

The George Wright Forum

The GWS Journal of Parks, Protected Areas & Cultural Sites volume 27 number 2 • 2010



Origins

Founded in 1980, the George Wright Society is organized for the purposes of promoting the application of knowledge, fostering communication, improving resource management, and providing information to improve public understanding and appreciation of the basic purposes of natural and cultural parks and equivalent reserves. The Society is dedicated to the protection, preservation, and management of cultural and natural parks and reserves through research and education.

Mission

The George Wright Society advances the scientific and heritage values of parks and protected areas. The Society promotes professional research and resource stewardship across natural and cultural disciplines, provides avenues of communication, and encourages public policies that embrace these values.

Our Goal

The Society strives to be the premier organization connecting people, places, knowledge, and ideas to foster excellence in natural and cultural resource management, research, protection, and interpretation in parks and equivalent reserves.

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The George Wright Forum

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Kayakers at Pacific Rim National Park Reserve, British Columbia. Photo used by permission of Parks Canada. © Parks Canada / J. McCulloch.

SOCIETY NEWS, NOTES & MAIL

Abstracts for GWS2011 being accepted through September 30

Details are beginning to come together for the 2011 conference in New Orleans. We have put together an exciting line-up of plenary sessions and are beginning work on a slate of field trips and community-service opportunities. Proposals are now being accepted for a papers, sessions, and other presentations. The deadline for abstracts is September 30. Everything is explained on the conference website: http://www.georgewright.org/gws2011.

New NPS/GWS cooperative agreement reached; Mitchell assumes vice presidency

In June the Society completed negotiations with the National Park Service and signed a new five-year cooperative agreement. The new agreement focuses specifically on the GWS biennial conferences, and will provide financial support to the planning of the conferences as well as to our scholarship programs to help minority students and Native practitioners to attend.

The Society has had a cooperative agreement with the National Park Service for many years—since 1995, in fact. These five-year agreements formally establish partnerships that allow for the transfer of money between NPS and nongovernmental organizations like GWS in order to accomplish specific, mutually beneficial tasks. Each of these tasks is spelled out in separate modifications to the base agreement.

Under the last agreement, which expired in September 2009, GWS undertook 16 projects, ranging from our own biennial conferences (including travel scholarships for minority students and Native people) to assistance in World Heritage activities, to the organization of a number of NPS-related professional conferences. All of these projects were successfully completed, on time and within budget. However, the Inspector General's Office of the Department of Interior, as part of larger review on the use of cooperative agreements verses competitive contracts, was asked to look at the scope of work done under this particular agreement.

Their report, issued last January, did not document any specific wrongdoing but rather cautioned that there might be in the future the potential appearance of a conflict of interest. This is directly related to a broader discussion within the Department of the Interior on whether Interior employees should be permitted to continue to serve on outside boards of directors. In fact, NPS and all federal employees serving on the GWS Board recuse themselves of any involvement in negotiating agreements between GWS and their own respective agencies.

On behalf of the GWS Board, Executive Director Dave Harmon wrote to NPS in May to explain why we think it is vital for government employees to serve on boards of professional societies such as the GWS. Whether elected directly or appointed, those federal employees currently serving on the GWS Board have been entrusted by their peers with advancing the shared professional goals of the Society related to the protection of parks, protected areas, and cultural sites. As of this writing, no final decisions have been made with respect to this issue, but if it should become necessary we are putting together a transition governance plan to keep the Society operating smoothly. We will keep the membership updated as this process continues to unfold.

We also sent a letter to Deputy Secretary of the Interior David Hayes, specifically responding to the Inspector General's report. In the letter we pointed out "the long-standing, mutually beneficial relationship" between NPS and GWS. We explained that the report might be misconstrued by people who did not know the facts and who might automatically assume GWS had done something wrong—which is certainly not the case. To the contrary, all of the projects carried out under the previous agreement served a clear public purpose and involved the substantive involvement of NPS and GWS, both key requirements of cooperative agreements. In conclusion, we stated that "we have met and will continue to meet both the letter and the spirit of the cooperative agreement. Through this agreement, and by means of the substantial involvement of both parties, NPS and GWS have accomplished the high public purpose of improving the scientific and scholarly basis of national park management. Both organizations can and should be proud of these accomplishments."

Separately from these issues, GWS Vice President Stephanie Toothman resigned from the Board effective July 1 in advance of her assuming a new position as associate director for cultural resources for NPS. Later that month the board named Brent Mitchell to fill the position of vice president. A board member since 2008, Mitchell is vice president for stewardship at QLF/The Atlantic Center for the Environment.

1916 ESSAY SERIES 2016

Whose America? Whose Idea? Making "America's Best Idea" Reflect New American Realities

John J. Reynolds

[Ed. note: With this installment we open a conversation in the National Park Service Centennial Essay series on the topic of relevancy: Are American's national parks meaningful to the full diversity of today's public, and are they likely to remain that way to the America of 2050 or 2100? This is the first of several essays that we anticipate will treat these questions, either directly (as John J. Reynolds does here) or indirectly.]

As the 100th anniversary of the creation of the National Park Service approaches in 2016, there is an increasing amount of thought and discussion around the issue of "relevancy" of the national parks (individually, as a national park system, and as a continually evolving idea) in the 21st century and beyond.

The discussion is both warranted and timely. Warranted because we are a dramatically different nation than we were in 1916. Timely because, likewise, the assumptions the founders of NPS made back then—assumptions about who constituted "the public" the parks were meant for, and about what expectations this particular subset of Americans had for "their" parks—may not be valid in the future, or even now. I, for one, deeply believe that the social and demographic conditions of today are different from those which the founders perceived, and will continue to become even further removed from those of the past. This presents what is, potentially, a grave problem, for the assumptions of the value of the national parks to the public and the need for the continued existence of the parks themselves must always be in alignment.

The most recent issue of *The George Wright Forum* (volume 27, number 1) clearly illustrates the point. The Centennial Essay by Bill Tweed, which calls into question the viability of maintaining natural park resources in an "unimpaired" state, is a provocative introduction to one major facet of our changed nation. Lee Whittlesey's article ending the issue—describ-

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ing how the Park Service for years clung to an appealing, but discredited, story about the origins of Yellowstone—illustrates how difficult it is for a committed agency with a strong internal culture to see the forest for the trees, especially when it comes to changing that culture and its basic understandings of itself.

If we are in a starkly different demographic time than 1916, and if NPS is as unquestionably wedded to the assumptions of its past as my nearly 40 years with the parks leads me to believe is the general case (regardless of the obvious commitment to the future by the current director, Jon Jarvis, and some other influential leaders in the agency), then it is time to be not only willing to open our eyes and minds, but to look at the future as boldly and with as much prescience as Stephen Mather and Horace Albright did 100 years ago. They shrewdly analyzed the political landscape to identify core American constituencies whose values could easily lead them to believe in the national parks or who could profit from people wanting to experience these icons of Americanism. They targeted the media and meetings where these people got their information and conversed with one another. Big city newspapers and broadly read and respected magazines were the tools of the time for "mass promotion" to the politically influential and upwardly mobile classes, and they exploited them unabashedly. And, as you think about all this, remember, guaranteed voting and civil rights for non-white and female citizens were still in the future in 1916. A lot has changed since then in who "we the people" are.

It is necessary for all of us to focus on a truism about our way of government. Ours is a government of, by, and for the people. I believe this aphorism to be far truer, especially over the long run, than most of us would generally think. Few things have stood the test of time a century's passage represents as well as the national parks and the national park idea, yet projecting such success into the future is precarious at best.

Stated more starkly, the truth is that in a representative democracy there are no permanent entitlements. The national parks are not "entitled" to exist forever under the law; still less are they "entitled" to be relevant. They are only a part of the fabric of the nation because the collectively expressed experience of "we the people" makes them so, a "social compact" writ in law, if you will. Further, it only makes them so for so long as the collective will says it should be that way.

To go a step further, if one looks at how landmark pieces of legislation change over time, it is occasionally the case that those acts are weakened, and rarely that they are substantially strengthened. It is an anomaly, albeit a happy one for us, that the only changes to the Organic Act to date have been to strengthen it. Though it is comforting to think that this is precedent for the future, it is not. Witness the recent change in the firearms situation in the parks if you are skeptical of my warning.

One result of the long, successful run of the Organic Act is that it creates the illusion that the parks are a permanent entitlement to the American people that does not have to be continuously rejustified, continuously strengthened, continuously reaffirmed by the people as they exist today as opposed to how they once existed, or were thought to exist.

The people, in the long run, rule. Legislation changes, and seldom becomes more altruistic as time goes on. The people rule by influencing, directly or indirectly, both the Executive Branch and Congress.

To put a fine point on how that may affect the national parks and the Park Service itself in the future, the 1916 Organic Act is neither immutable nor assuredly permanent, much as we would like to believe otherwise. The degree to which it is either is, in fact, up to the people and what they want the Executive Branch and Congress to do.

Bill Tweed gets it, and has bravely and intelligently come forth to posit that the Organic Act, especially relative to the original big natural national parks, may need to be modified—and perhaps not just a little, but a lot. What happens if those parks' original resources become so altered that the rationale for creating them disappears or changes materially, and the people, the public, no longer supports these areas as the national parks they once were?

If that thought is frightening or maddening to you who read this essay, I have already begun to do my job of getting you to think about "relevancy."

The obvious next question for NPS, and those who love the parks and the national park idea everywhere, is then this: "How do we influence the people?" And the next question has to be, "Who are the people we need to influence to make the parks an indispensable cornerstone of our commonly shared public life for the future?"

Before we jump to what may seem to be an obvious conclusion, let's take time to examine our history a bit from the point of view of "Why has the national park movement been so strong for so long?"

Back in the early 1900s the movement to create NPS had a twofold basis. One was the one obvious to all of us: the need to have consistent, professional, unifying management.

The second?

The second is reflected in a part of the Organic Act seldom quoted and even more seldom acted upon: the "shall promote" language, which actually precedes the "and regulate" phrase. One of the primary reasons for the act was the realization of those working to create it that in this country it is "the people" who decide what happens, and if the national park idea was to flourish and survive "the people" had to want it that way. Frederick Law Olmsted, Jr., and the others who were working to create NPS understood that our Constitution is rooted in "politics"—the expression of the people—and as a result "shall promote" became central to the concept, to the acceptance and perpetuation of the national park idea. It was not an accidental phrase.

Mather and Albright not only understood the need and the context, they acted upon it. One of the very first things they did was to give top priority to the "shall promote" language and the need to obtain the support of the people. In other words, they understood the essentially political nature of their enterprise. So much so that Mather spent his own money to hire Robert Sterling Yard to promote the parks, highlight their direct benefits to the American people, and create the political strength to ensure their survival.

All three men also knew that understanding which people to convince was key to the future of the national park idea and system. As a result they targeted magazines and newspapers that reached potential visitors: meaning, at that point, relatively well-to-do people who held the power in the country, either directly or through association. Of course, in the early 1900s these people were all white, as was the great majority of the rest of the freely voting population. They also keyed in on the people who would benefit the most from visitors to the parks, such as the railroads, chambers of commerce, and hoteliers—what is now referred

to as the "hospitality industry"—because getting to the parks and hospitality were key to enjoyment, and enjoyment was key to the power to retain and grow the national park idea and system. It was certainly not lost on Mather, Albright, and Yard that these same people greatly influenced, both directly and indirectly, how "the people's" will would be interpreted in the Executive Branch and in Congress, creating increasing impetus for more money, more parks, and better authorities to carry out the "conserve and enjoy" missions of the Organic Act.

And so a pattern was cemented in place to sustain the parks, and grow their influence in the American mind.

Mather, as director, carried the concept one terrifically important step further. He understood that what we now call "broadening the base" could further solidify "the people's" will. Horace Albright shared this conviction, and after he succeeded Mather as director he convinced President Franklin D. Roosevelt to add landed history in the form of battlefields and memorials to the purview of the national park system, bringing their "people" with them under the same net. It was a brilliant move, automatically bringing a Western idea East in a big way, and therefore making it national.

This expansion of the NPS audience, though it included more people, still added primarily white ones. Other New Deal initiatives, such as the CCC, did provide opportunities for people of color (as well as lower-class whites) to experience the parks, but these initiatives did little over the long term to change the basic racial or ethnic composition of park tourism. In fact, recent scholarship has begun to document pervasive, overt discrimination against middle-class black tourists—including visitors to national parks in the South—from the 1920s on (Sorin 2009; Young 2009). And, as Terence Young has documented, NPS leadership only agreed to desegregate campgrounds in the late 1930s and early 1940s after being pressured by officials in the Department of the Interior (Young 2009).

Race and ethnicity were certainly not the only dimensions of the issue of access to national parks; class distinctions played a significant role too. But it is important to acknowledge a fundamental point: while some racism directed at national park visitors was intentional and overt, the very foundation of the parks was laid on a network of unexamined assumptions about which group of citizens the parks were "for." In short, the early development of America's national parks is a classic example of generally unacknowledged "white privilege" in action. In recent years, both scholars and activists have begun to recognize and understand how pervasively white Americans have been blind to the advantages their skin color has given them. It is without doubt that this pernicious phenomenon has played a role in the development of "America's best idea." In any event, the result was that it did solidify who the park constituency was in the minds of both the people themselves, and in some ways just as importantly, in the minds of the people responsible for carrying out the national park idea and its future: the employees of the National Park Service.

The self-reinforcing pattern continued, though the demographics of the country, especially the economic demographics, broadened the base of actual visitors. The broadening, however, was still virtually all white. Following World War II, although park facilities were both inadequate and in bad shape, newly inquisitive and economically freed people poured in. Director Conrad Wirth sold President Eisenhower on Mission 66, a national parks par-

allel to the interstate highway system and the blossoming of suburbs. His vision was another brilliant response to the needs of "the people," many of whom "had seen Paree" in the war and were no longer content to stay at home and not see, enjoy, and be inspired by their own great land. Doing so created a fervor of pride in the unique assets of our nation that had not been a part of the national psyche before. America was indeed America the Beautiful, and if you can go to Europe to war, you sure as hell can go to Wyoming or Maine or Utah to see and enjoy wonders that no other people anywhere have as their very own.

The idea and representativeness of the base were molded in other ways as well. The NPS park demonstration programs and support for state parks and other kinds of federal recreation areas provided more places for people and communities to "get" the idea of finding their own meaning and cultural associations in national park experiences. Later, the massive review of outdoor recreation through the Outdoor Recreation Resources Review Commission in the early 1960s resulted in new kinds of national park units in new locales, not touched by NPS before: lakeshores and seashores.

As a result, the composition of the base of people enjoying America's best places grew, at least in number and a broadened economic demographic. But not in other ways: visitors to the parks were still virtually all white Americans, both in terms of the targeted constituency and assumed beneficiaries of management action.

The national parks have lived off the Mather-Albright-Yard constituency model and its legacy for decades. It is a legacy of inspiration, altruistic yet pragmatic political work, pride in our nation, and political and constitutional awareness. However, it is a construct, while good for its times, that is far too narrow for the 21st century, for who "we the people" are has changed, and change continues at an accelerating pace.

George Hartzog, Jr., a product of his times and the changing times of the nation as a whole, was the first and so far the most activist NPS director to discern what was happening to the composition of "we the people." He "got" what rapid urbanization, the culmination of the Civil Rights movement and the freeing of black voters in particular, the emergence of "minority" middle and upper classes, and the effects of burgeoning demographic shifts meant politically. Nothing more exemplifies his prescience in this regard than do his successes in leading the creation of Gateway and Golden Gate national recreation areas. The conviction that the national park idea also belongs to those with less economic means, those who see the nation differently than does suburban America (yet care just as much about it), was Director Hartzog's, and is the well-spring of the future in terms of continued relevancy.

Later, following some years after Hartzog's urban park and Summer in the Parks initiatives aimed at urban constituencies, Director William Penn Mott bravely jumped into waters not swum before: in no uncertain terms he established that it was the responsibility of the Park Service to interpret the role of slavery and its effects on the nation in appropriate parks. In an article in the National Park Service newsletter *Courier* he wrote, "I also believe the National Park Service has the responsibility to interpret and tell the whole story of slavery and its influences on the economic growth and cultural heritage of this country. We must not be afraid to discuss this subject, no matter how painful, or we may find that we cannot learn from this chapter in our history" (cited in Butler 1999, 196–197). I do not know if he explicitly justified that view in terms of "broadening the base," though I am quite sure he under-

stood the relationship given his shrewdness and his California experience. In any case, it was both inspired and inspiring and began to free the Park Service and its people to think more broadly about that and other issues of the full range of cultures that make up America. Subsequently, the questions of unfairness and lack of balanced inclusion in all kinds of situations, such as at Little Bighorn, began to surface and be treated more broadly. The variety of kinds of themes that are interpreted in parks and the inclusion of parks relating to a broadened constituency began to change, a phenomenon that is still evolving. The inclusion of "civil rights" parks as part of the system and Thomas H. Guthrie's new, thoughtful article on El Morro (Guthrie 2010), illustrate the welcome trend.

Nonetheless, though Hartzog's and Mott's understanding and forthrightness were clear, the idea did not "take" very deeply within the full span of the Park Service's activities and its thought processes beyond interpretation. It especially did not take in the original natural parks, the driving icons of the Park Service as a whole. To this day, national parks like Santa Monica Mountains, Golden Gate, Gateway, Lowell, Martin Luther King, or Manzanar are considered by much of the Park Service as "outliers" to the pureness of the national park idea. As such, the opportunity inherent in a broader, more inclusive view is still only a birthing movement.

What has happened to "we the people" since 1916? The largely white middle class has expanded hugely—and Wirth and Hartzog responded brilliantly. The demographic shift toward a "minority majority" accelerated, and continues to do so. Some directors have seen it coming, as have some employees, and notable achievements have occurred, but not in the agency's basic orientation of whom the parks shall be promoted to, nor, largely, in whom they serve. Whole sections of the country have become racially and ethnically varied, and population equality is a reality in many places. Virtually everywhere else demographic heterogeneity is obvious, or will be very soon. "We the people" has changed, and continues to do so at an accelerating pace.

Yet the agency core culture, the culture of the people closest to the ground, has often changed only in theory and not in action, if at all. Virtually all of the change that has occurred has been locally, at individual parks. Nationally effective strategic action that can be implemented throughout the system to fulfill the "to promote" language of the Organic Act does not yet exist in any overarching manner.

The Park Service's concept of relevancy, the definition of who the parks exist for, must adapt if the vitality and strength of the national park idea, and the parks themselves, are to survive as an iconic part of the American psyche. The needed adaptations are not something NPS can achieve on its own, without consultation, for it is from the people that viability and strength emanate, not from NPS itself. NPS is a steward on behalf of the rest of the people—all of the people. No other fact is so important to operate from if the value of the national parks is to survive as a vital part of our national culture. However—again with notable local exceptions—NPS generally continues to operate as though it, and not "the people," defines the agency's relevancy. This is a dangerous condition in a representative democracy whose population base is rapidly changing from what it was when Albright, Mather, and Yard so effectively promoted the parks and the national park idea.

So what makes relevancy?

As I see it relevancy has two parts, both essential. The first is political; the second, personal. The strength and viability of the former grows directly from the latter. In our nation, all politics are personal.

Political relevancy is the degree to which the benefits of national parks (meaning all units of the national park system) and the national park idea (as evidenced by national heritage areas, National Register properties, national natural and historic landmarks, national rivers and trails, and community assistance programs) are reflected by the actions of the political leadership of the Executive Branch (primarily in the Office of the President, Office of Management and Budget, and Department of the Interior, but in a broader reach could include, for instance, the departments of Labor, Health and Human Services, Veterans' Affairs, Education, and perhaps others) and by Congress through individual representatives and senators and the committees which fund and provide authorities for the parks.

So long as all of the above, and in particular Congress, believe in the parks in sufficient numbers and with sufficient financial commitment, the parks and the national park idea are not only safe, but will remain a vital part of the American psyche. However, as the belief and commitment of these people waver, so too does the idea and the day-to-day reality of the parks as worthy of protection, money, and authority. This is because the Executive Branch and Congress are the closest thing we have to a mirror of the collective will of the American public. As the constituents of these politicians exhibit strength and commitment, or waver, so do the politicians themselves. Such is the reality of the true genius of our Constitution, a unique construct that to this day puts "the people" in charge, albeit through many indirect and direct means of communication between them and the politicians. The diversity of our national political representatives, especially in Congress, changes more slowly than does the constituency itself. But it is changing. Perhaps names like Ken Salazar, Raul Grijalva, Loretta Sanchez, Linda Sánchez, Nikki Haley, Bobby Jindal, and Jesse Jackson, Jr., provide some clue.

Personal relevancy is how each individual and group discerns value to themselves in the national parks and the national park idea. I think of personal relevancy in two subparts: personal-direct and personal-societal, though of course they are totally interrelated and connected.

Personal-direct relevancy is generally reflected in the "rewards" individuals receive from a personal visit. They hike in lovely places. They are inspired by these places. They camp, climb, appreciate scenery, watch birds and wildlife, raft, take pictures. They sit in the sun, or in a snowstorm. They expand themselves at interpretive and education programs, through Junior Ranger offerings and in bookstores. They expand their personal outlooks by experiencing history, social movements, and other occurrences in the very places where they happened. They take away personal memories that stay with them. And they believe that they can return themselves, or with their children or grandchildren, and these memories can be remade. They can believe in the future. And in the parks.

Personal-societal relevance is based on the same internal responses, but relates to needs of society, of the people as a whole. Individual education opportunity relates to society's need for education. Visitors can gain an appreciation for their country as a whole by visiting all or portions of the system which appeal to them, solidifying the need of society for a cumu-

lative belief in and expression of itself. Visitors can participate in research that affects everything from global warming to the continuing formation of the nation and its values. They can use the parks as protectors of clean air and clean water. They can cry with shame at some of the things we have done as a nation (Manzanar), and they can exult in the achievements we have made (Martin Luther King, Edison, Women's Rights). They can visit places that lead us to understand that the people we took this country from still live (Pipestone, Death Valley, Knife River) and revere their own cultures, and we can learn from them. They can explore who we have been and, as a result, who we are. They can build understanding of our nation and our society, and contemplate their place in both. On the Mall in Washington and at the reclaimed mine near Shanksville, Pennsylvania, for example, they can memorialize those who have sacrificed for us all. These are but a few of the multitude of possible personal-societal relationships that parks can engender.

Both kinds of personal relevancy relate to each of us as individuals. The parks can and do create strong responses in people. The question at hand, though, is: "Are the parks creating strong enough motives in enough of us, and in enough of a variety of us, for the nation to keep them as valued touchstones for our cumulative heritage as a society?" Or, are they in danger in the long run because only a dwindling portion of us care enough to create political relevancy from personal relevancy?

This idea of creating political relevancy from personal relevancy is at the heart of our governmental construct. And, therefore, it is at the heart of the future of the national parks and the national park idea.

The stark political question boils down to this: As our nation evolves demographically, do visitation to and valuation of the parks depend on a diminishing bloc of voters, so that sometime in the not-too-distant future a majority of the electorate will be made up of people who simply don't care, or at least not enough?

Although surveys seem to indicate that to some degree all major demographic groups visit the parks, there seems to be little evidence that such visitation is translating into commitment to and support for the parks from these constituencies. Certainly, there is little strategic, concerted, national effort to promote the values of the national parks and the national park idea to those not already enamored of the parks. Promotion of the parks and their personal and societal values must be considered as important to the survival of "America's best idea" as good interpretive programs, excellent facilities, and the best of resource management and protection activities.

Mather, Albright, and Yard were geniuses at promoting the parks from within the Park Service, and exercised that genius unabashedly. More recently, though, promotion of the parks has been left to others—primarily the narrow culture of the predominantly white hospitality industry, and internal Park Service efforts have been largely rather straightforward exhortations to visit. This is a politically safe approach, for certain. But it hardly approaches "promotion" to historically excluded populations, or "the people" as a whole. Both of these "now-traditional" approaches can and should continue. However, limiting promotion to only these narrow efforts is not in the best interests of the parks. What we need, in addition, is a concerted effort by the National Park Service to do the on-going civic engagement necessary to identify what it is and can be about parks that is relevant to Americans, the full vari-

ety of Americans, all Americans today. That done, the Park Service must continuously adapt itself so that it aligns with that relevancy and is prepared to continue to change as the reality of relevancy changes. No, I do not mean that this effort will lead to loving the parks to death. Actually, I believe this handy, and value-laden, idea is the least of our worries, and is indeed antithetical to the continued relevancy of the national parks in the future. We have learned well how to manage parks so that they are not impaired (at least so long as the climate does not change), by and large. In so doing, however, we have turned our backs on Mather, Albright, and Yard's deep understanding of how people create reality in our national decision-making and how that affects the future of the parks.

Our challenge is to create a deep commitment to the parks throughout our society, in every ethnic and economic sector, in every region of the country. Some parks are experimenting on their own, ranging from "traditional" parks such as Yosemite, North Cascades, and El Morro to "outliers" such as Golden Gate, Santa Monica Mountains, Lowell, and Cuyahoga. Some activities, such as use of social networking sites, are becoming commonplace. Some places, those with active educational institutes in particular, are connecting parks to a broadened, modernized concept of who "we the people" actually are. To the extent that the National Park Service can equalize its commitment to promoting the national parks and the national park idea throughout the land as professionally and as diligently as it manages the resources entrusted to it by those very people, it will not only survive, it will flourish. To the extent that it does not, individual parks that promote themselves well and fully may thrive, but the system itself and the national park idea will suffer.

The basic operative concept for park managers today is to concentrate wholeheartedly on making that individual park as good as it can be. In money terms, this is reflected in the idea that a park's base is for the operation of that park alone. This individualistic park-centric view has its strengths, but not for the system as a whole, or for the national park idea itself. For both to flourish, and if in fact to most certainly assure the long-term viability of any individual park, some significant portion of the operation of any park must be devoted to the system and the idea as a whole. Doing so leads all visitors to understand that there is more to it than just the places they visit, and that the value of the whole is greater than just the sum of the parks, as evidenced so eloquently in the General Authorities Act of 1970, as follows:

Congress declares that the national park system ... has ... grown to include superlative natural, historic, and recreation areas in every major region of the United States, its territories and island possessions; that these areas, though distinct in character, are united through their inter-related purposes and resources into one national park system as cumulative expressions of a single national heritage; that, individually and collectively, these areas derive increased national dignity and recognition of their superlative environmental quality through their inclusion jointly with each other in one national park system preserved and managed for the benefit and inspiration of all the people of the United States....

Director Roger Kennedy championed this idea, asking that park superintendents spend

at least 25% of their time on activities devoted to the system and the agency as a whole. The Message Project of the late 1990s was designed as part of a strategic program to present the entire system as a unified entity as envisioned in the General Authorities Act. The bleak record of success for both precepts reflects how far the Park Service is from an effective 21st-century strategy "to promote" the parks as a keystone responsibility, and how little understanding there is of why doing so is important as America changes.

So what is the "take-away" from this essay?

It is this: Although the basis of the political relevancy that has served us so well for a century is still strong, its vitality as a reflection of our whole and evolving society is waning.

All is not lost ... not yet. The National Park Service and its friends must act now in a strategic, focused, comprehensive manner supported by every park, every employee, and every organization the agency is associated with. The Park Service and individual parks must expand their focus to include people and organizations that have not been traditional allies or partners.

It is up to the Park Service, and its leaders, to lead. It is up to the rest of us to actively assist. Our goal? Every American believes that parks and the park idea are essential and relevant to them.

It is "we the people," all of the people, that are the strength of the parks and the national park idea.

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John J. Reynolds' career with the National Park Service spanned 40 years, during which he served as landscape architect, park planner, park manager, regional director, and agency-wide deputy director, among other assignments. He also maintained a strong interest in protected areas internationally, managing NPS assignments in over ten countries and serving five years on the United States delegation to the World Heritage Committee, three of them as its chief. Along with these accomplishments, Reynolds is recognized as a pioneer in environmental leadership practices that have been implemented throughout the national park system. In retirement, he has continued to contribute to parks through positions with the National Park Foundation, as staff to the National Parks Second Century Commission, and on other boards related to national park and youth activities. He is a life member and past board member of the George Wright Society.

The Heart of the Matter

New essential reading on parks, protected areas, and cultural sites

The World's Protected Areas: Status, Values, and Prospects in the 21st Century. Edited by Stuart Chape, Mark Spalding, and Martin Jenkins. University of California Press. \$54.95. xv + 359 pp.; ill.; index. ISBN: 978-0-520-24660-7. 2008.

Reviewed by David M. Graber

Just as the pace of destruction of the natural world has accelerated, so has the global pace of formally identifying and protecting the last bits. Thanks to the United Nations Environment Programme (UNEP) and its World Conservation Monitoring Centre, and the International Union for the Conservation of Nature (IUCN), there is substantial information about efforts by the nations of the world to establish and manage protected areas, and how well they are doing. This remarkable book is a handsome, daunting compendium of that information designed for nature conservationists possessing a strong interest in the mechanics of parks, nature preserves, and other protected areas.

Loaded with beautiful photographs, color graphics, tables, and figures and printed on heavy coated stock, this book could at first glance be mistaken for a coffee table book intended for browsing. This it most decidedly is not. *The World's Protected Areas* is instead is a deadly serious professional manual, dense with data and written in a style that is dispassionate and clinical, yet never permitting the reader to slip past the real consequences of its findings.

It begins with a history of the concepts and development of protected areas from the earliest known sacred sites 12,000 years ago; a nature reserve established by the King of Srivijaya on Sumatra in 684 CE—a site that now comprises the core of a modern World Heritage site. Then follows William the Conqueror declaring a royal hunting preserve in England, through the American national park idea that began not with Yellowstone, but when Yosemite Valley and the Mariposa Grove were deeded by Congress and President Lincoln to California in 1864 as a forest reserve. Early in the 20th century, countries in Africa, South America, and Europe established national parks originally modeled after the Yellowstone example. As the century advanced, new complex and varied forms were taken by contemporary protected areas throughout the world.

From the establishment of hunting and fishing preserves has evolved the concept of protected areas for preserving biodiversity, and the increasing use of science to effectively manage these sites for their biodiversity. The authors then follow by enumerating of the extent of protection afforded to habitats and biodiversity, from the Antarctic to the equatorial tropics

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to marine systems, and offering admirably even—if too often discouraging—coverage of the entire planet. This book uses the IUCN protected area classification system (categories I–VI) when describing the nominal geographic extent of protection.

Following this is a chapter on the threats to protected areas, from human incursions to climate change. Relief from what might otherwise be a painful recitation of data is provided by the regular insertion of illustrated case examples, such as how the Dong Hua Sao Protected Area in Laos has been progressively compromised by forest cutting and the planting of cash crops, and the impacts of goats, pigs, dogs, cats, and rats on native biota in Galápagos National Park, Ecuador. In many of the poorer countries where enforcement of protective statutes is weak or corrupted, extraction of fuelwood, timber, wildlife, and minerals is a constant threat. Even tourism, upon which many parks and protected areas depend for income, often is itself a threat to protection through construction of infrastructure, vandalism of protected cultural elements, trampling, vehicle emissions, corruption of local managers, and even demands for fresh food and water that may be extracted from the protected area itself.

The book provides an excellent section on the wider context of protected areas—how these relate to national and local governance, indigenous people, and differing cultural views of nature protection. One potent element is the designation of protection to an area that is populated, particularly if populated with indigenous people; this, however, is more the rule than the exception in contemporary designations. The book discusses private protected areas, particularly those managed by nongovernmental organizations such as The Nature Conservancy, and briefly discusses the (largely American) notion of "easements," to prevent future conversion to non-conservation purposes. Also discussed are biological or conservation "corridors" of compatible land use that can link protected areas and thus facilitate migration, preservation of genetic diversity, and even support critical minimum populations of large animals when the individual preserves are not large enough or contain complete ecological amenities to do so. Another highly contentious question faced by both governments and protected area managers is "Who governs?" To what extent should people living nearby or inside protected areas have a say in their policies and management? Related to this is the issue of how income from tourism-not only entrance fees but commercial income as well—is distributed.

Another chapter presents a rather technical and sometimes weedy discussion of the management of protected areas: resource protection, tourism, finance, infrastructure, and basic operations. The authors get seriously into the planning process, complete with a flow chart. Other topics include data management, the pricing of facilities and services, what administration should look like, evaluating management effectiveness, and even sustainability. There are boxes cover the role of rangers, and developing capacity and training in the less-developed countries. Fortunately, this discussion is not too theoretical, and grounded in the existential realities of actual protected areas around the globe.

An all-too-brief discussion of marine protected areas is followed by a rather longer section on the prospects for protected areas in the 21st century. The authors make the case that population growth, development, and the loss of natural biodiversity will increase the demand for, but also the vulnerability of, protected areas. The outcomes of the Fifth World Parks Congress in Durban, South Africa, in 2003, and the 2010 targets in the Convention on

Biological Diversity are utilized to frame the issues. The authors maintain an almost-hopeful demeanor as they present a rather grim picture in many places.

The full second half of this book is devoted to region-by-region analysis of protected areas throughout the world. Although still data dense, it takes the concepts presented in the earlier sections and applies them to a large number of examples. As with the rest of this book, the regional chapters are handsomely illustrated with photos, maps, and data figures and tables.

In any case, it's an intriguing trip around the world from the perspective of protected areas. For those with a professional stake in nature preservation, and to a somewhat lesser degree those who manage cultural protected areas, *The World's Protected Areas* is an invaluable reference and a most impressive assemblage of information.

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Ed. note: In this issue we debut "The Heart of the Matter," a feature that highlights books we think will be of lasting value to park professionals. Each installment focuses on a recently published book that, in some way, gets to the core of our work on behalf of parks, protected areas, and cultural sites.

We are cognizant that such judgments carry an element of risk, for one can truly assess a book's staying power only in retrospect. And on the day we write this, the word has come down that amazon.com is now selling more e-books than hardcovers—a bit of desultory news that undercuts our old-school associations of "timeless books" with beautifully bound objects that are a joy to hold in one's hands.

But of course it is the ideas within the covers (or the PDF) that makes a book a "keeper," not the medium in which the ideas are delivered. So if you have read a recent book—whether in hard copy or on your Kindle or iPad!—that strikes you as one which all your colleagues should know about, send us a message at info@georgewright.org. Or defy trends and send us a note on paper to The Heart of the Matter, GWS, P.O. Box 65, Hancock, MI 49930-0065 USA.

THE PARKS CANADA AGENCY:

MEETING THE NEEDS AND EXPECTATIONS OF CANADIANS

John Waithaka, guest editor

Parks Canada: Building on Our Strengths to Achieve New Heights

Alan Latourelle

Canada's first prime minister, Sir John A. MacDonald, created Canada's first national park 125 year ago "for the benefit, advantage and pleasure of the Canadian people." On November 25, 1885, the government of Canada began the process to create, at Banff, what became the third national park in the world—and Canada's first. Today, nearly 125 years later, Canada has one of the most extensive systems of protected national heritage places in the world, including 42 national parks, close to 1,000 national historic sites, and three national marine conservation areas.

In 1911, the government of Canada recognized that a national park designation alone could not deliver the full potential benefits of a national heritage places system. In order to support the places with programs and services, the government created the Dominion Parks Service—the first national park service in the world.

Now, a century later, these two significant anniversaries are an opportunity to recognize the Canadians who had the foresight to provide a great gift to future generations and embark our nation on the national dream of having Canada's nature protected and celebrated.

Parks Canada is building on this tradition of leadership by providing protection, education, and visitor experience programs that are admired around the world. Our network of national parks, national historic sites, and national marine conservation areas is recognized internationally as a leading example and has become symbolic of our national identity.

Although our core raison-d'être has not changed, we have evolved to include historic places in our stewardship role. Canada's natural and historic places are unique and irreplaceable. They are both equally vital in helping future generations understand their roots to better plan their own future.

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Our way of operating has evolved over the past 100 years from one where we believed we could do everything ourselves. Through its history, Parks Canada has consistently had passionate Canadians as employees, and today, has also equipped itself to partner with equally passionate Canadians outside our agency. Partnerships are now considered a key element in all of our programs and activities.

Our places represent a legacy of inestimable value, a living legacy that reflects who we are. To ensure this irreplaceable legacy is passed on to our grandchildren, our agency builds partnerships with citizens across Canada, works at harmonizing our work with public expectations, and implements sustainable approaches and methods.

As I have already mentioned, we have come a long way since the establishment of Banff National Park. Back in 1885 and for decades, the park's residents, the Stoney First Nation, was excluded from the park's boundaries. Today, no park establishment would be conceivable without the support, collaboration, and involvement of First Nations. In fact, it is the First Nations themselves who are the driving force behind the creation of many of the protected spaces, including Nahanni National Park Reserve and Saoyú-?ehdacho National Historic Site.

It is also increasingly clear that public appreciation and understanding, together with meaningful visitor experiences, contribute to the agency's establishment and conservation objectives, and vice-versa. For many years, Parks Canada has offered services so that Canadians and visitors could enjoy the cultural history and natural beauty of heritage places. Parks Canada's audiences are changing, and to remain relevant, the agency must provide opportunities for Canadians to use and enjoy their parks and sites in ways that engage them, and allow them to create their own unique connections with these national treasures.

Canada abounds with natural and historic sites that are inspiring, evocative and, above all, irreplaceable. Parks Canada protects a selection of these sites because they help us explore the history of our vast country and understand what it means to be Canadian. It is as important to protect these invaluable sites as it is to present them to Canadians and tourists from around the world, who, year after year, visit our national parks, historic sites, and marine conservation areas, bringing home a host of cherished memories. The protection of these sites is linked closely to our ability to help the public connect with these places of discovery and help them enjoy countless opportunities to experience them, whether alone or with family and friends. By inviting visitors to experience the inspiring sites we protect on their behalf, we hope they will develop strong personal connections and a lasting desire to protect these powerful historic and natural symbols of our nation. We also ensure that each new generation will be nourished by unique personal experiences that help them learn what it means to truly be one with this place we call our "home and native land."

At Parks Canada, we are guardians, we are guides, we are storytellers, and we are partners in Canada's nationally significant places.

Each of Canada's protected heritage areas is part of Canada's collective soul, and a part of our nation's promise to its future. The work we do at Parks Canada is far more than keeping facilities in good repair, welcoming visitors, protecting a piece of nature from poachers or vandals, or making a government bureaucracy run smoothly. Our work—when you go right to the heart of it—is at the very core of what used to be called "nation-building."

Our team is a national institution that represents the love and commitment all Canadians have for their living heritage. We help Canadians celebrate the best of themselves—the places, stories, and experiences that make us who we are.

Our country faces a challenging future. There are many more of us today than ever before. The most abundant and easily obtained natural resources are already fully committed. The climate is changing and the financial world around us seems sometimes troublingly insecure.

Never has it been more important to find hope and inspiration for the future. And it is in our national parks where we at Parks Canada offer Canada the best kinds of hope and inspiration.

As we embark on our second century of service, what lies at the core of our success is not unlike what drove the individuals responsible for our creation. We need the courage to dream, the courage to trust others, and the courage to work hand in hand. Today, we also need to make decisions based on solid science, both economic and conservation related.

In my mind, a practical example that illustrates this philosophy is the recent six-fold expansion of Nahanni National Park Reserve—one of the crown jewels of Canada's national park system and a UNESCO World Heritage site located in the Northwest Territories.

To make this dream a reality, the elders of the Dehcho First Nation had the courage to dream to protect the entire watershed of the South Nahanni River and engrain that dream in the hearts and minds of Canadians with the assistance of many different groups including the Canadian Parks and Wilderness Society, a river tour operator and Parks Canada team members.

Collectively, we had the courage to trust one another and share the leadership. Although the relationship between the government of Canada and the Dehcho people has been strained historically and we were in the middle of difficult land claim negotiations, successive leaders of the Dehcho and Parks Canada put these differences aside for the benefit of our common dream. This act required real courage and, to a certain extent, blind hope and trust. Successive Dehcho grand chiefs and also Parks Canada leaders shepherded the project to fruition.

As I look back at this great conservation success and think about the future of wilderness worldwide, I believe there are several critical success factors to build on our strengths to achieve new heights.

First, we need to recognize that when establishing protected areas, we are not only protecting an important piece of land for biodiversity purposes, but we are also often protecting a spiritual place that has been cared for by Aboriginal peoples for millennia, a very special place that is part and parcel of the survival of their culture.

Secondly, Aboriginal peoples need to have a clear voice and involvement in the management of these wilderness treasures.

Thirdly, we all need to recognize in our day-to-day activities that what we are also protecting is the opportunity for future generations to experience these very special places.

Fourthly, we need to recognize that local communities must benefit financially from these protected areas to ensure their survival.

Finally, we need to challenge ourselves to find creative ways to engrain a passion for wilderness in the hearts and minds of the global community.

Parks Canada Agency

It is my hope that, together, we develop and share a new paradigm where each of these five key elements becomes the way we measure success for wilderness areas.

On the eve of Parks Canada's 100th birthday, it is key that together with our partners, we maintain *what* we do, but that we go about updating *how* we do our work and about sharing and discovering new and better ways to meet the needs and expectations of Canadians.

Our objective and common goal is summarized in our vision statement. This statement expresses in a single sentence what we are trying to achieve, and what inspires our employees across the country to go above and beyond expectations day after day.

Canada's treasured natural and historic places will be a living legacy, connecting hearts and minds to a stronger, deeper understanding of the very essence of Canada.

With the Parks Canada team's know-how, passion, and team spirit, with the invaluable help of our partners and stakeholders, and with the several science-based activities and programs put in place, we are now more than ever equipped to care for Canada's treasured places in ways that ensure their presence into the future for our children and grandchildren to enjoy.

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Filling in the Gaps: Establishing New National Parks

Kevin McNamee

Introduction

Perhaps one of the greatest acts of conservation is when a country takes deliberate action to set aside for the benefit of future generations some of its most impressive land and seascapes. The reasons may vary over time—the protection of spectacular scenery, the conservation of habitat and wildlife, or simply the preservation of a nation's spectacular wilderness areas. For the past century, Parks Canada has been at the forefront of expanding Canada's national park system. And as the agency prepares to celebrate its centennial as the world's first national park administration, it is worth reflecting and celebrating on its impressive achievements over the past century. These include building a system that is increasingly representative of Canada, one that is increasingly managed in collaboration with Aboriginal people, and one that totals over 301,000 square kilometers, or 3% of the Canadian landscape. Just as important is to reflect on the lessons learned and the challenges that await as the system expands into the 21st century.

The early days of national park establishment

The rationale for creating Canada's first national parks was driven more by a focus on economic development, and less by the need to preserve wilderness. In the late 19th and early 20th century, government, industry, and local communities placed an emphasis on the value of national parks as places of recreation and as tourism destinations.

The discovery of the Cave and Basin mineral hot springs during the construction of the railway through the mountains, and the decision of the federal government to establish Canada's first national park at Banff in 1885, marked the modest beginning of the work to create new national parks. While the initial park was small—a 26-square-kilometer reservation around the Banff hot springs on the slopes of Sulphur Mountain—its impact in prompting the protection of lands was immediate. The Rocky Mountain Park Act was passed in 1887, expanding the Banff reserve to 673 square kilometers to capture "a large tract of country lying outside of the original reservation" with "features of the greatest beauty" that "were admirably adapted for a national park." The act declared that the area was "a public park and pleasure ground for the benefit, advantage and enjoyment of the people of Canada."

In 1888, Glacier and Yoho parks joined Banff in making the mountainous section of the railway as "popular as possible" and "to preserve the timber and natural beauty of the district" (Foster 1978, 31). In southwestern Alberta, a local rancher promoted the creation of Waterton Lakes National Park.

By 1911, five areas had been protected by the federal government for posterity: Rocky Mountain Park, the Yoho and Glacier park reserves, and the Waterton Lakes and Jasper forest parks. Designated as multiple-use parks, they were created to protect spectacular scenery for its tourism value. It was through these first parks that the federal government demonstrated that it had a role in conserving lands for the public benefit, that it was responsible for creating such parks, and that it must act to conserve natural resources.

The birth of the Dominion Parks Branch

The park system in 1911 was composed of parks, park reserves, and forest reserves, under the authority of the minister of the interior, with no real policy direction. They were popular and a national asset and it was recognized that it was time to bring some organization to this loose collection of parks. And so, when Parliament passed the Dominion Forest Reserves and Parks Act in 1911, it placed the parks under the administration of the world's first national parks branch, known over the years as the Dominion Parks Branch, the National Parks Branch, Canadian Parks Service, and now the Parks Canada Agency.

James B. Harkin was appointed as the first commissioner of the Dominion Parks Branch, a post he held until 1936. He believed that Canadians had a responsibility to safeguard our nation's wildlands by establishing more parks. Under his leadership the national parks system expanded to eastern Canada, increasing the number of parks from five to sixteen. A precedent was set when Nova Scotia became the first province to agree to transfer provincial land to the federal Crown to create Cape Breton Highlands National Park in 1936. Until then, national parks were formed from lands under federal ownership. During Harkin's term, members of Parliament championed the creation of the Riding Mountain Park in Manitoba and a park on Prince Edward Island.

But this period of expansion came with a price. Local populations were expropriated. MacEachern (2001, 19) observed that the approach was simple: the "Parks Branch chose land it thought appropriate for a park, the provinces expropriated the land, and the landowners settled." In the case of Cape Breton Highlands (1936), Prince Edward Island (1937), Fundy (1948), and Terra Nova (1957) national parks, landowners felt they had no choice but to accept the government's financial offers, and to relocate to nearby communities. These decisions fostered negative relationships between the parks and the communities for years, sometimes generations.

New national parks and societal changes

In the 1960s, public concern over the environment resulted in calls for environmental initiatives, including the creation of new national parks. Leading the public charge were newly formed conservation groups, in particular the National and Provincial Parks Association of Canada, now the Canadian Parks and Wilderness Society. Among their early successes were campaigns for the creation of Kluane and Nahanni national park reserves in 1976, with the

latter campaign aimed at stopping the development of a hydroelectric dam on the South Nahanni River that would have seen the loss of the spectacular Virginia Falls, now a World Heritage Site.

Another conservation group, the Canadian Audubon Society, now Nature Canada, challenged the federal and provincial governments in 1962 to mark the nation's 1967 centennial year by expanding the national park system. Citing the lack of a west coast, prairie grassland, or Great Lakes national park, the Society called for 12 new national parks to represent the various landscapes of the nation (Anonymous 1962). Little resulted from this initial call for a representative national park system because of the lack of support of provincial governments who owned the areas targeted by the Society.

When he became minister responsible for Parks Canada in 1968, Jean Chrétien called for the creation of 40 to 60 new national parks by 1985, the centennial of the creation of Banff. He brought a sense of urgency; warning that the cost of new parkland was becoming "prohibitive" and such lands would soon be lost to development (Chrétien 1969, 10). In response to the challenge, Parks Canada adopted in 1971 a natural regions system plan to guide the selection of new parks. The goal was, and continues to be, to represent the physical, biological, and geographic features of each of Canada's 39 natural regions within the national parks system (Figure 1). By the end of his term, Chrétien had overseen the establishment of ten new national parks totaling 52,870 square kilometers, including the first in Quebec and the north, and the first in British Columbia in almost four decades, that elusive West Coast park now known as Pacific Rim.

But the work was becoming more challenging as opposition from local communities and Aboriginal people killed or delayed new proposals. Opposition from the Association for the Preservation of the Eastern Shore ended the proposal for a Ship River National Park in Nova Scotia. Two proposed national parks in Labrador—the Torngat Mountains and the Mealy Mountains—were put on the backburner for several decades because of the opposition of the Labrador Inuit and Innu (Bill 1982). And the proposed national park on the shores of the East Arm of Great Slave Lake, Northwest Territories, was put on hold for almost four decades because of the lack of support of Aboriginal people.

The pushback against some of the proposed parks led to some important changes in the establishment process. In reaction to the violence and controversy surrounding the establishment of Kouchibouguac National Park in New Brunswick, the governments of Canada and New Brunswick commissioned a special inquiry in 1980, which ended up condemning the policy of mass expropriations. Reflecting this changing policy, seven communities that were to be originally removed for the new Gros Morne National Park in Newfoundland remain, with the park boundary drawn around them. Parks Canada's policy was amended to prohibit the use of expropriation to create or enlarge national parks, and Parliament subsequently amended the Canada National Parks Act with a similar legislative prohibition. Now, land that is required to establish national parks is acquired only on a willing seller–willing buyer basis.

In the early 1970s, the federal government introduced legislation to create Canada's first northern national parks: Kluane, Nahanni, and Auyuittuq. This was not well received by the inhabitants of these lands, such as the Inuit, who charged that the government was expropri-

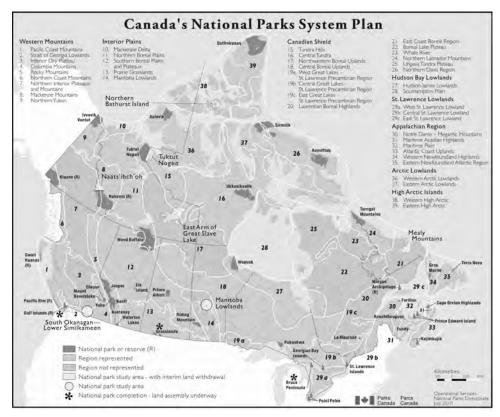


Figure 1. Canada's national parks system plan, July 2010.

ating their land for parks (Fenge 1978). To resolve the impasse, Parliament amended the National Parks Act, designating the three parks as national park reserves pending the resolution of the Aboriginal land claims, and enshrining the rights of Aboriginal people to hunt, trap, and fish within them.

The 1976 amendments to the National Parks Act made it clear that to establish new national parks, Parks Canada must negotiate agreements both with the provincial or territorial governments, and with Aboriginal people who have an unresolved land claim to the area. Hence, parks such as Gwaii Haanas, Pacific Rim, Nahanni, and the Mingan Archipelago are designated national park reserves pending the settlement of land claims.

The landmark 1975 Mackenzie Valley Pipeline Inquiry, chaired by Justice Thomas Berger, was instrumental in drawing Parks Canada's focus to the north. In examining a pipeline proposal, he argued that there was a need to protect the northern wilderness and to "do so now." He recommended the creation of a national park to protect the Yukon North Slope and the calving grounds of the Porcupine caribou herd from industrial development. He argued that in developing resources, governments also had a duty to safeguard critical natural areas in the process.

The federal government acted on Berger's report by committing to such a national park, and announced the "6 North of 60" program to initiate public consultation on a plan to

establish five new national parks in the territories. While it took 25 years, four of the proposed areas are now protected in national parks—Northern Yukon by Ivvavik and Vuntut national parks, Ellesmere Island by Quttinirpaaq National Park, Banks Island by Aulavik National Park, and Wager Bay by Ukkusiksalik National Park—while a fifth, Bathurst Inlet, was dropped in favor of an alternative, Tuktut Nogait National Park.

The Northern Yukon or Ivvavik National Park was the first national park established through the comprehensive land claims settlement process (Sadler 1989). It was significant because the government of Canada and the Inuvialuit of the Western Arctic achieved their respective goals: representing a natural region of the parks system, prohibiting industrial development within the calving grounds of the Porcupine caribou herd, and agreeing to cooperatively manage the national park.

Completing the national park system

Viewed through the prism of park establishment, the 1985 celebrations around the Banff centennial were disappointing because no new parks were created. Yet the appointment in 1985 of Tom McMillan as the minister responsible for national parks started a renaissance for the establishment program. Under McMillan, five new national parks were created, and the national marine parks policy was adopted with the first national marine park established at Fathom Five in Ontario. And he made public the report of a federal Task Force on Park Establishment that concluded that Canada must take decisive action to protect its disappearing wilderness and complete the national park system by the year 2000 (Dearden and Gardner 1987).

McMillan's priority, however, was to negotiate an end to the logging of the temperate rainforest in the South Moresby Island area (now called Gwaii Haanas) on the southern Queen Charlotte Islands (now called Haida Gwaii). Backed by a unanimous motion of the House of Commons, McMillan achieved an agreement in July 1987 that led to the creation of Gwaii Haanas National Park Reserve. He also oversaw the completion of negotiations to establish Ellesmere Island, Pacific Rim, Grasslands, and Bruce Peninsula national parks.

In the late 1980s, campaigns to protect wilderness areas asserted that while resource development was accelerating, there was no corresponding effort by governments to preserve natural areas. This view was backed by the 1987 report of the World Commission on Environment and Development that, among its many recommendations, called on nations to complete protected area networks that represented their diversity of ecosystems. And to spur governments to act, World Wildlife Fund Canada and the Canadian Parks and Wilderness Society launched their Endangered Spaces Campaign in 1989, calling on governments to complete protected area networks by 2000.

The federal government endorsed the goal in 1989, when Lucien Bouchard announced that the government would complete the national parks system by the year 2000 because "the very fragility of the planet compels the expansion of the national parks system" (McNamee 1992). The federal cabinet confirmed this goal when it released Canada's Green Plan in 1990, which called for the negotiation of the necessary agreements to complete the national park system by 2000. Between 1989 and 2000, Parks Canada established five new national parks, adding over 66,700 square kilometers to the system. By the end of the cam-

paign, however, fourteen of Parks Canada's thirty-nine natural regions still lacked a national park.

The dawn of a new century

The dawn of the 21st century brought the next big push for new national parks. In 2000, the government-appointed Panel on the Ecological Integrity of Canada's National Parks made a sweeping set of recommendations on how Parks Canada could meet its legislative obligation to maintain ecological integrity. But the panel looked beyond existing parks, concluding that in order to maintain ecological integrity, one needed a vision of the entire landscape, and this entailed the completion of the national park system in all thirty-nine natural regions. Shortly thereafter, in 2002, then Prime Minister Jean Chrétien announced that the federal government would work to create ten new national parks and five new national marine conservation areas, and to expand three existing national parks. In short order, the following sites were established:

- Gulf Islands National Park Reserve in southern British Columbia to represent the Strait
 of Georgia Lowlands natural region by protecting approximately 26 square kilometers
 in 29 sites on 15 islands including over 30 islets and reefs, as well as conserving the
 endangered Garry oak ecosystem.
- Ukkusiksalik National Park in Nunavut, representing the Central Tundra natural region
 and named for the soapstone found within its 20,560-square-kilometer boundary, The
 park is home to caribou, muskox, wolf, polar bear, and barren-ground grizzlies.
- Torngat Mountains National Park protects 9,700 square kilometers of Inuit homeland in northern Labrador, conserving land that is home to polar bears, caribou, and a unique population of tundra-dwelling black bears, along with breathtaking fjords and rugged mountains.

With the transition to a Conservative government in 2006, the momentum to create new national parks continued unabated, demonstrating that the conservation of nature and the establishment of new national parks to protect some of a nation's more precious landscapes is a non-partisan issue in the halls of Parliament.

Since 2006, the federal government has taken action that will ultimately add 90,000 square kilometers to the national park system. Under the leadership of Jim Prentice, the minister responsible for national parks since 2008, Parks Canada has made some impressive gains. Foremost among those achievements is the six-fold expansion of Nahanni National Park Reserve in 2009. Now at 30,000 square kilometers, this expansion was made possible by working with the Dehcho First Nations. The government also announced its commitment to protect the upper South Nahanni River within the settlement region of the Sahtu Dene and Metis people, applying interim protection measures to 7,600 square kilometers for the proposed Nááts'ihch'oh National Park Reserve.

Equally impressive was the 2010 establishment of Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site, the first area protected under the Canada National Marine Conservation Areas Act. Protecting and conserving 3,500 square kilome-

ters of marine ecosystems in the waters adjacent to Gwaii Haanas National Park Reserve, this new protected area is a world-first that protects for all time a natural area that extends from alpine mountaintops down to the deep seabed. For Canada, this is a proud achievement in the International Year of Biodiversity. And again, it was made possible because of the strong collaboration and support of the Haida people.

For both Nahanni and Gwaii Haanas, Prentice exerted the necessary leadership to achieve the support of Canadian Parliament in record time. Additional decisions by the minister in collaboration with provincial governments and Aboriginal people will ultimately leave a legacy of new national parks that will bring Canada even closer to completing the national park system:

- The governments of Canada and Newfoundland and Labrador announced in 2010 their commitment to establish a 10,700-square-kilometer national park reserve in the Mealy Mountains of Labrador, making this the largest national park in Atlantic Canada. Negotiations of the necessary agreements with the province and Aboriginal representatives are underway.
- The governments of Canada and Nova Scotia announced their decision to protect Sable Island, an isolated island with wild ponies and a range of endangered species on the edge of the eastern Continental Shelf, as a national park.
- Prentice and the Lutsel K'e Dene First Nation signed an agreement in 2010 agreeing to
 open negotiations towards the establishment of Thaidene Nene National Park Reserve,
 on the East Arm of Great Slave Lake, Northwest Territories. This followed the expansion of the area under interim protection to 33,000 square kilometers.

The East Arm announcement is perhaps a fitting place to end this brief historical review. The fact that the community of Lutsel K'e signed such an agreement speaks to the substantive changes Parks Canada has made to its establishment process. This community told Parks Canada in 1970 to take its maps and go home, putting a 40-year hiatus on the project. After considering that Parks Canada now works in collaboration with Aboriginal people in cooperatively managing new parks, and that their traditional practices will continue, they are now prepared to negotiate a new national park reserve.

Conclusion

Any review of 125 years of establishing national parks will reveal a myriad of lessons. In creating 42 national parks and national park reserves, representing 28 of 39 natural regions, and protecting over 301,000 square kilometers with good prospects for an additional 40,000 square kilometers in the coming years, several lessons or indicators of change and success are apparent:

Political leadership is necessary. There are no laws that compel governments to create
new national parks; thus, it is imperative that politicians lead, and that they receive
strong support for the proposals that will set aside, forever, natural areas from industrial development. Canada is fortunate that from the early decision of Sir John A.

- Macdonald to create Banff, to some of the more recent decisions by Jim Prentice, the natural landscape has benefited from political decisions.
- Working in collaboration with Aboriginal people is fundamental to achieving new national parks. Progress has been made in recent decades precisely because Parks Canada has taken the time to establish relationships and negotiate agreements to ensure new parks are cooperatively managed. Such agreements must also be consistent with land claim agreements and treaty entitlements.
- With the legislative requirement to make ecological integrity a priority, and with the
 growing emphasis of Parks Canada on facilitating memorable visitor experiences, the
 ability to argue for and secure boundaries that make ecological sense has improved over
 the last decade.
- Finally, the staff involved in the day-to-day work of park establishment are not just increasingly skilled at mapping out a process and undertaking ecological and cultural studies, they are placing greater priority on building relationships with communities, First Nations, stakeholders and the public.

On a spring day in 2006, plains bison were released into Grasslands National Park where they began to roam across natural prairie after a 120-year absence. This event exemplifies the legacy left by the creation of new national parks. The idea of a Grasslands National Park was decades old by the time an agreement was signed in 1988. In a natural state as the result of the decision to protect it as a national park, the new park allowed for the reintroduction of bison as part of an ecological restoration program. It is the act of establishment that first ensures that the people of Canada can benefit from and enjoy these natural areas, and is the first step in ensuring that such wild places are left unimpaired for future generations.

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Ecological Integrity and Canada's National Parks

Stephen Woodley

Introduction

THIS PAPER EXPLORES THE EVOLUTION OF THE IDEA OF ECOLOGICAL INTEGRITY as an endpoint that is used in the management of Canada's national parks. This approach has been pioneered in Canadian national parks and the examples are from Parks Canada. However, this approach has been adopted by many and is applicable to a wide range of ecosystem management situations inside and outside protected areas. The foundation of this approach is that ecological integrity is a management endpoint that is firmly rooted in science and therefore measurable. As such ecological integrity becomes a key tool for management. Furthermore, ecological integrity provides a conceptual framework for active management and restoration of protected areas, which can be focused on a measurable management target.

The concept of ecological integrity was added to the lexicon of Parks Canada management in the 1980s, as a replacement to the idea of "natural." Concern about the concept of "natural" had been expressed for a long time. The 1963 Leopold Report, done for the U.S. National Park Service, suggested a goal of scientifically based park management as a way to "protect vignettes of primitive America." In calling for the protection of such vignettes, the report also noted that no one successional stage was necessarily the right one. However, the Leopold Report missed the fact that America was not really "primitive." We now understand that the pre-Columbian Americas were populated by millions of Aboriginal peoples with cities, roads, and engineering structures (for a complete review see Mann 2005). Even outside the highly populated areas, First Nations and Aboriginal peoples were keystone ecosystem managers, regulating levels of ungulate populations and modifying ecosystems through complex fire use (see Pyne 1983). Thus, ecological integrity can and should be understood outside the context of whether or not people are present in the system.

History of the idea

The terms "ecological integrity," "ecosystem health," and "biodiversity" have been used by land and water management agencies to describe their goals for ecosystem management for some time. However, it is ecological integrity that has risen to become the most entrenched in the scientific literature, in national and provincial legislation, and in the language of inter-

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national agreements and treaties. As early as 1978, the amended Great Lakes Water Quality Agreement states its purpose as "to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes Basin Ecosystem" (International Joint Commission 1978). Goals for the 1992 United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, stated that ecosystem integrity was a goal for all countries when considering development. In recent years, the term is used in the Millennium Ecosystem Assessment (2005) and in the Program of Work on Protected Areas under the Convention on Biological Diversity (Convention on Biological Diversity, COP 7 Decision VII/28, 2004). Within the ecological literature, the term "ecological integrity" is in common usage. In Google Scholar there are 127,000 citations of the term. In the journal *Conservation Biology* alone, there are over 5,000 citations of the term.

The notion of ecological integrity has been discussed from many perspectives in collections by Edwards et al. (1990), Woodley et al. (1993), and Pimentel et al. (2000). Like most complex concepts, it is not simply defined. Our sense of what constitutes ecological integrity is very much dependent on our perspective of what constitutes a whole ecological system.

Parks Canada provided a legal definition of ecological integrity in the 1998 Canada National Parks Act:

Ecological integrity means, with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.

Any definition of ecological integrity must be useful to scientists and managers, applicable to field situations, and rooted in scientific understanding of ecology. It must account for the fact that ecosystems have dynamic elements that change in time and space. Any assessment of integrity must account for the fact that ecosystems are geographically different, resulting in differential availability of energy, water, and nutrients. The organization of an ecosystem is a direct result of the degree of energy throughput, modified by the availability of nutrients and water as well as the colonization history. Thus, tropical ecosystems, with large energy throughput, tend to be structurally and functionally more complex than ecosystems in the northern latitudes.

Just as a person is defined as healthy by the absence of symptoms of disease, an ecosystem with integrity does not exhibit the symptoms or characteristics associated with stressed ecosystems. Stressed ecosystems exhibit a range of trends, such as the inability to retain nutrients, a decrease in average size of organisms, and a shortening of food webs (Odum 1985).

Ecosystems include communities of co-evolved species and these "native" species cannot be considered as interchangeable with "non-native" species. While ecosystems have always been colonized by invading species, the rate of species introductions caused, directly or indirectly, by human actions cannot be viewed as desirable. Ecosystems with integrity are not dominated by "non-native" species. This is especially so in protected areas which were established to protect native biodiversity.

Further, any sound definition of ecosystem integrity must recognize that species exist in

populations that must be kept above a minimum level if they are to persist. These minimum levels should account for the likely persistence of species at a population level that is ecologically functional and undiminished in genetic heterozygosity.

There is no real conflict between many of the terms used to define an ecosystem condition. The terms of "ecological integrity," "ecosystem health," "biodiversity," and "resilience" are really just subsets or derivatives of each other. Ecosystems with integrity contain native biodiversity, by definition. Ecosystems with integrity also have resilience.

Six questions to understand ecological integrity

A simple expression of ecological integrity is an ecosystem that contains its full complement of native species and the processes that ensure the survival of those species. This complex idea can be made more real for protected area managers by asking a set of six questions about the ecosystem.

1. Is the park losing species?

Most protected areas were and are established to conserve native species, sometimes expressed as biological diversity or biodiversity. This is inherent in Parks Canada's definition of "ecological integrity" (see above) as well as IUCN's definition of a "protected area."

Ecosystems tend to conserve species, and indeed the loss of native species is a characteristic result of many different ecological stressors (Box 1). Habitat loss and degradation are the principal causes of species loss in Canada (Venter et al. 2006). Other causes include loss of key species, presence of alien species, air and water pollution, radiation exposure, and climate change.

Box 1. Reintroducing bison to Grasslands National Park

Species re-introductions are done in order to restore ecological integrity. As one example, plains bison (*Bison bison*) were reintroduced in December 2005 to Grasslands National Park in southern Saskatchewan. Bison had been absent from this landscape for 120 years. As keystone herbivores (weighing up to 730 kg), bison modify prairie ecosystems through grazing, wallowing, trampling, and acting as a food source for a range of predators and scavengers. In addition to the ecological benefits, the return of the bison to Grasslands provides a wonderful experience for visitors and a great opportunity for fostering public education and stewardship.

The other main cause of species loss in protected areas is because the areas are simply too small and/or fragmented. This insight comes from the application of island biogeography theory (Diamond 1975) to protected areas. Essentially, the theory states that parks that are isolated by altered habitat will hold fewer species, and that smaller parks will hold fewer species than larger ones (Newmark 1987).

At a basic level, parks and protected areas with ecological integrity should not lose species. However, the majority of existing protected areas, including many Canadian national parks, are too small to conserve all native species. Thus, managers are required to actively

manage populations or make the effective size of the conserved population larger. Asking the question "Is the park losing species?" is but one important insight into the larger question of ecological integrity.

2. Are selected indicator species doing well?

It is sometimes difficult for protected area managers to know if they are losing species or not. Many protected areas do not have good inventories of even the best-known taxa, such as birds and mammals. Even where good inventories exist, they are generally not repeated at regular intervals, which would be a requirement to monitor species loss. A more practical approach is to use selected indicator species and track their status (see Landres et al. 1988; Dufrene and Legendre 1997; Simberloff 1998).

The susceptibility of a given species to extinction is a function of many factors, the most important being population size, body size, age at first reproduction, birth interval, and susceptibility to both slow and catastrophic change. The minimum viable population size has been calculated for a number of mammalian species (Reed et al. 2003). The general rule the results point out is that larger areas are required for animals with larger body mass, for carnivores versus herbivores, for tropical versus temperate populations, and for areas with high versus low environmental variance. The use of the persistence of focal species as an indicator is now standard practice in protected areas management (Box 2). Some level of active management usually accompanies this management focus.

Box 2. Monitoring Kokanee salmon the Yukon's Kluane National Park and Reserve

Kokanee salmon spawning numbers have been monitored in Kluane for almost thirty years. This Kokanee salmon is a focal species and its spawning numbers serve as a key indicator to understand the area's ecological integrity. This species was chosen because it is at the top of the aquatic food chain and has specific life-cycle needs. It is thus likely to be impacted by a range of potential stressors. In recent years, Kokanee population counts have dropped far below the minimum threshold target used to assess a healthy population.

3. Are the ecosystem trophic levels intact?

Ecosystems have characteristic levels of primary producers, herbivores, and carnivores that can be expressed as food webs. The length of a food web is a characteristic of a specific ecosystem in a specific place. Negatively impacted ecosystems tend to have food webs that are simple in comparison to those that are unmodified. In many protected areas, top carnivores such as wolves have been extirpated. This can result in hyperabundant ungulate populations, which have cascading adverse effects on primary producers (White et al. 1998). Significant ecological stress, in both aquatic and terrestrial ecosystems, results in the reduction of the average body size of organisms. A decline in body size is accompanied by increased prominence of generalist species and a loss of specialist species (Woodwell 1970).

4. Do biological communities exhibit a mix of age classes and spatial arrangements that will support native biodiversity?

Ecosystems are inherently dynamic, driven by fire, climate, weather, and herbivores. After disturbance, ecosystems pass through sometimes-predictable successional stages. Repeated disturbance events create a mosaic of biological communities in both time and space. The resulting configuration of community types of different sizes and ages determines the survival of individual species. Thus, the biodiversity of a protected area results from these disturbance factors. Because some disturbances (e.g., fire and herbivory) can be influenced by managers, this aspect of ecological integrity is under at least partial management control (Box 3).

Box 3. Restoring Kootenay's original dry grasslands and open forests

The southwestern corner of Kootenay National Park in British Columbia is a dry, low-elevation valley that supports rich biodiversity and critical wildlife habitat. This area contains the only example of dry Douglas fir/ponderosa pine/wheatgrass vegetation in Canada's national parks and provides important winter range for wildlife.

For thousands of years, fires of both lightning and Aboriginal origin maintained a variety of habitats in the Columbia Valley, creating a healthy mixture of young, middle-aged, and old forests, shrublands, open meadows, and dry grassy slopes. To return ecological integrity to the valley and reduce wildfire risk, Parks Canada is restoring the grasslands and open forest biodiversity of the South Kootenays. The dramatic first step in restoration is the mechanical harvesting of trees, followed by carefully planned and managed burns. This initiative is expanding the range of opportunities for public engagement in ecosystem research, monitoring, and restoration programs, while the restored habitats are providing visitors with outstanding opportunities to experience, enjoy, and learn about the unique natural heritage of Kootenay National Park.

5. Are productivity and decomposition operating within acceptable limits?

Most ecosystems are driven by primary productivity, the measure of the amount of organic matter produced by biological activity per unit area in a given time period. According to Schaeffer et al. (1988), the onset of *ecosystem illness* occurs when subtle shifts in productivity occur and *profound disease* is indicated when energy is lost from the ecosystem in an uncontrolled manner. For example, pine forests exposed to airborne pollutants invariably experience stunted needle growth and premature loss (Williams 1980; Mann et. al. 1980). As production decreases, respiration often increases as energy is diverted to repair.

6. Is the system cycling nutrients within acceptable limits?

Ecosystems cycle and conserve nutrients at characteristic rates. In virtually all ecosystems,

nutrient availability is a limiting factor and rates of nutrient cycling are critical to ecosystem function. It is well established that as ecosystems become stressed, and thus lose integrity, they lose their ability to retain nutrients, exhibit changes in rates of nutrient cycling, and exhibit changes in the relative abundances of nutrient pools (Likens et al. 1978).

Within an ecosystem, stress also causes dramatic shifts in existing nutrient pools. This has been documented for whole-tree logging (Kimmins 1977), from the impact of air pollutants in forests (Freedman and Hutchinson 1980) and acid precipitation-stressed ecosystems (Schindler 1987).

The preceding six questions focus on ecosystem structure and function from the prospective of a generalized stress–response model. They all examine how ecosystems may be impacted by or lose integrity from a range of ecological stressors. This is the basic understanding for Parks Canada's approach to ecological integrity and the basis of how the organization constructed its ecological monitoring system.

Ecological integrity and Parks Canada

Any management system, whether it involves operating a factory, a hospital, or a national park, must have specific objectives. If protected area goals and objectives are not measurable, how can we even determine if we are successful? For Parks Canada, moving to ecological integrity as a management endpoint has provided a clearer foundation for park management. There is no way of knowing if management is successful without knowing what we want to conserve and measuring progress toward that endpoint. This is particularly important where active management and intervention in ecosystem processes occurs. Ecological integrity provides a framework that allows for the translation of broad, often vague nature protection goals into more specific and measurable endpoints, based on desirable ecological conditions. Monitoring and assessment are an integral part of management for ecological integrity.

Measuring ecological integrity

This section describes how Parks Canada has approached measuring ecological integrity, but the principles involved are really applicable anywhere. The U.S. National Park Service's monitoring program is very similar in approach and the two organizations have worked closely together.

In Parks Canada, each national park has selected four to eight indicators that are based on the major ecosystems that make up a given park. For example forests, tundra, grasslands, freshwater, or wetlands are all used as indicators. The use of the term "indicator" is different than the way it is generally used in the literature. Major park ecosystems were chosen as indicators because Parks Canada wanted to know the ecological status of its parks and the most practical approach was to examine the status of each major ecosystem. In very practical terms, a small number of indicators are more easily understood by park managers, stakeholders, and the public, who relate to known ecological entities such as forests, rather than more esoteric scientific concepts like productivity.

The assessment of an ecological indicator is based on a set of ecological "measures," which are the ecological attributes of these major ecosystems. The selection of this suite of measures is done carefully and based on the following steps:

- *Construct a conceptual ecological model* for each of the major park ecosystems.
- Use the conceptual models to select a set of ecological measures that will provide the necessary diagnosis of the indicator. A suite of ecological measures is selected with the aim of understanding key elements of ecosystem structure and ecological function (see the six questions discussed above).
- Validate and test measures. All ecological integrity measures will have an establishment phase to assess their feasibility, cost-effectiveness, and interoperability with other measures.
- Determine thresholds for each measure. Thresholds represent decision points in interpreting the continuous variable of ecological integrity. It is through thresholds that assessments are concluded about ecosystem condition (see Groffman et al. 2006). Parks Canada uses thresholds to categorize measures and then indicators into "good," "fair," and "poor" classes, which are used for reporting. For a given indicator (major park ecosystem), a rule set is used to aggregate the results in all supporting measures into a "good," "fair," or "poor" rating.
- *Establish monitoring protocols*. For each measure, the methods, threshold rules, data, metadata and project rationale are compiled in detailed project protocols.
- Program review and quality control. Monitoring and reporting programs need to be in place for the long term to be successful. It is important to incorporate review and quality control procedures so that the information generated matches the evolution of ecology and management emphasis. This must be done while ensuring the continuity of long term measures.

Reporting on ecological integrity

For long-term viability, any program that assesses ecological integrity must be useful and available to decision-makers and the public. It must be a fundamental and integral part of the park management system. Each Canadian national park produces a state of the park report, published every five years just prior to developing a new park management plan. The report is the main vehicle for communicating the results of ecological integrity monitoring.

The state of park report is based on measuring a wide range of variables, each with a detailed protocol. In the rolled-up public report card, each indicator of ecological integrity is assigned a color score: green for "acceptable" ecological integrity, yellow indicating a "concern," and red indicating "impaired" condition requiring management action. In addition to the color score, each indicator is given a trend arrow (increasing, decreasing or stable levels of integrity). An example of a report card on ecological integrity for Canada's Gros Morne National Park is shown in Table 1.

In Table 1, the ecological condition of the forests indicator shows significant impairment and a worsening trend. As a result of the ecological integrity assessment, the park's management plan has highlighted forest restoration as a key area for active management. Restoration funding was allocated to the park specifically to solve this problem and demonstrate measurable improvement to the ecological indicator. Management success will be measured by improvements to ecological integrity.

Indicator Ecosystems	Condition & Trend of Ecosystems	% of Park Area	Rationale for Rating
Forest	Poor (color code: red)	44	Extreme moose density is affecting regeneration. Decline in forest connectivity outside the park. High percentage of non-native mammals. Loss of Newfoundland wolf, decline of Newfoundland marten and red crossbill.
Barrens	Fair (color code: yellow)	35	Declining woodland caribou, increasing human use.
Wetlands	Fair (color code: yellow)	11	Decline of woodland caribou. Snowmobile damage. Increasing non-native species.
Freshwater	Good (color code: green)	8.8	Healthy invertebrate populations. Concerns about Atlantic salmon, Brook trout, and non-native rainbow trout.
Seacoast	Fair (color code: yellow)	0.2	Only a few pairs of terns continue to nest in the park. Dunes and coastal forest are recovering from historic grazing, trampling, and human use.
Marine	Fair (color code: yellow)	1	Overexploitation of many species. Pollution. Garbage.

Table 1. Ecological integrity report card for Gros Morne National Park.

Ecological integrity-based management

In Parks Canada, the results of ecological integrity assessments are used to make decisions about the kinds of active management and restoration required, if any. The formal process for doing this is to prepare a park management plan. This is a public accountability document that provides an overall direction for park management. The key actions for ecosystem management are specified here, including active management and restoration. The park management plan is the basis for providing funding to priority ecological integrity issues. This completes the logic model. The protection goal is ecological integrity. The ecological integrity monitoring system determines problems in achieving the goal. Keys strategies for maintaining ecological integrity, along with other management priorities for visitor experience and public education, are reported through the state of the parks system. The need to act is outlined in the management plan, which leads to funding for priority actions. The system is complete when ecological monitoring determines whether or not the financial investment led to an improvement in ecological integrity.

Conclusion

In Canadian national parks, ecological integrity has evolved from a scientific idea into a management system. It connects science to management. It provides a rationale for when to use

active management and restoration in park management. Finally, it provides a way to measure if active management and restoration have been successful.

To be clear, it is preferable to manage for ecological integrity by having large protected areas, where management intervention is not required. However, in order to compensate for past or current actions, active management is frequently required in such areas as fire restoration, species and community restoration, harvest management, management of hyperabundant native species, or elimination of non-native species. Active management should occur when there are reasonable grounds to believe that maintenance or restoration of ecological integrity will be compromised without it.

Parks Canada feels that ecological integrity is a conceptual leap forward for protected area management. Like it or not, most park managers are faced with making difficult choices. As a management endpoint, ecological integrity is a significant advance from the notion of "natural" in that it forces the use of ecosystem science, in combination with societal wishes, to define and decide on ecosystem goals. The use of ecological integrity as a goal in protected area management recognizes that ecosystems are inherently dynamic, and have a history of human intervention and even management.

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Parks Canada's National Historic Sites: Past, Present, and Future

Larry Ostola

THE PARKS CANADA AGENCY IS RESPONSIBLE FOR ADMINISTERING NATIONAL HISTORIC SITES across Canada as well as a number of other programs related to Canada's historical and built heritage. This article will briefly outline the evolution of what is referred to as the program of national historical commemoration from its inception to the present day, with a specific focus on the development of national historic sites. It will then describe some of the current challenges that the agency faces with respect to these sites, and, finally, some recent initiatives that have begun to address these challenges.

Development of the program of national historical commemoration and national historic sites

Parks Canada's national historic sites program traces its origins to 1917, when Fort Anne in Nova Scotia's Annapolis Valley was acquired by the government of Canada as Canada's first national historic park.¹ The eighteenth-century fortification, which remains a tangible reminder of the Anglo-French struggle for supremacy in North America, was the first real expression of a program of national historical commemoration that continues to this day.

There had been earlier efforts to commemorate significant historic figures and events in Canada. One early commemoration occurred in 1809, when work began on a monument in Montreal, funded through public subscription, honoring British Vice-Admiral Horatio Nelson and his victory at the Battle of Trafalgar in 1805. In 1824, a monument was inaugurated on Queenston Heights on the Niagara river to the memory of another military figure, Major-General Sir Isaac Brock, "the hero of Upper Canada," who had captured Detroit and later died at the Battle of Queenston Heights in 1812 turning back an American invasion of the province during the War of 1812. In 1827, in Quebec City, the cornerstone of a monumental obelisk bearing the names of Generals Wolfe and Montcalm, both of whom lost their lives in the decisive Battle of the Plains of Abraham in 1759, was laid. The memorial, which still stands in the city, bears an inscription in Latin which reads: "Valour gave them a common death, history a common fame and posterity a common memorial."

In the late nineteenth century, in the context of a growing public interest in Canada's history and historical commemoration (Taylor 1990, 5-22), the Canadian Parliament spon-

sored the erection of a series of other historical monuments to commemorate significant battles of the War of 1812, such as the Battle of the Chateauguay and the Battle of Chrysler's Farm.

Not surprisingly, given the perspective on history which was prevalent at the time, many of these early historical commemorations were of military figures and significant military or political events that had shaped the country, and, with few exceptions, this was a tendency that would continue in the early twentieth century as the newly created program of national historical commemoration got underway in earnest.

The driving force behind the creation of the program by the government of Canada was J.B. Harkin, an energetic and capable public servant who served as the first commissioner of the Dominion Parks Branch, which had been created in 1911 and was the first government organization of its type in the world.

As commissioner of the Parks Branch, Harkin was responsible for the administration of a number of national parks, which were mainly located in the Rocky Mountains of western Canada. Anxious to establish more of a national presence, Harkin viewed historical parks (Figure 1) as a means of doing this and expressed the view that

It would be doubly beneficial if these historic spots were not only properly restored and marked but they should be used as places of resort by Canadian children who, while gaining the benefit of outdoor recreation, would at the same time have opportunities of absorbing historical knowledge under 'conditions that could not fail to make them better Canadians' (Taylor 1990, 28–29).

Under Harkin's leadership, the Dominion Parks Branch began to solicit the views of interested groups and individuals with respect to sites that might be worthy of acquisition. By 1914, land on the site of what had been Fort Howe in Saint John, New Brunswick, was purchased, followed by Fort Anne in 1917. Work also began on evaluating a number of other sites which had the potential to be candidates for acquisition.

An event that was to have a profound influence on the development of the program of national historical commemoration occurred in 1919. William Roche, the minister of the interior at the time, asked Harkin to develop a policy proposal related to historical heritage on behalf of the department. Harkin responded by proposing that a network of national historic sites be established across Canada and that a board composed of authorities in the field be established to assist the department in determining what

Figure 1. Young visitor at Carleton Martello Tower National Historic Site.



sites were of interest to the country (Taylor 1990, 30–31). It was on the basis of this recommendation that the Historic Sites and Monuments Board of Canada (HSMBC) was established that year. Over ninety years after Commissioner Harkin's initial recommendation, the board, in close collaboration with Parks Canada, continues to provide advice and make recommendations based on submissions from the public on the national commemoration of persons, places, and events of national historic significance to Canada. It is composed of specialists in history, architecture, and a variety of other fields, and its members represent different regions of the country.

The initial recommendations made by the HSMBC with respect to historical significance were largely related to military events, and were located mainly in central Canada in the provinces of Ontario and Quebec. Sites such as the Battlefield of Eccles Hill, Fort York, and Batoche, which were all designated in 1923, are illustrations of this. There were some exceptions, however. Les Forges Saint-Maurice in Quebec, the site of Canada's first industrial village, was designated in 1919, and Oil Springs in Ontario, the site of the first oil wells in Canada, was designated a few years later (Parks Canada 2009). These early designations related to industrial activity in Canada were the precursors of conscious efforts made several decades later to better represent different aspects of Canada's history in the program of national historical commemoration.

Until the 1930s, the efforts of the Parks Branch and the HSMBC were largely confined to the erection of historical markers in the form of bronze plaques that provided basic information regarding the historical significance of a particular site. However, some additional properties, such as Fort Wellington in Prescott, Ontario, were acquired through transfer to the Parks Branch from the Department of Militia and Defence. These began increasingly to serve as local and regional historical attractions and often housed eclectic collections of historic objects of various types.

During the 1930s, in the context of the Great Depression and government expenditures on public works projects, a number of reconstruction and restoration projects were carried out by the Parks Branch. These included the reconstruction of Samuel de Champlain's seventeenth-century Habitation in Annapolis Royal, Nova Scotia, and restoration work on Quebec City's fortification walls and on Prince of Wales Fort, a massive masonry structure on the shore of Hudson's Bay in northern Manitoba. These and other reconstruction efforts marked the start of a gradual transition from the simple commemoration of sites of historic importance to their preservation and eventually presentation for the benefit of the public.

This tendency, which also included the acquisition of an increasing number of national historic sites by the Parks Branch (such as that of Fort Wellington in 1923, cited above) for the benefit of the public, would continue sporadically for several decades and culminate in some respects with the largest project of this type ever undertaken in Canada, the partial reconstruction of the Fortress of Louisbourg in the early 1960s.

Louisbourg, which had been a thriving eighteenth-century port and military stronghold, was almost completely destroyed by the British following their capture of it in 1758 during the Seven Years' War. The site, which had lain largely undisturbed in the intervening years, was acquired by the federal government in the 1960s largely in an effort to provide alternative employment to Cape Breton coal miners affected by a major decline in their industry. A painstaking reconstruction based on extensive and detailed historical research was undertaken, and one-fifth of the town was eventually rebuilt and staffed with accurately costumed animators with the intention of realistically portraying life in the fortress at its height. The Fortress of Louisbourg became and has since remained one of Canada's preeminent national historic sites and a very significant contributor to tourism and regional economic activity generally.

Throughout the 1960s and 1970s, the number of national historic sites continued to grow, either by being designated by the government of Canada on the recommendation of the HSMBC, or by being acquired and directly operated by Parks Canada. Some additions to Parks Canada's portfolio of sites included Bellevue House, the former home of Canada's first Prime Minister, Sir John A. Macdonald, which was restored and opened to the public in 1967, the year of Canada's centennial; L'Anse aux Meadows, site of the only documented Viking settlement in the New World, which became a national historic park in 1970 (Figure 2); and a number of historic canals, such as the Rideau Canal National Historic Site (Lothian 1987, 155–156), which were no longer of commercial or industrial significance but which were transferred to Parks Canada because of their historical significance and tourism potential.²

As a direct consequence of the growth of Parks Canada's responsibilities related to national historic sites, this period was also marked by the significant development, growth, and professionalization of the disciplines which serve as the foundation of the national historic sites program, including both underwater and terrestrial archaeology, historical research, conservation, curatorial services, collection management, and interpretation. Major research projects were undertaken in support of the sites and Parks Canada became an acknowledged national and international leader in many of these fields.³



Figure 2. L'Anse aux Meadows National Historic Site.

Significant advances were also made in terms of national policy development. An initial national historic sites policy was introduced in 1968, and would be subsequently updated until, in 1994, the current national historic sites policy was adopted along with the cultural resource management policy, which, as the name implies, serves as the basis for the agency's management of the cultural resources in its care.

By the 1990s, there was also a recognition that more attention had to be paid to the commemoration of under-represented themes in Canada's history. As a result, the commemoration of the history of Aboriginal peoples, women, and ethnocultural communities was made a strategic priority and Parks Canada made and continues to make significant efforts to consult with relevant groups and individuals to encourage public submissions related to persons, places, and events in these thematic areas that could potentially be candidates for a designation of national historic significance. These efforts have been successful, and both submissions and designations related to all three thematic areas have increased significantly.

The mid-1990s were also a time of financial challenges, with reductions to staff complements, a considerable scaling back of research efforts, and a virtual halt to any new acquisition of national historic sites by Parks Canada. So while the program of national historical commemoration continued in collaboration with the HSMBC, the direct involvement of the government of Canada was mostly limited to designating persons, places, or events of national historic significance and erecting a commemorative plaque. Subject to the availability of funding, cost-sharing agreements between Parks Canada and non-profit owners of national historic sites were also occasionally entered into as a means of providing some financial support for their on-going conservation.

At the present time, there are 956 national historic sites that have been formally designated by the government of Canada. Of this number, Parks Canada directly administers 167. The last two additions to the agency's portfolio were the *HMCS Haida*, Canada's only remaining Tribal Class destroyer from the Second World War, and Saoyué-7ehdacho, an Aboriginal cultural landscape some 5,000 kilometers in extent sacred to the Sahtu-Dene people of the Northwest Territories. The remainder are owned and administered by other levels of government, groups, and institutions in the not-for-profit and private sectors, and by private individuals. Some, such as the Parliament Buildings in Ottawa or the Banff Springs Hotel in the Rocky Mountains, continue to serve the purpose for which they were originally constructed, while others have been put to new uses. Approximately half of the national historic sites administered by Parks Canada are staffed and offer public programs (Figure 3).

Over time, and in recognition of the lead role the agency plays in terms of Canada's historical heritage, Parks Canada has also been assigned a number of other important responsibilities. Apart from its on-going work in support of the Historic Sites and Monuments Board of Canada, the agency also administers the Federal Heritage Buildings Review Office, a program related to the conservation and presentation of the gravesites of Canada's prime ministers, the Heritage Railway Stations Protection Act, and, most recently, the Heritage Lighthouse Protection Act. It is also responsible for administering the Canadian Register of Historic Places, an on-line searchable database of historic places in Canada. Finally, since 1976, the agency has also been assigned responsibility for the implementation of the World Heritage Convention in Canada.



Figure 3. Fur Trade at Lachine National Historic Site.

Current challenges for national historic sites

Quite apart from the usual challenges related to both capital and operational funding that are familiar to any organization responsible for the administration of historic sites, there are a series of other challenges related to national historic sites that Parks Canada is facing on the eve of its hundredth anniversary.

The first of these, and the most significant, is to ensure the on-going relevance of these places to Canadians, particularly in the context of an increasingly urban, rapidly changing society. The seriousness of this challenge has already been made apparent through a troubling pattern of declining visitation to the national historic sites that the agency is responsible for administering. While there are many factors that may be contributing to this, ranging from changing economic circumstances to outdated program offers, clearly Parks Canada must find the appropriate means to ensure that national historic sites, which are tangible reminders of the persons, places and events that shaped the nation, touch Canadians in a meaningful way and inspire powerful personal connections to them, consistent with the agency's vision.

Relevance ultimately translates into public support, and this is particularly important at a time when governments in many different jurisdictions are having to make increasingly difficult choices about the programs and services they will continue to offer their citizens. Enhancing relevance by reaching and responding to new audiences with different needs and expectations will be critical, particularly in the face of formidable competition for increasingly valuable leisure time and associated expenditures.

Directly related to the issue of relevance is the need to enhance basic public awareness

of the national historic sites that the agency administers. Most government organizations like Parks Canada traditionally have not taken a very sophisticated or consistent approach to activities such as marketing and promotion. Beyond traditional products such as historic site brochures, regional visitor guides, and occasional ad placements, there has been little in the way of a sustained and coordinated effort to ensure that Canadians have a basic awareness of Parks Canada and national historic sites and what they have to offer. The results of this speak for themselves. In a national survey commissioned by Parks Canada in 2009, 82% of respondents considered national historic sites "a source of pride," but only 5% of Canadians were aware that the agency was responsible for operating them. Respondents also clearly expressed a strong view that the agency should enhance its efforts to increase awareness through a variety of different methods. A particularly important means of generating increased awareness, given the rapidly growing proportion of the population that seeks information on-line, is to ensure that the agency has a useful and easily accessible on-line presence. This continues to be a work in progress.

Greater efforts will also have to be made to engage both local communities as well as communities of interest to make national historic sites focal points for community activity and community life and, ultimately, accessible community resources. Traditionally, staff at many sites have chosen both how and when to engage and involve these communities. At times, they have been largely excluded from site operations and activities and called upon only to participate in a given site initiative on the basis of meeting a particular requirement of Parks Canada's, such as consultation related to management planning. For meaningful engagement of these communities to take place, this must change, and the agency must be willing to engage citizens both on their terms and on the basis of their needs and interests, as well as our own.

In order to respond to the needs and expectations of both existing as well as new audiences, investments are also required to upgrade existing infrastructure and facilities at our national historic sites, as well as to offer new and innovative programming and ensure that agency staff have the necessary training and skills to effectively carry out their responsibilities. Facilities and exhibits that are in some cases decades old will require refurbishment, and the dated research upon which many programs and exhibits are based will similarly need to be reviewed and updated, particularly if new and different perspectives on the past are to be presented.

As well, a significant shift in thinking is also required with respect to the types of programs and activities that are encouraged at national historic sites and the uses to which sites can be put. While the requirements of historic resource conservation and the reasons for which a particular site has been deemed to be of national historic significance cannot and should not be forgotten and must remain a primary consideration, there has been, in some quarters, a belief that unless a given program or activity was directly related to the reasons for a site's national significance it should not be allowed to take place. This very limited view of the role that national historic sites can and should play may appeal to some traditional or specialist audiences, but it does not respond to the relevance challenge or the need to more effectively engage local communities and communities of interest.

This is not to suggest that there should be an "anything goes" approach to the manage-

ment and use of national historic sites. However, there are enormous opportunities to employ creativity and ingenuity and provide non-traditional opportunities for many different kinds of visitor experiences and community uses that create meaningful connections between citizens and these very special places. Through the provision of opportunities for these types of experiences and uses, there will also be opportunities for the agency to meet its conservation and education objectives (Figure 4).

Two final challenges relate to the nature and location of the portfolio of 167 national historic sites that Parks Canada currently manages. As outlined earlier, while designations of persons, places, and events of national historic significance have begun to more appropriately reflect the breadth and diversity of Canada's history, this is not true of the portfolio of national historic sites that the agency currently administers. Acquired over many decades in a number of different ways, the sites mostly relate to Canada's political, military, and fur trade history. In addition, the agency does not administer any sites in a number of medium and large urban centers, including two of the largest cities in the country, Toronto and Vancouver. Further reflection will be required to determine how best to address these challenges.

Some recent developments

While there are, as detailed above, some significant challenges related to national historic sites that Parks Canada will have to address, a number of recent developments and significant successes have provided a basis for optimism for the future.

In 2009–2010, a major national television advertising campaign featuring Parks Canada places, including national historic sites, was broadcast across Canada. The campaign yielded some encouraging results related to general awareness of the agency, and continued efforts like this, as well as a more coordinated and systematic approach to promotion and marketing of the sites in general, will begin to address the current awareness gap referred to earlier.

The agency has also recently benefited significantly from infrastructure spending undertaken by the government of Canada. Major investments at many national historic sites across the country have resulted both in conservation improvements as well as significant enhancements to visitor facilities and exhibits that have enabled them to better meet the needs and expectations of visitors.

As well, in the context of an overall renewal of the agency, Parks Canada has made renewal of its national historic sites a priority. This renewal initiative, which is in its initial stages, will provide a focal point for addressing the major challenges that have been identified related to national historic sites, encouraging innovation and the sharing of successes and best practices across the agency. A significant aspect of this renewal will be related to

positive community engagement. National historic sites are being encouraged to proactively reach out to local

Figure 4. Halifax Citadel National Historic Site.

communities and communities of interest, and dedicated staff specializing in external relations will be key to making this a reality.

Finally, innovative new programs have also begun to be developed across the country. At the Fortress of Louisbourg National Historic Site, visitors can enjoy eighteenth-century cuisine paired with wines in the company of a sommelier and a historian. The activity takes place in the evening, a time when the Fortress has typically been closed to the public. At Fort Langley, a canoeing experience on the Fraser River has been developed. It invites the active participation of visitors and has also re-established the important historic link between the river and the fort. At other sites, barriers to public access have in some cases been removed and public archaeology programs, theatrical presentations, concerts, and other types of non-traditional programs are all examples of program opportunities that are being explored.

As Parks Canada prepares for its hundredth anniversary, the agency's national historic sites face not only challenges but also exciting opportunities. Success in the future will be measured not only by how well these national treasures are safeguarded for future generations, but also in the strength and meaning of the connections that are established between Canadians and these special places.

Endnotes

- While land on the site of Fort Howe in Saint John, New Brunswick, was acquired several years earlier, there were no extant resources associated with the site. Fort Anne was the prototypical national historic site.
- 2. It is important to note that while (as is evident in the text) many sites were referred to as "National Historic Parks" in the past, the use of that terminology was subsequently discontinued and historic properties are now all known as "National Historic Sites." The historic canals for which Parks Canada is responsible (which are national historic sites) pose a particular challenge financially in terms on-going capital costs which are substantial.
- 3. One significant example of the types of projects undertaken is the underwater archaeological excavation of sixteenth-century Basque whaling vessels at Red Bay, Labrador. The excavation is considered to be an international best practice, and in recognition of this, UNESCO adopted an image of one of the vessels excavated as its symbol for the 2001 Convention for the Protection of the Underwater Cultural Heritage.

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National Marine Conservation Areas— Extending Parks Canada's Reach into Canada's Oceans and Great Lakes

Doug Yurick

Canada is a maritime nation: our motto is A Mari usque ad Mare—From Sea to Sea. With 243,000 kilometers of coastline along the Atlantic, Arctic, and Pacific oceans, and an additional 9500 kilometers along the Great Lakes, Canada has the longest national coastline in the world, as well as the world's second-largest continental shelf. Yet until comparatively recently, little of this vast marine expanse had been set aside in protected areas. As indicated elsewhere in this issue, Parks Canada has a long and proud history of protecting a growing list of national parks and national historic sites that are representative of the natural and cultural history of Canada. However, the national park system has focused primarily on terrestrial Canada, notwithstanding that several coastal national parks do include marine components.

This article recounts briefly the origins of Parks Canada's involvement in protecting marine environments, and the evolution of system planning and program policy, before highlighting main elements of the Canada National Marine Conservation Areas Act. An overview of existing and proposed areas within the national marine conservation areas system follows, before turning to strategic considerations as the program continues to grow.

Origins

Attention to protecting Canada's marine heritage began with Canada's endorsement of a recommendation of the First World Conference on National Parks in 1962 that called upon "governments of all those countries having marine frontiers ... to examine as a matter of urgency the possibility of creating marine parks or reserves to defend underwater interests...." An early response was that small marine components were included in four coastal national parks established between 1969 and 1972: the coastal lagoons of Kouchibouguac National Park in New Brunswick; waters out to the 20-meter bathymetric contour, and much of Barkley Sound, in Pacific Rim National Park Reserve in British Columbia; a narrow (500-foot) aquatic margin around Forillon National Park in Quebec; and several deepwater fjords

in Auyuittuq National Park in Nunavut. Even then, however, there was a growing recognition in Canada and other countries that more must be done to protect marine environments, and that marine protected areas were among the measures available if supported by necessary planning methods, policies, and legislation.

System planning

The expansion of Canada's national parks system has been guided for some decades by a system planning framework that divides the country into 39 natural regions on the basis of their primary physiographic and vegetation distinctions. Within this planning framework, the goal is that each of the 39 regions be represented by at least one national park. Achieving such representation of the terrestrial natural regions of Canada is the hallmark of the national parks system, and progress toward that objective is summarized elsewhere in this issue by Kevin McNamee.

With representation of marine natural regions established from the outset as the goal for its embryonic marine protected areas program, Parks Canada took first steps to expand its marine program tool kit by adopting a similar, initial marine park system planning framework of nine marine regions during the 1970s, three each on the Atlantic, Arctic, and Pacific coasts.

It became apparent relatively quickly that each of these nine marine regions was quite heterogeneous. Accordingly, work undertaken in the early 1980s with several prominent physical and biological oceanographers led to the adoption of a 29-region system planning framework in 1984. It was not an easy task; the readily visible physiographic and vegetative distinctions that help demarcate terrestrial natural regions are not apparent in an environment where fluid water is the primary element. Nevertheless, based as it is on aggregated knowledge of primary oceanographic and biological characteristics, and with minor revisions over time, this regional planning framework, illustrated in Figure 1, continues to serve Parks Canada today. Extending over 245,000 square kilometers, the interconnected Great Lakes constitute the largest area of surface freshwater in the world, and consequently the 29-region marine conservation areas system plan includes them. The system plan is available at www.pc.gc.ca/progs/amnc-nmca/systemplan/index_e.asp.

Policy

The second component of the tool kit to be addressed was the development of policy to guide the establishment and management of marine parks. Some initial work in the 1970s, when Parks Canada gave early consideration to establishing a marine park in the Strait of Georgia between Vancouver Island and the mainland of British Columbia, led quickly to the recognition that policies appropriate to national parks, often in remote settings, would not fit marine settings where more fluid ecosystems and long traditions of human use, including commercial fishing, were the norm. Early on, and consistent with emerging practice in other nations at the time, marine park policy evolved along multiple-use lines wherein activities such as commercial shipping and fishing could continue in much of the protected area while exploration for and development of non-renewable resources would be prohibited outright. The result was the publication of the initial Parks Canada National Marine Park Policy in

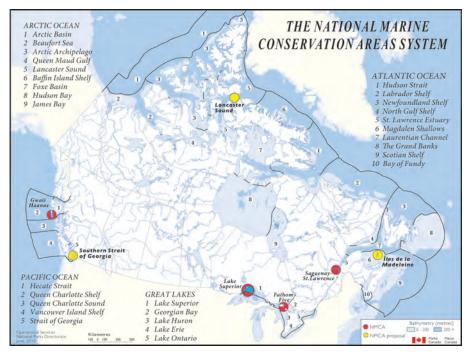


Figure 1. Canada's national marine conservation areas system.

1986. Policy development was not accompanied immediately afterward by specific legislation, with the result that until early in the 21st century, national marine parks stood to be managed under the National Parks Act.

The mid-1980s and 1990s can be characterized as a period of measured progress and much learning. A proposed national marine park in the West Isles area of the Bay of Fundy did not progress beyond the feasibility assessment stage for a number of reasons, yet provided invaluable lessons respecting policy, working with stakeholders, and administrative challenges. Elsewhere, in Georgian Bay (Lake Huron), the negotiation of a federal–provincial agreement to establish Bruce Peninsula National Park provided the opportunity to also take on responsibility for what until then had been Ontario's Fathom Five Provincial Park, an area initially set aside by the provincial government in 1971 primarily to protect a remarkable assemblage of shipwrecks. Fathom Five has yet to be brought under federal legislation, but has been managed as Fathom Five National Marine Park since 1987; it has pride of place as being the marine protected area longest under the stewardship of Parks Canada.

Nineteen eighty-seven was also the year in which the governments of Canada and British Columbia signed a memorandum of understanding for the establishment of what eventually were to become Gwaii Haanas National Park Reserve and Haida Heritage Site, and Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site. In 1990, the governments of Canada and Quebec agreed to collaborate toward a third marine protected area, at the confluence of the Saguenay Fjord and the St. Lawrence River Estuary. More will be said later about both of these places.

Through all of these projects—managing Fathom Five, and taking steps toward the establishment of marine protected areas at Gwaii Haanas and Saguenay-St. Lawrence—Parks Canada continued to build upon its policy and system planning foundations. Consequently, when all of Parks Canada's policies underwent comprehensive review and public consultation during the early 1990s, one result was a considerably revised policy approach to marine parks, and a new program name—national marine conservation areas—upon the approval by Cabinet and subsequent release in 1994 of what today remain Parks Canada's *Guiding Principles and Operational Policies*. The national marine conservation areas policy is available at www.pc.gc.ca/eng/docs/pc/poli/princip/sec2/part2b.aspx.

Legislation

Coupled with the evolution of policy was a growing recognition that a mature marine conservation areas program would also require separate legislation, tailored to the specific requirements of managing marine conservation areas within the existing array of federal and provincial statutes in Canada pertaining to the management and use of ocean and Great Lakes spaces and species.

The Canada National Marine Conservation Areas Act, enacted in 2002, is the result (http://laws-lois.justice.gc.ca/PDF/Statute/C/C-7.3.pdf). The act begins with a preamble that sets out Parliament's broad intentions for national marine conservation areas, embracing establishment of a system representative of the three oceans and the Great Lakes, managing them within ecosystem-scale considerations, the ecologically sustainable use of renewable marine resources, the social and cultural well-being of coastal communities, and the provision of opportunities for Canadians and visitors to appreciate and enjoy these outstanding examples of Canada's natural and cultural marine heritage. The succinct purpose statement in the act reads: "Marine conservation areas are established in accordance with this Act for the purpose of protecting and conserving representative marine areas for the benefit, education and enjoyment of the people of Canada and the world." The act goes on to stipulate that "marine conservation areas shall be managed and used in a sustainable manner that meets the needs of present and future generations without compromising the structure and function of the ecosystems, including the submerged lands and water column, with which they are associated." It specifies as well that "each marine conservation area shall be divided into zones, which must include at least one zone that fosters and encourages ecologically sustainable use of marine resources and at least one zone that fully protects special features or sensitive elements of ecosystems, and may include other types of zones." Thus, while marine conservation areas are not to be zoned no-take throughout, the act does require that there will be at least one zone within a marine conservation that has that objective. Parks Canada presently is formulating policy respecting the entire spectrum of zones that will be applicable within individual marine conservations areas, within the spectrum provided by the act.

The act provides for outright prohibitions of ocean dumping, except under permit in certain circumstances, and of exploration for and development of subsea mineral and petroleum resources. As for permissible uses within appropriate zones, the act leaves the regulation and management of fisheries and marine transportation with the federal ministers of departments of Fisheries and Oceans, and Transport, respectively, who will continue to

administer the Fisheries Act, the Canada Shipping Act, and other applicable legislation. However, provisions of management plans for marine conservation areas that pertain to fisheries or navigation, and any proposed regulatory amendments respecting those activities, require the agreement of both the minister of fisheries and oceans or the minister of transport, as the case may be, and the minister of the environment (who is also the minister responsible for Parks Canada).

Status of the national marine conservation areas system

Agreements are in place to represent five of the 29 defined marine regions of Canada, and steps are presently underway to represent three additional regions. The accounts that follow are presented in the order in which initial federal–provincial/territorial enabling documents (memoranda of understanding or more formal agreements) were signed.

Fathom Five National Marine Park represents the Georgian Bay Marine Region and is the smallest area within the marine conservation areas system, at just more than 100 square kilometers in size. Although set aside initially to protect the cultural heritage represented by a diverse assemblage of 21 known shipwrecks (Figure 2), studies by Parks Canada and partner agencies over the last 20 years have documented numerous natural attributes, including an underwater extension of the Niagara Escarpment and remnants of a drowned forest, evidence of a time when lake levels were much lower than today. There may be future opportunities, in partnership with the provincial government, to enhance Fathom Five's representation of the natural region by expanding it. Although it is managed by Parks Canada, Fathom Five is not yet designated under the act, pending the resolution of certain First Nations issues.

Gwaii Haanas National Marine Conservation Area and Haida Heritage Site represents two marine regions—Hecate Strait to the east and Queen Charlotte Shelf to the west—and is particularly notable in several respects. Several factors combined to prevent the national marine conservation area reserve being designated legally until 2010, yet the chain of events

Figure 2 (below). A shipwreck in Fathom Five National Marine Park.

Figure 3 (right). Gwaii Haanas marine biodiversity.





set in motion by the 1987 memorandum of understanding mentioned previously has contributed immensely to the evolution of the Parks Canada marine conservation areas program. It is a place of immense natural diversity (Figure 3) and is integral to the culture of the Haida Nation, as evidenced by 600 recorded archaeological sites along its shoreline, representing 12,000 years of continuous human occupation.

Officially designated in June 2010, Gwaii Haanas extends over 3,500 square kilometers and is the first national marine conservation area to be brought fully under the act. Moreover, the Gwaii Haanas Marine Agreement, signed in January 2010 by Parks Canada, Fisheries and Oceans Canada, and the Council of the Haida Nation, has created an expanded Archipelago Management Board for the collaborative management of the marine conservation by the federal government and the Haida. Establishment of the marine conservation area has resulted in the protection of contiguous terrestrial and marine ecosystems from the mountain tops of Gwaii Haanas National Park Reserve and Haida Heritage Site to abyssal ocean depths exceeding 2,000 meters within a few kilometers of the west coast of the archipelago. Gwaii Haanas is globally unique in this respect.

Saguenay-St. Lawrence Marine Park has the distinction of being managed jointly by the governments of Canada and Quebec, and represents the St. Lawrence Estuary Marine Region. An agreement signed by the federal and Quebec governments in 1990 called upon each government to enact "mirror" statutes that, together, leave the seabed under the administration and control of the provincial government while the water column and all resources and activities on and within it are under federal administration and control. This unique arrangement arises from provincial policies respecting the transfer of administration and control of the seabed to Canada, as would be required under the Canada National Marine Conservation Areas Act, and led to the passage of both the federal Saguenay-St. Lawrence Marine Park Act and the provincial Loi sur le Parc marin du Saguenay-St-Laurent in 1998 to achieve legal designation of the area. The marine park extends over 1,245 square kilometers in both the Saguenay Fjord and St. Lawrence River, and is renowned for the numbers and diversity of its whales, including a relict southern population of beluga that is attributed to a strong upwelling where the westward limit of the deep Laurentian Channel meets much shallower bottom topography within the park boundary. The beluga population is listed as "threatened" under the Species at Risk Act.

Lake Superior National Marine Conservation Area represents the marine region of the same name and, at approximately 10,000 square kilometers in size, is the largest freshwater protected area in the world. An agreement to establish this national marine conservation area was signed by the governments of Canada and Ontario in 2007, and work is now underway to complete a required legal survey of the boundary and an interim management plan so that designation under the act will become feasible during 2011. The national marine conservation area protects trout spawning grounds and breeding peregrine falcons, among other natural features, and the sheltered islands along much of the coast are a paradise for kayakers and boaters.

In addition to the sites named above, feasibility assessments are underway toward the establishment of two additional national marine conservation areas, and other candidates await decisions about advancing to that stage. Parks Canada and the government of British

Columbia are continuing discussions about the proposed establishment of a marine conservation area in the southern *Strait of Georgia*, an idyllic island-strewn area in the middle of one of the most populated and heavily visited regions in Canada, between Vancouver and Victoria, that includes among its diverse array of species an at-risk population of killer whales. Elsewhere, at almost the diagonally opposite limit of the country, an assessment of the feasibility of establishing an national marine conservation area in *Lancaster Sound* began late in 2009 with the signing of a memorandum of understanding among Parks Canada, the government of Nunavut, and the Qikiqtani Inuit Association, which is the designated Baffinregion Inuit organization under the Nunavut Land Claims Agreement of 1993. Located at the eastern end of the Northwest Passage, and experiencing the effects of rapid climate change, Lancaster Sound's ecological significance is without parallel in the Canadian Arctic and on a circumpolar scale (Figure 4).

Emerging national network of marine protected areas

The national marine conservation areas program is one of three primary federal marine protected area programs, each with its own mandate. The Canada National Marine Conservation Areas Act assigns Parks Canada the mandate to establish national marine conservation areas "for the purpose of protecting and conserving representative marine areas for the benefit, education and enjoyment of the people of Canada and the world." Fisheries and Oceans Canada establishes marine protected areas under the Oceans Act for the conservation and protection of one or more of (a) commercial and non-commercial fishery resources, including marine mammals, and their habitats; (b) endangered or threatened marine species, and their habitats; (c) unique habitats; (d) marine areas of high biodiversity or biological produc-

Figure 4. Lancaster Sound: A place with unparalleled ecological significance in the Canadian Arctic and on a circumpolar scale. Narwhals are an iconic species of the sound. © Mario Cyr. Used by permission.



tivity; and (e) any other marine resource or habitat as is necessary to fulfill the mandate of the minister. Third, Environment Canada protects species and habitats that fall under its jurisdiction using the Canada Wildlife Act, within national wildlife areas and marine wildlife areas. Insofar as these complementary marine protected area mandates pertain to integrated ocean management plans, the Oceans Act assigns the coordination of the development and implementation of a national system of marine protected areas to the minister of fisheries and oceans on behalf of the government of Canada.

Beginning formally with the release of the Federal Marine Protected Areas Strategy in 2005, Parks Canada is a strong participant in Canadian progress toward a comprehensive federal-provincial/territorial network of marine protected areas. At the federal level, the strategy (available at www.dfo-mpo.gc.ca/oceans/publications/fedmpa-zpmfed/index-eng.asp) sets the goal of establishing "a network of marine protected areas, established and managed within an integrated oceans management framework, that contributes to the health of Canada's oceans and marine environments." It calls upon the three marine protected area agencies to coordinate their activities in four areas of work: (a) establishing a more systematic approach to marine protected area planning and establishment; (b) enhancing collaboration for management and monitoring of marine protected areas; (c) increasing the awareness, understanding, and participation of Canadians in the marine protected areas network; and (d) linking Canada 's network of marine protected areas to continental and global networks. Important steps are underway in all of these areas. For example, the three agencies have completed a guidelines document respecting a coordinated approach to network planning, and Parks Canada is leading a shared initiative to expand Canadians' awareness of the marine protected areas network.

More recently, Fisheries and Oceans Canada has been leading the development of policy guidelines required to foster an integrated approach to national marine protected area network design involving federal, provincial, and territorial agencies. Although this work is still at early stages, evidence of the emerging approach to a national network is provided by the Spotlight on Marine Protected Areas in Canada publication that was released on June 8, 2010, World Oceans Day, This publication, available at www.dfo-mpo.gc.ca/oceans/marineareas-zonesmarines/mpa-zpm/spotlight-pleinsfeux/index-eng.htm, summarizes Canadian progress, now totaling over 56,000 square kilometers in 788 marine protected areas in the three oceans and Great Lakes. Elsewhere, from a strategic network planning perspective, new scientific guidance has been provided in a publication detailing the framework of and principles for the biogeographic classification of Canadian marine areas, available at www.dfo-mpo.gc.ca/CSAS/Csas/Publications/SAR-AS/2009/2009 056 E.pdf. Although this classification is at a higher hierarchical scale than the Parks Canada 29-region system planning framework, future work to disaggregate at least some of the 12 marine biogeographic regions in this new classification is likely, in many instances, to approximate the Parks Canada classification. The 12-region framework is intended as the basis for bioregional marine protected area planning while not impeding Parks Canada's intended continued work to represent each of the 29 marine regions of Canada, including the Great Lakes, as collaborative network planning continues among the federal, provincial, and territorial governments.

International context

Canada is among the numerous maritime nations that share the global commitments to establish networks of marine protected areas that were made at the 2002 World Summit on Sustainable Development and in the 2004 United Nations Convention on Biological Diversity Program of Work on Protected Areas. For that reason, and because of the very dynamic nature of marine environments and the migration and life stage dispersal patterns of many species within them, it is incumbent upon national marine protected area agencies to work with similar agencies in other countries if shared marine conservation objectives are to be achieved at regional scales.

Accordingly, Parks Canada is among the founding organizations of the North American Marine Protected Areas Network (NAMPAN), an initiative under the biodiversity conservation program of the Commission for Environmental Cooperation in North America. Working within NAMPAN, marine protected agencies and academic and non-governmental organization partners in Canada, the United States, and Mexico have collaborated on a number of projects, including the development of a first bioregional collaboration for all of North America, the identification of priority conservation areas along the Pacific coast of North America from the Sea of Cortez to Alaska (the so-called Baja to Bering region), and a project to develop a shared scorecard approach to reporting on the ecological status and trends of ten pilot sites in the Baja to Bering region. The NAMPAN partners are presently focusing on ways to institutionalize work such as the scorecards approach, while also exploring potential new projects related to building greater public awareness of oceans and marine protected areas through partnerships (with coastal learning centers, as one example), and integrating climate change science and models into the design of marine protected area networks along the Atlantic coast so that they will have relevance not only in the near term but 50 and 100 years from now as well. Both of these initiatives are at very early stages.

Making marine conservation relevant to Canadians

Involving Canadians in learning from and experiencing the protected areas that are managed by Parks Canada is central to the agency's mandate. This is as true for national marine conservation areas as for national parks and national historic sites, yet is more challenging in the case of marine areas because they are so difficult to access. Simply stated, fewer Canadians have ready access to marine environments than to terrestrial ones, and even fewer are trained and equipped to venture beneath the water's surface. Innovative approaches are required in site-level visitor appreciation, experiential programming, and outreach methods.

Such steps are already being taken. At Saguenay-St. Lawrence Marine Park, not only can visitors take advantage of numerous whale-watching cruises that are offered on a daily basis throughout the visitor season, they can also venture beneath the surface of the St. Lawrence Estuary via innovative displays such as an animated underwater video fly-through of the marine park. Scuba- and audio-equipped diver/interpreters descend the underwater slopes in front of a visitor center at Les Escoumins and provide live demonstrations of the marine life they encounter. Glass-bottom boats enable non-diver visits to shallow-water wrecks in Fathom Five National Marine Park. And in all marine conservation areas, sea kayaks are an

Parks Canada Agency

increasingly common way for visitors to gain affordable access and a close-up appreciation of marine environments.

Conclusion

Although it is the most recent addition to the three primary heritage protection programs of Parks Canada, the national marine conservation areas program has the greatest scope to grow. It will be a laboratory for continued improvements in balancing ecologically sustainable use and conservation of marine resources with no-take zones, building new governance approaches involving stakeholder participation, and developing innovative ways to engage Canadians in understanding, appreciating, and becoming stewards of Canada's natural and cultural marine heritage.

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Setting the Stage for Visitor Experiences in Canada's National Heritage Places

Ed Jager and Annique Sanche

Introduction

WITH INCREASED URBANIZATION, IMMIGRATION, AND AN AGING POPULATION, Canada is undergoing significant demographic changes. As a result, the lifestyles and values of Canadians are changing, as are their attitudes towards travel and leisure. The Parks Canada Agency is faced with the challenge of remaining relevant to Canadians in this dynamic context. High-quality visitor experiences are a key means by which Parks Canada can become relevant to Canadians and nurture their appreciation and support.

The changing social context in which it operates means that Parks Canada must increase and continually update its understanding of the needs and expectations of Canadians. Building on quality social science data and a solid understanding of visitors, Parks Canada looks at the entire visitor experience cycle and works to ensure it is facilitating experiences that are relevant to Canadians. This work recognizes that the visitor experience is a shared outcome, involving the visitor, the heritage place being visited, Parks Canada, and its partners. It is important to understand that each visitor brings his or her personal perspective to the experience. This work must be done in a continually evolving fashion integrating the protection, education, and visitor experience elements of Parks Canada's mandate.

Following an explanation of the context of the visitor experience concept in Parks Canada, this article discusses Canada's changing social context, how Parks Canada understands the concept of visitor experience, and what the agency is doing to ensure that visitors have opportunities for high-quality experiences in Canada's national heritage places.

The context for Parks Canada's visitor experience concept

On behalf of the people of Canada, we protect and present nationally significant examples of Canada's natural and cultural heritage and foster public understanding, appreciation and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations.

— Parks Canada mandate (Parks Canada 2002)

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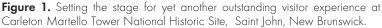
Parks Canada's mandate is fundamental to the work of the agency and is the source of its three objectives: conserving heritage resources (protection), fostering public understanding and appreciation (education), and fostering enjoyment (visitor experience). These three core elements of the mandate permeate the agency's policies, plans, and regulations, and are the basis for the organization's management framework.

Parks Canada has developed a new perspective, one that differs from the dual mandate of preservation versus human use that has traditionally been associated with protected areas. This shift is not merely semantic. Rather the shift is one of approach. Instead of viewing the issue as a dichotomy of people versus parks, this cohesive management approach integrates the three elements listed above. This view has been expressed by Parks Canada in recent communications where the organization has stated that our objective is to protect our national parks, national historic sites, and national marine conservation areas with and for Canadians, not from Canadians (Latourelle 2010). This concept has also been outlined by Rick Potts of the U.S. National Park Service. Reference is often made to parks being "loved to death," but, as he states, "You cannot love a park or wilderness to death. Although love cannot kill a wild area, apathy and irrelevance certainly can" (Potts 2007) (Figure 1).

Over the past two years Parks Canada has taken major steps in reorienting the agency and focusing its work on connecting Canadians to their natural and cultural heritage. Parks Canada's new vision statement is:

Canada's treasured natural and historic places will be a living legacy, connecting hearts and minds to a stronger, deeper understanding of the very essence of Canada (Parks Canada, 2010a).

The focus on connecting Canadians to their heritage is reiterated in Parks Canada's strategic outcome:





Canadians have a strong sense of connection, through meaningful experiences, to their national parks, national historic sites and national marine conservation areas and these protected places are enjoyed in ways that leave them unimpaired for present and future generations (Parks Canada 2010a).

Both corporate directions will guide Parks Canada's work, decision-making, and reporting to the Canadian Parliament over the coming years.

A changing social context

Parks Canada wants Canadians to see themselves, their stories, and their experiences reflected in their national parks, national historic sites, and national marine conservation areas and help all Canadians develop a sense of connection to these special places. To achieve this objective Canadians must have opportunities for outstanding visitor experiences when they visit their national heritage places (Figure 2). For these experiences to be relevant to Canadians, Parks Canada must adapt to a changing social context.

Parks Canada considers four current key trends when striving to remain relevant to Canadians. First, the Canadian population is aging and has more time, resources, and desire to travel (Statistics Canada 2003b; Foot and Stoffman 2000). The challenge for Parks Canada is to evaluate the opportunities currently available in national parks and national historic sites in light of these evolving interests. For example, an aging population will typically be more interested in soft adventure activities, more luxurious accommodations, and better amenities.

Second, Canada is increasingly urbanized: almost half of Canadians now live in the four areas centered around Toronto, Vancouver, Montreal, and Calgary/Edmonton, and future growth is expected to be concentrated in these areas (Statistics Canada 2006). This trend



Figure 2. Cape Breton Highlands National Park in Nova Scotia.

poses a challenge for Parks Canada as urbanization increases the distance—both physical and psychological—between Canadians and their natural heritage. This disconnect between people and nature, referred to as nature-deficit disorder, has gained increasing profile in recent years and has started international movements like the Children and Nature Network (inspired by Richard Louv's book *Last Child in the Woods*). In some ways urbanization does not pose the same challenge for national historic sites, since many are located in or near major urban centers; however they lack the profile of national parks and their visitation has been declining at an even faster rate than that of national parks. The continued rapid acceleration of technological change and declining interest in history may see the growth of the concept of a history-deficit disorder.

Third, the Canadian mosaic is becoming increasingly complex as a result of immigration (Statistics Canada 2003a). At the same time, new Canadians are significantly under-represented in visits to national parks and national historic sites (Environics International 2002). Recent immigrants tend to settle in urban areas, have limited available leisure time and income, and hold different cultural perspectives regarding natural and cultural heritage (Chartier 2004). With an increasing proportion of new Canadians, Parks Canada must better understand and respond to their needs if it hopes to be relevant to these audiences.

Fourth, a variety of societal factors are changing the tourism industry. Travelers want unique, authentic, interactive, personalized, and diverse experiences. This trend is linked to the idea of the experience economy: the shift in the source of economic value from commodities to goods to services to experiences is seen in the evolution of the tourism sector (Pine and Gilmore 1999). Linked to this shift is the division of travelers into more distinct market segments that need to be better understood (needs, interests, expectations), specifically identified and targeted with specialized products, promotions, and communications (Arsenault and Gale 2004). At the same time there is increased competition for the potential visitor's time and attention. Travelers have more choice, are better informed, and want a bigger role in choosing and creating their travel experiences. Time pressures are resulting in changes in the way people visit national heritage places; for example, the traditional two-week trip is being replaced by several extended weekend trips, more travelers are combining business and pleasure to extend business trips into mini-vacations, and single activities act less and less as trip-motivators as travelers are seeking a variety of activities when traveling. Parks Canada is being challenged to respond to these changes in the way Canadians want to discover their national heritage places.

The potential negative impacts of these trends can already be seen in recent visitation statistics to Canada's national parks and national historic sites. From 2001 to 2009 visitation to national parks dropped by 5.3% while visitation to national historic sites decreased by 13.6% (Parks Canada 2010b) (Figure 3). It is important to recognize that these downward visitation trends occurred at the same time the overall Canadian population grew by almost 5% between 2001 and 2006 (Statistics Canada 2006).

The question for Parks Canada, as it strives to be more relevant to Canadians, is how to integrate the core elements of its mandate into decisions that allow Canadians to see themselves in these special places. A growing body of scientific research is suggesting that there is a clear link between experiencing nature and reconnecting with it. By segmenting the results



Figure 3. Fort Battleford National Historic Site, Saskatchewan.

of its 2009 National Survey of Canadians, Parks Canada found that visitation to national parks is critical to helping Canadians connect their hearts and minds to these national treasures. Nine out of ten Canadians who visited one of Canada's 42 national parks during the period 2006–2008 expressed having a "sense of connection" to them. By comparison, only two out of ten Canadians who have not visited a national park are able to say the same (Parks Canada 2010c).

Parks Canada's role is to set the stage for the visitor to create the personal experiences and memories that lead them to having a "sense of connection" to the heritage place, but not to impose a rigid offer (Sheedy 2006). These experiences create personal connections to the cultural and natural areas in which they occur. The visit helps visitors understand and connect to the place, which makes it relevant to them and builds their support of these places and the preservation of their ecological and commemorative integrity, leading to their long-term sustainability.

What does Parks Canada mean by "visitor experience"?

The visitor experience concept has grown out of a desire for increased relevance to Canadians at a time of significant social change. Thinking back to the three core mandate elements and looking at the 1990–2005 period, the protection and education elements of the mandate were well expressed in corporate documents and the agency's orientation; however, visitor experience had received significantly less attention. Resource reductions in the early 1990s left social science and visitor-related functions with little national-level technical or professional support and limited local capacity. Decisions fell to the local level, which meant that approaches were inconsistent across the agency and often lacked resources. Faced with the societal changes noted above, the agency has since renewed its focus on visitors and their experiences to build the support of Canadians for their national heritage places.

Parks Canada's renewed focus on the visitor experience starts, as one might expect, with

the visitor: Agency decision-making must be based on solid knowledge of visitor needs and expectations. The agency has increased its social science research capacity to understand both current and potential visitors. This information is used to make decisions that better reflect a changing Canadian society, to create more opportunities for experiences that are relevant to Canadians. This does not imply that the agency simply offers visitors whatever they desire, but rather that visitors are a key part of the equation when decisions are made.

Understanding and responding to the diversity of visitors' needs and expectations is a challenge and calls on the creative energy of Parks Canada staff and their partners. Each person arriving at a park or site brings with them his or her unique story and own set of expectations. For one visitor, a drive along the Cabot Trail in Cape Breton Highlands National Park in Nova Scotia, may be an event she will never forget. For a different visitor, the Cabot Trail may only be the means to an end, as he embarks on a weekend backpacking trip; his experience is focused on the backcountry. As the visitor experience concept evolves and becomes part of the agency's culture, considering this immense variety in visitors' needs and expectations is one of the key challenges. This leads to a critical part of Parks Canada's thinking around visitor experiences: the experience is a shared outcome between the visitor, the specific heritage place being visited, Parks Canada, and its partners. The agency is not solely in control of the experience and cannot ensure that the visitor will have the experience that Parks Canada desires. It is quite possible that a visitor's experience may not be what is expected. Parks Canada has developed a comprehensive and flexible approach, so that all the elements contributing to the experience are considered and that a significant effort is made to personalize opportunities for experiences.

Guiding this approach is the Explorer Quotient (EQ) Program (Canadian Tourism Commission 2010). EQ is a way to understand and segment travelers based on their social values and travel motivations. Developed by the Canadian Tourism Commission with Environics, the model recognizes that two people can be standing in the exact same spot, participating in the same activity, yet have two completely different experiences. Parks Canada is one of the first organizations to match the nine EQ types ("authentic experiencer," "cultural explorer," "cultural history buff," "free spirit," "personal history explorer," "rejuvenator," "gentle explorer," "no-hassle traveler," and "virtual traveler") with opportunities that meet their values, interests, and expectations. Combined with other social science market intelligence, EQ helps Parks Canada make sound decisions on how to effectively facilitate experience opportunities.

Parks Canada's approach to the visitor's experience is built around the visitor experience cycle. Key to the cycle is the focus on the visitor. The various stages of the experience are consciously evaluated to maximize their potential to positively impact the visit. The visitor's experience is divided into stages of the cycle (Figure 4).

- Wishing. The potential visitor is aware of and wants to experience national heritage places, the opportunities available at those places, and the resulting experiences he may enjoy. Parks Canada strives to understand the potential visitor and promote awareness of opportunities for the visitor experience.
- Planning. The potential visitor is deciding on the destination that best meets her inter-

ests, needs, and expectations. The visitor must have access to full details surrounding the potential visit, which can include information on weather, accommodations, fees, and directions.

- **Traveling.** The potential visitor is on his way to a destination. His way there, or "wayfinding," needs to be straightforward and clear.
- **Arriving.** The visitor enters the protected heritage place. She is welcomed and receives orientation information and details regarding the opportunities available.
- Visiting. The visitor participates in, enjoys, and learns from the products, programs, services, and facilities offered. When these are designed, delivered, and maintained with the visitor in mind, they create the potential for a positive experience. An important part of the on-site visit is the opportunity for discovery: the hike with friends to an incredible vista, the walk guided by a hand-held device that showcases the story of the special place one is visiting, or dressing up in a period costume. When they truly meet the visitor's needs on a personal level, guided programs, special events, activities, or interpretation can facilitate outstanding, memorable experiences.
- Leaving. The visitor had an enjoyable, meaningful, satisfying, safe, and fun visit. There is a distinct sense of departure and an opportunity to obtain souvenirs as reminders of their experience.
- Remembering. The visitor recalls and shares the details of his or her visit through pictures, stories, and souvenirs with friends and family, in person and through social media.
 The visitor's memories are filled with positive recollections of the heritage place. These memories can be enhanced by follow-up communications and lead to a return visit.

Every element in every part of the cycle can contribute positively or negatively to a visitor's experience. The key consideration in this approach is the individual person as a potential visitor. Visitors are unique and expect a menu of opportunities from which they can create the personal experience they are seeking. Parks Canada's role is one of catalyst and facilitator of the desired experience.

Parks Canada's efforts to facilitate outstanding visitor experiences requires the contri-



Figure 4. The visitor experience cycle.

butions of staff from across the organization and its partners. The work of maintenance and cleaning staff helps ensure visitors are not disappointed with the level of service they receive. The work of resource conservation staff ensures the protection of the reason visitors are coming to the park or site. Often, these staff members know a park or site's best-kept secrets and stories, and are facilitators and storytellers. Partners are involved in all stages of the experience: providing pre-trip information and core services such as accommodations, welcoming visitors, and helping them discover these special places.

Parks Canada has received high marks for the quality of service for its programs, facilities, and staff. Compared with other federal government services, Parks Canada continues to be rated at or near the top (Phase 5 Consulting Group Inc. 2005). All aspects of a visit to a national park or national historic site—including staff courtesy, provision of services in visitors' language of choice (French or English), and overall visit—surpass established satisfaction targets (Parks Canada 2008).

Parks Canada is moving beyond considering satisfaction as the only measure related to visitors. The new performance measurement framework analyzes a broader vision of the visitors' experiences and includes their sense of connection (Figure 5), visitation, enjoyment, and sense of learning as well as satisfaction. Parks Canada has also set increased visitation as a clear target for the organization, aiming for an increase of 10% by 2015 (Parks Canada 2010a). These performance measures will help Parks Canada continue to build on and improve its focus on the visitor experience.

Making the visitor experience concept a reality

Parks Canada has taken a number of steps to advance the visitor experience concept, both at the national and field level. In October 2005, the agency created the External Relations and Visitor Experience Directorate, which includes a Social Science Branch and a Visitor Experience Branch. In 2008, Parks Canada initiated a functional realignment of its external relations and visitor experience expertise to better equip the field with the capacity to help Canadians create relevance and connection to places.

A key step toward operationalizing the visitor experience concept is the Visitor Experience Assessment. Adopted in 2005, this exercise has been undertaken at 92 Parks Canada locations. The assessment looks at the current state of opportunities offered, from the perspective of the visitor, to help managers, staff, and partners work collaboratively to assess, understand, and enhance the visitor experience. Staff assess a broad range of themes related to the visitor experience cycle, including visitor research, pre-trip planning services, on-site reception, interpretation programs, working with partners, management and business planning, staff training, infrastructure, performance measurement, and visitor feedback. Based on social science information, areas where the performance of the park or site could be improved are identified and specific actions are developed. Once completed, the assessment provides guidance for the management of the national park or national historic site in areas related to the visitor experience. The Visitor Experience Assessment and related tools continue to evolve with thinking related to the visitor experience.

Work to improve the opportunities for a memorable visitor experience is underway in a number of areas. These include:



Figure 5. Terra Nova National Park, Newfoundland.

- Increasing our knowledge and understanding of current and potential markets with audience research initiatives (e.g., the Visitor Information Program, Explorer Quotient, and Prizm C2, an audience segmentation system from the firm Environic Analytics that combines data on demographics, lifestyles and values);
- Enhancing the assessment process for recreational activities and special events;
- Improving the Parks Canada Service Program (quality service standards for our visitors and prevention guidelines);
- Consistently and comprehensively including visitor experience considerations into infrastructure investment decisions;
- Enhancing the agency's interpretive products through professional development and interpretive planning tools;
- Developing diversified accommodation guidelines; the revitalization of the national trail
 guidelines; improvements to the visitor trip planning tools, including the campground
 reservation service and national information service;
- Increasing Parks Canada's presence in social media; and
- Offering comprehensive training for staff to professionalize the delivery of services, programs, and activities for the visitor and to address the spectrum of visitor experience-related functions.

The integration of the visitor experience concept into the organization's management framework, and the development of policies and guidance that consider the visitor, are key to provide support and guidance to managers and their teams. Parks Canada has developed a suite of performance indicators and measures related to understanding visitors, providing opportunities, delivering high-quality services, and connecting visitors to these special places. The measures flow from the agency's strategic outcome and are part of the planning and reporting framework (Parks Canada 2010a). The measurements include number of vis-

itors, visitor satisfaction, enjoyment, sense of connection, and learning. On-going measurement to assess the impact of investments and the achievement of goals will be key to improving the facilitation of visitor experience opportunities.

Conclusion

Parks Canada has embraced the concept of the visitor experience as key to the success and sustainability of the national park, national historic site, and national marine conservation area treasures with which it is entrusted. Integrated with the protection and education elements of the mandate, the focus on the visitor experience is how the agency will ensure national parks, national historic sites, and national marine conservation areas are relevant to Canadians now and in the future.

To continue to be relevant to Canadians, Parks Canada strives to continuously take into consideration their needs and expectations in a rapidly changing social context. The agency looks comprehensively at the visitor experience and works to ensure it is facilitating opportunities that are relevant to visitors. Parks Canada recognizes that the visitor experience is a shared outcome between the visitor, Parks Canada and its partners, and that each visitor brings his or her personal perspective to the experience. Accordingly, the visitors themselves and their needs, interests, and expectations are at the core of the visitor experience perspective. Success will be achieved when Canadians see their national parks, national historic sites, and national marine conservation areas as special places they want to protect, learn about, and experience, and when these treasured places are a living legacy connecting visitors to a stronger, deeper understanding of the very essence of Canada.

[Ed. note: This article is based on "Managing for Visitor Experiences in Canada's National Heritage Places," *Parks*, volume16, no. 2, 2006.]

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Mobilizing Support for Canada's National Treasures

Daniel Rosset

Canada's treasured and historic places will be a living legacy, connecting hearts and minds to a stronger, deeper understanding of the very essence of Canada.

- Parks Canada vision statement

Introduction

Long-term sustainability of protected areas is highly dependent upon public support from the citizens of the country entrusted with these special places. As relevance and sustainability are interconnected, Parks Canada is increasingly focused towards ensuring that its conservation efforts are relevant to Canadians. Parks Canada's mandate is to protect and present significant examples of nature and history on behalf of Canadians. However, it must not only do it *for* Canadians, it is committed to doing it *with them* and in ways that are *defined by* them. Parks Canada has strong evidence that we will achieve greater success in protecting, expanding, and effectively managing the national parks, national marine conservation areas, and national historic sites systems for present and future generations if its approach and actions are aligned with Canadians' values, beliefs, and interests.

To successfully fulfill its mandate, Parks Canada acknowledges that it must effectively mobilize more and more Canadians to share the passion and commitment for the conservation of Canada's national treasures (Figure 1).

The purpose of this paper is to provide context and illustrate Parks Canada's current approach to conservation, and its efforts to mobilize Canadians.

Parks Canada context for conservation

On behalf of Canadians, Parks Canada establishes, protects, and maintains a comprehensive network of protected heritage areas representative of Canada's natural and cultural heritage. To deliver on this commitment, system models were developed to provide a framework for the identification, establishment, and management of natural ecosystems and commemoration of historically significant treasures.

The vision behind the national parks system

The framework that has driven the expansion and evolution of Canada's system of national

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Figure 1. Discovering the treasures of Canada at Fundy National Park.

parks and national marine conservation areas has evolved over the last 125 years. Its focus has evolved from lands in the Rocky Mountains that would protect specific wonders such as the mineral hot springs and help draw tourists along a new national railway, to parks dedicated to conservation of wildlife such as wood buffalo, to parks that were dedicated to protecting large tracts of northern wilderness as part of comprehensive land claim agreements.

Adopted in the early 1970s as the methodology to guide the federal government's direction to create 40 to 60 new national parks, the framework is aimed at creating a representative system that includes examples of Canada's 39 distinct natural regions, dispersed across the country, where living examples of the rich diversity of landscapes, flora, and fauna are protected for all time, unimpaired, for present and future generations. The framework ensures that federal investments benefit a range of rural communities and protect lands of importance to Aboriginal people, whom have supported its expansion through negotiated agreements and land claim settlements.

The system of national parks and national marine conservation areas

National parks are situated in each of Canada's 10 provinces and three territories. To date, Canada possesses 42 national parks and national park reserves that protect over 301,000 square kilometers while representing 28 of the 39 natural regions identified by Parks Canada. Three national marine conservation areas and marine parks protect 11,358 square kilometers, while representing 3 of the 29 marine regions. In addition, another 68,000 square kilometers of land has been reserved for potential future national parks through interim land withdrawals.

On the national parks side, the larger national parks are found in northern Canada and in the Rocky Mountains. On the other hand, through the prairies and settled lands of southern Ontario and Quebec and Atlantic Canada, there are fewer and smaller national parks.

Current plans are to create more national parks, with a priority on the East Arm of Great Slave Lake (NWT), northern Bathurst Island (Nunavut), and Nááts'ihch'oh, which is the headwaters of the South Nahanni River (NWT), all in northern Canada. In addition, Parks Canada continues to work with provincial governments to bring the Mealy Mountains (Labrador), Manitoba Lowlands (Manitoba), and the South Okanagan–Lower Similkameen (British Columbia) into the system. There are eleven gaps in the national park system, and the proposals listed above will fill a larger number of them. From a representation point of view, the big gap will remain in the province of Quebec, where four natural regions remain unrepresented by national parks—and long-standing provincial policy precludes the transfer of lands to the federal government for national park purposes. Also, few national parks are found in close proximity to urban and accessible places, such as Toronto, Vancouver, and Winnipeg.

Perhaps the largest gap in Parks Canada's system is in the marine environment. While 15 national parks have a marine component, and 20 have a shoreline, 26 of 29 marine regions remain unrepresented. There are plans to create three additional national marine conservation areas. The situation reflects, in part, the fact that the first national marine park, Fathom Five (Figure 2), was created in 1986, over a century after the first national park, Banff. However, recent progress is been made in expanding Parks Canada's marine system. On January 16, 2010, Parks Canada, Fisheries and Oceans Canada, and the Haida Nation signed the Gwaii Haanas Marine Agreement to share in the planning, operations, and management of Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site, a 3,500-square-kilometer marine area situated off the Hecate Strait and the Queen Charlotte Islands, located in British Columbia. And on June 7, 2010, the government of Canada tabled in Parliament an amendment to Canada's National Marine Conservation Areas Act to formally establish the national marine conservation area and Haida heritage site.

Parks Canada is monitoring ecological integrity and actively managing these places to maintain or restore healthy ecosystems and the species (including species at risk) and habitats they support, with the active engagement of stakeholders and partners mobilized to work collectively to enhance connectivity across landscapes and seascapes. These collective actions to achieve a common goal will help ensure Canada's ecosystems and communities are resilient and able to adapt to change.

The vision behind the national historic sites system

Canadians take great pride in the people, places, and events that shape our history and have defined important aspects of Canada's diverse but common heritage and identity. Since 1919, the government of Canada has designated 949 sites, 633 persons, and 407 events as being of national historic significance. Together, they comprise what is known as the system of national historic sites.

National historic sites may be sacred places, battlefields, archaeological sites, structures, or districts, and they are located in more than 400 communities across Canada. The federal



Figure 2. Fathom Five National Marine Park, the oldest marine protected area under the stewardship of Parks Canada.

government's objective is to ensure that the system reflects the country's evolving history and heritage. The system uses a thematic framework that organizes history into five broad themes: "peopling the land," "developing economies," "governing Canada," "building social and community life," and "expressing intellectual and cultural life." As history, and what Canadians view as significant, is a dynamic process, the national historic sites system cannot be considered as finite or complete. In recent years, Parks Canada has placed special efforts to support the commemoration of the historic achievements of under-represented groups,

including Canada's Aboriginal peoples, women, and ethnocultural communities. The government of Canada is committed to working with others to create a representative system—one that truly reflects the rich history and heritage that defines Canada.

Canada's national historic sites are diverse in ownership and management. Many are still used for their original purpose; these places are an integral part of who we are as Canadians, not simply what we were. The large majority of Canada's 949 national historic sites are owned and administered by others, including all levels of government, Aboriginal groups, not-for-profit organizations, businesses, individuals, and other federal departments.

Parks Canada's national historic sites portfolio

Parks Canada has direct responsibility for 167 national historic sites and is entrusted with the stewardship of these places, on behalf of all Canadians. Parks Canada's portfolio of sites includes places such as Fortress of Louisbourg in Cape Breton, the world-renowned Fortifications of Quebec, the unique historical complex of Gold Rush-era buildings in Dawson City, and Rideau Canal—a World Heritage site. The most recent site to join Parks Canada's portfolio is Saoyú–7ehdacho, landscape of cultural and spiritual importance to the Déline First Nation in the Northwest Territories, and the first northern national historic site cooperatively managed by Parks Canada and an Aboriginal group.

The 167 sites in Parks Canada's portfolio do not fully represent the breadth of our country's history, nor does they include some of the places associated with its key defining moments. Parks Canada's current portfolio has been assembled over many decades largely through periodic transfers of heritage properties from other federal departments, such as historic military installations no longer needed for defence purposes, or historic canals. There has never been a strategy governing the composition of the agency's portfolio of national historic sites or a plan for the acquisition of new sites.

The urgency to act

Parks Canada is working to bridge the gaps to present fully representative systems, and the imperative to act now is stronger than ever. Our heritage areas are facing threats that are greatly magnified in both scale and speed of impact by climate change, urban development, and changing Canadian values.

Completing the national parks system—Diminishing opportunities. The urgent need to act to protect representative examples of large landscapes within the national park system has been well documented, as lands and waters continue to be allocated to industrial and urban development. In addition, if opportunities to build collaborative relationships with Aboriginal people during negotiation of, or as the result of, settled land claims are not acted upon, future opportunities may not come to pass. The process of establishing new protected areas is more challenging, costly, and lengthy than ever before.

Historic heritage—A non-renewable resource. Research shows that in the last generation Canada lost 20% of its historic buildings, mainly due to urban core development and loss of rural landscape to suburban development. In addition, the same study concluded that 14.3% of remaining buildings in urban areas and 21% in rural areas were at risk (Heritage Canada Foundation 2001). Adding to the pressures on built heritage is the diminishing his-

torical consciousness among Canadians. Many social and political commentators believe that this leads to a lack of a common memory and national identity. Such a growing "history deficit" among Canadians not only puts pressure on our built heritage but directly impacts Parks Canada's ability to mobilize Canadians to support conservation.

Conservation benefits for Canadians. Seizing the opportunities to establish new parks and sites presents significant benefits for Canadians. Additional parks and sites help ensure that important natural and cultural resources are protected for the social and economic benefit of Canadians. Large national parks protect Earth's biological diversity and allow natural processes to continue uninterrupted. They enhance Canadians' quality of life and contribute to community resilience through the diversification of economic opportunities; the sustainable use of natural resources for subsistence, community development, industry, or innovation; the on-going provision of ecosystems services; and the establishment of collaborative processes that help build social resilience. National historic sites preserve and celebrate significant events and places in our collective history and help all Canadians share a common understanding of our country. The expenditures made by Parks Canada and by visitors have a significant impact on the Canadian economy. Each year, the combined expenditures by Parks Canada and visitors indirectly support over 30,000 tourism-related jobs in the national economy. Unless Parks Canada clearly presents the full range of benefits from protected areas to Canadians in its call to action, it risks not only reducing the chances of new protected areas being created, but even seeing lower support for maintaining existing ones.

Mobilizing Canadians to support conservation—The challenges we face

Parks Canada is continually seeking new and innovative ways to meaningfully engage Canadians. To mobilize support, Parks Canada has been working to get a better sense of Canadians' views and how they would like to contribute and get involved in safeguarding Canada's collective heritage.

Challenge: Relevance of our current national parks model in the context of a changing Canada. The current model for Canadian national parks retains some long-standing historical attributes, but has also evolved to embrace new approaches that reflect changing societal priorities. While the Canadian federal government continues to prohibit industrial development and to exercise administration and control over the surface and sub-surface of the lands and waters that constitute a national park, approaches that defined national park establishment programs in the early and mid-part of the 20th century, such as expropriation, no longer exist. Today, the approach is willing seller—willing buyer.

The model has also evolved to incorporate changing perspectives and realities related to the role of government vis-à-vis local communities, land owners, Aboriginal people, and traditional ways of life. The only acceptable model involves Aboriginal people in cooperative relationship during the establishment and management of new national parks (Figure 3). Aboriginal communities now view national parks as important means to protect the lands that they have used for centuries to maintain their spiritual connections and their traditional way of life.

One of the greatest challenges is the adaptability of the model to southern Canada, where land is increasingly fragmented, expensive to acquire, and where the environment is



Figure 3. Working together with Aboriginal peoples, Prince Edward Island National Park.

extremely complex. The current approach responds to international obligations under the Convention on Biological Diversity. It has helped direct efforts to bring the first national parks in Labrador into the national park system and federal investments and conservation of Aboriginal homelands to northern communities, to promote internationally and nationally the iconic landscapes of Gwaii Haanas, Nahanni, and Gros Morne, and to bring forward national park proposals in the South Okanagan and Manitoba Lowlands. Large northern landscapes are now protected, much as the Rocky Mountain national parks protected large landscapes in advance of development more than 100 years ago.

At the same time, this model has led some to conclude that a system that is supposed to bring benefits to Canadians has not responded in several ways:

- There are just a few small national parks in southern and near urban areas, limiting Parks Canada's access to large and diverse populations;
- Future plans would suggest that Parks Canada will continue to focus most of its efforts
 and federal investments in northern areas, where access is far more difficult and increasingly expensive in comparison to southern areas; and
- A number of proposals by individual Canadians and organizations for new parks to be
 added are not being pursued because such parks would be located in regions already
 represented by a national park or due to their being in a state that does not conform to
 the standard model.

Nonetheless, Parks Canada is well positioned, through strategic partnerships, coopera-

tive arrangements, and other collaborative efforts to work with Canadians in more fragmented southern landscapes to build resilience to change through conservation efforts that focus on restoration and reconnection of ecosystems, habitats, landscapes, and seascapes.

Challenge: Ensuring the relevance of Parks Canada's national historic sites portfolio. To remain relevant, Parks Canada needs to protect examples of history that connect Canadians to their country's essence and, most importantly, resonate with Canadians from all parts of the country and all backgrounds. These national treasures must be representative of a quickly changing, multicultural, and urban Canada, while speaking to the hearts and minds of Canadians. The analysis of Parks Canada's current portfolio of national historic sites points towards significant gaps in representation. Thematically, over two-thirds of the agency's sites fall within the themes of "governing Canada" and "developing economies." Within Parks Canada's portfolio, there is only one national historic site commemorating women's history and only three commemorating the history of ethnocultural communities. Additionally, most of Parks Canada's national historic sites are associated with 18th- and 19th-century history; very few speak to aspects of 20th-century history. These gaps dramatically limit the opportunities for historic sites to bridge experiences across generations.

The gaps in representation that currently exist may point to some of the reasons for low awareness, waning visitation, and declining relevance. With changing demographics, the national historic sites system needs to be relevant to all Canadians. Reaching and engaging urban Canadians poses a special challenge for Parks Canada, given that it does not operate national historic sites in several large urban centers.

In response to the above challenges, Parks Canada is currently examining how it can renew the national historic sites program in order to effectively engage Canadians in their heritage and to mobilize their on-going support. But to be truly relevant, it is essential to recognize the stories and places they believe are the most important. These views should inform the selection of historic places held in trust for them by the federal government.

Challenge: Canadians' level of awareness and understanding of Parks Canada. For Canadians to support Parks Canada's conservation efforts, they need to be aware of and understand the agency's role and the benefits protected heritage areas provide to our country. According to Parks Canada's 2009 *National Survey of Canadians*, 8 out of 10 (78%) indicated that they had heard of Parks Canada, but only 1 in 4 (24%) could name Parks Canada as the organization responsible for national parks and national historic sites (Parks Canada 2009a; 2009b). In addition, Canadians' perception of Parks Canada's mandate is dominated by park-related responsibilities. Knowledge that Parks Canada manages historic sites is quite low (5%) compared with recognition that Parks Canada manages national parks (63%) (Parks Canada 2009a). Similarly, those surveyed had very little awareness of Parks Canada's responsibilities related to national marine conservation areas.

An additional challenge to enhancing Canadians' support for protection of their national treasures lies with improving their understanding of these places' significance. While it is recognized that some places have been established for other reasons, the underlying thread that connects the system of national parks is that they represent important examples of Canada's geography and ecology, and the underlying thread for national historic sites is that they represent important events, people, and places in Canada's history. In Parks Canada's

2009 National Survey of Canadians, only 1 in 5 (21%) were knowledgeable about the reason national parks are created, and only 1 in 3 (32%) were knowledgeable about the reasons for historic sites (Parks Canada 2009a). In both cases, the majority of those surveyed felt that establishment of parks and historic sites were primarily instigated by an impending threat of loss due to human activity.

Not only do Canadians have a low level of knowledge of the reasons why their protected places are established, but also have difficulty distinguishing Parks Canada's administered places from those operated by other levels of government (Parks Canada 2007; 2009a). For example, of those that visited national parks and historic sites in the past three years, 51% correctly named a Parks Canada national park and only 25% correctly identified one of Parks Canada's national historic sites. These results clearly highlight a significant challenge for Parks Canada, and in an effort to address it, in 2009 Parks Canada launched a national media awareness campaign that focused on special moments in national parks and national historic sites. This campaign featured television ads on major national networks, as well as on-line material.

Challenge: Canadians' perceptions and support towards our conservation efforts. Despite low public awareness of Parks Canada, and low understanding of our roles and responsibilities, Canadians do support and place value in the concept of a protected system of parks and sites (Parks Canada 2009a). Canadians strongly agree that national parks (85%) and national historic sites (85%) are meant to be enjoyed by future generations as much as by people today. Even if they cannot personally visit these places, the majority consider it important that national parks (76%) and national historic sites (70%) exist, and for many of them, national parks (72%) and national historic sites (66%) evoke a strong sense of pride.

Support is strongly linked to connection to place. For Parks Canada to mobilize support of Canadians, it needs to understand why these places are special to them. The most recent national survey showed that approximately 1 in 3 Canadians (31%) had a favorite national park and approximately 1 in 10 (11%) had a favorite national historic site (Parks Canada 2009), for reasons as varied as Canadians themselves. For some, it is the natural beauty of the environment, and the serenity that comes with being close to nature, that makes these places special (Figure 4). For others, it is their significance and the deeper meaning of the place. And for many others, it is the people Canadians experience these places with and the fond memories of their shared experiences that have left a lasting impression on them (Parks Canada 2009a).

In the current economic context, while Canadians value their national treasures, they are more likely to strongly support the use of their tax dollars to maintain the existing national parks (71%) and national historic sites (57%), rather than create new national parks (47%) and acquire new national historic sites (34%) (Parks Canada 2009a). Such results are consistent with their lack of understanding as to why these places are established. Knowing this, Parks Canada needs to strengthen people's connection to these protected places, and mobilize Canadians to support them.

Conclusion

To mobilize a greater number of Canadians to support its conservation efforts, Parks Canada



Figure 4. Experiencing the beauty of Pacific Rim National Park Reserve.

has increasingly been working in collaboration with a broad range of partners and stakeholders. The recent expansion of Nahanni National Park Reserve was realized in collaboration with the Dehcho First Nation and benefited from strong public support motivated by a high-profile public campaign led by stakeholders. Parks Canada's reintroduction of the black-footed ferret into its native habitat in Grasslands National Park (Figure 5) was an international collaborative conservation effort, supported by outreach education programs at the Toronto, Calgary, and Saskatoon zoos, raising awareness of conservation among urban youth.

On the cultural side, Parks Canada recently revitalized its National Historic Sites Cost-Sharing Program, an important vehicle by which the federal government directly engages Canadians in supporting the protection and presentation of national historic sites administered by others.

To better increase public support, Parks Canada is expanding its public outreach education efforts through a variety of innovative approaches. Parks Canada is enthusiastically adopting technology and social media to keep pace with our changing times and meet the needs of Canadians. A YouTube channel was created in 2009, where Canadians are posting multimedia creations of their experiences of heritage places online. Microblogging on Parks Canada's Twitter channel is constantly on the rise. Using hand-held devices, GPS, and multimedia capabilities, visitors can be simultaneously guided and educated as they explore parts of historic sites such as Signal Hill National Historic Site (Newfoundland) or natural places such as Kejimkujik National Park (Nova Scotia). Connecting remote parks and historic sites with classrooms in real time, for a memorable learning experience, has become reality for students and educators. Reaching out to Canadians in their living rooms to increase their awareness of place is facilitated by access to diverse, rich-broadcast HDTV



Figure 5. Blacked-footed ferret reintroduced in Grasslands National Park.

series available on general television and specialized channels. Parks Canada recently launched the My Parks Pass program, providing free entry for 400,000 Grade 8 students, and engages Canada's youth in filming and sharing their experience of Canada's national treasures on-line through the Canada's Greatest Summer Job videography project.

To truly mobilize Canadians from diverse backgrounds and all walks of life, more needs to be done—the conservation of Parks Canada's special places needs to be linked with the values and aspirations of Canadians. This connection to hearts and minds is essential for the agency to remain relevant and to build that strong connection that is crucial to long-term sustainability of Canada's treasured places.

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Canada's Northern National Parks: Unfragmented Landscapes, Unforgettable Experiences, Wilderness, and Homeland

David Murray

Introduction

THE NORTH IS A BIG PART OF CANADA. It is big in area and in the Canadian imagination. Over half of the country could be considered to be in the Arctic and northern themes echo through Canadian culture, from the poems of Robert W. Service and Robert Flaherty's film "Nanook of the North" to books by Pierre Berton and Farley Mowat. While most Canadians live in the southern part of the country, the North is important to them, it is part of the Canadian identity, and a land that is deeply cared for.

The Inuit, First Nations, Métis and non-native people live in communities dotted across the northern landscape. The Aboriginal peoples are familiar with almost all of the northern land, the taiga and tundra, much of which we would call wilderness. This is *de facto* wilderness, distant from roads, towns and significant infrastructure. Some of the most extensive areas of intact ecosystems on the planet are in the Canadian North.

As a northern country, it is somewhat surprising that it took so long before national parks were established in the North. While Wood Buffalo was established in the 1920s, it was nine decades after the creation of Banff National Park before there was a concerted effort to create new national parks in Canada's North. After this slow start however, northern parks became a priority and Parks Canada now manages 13 northern national parks and national park reserves, with more planned.

Northern Canada

There are many measures of what is "the North" and where the Arctic starts. These measures may be biological (e.g., treeline), physiological (e.g., permafrost), climatological (e.g., 10°C July isotherm), political, cultural, or simply latitudinal (e.g., Arctic Circle).

In Canada, the three territories—Yukon, Northwest Territories, and Nunavut—provide a political definition. Unlike in the provinces, the federal government has a significant management role in the territories. Another definition comes from the Committee on the Conser-

vation of Arctic Flora and Fauna (CAFF), a committee of the Arctic Council of the eight circumpolar nations. The circumpolar boundary used by CAFF follows a roughly biological line that includes just over half of the land area of Canada, taking in the northern parts of several provinces but not the southern Yukon. This paper will refer to these two definitions and the national parks and national historic sites that fall within these areas.

The three northern territories amount to 40% of the country and 4,000,000 square kilometers of area, but have just 100,000 inhabitants. Much of this area and many of the communities are not accessible by road. Most of the area is considered to be wilderness, one of the greatest extents of remote wilderness anywhere. There is an area straddling the Northwest Territories–Nunavut boundary where one could draw a convex polygon, about 600,000 square kilometers in area, containing no communities, mines, roads, or infrastructure. It would be difficult to find a similar area elsewhere in the terrestrial world outside Antarctica. Unlike Antarctica, this area is teeming with life, home to hundreds of thousands of caribou, thriving populations of muskoxen and wolves, and millions of nesting birds.

Systems of protected areas

Protected areas in northern Canada are managed under several programs administered by the federal, territorial, and provincial governments. Federal programs include the national park system managed by the Parks Canada Agency and migratory bird sanctuaries and national wildlife areas administered by Environment Canada. The Department of Fisheries and Oceans manages marine protected areas, Environment Canada has marine national wildlife areas, and Parks Canada has a program of national marine conservation areas. The Yukon, Northwest Territories, and Nunavut territorial governments each have programs to protect areas of importance for the conservation of natural and cultural resources and for recreation or tourism. Similarly, the provincial governments have a variety of protected areas in their northern regions.

In total, the various protected areas in northern Canada cover more than 500,000 square kilometers, or about 10% of the Arctic land area. Northern national parks are larger than those in the southern Canada, in part to protect the habitat of wide-ranging wildlife, in part because land is less developed and less of it privately owned so more is available, and in part because national parks are a predominant option among the various types of protected areas. About 3% of Canada's land area is in national parks, about one-quarter of the total for protected areas. In the North, however, 4.5% of the land is in national parks, just under half of the protected area total. Another measure of the size of Arctic national parks (as identified using the CAFF boundary) is that they amount to 80% of the area of Canada's national parks system.

Global and circumpolar context

As one of the eight circumpolar nations, Canada is an active participant in the Arctic Council, including CAFF. The area of the globe defined as "Arctic" by CAFF encompasses 32 million kilometers. Of this, about 14 million square kilometers is land area. Over 5 million of that is in the Canadian Arctic.

All of the circumpolar countries have significant protected area programs. Greenland's North-East Greenland National Park is the largest national park in the world at 972,000 square kilometers. Many new parks and protected areas have been established in recent years. The recent CAFF report *Arctic Biodiversity Trends 2010* states that 11% of the Arctic is in protected areas (CAFF 2010; Figure 1). The roughly 240,000 square kilometers within Canadian northern national parks protect 4.5% of Canada's Arctic and 1.7% of the circumpolar terrestrial region.

National parks in Canada's North

National parks are relatively new in northern Canada. Wood Buffalo National Park was established in the 1920s to protect bison, but it was another fifty years before the next northern parks were established, in the 1970s (Table 1). There may be several explanations for the slow pace of establishing parks in the North, but probably the most important one is that these areas are difficult to access and therefore expensive to visit. The potential for visitor use and enjoyment was a dominant consideration in the early years of park establishment.

The development of the national parks system plan in the 1970s set the goal of representing each of the 39 natural regions of the country. Changes to the National Parks Act in 1988, and reinforced with the Canada National Parks Act of 2001, put a stronger emphasis on the maintenance of ecological integrity for national parks. These policy and legislative

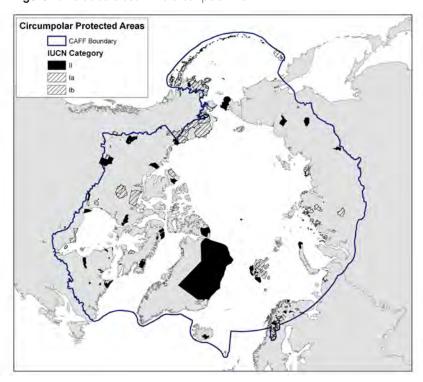


Figure 1. Protected areas in the circumpolar North.

1920s: Wood Buffalo National Park was created to protect bison—the first park to extend north of the sixtieth parallel.

1930s-1960s: No new northern national parks were created.

1970s: Kluane, Nahanni, and Auyuittuq were established.

1980s: Ivvavik (originally called Northern Yukon), Quttinirpaaq (originally called Ellesmere Island) and the Pingo Canadian Landmark were established.

1990s: This decade was significant, with five new national parks created: Vuntut, Aulavik, Tuktut Nogait, Sirmilik, and Wapusk.

2000s: Two more parks were created and one was expanded significantly in the 2000s. Ukkusiksalik and Torngat Mountains national parks were established and Nahanni, one of the early northern parks, was expanded to 30,000 square kilometers.

2010s: As the 2010s are just beginning, there are more parks on the horizon. Work is well underway for Nááts'ihch'oh (Northwest Territories), Thaidene Nene (Northwest Territories), Mealy Mountains (Labrador), and Bathurst Inlet (Nunavut).

Table 1. Establishment of northern national parks by decade.

changes provided rationale that allowed for parks to be established where few visitors could be expected.

Parks Canada began to establish parks to represent these northern natural regions and to protect the landscapes, wildlife habitat, and ecosystems. National parks provide for the conservation of Arctic biodiversity and functioning ecosystems, including key seasonal areas of calving, nesting, migrating, and other areas of critical habitat. Northern parks can be globally important for some long-range migrants, such as birds and marine mammals. Through maintaining ecological integrity and protecting wildlife habitat, parks support Arctic Aboriginal peoples in maintaining their traditional lifestyles and relationship with the land.

While northern parks receive fewer visitors than parks with road access, those that are able to spend time in these parks come away with extraordinary and memorable experiences. Parks Canada is also working to facilitate ways for more visitors to experience these remote parks.

Parks Canada strives to develop a deeper understanding of the northern environment, and to this end manages research and monitoring programs, including extensive work with traditional knowledge. Arctic parks provide undisturbed benchmark areas for environmental research. Through establishing and managing national parks, Parks Canada works to generate and share a deeper knowledge of the North.

National park reserves

The three national parks created in the 1970s were the first to be established as "national park reserves." The distinction is in recognition that the park area is subject to a claim, or claims, by Aboriginal people that the federal government has accepted for negotiation. National park reserves are protected under schedule 2 of the Canada National Parks Act, and local Aboriginal people may continue their traditional hunting, fishing, trapping, gathering, and spiritual activities. As land claims are being settled in the North, many of the national

park reserves have become national parks listed in schedule 1 of the CNPA. Kluane National Park and Reserve is unique in that just part of the park is still subject to a claim.

Cooperative management and agreements with Aboriginal peoples

Northern national parks (Figure 2) are established within the traditional territories of Aboriginal peoples. Aboriginal land claim agreements remain a key factor in the establishment of parks and other protected areas in Canada. Where a national park has been established through a land claim process, the claimant group continues to exercise its traditional harvesting activities within the protected area. As well, a management board may be established, with representation from the Aboriginal community and government, to advise the minister on the management of the national park. Finally, the land claim agreement sets out what economic opportunities associated with the park will be enjoyed by the claimant group. These may include employment provisions and contracting opportunities. Ivvavik National Park was the first national park in Canada to be established through a land claim agreement, under the Inuvialuit Final Agreement of 1984. All northern national parks have some form of cooperative management board that provides advice to Parks Canada on park planning and operations. Most of these cooperative management regimes have strong mandates and a vital role in the northern national parks. Following is an annotated list of Canada's northern national parks and national historic sites.

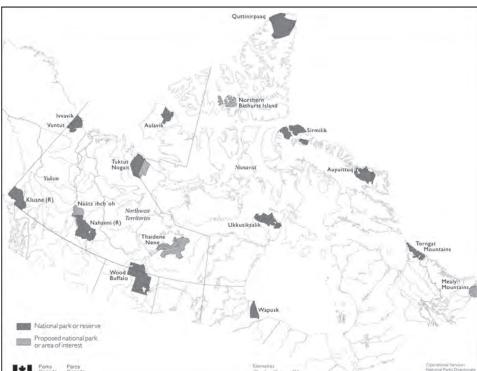


Figure 2. National parks in northern Canada.

Nunavut

In Nunavut, the Nunavut Land Claims Agreement (1993) requires Inuit Impact and Benefit Agreements (IIBAs) to establish national parks, territorial parks, and conservation areas. The government of Canada and the Inuit concluded one IIBA for three national parks in 1999 and another IIBA for Ukkusiksalik National Park in 2003.

Auyuittuq National Park of Canada covers 19,090 square kilometers on the Cumberland Peninsula of southeast Baffin Island. This rugged mountain tundra park features active glaciers, deep valleys, spectacular fjords, and many species of Arctic mammals and birds. It attracts adventure seekers from all over the world to hike and to climb its challenging peaks.

Quttinirpaaq National Park of Canada protects the most remote, fragile, rugged, and northerly lands in North America (Figure 3). Natural features include high mountains, deeply cut plateaus, polar desert, and Arctic tundra landscape. At 37,775 square kilometers it is Canada's second largest national park. Canada's most northerly national park was established more than 100 years after the first national park in the country.

Sirmilik National Park of Canada covers 22,200 square kilometers and protects a representative part of the Northern Eastern Arctic Lowlands Natural Region. Sirmilik National Park comprises three separate land areas. Bylot Island is a spectacular area of rugged mountains, icefields and glaciers, coastal lowlands and seabird colonies. Oliver Sound is a long, narrow fjord with excellent opportunities for boating, hiking, and camping. The Borden Peninsula is an extensive plateau dissected by broad river valleys.

Ukhusiksalik National Park of Canada represents the Central Tundra Natural Region, and encompasses approximately 20,560 square kilometers. At the heart of the park is Wager Bay, an inland sea that extends 100 kilometers westward from Hudson Bay. The park area





includes a wide range of habitats supporting such wildlife as caribou, muskox, wolf, Arctic hare, peregrine falcon, gyrfalcon, polar bear, beluga, and ringed and bearded seal. Inuit from communities in the Kivalliq region of Nunavut continue to travel to the area to hunt and fish.

Northwest Territories

Aulavik National Park of Canada is on Banks Island. Established through an agreement with the Inuvialuit, it covers 12,200 square kilometers of rolling tundra and is home to a thriving population of muskoxen. Features include deeply cut river canyons, rugged desert-like badlands, and numerous archaeological sites. Visitors can experience wilderness rafting and canoeing on the Thomsen River, Canada's most northerly navigable river.

Tuktut Nogait National Park of Canada protects the calving grounds of the Bluenose caribou herd. This park also contains one of the highest densities of birds of prey in North America. The park was established through an agreement with the Inuvialuit and expanded through an agreement with the Sahtu Dene and Métis of Deline, Northwest Territories. It covers 18,180 square kilometers in the Inuvialuit Settlement Region and the Sahtu Settlement Region of the Northwest Territories.

Nahanni National Park Reserve of Canada is in the Mackenzie Mountains in the south-west corner of the Northwest Territories (Figure 4). In 2009, with the support of the Dehcho First Nations, Nahanni was expanded from 4,766 to 30,000 square kilometers and is now Canada's third-largest national park. One of North America's wildest and most spectacular rivers, the South Nahanni, rushes through this large park. Four great canyons line this Canadian Heritage River, and at Virginia Falls the river plunges twice the drop of Niagara Falls. Hot springs, alpine tundra, mountain ranges, and forests of spruce and aspen are some of the other natural highlights. The park is home to grizzly bears, woodland caribou, and Dall's sheep. Nahanni was one of the first World Heritage sites to be designated.

Wood Buffalo National Park of Canada covers 44,800 square kilometers in northern Alberta and southwestern Northwest Territories. Canada's largest national park offers a rich variety of landscapes. Designated a UNESCO World Heritage site, Wood Buffalo is an excellent example of boreal forest with meandering streams, shallow lakes, and large gypsum cliffs with one of North America's most extensive landscapes of sinkholes, underground rivers, caves, and sunken valleys. The park holds the world's largest inland delta, located at the mouth of the Peace and Athabasca rivers. It is also the natural nesting place of the whooping crane and is home to 2,000 bison, the largest free-roaming herd in the world.

Pingo Canadian Landmark protects 16 square kilometers of pingos (mounds of ice-covered earth) and other periglacial phenomena, including the largest pingo in Canada, near Tuktoyaktuk. Pingos are conical hills formed by water pressure when permafrost invades saturated sediments.

Saoyú and 7ehdacho National Historic Site recognizes a cultural landscape with a protected area of 5,565 square kilometers on two peninsulas in Great Bear Lake, the largest national historic site protected by Parks Canada.

Yukon

Ivvavik National Park of Canada, covering 9,750 square kilometers in northern Yukon, has



Figure 4. The karst area of Nahanni National Park Reserve. Photo Parks Canada/Mike Beedell.

a unique non-glaciated landscape. The Firth River gives visitors an exciting rafting adventure. Features include abundant wildlife, and significant archaeological and historical points of interest. The Porcupine caribou herd uses Ivvavik and the neighboring Arctic National Wildlife Refuge as its calving area.

Vuntut National Park of Canada covers 4,350 square kilometers of Old Crow Flats, a huge plain interspersed with more than 2,000 shallow lakes. The park derives its name from the Gwitchin word meaning "Crow Flats." Vuntut National Park was established under the Vuntut Gwitchin First Nation Final Agreement. The productive wetlands of the Old Crow Flats are the seasonal home for thousands of nesting ducks and a vital staging and feeding area for more than a million migrant waterfowl in late summer and fall. The Ramsar Convention lists the area as wetlands and waterfowl habitat of international importance

Kluane National Park and Reserve of Canada in the southwest corner of the Yukon has Canada's highest peak, Mount Logan, and some of the most extensive icefields outside the polar region. Kluane's 22,010 square kilometers include mountain lakes, alpine meadows, tundra, and swift cold rivers. Activities include hiking, guided walks, flying over the Icefield ranges, and rafting on the Alsek River. This vast wilderness has been recognized as a UNESCO World Heritage site (along with Wrangell–St. Elias National Park and Glacier Bay National Park in Alaska and the Tatshenshini–Alsek Wilderness Park in British Columbia). Kluane National Park and Reserve is within the traditional areas of more than one First Nation: the Champagne and Aishihik First Nations Final Agreement covers the eastern portion of the park, while the Kluane First Nation Final Agreement includes the western part of the park.

The National Historic Sites in *Dawson City* commemorate both the 1896 Klondike Gold Rush and the role of large corporation gold mining in the Klondike. The discovery of gold on a tributary of the Klondike River in 1896 sparked off the largest gold rush in Canadian history. During that time, thousands of miners descended on the region in hopes of striking it rich in the Klondike Goldfields.

The S.S. Klondike National Historic Site of Canada pays tribute to an era of riverboat transportation. The site brings to life the history and the challenge of moving freight along the Yukon River. The S.S. Klondike was the largest and last of the sternwheelers. Today it is the only sternwheeler in Yukon that is open to the public.

Northern British Columbia

The Chilkoot Trail National Historic Site of Canada commemorates the Klondike Gold Rush of 1898. The trail winds its way through Pacific rainforest through alpine and then boreal forest. Gold Rush artifacts can be seen along the trail.

Northern Manitoba

Near Churchill, in northern Manitoba, is Wapusk National Park of Canada. "Wapusk" is the Cree word for "polar bear," and this 11,480-square-kilometer park is important habitat to one of the world's largest populations of the white bears. Also at Churchill is Prince of Wales Fort National Historic Site of Canada, an important Hudson's Bay Company trading post and the starting point for Samuel Hearne's great expeditions across the barrens. York Factory National Historic Site, once an important Hudson's Bay Company trading post, is south of Wapusk National Park.

Northern Newfoundland and Labrador

Torngat Mountains National Park of Canada encompasses 9,700 square kilometers at the northern end of Labrador. This national park protects an area of spectacular Arctic wilderness, with towering mountains, breathtaking fjords, gentle river valleys, and rugged coastal landscapes—a land that has been home to the Inuit and their ancestors for thousands of years. The area is also home to a variety of wildlife, including caribou, polar bear, wolf, Arctic fox, peregrine falcon, golden eagle, and a unique population of tundra-dwelling black bears.

World Heritage sites in northern Canada

As mentioned above, there are three World Heritage sites in the Canadian north. Nahanni National Park was on the first list of World Heritage sites in 1978, just a few years after the park was established. Kluane National Park is part of a very large international World Heritage site originally designated in 1979 and extended twice since, known as Kluane/Wrangell–St. Elias/Glacier Bay/Tatshenshini–Alsek. Wood Buffalo National Park is a very large World Heritage site on its own, designated in 1983.

In addition to these, Canada has three Arctic areas on its current World Heritage Tentative List of proposed World Heritage sites.

Ivvavik/Vuntut/Herschel Island (Qikiqtaruk). Together, Ivvavik National Park, Vuntut National Park, and Herschel Island (Qikiqtaruk) Territorial Park comprise 15,500 square

kilometers of wilderness on the Yukon coastal plain, the Richardson Mountains, a portion of the Old Crow Flats wetlands, and an island in the Beaufort Sea.

Quttinirpaaq. On Ellesmere Island and encompassing the northernmost lands in Canada, only 720 kilometers from the North Pole, Quttinirpaaq National Park consists of mountains, ice caps, glaciers, ice shelves, and fjords. The park provided a route for early Aboriginal peoples to move from the Canadian Arctic to Greenland. The park has one of the highest concentrations of pre-contact sites surveyed in the High Arctic, including sites associated with the earliest documented human inhabitants of this remote region.

The Klondike. The cultural landscapes in First Nations traditional territories, including the Tr'ochëk fishing camp, and the Chilkoot Trail, the Klondike gold fields and the historic district of Dawson City, illustrate life before, during, and after the Klondike Gold Rush of 1896–1898, the last and most renowned of the world's great 19th-century gold rushes.

Establishing new national parks in northern Canada

Parks Canada is working on several parks proposals in the North. In the Northwest Territories, the proposed Nááts'ihch'oh National Park Reserve will protect the headwaters of the South Nahanni River. Also in the Northwest Territories, a feasibility study is underway for a park that would protect the area extending from the East Arm of Great Slave Lake to the tundra east of Artillery Lake. This proposed park will be called Thaidene Nene National Park Reserve (Figure 5). There are two national park proposals in Nunavut, one on Bathurst

Island and the other that would abut the western border of Nunavut, adjacent to Tuktut Nogait National Park. Parks Canada is negotiating an IIBA for the national park on northern Bathurst Island. Planning for a national park in the Mealy Mountains of southern Labrador is well advanced.

Parks Canada has launched a feasibility study for a national marine conservation area in Lancaster Sound, Nunavut. If the proposal is successful, this national marine conservation area at the mouth of the Northwest Passage would be the first in northern Canada.

Conclusion

A colleague once told me that she worried that Parks Canada would change the North, imposing a rigid southern-based park management system on the local Aboriginal people. Instead, the North has changed Parks Canada, as policies, practices, and even legislation have been modified to adapt to north-

Figure 5. Parry Falls in the proposed Thaidene Nene National Park Reserve. Photo Parks Canada/David Murray.



Parks Canada Agency

ern realities. Parks Canada employees from southern parks have been posted to northern parks, worked alongside Aboriginal park staff and local people in cooperative management regimes, listened to the indigenous traditional knowledge, and then transferred their experiences to other parks when they move on. Policies have changed right across the system, partly because of changes that were happening in Canadian society but certainly because the experience of operating northern parks has demonstrated some new ways to manage national parks.

The national parks of northern Canada now protect an area equivalent to the size of the United Kingdom, and the government of Canada will establish more northern national parks in the coming years. As global temperatures rise, and roads and development extend into wild lands, Canada's northern national parks will continue to safeguard extensive areas of undisturbed ecosystems so that future generations of Canadians and visitors will be able to experience the Arctic and its wild nature, and future generations of the local people will continue their relationship with the land. Through collaborations between Parks Canada, the Aboriginal peoples and the Canadian public, these large and remote jewels of Canada's national park system, challenging to visit, difficult to know, homeland to Aboriginal peoples, will remain nationally significant heritage areas, protected and presented in ways that ensure their ecological and commemorative integrity for present and future generations.

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Parks Canada Science: Providing Knowledge for Better Service to Canadians

John Waithaka

Introduction

On Behalf of the People of Canada, the Parks Canada Agency protects and presents nationally significant examples of Canada's natural and cultural heritage and fosters public understanding, appreciation, and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations (Parks Canada 2000). This mandate is carried out on federal lands that include national parks, national historic sites, and national marine conservation areas, collectively referred to as "parks and sites" in this document. Central to delivering on this mandate is the need for sound science to provide a good understanding of the nature, condition, and significance of the resources under the stewardship of the agency; their uniqueness, susceptibilities and threats; and the needs and expectations of the people on whose behalf they are managed. Consequently, whether the agency is establishing a national park, a national historic site, or a marine conservation area; developing policies; managing wildlife diseases; developing species-at-risk recovery plans; restoring archaeological sites or resources; or looking for ways to facilitate meaningful visitor experiences and public engagement, science advice is required to guide or support decisions.

In Parks Canada's context, science is used in the inclusive sense, and includes natural, social, and archaeological sciences. Hundreds of research projects are conducted every year by scientists from Canada and abroad with specialization in areas such as anthropology, archaeology, art, biology, climatology, ecology, economics, education, engineering, environmental sciences, geography, geology, history, hydrology, law, linguistics, marketing, political science, recreation and leisure, social science, sociology, soil science, statistics, terrain science, and veterinary science, among others. The quality and usefulness of the knowledge generated depends on whether the science is properly conceived, conducted, analyzed, and communicated. This paper discusses the set of principles used by Parks Canada to ensure that the contributions of science are strategic, relevant, and focused on the agency's priorities. Examples of programs, policies, and management decisions that have benefited from science advice are described by Jager and Sanche, Langdon et al., McNamee, Ostola, Rosset, Woodley, and Yurick elsewhere in this issue.

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The diversity and extent of areas and issues for which science is needed

Parks Canada's science needs are as broad as its mandate, management priorities and challenges. The needs are compounded by the complex mix of actors and jurisdictions involved, and the diverse geographical, environmental, social, cultural, spiritual, and economic contexts within which parks and sites exist. The changing face of Canada—as evidenced by changing demographics, technologies, value systems, leisure patterns and economic trends—calls for new information to guide the agency on how to keep parks and sites as a living legacy, connecting the hearts and minds of Canadians to a stronger, deeper understanding of the very essence of Canada. Science advice is needed to help create greater public awareness and appreciation of parks and sites, enhance greater ecological and commemorative integrity gains, and connect or re-connect Canadians to their heritage places. Below is a brief overview of the special heritage places for which science information is needed. More details on parks and sites are provided by McNamee, Murray, Ostola, and Yurick in this journal.

National parks form a country-wide system of representative natural areas of Canadian significance. By law, they are protected for public understanding, appreciation, and enjoyment, while being maintained in an unimpaired state for present and future generations. These wild places, located in every province and territory, range from mountains and plains, to boreal forests and tundra, to lakes and glaciers, and much more. They conserve and protect geologic splendors, cultural landscapes, recreational spaces, lakes and seashores, long-distance trails, free-flowing rivers, and places that chronicle the nation's history. They range in size from just under 9 square kilometers (St Lawrence Islands) to almost 45,000 square kilometers (Wood Buffalo), and include world-renowned names such as Banff, Jasper, and Nahanni, among others.

In order to provide full benefits to Canadians, the parks must be well protected. Science provides managers with information on the type, nature, and condition of the resources under their stewardship; the biotic and abiotic components that must be maintained to support healthy ecosystems; the threats to the resources; methods and approaches for intervention; and means to monitor and evaluate the effectiveness of the intervention. In addition, it provides information on how protection can be harmonized with public expectations, and ways in which Canadians can use and enjoy these places without impairing them.

National marine conservation areas protect and conserve a network of areas representative of Canada's marine environments (Parks Canada 2007). These areas are managed for sustainable use and contain smaller zones of high protection. Where they exist, they protect the seabed, the water column above it. They may also encompass wetlands, estuaries, islands, and other coastal lands. National marine conservation areas are protected from activities such as ocean dumping, undersea mining, and oil and gas exploration and development, but are open to selected and controlled human uses, such as traditional fishing and shipping. Understanding threats to ecological sustainability and how protection and conservation practices can be harmonized with resource use in marine ecosystems, including identifying appropriate governance approaches and innovative ways to engage Canadians in understanding and appreciating national marine conservation areas, constitute some of the key science needs.

National historic sites are places that bear witness to Canada's defining moments and illustrate human creativity and cultural traditions. They exemplify thousands of years of human history and hundreds of years of nation-building, and reflect a diversity of cultures, geographical settings, and time periods as vast as Canada itself. National historic sites embrace the entire spectrum of nationally significant historic places, ranging in size from the gravesites of the Fathers of Confederation to extensive cultural landscapes in urban, rural, and wilderness settings. These places may contain surface and subsurface remains, individual buildings or complexes of buildings and other works, artifacts, natural features, and combinations thereof. Where individual national historic sites do not constitute cultural landscapes in their own right, they form part of a larger cultural landscape (Parks Canada 1994a). They exist as sacred spaces, battlefields, archaeological sites, buildings, or streetscapes. Each site tells its own unique story, part of the greater story of Canada, contributing a sense of time, identity, and place to the understanding of the country as a whole. Many sites are still used today for work and worship, commerce and industry, habitation and leisure, and provide Canadians with a sense of wonder, pride, and reverence as they feel and learn about the past human activities that laid the foundation of their country (Parks Canada 1994). Cultural resources in parks and sites face threats from human impacts such as looting or vandalism, degradation due to natural forces, corrosion, inappropriate presentation and display, and development, recapitalization, or maintenance activities (Parks Canada 2005a). Some of the science needs include identifying innovative ways of safeguarding these places, addressing the challenges and threats they face, increasing their relevance to Canadians, strengthening public support, and reaching and responding to new audiences.

Diverse sources of knowledge

For decades, the typical research design relied heavily on natural science to generate information on how ecological systems work, with little or no regard to the human dimension of heritage area management. It is now clear that successful stewardship of heritage areas does not rest solely on biological or archaeological data, but on how the Canadian public values and perceives these areas. Disregarding the human dimension of heritage area management risks reduced public support. Today, Parks Canada science is designed to provide comprehensive understanding of the biological, cultural, and social issues necessary to enhance the protection and presentation of parks and sites, and to foster public understanding, appreciation, and enjoyment in ways that ensure their ecological and commemorative integrity for present and future generations.

Alongside natural, social, and archaeological sciences, the agency recognizes the significant role of naturalized knowledge. This includes Aboriginal knowledge and community experiential knowledge, all of which can contribute to the information base needed to understand and manage parks and sites. In national parks for example, this knowledge provides valuable information on historic and current ecosystem conditions, and long-term human ecological interactions based on hundreds or even thousands of years of experience. The incorporation of these knowledge systems for purposes such as park or site establishment, ecological or site restoration, species-at-risk recovery initiatives, management of hyperabundant wildlife populations, resource harvesting and ecological restoration, and enhancing vis-

itor experience, has been on the increase over the last ten years.

Research is coordinated to ensure that the knowledge generated is relevant for management, and that it addresses the needs of Parks Canada managers not only at an appropriate level of detail, but also in a way that supports an integrated approach to management.

The agency has a set of principles that helps provide science advice that is timely, meaningful, usable, and relevant to achieving planned results, while ensuring that the attainment of one goal does not undermine the achievement of another, but contributes to it. These principles include the requirements that science must be (1) needs-driven, (2) partnered and integrated, (3) credible, (4) coordinated nationally, and (5) effectively shared and communicated (Parks Canada 2001). Each of these principles is briefly discussed.

1. Science should be needs-driven

Parks Canada science is strongly linked to the agency's foundational elements of its mandate: resource protection, public education, and visitor experience. The focus of each of the three science disciplines is summarized below (Parks Canada 2001; 2005b; 2005c).

Natural science. The focus of the natural sciences is on understanding the structure and function of natural systems and their response to change. It involves the broad fields of biology and ecology, but also includes relevant areas of geology, geography, terrain science, climatology, hydrology, and soil science. Research on ecosystems, species, and ecological processes has applications in many varied management decisions. The development of species-at-risk recovery plans, management of invasive species, wildlife diseases, pollution, remediation of contaminated sites, identifying indicators of ecosystem health, and understanding use impacts are some of the focal areas of research. Monitoring and reporting on ecosystem condition, and progress towards attainment of management objectives are priorities for the agency (see paper by Woodley in this issue).

Social science. Social science research involves the systematic process of gathering and analyzing information and data directed at understanding people and their relationships with their environments. Drawing on disciplines such as sociology, economics, statistics, psychology, recreation, geography, and political science, social science involves qualitative and quantitative techniques to understand and explain people's knowledge, understanding and behavior, including their perceptions, values, attitudes, and motivations. Over the last few years, social science research has focused on (a) audience research to help understand the external audiences and stakeholders/partners in order to attract them, communicate with them, and to engage and connect with them; (b) research to understand the people who visit, contact, or use the agency's facilities and services, in order to continue to attract visitors, engage and connect with them, and maintain their support; (c) socioeconomic research to help understand the economic and social value of programs, services, and places, and the economic and social costs, benefits, and opportunities of policy, regulatory, and investment decisions related to them; (d) human dimensions research to help understand the physical, social, and cultural aspects of people in wildlife and cultural resource management, including how they use and behave in different environments, and their perceptions and attitudes towards resource management issues; and (e) heritage communication research to help understand the meaning, interpretation, and effectiveness of on-site, community and national information, outreach, and heritage products to relay messages, inform and educate, and connect with people. Research aimed at understanding the value people place on parks and sites, and the barriers to their participation in environmental issues, is conducted on targeted audiences, including youth, urban populations, ethnocultural communities, and families.

Social science provides an important entry point for many natural or cultural resource management projects that require public support. Social science helps to clarify various human-related issues, concerns, and perspectives; explore mechanisms for increasing public understanding and appreciation of issues; identify management approaches that would be socially acceptable; and provide strategies for public engagement.

Archaeological science. Equally important for achieving Parks Canada's corporate mandate is archaeological research, a discipline that contributes to the understanding of the cultural resources in parks and sites. Archaeology incorporates elements of human sciences such as history, art, geography, linguistics, and anthropology; and applied sciences such as building sciences, landscape, geology, material culture, and engineering. Archaeological research involves excavations, surveys, and inventories in parks and sites with tangible evidence or potential tangible evidence of past human activities. Research activities are conducted on historic sites, features, or structures, including stone tool manufacturing locations, campsites, rock art sites, fishing stations, places of spiritual and religious experience, fur trade and military sites, transportation and industrial sites, battlefields, shipwrecks, villages, homesteads, dumps, trails, and landscapes. Archaeological research also provides insights into people's relationship with the environment and human influences on the evolution of ecosystems. In certain sites, research focuses on multicultural and socioeconomic issues that are a part of the complex set of elements that influence the analysis and understanding of past human groups and societies. Archaeological science aids in enhancing the commemorative integrity of national historic sites, preserving sites' cultural resources, communicating heritage values and their national significance, and kindling the respect of people whose decisions and actions affect the site.

Science is linked to management. The complex ecological, social, cultural, and economic contexts within which parks and sites are managed often require information that is unavailable. In some instances, the information may be available but insufficient to provide the insights and predictions needed to achieve planned results. Some issues such as the management of rare, sensitive or hyperabundant populations; species reintroductions; control of alien species; prescribed fires; establishment of wildlife corridors; management of wildlife diseases; or reducing human–wildlife conflicts can generate debate, with those opposed to the prescribed action often citing lack of sufficient information as a reason not to take action. However, the science needed to provide advice can be time-consuming and costly, while the desired management action may not wait until all possible options are fully understood. In such situations, Parks Canada uses the adaptive management framework, an objective, scientifically sound approach that serves the dual purpose of achieving management goals while gaining reliable knowledge.

Science is also used to determine the risk associated with pursuing a desired outcome, and in some cases, the precautionary approach is applied to guide how and when to take action. The precautionary principle is particularly important in the management of cultural

resources, as they cannot be duplicated or replaced if lost, damaged, or destroyed. The model for scientific inquiry used for cultural resources management is closer to the medical science model: anamnesis (in this context, establishing the patient's medical history), analysis and diagnosis, development of options for intervention, prognosis, therapy, and monitoring. In a conservation context, anamnesis is the process used to assemble the relevant information, such as historical and archaeological research and physical condition assessment. The outcome of analysis and diagnosis outlines the cultural resource values (physical, symbolic, geographical, etc.), the condition and threats to the resource, and the messages of national historic significance that are to be communicated. The development of options and prognosis constitutes the core of the strategy to safeguard and present the cultural resource. Therapy is the actual implementation of the recommended option(s), while monitoring is the follow-up to measure long-term condition of the resource. This process is incremental and iterative. Whenever new relevant information is collected, the conservation and presentation strategy needs to be confirmed and adjusted accordingly.

Science is expected to help extend the life cycle of cultural resources (Canadian Heritage 1994; Parks Canada 2001), a quest that involves challenging new scientific grounds, and the use of new non-destructive technologies and tools to assess and monitor the condition of the resources. Unfortunately, this is a domain where field tests and research results are limited. Site-specific monitoring is needed to acquire a better understanding of the properties and performance of the resource. Unlike the adaptive management approach described above, each site constitutes a unique experiment in itself, with potential to lose historical material. Consequently, action must be preceded by rigorous investigation and testing.

2. Science should be integrated and partnered

The use of an integrated scientific approach is based on the understanding that ecological and commemorative integrity, as well as visitor experience, are not different ends of a management spectrum but are inextricably entwined and symbiotic in nature, and that fostering understanding through experience and education is fundamental to maintaining and restoring ecological integrity in national parks and the commemorative integrity of national historic sites (Figure 1).

An average of 400 new science projects are initiated in parks and sites every year, adding to hundreds of other multi-year research and monitoring projects. Integration of science advice into the management of parks and sites is enhanced by developing strategic, multidisciplinary partnerships with a broad spectrum of science providers such as universities, research institutes, governmental agencies, non-governmental organizations, industry, science advisory boards, stakeholders, Aboriginal peoples, and the public. In the last five years, over 2,000 research projects have been initiated in parks and sites by researchers from over 100 universities from Canada, Australia, Belgium, Brazil, Britain, Finland, France, Germany, Japan, Norway, Portugal, Sweden, and the United States of America. In 2009 alone, there were nearly 400 new research projects undertaken by scientists from over 250 organizations. Their combined skills and resources enhance our capabilities, diversify our perspectives, strengthen the reliability of our science, and help to accelerate the rate of generation of information—and in turn enable speedy responses to priority management issues. The participat-

Figure 1. Parks Canada's way of demonstrating its integrated approach to management as key to promoting public outreach and education, facilitating visitor engagement and experiences, and protecting natural and cultural heritage.

ing institutions make a significant contribution not only in generating new information, but also in enhancing the value of Canada's heritage places to a broad spectrum of Canadians and the international community,

Use of citizen science is another growing effort that involves volunteers or networks of vol-



unteers to perform or manage research-related tasks such as observation, measurement, or computation. Citizen science programs connect participants to nature, enhance their understanding of the natural world, help build a growing constituency of volunteers and supporters within the communities in and around national parks and sites, and generate knowledge to support management decisions.

3. Science should be credible

The agency has established high standards to ensure the quality, integrity, and objectivity of the research conducted in parks and sites. In order to generate scientific knowledge that is derived from well-designed studies, research proposals must be peer reviewed by a multidisciplinary team consisting of biologists, social scientists, archaeologists, species-at-risk experts, and, if necessary, by other internal or external specialists. Every proposal for conducting research that has the potential to impact natural or cultural resources is reviewed by an environmental impact assessment specialist to ensure that the project is designed in a manner that avoids or reduces adverse impacts on these resources. The review ensures technical soundness and compliance with the applicable legislation, policies, and corporate priorities while ascertaining that, whenever possible and appropriate, research integrates the requirements of natural, social, and archaeological sciences. The objective of the rigorous review process is to ensure that science is undertaken in a manner that is defensible, open, transparent, and inclusive, allowing for the demonstration that policy, management, or operational decisions are made based on information that can withstand objective scientific and public scrutiny. This underpins the need for a significant internal science capacity working alongside decision-makers.

4. Science should be coordinated nationally

Parks Canada research is conducted under nationally consistent guidelines and procedures and is centrally processed through the research and collection permitting system (RCPS), an on-line system that provides a single, common portal for processing research permit applications (www.pc.gc.ca/apps/RPS/page1_e.asp). The system provides researchers with a comprehensive on-line information package consisting of a researcher's guide, a list of research coordinators for each park and site, research policy, frequently asked questions, a

feedback mechanism, listings of research priorities, and other support tools. It ensures that both external and internal researchers use consistent guidelines and procedures, and, through the mandatory peer-review process, enhances the reliability of the results. It has an Internet-intranet interface that allows research applications to be conveniently reviewed and approved on-line. The system allows researchers to request a single permit to conduct research in multiple parks and sites for up to three years, while incorporating mechanisms to ensure that research activities comply with the applicable policies, legislation, and other corporate requirements.

The on-line system creates a single multidisciplinary research database that provides information to support the integration of science with planning. In addition, the system strengthens research partnerships and collaborations while enhancing the capacity of the agency to more effectively contribute to and build on the larger government-wide science initiatives.

5. Science should be shared and communicated

Science is not complete if it is not shared, reported and otherwise communicated, and acted upon. To enhance the sharing and communication of science, the agency requires scientists to submit their findings in a written report to the superintendent, in addition to presenting their results, in person, to communities adjacent to the study site. Individual parks and sites make efforts to communicate the science through various channels, including regional research forums, visitor interpretation programs, print media, newsletters, television, various publications, and the Internet. Community and stakeholder workshops are normally held to create public appreciation and understanding of the complexities involved in protecting and presenting natural and cultural resources, and to explore the public's views on the management implications of the research. This approach strengthens participatory decision-making and promotes management processes that incorporate and respond to the interests of Canadians. Every park publishes a "state of park report" every five years that presents a comprehensive evaluation of the state of the three key elements of Parks Canada's mandate: resource protection, visitor experience, and public education. A corporate "state of protected heritage areas report" is produced every two years and contains highlights of corporate achievements, some based on science advice. Other venues for communicating science include reports to Parliament and to Canadians. Recent examples include the "action on the ground" publications (Parks Canada 2005d; 2008).

Conclusion: Science advice is an enduring need

Parks Canada's ability to manage parks and sites will continue to improve with advances in science. New information is facilitating the timely development of policies, contributing directly to improved planning, better natural and cultural resource management, public education, visitor experience, public safety, and reporting. The agency's story about parks and sites is changing from that of ecological and commemorative integrity in decline to a story of renewal and restoration. We are telling stories that demonstrate how effective we can be when we work together toward a common cause, providing information that will help us to maintain and restore our parks and sites so that they continue to hold a special place in the hearts

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of Canadians for generations to come, while remaining models of sound natural and cultural resource protection and management. We are far from understanding the full range of intricacies involved in protecting and presenting Canada's heritage places and resources, but the science program is helping chart the way into a successful future.

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Two Paths One Direction: Parks Canada and Aboriginal Peoples Working Together¹

Steve Langdon, Rob Prosper, and Nathalie Gagnon

Introduction

Canada's unique legal and constitutional relationship with Aboriginal peoples has been set out and defined by the Royal Proclamation 1763, the Constitution Act 1982, various statutes, and court decisions. Because of this unique relationship, Parks Canada considers Aboriginal peoples as partners and works closely with a wide variety of Aboriginal groups in all regions of the country. However, that has not always been the case.

In Canada, even though the early parks were essentially about economic development, with townsites established in Banff, Jasper, and elsewhere, Aboriginal people, as they had been in the United States, were initially excluded. When Banff Park (then called Rocky Mountain National Park) was created in 1885, the Stoney Indians, who had previously hunted on and travelled over the land, were kept out of the new park. In a report in 1895, the first commissioner recommended that they be kept out permanently. Later, in 1930, when Riding Mountain National Park was being established, government officials forcibly removed the Ojibway people, now the Keeseekoowening First Nation, from their traditional hunting grounds and residential areas in order to include these lands within the park (Kopas 2007).

Parks Canada has since undergone significant corporate culture shifts. This has been driven by societal changes in relation to governments that have helped change the legal land-scape in Canada with respect to Aboriginal rights and title. Further policies recognize that effective management of heritage sites requires working in cooperation with partners, particularly those with a unique perspective stemming from, in some cases, over 50 generations of land stewardship.

Parks Canada presently maintains effective relations with over 130 Aboriginal groups through a wide spectrum of mechanisms encompassing the diverse legal and cultural environments of both Parks Canada and Aboriginal partners. In addition, of all of the extensive lands managed by Parks Canada, a full 68% have come under this stewardship directly as a result of formal agreements with Aboriginal peoples.

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Aboriginal context

The term "Aboriginal peoples" is a name given collectively to the original peoples of Canada and their descendants. The Constitution Act 1982 recognizes three groups of Aboriginal peoples: First Nations, Inuit, and Métis. According to the 2006 Canadian Census, over one million people identified themselves as Aboriginal out of a total population of just over 30 million.

Aboriginal peoples live in communities located in urban, rural, and remote locations across Canada. They also include over 600 First Nations or Indian Bands, generally located on lands called reserves; various Inuit communities located in Nunavut, the Northwest Territories, Northern Quebec (Nunavik) and Labrador; and finally Métis communities located across Canada. They all have unique languages, histories, cultural practices, spiritual beliefs, and relationships with the government of Canada. For example, there are 61 distinct Aboriginal languages in Canada that continue to be spoken today.

Aboriginal civil society is strong, with Aboriginal peoples represented by a large number of associations and groups, ranging from the Aboriginal Nurses Association of Canada and the National Aboriginal Land Managers Association; to the Inuit Tapiriit Kanatamin which represents the interests of the Inuit; and the Métis National Council representing the Métis people.

The government of Canada has constitutional responsibilities towards Aboriginal peoples to negotiate and implement land claims² and self-government agreements. Between 1701 and 1923, the Crown and First Nations signed over 70 historical treaties. Since the Canadian Constitution Act 1982, in which the government of Canada recognized "existing Aboriginal and treaty rights" including "rights that now exist by way of land claims agreements or may be so acquired," Canada has been negotiating comprehensive land claims with Aboriginal groups. Since 1975, twenty-two modern treaties have been settled and approximately sixty are under negotiations. Treaty settlement agreements have provided for Aboriginal ownership of over 600,000 square kilometers of land, rights over approximately 40% of Canada's land mass, capital transfer of CDN\$2.8 billion, protection of traditional ways of life, access to future resource development opportunities, participation in land and resources management decisions, and an active role in the cooperative management of national parks in settlement areas.

Beginning with the Supreme Court of Canada's Calder Decision in 1973, whereby Aboriginal title was recognized as a concept in Canadian common law, various landmark rulings from Canadian courts changed the nature of the relationship between Aboriginal peoples and Canada. The *Haida* and *Taku River* decisions further clarified the Crown's relationship and duty towards Aboriginal peoples. The court ruled that government has a legal duty to consult and possibly accommodate the interests of Aboriginal groups where it has real or constructive knowledge of the potential existence of Aboriginal right or title that are claimed but unproven. The court found that this duty to consult flows from the Honour of the Crown³ and is triggered where there is a possibility that a government activity might adversely affect a potential Aboriginal or treaty right. In the *Mikisew Cree* decision, a decision that directly affected Parks Canada in Wood Buffalo National Park, the judge stated:

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The fundamental objective of the modern law of Aboriginal and Treaty rights is the reconciliation of Aboriginal peoples and non-aboriginal peoples and their respective claims, interests and ambitions (Mikisew Cree First Nation v. Canada, 2005).

Parks Canada and Aboriginal peoples: A brief history of relationships

With the establishment of the Banff Park in 1885, the concept of protected heritage areas in Canada inspired Canadians. Parks were viewed as both instruments of economic development and as instruments that reflected national symbolism and democratic values. They were heritage areas set aside for recreation use by Canadians and they were also national treasures to be protected for future generations. In the early twentieth century, seven national parks were established, mostly in the southern part of Canada. None of these southern parks included the involvement of Aboriginal peoples.

Prior to the 1920s, there were no national parks in northern Canada. In 1922, Wood Buffalo National Park was established to protect the wood bison from extinction. In 1924, the park was expanded to the south and became, at that time, the largest national park in the world. Unlike the southern parks where traditional hunting and gathering activities were prohibited, it was acknowledged that the traditional activities practiced by Aboriginal peoples would not be detrimental to protecting the wood bison and that a prohibition on those activities would have negative impacts on their traditional customs and way of life. As a result, hunting and trapping activities were allowed to continue under a permit system and a hunters' and trappers' association was formed to set permit limits on an annual basis (O'Donnell 1995). The establishment of this association was the beginning of a legacy of cooperative management that is now prevalent throughout the northern Parks Canada system. It was also the first time that Parks Canada involved Aboriginal peoples in decision-making regarding the management of a park.

In 1973, a landmark Supreme Court of Canada ruling, Calder v. British Columbia, acknowledged for the first time the concept of Aboriginal title. It was also at this time that public involvement in government policies increased, most specifically in environmental policies.

To be precise, there were two publics. One consisted of the interested Canadian public in general, both those with particular and local interest in individual parks and those with general and national interest in the broader national parks system. The other grouping comprised Aboriginal Canadians. Their interests, initially at least, were not in national parks as such but in maintaining a legal claim to lands that the federal government wished to appropriate for national park purposes (Kopas 2007).

With the beginning of the modern land claims process in northern Canada, significant changes started to take place in Parks Canada with respect to working in a more cooperative manner with Aboriginal peoples. As negotiations took place with northern Aboriginal peoples, it became evident that there were opportunities for a shared vision of protection of resources that permitted the continuation of traditional hunting, trapping, and other cultural activities under the provisions of a modern-day treaty.

The negotiations that took place in the Yukon Territory with the Inuvialuit and in the Nunavut Territory with the Inuit represented a significant step forward in working in partnership with Aboriginal peoples. With the settlement of the Nunavut Land Claims Agreement 1993 and the Inuvialuit Final Agreement 1984, for the first time Parks Canada entered into park establishment negotiations that included provision for joint management boards. The term "joint" meant that the signatory Aboriginal groups would participate in making decisions related to the planning and operation of the proposed park. This did not change the fact that ministerial authority over national parks and responsibilities toward Parliament would remain unfettered.

In 1979, Parks Canada policy was altered to reflect both the changing realities of Aboriginal case law in Canada and Parks Canada's new approach toward the establishment and operation of new national parks. The following clause was added to the policy:

Where new national parks are established in conjunction with the settlement of land claims of native people, an agreement will be negotiated between Parks Canada and representatives of local native communities prior to the formal establishment of the national park creating a joint management regime for the planning and management of the national park (Heritage Canada 1979).

Parks Canada's *Guiding Principles and Operating Policies* were amended in 1994 to reflect the following:

In some national parks, traditional activities continue because of land claim agreements and treaties, or agreements negotiated during the process of establishment (Heritage Canada 1994).

Another significant event that occurred earlier in 1994 was the introduction of an amendment to the Canada National Parks Act allowing national parks to be established under a "reserve" status. Essentially, that meant that sections of land would be set aside as park reserves and managed as national parks until such time as land claims pertaining to that land were resolved. In 2002, the Canada National Parks Act was amended to include a standard process for establishing reserves, thus simplifying the process. This has been an effective tool in forging strong relationships and also in protecting lands from development by third parties during land claim negotiations.

Applying corporate change on the ground

Legislative actions. During the late 1980s and early 1990s, Parks Canada underwent significant corporate shifts in relation to working with Aboriginal peoples, partially influenced by the growing number of court rulings, but more importantly from the realization that Aboriginal peoples are unique partners in the protection of natural and cultural resources. As well, it was recognized that the presentation of Aboriginal cultures would greatly enrich visitor experiences in national parks and national historic sites.

Parks Canada's senior management set the tone for this culture shift within the organi-

zation through legislative changes as illustrated by the following excerpts from the Canada National Parks Act:

10 (1) The Minister may enter into agreements with ... aboriginal governments, bodies established under land claims agreements and other person and organizations.

16 (1) The Governor in Council may make regulations respecting ... the authorization of the use of park lands, and the use or removal of flora and other natural objects, by aboriginal people for traditional, spiritual and ceremonial purposes (Parks Canada 2000).

This enabled Aboriginal groups to take part in activities that help them reconnect with traditionally used lands and re-establish their cultural links with the land and pass on their knowledge and traditions to the younger generations. This amendment is particularly important for Aboriginal peoples who live close to parks established prior to the modern land claim process and who were removed from their lands and forbidden to continue their traditional way of life.

Accountability instruments. As a government agency, Parks Canada is accountable to Parliament and to Canadians. The agency uses a corporate plan as well as park and site management plans as its primary vehicles of accountability.

The corporate plan establishes the foundation for setting direction within the agency. As such, references to Aboriginal peoples are very important; they set the organizational direction as well as managerial accountabilities. The following text from the corporate plan illustrates the importance Parks Canada places in this area:

Parks Canada will develop a framework to engage Aboriginal peoples in the planning and management of heritage places it administers. As part of this framework, Parks Canada will establish Aboriginal advisory relationships in various locations across the organization, guided by the unique legal and cultural contexts of the different Aboriginal groups, by 2013 (Parks Canada 2010).

The significance of this statement makes clear the agency's desire to build strong and long-term relationships with Aboriginal peoples that go beyond legal requirements. Managers are empowered to take concrete steps to ensure that Aboriginal voices and perspectives meaningfully inform management decisions on an on-going basis.

The second instrument, the management plans, represents the key vehicle between senior managers responsible for parks, sites, and marine conservation areas and the minister responsible for Parks Canada. The management plans, tabled by the minister in Parliament every five years, establish through consultation with partners and stakeholders the key issues and opportunities pursued over the life of the plan.

The management planning process starts with an exercise to report on the overall state of the park, site, or marine conservation area based on indicators related to ecological integrity, commemorative integrity, visitor experiences, and public appreciation and understanding. Historically, Aboriginal peoples would have been "consulted" at the end of the process

as part of a broad public consultation. Recently, Parks Canada modified the process to include an opportunity for Aboriginal peoples to express their perspectives at the very beginning. The "Aboriginal Perspective" chapter presents the Aboriginal context, the state of the Aboriginal advisory relationships, and the state of the land, as viewed from Aboriginal perspectives. This chapter provides a holistic Aboriginal worldview and Aboriginal traditional knowledge is incorporated thought the report.

This process promotes the engagement of Aboriginal communities by allowing their perspectives to influence the identification of key issues, challenges, and opportunities to be considered in the scoping documents and in the management plans.

Organizational considerations. As a result of the legislative policy and corporate changes that have occurred over the last 30 years, the agency is very different place. Getting to this point has required a lot of adaptation and clear direction from the executive leadership of Parks Canada. In addition to the accountabilities held by senior managers within the organization, a number of other significant initiatives have been implemented that are reflective of the agency's desire to build and maintain positive relationships with Aboriginal peoples.

One key initiative was the establishment of the Aboriginal Affairs Secretariat (AAS) in 1999. This small unit is tasked with providing overall leadership with respect to building meaningful relationships with Aboriginal peoples. The secretariat is led by a member of the Parks Canada executive cadre, reporting directly to the chief executive officer (CEO). The AAS supports the development of policies, guidelines, frameworks, strategies, tools, and training in order to advance relationship-building with Aboriginal peoples. Since its establishment, the secretariat has focused on specific priority areas related to relationship-building, economic development and tourism opportunities, commemoration and presentation of Aboriginal themes, and employment.

Another important initiative is the establishment of the CEO's Aboriginal Consultative Committee (ACC; Figure 1). This committee was formed in 2000 as a mechanism for the CEO to have meaningful dialogue with Aboriginal leaders who have a direct association with heritage places administered by Parks Canada. There are twelve members appointed by the CEO and the committee meets three times per year. The committee provides open and frank dialogue between Parks Canada's leadership and Aboriginal partners on a wide range of issues. Other federal departments recognize it as an innovative way to share information and seek input from Aboriginal peoples.

At the moment, Aboriginals represent 8.3% of Parks Canada staff. There are a number of employment programs specifically designed to recruit and retain Aboriginal peoples into specific career streams and to meet clearly identified employment targets. Parks Canada has developed the Aboriginal Leadership Development Program (ALDP; Figure 2) and supports the Aboriginal Working Group (AWG), an employment equity group. The ALDP is a four-year program where Aboriginal employees gather annually to learn skills ranging from management principles to communications and community interaction based on Aboriginal values. The intent of the program is to establish a strong skill base to allow participants to achieve their career ambitions. The AWG is a national committee of employees who advise the agency on all aspects of Aboriginal employment.

Recognition of systemic barriers. Invariably, in institutions that span over 125 years,



Figure 1. CEO's Aboriginal Consultative Committee (ACC). First row: Reg Sylliboy, AAS. Second row: Dwayne Blackbird, Kseekoowenin Ojibway First Nation, Manitoba; Chief Vern Jacks, Tseycum First Nation, British Columbia; Nathalie Gagnon, AAS; Elder Stewart King, Wasauksing First Nation, Ontario; Michel Boivin, Director, Quebec Service Centre; Chief Jean-Charles Piétacho, Innu First Nation of Ekuanitshit, Quebec; Chief Diane Strand, Champagne and Aishihik First Nations, Yukon; Alan Latourelle, CEO; Rita Mestokosho, Innu First Nation of Ekuanitshit, Quebec; Peter Rudyck, Métis Nation, Saskatchewan; Pam Ward, Metepenagiag Mi'kmaq Nation, New Brunswick; Cristina Martinez, Field Unit Superintendent, Mingan Archipelago National Park Reserve of Canada, Quebec.



Figure 2. Aboriginal Leadership Development Program. Shirley Oldfield, Heritage Presenter, Motherwell Homestead, Saskatchewan; Les Campbell, Patrolman, Mt. Revelstoke, and Glacier national parks, Alberta; Penny McIsaac, Interpretation, Gros Morne National Park, Newfoundland and Labrad;, Katie Hodson, Resourse Conservation, St. Lawrence Islands National Park, Ontario; Leah Huber, Visitor Experience, Elk Island National Park, Alberta; Christine Bentley, Patrolman, Gwaii Haanas National Park Reserve and Haida Heritage Site, British Columbia; Laurie Cherneski, Park Warden, Pukaskwa National Park, Ontario; Laura Frank, Cultural Resource Management Advisor, Wood Buffalo National Park, Northwest Territories; Derek Burton, Information Technology, Riding Mountain National Park, Manitoba; Tyrone Mulrooney, Resource Conservation Technician, Terra Nova National Park, Newfoundland and Labrador; Grant Sikkes, Visitor Experience, Jasper National Park, Alberta.

systemic barriers exist and hinder the advancement of new concepts and ideas, particularly when dealing with belief systems and values. One example has been the recognition of Aboriginal traditional knowledge (ATK) as a valuable knowledge system that can influence decision-making in the protection of heritage places.

ATK is a unique and complex knowledge system build by generations of people who live close to the land. It is transmitted through oral tradition and embodied in a distinct culture and way of life. Traditional knowledge systems require the conduct of traditional activities for the maintenance and transfer of knowledge. This aspect continues to present a challenge for Parks Canada, where the cessation of traditional activities often represents a barrier to the retention and use of traditional knowledge. Within the changes in corporate culture, working with Aboriginal peoples is now seen as a means of forging stronger relationships and facilitating re-connection to traditionally used lands and activities and contributing to management decision-making.

Parks Canada has many examples of cooperative work with traditional knowledge holders, such as studies on northern Ellesmere Island related to people, caribou, and muskoxen (Manseau and Mouland 2009) or the on-going research in the Gulf Islands National Park Reserve on bivalves as part of a traditional harvest study. Another example is the five-year Inuit Knowledge Project (Inuit Qaujimajatuqangit) involving three national parks in Nunavut (Figure 3). With the vastness and remoteness of the northern territory and the lack of existing baseline data, ecological monitoring in northern Canada presents distinctive challenges. One way to overcome this barrier is to encourage Inuit to share their ATK pertaining to their natural and cultural environments. Its primary goal is to increase knowledge of the

Figure 3. Inuit Elder Qapik and Kataisee Attagutsiak, Inuktitut language specialist, Winnipeg Service Centre, Parks Canada.



parks while allowing Parks Canada to gain a better appreciation and understanding of Inuit knowledge. Elders, students, hunters, and trappers as well as Parks Canada staff take part in this project. Inuit knowledge working groups help guide the project and create an environment of sharing and cooperation that has not only strengthened the level of understanding about the natural environment and cultural landscape but has also solidified long-term relationships.

Cooperative management structures. Cooperative management with First Nations, Inuit, and Métis peoples has become a common practice within Parks Canada. At present, there are eighteen formal cooperative management agreements (with several others under development), twelve formal cooperative structures, and numerous other project-specific or informal cooperative arrangements in place across the system.

The choice of the word "cooperative" is deliberate insofar as the authority of the minister to make final decisions, and his or her responsibilities to Parliament, remain unfettered. More specifically, bodies created under these legislative tools are advisory in nature.

Cooperative management can take many forms. In the Parks Canada context, it is best described as a spectrum of decision-making influences. Cooperative bodies range from informal structures that provide *ad hoc* advice to those that are established through formal agreements such as park establishment agreements. The actual structure of the various types of cooperative bodies also varies greatly and is highly dependent upon the legal, political, or policy context under which they were established. Although there is no common structure in terms of membership, frequency of meeting, or roles and responsibilities, common elements and themes include:

- Ensuring equal Aboriginal and government representation;
- Providing advice to the minister on cultural matters and other issues of importance to the Aboriginal partners; and
- Providing input into park, site, or national marine conservation area management plans.

Meetings operate on a consensus basis and do not generally meet standards for formal consultation.

An example of an agreement that truly exhibits the importance of meeting the interests of both parties is the Canada–Haida Agreement 1993, which lays the foundation for the Archipelago Management Board (AMB). Through that agreement, the parameters for the involvement of the Council of the Haida Nation in the planning, management, and operation of the Gwaii Haanas National Park Reserve and Haida Heritage Site are established. The agreement itself is structured in such a way that there is an acknowledgment that both parties agree to disagree over the ownership of the land. Notwithstanding this disagreement, there are a number of areas where the two parties agree to cooperate. These include:

- Maintaining and making use of the archipelago so as to leave it unimpaired for the benefit, education, and enjoyment of future generations;
- Sustaining the continuity of Haida culture within the protected area;

- Ensuring that no extraction or harvesting by anyone of the resources of the lands and non-tidal waters of the archipelago is done for or in support of commercial enterprise; and
- Establishing a management board for sharing and cooperating on planning, operations, and management.

In addition to the "agree to disagree" aspects of this agreement, two of the distinguishing features are the structure and operation of the cooperative management body, the AMB. It has a simple structure of four representatives, two from the Council of the Haida Nation, one of whom is a co-chair, and two from Parks Canada, with the park superintendent acting as the other co-chair. In this example, every management decision affecting the planning and operation of the park is deliberated on by the AMB, and if consensus is not reached, the decision is put aside until an agreement can be reached. The AMB meets on a regular basis.

This cooperative management arrangement has been very effective and has withstood the test of time. A dispute resolution mechanism is built into the agreement, but since the agreement came into effect in 1993 the process has never been triggered. The fact that a similar agreement was reached in January 2010 between Canada and the Council of the Haida Nation for the management, planning, and operation of a proposed national marine conservation area in the waters surrounding the national park is a testament to the success that has been enjoyed by both the federal and the First Nation governments.

Conclusion

Parks Canada has come a long way over the past 30 years in terms of working in a positive and respectful manner with Aboriginal peoples. This change has been driven in part by legal precedents, but more importantly by the desire of Parks Canada and Aboriginal peoples to work together toward common goals. Our system of national parks, national historic sites, and national marine conservation areas will only grow with the support of Aboriginal peoples, and a significant portion of the existing national park land base is in place due to their strong cooperation, support, and contribution.

However, we also recognize that there are still issues such as outstanding land claims, consultation and accommodation requirements, and treaty recognition that are often beyond the scope of Parks Canada's mandate. Despite these challenges, the organization has strong corporate direction that not only encourages but also supports building and maintaining relationships with Aboriginal peoples.

This has marked Parks Canada as a leader with respect to cooperative management and innovative working relationship approaches in Canada. The development and operation of management agreements have been a valuable learning experience for both the agency and our Aboriginal partners. Most noteworthy is the fact that, despite sometimes differing views, we have found a way to develop a common vision and to work together for the protection of special places that can allow both parties to meet their interests.

The Parks Canada Agency is looking forward to the next 125 years. We believe that if we keep to the two paths one direction course, together we will protect our natural and cultural heritage for the next seven generations.

Endnotes

- 1. "The Two Row Wampum treaty, also known as Guswhenta or Kaswehnta, is an agreement made between representatives of the Five Nations of the Haudenosaunee (Iroquois) and representatives of the Dutch government in 1613 in what is now upstate New York. The pattern of the belt consists of two rows of purple wampum beads against a background of white beads. The purple beads signify the courses of two vessels—a Haudenosaunee canoe and a European ship—traveling down the river of life together, parallel but never touching. The three white stripes denote peace and friendship. This wampum records the meaning of the agreement, which declared peaceful coexistence between the Haudenosaunee and Dutch settlers in the area" (http://en.wikipedia.org/wiki/Guswhenta_(Two_Row_Wampum_Treaty).
- 2. There are two types of land claims: comprehensive claims, which deal with Aboriginal land rights that have not been dealt with in past treaties or through other legal means, and specific claims, which deal with past grievances of First Nations related to Canada's obligations under historical treaties or the way it managed First Nations' funds or other assets.
- 3. "The Supreme Court of Canada has adapted these ... law concepts to the context of Crown–Aboriginal relations. In the 1950s, the Court observed that the *Indian Act* 'embodie[d] the accepted view that these aborigines are ... wards of the state, whose care and welfare are a political trust of the highest obligation.... [T]he honour of the Crown is at stake in dealings with aboriginal peoples. The special trust relationship and the responsibility of the government vis-à-vis aboriginals must be the first consideration in determining whether the [infringing] legislation or action in question can be justified" (Hurley 2002).

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International Engagement: Enhancing the Global Parks Agenda

Marc Johnson and John Pinkerton

Introduction

This past year has been a productive and diverse one for Parks Canada's international programs, which is indeed appropriate in this International Year of Biodiversity. The agency's international activities have ranged from leading the implementation of the World Heritage Convention in Canada to partnering continentally in the development of a new wilderness agreement and in on-going marine protected area (MPA) network coordination, engaging globally in the hosting of a meeting of park leaders, implementing the Convention on Biological Diversity, participating in the seminal Healthy Parks Healthy People Congress, and working with American colleagues in preparing for the upcoming commemoration of the War of 1812. While all these activities were underway, Parks Canada also adopted a new international strategic plan.

International programs priorities

Parks Canada's international responsibilities and priorities stem directly from its legislated mandate. The Parks Canada Agency Act states that it is in the national interest for Parks Canada

to carry out Canada's international obligations and agreements to protect, conserve and present [natural and cultural] heritage and to contribute towards the protection and presentation of the global heritage and biodiversity.

To give clarity and focus to this direction, the agency adopted a new strategic plan for its International Program in December 2009. The strategic plan aims to ensure that Parks Canada's international activities contribute to achieving its corporate priorities for establishing, conserving, and presenting Canada's natural and historic places, building on its strengths related to conservation, education, and visitor experience. The plan describes a vision for the agency's future international activities, specific strategic directions, and prior-

ities, and details how the agency will align its priority activities with broader government of Canada priorities.

Overall, the new strategy provides for Parks Canada to be more targeted and proactive in its international work, including prioritizing its focus on major new international initiatives in the Americas and the circumpolar region.

Parks Canada is pursuing the following strategic directions as it undertakes international activities:

- Focus on delivering Canada's international obligations in key fora, in a way that fully reflects Parks Canada's mandate;
- Better align additional international activities with Parks Canada's corporate priorities and Canada's international agenda;
- Promote organizational learning; and
- Build relationships and communicate the results of Parks Canada's international activities within a government of Canada network, with Canadians, and with an international audience.

New priorities include:

- Demonstrating leadership in working with Aboriginal peoples and integrating visitor
 experience considerations into national park, national historic site, and national marine
 conservation area management;
- Developing an exchange program with a francophone country and an exchange program focused on national historic sites to complement existing exchange programs; and
- Identifying and working with global partners to help Parks Canada develop its national marine conservation areas program.

In order to promote the desired consistency and coherence in Parks Canada's international activities, the agency created a new International Programs Branch in 2009.

Recent international program activities

International program activities vary from year to year. Below are some of the activities accomplished over the course of the last year.

UNESCO's World Heritage Convention. This past year marked the last year of Canada's four-year term on UNESCO's World Heritage Committee. As Canada's state party representative for the World Heritage Convention, Parks Canada fulfilled these responsibilities on behalf of the government of Canada. During this time, two of Canada's fifteen World Heritage properties were inscribed, the Rideau Canal and the Joggins Fossil Cliffs. Canada also had the opportunity to host the 2008 meeting of the World Heritage Committee on the doorstep of the Historic District of Old Québec. Having left behind the heavy workload associated with membership on the World Heritage Committee, in the coming years Parks Canada will focus its World Heritage efforts closer to home. In particular, there are a number of new World Heritage site nominations being prepared for submission in the coming

years and there are opportunities to improve efforts to raise awareness of the World Heritage Convention in Canada. In all of this work, Parks Canada will need to work with the other levels of government and stakeholders who have responsibility for managing Canada's World Heritage sites.

World Protected Areas Leadership Forum. In October 2009, Parks Canada hosted the annual meeting of the heads of a number of the world's park agencies in Victoria, British Columbia. In what is commonly known as the World Protected Areas Leadership Forum (WPALF), participants included the director of the U.S. National Park Service as well as the park agency leaders for Finland, New Zealand, South Africa, Kenya, and Australia's state of Victoria. The chair of the IUCN's World Commission on Protected Areas also attended. Discussions focused on innovative approaches to increasing the relevance of parks and protected areas in response to changing societal demographics, providing leadership on the role of protected areas in climate change adaptation and mitigation, considering business approaches to parks management, and preparing for the tenth Conference of the Parties to the Convention on Biological Diversity (CBD). These park leaders have continued to work together in recent months on a variety of matters, including participating in the review of the IUCN's Program on Protected Areas and participating at a November 2009 IUCN workshop in Granada, Spain, on protected areas and climate change that witnessed the release of the related publication Natural Solutions (http://cmsdata.iucn.org/downloads/summary_ natural_solutions_english.pdf).

The 9th World Wilderness Congress (WILD9). The WILD9 Conference in Merida, Mexico, in September 2009 marked a historic occasion, when representatives of a number of Canadian, American, and Mexican agencies signed a memorandum of understanding (MOU) on cooperation for wilderness conservation. Parks Canada is the sole Canadian signatory to this agreement, an international first in the area of wilderness protection. The MOU provides a framework for on-going cooperation among the participating government conservation agencies with respect to the commemoration, conservation, and preservation of wilderness areas. The following statement, made by Jim Prentice, Canada's Minister of the Environment, in his presentation at the Conference, embodies the opportunity these agencies have in meeting the spirit of the MOU:

Our generation may be the last to have the options to choose what we do. We have a choice to set aside land where the timber has not been cut, the rock not dynamited, the earth not ploughed. We can choose to protect these lands, and leave to our children and their great grand children the landscape of possibilities.

The MOU established an intergovernmental North America Wilderness Committee to guide implementation of cooperative activities under the agreement, and Parks Canada had the honor to host the committee's first meeting on May 10, 2010, in Halifax, Nova Scotia. During its meeting, the North America Wilderness Committee discussed and agreed upon elements of a multi-year workplan that will focus on:

- Marine wilderness;
- Wilderness area manager networking, mentoring, training, and exchange;

- Transboundary areas involving public land with wilderness characteristics;
- Valuing ecosystem services from wilderness and payment mechanisms; and
- Ecological monitoring.

Convention on Biological Diversity. In this International Year of Biodiversity, Parks Canada is also actively involved in the government of Canada's participation in the upcoming 10th Conference of the Parties to the Convention on Biological Diversity in Nagoya, Japan. As Canada's national focal point for the CBD's Program of Work on Protected Areas, Parks Canada's staff attended the May 2010 meeting of the convention's Subsidiary Body on Scientific, Technical and Technological Advice in Nairobi in preparation for the 10th Conference of the Parties. Its efforts in Nairobi will be repeated in Nagoya, focusing on protected areas matters. In Nagoya, however, the meeting will also adopt an important new strategic plan and associated targets for the convention and recommendations related to the linkages between climate change and biodiversity conservation, all of which are particularly relevant to Parks Canada.

Healthy Parks Healthy People Congress. In April 2010, Parks Canada staff had the occasion to participate in the Healthy Parks Healthy People Congress hosted by Parks Victoria in Melbourne, Victoria, Australia. The Congress brought together 1,200 delegates from 38 countries to discuss how human health and well-being are inextricably linked with the health of the planet's ecosystems, and the role of parks and park agencies in fostering these connections. Of important note was the diverse representation from various park agencies, indigenous groups, nongovernmental organizations, the health sector, academia, and the private sector from all over the world. Consistent with the strategic directions and priorities outlined in the new strategic plan described above, Parks Canada staff made presentations at the Congress on its work in a number of areas, including on cooperative partnerships with Aboriginal peoples in park establishment and management; Prince Edward Island National Park's innovative stakeholder engagement in developing new, memorable visitor experience opportunities that contribute to improved ecosystem and visitor health; engaging citizens in improving park ecological integrity; innovative measures to connect Canadians to nature; and the value of cultural heritage to healthy communities.

World Commission on Protected Areas. Canada played host to the June 2010 meeting of the steering committee of IUCN's World Commission on Protected Areas in Hinton, Alberta, adjacent to Jasper National Park. As Canada's state member for IUCN, Parks Canada provided financial and logistical support for this meeting. The meeting was a good opportunity for Parks Canada to introduce itself to international protected areas professionals from around the world, both during the meeting in Hinton and during a field trip to Jasper.

North American Marine Protected Areas Network (NAMPAN). Canada is among the many maritime nations that share the global commitments to establish networks of marine protected areas that were made at the 2002 World Summit on Sustainable Development and in the 2004 CBD's Program of Work on Protected Areas. In order to deliver on this commitment and successfully achieve shared marine conservation objectives at regional scales, it is incumbent that national marine protected area agencies work with similar agencies in other countries. Accordingly, Parks Canada is among the founding organizations in the North

American Marine Protected Areas Network (NAMPAN), an initiative under the biodiversity conservation program of the Commission for Environmental Cooperation in North America. Working within NAMPAN, Parks Canada is collaborating with marine protected agencies and academic and non-governmental organization partners in Canada, the United States and Mexico on a number of projects. More details on this initiative are provided elsewhere in this issue by Doug Yurick.

Bicentennial Commemoration of the War of 1812. Two hundred years ago, the War of 1812 rallied citizens together in defense of what would later become Canada and helped to unite a collection of colonies and define a sovereign Canadian identity. The War of 1812 is also an important event in the history of the United States and is sometimes referred to as "the second War of Independence," which affirmed U.S. independence from Britain and ushered it onto the world stage. Of importance to both nations, the War of 1812 set the course for two hundred years of peace, respectful recognition of national interests, and peaceful resolution of differences. Canada and the United States are now jointly planning events, activities, and projects to commemorate the bicentennial of the War of 1812. The Parks Canada Agency and the U.S. National Park Service are working together to develop interpretation and educational materials to encourage visitation and enhance visitor experience at historic sites associated with the War of 1812 in both countries. Commemoration of the bicentennial provides opportunities in both countries to foster greater awareness of our shared history, peace, and friendship.

Conclusion

Looking back at the past year of international activities for Parks Canada, a common thread that emerges is the ever-growing recognition of the increasing role of the world's parks and protected areas in addressing multiple societal benefits—providing ecological goods and services such as clean drinking water, fostering healthy communities, connecting citizens with their natural and cultural heritage, supporting local jobs and livelihoods, and of course providing wild spaces for wildlife. Through its current and future international activities, guided by its new strategic plan, Parks Canada aims to contribute to the important global efforts to protect, conserve, present, celebrate, and experience our natural and cultural heritage, and to ensure that these efforts build a strong sense of connection and relevance between people and the heritage they share.

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