Australian Alps Cooperative Management Program also highlights the importance of dedicated financial support and a well-developed system of communication. Weiler et al. examine the tourism partnerships in the Australian Alps and seek to identify the characteristics of effective collaboration. The authors stress the importance of both process and outcomes in evaluating partnerships. Characteristics contributing to the success in the Australian Alps include: shared vision and common goals, good communication, ministerial to field-level engagement, strong leadership, and an equal distribution of power. Challenges include the lack of adequate financial resources, enforcement of decisions and coping with legislative difference between jurisdictions.

The chapters on the Australian Alps are followed by a contribution from the European Alps. Eringhaus describes the conditions in the Mont Blanc region shared between France, Italy, and Switzerland. The region typifies the political challenges associated with transboundary protection even when economic conditions and relative stability prevail. Moreover, Eringhaus describes the differences that often exist between government and non-government organizations and agendas. The need for a formal

organizational structure and legal authority is also raised and is a recurrent theme in this section.

Mendoza and Quinn provide a rationale for continental-scale collaboration between protected areas for long-distance migratory species. Transboundary conservation, protection, and peace are not limited to directly adjacent landscapes. The chapter outlines connections between protected areas in Canada and Mexico via the movements of species such as the Burrowing Owl and the monarch butterfly. Governance of protected areas is analyzed and evaluated based on interviews with managers from both countries. A multi-level governance model is proposed as a mechanism to achieve greater effectiveness in transboundary collaboration for continental migratory species. Effective governance affects not only ecosystems and biodiversity, but also human health and well-being. The chapter identifies the disparity that often exists between the intent of protected area establishment and the reality of management practice.

In a chapter on international collaboration around Lago de Titicaca, Walters outlines the value of joint efforts between Peru and Bolivia. The Lago de Titicaca situation is contrasted with the failure of Kazakhstan and Uzbekistan to reach similar working arrangements around the Aral Sea following the collapse of the former Soviet Union. A binational authority created in 1986 to address water management issues has provided the catalyst for a wide array of ecosystem management activities. As with the Waterton-Glacier example, Walters stresses the tremendous benefits that accrue from the development of professional and personal relationships across international borders. The mutual respect and trust that are developed through such arrangements provide the necessary traction for implementation. The engagement of the two navies to assist with scientific studies on the lake is a prime example of the connection between environmental conservation and international peace.

The Southern African Experience

The rapid and extensive expansion of transfrontier protected area complexes in southern Africa is reflected in the second group of chapters. Mabunda et al. launch this section with an historical and contemporary account of transfrontier conservation activities in the region. Connecting

ecological systems in conjunction with promoting social and economic development has been the hallmark of the initiatives in southern Africa. The collaborative networks built through these efforts are helping to promote greater peace and stability across the region. Fences have been coming down, animals are being relocated and economic benefits are being shared more equitably between the participating countries. In addition to transcending state boundaries, southern African efforts are also embracing private-public partnerships for conservation and community well-being. Schoon's chapter describes the challenges associated with multipartite governance of these new transfrontier complexes. New approaches require an evolution of management structures and institutional design for ecological resilience and institutional robustness. Schoon uses case studies from the Greater Limpopo and Kgalagadi Transfrontier Parks to demonstrate how different contexts and responses lead to different results. Overall, the "new" southern Africa (post-apartheid and post-Mozambique civil war) protected areas have seen a transformation from a fortress mentality to a more progressive model, engaging with surrounding communities. However, although political support has been strong, transfrontier protection still suffers from a mismatch between political timeframes and the real time required to institute change.

Schuerholz and Baldus provide a critical examination of transboundary efforts in two southern Africa contexts: the Selous-Niassa Corridor between Tanzania and Mozambique, and Kavango-Upper Zambezi Transfrontier Conservation Area between Namibia, Botswana, Angola, Zambia, and Zimbabwe. The chapter is predicated on the premise that the success of such efforts is contingent upon the cooperation of surrounding and affected communities. The authors compare the community-based natural resource management (CBNRM) models employed in the two cases and describe the importance of generating both direct economic benefits through wildlife utilization and community empowerment. Transboundary initiatives are shown to provide a strong impetus for engagement at multiple political levels and may help to attract the financial and logistic support of other international interests. Enabling legislation and clearly defined programs that include devolution of decision-making

to the community level are required to ensure that benefits reach the appropriate participants in an equitable manner.

Mozambique figures prominently in the subsequent chapter as well. Soto contributes an insightful discussion of the history and management of the Great Limpopo Transfrontier Park (GLTP), a cooperative initiative of South Africa, Zimbabwe, and Mozambique. Soto's direct experience as the project manager from Mozambique is particularly valuable in presenting an understanding of the differing social, economic, and ecological contexts that exist across administrative boundaries. At the outset of the project, Mozambique had considerably less management capacity and financial resources than its transboundary neighbours. Although the GLTP initiative greatly increased the complexity of the overall management context, Mozambique benefited significantly through the ability to develop greater institutional and local capacity. Moreover, the international profile of the GLTP has helped to leverage financial resources for development that would not otherwise be available. The case clearly indicates the range of values as well as the myriad of challenges that face transboundary efforts. Perhaps more importantly, the case of Mozambique illustrates the kinds of benefits that accrue to participants of transboundary initiatives that go well beyond the biodiversity objectives of 'conventional' protected areas.

The final chapter in southern Africa section provides an overview and reflections on a long-term management strategy for the Maloti-Drakensberg Transfrontier Conservation and Development Area (MDTFCA) shared between Lesotho and South Africa. Beyond the valuable descriptive and historical context, Zunckel includes a discussion of the most significant critical factors necessary to work within the complex socio-political environment of transboundary protected areas. Institutionalization of any transboundary effort is a prerequisite for effectiveness. Participants must embrace the planning and management activities as a core part of their respective mandates and not as an 'add on' to be addressed as time permits in an already overloaded work environment. This necessitates high level support of project 'champions,' but must also transcend hierarchical management structures from the political to the operation. The aims of the transboundary initiatives must be clearly articulated, shared between

partners, and also achievable within the timeframes set out by plans and strategies. Moreover, the efforts must be accompanied by an adequate level of financial resources to achieve project goals. Finally, Zunckel underscores the critical requirement for linking conservation to the livelihoods of people in the region. This final point is echoed across all the contributions in the southern Africa section, and it is here that the impressive and rapid expansion of transboundary peace parks and related reserves has much to teach other practitioners from around the world.

Education and International Peace Parks

The third section of the book highlights three unique education-based initiatives that occur in the context of international peace parks. The chapters provide examples of programs that provide educational opportunities for university students, park practitioners, and community members. All of the authors stress the importance of experiential approaches that include direct exposure to activities in and around peace parks. Moreover, there is a clear recognition that academic participation in this milieu must be socially and politically relevant. The collaborative nature of international peace parks and related transboundary efforts provide an ideal context and role for academic engagement and capacity building with benefits that reach far beyond the boundaries of protected areas.

Broberg and Quinn profile a collaborative graduate initiative between a U.S. and a Canadian university, the University of Montana and the University of Calgary. Graduate students and faculty members engage in interdisciplinary research that transcends not only political boundaries but also traditional academic disciplines. The Waterton-Glacier International Peace Park serves as the focal geography for an annual field course and a wide variety of research projects. Although the United States and Canada are similar in many ways, the initiative offers a unique cross-cultural opportunity for graduate students. The initiative began in 1999 and graduates are now assuming professional positions in the region.

The University of Montana is engaged in another transboundary protected areas program, but rather than collaborating across an adjacent border, it reaches across the globe to southern Africa and the University of KwaZulu-Natal. Freimund et al. discuss how the two universities along

with key individuals from the United States Forest Service as well as the Wilderness Action Group (a South African NGO) developed an initiative to provide education for field rangers, middle level managers, and executives from the conservation and protected areas profession. The collaboration has resulted in an array of innovations and management outcomes including a master's degree program in Protected Area Management for park practitioners that is entirely delivered through distance education, in order to make it accessible to those who need it most, and an executive seminar series for managers. The initiative places significant emphasis on the social context of protected area management and embraces the challenges of managing for uncertainty in complex social-ecological systems. Based on a decade of collaborative experience, the authors stress the importance of players viewing themselves as part of a learning organization and offer a systems framework for capacity-building that includes managing demands, managing constituencies, and managing learning.

In the third chapter of the education section, Sowry summarizes the experience of Southern Africa Wildlife College (SAWC) and the Southern Africa College of Tourism (SACT) in providing capacity-building for staff of transfrontier conservation areas (TFCAs) in southern Africa. Both colleges are initiatives of the Peace Parks Foundation in collaboration with World Wide Fund for Nature (South Africa) and the Southern Africa Development Community. The SACT provides a crucial regional role in training female community members from areas surrounding TFCAs. The SAWC is committed to a hands-on, practical, and highly participatory approach to education for field staff and middle level managers. With its vision to become the most sought after Centre of Excellence in conservation education and wildlife management training in the southern African sub-region, the College has since its inception, and with the support of the Peace Parks Foundation, trained over 5,000 people from 26 African countries in natural resource management. The greatest challenge facing these innovative education programs is funding. Strategies are being developed to increase financial capacity in order to ensure the continuance of this critical education. Finally, the cultural, linguistic, political, and managerial diversity of the region create challenges to instructors and students.

Creating ways to teach and learn in this complex environment contributes significantly to the long-term viability of TCFAs.

Peace Park Proposals

The final section of this volume includes a suite of examples where international peace parks are currently being proposed to address a spectrum of regional challenges. Biringer and Cariappa open the section with a discussion of a proposal for a Siachen Peace Park between India and Pakistan in the Karakoram Mountains of northern Kashmir in the western Himalayas. At the core of this transboundary region lies 2,500 km² of disputed territory. The elevation of the region rises above 6,000 metres, making this the world's highest battlefield. Hostile climatic conditions have resulted in more deaths of soldiers than have been caused by enemy fire. The location and elevation also make this an area of global significance for glaciers, water production, and downstream biodiversity. The financial, human, and environmental degradation resulting from this conflict is in drastic need of a solution. A transboundary peace park was first proposed in 1994 and discussions that include demilitarization and the establishment of an international science centre seem to offer an attractive option.

Although an international peace park has existed for over seventy-five years on the northern boundary of the United States with Canada, the same outcome remains elusive along the southern border. Chester and Sifford chronicle the ongoing challenges of trying to establish cooperative transboundary protection between the United States and Mexico. The most significant of the current challenges is associated with meeting conservation goals while maintaining homeland security. The authors highlight the degree to which a park could enhance conservation and economic sustainability in the regions discussed. Although no formal designation is currently in place between the two countries, a variety of successful non-government efforts have helped to promote transboundary conservation. Chester and Sifford explore the potential for international peace parks within both the Sonoran and Chihuahuan deserts and conclude that the near-term reality for such a prospect remains doubtful. The authors recommend that, rather than simply giving up on the potential for

an international peace park on the Mexico–U.S. border, conservationists who care about the border region should develop strategies that seek to understand the forces aligned against international designations, then use that understanding to shore up and stabilize support within the broader North America conservation community, joining particularly the growing voices from Mexico.

Healy addresses the potential mechanisms and benefits of an international peace park between North Korea and South Korea. The demilitarized zone (DMZ) established in 1953 between the two Koreas has been off-limits to virtually all human access for more than fifty years. An area of incredible biodiversity richness, the DMZ could become the core of a nature and peace park with a multitude of economic and ecological benefits shared by North and South Korea. International support for the initiative has come from such notable figures as Nelson Mandela and Ted Turner. Establishing a peace park in this region remains a significant challenge, but considerable logistic and financial support is building.

Sarkar and Milindo's contribution describes a unique opportunity to protect a biodiversity hotspot in the Darjeeling Himalayas of India. The transboundary efforts described in the chapter are not across international borders but transcend multiple state and local jurisdictions between Singalila National Park and Senchal Wildlife Sanctuary over a distance of approximately twenty kilometres. The authors examine the issue of connectivity in the context of maintaining resilience within the complex social ecological system that defines the region. Sarkar and Milindo delve deep beyond the basic ecology of connectivity for wildlife to explore the socio-economic intricacies of intervening for long-term sustainability. The ultimate success of any program to address ecological connectivity will rely on its concurrent ability to meet the social needs of the regional communities.

The final chapter of the book appropriately ends with a proposal for another peace park between Canada and the United States. Schneekloth et al. present an opportunity to commemorate almost two hundred years since the War of 1812. Niagara Falls and the Niagara Escarpment are iconic landscapes for both countries and the authors point out that an international peace park designation “facilitate[s] better coordination and

resource management in the face of climate change, cross-border political relations in a time of terrorism, economic partnerships in an expanding global market, and a celebration of our shared culture yet unique differences in a world increasingly interested in the balance between globalism and localism.” The proposal is unique in that the designation would encompass a ‘park without borders’ through a strong regional approach to sustainable development, international cooperation, and environmental leadership. The recent events to mark the bicentennial of the War of 1812 provided additional momentum to move the peace park idea to fruition.

CONCLUSION

Although the Waterton-Glacier International Peace Park is a model that has been emulated globally, a poignant story from the conference illustrates ongoing challenges, even between countries with a long history of peace and good will. The conference was held on the Canadian side of the International Peace Park and organizers were committed to having delegates participate in a fieldtrip as part of the program. The intent was to highlight some of the many International Peace Park collaborative activities and initiatives on both sides of the international border. However, partly due to the events of September 11, 2001, heightened border security made it logistically impossible for a bus load of people from as many as thirty different countries to cross from Canada into the United States. The conference fieldtrip was a great success and participants did actually manage to cross into the United States on a boat trip down Waterton Lake with interpreters from both Waterton and Glacier. Nevertheless, it seems ironic that an international gathering to celebrate the birth of the world’s first International Peace Park was unable to easily move between the constituent national parks.

The formalization of the International Peace Park idea is clearly rooted in the history of Waterton and Glacier National Parks. The Parks, Peace, and Partnerships Conference and the contents of this volume capture the grand evolution of transboundary ideas for the betterment of nature and society. The complex challenges that face us and the biosphere require

new approaches to break down barriers to the flow of ecological processes and remove the obstacles to cooperating across borders. The experience of innovative practitioners and insightful leaders from around the world demonstrates our capacity for peaceful collaboration across jurisdictional divides. Our very survival depends on our ability to grow and implement such ideas around the world. Nelson Mandela, a strong proponent of peace parks and a founding patron of the Peace Parks Foundation, captured the essence of this message in a speech to open the gates between the national parks of South Africa and Mozambique:

I know of no political movement, no philosophy, and no ideology which does not agree with the peace parks concept as we see it going into fruition today. It is a concept that can be embraced by all. In a world beset by conflict and division, peace is one of the cornerstones of the future. Peace parks are building blocks in this process, not only in our region, but potentially the entire world. (Peace Parks Foundation 2011)

We are pleased to provide this volume of thoughts and ideas to advancing the praxis of transboundary protection and peaceful collaboration.

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