

9*Stemming the Tide of Loss***The Give and Take of Modern Management****In and Around the Mountain Parks**

WHEN CANADA DECIDED to participate in the United Nations International Year of Mountains initiative in 2002, there were many in the extended tourism community who maintained that the UN global objectives related to the protection of mountain ecosystems and watersheds didn't appear to have widespread application in this country. There was a sense that compared to other places in the world, mountain regions in Canada were virtually pristine and human impacts here had been relatively light. Research undertaken in the context of that UN initiative questioned that assumption. It was surprising to many to discover that human influence has cumulatively affected every mountain ecosystem in this country. Nor is our influence likely to diminish in the future.

Through events that celebrated the International Year of Mountains, participants were able to put into relief the kinds of attitudes and habits we need to cultivate in order to address the challenges we face. One way of reaffirming the importance of mountain places to global ecological and cultural heritage is to remember how our own experience of mountains has shaped our attitudes, behaviour and identity. By analyzing how locals come to have a "sense of place" and by examining what

people search for when they travel, we confirm the valuable role that knowledge and understanding can play in making the world meaningful to others.

We also discovered that in many communities, all of these aspects of heritage are under some sort of threat. Natural landscapes throughout the mountain West are suffering from increased human presence, a number of important wildlife species are having difficulty sustaining themselves, and ecosystem health in many areas is in decline. Strong historic connection to place is also under threat. Where once our mountain communities were artifacts of a time when the dominant force in human life was nature, our communities are becoming more and more like the cities our visitors left behind.

We have more distractions, which means that we have less time to spend in the landscape. Visitors are also becoming more alike in their interests. Many of our visitors are from cities; their expectations are increasingly urban in nature. As their demands change, we change the places in which we live, in order to meet their expectations. We alter place, thereafter place alters us.

Along the entire spine of the Rockies, from Canada to the United States, communities are losing their unique character and becoming more and more like the cities the people who live in them sought to escape. Memory of what the West was like in the past is vanishing. Huge numbers of people are moving into many of our mountain areas either permanently or on a part-time or weekend basis. Most have little understanding of how dramatically these mountain places have changed in the last century.

As we struggle to grow our tourism potential in the wake of declining resource industries, we are beginning to realize that what is now happening cannot be stereotypically characterized as passionate environmentalist versus insensitive developer. The challenge is broader, and in some senses deeper. As American writer Rick Bass put it, “we owe a debt of love and thanks to the country that makes us; and that it is up to us to make sure that the last good parts of it are not divided up into halves and then quarters and then eighths, then further divided into the invisibility of neglect or dishonor.”²¹ This, however, is easier said than done.

We are struggling now in the mountain West to retain the connection to place upon which our very identity depends, upon which many locals have found their reasons for living here. If we cannot stand up for place, then we may lose what is most essential about ourselves, for when



THE TOWN OF BANFF

Banff's original location, by necessity, was based on the growing popularity of the hot springs on Sulphur Mountain. It wasn't until much later that it was realized the town's location, in combination with roads and train tracks leading into it, posed a serious problem for wildlife movement.

Photograph by R.W. Sandford.

the West is gone there will be no place left for many of us to go. When there is no place for us to go, there will be no place for visitors to go either.

Few Canadians want the myth of our wilderness West to end. Many people are prepared to make real sacrifices and compromises to ensure that creatures such as wolves and bears survive. Through careful consideration of what makes our circumstances unique more and more people who live in communities in and around our mountain national parks can make where and how they live the basis of what distinguishes this region in the world tourism marketplace. At a time when natural habitat loss and species extinction worldwide are occurring at an unprecedented rate, surviving intact ecosystems and cultures closely associated with their perpetuation are rapidly becoming the world's most precious and desired future resources.

In order to sustain our tourism economy, our ecological ethics cannot simply reside in marketing slogans. Hard facts have to be addressed. People will not travel from afar to visit landscapes that are as compromised and crowded as the ones they have at home. They come because they want to experience a world that has not been dramatically altered

or disturbed. They come because they want to see wild animals whose existence is an embodiment of functioning natural processes they associate with the Canadian West. Wolves and grizzlies have great value in the world's imagination. But it is not just wolves and bears that must be protected. It is also important to protect enough uncrowded, open space to allow ourselves and our visitors to have meaningful communion with place.

Protection of functioning ecosystems should not be just a national park or World Heritage Site imperative, but one that should apply everywhere people live on this planet. Our mountain national parks are a crystal around which a new sense of long-term economic stability can be established and radiate outward. That stability will be defined in large part by how well our intact ecosystems slow and moderate the effects of landscape change in the West, and the impacts of global climate change. By preserving what is important about our heritage, as it has been defined locally, we protect what is unique about our way of life. By standing up for place, we retain our cultural authenticity at a time when it is being compromised and homogenized worldwide. We also stand up for the natural places that are at the heart of our identity as a people. In so doing we protect the ecosystems that give meaning and provide stability to our culture. By preserving our way of life we are more likely to have tourism on terms that we and our visitors can accept over the long term. By preserving place, and local connection to place, we assure that sustainable tourism is not just a marketing slogan but also a way of life.

In his book, *Becoming Native To This Place*,² Wes Jackson argues that, in North America at least, it has never been a goal to become native to where you lived and to establish deep ties to all aspects of place. He claims that now, almost too late, we are beginning to perceive the necessity of establishing such relationships. Jackson argues that due to huge increases in human populations and the profound nature of our cumulative effects, we have to affirm local responsibility and commitment to the places in which we live if we are going to save what is worthwhile and unique about our experience of this amazing continent. Jackson argues that the sense of place to which we might aspire has not only been altered but also severely compromised by substantial change in many of the places in which we live. In order to preserve even the possibility of enduring sense of place, Jackson contends that we have to slow down our aimless, wandering pursuit of upward mobility at any cost and find a home, dig in and aim for some kind of enduring relationship

with the ecological realities of the surrounding landscape. Only in this way, according to Jackson, can we cultivate any sort of cultural or environmental sustainability.

Localness was redefined in the West the moment the land was divided and sub-divided into rectangular plots that allowed settlement to proceed in a manner consistent with methods of topographical survey. Until surveyed, all lands were essentially a borderless commons. The division of land into carefully defined rectilinear units facilitated private ownership. Land became a commodity with little connection to the greater space around it or to the ecosystem of which it was formerly part.

One of the reasons our mountain national and provincial parks are important to us is that they have remained a commons. They have not been as subject to the tyranny of the survey grid as other parts of the country. The land is open and expansive as we remember land ought to be. These places remind us of the thrill this continent must have provided to the first Europeans who came west. In our mountain parks, it is not just the peaks that impress us. It is all that geography piled up on itself, unfenced, unowned and unownable. We love our mountains in part because they defy the rectilinear patterns that have crept up the valleys from Europe. We also love these places because they appear undisturbed. The great “shouting, neighing, lowing, grunting, buzzing, barking and meowing invasion”³ largely by-passed these places. As such, they appear unchanged, pristine somehow in the way they might have been when humans first set eyes upon them.

If the ecological history of this continent teaches us anything, it is that we can no longer afford to be the kinds of people who look upon where they live as a source of mere raw material out of which to fashion our livelihoods and our prosperity. As Wes Jackson has pointed out, we have to be devoted to where we live for its own sake and do whatever we can to protect and restore it.

The preservation of the unique character of where and how we live in and around the Mountain Parks cannot be achieved by just talking about it. It takes careful consideration and clear-decision making to wrestle the direction our history is taking us back into alignment with a vision of the West we want. The days of bold, sudden changes in land-use and other habits ended when our national railways finally succeeded in fulfilling their ambition of settling the West. We have to rely now on small increments of positive change applied over longer periods of time to define progress toward the ideal of creating a culture commensurate with landscape in the Rockies.

Fortunately for the mountain parks and for the Canadian Rocky Mountain Parks World Heritage Site as a whole, there are a growing number of people who understand that the work of building a culture worthy of the grand landscapes of the mountain West is the work of whole generations, and not just the responsibility of land managers responsible for parts of a larger whole. One such person is Ian Syme, who at the time of this writing worked for Parks Canada in Banff National Park.

Though his responsibilities as Chief Park Warden for the Banff Field Unit focus principally on management issues in the south part of Banff National Park, like many others Syme has worked in jobs that have allowed him to be familiar with every part of the Mountain Parks. His experiences are not only typical but also highly representative of those of a generation of men and women who have committed themselves to the protection and understanding of the landscapes and ecological processes we have managed to save in the Rockies.

At a presentation to the Rosenberg International Forum on Water Policy in 2006, Syme explained that in 1980, the year he started with Parks Canada, the population of Calgary was only 650,000. As the mine in Canmore had recently closed, its population was still only 3,100. Banff had a population of barely 4,400 and only a couple of hundred people lived at Lake Louise as its famous railway hotel was still closed in winter. At that time only 2.9 million cars travelled on the Trans-Canada Highway through Banff National Park each year.

Back in the 1980s, however, backpacking was still very popular. Wardens travelled extensively in the backcountry, regulating the impacts associated with 20,000 camper nights a year. Syme remembers also that garbage was not well managed and dumps then were still places where locals and visitors alike could see bears. That also began to change after a series of terrible bear maulings that resulted in a death inside Banff townsite in September of 1980, described by Sid Marty in his book *The Black Grizzly of Whiskey Creek*. The grizzly bear population in the park at the time was estimated to be between fifty and seventy, and some argued the bears were largely concentrated around dumps in Banff and Lake Louise.

One noticeable difference in 1980, Syme recalls, was a greater acceptance of wildlife mortality. At that time there was an average of 100 to 125 automobile collisions with elk every year, mostly on the Trans-Canada Highway. It was also a period during which park wardens still stocked many lakes. At one time or another almost all of the lakes in the



WINTER SNOWFALL PATTERNS

The Rocky Mountain climate is changing. Where heavy snowfalls were once common early in winter, precipitation patterns are now such that big snow storms are less frequent and occur later in the season. The effect of these changes on winter sports is noteworthy, but of little significance compared to what the impact may ultimately be on the region's water supply.

Photograph by R.W. Sandford.

mountain parks were stocked with trout fingerlings reared at a fish hatchery in Banff. The wardens in Jasper had their own hatchery and did the same thing. It was standard practice then to ensure anglers had a material reason to visit backcountry lakes. Not much thought, if any, was given to the impacts such programs might have on natural aquatic ecosystem health. In fact, Syme remembers that very little consideration was given at all to what was happening at that time to water in the mountain parks. Even sewage was poorly treated.

The entire ecosystem, Syme observes, was different in 1980. It could hardly be described as natural. Some 700 to 800 elk lived in the Bow Valley, all descendants of a herd of some 200 introduced from Yellowstone in the 1920s to give visitors some majesty to observe in the lower valleys. This herd, in the absence of wolves that were at the time considered vermin and shot on sight, had grown to nearly 3,000 by the late 1930s but declined in numbers after decimating much of this new range. In 1980, the automobile was effectively performing the predatory role for elk and other ungulates. In reality it was an elk-automobile-caribou ecology that operated in the absence of fire. This, Syme is quick to note, was a great deal different than the buffalo-wolf-caribou-fire-First Nations ecology that predominated in the region now encompassed by the Mountain Parks at the time of European contact. The region had, in fact, been altered dramatically by less than a century of "scientific" management. There were some 2,500 elk along the eastern boundary of Banff Park, which hunters like to encroach upon in the fall. There was also a considerable amount of poaching.

SPRUCE GROUSE

Spruce grouse are territorial and highly protective of their young. When defending their territories they are highly courageous. It is not unusual for a 1-kilogram grouse to attack a 100-kilogram human and successfully drive the intruder away. This, of course, makes for some amusing trail stories. This tactic, however, is less successful with coyotes and wolves.

Photograph by R.W. Sandford.



Ten years later, in 1990, Ian Syme was no longer a backcountry warden but an area manager responsible for Parks Canada's Lake Louise operation. By 1990 the population of the city of Calgary had grown by 50,000 people, or about 7.7 percent, to 700,000. The population of Canmore had grown some 71 percent to 5,300 and the town of Banff had grown by 57 percent to 6,900. Car traffic through Banff National Park was up 17 percent, to 3.4 million vehicles a year.

Syme also remembers that it was around this time that wolves returned, all on their own, to the Bow Valley. A small pack suddenly appeared and began preying on elk. Numbers of elk had grown completely out of proportion, and the elk were an easy target for the hungry pack. For their part, the wolves must have thought they had died and gone to heaven, says Syme. But the cars and trains that were also killing the elk, began to take a sizable toll on the wolf population.

While the wolf drama was playing itself out, Parks Canada was busy decommissioning backcountry fire roads that, in essence, effectively expanded the wilderness areas of the mountain national parks by hundreds of square kilometres. This respite for the landscape, however, was brief, lasting only as long as it took mountain bikers to reclaim these areas as front-country that could be accessed in a short time from highway trailheads.

Tangible protection gains were also made between 1980 and 1990 on the park boundary as the Province of Alberta moved toward restricting access along the eastern slopes of the Rockies. This reduced poaching and

allowed for easier movement of wildlife throughout the eastern portion of the Mountain Parks and the larger central Rockies ecosystem that extends far beyond national park boundaries. The province also created Kananaskis Country, a multi-use mountain reserve offering recreational opportunities in a protected area adjacent to Banff National Park.

By 1990, Parks Canada had also begun to change its views with respect to the role of fire in the on-going management of mountain ecosystems. Eighty years of almost maniacal fire suppression had led to huge fuel build-ups in many areas of the mountain national parks. In the absence of wildfire, natural plant community succession had slowed to such an extent in parts of the region that concerns were being expressed about the overall vitality of the mountain ecosystem.

Though in its infancy, a prescribed fire program had been established in Banff by 1990. Syme remembers that at the outset of the program the Warden Service had been calling such fires controlled burns even though they knew at the time that lightning fires of even fifty hectares or less generated circumstances that were not always controllable. “So, as they say,” Syme quips, “go big or go home.” Parks Canada fire specialists began creating burns exceeding a thousand hectares, utilizing landscape and firebreaks to control the spread of the flames. The gamble paid off, in that fire ecologists working with Parks Canada are now recognized as being among the most experienced and respected professionals in this important and rapidly developing field.

Bear problems were also being addressed by 1990. All garbage was now collected in bear-proof containers. Dumps were closed and garbage from towns like Banff was now transferred to landfills outside the park.

Tensions between Parks Canada and national park communities were also being addressed. An agreement was signed in 1990 that allowed the Town of Banff to incorporate itself as a provincial municipality. Most of the municipal government powers were transferred to an elected town council. The first mayor elected was Leslie Taylor, a former acting Banff park superintendent. While the town remained under regulation by Parks Canada, the newly formed town council gained control of tax revenues and re-investment. One of the central controls Parks Canada retained was the need-to-reside clause relating to who could own homes and actually live within the national park community. The premise of this regulation was, and always has been, that only those with a bona fide need to live in the community, based on the work they are doing or have done, will have the right to own and occupy a home inside a national park town. It is this regulation and this regulation

alone that prevents anyone with money from simply walking into town and buying up property in one of the most desirable mountain places in the world. While there are loopholes that need to be closed and new scams that attempt to undermine the intent of this regulation, it essentially works to control both the size and composition of the community. The same process operates in Lake Louise, Field and Jasper, and in other national park communities across Canada.

While hardly a perfect system, it has prevented the blatant buy-up witnessed in other mountain communities such as Vail and Aspen, Colorado, and Canmore, Alberta that results in loss of community and eventually diminishment of place as those who are responsible for the establishment of the character and culture of an area are driven out by rising real estate prices, increasing taxes and the loss of the connections to place that originally attracted them.

In describing the changes that took place between 1990 and 2000, Ian Syme is forced to admit that, as Chief Park Warden, he had a hand in guiding the direction of park policy with respect to the management and protection of the Mountain Parks. By 1990, the population of Calgary had grown by 150,000 to 800,000 people, an increase of 21 percent in only ten years. The population of Canmore had grown over the same period to 10,500 people, an increase of some 98 percent; it had tripled in only two decades. During the same period the population of the town of Banff rose by 800 residents to 7,700 people, an increase of only 11.5 percent over the decade. Visitation to Banff National Park was up 1.2 million to 4.6 million vehicles a year, an increase of 35 percent no doubt attributable to the increased size of both Calgary and Canmore.

Syme also observes that Canmore was no longer a local residential community. It had, in fact, become what Banff couldn't be due to the need-to-reside rule. As Syme explains, Canmore's proximity to an international airport permitted it to become a mecca for wealthy second-home owners from around the world. While both essentially remained tourism towns, Banff increasingly relied on a booming Calgary population and an important but less and less reliable foreign tourism market to fill its hotels and restaurants, but Canmore aligned itself with weekenders who stayed in condos, time-shares or second homes. These people drove from Edmonton or Calgary on weekends or flew in once or twice a month from London, Hong Kong, Chicago, Toronto or Los Angeles.

Some say that Canmore never knew what hit it and, as a result, was unable to learn from what had happened over the previous century

in Banff. In the mid 1990s, it had become apparent that incremental growth of the town of Banff had begun to threaten the ecological integrity of the entire Bow Valley, one of the most important ecosystems in the entire Canadian Rocky Mountain Parks World Heritage Site. When the Bow Valley Study was completed in 1996, it recommended that a cap be placed on commercial development in Banff townsite and population growth be controlled in order to preserve the natural qualities that made the community so unique. While there was grumbling among the business community in Banff, the study's recommendations were adopted and now Banff is a better place because of it.

Syme points out that by 2000 there were other developments that were taking place, which further strengthened rather than diminished the ecological integrity of the Mountain Parks. Without a great deal of fanfare, the Province of Alberta created a number of wildland parks along the southern boundary of Banff National Park. Soon a buffer zone existed that not only protected the southern reaches of the World Heritage Site but also expanded the area of the central Rockies ecosystem that was protected through either federal or provincial designation. But, as often happens, elements of the public found new ways to reverse conservation gains by way of new fads and popular technologies.

Backcountry travel patterns changed in significant ways: overnight backcountry visitation dropped from 20,000 camper nights a year in 1980 to 15,000 in 2000. As Syme likes to point out, this does not seem like much, but this decline took place during a period in which regional population grew by more than 250,000 people and the number of vehicles entering the park nearly doubled. One might go so far as to suggest that backpacking was becoming passé, and was being replaced by the vastly more mobile activity of mountain biking, which allowed visitors to travel far more quickly into the backcountry and to have greater potential interaction with wildlife.

Other extraordinary invasions were also taking place. As a result of warmer winters, pine bark beetles were beginning to appear in Alberta. The outbreak had begun in British Columbia, suggesting that climate change impacts had already begun to make their presence known in the mountain West. This invasion, only a few years later, threatened forests throughout Alberta, British Columbia, the Yukon and Northwest Territories.

During this time, another problem emerged in Banff. The brief rise in wolf populations caused elk to respond to increased predation by seeking safe habitat in and around the townsite. This development created an



COW MOOSE

Moose populations in the Canadian Rocky Mountain Parks World Heritage Site are slowly recovering from a twenty-year decline, associated with parasite-related diseases, during which moose almost disappeared from many of the mountain parks. The connected nature of this system, however, facilitates recovery of troubled species over time provided their numbers don't become too small.

Photograph by R.W. Sandford.

interesting but very volatile situation in which elk swarmed downtown parks and green spaces, grazed on lawns and established a habit of scaring the hell out of both locals and visitors alike as they defended the space that in their minds marked individual and herd territory.

At the same time, Parks Canada was also addressing at long last the sewage treatment problems created by increased local human populations and exploding visitation in its communities. As a result of significant phosphorous and fecal coliform count reductions, Parks Canada soon learned that you can't do anything without affecting something else. While the new water quality standards did a great deal to restore original pristine aquatic ecosystem conditions in the Bow River, they at the same time reduced the nutrient base of the downstream water to the extent that trout populations in the river at Canmore were reduced.

In the 1990s, the Trans-Canada Highway was twinned as far west as Castle Junction. In order to reduce wildlife mortality on the widened highway, the entire thirty-kilometre stretch was fenced to prevent animals from getting on to the road. The decision was also made to incorporate animal overpasses rather than the underpasses that had

been employed in the first stages of the twinning between the park's eastern gate and the Banff townsite.

This decision was made as a result of years of monitoring wildlife movement through the underpasses, research that revealed some very telling trends. The problem that emerged was that predators like wolves were not at all averse to hanging around underpasses to wait for elk driven out of town by park wardens.

Syme pointed out that by 2000 the mitigation toolbox that included fencing, wildlife overpasses and underpasses, and wildlife movement corridors around Banff townsite was now the most comprehensive and advanced in the world. Scientists and engineers, Syme explained, come from all over the world to examine the design and function of the Trans-Canada Highway mitigation system.

Syme concluded his presentation by talking about what the park was like in comparison to when he started as a park warden twenty-five years before. Calgary, he pointed out, had just reached the one million mark in population and five times more people were living in Canmore just outside Banff National Park. A city suddenly exists right on the boundary of Canada's first national park. It makes little difference that 25 percent of Canmore's "residents" are "recreational homeowners." Their numbers are growing and are expected to do so until the population of Canmore doubles again, which is expected to happen by 2030 when there will be no longer be any land left to develop immediately adjacent to the park. The population of Banff, however, has been capped as a result of the Bow Valley Study, at 8,500. Its current population was about 7,800 people, up only 77 percent since 1980, which compared to Canmore was hardly anything at all. The number of vehicles entering Banff National Park was 4.7 million, which represented an increase of 93 percent since 1980.

Perhaps because he has played such an active role in addressing many of Banff Park's problems over the last quarter-century, Ian Syme was proud of the way the Mountain Parks have managed their way through these problems. Syme offered that the elk problem in Banff was resolved by reducing their population in the Bow Valley to between 250 and 300. This was done in part through natural predation, through live capture and relocation to other mountain national park areas and where necessary, through culling. Syme was also justifiably proud of how successful the Trans-Canada Highway wildlife mitigation program had become. Carefully collected data indicated that between 1996 and 2006, there had been over 70,000 wildlife passages under and over

the Trans-Canada Highway. Predator use of these pathways was also increasing. In 2005, grizzly bears used the underpasses and overpasses 89 times. Long-term research was now indicating that carnivores such as bears, wolves and cougars need an additional one to two years on average before they use the overpasses.

In part due to this and other management strategies, Syme reported that the grizzly bear population in the mountain parks had stabilized or risen slightly to between fifty and seventy animals. That was the good news. The bad news was that the mountain caribou was in serious trouble throughout its range in both Banff and Jasper National Parks. As far as Syme knew, there were only three left in Banff National Park. Syme's gut feeling was that higher wolf populations associated with artificially high elk populations had resulted in heavier predation on caribou in Banff, but in Jasper the situation was different. It appeared that loss of habitat outside the park combined with various human-use pressures such as forestry and snowmobiling were combining to affect both the range and the food sources of this rare species.

One of Syme's last remarks touched on perhaps the greatest threat presently facing the mountain national parks. Observing that the pine bark beetle had been advancing into Banff National Park, warden service fire specialists modelled "ideal habitats" for these invading pests and proactively used prescribed burns to prevent their advance. Their major achievement was to use the hot dry summer of 2003 to safely burn a large area between Banff and Canmore, to significantly reduce the potential of the pine bark beetle to advance into this highly favourable habitat.

Ian Syme paused before offering his final reflection on his long career in the Mountain Parks. "Yes, there has been a lot of change," he said, "and there is a lot more on the way. But it is still good here – very, very good." With those few words, Syme confirmed that the value of what we saved remains every bit as important as that of what we have built. From the point of view of environmental stability, what we saved might well save us. Syme also said everything that needs to be said about what it was like to commit a lifetime of being shaped by and becoming worthy of place. Life is still good here in these mountains – very, very good. Keeping it that way, however, will require diligence.