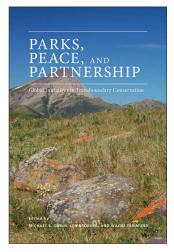


University of Calgary Press

www.uofcpress.com



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

Edited by Michael S. Quinn, Len Broberg, and Wayne Freimund
ISBN 978-1-55238-643-9

THIS BOOK IS AN OPEN ACCESS E-BOOK. It is an electronic version of a book that can be purchased in physical form through any bookseller or on-line retailer, or from our distributors. Please support this open access publication by requesting that your university purchase a print copy of this book, or by purchasing a copy yourself. If you have any questions, please contact us at uccess@oucalgary.ca

Cover Art: The artwork on the cover of this book is not open access and falls under traditional copyright provisions; it cannot be reproduced in any way without written permission of the artists and their agents. The cover can be displayed as a complete cover image for the purposes of publicizing this work, but the artwork cannot be extracted from the context of the cover of this specific work without breaching the artist's copyright.

COPYRIGHT NOTICE: This open-access work is published under a Creative Commons licence. This means that you are free to copy, distribute, display or perform the work as long as you clearly attribute the work to its authors and publisher, that you do not use this work for any commercial gain in any form, and that you in no way alter, transform, or build on the work outside of its use in normal academic scholarship without our express permission. If you want to reuse or distribute the work, you must inform its new audience of the licence terms of this work. For more information, see details of the Creative Commons licence at: http://creativecommons.org/licenses/by-nc-nd/3.0/

UNDER THE CREATIVE COMMONS LICENCE YOU MAY:

- read and store this document free of charge;
- distribute it for personal use free of charge;
- print sections of the work for personal use;
- read or perform parts of the work in a context where no financial transactions take place.

UNDER THE CREATIVE COMMONS LICENCE YOU MAY NOT:

- gain financially from the work in any way;
- sell the work or seek monies in relation to the distribution of the work:
- use the work in any commercial activity of any kind;
- profit a third party indirectly via use or distribution of the work;
- distribute in or through a commercial body (with the exception of academic usage within educational institutions such as schools and universities);
- reproduce, distribute, or store the cover image outside of its function as a cover of this work:
- alter or build on the work outside of normal academic scholarship.



Acknowledgement: We acknowledge the wording around open access used by Australian publisher, re.press, and thank them for giving us permission to adapt their wording to our policy http://www.re-press.org/content/view/17/33/

Under the Penumbra of
Waterton-Glacier and
Homeland Security: Could a
Peace Park Appear along the
U.S.-Mexican Border?

Charles C. Chester and Belinda Sifford

INTRODUCTION

The 1932 designation of Waterton-Glacier International Peace Park (WGIPP) inspired efforts to create a similar institution between the U.S. and Mexico. Yet despite the greater need for symbolic inspiration on the U.S.'s southern border, the seventy-fifth anniversary of WGIPP passed without a complementary Mexico–U.S. peace park. To blame are a host of political disputes, cultural misunderstandings, and any number of other factors. Given the divergent governmental priorities and periodic acrimony between the U.S. and Mexico, it is hardly surprising that advocates on

both sides of the border have yet to ordain a park celebrating conservation and peace.

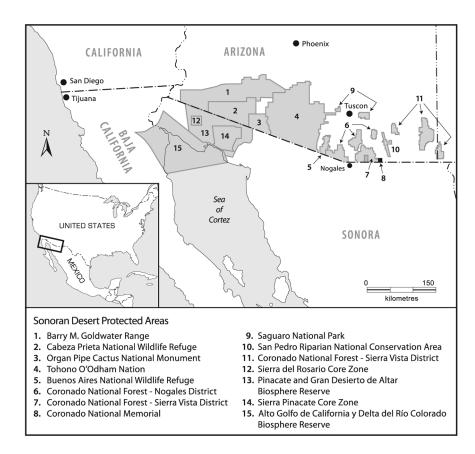
Despite the failure to establish a formal peace park, Mexican and U.S. land managers have participated in various cooperative endeavours with a large-scale impact across the international border. Conservationists have repeatedly celebrated these efforts as potential precursors to an international park, though such hopes may seem absurdly aspirational as extensive border fences now stand with more authorized for construction. In an era so dominated by border security, immigration, and trafficking issues, there is good reason not only to question the political feasibility of a peace park, but as well to critically assess the degree to which a park could enhance conservation and economic sustainability in the region.

Nonetheless, examining the history of efforts to establish an international park in both the Sonoran and the Chihuahuan deserts justifies the conclusion that an international park is not only worthy but possible. Despite existing barriers, the cumulative weight of beneficial collaborative cross-border work may yet lead to an international park symbolizing peace and land stewardship.

THE SONORAN DESERT

The Sonoran Desert lies largely in Mexico, surrounding the Gulf of California and engulfing most of the Mexican states of Sonora, Baja California, and Baja California Sur (Map 1). Yet a sizable portion extends across the border, covering most of southwestern Arizona and significant portions of southeastern Arizona and southeastern California (Dimmitt 2000; MacMahon 2000).

The region's indigenous O'odham peoples have lived in the region for centuries. During the late seventeenth century, the first wave of colonization came via a network of Spanish missionaries in the eastern portion of the Sonoran Desert. Although the region's arid conditions did not attract significant numbers of colonists, a treacherous path through the desert to accommodate the wave of gold rushers from the Mexican frontier to California – a route still known as the "Devil's highway" – did encourage



MAP 1. PROTECTED AREAS IN THE SONORAN DESERT REGION (M. CROOT).

some further settlement (USFWS 2002; Urrea 2004). But the presence of these would-be colonizers was minimal up to the end of the nineteenth century. Even afterwards, the Mexican ejidos (a collective management system of typically small farms) established in the region during the first half of the twentieth century were hardscrabble, and the few "anglo" settlers who came into the region from the north also found it difficult to wrest a living from the harsh landscape. On the U.S. side of the border, such challenges were largely responsible for the federal government's grant of a sizable reservation to the O'odham in 1916. At 1,122,815 hectares, the Tohono O'odham Nation (TON) comprises the second largest tribal reservation in the United States (Waldman 1985).

Despite such a large land concession to the O'odham, the U.S. federal government still controlled most of the surrounding lands. This included a vast region west of the Reservation, out of which in the 1930's two relatively large protected areas were established to protect dwindling game species, particularly desert bighorn sheep (Ovis canadensis), and cactus species unique to the region. The first of these was Organ Pipe Cactus National Monument (ORPI), created in 1937 by President Franklin D. Roosevelt (Pearson 1998; Felger et al. 2006; U.S. NPS n.d.). ORPI's 133,825 hectares are bordered to the south and east by 141.6 kilometres of international borders with both Mexico and the TON. Two years later, Roosevelt protected the lands to the north and west of ORPI as the Cabeza Prieta Game Range, which in 1976 would be redesignated as the Cabeza Prieta National Wildlife Refuge (CPNWR).

At 348,034 hectares, and sharing a 90-kilometre international border with Mexico, CPNWR is the third largest national wildlife refuge in the lower forty-eight states (U.S. FWS n.d.). In total, U.S. federal agencies currently manage approximately 3,041,302 million hectares within five protected areas and one "de facto" protected area within the Sonoran Desert (Felger et al. 2006). This de facto area has been controlled by the Department of Defense since 1941, when President Roosevelt withdrew a vast tract of land to the north and west of Cabeza Prieta NWR as the Luke Gunnery Range for military training purposes (see Ripley et al. 2000). After several name changes, Congress designated the area as the Barry M. Goldwater Range (BMGR) in 1987. As described below, this area would come into play in later advocacy for an international peace park.

In the early 1960s, Secretary of the Interior Stewart Udall put forth the notion of uniting ORPI and the Cabeza Prieta Game Range, and the NPS followed up by proposing a unified "Sonoran Desert National Park" (U.S. NPS 1965; Udall 1966). Advocates for integration included conservation organizations (such as the Sierra Club) as well as influential decision-makers. Udall would later recall that the idea "didn't receive a lot of publicity" and that he could not convince President Lyndon B. Johnson of the project's value (Udall 1997). Although Johnson ignored Udall's proposal, the seed of an idea had been planted – one that would grow, if not yet bear fruit.



Landscape scene of typical Sonoran Desert topography and vegetation near Ajo, Arizona (C. Chester).

In its 1965 proposal, the NPS had concluded that "the entire area is eminently qualified for National – if not International – Park status" (U.S. NPS 1965, 29). But even as Udall was considering a unified park during the 1960s, he also noted that the idea of an international park "was kind of a dream at that point" (Udall 1997, 317). One principal reason it remained a dream was Mexico's preoccupation with other pressing land needs and policies, which is to say that establishing a protected area on the border found little traction in Mexico. Furthermore, as pointed out by Exequiel Ezcurra, a prominent biologist and high-ranking government official in Mexico, Mexico's federal government was opposed to decreeing protected areas along the border because "Mexico perceived [setting up] national parks along the Mexico-U.S. border, like Big Bend or Organ Pipe, were really things that the U.S. did to define its boundaries and territories and to have control of the border" (pers. comm. 2000).



ROAD CLOSURE FENCES FOR PROTECTION OF SONORAN PRONGHORN CONSERVATION NEAR AJO, ARIZONA (C. CHESTER).

Despite such concerns, as early as 1943 the Mexican Government had investigated the possibility of establishing a game refuge in the Pinacate region of the state of Sonora just south of CPNRW. That same year, Mexican officials had collaborated with the United States in a small, research-oriented transborder conservation initiative (Pearson 1998, 6). Little official transborder conservation activity appears to have occurred in the region during the ensuing decades, with the exception of sporadic attempts at transborder cooperative initiatives during the 1970s (Pearson 1998). It was not until the subsequent decade that a number of scientists and conservationists began to advocate more vociferously for international cooperation. Perhaps most important, in 1980 the Centro Ecológico de Sonora and the U.S.-based Nature Conservancy began actively investigating the possibility of designating the Pinacate as a "biosphere reserve" under the "Man and the Biosphere Program" (MAB) of UNESCO. Individual biosphere

reserves were conceived as a tiered land-management strategy, each to include "core zones," "buffer zones," and "cooperation/transition zones."

The essential goals of a biosphere reserve were to conserve biodiversity, to provide baselines for scientific research, to establish educational facilities, and to promote sustainable development. Although ORPI was one of the first areas to receive designation as a biosphere reserve in 1976, the new appellation did not lead to any significant changes in the management of the area or its surrounding lands.

Much of the rest of the 1980s would see a series of similar and related investigations into the Pinacate, and a 1988 "Symposium on the Pinacate Ecological Area" would generate considerable momentum toward international cooperation in the region – as well as toward the establishment of biosphere reserves in Mexico. The Symposium not only attracted scientists and conservationists from both sides of the border but constituted the first time that the O'odham had been included in such a transborder forum (Sonoran Institute & ISDA n.d.; Laird et al. 1997). Representatives from one subgroup of O'odham, the Hia Ced O'odham, raised strong concerns over whether the designation of the Pinacate region as an international biosphere reserve would further trespass on their rights to the region (Joquin 1988). Although the message appears to have received a cool reception among many – if not most – of the Symposium's participants, there was agreement over the need for "a larger public forum ... to promote dialogue among residents of the Sonoran Desert" (Laird et al. 1997).

After the four subsequent years of networking and planning, a well-attended "Land Use Forum" finally took place in 1992 in the small, close-to-the-border town of Ajo, Arizona. Bringing together conservationists, land managers, scientists, indigenous groups, and others from both sides of the border, the forum had two important outcomes. First, several connections made at the forum would be instrumental in pushing the Mexican federal government to formally designate the Pinacate and the adjoining lands to the west as la Reserva de la Biosfera El Pinacate y Gran Desierto de Altar (Chester 2006). Concurrently and further to the west, it also designated la Reserva de la Biosfera Alto Golfo de California y Delta del Rio Colorado, with the result that the two biosphere reserves combined covered over 1.6 million hectares (Felger et al. 2006).

The biosphere designation allowed Mexico both to highlight a desert landscape as worthy for protection and to adopt an approach to land conservation that was quite different from that found in the United States. This was because the geographic application of biosphere reserves incorporated the existence of communities within its boundaries – most notably in this case the presence of 67 ejidos (though many were only "minimally inhabited" due to lack of water and other resources) (Simon 1997, 160; Walker n.d.). In contrast, even though ORPI had received a biosphere reserve designation in 1976 (being thus among the first worldwide), the new appellation did not lead to any significant changes in the area's operations.

Second, the 1992 forum sparked the genesis of the International Sonoran Desert Alliance (ISDA), a tri-national grassroots network that covered a wide range of objectives ranging from improved border crossings to better access to health care. While much of ISDA's agenda was focussed on such social issues, it also became enmeshed in the effort to establish an International Sonoran Desert Biosphere Reserve. By the mid-1990s the effort seemed close to achieving its goals, only to die a sudden political death in 1996 when an anti-internationalist movement concentrated its efforts on U.S. cooperation in international land management programs, including the Man and the Biosphere Program. Yet despite the ultimate demise of the international biosphere proposal, the effort helped inspire two related yet distinct land management initiatives, one emanating from within the government, the other from the conservation community.

Regarding the governmental initiative, land management officials and politicians on either side of the border were still interested in effecting some sort of cross-border conservation agreement. A state-level agreement was reached in November 1996, when Sonora Governor Manlio Fabio Beltrones and Arizona Governor Fife Symington signed a Memorandum of Understanding that jointly endorsed the idea of a "Binational Network of Sonoran Desert Biosphere Reserves" (U.S. NCMABP 1997; Pearson 1998, 13). Incorporating most of the public lands in the Sonoran Desert's border region, the purposes of the network were to protect the region's cultural values, to support sustainable economic and community development in the region, and to promote "cooperation between the contiguous protected areas on both sides of the border so as to motivate collaborative

resource management of the region's shared resources" (U.S. NCMABP 1997).

A few months later, a Letter of Intent for Adjacent Protected Areas (LOI) was signed between the Secretary of the Department of Interior Bruce Babbit and his Mexican counterpart, Julia Carabias of the Secretaría del Medio Ambiente, Recursos Naturales y Pesca (renamed in 2001 as the Secretaría del Medio Ambiente y Recursos Naturales, or SEMARNAT) (Carabias and Babbitt 2001). Although the phrase "biosphere reserve" was nowhere in sight, the LOI did mean that both federal governments were now at least nominally working together in the Sonoran Desert on managing "sister areas" (U.S.–Mexico Border Field Coordinating Committee 2001).

Distinct from this governmental initiative, a number of conservationists continued to focus on international protection for the region – but now forgoing the "international biosphere reserve" approach in favour of an "International Sonoran Desert Peace Park." Perhaps the most prominent of these activists was retired teacher Bill Broyles who catalyzed the organization of the NGO, Sonoran Desert National Park Friends (SDNPF). Though the group's ultimate goal was an international peace park, it chose pragmatically to focus first on integrating land management on the U.S. side of the border.

In 1999 and 2000, SDNPF ran a publicity campaign centred around a "citizen's proposal" for a Sonoran Desert National Park and Preserve that generated substantial press attention through a website and a full-colour pamphlet with compelling photos and text. The approach harkened back to Udall's longstanding idea of conjoining ORPI and CPNWR, but now included the Barry M. Goldwater Range to the north and west of the protected areas. Controlled by various departments of the U.S. military (although the Department of the Interior's Bureau of Land Management has played a traditional role in managing the area), the Range has seen numerous conservation activities within its bounds. And, as the SDNPF's proposal noted, the Air Force required only 6 per cent of the Goldwater range. Although the proposal allowed for continued military activities, it argued that under NPS management "the heart of the Sonoran Desert would be preserved and the responsibility for this preservation would fall

into dedicated and able hands" (SDNPF 2002). This accounts for the title of the proposed area – "Sonoran Desert National Park and Preserve" – the latter being the NPS designation for areas still open to hunting and certain military uses.

With a 1999 opinion poll concluding that Arizonans supported the park idea at an "astounding" rate of 84 per cent (BRC 1999), the campaign mustered enough momentum for the submission of a bill and related hearings within the Arizona's State Senate in 2003. Specifically, the Arizona State Senate's Natural Resources and Transportation Committee reviewed a "memorial" bill that urged "the United States Congress and the Department of the Interior to take the necessary steps to establish the Sonoran Desert Peace Park" (Arizona State Senate 2003b, 2003d). The bill's sponsors argued that the redesignation "will be cost free for the State and federal government." One opposing argument was that the bill could impede the military's use of the Goldwater Range (Arizona State Senate 2003c). For reasons still unknown, but likely involving lack of consensus, the Committee never voted on the bill (Arizona State Senate 2003a), and a similar bill appears not to have been submitted since 2003.

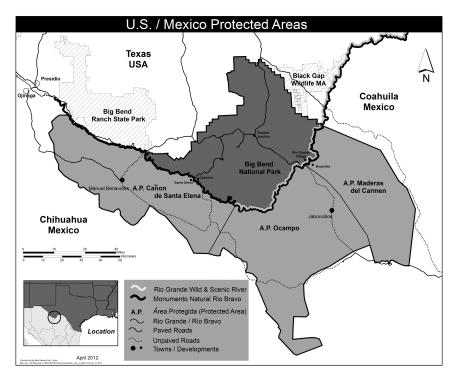
According to Broyles (pers. comm.), there are three primary reasons why no Sonoran Desert Peace Park exists despite the momentum of the 1990s. The first has simply been chronic under-funding from the federal government for conservation. The second has been the increase in drug smuggling and illegal immigration on this stretch of the border), making the region instinctively less appealing for collaborative efforts. The third reason has been the diversion of funds by the Homeland Security Department away from border conservation and cooperation to the construction of steel border fences and 100-foot-high towers with radar, high definition cameras, and virtual fences (see, for instance, Archibold 2007; Cohn 2007; Kerasote 2007; and Marosi 2011). For all these reasons, the campaign for an international peace park has at least temporarily lowered its sights to redesignating ORPI as a national park instead of a national monument – a strategy based on the fact that compared to monuments, "parks generally receive higher budgets and stronger support from the public and Congress" (Broyles 2004, 35).

THE CHIHUAHUA DESERT

From a national perspective, much of the media's attention on the U.S.—Mexican border has focussed on the Sonoran Desert, a land seemingly consumed by Homeland Security risks. Further east, the 500,000 km² Chihuahuan Desert originates in southeast Arizona and southern New Mexico, sweeps over southwest Texas, and spreads into northern Mexico. Because of its distance from population centres, the media's glare passes this desert by – mostly. The Secure Fence Act of 2006 authorized Homeland Security to take "operational control over the entire international land and maritime borders" and construct fences in set locales, including 153 miles in Texas (H. R. 6061). This made the news (Blumenthal 2007).

Big Bend National Park on the Texan border with Mexico has still managed to elude mandated fence construction, as well as the public spotlight. Certainly the latter is a mysterious oversight, for the park's ecosystem offerings are dramatic. Considering the landscape itself – 90 per cent Chihuahuan desertscape – Big Bend contains a vast array of plant and animal species, including returning black bears (Ursus americanus), and the greatest diversity of bat, cactus, and bird species of any U.S. National Park. Although the Chisos Mountains constitute Big Bend's most noticeable feature, the area is named for the Rio Grande (called the Rio Bravo in Mexico), which "bends" north forming the distinctive curve of southwestern Texas as well as the southern boundary of the park. The river's chiselled canyons – Mariscal, Santa Elena, and Boquillas – reveal an antiquity long on geology and solitude.

Although Big Bend is remote, it is part of a contiguous protected land network including Black Gap Wildlife Management Area (established 1948 by the state of Texas), the Rio Grande Wild and Scenic River (315 km designated 1978), Big Bend Ranch State Park (established 1988), and U.S. land conserved by corporate CEMEX (a Mexico-based global cement and aggregates producer). On the Mexican side, the biosphere reserves of Cañón de Santa Elena and Maderas del Carmen, along with the extensive Mexican holdings conserved privately by CEMEX, individual landowners, and non-profit environmental groups are producing a dynamic collaborative model (Map 2). Mexican initiatives deserve particular note for they



Map 2. Big Bend National Park and surrounding protected areas in the United States and Mexico (National Park Service, U.S. Dept. of the Interior [Big Bend National Park, Betty Alex]).

invigorated border conservation post-9/11 while U.S. security policy was closing ports of entry, restricting professional and consumer activities cross-border and focusing its attention on Rio Grande border security (Robbins 2007).

The Rio Grande has largely defined the region's cultural history. Crude tools crafted by ancient indigenous peoples drawn to the water date back 10,000–15,000 years. In more recent centuries, Hispanos, Comanches, Apaches, Mexicans, Seminole Blacks, Kickapoo, Texans, homesteaders and ranchers, the U.S. Cavalry and National Guard, the Texas Rangers, the Mexican soldaderos and soldaderas, revolutionaries, miners, and untold numbers of wanderers migrated to the region, most to eventually move on.

Big Bend National Park itself grew out of the cash-strapped 1930s. Texans considered a new national park as a potential revenue stream and Big Bend country seemed the logical location. First, its distance from population centres made it relatively free from human degradation - it remained rugged and relatively pristine. Second, although not the traditional coniferous parkscape, Big Bend's vistas were ever wild, and park advocates viewed this land backing up to the Rio Grande as a significant bequest to the country's national park and cultural heritage. Enlightened NPS representatives even saw a park as a vehicle for building stronger "sentiments ... between the Mexican and American peoples," although others, to be sure, saw merely a chance to capitalize on stereotyped images of Mexico (Cisneros and Naylor 1999, 4; Welsh 2002, chap. 3, 3). Indeed, in 1934 U.S. representatives approached newly elected Mexican President Lazaro Cardenas with the idea of an international park that would exemplify U.S. President Roosevelt's Good Neighbor policy and Cardenas's natural resource conservation agenda.

At the U.S. federal level, naturalists, business interests, and "native sons" seeking recognition for Texas's first federal park convinced Congress to authorize the park in 1935 (Roth 1992, 1). Then land had to be acquired through donation or purchase to form a contiguous territory of significant size and resource distinction. With land titles cloudy and some owners unwilling to sell, years of negotiation lay ahead before the park was officially created in 1944.

In the meantime, the Mexican government was still rebuilding itself after its protracted civil war in the early 1900s. Agrarian reform and land distribution were key components in reviving the country's economic base. The Cardenas government created the ejido system to provide land to the poor and settle distant corners of Mexico. Ejidatarios were given the right to work particular plots and pass on that right, but not to purchase or sell ejido property, perpetually held in government hands (Roth 1992). Although Cardenas also established Mexico's first centralized environmental agency and added forty national parks to the two that had existed, conservation was but one of many competing voices demanding economic and political support. Expropriating privately held ranch land (or newly created ejido land) for an international park on the Rio Bravo – one that would entail high infrastructure costs and no immediate economic return



VEHICLE BARRIER FENCE ALONG BORDER BETWEEN MEXICO (TO THE LEFT OF THE FENCE) AND THE UNITED STATES (TO THE RIGHT) NEAR QUITOBAQUITO SPRINGS, ORGAN PIPE CACTUS NATIONAL MONUMENT (C. CHESTER).

for Mexico – made no sense. Overtures from the U.S. and international Rotarians (whose influence helped establish Waterton-Glacier) went unheeded by Cardenas and subsequent administrations.

Over the decades U.S. and Mexican entities successfully conducted numerous joint conservation activities, even when the federal governments were sparring. In the mid-1930s, representatives of both governments travelled by horse and boat to inspect at close range the natural features of the Chihuahuan Desert (Jameson 1996). In 1944 the Utilization of Waters Treaty was signed establishing water exchange flow for various rivers, including the Colorado, Rio Grande, and Los Conchos. During World War II, a presidential exchange of letters supported an international park as conducive to strengthening the ties between the two countries. And as the war concluded, Mexico cooperated with the U.S. Fish and



U.S. GOVERNMENT WARNING SIGN TO ILLEGAL IMMIGRANTS ATTEMPTING TO CROSS THE DESERT IN THE REGION OF ORGAN PIPE CACTUS NATIONAL MONUMENT (C. CHESTER).

Wildlife Department and other public and private entities to conduct the first ecological survey of the Sierra del Carmen in order to "gain a more satisfactory insight into the relationships of the natural resources on both sides of the international boundary" (Welsh 2002, chap. 12, 1).

Postwar attention on economic growth relegated conservation policy, including the international park initiative, to a secondary position for both countries. With few restraints, industrialization efforts depleted natural resources at a rapid pace (Simonian 1995). In Mexico's Maderas del Carmen, for example, the richly diverse coniferous forests were heavily cut and the lower elevation land strip-mined. Meanwhile, with the expansion of roads and automobile use, the well-established U.S. National Parks flourished as family tourist destinations rather than as havens of conservation (Sellers 1997).

As U.S. National Park attendance grew, park enthusiasts again looked to Mexico, envisioning an international park as another opportunity. Rotary International, for example, continued to promote peace through parks, as did certain local and national park employees. This included Big Bend's Superintendent in 1954 discussing an international park with the Rotary Club in Saltillo Mexico. A related proposal for an "international free zone" in the Big Bend-Sierra del Carmen area would have moved customs and immigration back to park peripheries in each country, with visitors moving unfettered back and forth across the border. Notably, the Five State Good Neighbor Council passed international park resolutions in 1954 and 1956 (Roth 1992). Other interests, however, ruled the day, including U.S. citizens with ranches in Coahuila and Chihuahua who feared the Mexican government would expropriate their land to create a park. Moreover, the U.S. State Department resented the ad hoc international efforts of the Park Service and private groups. This tension culminated in the 1962 creation of the NPS's Office of International Affairs instead of an international park.

In the early 1960s, concerned citizens and emerging environmental groups backed by emerging scientific evidence brought public attention to the environmental degradation of the landscape. As both the Mexican and U.S. governments began passing major pieces of environmental legislation in the 1960s and early 1970s, the NPS began to understand that sustainable land management meant following sound environmental science and that no-holds-barred visitation was damaging the land. Particularly relevant to the borderlands was increased attention to the influence of land-use practices on adjoining lands. Park managers came to recognize regional ecosystems as at least deserving of consideration, if not primary attention (Sellers 1997). This changed thinking was reflected in the designation of Big Bend as a biosphere reserve in 1976.

In keeping with biosphere philosophy, Big Bend's managers in the 1980s reassessed the Park's historical relationship with Mexico (Welsh 2002). Rather than continue to ignore the Mexican villages on the border – Santa Elena, San Vicente, and Boquillas del Carmen – park administrators viewed them as part of an ecological, cultural, and economic base of the region. Superintendent Gil Lusk, for example, arranged meetings with

Mexican state officials and local villagers to learn more about the region's ejidos and colonias. Park management encouraged employees to speak Spanish and visitors to hire Mexican villagers to row them across the Rio Grande for a meal or beverage in Mexico. As resource planning benefited from improved relations with Mexican officials, the NPS regional office encouraged cooperative attitudes in selecting its own staff (Welsh 2002; G. Lusk, pers. comm. 2005). In 1990 Los Diablos firefighting program began, providing U.S. training to Mexican nationals living in the villages adjacent to Big Bend. When wildfires broke out, firefighters from both countries formed crews to extinguish the fires in either country.

By 1991, relations between the government agencies were strong enough so that the NPS Director and the Secretary of Mexico's Secretaría de Desarrollo Urbano y Ecología (SEDUE) attempted to obtain funding for an international park. Unfortunately, heightened awareness of transborder drug trafficking and illegal migration prevented support for such benign collaboration. Rio Grande water quality was also becoming a friction point. Both mercury run-off from abandoned mines and fecal bacteria from livestock made recreational use under the U.S Wild and Scenic River program problematic. Big Bend staff readily understood that managing half a river, i.e., to the midway point in the Rio Grande, was meaningless for water quality purposes.

To add to the sensitivity of border issues, debate over the North American Free Trade Agreement (NAFTA) and the supplemental North American Agreement on Environmental Cooperation (NAAEC), followed by their passage on January 1, 1994, left hard feelings and biases in both countries. That same year, however, the Mexican Congress passed legislation that changed the international conversation across the Big Bend region forever: the formal creation of "Áreas de Protección de Flora y Fauna" Maderas del Carmen and Cañón de Santa Elena adjacent to Big Bend. Each was of significant size and natural resource richness.

The "protected area" designation recognized certain lands for natural distinction and mandated conservation with limited natural resource extraction. Approximately 80–85 per cent of the two protected areas were (and remain) in private hands (pers. comm., Dan Roe, CEMEX, February 2005). With little government staffing to enforce the "limited" resource

extraction proviso – particularly in light of the remote location of these areas, their sparse human populations, and poor roads – private landholders were entrusted with responsibility for protecting the region.

The region's status as a protected area, in fact, increased, thanks largely to the conservation work of CEMEX in conjunction with Mexican NGOs such as Agrupación Sierra Madre. In the mid-1990s CEMEX sought to invest in a large-scale conservation project as part of its corporate social responsibility strategy. When Agrupación Sierra Madre introduced CEMEX to the Maderas del Carmen area, the company was persuaded of the land's significance and the company began to purchase and lease land in Coahuila under the advice of Agrupación. A 1990 change in the federal ejido law, enabling ejidatarios to sell their land, made more land available for ranchers and CEMEX. CEMEX has been a lightning rod for border activity generally, including working with the provincial government of Coahuila and the federal government (usually CONANP, the department overseeing Mexican protected areas) to implement species conservation programs and develop management plans. It invested in training other landowners to sign on to long-term land conservation agreements, which in turn attracted international attention to rejuvenating landscapes through corporate vision and financial commitment.

During this period, formal U.S.-Mexico exchanges continued to promote lasting relationships based on conservation. In 1996, for example, Mexican officials travelled to Waterton-Glacier at the invitation of Big Bend's and Glacier's superintendents for a firsthand view of cooperative practices. Subsequently, Babbitt and Carabias signed the aforementioned letter of intent (LOI) in Mexico City. While expressly recognizing the sovereignty of the two countries, the LOI created pilot projects "in the conservation of contiguous natural protected areas" in the border zones of the northern Chihuahuan Desert and the Western Sonoran Desert (Carabias and Babbitt 2001).

In 1998, Big Bend Superintendent Jose Cisneros organized a 1998 meeting with over sixty participants to jumpstart an international park effort. Enthusiasm ran high, but ultimately funding, and Congressional legislation were not forthcoming (Cisneros and Naylor 1999). Regardless, shared natural resource initiatives, e.g., controlling invasive species,

studying air quality, and observing wild life habitat, continue even in this time of heightened border surveillance. The multi-agency BRAVO project, for example, published combined bilateral (notably in the early research) public and private resources to inventory the sources of visibility impairment in BBNP and produce a wealth of scientific data for both countries (Pitchford 2004).

Most noteworthy is the Mexican government's 2009 decree establishing the Área de Protecíon de Flora y Fauna Ocampo (a 334,270-hectare area linking Cañón Santa Elena with Maderas del Carmen) and soon after the Monumento Natural Rio Bravo, a narrow 221-kilometre strip along the Rio Bravo (Rio Grande) on the Mexican side of the river. It is no coincidence that the government action occurred with the energetic work of conservation groups on both sides of the border (Carrington 2009; Ferris 2011). Collaboration with these groups helped the government expand its vision and convince the local population, including many ejidatarios, of the value of these conservation initiatives. Various government proposals seek to employ local inhabitants in the future to sustain the protected lands they have traditionally worked.

The U.S. National Park Service has faced restricted budgets to compensate for expanded security spending. Given the still-limited budgets of the Mexican protected areas, collaboration across the Texas, Coahuila, and Chihuahua protected areas has relied heavily on established goodwill and internet communication. Today technology is helping to continue shared conservation efforts and build valued relations. Meanwhile private and NGO activities have infused local transborder initiatives with additional support, even funding. While the narrow security focus in the region has presented often a pessimistic perspective following 9/11, as discussed below, it appears once again the United States and Mexican are poised to take new collaborative steps on the Rio Grande, using technology to build on the historic and look to the future.

CONCLUSION: SECURING A PEACE PARK UNDER HOMELAND SECURITY

When asked in August 2007 what initiatives were continuing between Big Bend and its Mexican counterparts, Vidal Davila, Big Bend's then Chief of Resource Management and Science, responded: "Lost Diablos are alive!" (V. Davila pers. comm. 2007). Cooperative efforts such as Los Diablos firefighters honour the lands and people of "la frontera," the distinctive binational border region between the United States and Mexico. Similarly, joint projects that inventory bats in the Sonoran Desert, track black bears in the Chihuahuan Desert, study border air quality, or remove invasive salt cedar trees on international river banks all deserve attention for their global benefits, big and small. Such projects involve, not only U.S. and Mexican scientists, conservationists, and land managers, but also local Mexican villagers who find employment in such projects, for example, removing invasive species while planting native cottonwoods. As crossborder relationships grow, new commitments arise to expand horizons. The 2005 donation of a generator and sewing machines by Friends of Big Bend to economically strapped Mexican border villages demonstrates an economic initiative arising from the recognized need of a neighbour (J. King, pers. comm. 2005).

Unfortunately, the steadily increasing commitments are overshadowed publicly by media preoccupation with U.S. security. In the Sonoran desert area, the highway network and proximity to towns and transport have meant the most rapid federal fence building, of various types and materials, to stop trafficking and illegal immigration. The multiple impacts on the desert landscape – by pedestrian, ATV, or a Border Patrol Chevy Suburban – have been severe, and although Border Patrol officers understand first-hand the stress their activities place on the land, their priorities lie with securing the border under the mandates of the Homeland Security Act.

As mentioned previously the Big Bend region has been shielded from fence building even though covering 13 per cent of the U.S.-Mexican border. With more than a hundred miles on a poorly maintained road separating the Rio Bravo's off-the-grid villages from the nearest Mexican

towns and paved roads, the locale is inhospitable to trafficantes and security alike. Yet Homeland Security policy devastated these villages – not with fences, but by cutting off economic opportunities. This included prohibiting villagers from rowing Big Bend visitors across the Rio Grande for a Mexican village meal and beverage, and purchasing food supplies in the park, a practice saving them the long, dirt road drive to the nearest Mexican town. Such seemingly insignificant practices were themselves the village economy.

Change, however, is once again coming to this challenged area, change that makes talk of a binational protected area or park not appear dreamy-eyed. With different federal administrations in both countries, environmental and security assessment, formal public comment and local popular support, the reopening of a Class B Port of Entry (POE) in Big Bend National Park, to be named the Boquillas Crossing, is expected to open in 2012 (Walters 2011).

Considering the Boquillas economy, this under-construction port of entry should bring people and a jolt to the village with its cutting-edge technology – the first robotic, unstaffed border crossing with Mexico. (The northern U.S.-Canada border has had such entry points since 1991 (e.g., CANPASS Remote Area Border Crossing Program in the Lake of the Woods Region). This new development can't but help to cause one to think of future possibilities, say a joint U.S.-Mexican decree establishing the Boquillas-Big Bend International Peace Park or International Protected Area. A Sonoran Desert International Park might be established as well. Now assume that the decrees were very general, containing ambiguous phrases such as "shall share information" and "shall participate in joint management activities." Here's the essential question: What would happen next?

We of course do not know. Disastrous consequences could ensue were widespread publicity over these two areas to serve as attractants to higher levels of both illegal immigrants and narcotrafficking. "Peace Park," in other words, could be interpreted by nefarious citizens on both sides of the border as a kind of parallel-universe Maquiladora Zone where anything goes and no questions are asked. Alternatively, from a less cynical though still critical lens, such national decrees could have the all-too-common

effect of inspiring celebration throughout the cloistered halls of the insular conservation community – only to be subsequently ignored, and then forgotten by all parties within a few months.

Although we cannot exclude the chance of such unfortunate outcomes, current activities in the region do not lead us to see such scenarios panning out. To the contrary, such decrees would likely give rise to conditions conducive to transborder conservation without a deterioration in border security. Most particularly, these new designations would have the two principle effects of: (1) giving local land managers a visible and enduring mandate to work and coordinate with their colleagues across the border, and (2) generating a new constituency of advocates who care about these landscapes and who value international collaboration.

On the first account, the establishment of these international parks would help justify new financial and material resources for transborder exchanges of personnel and information, as well as realistic support for economically modest ejido residents, indigenous groups, local ranchers, conservation groups, and others. The sister park collaborations that continue to provide platforms for more efficient local and international land management, e.g., the 2008 Shared Heritage, Shared Stewardship conference, might have had greater funding and public acknowledgment of their work had existing peace parks been part of the participating mix. At an absolute minimum, an international peace park designation would help institutionalize and enhance extant cooperative programs such as Los Diablos.

On the second account, conservationists are well-versed in the threats caused by increased visitation rates – and one can reasonably ask whether attracting new visitors to these regions would make any sense at all. Without discounting the real and deleterious effects associated with increased visitation, we believe that at least some increased park visitor levels, particularly on the U.S. side today, would constitute a net environmental and political benefit for the region by strengthening the "core constituencies" for the peace parks. Virtual tourism, principally through the involvement of schools and media outlets, would also build constituencies. Schools might even log in to watch robots conduct border business at Boquillas Crossing. Likewise, the desert bighorn reintroduction and

repopulation story alone could create passionate supporters, young and old, close-by and far-afield. As with other protected areas, such constituencies would give the broader, more politically connected conservation community a greater presence in policy debates in the region.

Beyond the potential conservation benefits brought on in this thought-experiment, what difference could a peace park designation make in regard to border security? Homeland Security has helped to design Boquillas Crossing. It's use (and abuse) will help develop security practices in the future with fences or not. Voices still argue for green initiatives to complement or replace steel, chain link, and cement barriers. The governor of Coahuila's planting a 400,000-tree "green wall" to oppose the U.S. fence building and complement life is the type of conservation activity that an international peace park would embody. Homeland Security indirectly prompted the tree planting; a peace park would help sustain it.

In the Big Bend region, an international park would strengthen the growing capacity for conservation in Mexico. The El Carmen Wilderness designation, the facilities for breeding desert bighorn and their increasing repopulation into the region, and the binational dialogue about the El Carmen–Big Bend Conservation Corridor Initiative are important examples of regional conservation enthusiasm and vitality. The inclusion of a peace park in the corridor could solidify the "green curtain," across which land managers and park visitors would journey to acknowledge their commitment to land conservation and international cooperation. Rotary chapters that continue to promote a peace park on this border should play a role as well.

Designating areas as protected and winning over local landowners to manage the land could build a somewhat figurative green wall that would keep out the trafficantes who find the natural terrain inhospitable and thus fear the possibility of losing themselves in "el gran desierto" (Stevenson 2006). Generally, however, because concerns over the current risks associated with the international border are unlikely to change significantly in the near future, green fences must be encouraged publicly and tested along with other protective measures, e.g., say Normandy fences over three-tier steel fences. Both countries must contribute to solving the border issues

and to keeping the cross-border conservation phenomenon internationally recognized.

In the decades since the establishment of Waterton-Glacier, conservation advocacy for a similar peace park on the Mexico–U.S. border has simply never coalesced at a national level in either country. Yet cross-border dialogue has continued and extant collaborative initiatives, particularly involving private and non-profit entities, are robust. The 2005 creation of the El Carmen Wilderness Area, the first ever Latin American wilderness designation and the first private wilderness protected by the Mexican government (on CEMEX-owned land), is a stunning example of conservation community thinking "outside the park." The new Boquillas Crossing is another powerful symbol of the regional potential.

In total, protected land in the Big Bend–Mexican region extends now beyond 1,300,000 hectares, one of the largest expanses of protected land in the world. In comparison, Yellowstone National Park contains 898,321 hectares and the international Waterton-Glacer International Peace Park 462,799 hectares. The border land will provide the lessons. Rather than giving up on the potential for an international park on the Mexico–U.S. border, conservationists from both countries who care about the border region should observe and build long-term strategies in this transformative moment.

REFERENCES

- Archibold, R. C. 2007. "28-mile virtual fence is rising along the border." *New York Times*, 26 June, A12.
- Arizona State Senate. 2003a. "Bill status overview: Sonoran Desert Peace Park. SM 1001." http://www.azleg.state.az.us/legtext/46leg/1r/bills/sm1001o.asp.
- ——. 2003b. "Fact sheet for S. M. 1001: Sonoran Desert Peace Park." http://www.azleg.state.az.us/legtext/46leg/1r/summary/s.sm1001nrt.doc.
- ——. 2003c. "Minutes of Committee on Natural Resources and Transportation. 18 February." http://www.azleg.state.az.us/legtext/46leg/1r/comm_min/senate/021803 nrt.dot.htm.
- ——. 2003d. "Sonoran Desert Peace Park. SM 1001." http://www.azleg.state.az.us/legtext/46leg/1r/bills/sm1001p.htm.
- Blumenthal, R. 2007. "Some Texans fear border fence will sever routine of daily life." *New York Times*, 20 June.
- BRC. 1999. "Huge support for Sonoran Desert park proposal." Phoenix: Behavior Research Center. News Release [99-II-03].
- Broyles, B. 2004. "The desert sisters." Earth Island Journal 19: 35-38.
- Carabias, J., and B. Babbitt. 2001. "Letter of Intent between the Department of Interior (DOI) of the United States and Secretariat of Environment, Natural Resources and Fisheries (SEMARNAP) of the United Mexican States for Joint Work in Natural Protected Areas on the United States Mexico Border." 5 May. Last revised 22 January 2001, 1997. Accessed 30 January 2001. http://www.cerc.usgs.gov/fcc/protected_agreement.htm.
- Carrington, C. 2009. "Latest Mexico protected area creates a massive binational conservation region." *The Nature Conservancy*. October. http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/texas/explore/ocampo-flora-and-fauna-protected-area-natureorg-page.xml.
- Chester, C. C. 2006. Transborder Conservation: Biodiversity in an Interdependent World. Washington, D.C.: Island Press.
- Cisneros, J. A. and V. J. Naylor. 1999. "Uniting la frontera: The ongoing efforts to establish transboundary park." *Environment* 41:12-21.
- Cohn, J. P. 2007. "The environmental impacts of a border fence." *BioScience* 57: 96–97.
- Dimmitt, M. A. 2000. "Biomes & communities of the Sonoran Desert Region." In *A Natural History of the Sonoran Desert*, ed. S. J. Phillips and P. W. Comus, 3–18. Tucson: Arizona-Sonora Desert Museum Press.

- Felger, R. S., B. Broyles, M. Wilson, G. P. Nabhan, and D. S. Turner. 2006. "Six grand reserves, one Sonoran Desert." In *Dry Borders: Great Natural Reserves of the Sonoran Desert*, ed. Richard Stephen Felger and Bill Broyles, 3–26. Salt Lake City: University of Utah Press.
- Ferris, C. 2011. "New natural monument connects more than 3 million acres." *The Nature Conservancy*, February. http://www.nature.org/ourinitiatives/regions/northamerica/mexico/explore/new-natural-monument-connects-more-than-3-million-acres.xml.
- Jameson, J. 1996. The Story of Big Bend. Austin: University of Texas Press.
- Joquin, Sr., A. 1988. "The Tohono O'odham Nation: A position statement." In *Simposio de Investigación sobre la Zona Ecológica de El Pinacate*, ed. Environment Committee of the Arizona-Mexico Commission, 13–14. Hermosillo, Sonora, Mexico.
- Kerasote, T. 2007. "Borders without fences." New York Times, February 24.
- Laird, W., J. Murrieta-Saldivar, and J. Shepard. 1997. "Cooperation across borders:

 A brief history of biosphere reserves in the Sonoran Desert." *Journal of the Southwest* 39: 307–13.
- MacMahon, J. A. 2000. "Warm Deserts." In *North American Terrestrial Vegetation*, ed. M. G. Barbour and W. D. Billings, 285–322. New York: Cambridge University Press.
- Marosi, R. 2011. "U.S. to extend border fence 300 feet into Pacific." *Los Angeles Times*, November 25.
- Pearson, G. 1998. Organ Pipe Cactus National Monument tri-national management challenges and opportunities for cooperation with Mexico and the Tohono O'odham Nation: A historical perspective. Organ Pipe National Monument: U.S. Department of the Interior and Instituto Nacional de Ecología (SEMARNAP).
- Pitchford, M.. 2004. Big Bend Regional Aerosol and Visibility Observational Study (BRAVO), September. http://vista.circa.colostate.edu/improve/.
- Ripley, J. D., T. H. Lillie, S. E. Cornelius, and R. M. Marshall. 2000. "The U.S. Department of Defense embraces biodiversity conservation through ecoregional partnerships in the Sonoran Desert." *Diversity* 15: 3–5.
- Robbins, M. W. 2007. "The treasure of the Sierra del Carmen." *National Wildlife Magazine* 45, no. 2 (Feb./Mar.); http://www.nwf.org/nationalwildlife/printerFriendly.cfm?issueID=113&article ID=1445.
- Roth, D. L. 1992. "Mexican and American policy alternatives in the Big Bend Region – An updated study of the proposed Mexican National Park in the Sierra Del Carmen." Master of Public Affairs thesis, University of Texas at Austin.

- SDNPF. 2002. "Sonoran Desert National Park: A citizens' proposal. Sonoran Desert National Park Friends." Accessed 30 August 2007. http://www.sonorandesertnp.org.
- Sellers, R. W. 1997. *Preserving Nature in the National Parks*. New Haven, CT: Yale University Press.
- Simon, J. 1997. Endangered Mexico. San Francisco: Sierra Club.
- Simonian, L. 1995. *Defending the Land of the Jaguar*. Austin: University of Texas Press.
- Sonoran Institute and International Sonoran Desert Alliance. n.d. "Cooperative resource management (proposal to the Ford Foundation)." Files of the International Sonoran Desert Alliance, Ajo, Arizona.
- Stevenson, M. 2006. "Mexico's 'green walls' stop border crossers naturally." *Daily Bulletin*.com. Fall.
- U.S. FWS. n.d. Cabeza Prieta National Wildlife Refuge. U.S. Fish and Wildlife Service. Accessed 28 March 2005. http://www.fws.gov/southwest/refuges/arizona/cabeza.html.
- U.S. NCMABP. 1997. Governors Symington and Beltrones endorse biosphere reserve agreement. *U.S. MAB Bulletin* (National Committee for the Man and the Biosphere Program) 21: no. 1 (March). http://www.state.gov/www/global/oes/bul 3 97.html.
- U.S. NPS. n.d. "Organ Pipe Cactus National Monument." U.S. National Park Service. Accessed 28 March 2005. http://www.nps.gov/orpi/.
- ——. 1965. "Sonoran Desert National Park, Arizona: A proposal." Southwest Region, U.S. National Park Service, Department of the Interior.
- U.S.-Mexico Border Field Coordinating Committee. 2001. "U.S.-Mexico Sister Areas Issue Team." U.S. Department of the Interior. Last revised 1 April. Accessed 23 September 2001. http://www.cerc.usgs.gov/fcc/letter-of_intent.htm.
- Udall, M. K. 1966. "A national park for the Sonoran Desert." *Audubon Magazine* 105–9. http://dizzy.library.arizona.edu/branches/spc/udall/sonoran_htm. html.
- Udall, S. 1997. "Stewart Udall: Sonoran Desert National Park. Interview by Jack Loeffler." *Journal of the Southwest* 39, nos. 3&4: 315–20.
- Urrea, L. A. 2004. The Devil's Highway. New York: Little Brown and Co.
- USFWS. 2002. "El Camino Del Diablo: Highway of the Devil." *U.S. Fish & Wildlife Service*. 15 April. Accessed 27 April 2005. http://www.fws.gov/southwest/refuges/arizona/diablo.html.
- Waldman, C. 1985. Atlas of the North American Indian. New York: Facts on File.

- Waters, John. 2011. "Boguillas Crossing Gets Legal Green Light; Facility to Cost \$3.7 Million." *Big Bend Gazette*. Nov. 4.
- Walker, S. n.d. "El Pinacate Biosphere Reserve." San Antonio, TX: Nature Conservancy. http://parksinperil.org/files/page_4_el_pinacate_biosphere_reserve.pdf.
- Welsh, M. 2002. The Administrative History of Big Bend National Park Landscape of Ghosts, River of Dreams: A History of Big Bend National Park. National Park Service, U.S. Department of the Interior.