



SECURING A
NATIONAL TREASURE

Protecting Canada's
Grizzly Bear



David
Suzuki
Foundation

SECURING A NATIONAL TREASURE:
PROTECTING CANADA'S GRIZZLY BEAR

By Jeff Gailus, M.Sc.

On Behalf of the David Suzuki Foundation

March 2013

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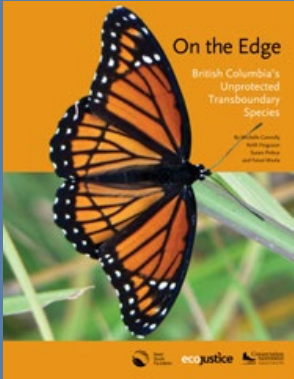
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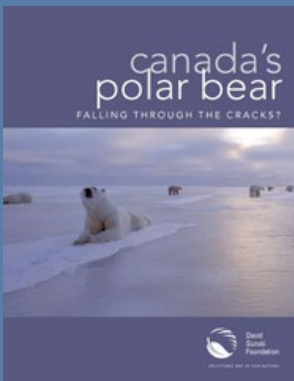
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DISCLAIMER

The content of this study is the responsibility of its author and does not necessarily reflect the views and opinions of those acknowledged.

Every effort to ensure the accuracy of the information contained in this study has been taken, however, the project was limited by the information and data that was available. We welcome suggestions for improvements that can be incorporated into later editions.



Executive Summary

CANADA IS BLESSED WITH VAST forests and abundant wildlife populations. If there is one symbol of Canada's remaining wilderness, it is the grizzly bear (*Ursus arctos*). Once found across most of western and northern North America, grizzly bears now occupy a few small islands of habitat in the lower 48 U.S. states, the western sliver of Alberta, and most of British Columbia, Alaska and the Canadian North. Recent sightings in northeast Manitoba's Wapusk National Park indicate that grizzly bears have returned to the "Spirited Energy" province for the first time in more than a century.

The grizzly bear, where it remains, is an indicator of healthy ecosystems and a flagship species for conservation planning. On the one hand, grizzly bears are slow-reproducing mammals that are sensitive to habitat alteration and mortality risks associated with human activities. On the other, meeting the needs of grizzly bears through responsible, science-based planning, other species — including humans — can be assured that their requirements for healthy forests, abundant food and clean water are also being addressed. As the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) noted in its 2002 assessment of the status of Canada's grizzly bears, "Conservation of the grizzly bear will be proof of our commitment to preserving biodiversity throughout western and northern Canada."¹

While grizzly bears can and do spur fear and controversy, Canadians overwhelmingly recognize the value of this national treasure. Many First Nations cultures recognize the Great Bear as a powerful animal worthy of fear and respect. Where they coexisted, First Nations people commonly worshipped or ritualized the Great Bear, even ascribing human attributes to it. They also occasionally hunted grizzly bears, which were important sources of resources and ritual significance.² This relationship continues today.



If there is one symbol of Canada's remaining wilderness, it is the grizzly bear.

PHOTOS COURTESY BILL BOUTON (TOP) AND PETER MORGAN (BOTTOM)

¹ COSEWIC. 2002. *COSEWIC Assessment and Update Status Report on the Grizzly Bear (Ursus arctos) in Canada*. Committee on the Status of Endangered Wildlife in Canada. Ottawa, ON.

² Ibid.

The cultural power of the grizzly bear also remains. Public attitude surveys indicate that most people feel enriched from seeing bears, or even just knowing they exist,³ so it should come as no surprise that Canadians support the protection of grizzly bears and their habitat.⁴ Countless numbers of us spend our vacations and recreational time exploring the parks and wilderness areas where grizzly bears still thrive, and grizzly bear watching and hunting are activities that inject millions of dollars into the Canadian economy.⁵

Although Canada's overall grizzly bear population is relatively large (approximately 26,000) and stable, research on population estimates and trends, particularly in the Canadian North, is insufficient to draw meaningful conclusions about the health and viability of the grizzly bear in many parts of Canada. Where sufficient research has been conducted, the evidence indicates that numerous subpopulations in southern Canada are at increasing risk of decline and disappearance. Recent occurrences of grizzly bears in northern Manitoba and Saskatchewan have also been confirmed, though neither province has provided legal protection for the few animals that inhabit their northern forests. Despite their presence in Saskatchewan and Manitoba, grizzly bears are still listed as "extirpated" in both provinces.⁶

It is in southwestern Canada where historic grizzly populations are most at risk. After years of delay and debate, the Alberta government finally suspended the sport hunt of grizzly bears and listed the province's declining population as "threatened" in 2010. The province's recovery plan commits to "maintain, at a minimum, current provincial distribution and occupancy levels."⁷ While grizzly bears are blue-listed (i.e. designated as "vulnerable") in British Columbia, nine (of 56) subpopulations in southern British Columbia have been identified as threatened. Like Alberta's recovery strategy, the primary goal of the 1995 *British Columbia Grizzly Bear Conservation Strategy* (GBCS) is to "maintain the diversity and abundance of grizzly bear populations and ecosystems throughout British Columbia."

The federal government of Canada manages grizzly bears and their habitat in national parks. In at least one of them – Banff, Canada's flagship national park – a recent study indicates that the grizzly bear population may be in decline.⁸ The federal government is also responsible for reviewing assessments about the health of the species at the national level, which are conducted by COSEWIC every 10 years. In 2002, and again in 2012, COSEWIC assessed the status of grizzly bears in Canada and designated the species as "special concern." In the process, it has issued a warning of sorts about the future of grizzly bears in southern Canada.

"Bears living in portions of the southern fringe of Canadian distribution are far from secure from the consequences of burgeoning human populations and activities," COSEWIC warned in its 2002 assessment. "The genetic and geographic continuity that currently prevents their identification as distinct population units is at risk... Preventing the slow northward migration of this line depends on active steps to conserve these insular and peninsular populations."⁹

Ten years later, COSEWIC's 2012 re-assessment of the status of grizzly bears in Canada reiterated this concern. "A number of populations in the southern extent of its range in Alberta and southern B.C. are known to be declining," and "their poor condition in some parts of the range, combined with their naturally low reproductive rates and increasing pressures of resource extraction and cumulative impacts in currently intact parts of the range, heighten concern for this species if such pressures are not successfully reversed."¹⁰

3 COSEWIC. 2012. In Press. *COSEWIC Assessment and Status Report on the Grizzly Bear (Ursus arctos) in Canada*. Committee on the Status of Endangered Wildlife in Canada. Ottawa, ON.

4 Gailus, J. 2010. *A Grizzly Challenge: Ensuring a Future for Alberta's Threatened Grizzlies*. Calgary, AB.

5 Parker, Z. and R. Gorter. 2003. *Crossroads: Economics, Policy, and the Future of Grizzly Bears in British Columbia*. Victoria, BC.

6 COSEWIC 2012, *supra* note 3.

7 Alberta Sustainable Resource Development. 2008. *Alberta Grizzly Bear Recovery Plan 2008-2013*. Alberta Sustainable Resource Development, Fish and Wildlife Division. Alberta Species at Risk Recovery Plan No. 15. Edmonton, AB.

8 Sawaya, M. et al. 2012. "Estimating Grizzly and Black Bear Population Abundance and Trend in Banff National Park Using Noninvasive Genetic Sampling." *PLoS ONE* 7(5).

9 COSEWIC 2002, *supra* note 1.

10 COSEWIC 2012, *supra* note 3.



While grizzly bears can and do spur fear and controversy, Canadians overwhelmingly recognize the value of this national treasure. Many First Nations cultures recognize the Great Bear as a powerful animal worthy of fear and respect.

BILL REID CARVING, PHOTO COURTESY PROVINCE OF BC



Neither Alberta nor British Columbia have enacted stand-alone provincial Endangered Species Legislation under which imperilled grizzly bear sub-populations in either province can be legally protected and recovered.

PHOTO COURTESY PROGGIE/FICKR

COSEWIC's recent 2012 assessment indicates that its 2002 warning about the fate and future of Canada's southern grizzly bears was prescient — and that its clarion call to prevent further erosion of our grizzly bear heritage has largely been ignored over the last decade. It is imperative that the federal government recognize the growing risks to Canada's grizzly bear population and list the grizzly bear as a species of "special concern" under the *Species at Risk Act* as recommended by COSEWIC. This will not in itself protect grizzly bears everywhere they live, but it is a start.

Neither Alberta nor British Columbia have enacted stand-alone provincial Endangered Species Legislation under which imperilled grizzly bear sub-populations in either province can be legally protected and recovered. Both provinces have also largely failed to apply other available policies, such as the creation of Grizzly Bear Management Areas. In the absence of provincial action, the federal government should also list the small and increasingly isolated grizzly sub-populations in Alberta and southern B.C. under the safety net provision of the *Species at Risk Act*. Doing so, will provide the impetus for federal and provincial governments to work together to ensure that all of Canada's grizzly bears remain a fundamental part of our natural and cultural heritage in perpetuity.

PART 1

A Sensitive Species of Special Concern



Very few grizzly bears die a natural death, and almost all grizzlies die at the hands of humans.

PHOTOS COURTESY HUTCH/FLICKR (TOP) AND ONCELAURA/FLICKR (BOTTOM)

USING DATA PROVIDED BY provincial and territorial governments and independent scientists, COSEWIC's 2012 assessment indicates that grizzly bear subpopulations in some parts of Canada are in deep trouble. There are approximately 26,000 grizzly bears in Canada, though COSEWIC admits that this estimate is exceedingly rough, and that "no range of precision can be assigned to this number."¹¹ This is because grizzly bear populations are inherently difficult to estimate. Population estimates for most grizzly bear subpopulations are based on models that are not particularly accurate, and only a few grizzly bear populations have been assessed using the more accurate, DNA-based methodologies that recently have been developed.

Nonetheless, the estimate is 26,000, only about 11,500 of which can reasonably be considered "mature breeding adults" capable of reproducing. More than half [16,000] are found in British Columbia and Alberta's mountainous western fringe. The rest, about 10,000, occur in the Canadian North: the Yukon, some of the Northwest Territories, and Nunavut. Recent sightings of a few individual grizzlies have also been confirmed in Northern Saskatchewan and Manitoba as well. COSEWIC concluded, for the second time in 13 years, that Canada's existing grizzly bear population is a species of "special concern," and that numerous subpopulations are at increasing risk of decline and extirpation in the southern parts of its range.¹²

Why? Because the specific biological characteristics of grizzly bears and the increasing amounts of human activity in their habitat puts them at risk almost everywhere they live today. Grizzly bears require large areas to meet their biological needs, particularly finding enough food and other bears to mate, without getting killed by people. They also reproduce very slowly, need to eat voraciously in the few months they are not hibernating and their defensive nature often brings them into direct conflict with humans.

Very few grizzly bears die a natural death, and almost all grizzlies die at the hands of humans. Several studies found that between 85 and 98 per cent of grizzly bear deaths were at the hands of humans.¹³ In

¹¹ COSEWIC 2012, *supra* note 3.

¹² COSEWIC 2012, *supra* note 3.

¹³ COSEWIC 2002, *supra* note 1.

southern B.C. and Alberta, many grizzly bears are killed each year by vehicles and trains. The greatest relative risk of dying by accidental collision occurs where human densities are highest, and where both grizzly bear habitat and human transportation corridors are concentrated in mountain valleys.¹⁴

Poaching contributes significantly to human-caused grizzly bear mortality, especially during the fall hunting season. Scientific studies indicate that in areas with lots of roads and high human density, such as western Alberta and southern B.C., unreported kills account for 34 to 51 per cent of all mortalities, which means that human-caused grizzly bear mortality may be twice as high as those that are documented in government reporting systems.¹⁵

Research in B.C., Alberta and the United States indicates that habitat alteration and road building by resource-extraction industries (including forestry, mining and oil and gas), agriculture and residential development results in habitat alienation and declining grizzly bear numbers.¹⁶ Grizzly bears tend to avoid roads and motorized access routes, displacing grizzly bears from high-quality habitat and potentially impacting their ability to meet their individual resource requirements.¹⁷ The increased human access to grizzly bear habitat that roads allow also leads to increased mortality from poaching, self-defence kills, hunters mistakenly shooting grizzlies instead of black bears and wildlife-vehicle collisions.¹⁸ In particular, female grizzly bear survivability and productivity decreased as road densities increased.¹⁹ In addition, grizzly bear mortality can be caused by the relocation or destruction of so-called “problem” bears resulting from negative human-bear interactions.²⁰ This often occurs where ranches and farms are located in grizzly bear habitat, as in southwest Alberta. Grizzly bears are lured into these areas by the promise of easily accessible food – stored grain and livestock carcasses – in the fall, when bears are especially focused on fattening up for winter hibernation.

The expansion of industrial, residential and recreational development — and the roads that allow more people to access once-wild grizzly bear habitat — fragments habitat and grizzly bear populations, and often results in mortality rates that this slow-reproducing mammal simply cannot endure. Mining and hydrocarbon extraction in particular “are a major concern for grizzly bear conservation.”²¹ Mining claims, exploration and development activities are escalating in most northern grizzly bear range. For example, exploration activity measured in levels of expenditure and metres drilled in northwest British Columbia reached record levels in 2011, with similar trends elsewhere in the province. As a result, resource-based economies have a detrimental impact on grizzly bear habitat and “exert considerable pressure against the need to preserve” the habitat on which grizzly bears depend, especially small, isolated populations in Alberta and southern B.C.²² According to COSEWIC, the construction of the Northern Gateway pipeline is a cause for additional concern, because the proposed route cuts directly through previously undisturbed grizzly bear habitat that supports medium- to high-density populations.

In areas of high human density, residential development is perhaps most disruptive to grizzly bear habitat. These subdivisions are accompanied by sustained human presence, expanding road networks, and increased conflicts between humans and grizzlies.²³ In such areas, grizzly bears are often attracted to road sides, which results in increased mortalities as a result of collisions, poaching and the killing of so-called “problem” bears.



The expansion of industrial, residential and recreational development — and the roads that allow more people to access once-wild grizzly bear habitat — fragments habitat and grizzly bear populations, and often results in mortality rates that this slow-reproducing mammal simply cannot endure.

PHOTO COURTESY GLEN ALEXON

14 COSEWIC 2012, *supra* note 3.

15 *Ibid.*

16 COSEWIC 2002, *supra* note 1.

17 Alberta Sustainable Resource Development and Alberta Conservation Association. 2010. *Status of the Grizzly Bear (Ursus Arctos) in Alberta: Update 2010*. Wildlife Status Report No. 37 (Update 2010). Edmonton, AB.

18 Alberta Sustainable Resource Development and Alberta Conservation Association 2010, *supra* note 17; COSEWIC 2002, *supra* note 1.

19 Boulanger, J. 2005. Demography of Foothills Model Forest Grizzly Bears: 1999-2003. In, Foothills Model Forest grizzly bear research program, 1999-2003 final report. Eds. G. Stenhouse, and K. Graham. Foothills Model Forest. Hinton Alberta.

20 Alberta Sustainable Resource Development and Alberta Conservation Association 2010, *supra* note 17; COSEWIC 2002, *supra* note 1.

21 COSEWIC 2012, *supra* note 3.

22 COSEWIC 2012, *supra* note 3.

23 COSEWIC 2012, *supra* note 3.



Shrinking at the Margins

Recent research indicates that things have not improved, and in some cases gotten significantly worse, for grizzly bears in Alberta and southern British Columbia.

COSEWIC'S ESTIMATE INDICATES there are roughly the same number of grizzly bears in Canada today as in 2002. However, this coarse estimate for the entirety of Canada's grizzly population is not particularly accurate, because the intensive and expensive research needed to make accurate estimates has not been conducted in most grizzly bear range in Canada.²⁴ Indeed, recent research indicates that things have not improved, and in some cases gotten significantly worse, for grizzly bears in Alberta and southern British Columbia.

What we do know is that the historic contraction and fragmentation of grizzly bear populations in southern Canada is much worse than COSEWIC realized in the past. In 2002, COSEWIC acknowledged there were as many as eight "population isolates" in southern British Columbia, but recent research suggests that there are now as many as 16 isolated and/or increasingly fragmented subpopulations in both Alberta and B.C. — at least one of which has disappeared altogether.²⁵

Unless land-use management priorities change, and recovery plans are developed and implemented in B.C. and Alberta, the rest of these small, isolated populations will continue to decline and eventually disappear.

²⁴ COSEWIC 2012, *supra* note 3.

²⁵ Apps, C. et al. 2009. *Grizzly Bear Population Abundance, Distribution, and Connectivity Across British Columbia's Southern Coastal Ranges*. Version 1.0. Aspen Wildlife Research and Ministry of Environment, Victoria, BC.

THE ALBERTA DISADVANTAGE

It has become clear that COSEWIC's apprehension in 2002 about the methodologies used to estimate grizzly bear numbers and distribution was warranted. Perhaps the best example of this is from Alberta. In 2002, an Alberta government biologist claimed that the Alberta grizzly bear population spread over a 230,000 sq. km. area and had increased from approximately 700 to approximately 1,000 individuals in just over a decade (1991-2002). COSEWIC noted in its 2002 assessment that such a large population increase in a landscape that was so heavily developed was likely "optimistic." This suspicion was borne out three years later when an independent review found that the methodology used by the Alberta government involved "questionable practices" that "are not scientifically defensible," and which led to predictions that were "not biologically possible."²⁶

Since then, the Alberta government has invested more than \$3 million in a new population inventory based on the best-available methodologies. Although government officials hoped the new estimate would confirm their claim of a growing population, the results indicated the opposite. Researchers found just 760 grizzly bears in a population that is very likely declining.²⁷ They also found that the preponderance of residential, recreational, agricultural and industrial activity (oil and gas and forestry) across much of southern and eastern Alberta had reduced the distribution of grizzly bears to approximately 112,000 sq. km. on the western edge of the province — half the area previously thought.

The research also determined that Alberta's grizzly bear population, which COSEWIC assumed in 2002 was well-connected to the larger "northwest population," was becoming increasingly fragmented into several small and isolated subpopulations, just like those in southern B.C.²⁸ Recent genetic analysis indicates Alberta's grizzly bears are being fragmented into seven smaller grizzly bear subpopulations. Major highways and the associated development along their flanks, in concert with the rugged peaks and large icefields along certain portions of the Continental Divide, have been responsible for this increasing fragmentation.²⁹ Not surprisingly, most grizzly bears were found in the less developed, less roaded areas on the edges of Alberta's parks and protected areas; few bears were found on the more heavily developed areas on the eastern edge of grizzly bear range.

While three of these subpopulations are either big enough on their own (Grande Cache), or are part of larger subpopulations shared with neighboring jurisdictions (Waterton-Castle and Livingstone), all seven are listed as threatened by the Alberta government, and all but one contain fewer than 100 grizzly bears. History has shown that grizzly bear populations of fewer than 250 individuals are prone to decline and can rapidly reach a critically low threshold of 40-125 individuals.³⁰ Without dramatic intervention, populations of 40-125 bears are vulnerable to extinction.³¹

The most at-risk subpopulations appear to be those located in the Alberta North, Yellowhead, Clearwater, and Swan Hills Grizzly Bear Population Units (GBPUs). Each contains fewer than 100 grizzly bears, and all are increasingly isolated from each other and subpopulations in neighboring British Columbia. All of them also experience human-caused mortality rates that are unsustainably high. The Swan Hills subpopulation,



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26 Stenhouse et al. 2005. *Amended Report on Alberta Grizzly Bear Assessment of Allocation*. Edmonton, AB: Alberta Fish and Wildlife Division.

27 Gailus 2010, *supra* note 4; Alberta Sustainable Resource Development and Alberta Conservation Association 2010, *supra* note 17.

28 Alberta Sustainable Resource Development and Alberta Conservation Association 2010, *supra* note 17.

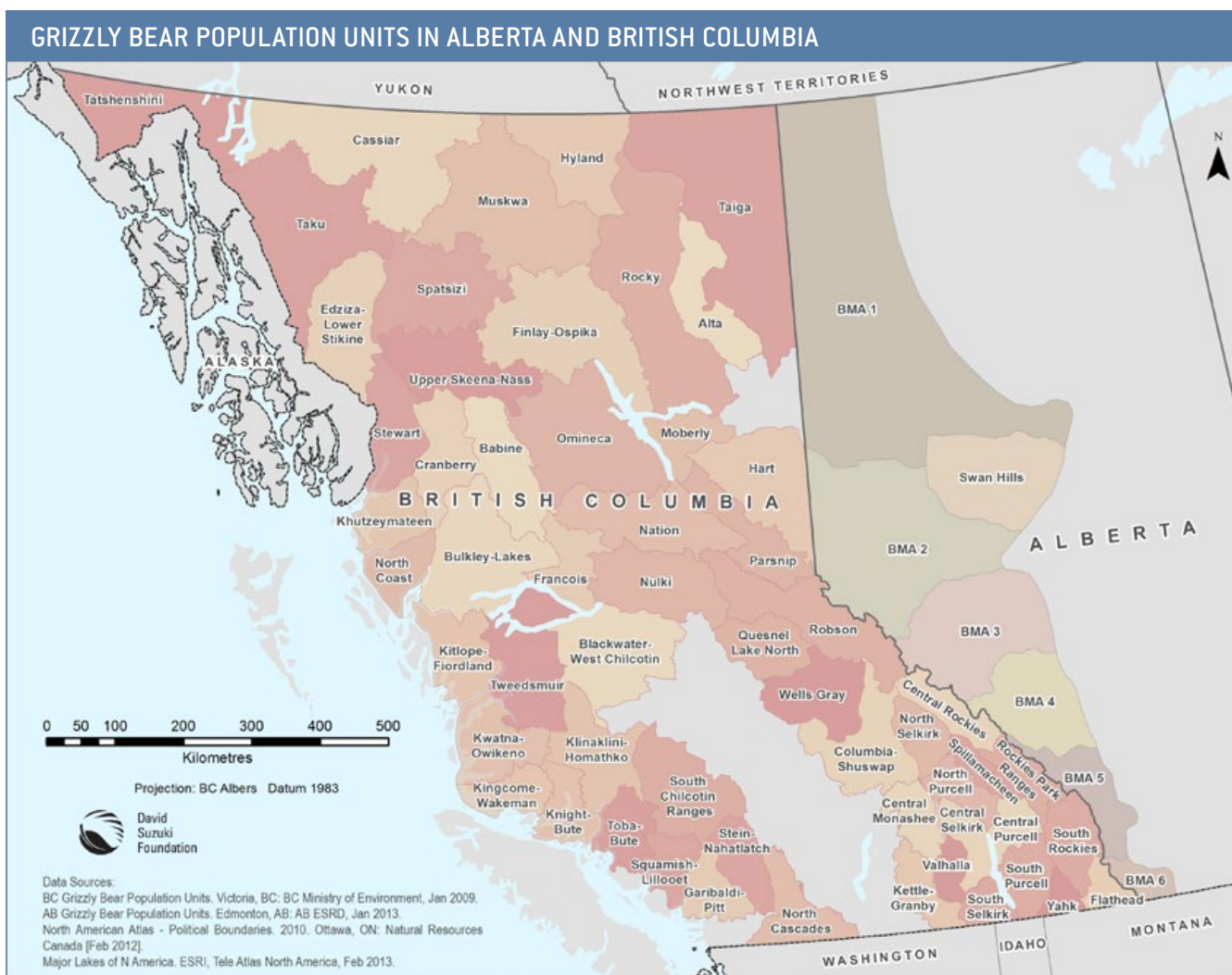
29 *Ibid.*

30 Mattson, D. J., & M. M. Reid. 1991. "Conservation of the Yellowstone Grizzly Bear." *Conservation Biology* 5:364-372; Wielgus, R. B. 2002. "Minimum Viable Population and Reserve Sizes for Naturally Regulated Grizzly Bears in British Columbia." *Biological Conservation* 106: 381-388.

31 COSEWIC 2012, *supra* note 3.

for instance, is perhaps one of the most threatened subpopulations on the continent. It is small (just 23 individuals), now completely isolated, and sustains mortality rates *four to five times* higher than mortality rates necessary to recover small, threatened populations.³²

Given the amount of mortality and additional industrial activity planned for these areas in the coming decades, these populations are at risk of continued decline and possible disappearance. For instance, one study found that the amount of additional logging activity and the increased number of roads that will accompany it will likely result in significant population decline in the Yellowhead subpopulation over the next 50 years. If these industrial forestry plans are implemented, grizzly bears will only be able to survive in and just outside Jasper National Park.³³ Significant development — including forestry, oil and gas extraction, and carbon capture and storage — is also planned for the Swan Hills. Unless these plans are abolished and serious recovery efforts are begun, including road closures and population augmentation, the Swan Hills subpopulation is at extremely high risk of disappearing forever in the coming decades.



32 Gailus 2010, *supra* note 4.

33 Nielsen, S.E. 2005. "Habitat Ecology, Conservation and Projected Population Viability of Grizzly Bears (*Ursus arctos* L.) in West-central Alberta, Canada." Ph.D thesis, Edmonton, AB: University of Alberta.



NOT SO BEAUTIFUL BRITISH COLUMBIA

Although British Columbia is blessed with an estimated 16,000 grizzly bears, recent research indicates that grizzly bears in southern B.C. are at significant risk of extirpation.

The B.C. government has split the province into 56 Grizzly Bear Population Units (GBPUs) that cover 90 per cent of the grizzly's historic range in British Columbia.³⁴ Most of these units (especially in the north) support healthy, intact subpopulations of grizzly bears that help to maintain ecological health and provide residents and visitors alike with hunting, sightseeing and other recreational opportunities. However, grizzly bears have already been eliminated from large portions of the Lower Mainland, the Peace River area around Fort St. John, and parts of the Cariboo and Thompson-Okanagan regions in the south-central part of the province. It would appear this process of extirpation is continuing.

Nine of these GBPUs, all of which occur in southern British Columbia, have been designated by the B.C. government as “threatened.” Despite adopting a grizzly bear conservation strategy in 1995 and making repeated commitments to recover these “threatened” population units to “viable” status, the B.C. government has done little to achieve these objectives over the last 18 years.

In 2002, COSEWIC placed a great deal of emphasis on the small South Selkirk GBPU, which was then thought to be the most isolated population unit in Canada. Isolated for approximately 60 years by highways and associated development, this subpopulation was estimated at just 97 grizzly bears in 2002, which prompted COSEWIC to conclude it was at significant risk of extirpation. Today, the population estimate for the South Selkirk GBPU is just 58 bears. Although there is some evidence that female grizzly bears are reconnecting to surrounding subpopulations, and that the population is slowly beginning to increase, there is still considerable risk of long-term decline in the South Selkirks if habitat security and habitat protection are not improved.

³⁴ There used to be 57. In 2012, the Central Purcell and South Purcell GBPUs were amalgamated into one unit, now called the Central Purcell GBPU, decreasing the total number of GBPUs to 56. To ensure consistency, we use 56 GBPUs throughout this report.

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PHOTO COURTESY LINDSAY ROBINSON

In B.C.'s nearby Yahk GBPU, an estimated 20 to 25 grizzly bears eke out an existence in a very developed landscape that has resulted in unsustainable mortality rates more than twice the sustainable threshold. Despite an increasing population from 1983 to 1998,³⁵ excessive human-caused mortality in recent years has likely resulted in an overall population decline.³⁶

Perhaps the most shocking revelation came in 2009, when researcher Clayton Apps discovered that grizzly bears in the southern Coast Mountains had been fragmented into several small, isolated subpopulations. One of these small population isolates, known as the McGillivray group, is located in the southern portion of the South Chilcotin GBPU, just south of Carpenter Lake. At just 53 animals, it is the most genetically isolated grizzly bear subpopulation in North America. Genetic analysis indicates this subpopulation was reduced to a very small number of bears approximately 100 years ago, and has been genetically drifting away from the variation found in the larger regional population.³⁷

Just south of the McGillivray Group is the Stein-Nahatlatch GBPU centered on Stein Provincial Park. Up until 2008, this population unit was thought to contain approximately 61 grizzly bears, but Apps' research found just 23 grizzly bears. Like the McGillivray group, the Stein population is extremely isolated, exhibiting extreme genetic distance from all other groups. There is some evidence that at least one adult male from the Stein-Nahatlatch GBPU has crossed into the McGillivray Group and mated with a female there. While this is good news, connectivity between these and other GBPUs in the South Coast Ranges is still very low.

Clayton Apps also found that B.C.'s Garibaldi-Pitt subpopulation had already suffered the fate predicted by COSEWIC in 2002 for such small population isolates — it had totally disappeared. Located just north of Vancouver, the Garibaldi-Pitt GBPU was thought to contain a small population of 18 grizzly bears. But when Apps surveyed the southern Coast Mountains using the same methodology used in Alberta, he couldn't find a single grizzly bear in the Garibaldi-Pitt.

"Our results strongly suggest that any previously resident population has been extirpated," he wrote. "The likelihood [this population unit] supports any sustained resident grizzly bear population is extremely low."³⁸ Although a single grizzly bear was photographed in this GBPU, this subpopulation is still functionally extinct. The extirpation of grizzlies here is likely due to a combination of factors including isolation of a small number of bears, known extirpations in some or all portions of adjacent units, low ungulate densities, few salmon spawning streams, and the high levels of mortality associated with a variety of human activities, including recreation, commercial tourism, and extensive logging.

Research conducted over the last 10 years makes it clear that the fragmentation and isolation of grizzly bears continues in southern Canada, and the historical pattern of grizzly bear extirpation seen in Europe and the contiguous United States continues in Canada. Government indifference and lack of action have allowed unsustainable levels of human activities to push Canada's southern grizzly bear subpopulations toward extinction.

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35 Wakkinen, W. L. and W. F. Kasworm. 2004. "Demographics and Population Trends of Grizzly Bears in the Cabinet-Yaak and Selkirk Ecosystems of British Columbia, Idaho, Montana, and Washington". *Ursus* 15(1): 65-75.

36 Kasworm, W. et al. 2009. *Cabinet-Yaak Grizzly Bear Recovery Area 2008 Research and Monitoring Progress Report*. U.S. Fish and Wildlife Service, Missoula, MT.

37 Apps et al. 2009, *supra* note 25.

38 *Ibid.*



A Global Challenge

CANADA'S EXPERIENCE reflects the challenges grizzly bears have faced over the last several centuries wherever they live. While grizzly bears (also known as brown bears) are still found in Canada, the United States, Russia, China and at least 40 other Eurasian countries,³⁹ the brown bear has lost an estimated 50 per cent of its global range and abundance since the mid-1800s.⁴⁰

Despite this trend, the Russian Far East and 22 European countries still harbour some 50,000 brown bears belonging to 10 different populations. Four of these populations are larger than 1,000 animals; the largest, the northeastern population in Estonia, Latvia, European Russia, Finland, and northern Norway, boasts 37,000 bears. The Scandinavian population in Sweden and south-central Norway is about 2,500 bears. However, several of these remnant subpopulations are as small or smaller than the isolated populations in southern Canada. Italy has two such subpopulations, one in the Central Appennines (50-70 bears) and one in the Southern Alps (10 bears). There are also two discrete subpopulations in the Pyrenees (20-25 bears) on the French-Spanish border, and two in Spain's Cantabrian Mountains (85-90 bears total).⁴¹

Europe's brown bears face the same problems as North America's grizzly bears: loss and fragmentation of habitat; conflicts with people, particularly farmers and livestock producers; and excessive rates of human-caused mortality. Despite improvements in these areas and considerable recovery efforts, many of these very small subpopulations are at very high risk of extinction. The dearth of breeding age females and the limited habitat available to them means they are likely doomed to disappear in the coming decades, if not years.

Despite these challenges, some European recovery efforts have been extraordinarily successful. The Scandinavian population, for instance, has rebounded from a low of 130 animals in the 1930s to approximately

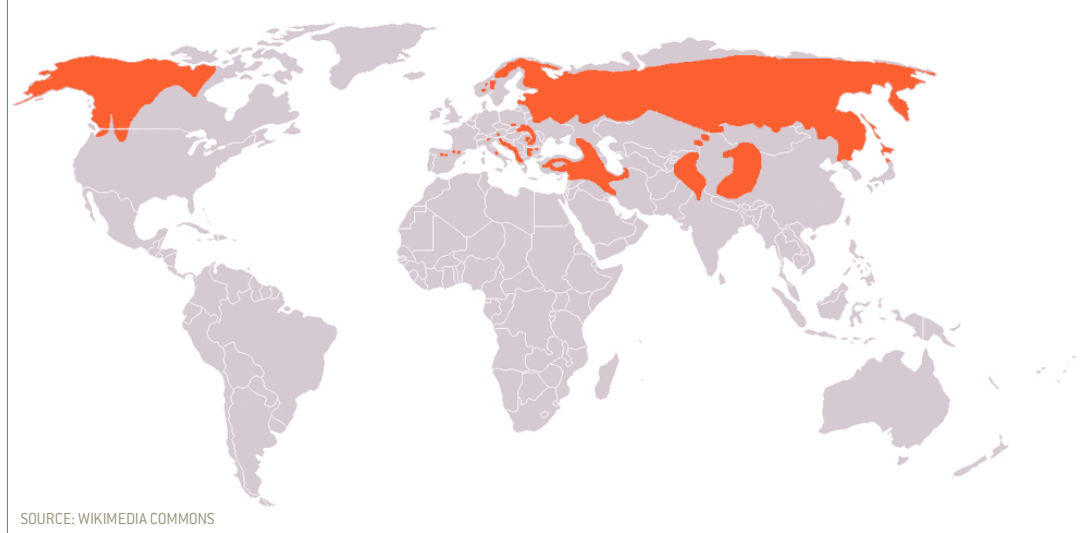
While grizzly bears (also known as brown bears) are still found in Canada, the United States, Russia, China and at least 40 other Eurasian countries, the brown bear has lost an estimated 50 per cent of its global range and abundance since the mid-1800s.

39 Servheen, C., S. Herrero, and B. Peyton, compilers. 1999. Bears. Status survey and conservation action plan. IUCN/SSC Bear and Polar Bear Specialist Groups. IUCN, Gland, Switzerland and Cambridge, UK.

40 Servheen, C. 1990. *The Status and Conservation of the Bears of the World*. International Conference on Bear Research and Management, Monograph Series No. 2.

41 Linnell, J. et al. 202. European Brown Bear Compendium. Safari Club International.

GLOBAL DISTRIBUTION OF *URSUS ARCTOS*



Europe's brown bears face the same problems as North America's grizzly bears: loss and fragmentation of habitat; conflicts with people, particularly farmers and livestock producers; and excessive rates of human-caused mortality.

PHOTO COURTESY
WSPA INTERNATIONAL

2,500 animals occupying Sweden and Norway today. While several small subpopulations that were still extant in Scandinavia in the early-20th century did go extinct, small pockets of bears survived in the mountains of southwest Sweden, which eventually recolonized the northern two-thirds of Sweden and are now moving back into Norway. This has been achieved by enforcing hunting bans, protecting bears on public land and outlawing the possession of bear parts. Now, with an annual rate of increase of between 10 and 15 per cent, this population is considered to be one of the most productive in the world.⁴²

The most useful comparison to the Canadian situation is with our southern neighbours. The United States, at least where grizzly bears remain in the lower 48 states today, is very similar to Canada in terms of geography, ecology and culture. Over the last 30 years, while Canada's southern subpopulations have gotten worse, the United States has been very successful at increasing the number of grizzly bears in two of its five threatened grizzly bear subpopulations.

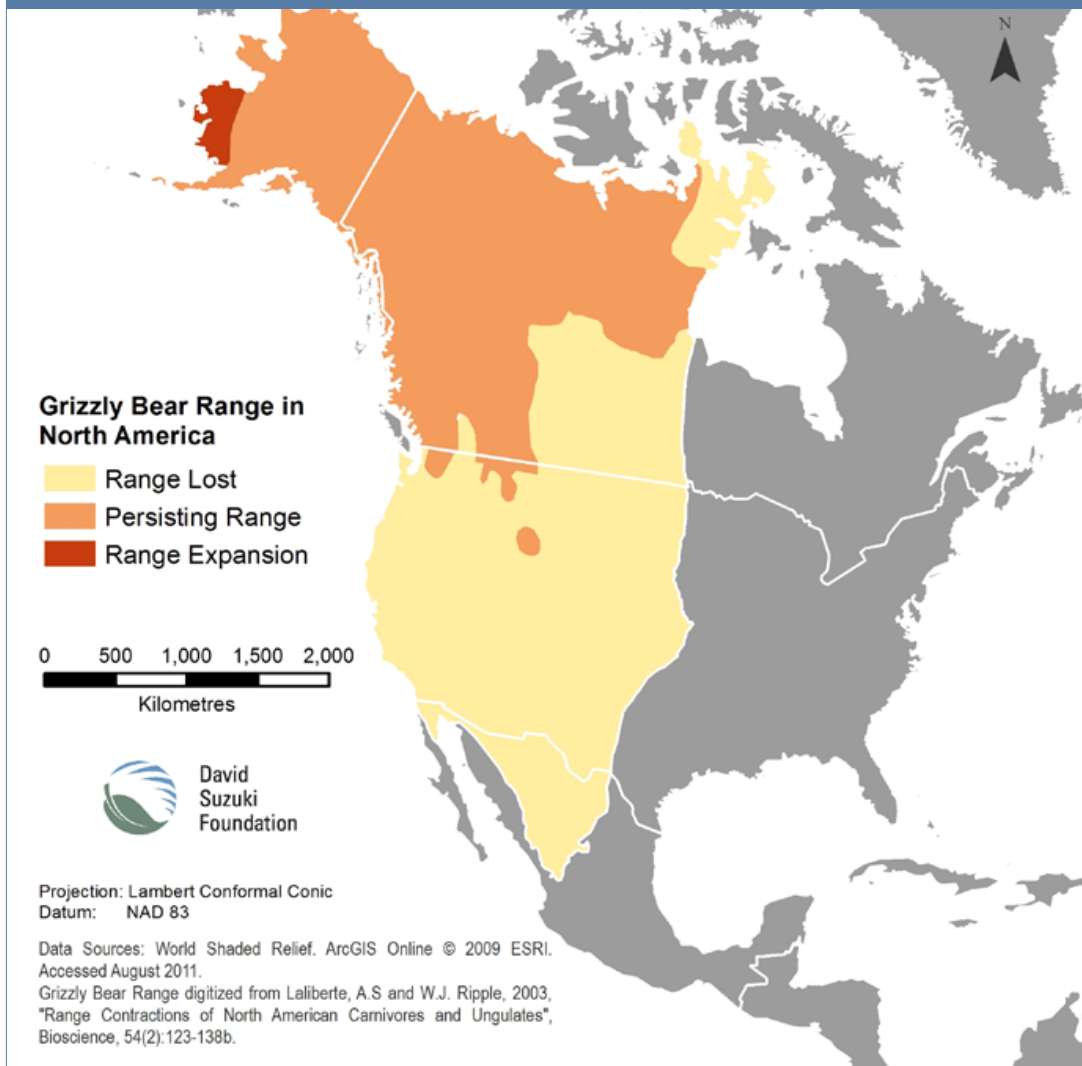
The United States government listed the grizzly bear in the lower 48 states as a threatened species under the Endangered Species Act in 1975. At that time, there were thought to be fewer than a 1,000 grizzly bears in five remnant subpopulations in mountainous regions, national parks and wilderness areas in Washington, Idaho, Montana and Wyoming. Grizzly bears were also known to have existed in the recent past in two additional areas, the Bitterroot Mountains in Idaho and the San Juan Mountains in Colorado.⁴³

With Yellowstone National Park at its core, the Greater Yellowstone Ecosystem (GYE) enjoys the highest profile of all grizzly bear populations in the lower 48 states. The GYE was thought to contain a mere 200 animals when the grizzly bear was listed as threatened in 1975. The Northern Continental Divide (NCDE) population in northwest Montana, which includes Glacier National Park, the Bob Marshall and Scapegoat wilderness area, and portions of southeast B.C. and southwest Montana, held a minimum of 300 bears. To the west, the Cabinet-Yahk subpopulation straddled the mountains of northeastern Idaho, northwestern Montana and southern B.C. At the time of listing, the number of bears was thought to be just 15. The Selkirk subpopulation, which eked out an existence in the Selkirk Mountains of northeastern Washington, northwestern Idaho, and southern B.C., had just 30. The North Cascades subpopulation, which also spanned the Canada-U.S. border, had even less, just a few left to roam the Cascade Mountains as a kind of ghost population.

42 Svenson et al. 1995. "The Near Extinction and Recovery of Brown Bears in Scandinavia in Relation to the Bear Management Policies of Norway and Sweden." *Wildlife Biology* 1: 1-25.

43 U.S. Fish and Wildlife Service. 1993. *Grizzly Bear Recovery Plan*. Missoula, MT.

NORTH AMERICAN DISTRIBUTION OF *URSUS ARCTOS*



In the U.S, tens of thousands of square kilometres of habitat were protected from further industrial development, thousands of kilometres of roads were closed or decommissioned, and government agencies worked with hunters, ranchers, landowners and Native American tribes to reduce conflicts with grizzly bears and reverse the trend of unsustainable rates of grizzly mortality.

Compelled by the *Endangered Species Act*, the U.S. Fish and Wildlife Service (USFWS) and state agencies began to protect grizzly bears and the habitat on which their future depended. In 1985, federal and state agencies cooperated in the development of the Interagency Grizzly Bear Management Guidelines, which detailed protocol for nuisance bear management and provided grizzly bear habitat management policies. In 1993, a full-blown recovery plan was developed. Since then, tens of millions of dollars have been invested in the recovery of these isolated and highly threatened subpopulations. Tens of thousands of square kilometres of habitat were protected from further industrial development, thousands of kilometres of roads were closed or decommissioned, and government agencies worked with hunters, ranchers, landowners and Native American tribes to reduce conflicts with grizzly bears and reverse the trend of unsustainable rates of grizzly mortality.

It was not easy; acrimony grew. When restrictions on motorized vehicle use came into force in the early 1990s, some ATV users refused to obey the new rules. They cut locks off gates and exercised their perceived right to use the roads and trails they had always used. In response, the U.S. government sent in law enforcement officials to lay charges and hand out fines.

Although acrimonious, the process worked to begin the long recovery of grizzly bears in areas they had not been seen in a century. While Canada dithered, the Yellowstone grizzly bear population, now 600 strong⁴⁴ and

44 www.nrmssc.usgs.gov/files/norock/products/IGBST/2009report.pdf

increasing at a rate of approximately three to five per cent per year,⁴⁵ is in the process of being removed from the protection of the U.S. *Endangered Species Act*. Not surprisingly, 20 years of research in the Yellowstone recovery area found that levels of human development was the best indicator of whether adult grizzly bears (two years and older) survived. Survival improved as secure habitat and elevation increased but declined as road density, number of homes and site developments increased. Bears living in areas open to fall ungulate hunting suffered higher rates of mortality than bears living in areas closed to hunting. Roads and developed sites were the most significant hazards to grizzly bear survival.⁴⁶

The Northern Continental Divide (NCDE) population centred on Glacier National Park appears to be following the success achieved in Yellowstone. Recent research found more than 750 individuals in a 33,480 sq. km. in the U.S. NCDE, up from just 300 35 years ago. Despite the fact that an average of 20 bears die at the hands of humans each year, the population appears to be increasing at an annual rate of three per cent.⁴⁷ This population has rebounded with such vigour that grizzly bears are now found as far east as Fort Benton, recolonizing parts of the Great Plains where they haven't been seen in 125 years. While there are occasional conflicts between grizzly bears and the people who live and work in the area, local support is widespread and strong. Once the Yellowstone subpopulation has formally been delisted, the USFWS will likely petition to have the NCDE subpopulation delisted as well.

Not surprisingly, 20 years of research in the Yellowstone recovery area found that levels of human development was the best indicator of whether adult grizzly bears (two years and older) survived.

PHOTO COURTESY DEZZOUL/FLICKR



INTERNATIONAL PROBLEMS REQUIRE INTERNATIONAL SOLUTIONS

Now that the Yellowstone and NCDE subpopulations are well on their way to recovery and delisting, the USFWS has increased efforts to recover the smaller and more threatened subpopulations that straddle the B.C.-U.S. border to the west. It is unlikely that the United States can recover these populations on its own, and will require the assistance and commitment of Canadian governments.

Unlike Yellowstone and the NCDE, these subpopulations — the Selkirk, Cabinet-Yaak, and North Cascades — are much smaller, and there is much less habitat available. Only 20 grizzlies eke out an existence in the Selkirk Mountains in Washington and Idaho. Because this subpopulation and the recovery zone it occupies are so small, it will likely never be big enough to be considered “recovered.” However, it is connected to another 58 bears in the South Selkirk GBPU on the B.C. side of the border. Unfortunately, mortality rates for the South Selkirk GBPU in B.C. have been unsustainably high as recently as 2005.⁴⁸ Effectively implementing recovery efforts on both sides of the border is likely the only way to ensure that grizzly bears in the Selkirk Mountains in both Canada and the United States will be able to survive over the long term.

The U.S. Cabinet-Yaak subpopulation is also part of a larger, but still highly threatened transboundary subpopulation that crosses into B.C. This subpopulation is even smaller than the Selkirk subpopulation — a total of just 40-50 bears exist here, roughly half of which live in B.C., while the other half live in Montana and Idaho. Efforts to reduce road densities have increased the amount of secure core habitat on the U.S. side of the border to 55 per cent, but the absence of such efforts on the Canadian side of the border has resulted in exceptionally high road densities (2.3 km/sq. km) and much less secure core habitat (just 16 per cent), which “may be one of the reasons that after four years of effort in the Yahk GBPU, we have captured or DNA-sampled

45 Eberhardt L. L. and J. M. Breiwick. 2010. “Trend of the Yellowstone Grizzly Bear Population.” *International Journal of Ecology*, Volume 2010.

46 www.nrmssc.usgs.gov/files/norock/products/10_Schwartz_JWM.pdf

47 www.igbconline.org/Notes_on_Fall_NCDE_Meeting.pdf

48 Proctor, M. et al. 2005. “Genetic Analysis Reveals Demographic Fragmentation of Grizzly Bears Yielding Vulnerably Small Populations.” *Proceedings of the Royal Society*, London B 272:2409–2416.

very few female grizzly bears.”⁴⁹ Human-caused mortality rates on the Canadian side of the border have been as high as six to eight per cent per year, a rate that is “certainly not consistent with population increases necessary for ‘recovery’.”⁵⁰ Despite efforts on the U.S. side of the border to improve habitat security and reduce human-caused mortality, the population has not begun to recover, in part because the Canadian portion of the population unit is something of a mortality sink. “Success will likely depend on similar access management strategies being implemented in the Canadian part of this ecosystem.”⁵¹

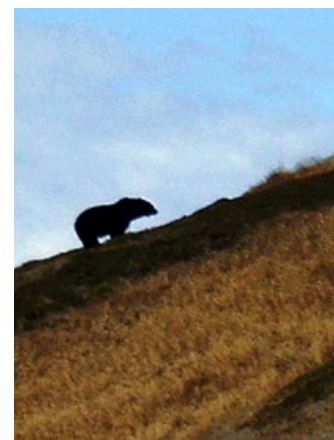
Another small, isolated subpopulation hangs on in the North Cascade Mountains in northwest Washington and southwest B.C. How many bears remain in this transboundary North Cascades subpopulation is unknown, and information about the degree of genetic isolation of this population is absent because of the paucity of hair or scat samples. The most current estimate suggested fewer than 25 animals survive in B.C.,⁵² but this estimate is based on a method that has resulted in overestimates in several other GBPUs in B.C. More recent efforts to detect grizzly bears in the North Cascades largely have been unsuccessful; the fact there has been no human-caused mortality recorded in this GGPU for the last seven years should be a red light that the grizzly bear population is smaller than originally thought.

Expert opinion suggests the population in the U.S. portion of the North Cascades is believed to be between five and 20 bears. Recent efforts to detect bears using DNA extracted from barbed-wire hair snags have been largely unsuccessful. Given the fact recent research determined that the Garibaldi-Pitt GGPU has been extirpated under similar circumstances, it is possible that the current estimate (five-45) for the transboundary North Cascades subpopulation may be too high. A photograph of a single bear that looked like a grizzly was taken recently, and experts have confirmed the presence of at least one grizzly in the U.S. North Cascades.

Whatever the actual number, the small size and isolation of the North Cascades grizzly bear population is at significant risk of eventual extirpation in the absence of active recovery efforts. According to B.C.’s 2003 *North Cascades Grizzly Bear Recovery Plan*, “If the needs of grizzly bears are not incorporated into planning for the area to a greater degree, these impacts could significantly reduce or foreclose the potential for the population to recover.”

In 1997, the U.S. Fish and Wildlife Service established a recovery plan for North Cascades grizzlies. It found that the North Cascades ecosystem has sufficient quantity and quality of habitat to support a self-sustaining population of grizzly bears, though recovery will require the addition of a small number of bears from a more robust population into the North Cascades. The plan, which requires a federally funded Environmental Impact Statement be conducted, has yet to be implemented. However, recovery efforts on the U.S. side of the border appear to be ramping up. Habitat analyses are being conducted, and remote field cameras and DNA hair snag stations have been set up. Current recovery efforts focus on habitat protection through a strategy of “no net loss” of core habitat, information and education efforts regarding grizzly bears and their habitat, and enhanced sanitation for proper garbage and food storage in bear habitat. Given the small size of this population, augmentation with bears from other areas may be the only way to recover this population.⁵³

B.C. developed a recovery plan for the North Cascade GGPU in 2003, but it was never implemented. Recovery plan components include access management, prevention of internal fracture zones, restoration of linkages to external population units and population augmentation. The goal of the recovery plan is to restore the North Cascades grizzly bear population unit to viable status, which would require the estimated population to increase to approximately 150 grizzly bears. Recovery, then, would take approximately 50 years.⁵⁴



A small, isolated subpopulation hangs on in the North Cascade Mountains in northwest Washington and southwest B.C. How many bears remain in this transboundary North Cascades subpopulation is unknown.

PHOTO COURTESY NORTH CASCADDES NATIONAL PARK

49 Proctor et al. 2008. *Habitat Security for Grizzly Bears in the Yahk Grizzly Bear Population Unit of the South Purcell Mts. of Southeast British Columbia*. Kaslo, BC: Transborder Grizzly Bear Project.

50 Proctor, M. et al. 2005, *supra* note 48.

51 Proctor et al. 2008, *supra* note 49.

52 North Cascades Grizzly Bear Recovery Team. 2003. *Recovery plan for grizzly bears in the North Cascades of British Columbia*. Victoria, BC: Ministry of Water, Land and Air Protection.

53 www.fws.gov/mountain-prairie/species/mammals/grizzly/cascades.htm

54 North Cascades Grizzly Bear Recovery Team 2003, *supra* note 52.



Falling Through the Cracks

The evidence suggests that things are not improving – and, in some cases, is getting worse rather than better – for the small, fragmented and highly threatened subpopulations in western Alberta and southern B.C.

PHOTO COURTESY RAY MORRIS

ALTHOUGH MANY CRITICS SUGGEST that grizzly bear recovery in the United States has been too slow and is incomplete, there is little doubt that progress has been made. Grizzly bear populations in Yellowstone and the Northern Continental Divide ecosystems have tripled over the last 30 years, there is significant public support and tolerance for grizzly bears in these areas, and efforts to improve habitat conditions and population size in the Cabinet-Yaak, Selkirk and North Cascade population units are beginning to intensify.

Meanwhile, in Canada, the evidence suggests that things are not improving – and, in some cases, is getting worse rather than better – for the small, fragmented and highly threatened subpopulations in western Alberta and southern B.C. There are numerous reasons for the lack of progress on the Canadian side of the border, including lack of political will, but perhaps the most significant one is the absence of strong legislation to protect species at risk in Alberta and British Columbia. Neither Alberta nor British Columbia have endangered species legislation, and the federal *Species at Risk Act* has proven to be ineffective at protecting many threatened or endangered species even on federal lands. A recent report from Ecojustice, which evaluated the effectiveness of Canada's endangered species legislation, gave the federal government a grade of C-, largely because it routinely fails to follow its own law. Both Alberta and B.C. received an F.⁵⁵ The federal government also refuses to use the *Species at Risk Act's* safety net provision to protect species at risk (and the habitat on which they depend) on provincial lands when provincial governments refuse to do so.

The foundation of success in the United States is the federal *Endangered Species Act*, which not only allows but *obligates* federal and state governments to use the best-available science to recover threatened and endangered species, no matter how unpopular the implications of recovery may be with certain special interests.⁵⁶ While many recovery efforts in the U.S. have been hampered by budgetary constraints and

⁵⁵ Ecojustice. 2012. *Failure to Protect: Grading Canada's Species at Risk Laws*. www.ecojustice.ca/publications/reports/failure-to-protect-grading-canada2019s-species-at-risk-laws/attachment

⁵⁶ Gailus 2010, *supra* 4.

politicization, there is no doubt that grizzly bears have benefited from the obligatory nature of the *Endangered Species Act* and the much stronger role of the courts to ensure government agencies adequately exercise their obligations under the law.

By contrast, governments in Canada have done little to protect and recover threatened grizzly bear populations in British Columbia and Alberta over the last 17 years. More and better research has confirmed what many experts have suspected all along: unsustainable levels of industrial, residential and recreational development have eroded grizzly bear habitat and fragmented grizzly bear populations into smaller and more isolated subpopulations – and government responses to these revelations have largely been inadequate.

Until recently, grizzly bear population estimates in Alberta were inaccurate and inflated. When COSEWIC reassessed the status of the species in 2002, the Alberta government maintained that the grizzly bear population had actually increased over the preceding decade despite significant increases in industrial development in bear habitat, and the likely corresponding decrease in the amount of core secure habitat. More recent research indicates that the population is much smaller and more fragmented than was thought in 2002, and that the Alberta population is likely declining.

Much public pressure and the new population estimates encouraged the Alberta government to list the grizzly bear as threatened under the Alberta *Wildlife Act*, but the listing comes with few meaningful obligatory protection measures. The government also developed a grizzly bear recovery plan in 2008, which included the designation of core and secondary grizzly bear habitat. However, the plan is weak, and little if any of it is being implemented in a meaningful way.⁵⁷ Industrial forestry and oil and gas activity continues in core grizzly bear habitat, where road density thresholds already exceed the thresholds defined in the recovery plan. As a result, core grizzly bear areas continue to be degraded to the point that grizzly bears will likely be eliminated from the “working landscape” outside of protected areas, which are too small to support viable grizzly bear populations. Human-caused grizzly bear mortalities in most population units remain unsustainably high.⁵⁸

In 1995, the B.C. government adopted a Grizzly Bear Conservation Strategy (GBCS) to ensure that grizzly bears and their habitat were being responsibly managed. The goal of the strategy, which is still on the books, is to “maintain the diversity and abundance of grizzly bear populations and ecosystems throughout British Columbia.”⁵⁹ However, little if any of the GBCS has been implemented, and many of B.C.’s southern population units have become smaller and/or more isolated than they were in 1995.

According to the GBCS, “One of the primary means of reducing the loss of key grizzly habitat is to preserve a network of grizzly bear ecosystems as management areas. By establishing specific Grizzly Bear Management Areas, we can protect Grizzly Bear populations by ensuring that activities that are not compatible with Grizzly Bears are carefully controlled or not allowed.”⁶⁰ To date, only three Grizzly Bear Management Areas (GBMAs) have been designated, all on the North and Central Coast and all as a result of government-to-government negotiations with First Nations. Although GBMAs were initially envisioned to protect grizzly bears and their habitat from human activities that were incompatible with grizzly bear persistence, the only protective measures afforded to grizzly bears in these GBMAs is a 10-year moratorium on grizzly bear trophy hunting. All other forms of hunting and tenures for industrial activity, most of which put grizzly bears at risk, are still allowed in these GBMAs.

Nine grizzly bear population units in B.C. remain designated as “threatened,” and two small and highly threatened subpopulations hang on in grizzly bear habitat that is not managed for the needs of grizzly bears.⁶¹ Although the 1995 GBCS does not mention the need for recovery plans, according to the North Cascades grizzly bear recovery plan (which was never implemented), recovery planning is an important component of the GBCS.

57 Gailus 2010, *supra* 4.

58 Gailus 2010, *supra* 4.

59 British Columbia Ministry of Environment, Lands and Parks (MELP). 1995. *A Future for the Grizzly: British Columbia Grizzly Bear Conservation Strategy*. 16 pp. Victoria, BC.

60 *Ibid.*

61 COSEWIC 2002, *supra* note 1.



In Alberta, industrial forestry and oil and gas activity continues in core grizzly bear habitat, where road density thresholds already exceed the thresholds defined in the recovery plan.

PHOTO COURTESY BRAD SMITH

“Restoring populations at risk to long-term viability is crucial to maintaining the abundance of grizzly bears in British Columbia and to ensuring that grizzly bears continue to occupy their existing range in the province. The recovery of cross-border populations is also directly related to the GBCS’s goal of taking a leadership role internationally in grizzly bear conservation.”⁶²

B.C.’s Identified Wildlife Management Strategy (IWMS) includes higher level plan recommendations for addressing the needs of sensitive species like the grizzly bear. “Where populations are threatened with extirpation, a Recovery Plan and its Terms of Reference may be developed ... in consultation with local stakeholders. Recovery Plans are not land use plans but rather will use a variety of techniques to enhance threatened populations within the existing agreed upon land and resource allocations]. These techniques may include the temporary prohibition of (grizzly bear) hunting where it is currently practiced, public education, reduction of bear/human conflicts and other measures.”⁶³ Some Land and Resource Management Plans (LRMPs) for areas of grizzly bear habitat include the requirement to develop and implement grizzly bear recovery plans. For instance, the Sea-to-Sky LRMP stipulates that recovery plans (including access management plans and linkage management plans) be developed and implemented for the Garibaldi-Pitt, South Chilcotin Ranges, Garibaldi-Pitt and Stein-Nahatlatch GBPU.

It is important to note, however, that only one recovery plan, for the North Cascade GBPU, has ever been developed. And it was never implemented. Recovery plans have not been developed for the other eight threatened GBPUs, and industrial, residential and recreational development continues apace. Meanwhile, grizzly bears in at least one of these GBPUs have entirely disappeared.⁶⁴

62 North Cascades Grizzly Bear Recovery Team 2003, *supra* note 52.

63 [IWMS 2004] www.env.gov.bc.ca/wld/frpa/iwms/

64 Apps et al. 2009, *supra* note 25.



A Role for the Federal Government

FOR THE SECOND TIME IN 11 YEARS, COSEWIC has designated grizzly bears in Canada as a species of “special concern” and warned Canadians that the future for grizzly bears in southern Canada has not improved since the species was assessed 13 years ago. “Bears living in portions of the southern fringe of Canadian distribution are far from secure from the consequences of burgeoning human populations and activities,” COSEWIC warned in its 2002 assessment.

Despite this warning, the federal government did not add the Canada’s grizzly bear population to Schedule 1 of the *Species at Risk Act* in 2002. Only the so-called Prairie Population, which was determined to be extirpated with no chance of recovery, was added to Schedule 1. A decade on, the B.C. and Alberta governments haven’t made any meaningful progress in protecting these 16 subpopulations from continuing decline and eventual disappearance. Neither province has endangered species legislation that afford these small, isolated populations any meaningful protection, and recovery plans and conservation strategies are largely being ignored.

The lack of meaningful recovery efforts at the provincial level indicates that the federal government must take a stronger role in the management and recovery of at-risk grizzly bear populations in southwest Canada. Although Canada’s federal government only has jurisdiction over wildlife management in national parks and other federally managed lands, there is an opportunity, and perhaps an obligation, for the federal government to legally list Canada’s remaining grizzly bears under SARA and develop the obligatory management plan for this species of special concern.

The federal government’s recent decision to list polar bears on Schedule 1 of the *Species at Risk Act* provides an instructive precedent. Like the grizzly bear, Canada’s polar bears are a sensitive species that exist in numerous subpopulations, some of which are “likely declining” because of a host of threats, including human-caused mortality and climate change.⁶⁵ The federal government, recognizing the threats to this icon of the Canadian North, ratified COSEWIC’s science-based assessment by listing the polar bear under Schedule 1

The lack of meaningful recovery efforts at the provincial level indicates that the federal government must take a stronger role in the management and recovery of at-risk grizzly bear populations in southwest Canada.

PHOTO COURTESY DANIEL ARNDT

65 www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=167

of the *Species at Risk Act*. The grizzly bear certainly deserves the same recognition and protection from the federal government.

The federal government could choose to go further. Both Alberta and B.C. signed the *Accord for the Protection of Species at Risk in Canada* (APSRC) in 1996, which commits the provincial governments to cooperate with the federal government to prevent species in Canada from becoming extinct as a consequence of human activity. The *Accord* lays out a number of commitments to protect species at risk. By its terms, governments recognize that intergovernmental cooperation is crucial to the conservation and protection of species at risk, that governments must play a leadership role, and that complementary federal and provincial/territorial legislation, regulations, policies and programs are essential to protecting species at risk.⁶⁶

According to APSRC, where the balance of scientific information indicates a species is at risk, conservation and protective measures “will be taken.” Whether the Alberta and B.C. governments are currently upholding their responsibilities and obligations under the *Accord* with respect to grizzly bears is an open question, but current recovery efforts appear to indicate they are not.

Although provincial governments manage the majority of wildlife species and their habitat in Canada, the federal government realized while drafting SARA that it does have responsibility to ensure a basic level of species and habitat protection across Canada. For this reason, SARA does provide for *discretionary* federal action where a province or territory is failing to protect a listed species or its critical habitat. The “safety net” provision, as it is referred to, includes two mechanisms, one for basic prohibitions against harming a species and its residence (s. 34-35), and another prohibiting the damage or destruction of critical habitat (s. 61). The safety net prohibitions only apply on land in a province or territory if the Governor in Council, at its discretion, and upon the recommendation of the minister of environment, makes an order that they apply. The minister of environment must make the recommendation if the minister is of the opinion that the *laws of the province do not effectively protect the species or the residences of its individuals*. The relevant standard, therefore, is effective legal protection — *it is not enough to have provincial policies and programs in place, there must be provincial laws that provide “effective protection.”* It would appear, based on the evidence, that neither B.C. nor Alberta has afforded its threatened grizzly bear subpopulations with effective protections over the last 17 years, and without a significant investment in grizzly bear conservation and recovery, many of these subpopulations will likely disappear over the next century.⁶⁷

It’s time for the federal Minister of Environment to add the grizzly bear to Schedule 1 of the *Species at Risk Act* and develop a federal management plan for the species and its habitat.

RECOMMENDATIONS

It’s time for the federal Minister of Environment to add the grizzly bear to Schedule 1 of the *Species at Risk Act* and develop a federal management plan for the species and its habitat. Listing the grizzly bear under Schedule 1 is an important step in recognizing the problems facing grizzly bears in some parts of their range, particularly southern B.C. and western Alberta.

It is also time for the federal government to consider using SARA’s safety net provision to protect the small, threatened grizzly bear subpopulations on the south and western fringes of grizzly bear range found in British Columbia and Alberta.

Sweden and the United States have demonstrated that grizzly bear recovery can be both successful and publicly acceptable, but only with the commitment of a strong, science-based plan from the federal government. Now is the time to secure a future for this national treasure.

66 www.ec.gc.ca/media_archive/press/2001/010919_b_e.htm

67 Nielsen 2005, *supra* note 33; British Columbia Ministry of Environment, Lands and Parks 1995, *supra* note 59.



PHOTO COURTESY PROGGIE/FLICKR

Canada's wilderness is one of the last global safe havens for grizzly bears, which are extinct or at risk of disappearing worldwide. But humans are threatening grizzlies' ability to survive in Canada because of unsustainable hunting, poaching and the destruction of grizzly habitat due to industrial and recreational development. This report makes the case that the federal government must legally list and protect Canada's at-risk grizzlies under the federal Species at Risk Act (SARA). Furthermore, given the precarious condition of a number of sub-populations, such as in BC's Lower Mainland and in west-central Alberta, the report calls on the federal government to work with the western provinces and territories to create strong recovery and management plans that identify and protect grizzly bear critical habitat.

For more information about the science and conservation of species at risk in Canada, such as grizzly bears, please visit www.davidsuzuki.org and you can contribute to the conversation yourself on Twitter at [#biodiversity](https://twitter.com/biodiversity)



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