

A Future for the Grizzly:



British Columbia Grizzly Bear Conservation Strategy



Province of British Columbia
Ministry of Environment, Lands and Parks

June 1995

A Future for the Grizzly:

British Columbia Grizzly Bear Conservation Strategy

NOTE: The Grizzly Bear Conservation Strategy was written in 1995 and some of the information contained in this document is now out-of-date. For the most recent information on grizzly bear population numbers and grizzly bear hunting, please see "Grizzly Bear Hunting - Frequently Asked Questions", available at http://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/grizzly_bear_faq.pdf.



Province of British Columbia
Ministry of Environment, Lands and Parks

June 1995

The Ministry of Environment, Lands and Parks has also published *Conservation of Grizzly Bears in British Columbia: A Background Report*, available from:

Ministry of Environment, Lands and Parks
810 Blanshard Street
Victoria, BC V8V 1X4

Phone:

Victoria - (604) 387-9422

Toll Free Outside of Victoria - 1-800-663-7867

Fax: (604) 356-6464

WWW address: <http://www.env.gov.bc.ca/>

© Ministry of Environment, Lands and Parks, 1995

Canadian Cataloguing-in-Publication Data

Main entry under title: Grizzly bear conservation strategy

Includes bibliographical references: p. 15

ISBN 07726-2537-9

1. Grizzly bear - British Columbia. 2. Wildlife conservation
- British Columbia. I. British Columbia.
Ministry of Environment, Lands and Parks

1L737.C27F87 1995 639.9'7974446 C95-960252-6



TABLE OF CONTENTS

EXECUTIVE SUMMARY	v
INTRODUCTION	
Why Do We Need A Grizzly Bear Conservation Strategy?.....	1
THE BRITISH COLUMBIA GRIZZLY BEAR	
CONSERVATION STRATEGY	3
Goals and Objectives	3
Conservation of Grizzly Bear Habitat	4
Grizzly Bear Scientific Advisory Committee	6
Research and Inventory	6
Grizzly Bears and People.....	7
Education and Public Information	11
International Considerations	13
CONCLUSION	14
SUGGESTED READING	15





EXECUTIVE SUMMARY

Grizzly bears were once the most widespread bear species in the world. They were found in Europe, Asia, North Africa and throughout the western half of North America from the Arctic to central Mexico. Today's grizzly bears are confined to sparsely inhabited regions of central Europe, Russia and North America.

In North America, grizzly bears are now found mainly in British Columbia, the Yukon, Northwest Territories, Alberta, Alaska and in a few areas within the lower 48 states of the United States. A 1990 assessment of grizzly bears in Canada suggests that Canada is home to one half of North America's grizzly bears. British Columbia is estimated to have between 10,000 and 13,000 grizzly bears, or nearly half of the remaining Canadian population.

A background report *Conservation of Grizzly Bears in British Columbia* has been published by the Ministry of Environment, Lands and Parks. The report demonstrates that British Columbia is one of the last remaining places on the planet where grizzly bears can still be found in relative abundance. However, grizzly bears are being adversely affected by our rapidly rising population, urban development, land use and other human activities. The report suggests that unless steps are taken now to conserve grizzly bear populations in British Columbia, this animal could disappear from our landscape forever.

The government of British Columbia has developed this Grizzly Bear Conservation Strategy. The mandate of the strategy is to ensure the continued existence of grizzly bears and their habitats for future generations. The Grizzly Bear Conservation Strategy has four goals:

- To maintain in perpetuity the diversity and abundance of grizzly bears and the ecosystems on which they depend throughout British Columbia.
- To improve the management of grizzly bears and their interactions with humans.
- To increase public knowledge and involvement in grizzly bear management.
- To increase international cooperation in management and research of grizzly bears.



The main points of the strategy are:

Grizzly Bear Management Areas: Government will identify a number of key grizzly bear habitats for possible designation as special Grizzly Bear Management Areas. This designation will prohibit grizzly hunting, but will not necessarily prohibit resource extraction; however, the designation will ensure that the areas are managed to secure the long-term survival of grizzly bear populations. Grizzly Bear Management Areas will be identified through existing land-use planning processes such as Land and Resource Management Plans (LRMP) and the Protected Areas Strategy (PAS).

Grizzly Bear Scientific Advisory Committee: An independent Grizzly Bear Scientific Advisory Committee will be established to provide advice to government on the conservation needs of grizzly bears. The Committee will be made up of respected grizzly bear experts, and will seek input from a public interest committee made up of representatives from key stakeholder groups around British Columbia.

Increased Research: Government will increase its research on grizzly bear ecosystems, including a province-wide inventory and assessment of grizzly bears and grizzly bear habitats.

Changes to Hunting Regulations: By Fall 1996, all areas of the province still open to grizzly bear hunting will be placed on Limited Entry Hunting, the province's lottery system for the allocation of limited hunting opportunities. Quotas and administrative guidelines are being put in place in areas where grizzly bear hunting is allowed. In addition, all bear hunting licenses will include a surcharge to the Habitat Conservation Fund that will help pay for grizzly bear population and habitat research throughout the province.

Increased Enforcement: Government will step up enforcement to deal with poaching, illegal trade in bear parts and other violations of the *British Columbia Wildlife Act*.



Increased Penalties: Penalties for poaching grizzly bears will be increased substantially: First offence fines will raise from a minimum of \$200 and a maximum of \$10,000 to a minimum of \$1,000 and a maximum of \$25,000. Fines for second and subsequent offences will be raised from a minimum of \$1,000 and a maximum of \$25,000 to a minimum of \$6,000 and a maximum of \$50,000.

Education: A comprehensive environmental education program for the intermediate and senior secondary school levels will be developed by government. In addition, an information program targeting both specific groups and the general public will be developed to increase public awareness about grizzly bears, bear safety and ways to avoid bear/people conflicts.

Preventing "Problem" Bears: Government is developing policies to minimize conflicts between people and grizzly bears. New policies are being developed to regulate garbage and waste disposal, and to deal with other food sources that attract grizzly bears, such as orchards, compost heaps and home waste. Government will provide funding and support to communities to improve waste management facilities, including fencing dumps and removing or rebuilding poorly constructed waste management facilities.

Partnerships with the Private Sector: The National Basketball Association's Vancouver Grizzlies, as part of their commitment to the community, have become a major partner in the Grizzly Bear Conservation Strategy, to help promote the conservation needs of grizzly bears. The provincial government will join forces with the Grizzlies to form partnerships with other organizations and the private sector to help raise funds for more education and research.

The grizzly bear is perhaps the greatest symbol of wilderness. Its survival will be the greatest testimony to our environmental commitment. The *British Columbia Grizzly Bear Conservation Strategy* will leave a permanent legacy for our children: A Future for the Grizzly.

INTRODUCTION

Why Do We Need A Grizzly Bear Conservation Strategy?

Once, over 100,000 grizzly bears roamed the western half of North America from the barren grounds of the Arctic to the mountains and high plateaus of central Mexico, and from the Pacific Ocean across the prairies to Hudson Bay and down through the woodlands of the Mississippi River (Figure 1). Before European settlement and exploration, British Columbia contained at least a quarter of those. Today, however, like so much of that original wilderness, grizzlies are disappearing.

The number of grizzly bears on the continent has declined to the point where the species is extinct in the southern and eastern segments of its range and is considered vulnerable or threatened in much of its remaining range. Only in British Columbia, the Yukon, Northwest Territories, Alberta, Alaska and a few pockets in the northwestern United States can we find the remaining North American grizzly bears. In fact, our province contains the heart of the remaining range where grizzly bears are found on the continent.

British Columbia is home to between 10,000 and 13,000 grizzly bears, about half of all grizzlies in Canada. Of existing grizzly bear habitat, however, much is considered threatened and nearly all grizzly bear ecosystems in British Columbia are at risk under current land use activities. Our increasing population and growing demands for land and resources continue to threaten grizzly bears and their habitats.

We have the opportunity - and the global responsibility - to protect British Columbia's remaining grizzly bears. We owe it to ourselves, to our descendants and to the grizzly bears to implement a strategy for the survival of this majestic creature.

The Grizzly Bear Conservation Strategy is designed to help reverse the loss of grizzly bears in British Columbia and to ensure that this species is allowed to survive.





Figure 1. Current and Historic Grizzly Bear Distribution in North America.

THE BRITISH COLUMBIA GRIZZLY BEAR CONSERVATION STRATEGY

No other creature better represents the wilderness in British Columbia than the grizzly bear; nothing is a better measure of our success in maintaining biodiversity than the survival of this species.

The mandate of this Grizzly Bear Conservation Strategy is to ensure the continued existence of grizzly bears and their habitats for future generations.

Goals and Objectives

The goals and objectives of this strategy address three major issues:

- loss and alienation of grizzly bear habitat
- interactions with humans, and
- international considerations.

GOAL 1

To maintain in perpetuity the diversity and abundance of grizzly bears and the ecosystems on which they depend throughout British Columbia

- Increase the scientific knowledge base of grizzly bears and their habitat needs
- Maintain the genetic diversity of grizzly bears in British Columbia

GOAL 2

To improve the management of grizzly bears and their interactions with humans

- Modify incompatible human activities
- Improve the management and regulation of hunting

GOAL 3

To increase public knowledge and involvement

- Increase public knowledge of grizzly bears and their requirements
- Increase public involvement in appropriate grizzly bear management

GOAL 4

To increase international cooperation in management and research

- Take a leading role in management and research of grizzly bears



Conservation of Grizzly Bear Habitat

Grizzly bear populations require vast amounts of land in which to live. Over its lifetime, a single grizzly bear will require a home range between 50 and 100 square kilometres, and — in some cases — up to thousands of square kilometres.

The greatest single cause of declining grizzly bear populations is loss of habitat. Our rapidly growing population's increasing demands upon the land and its resources, and human intolerance of grizzlies, are the greatest cause of habitat loss or alienation.

Habitat loss occurs because of permanent changes, such as the development of a human settlement, flooding for a reservoir, or other irreversible changes to the land. Habitat alienation occurs when grizzly bear habitat is used by people in ways that prevent grizzlies from using it, such as during logging or mining operations, use of rural airstrips or clearing areas for agricultural use. The issue of land use in British Columbia is a critical component in a strategy to protect grizzly bears.

Grizzly Bear Management Areas

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.

The provincial government will identify key habitats throughout the province for consideration for management area designation.

Management areas will:

- contain high quality grizzly bear habitat,
- be closed to hunting of grizzly bears,
- control other recreational activities that might be detrimental to grizzly bear habitats (such as off-road vehicle use, biking, camping, etc.),
- be managed to secure the long-term survival of grizzly bear populations, and
- wherever possible, be connected by linking corridors that contain the habitat requirements for grizzly bears to travel between management areas.

Management areas to be considered will be identified and prioritized according to criteria such as:

- habitat suitability,
- proximity to existing and proposed protected areas, and
- level of threat to grizzly bear populations.



The Grizzly Bear Conservation Strategy will not impose new land use processes or new demands on the land base over and above those already sanctioned by government. Instead, it will utilize the opportunities provided by existing land use initiatives, such as Land and Resource Management Plans (LRMPs), the Protected Areas Strategy (PAS) and the Commission on Resources and Environment (CORE). If there is a need for withdrawals from the land base to protect grizzly bears, those decisions will be made through these existing processes and will be subject to the local consensus or joint sign-off that these initiatives require. The only unilateral decision the Wildlife Branch might make for grizzly bear conservation would be to close areas to hunting, and even this measure would be subject to consultation.

Any designation of grizzly bear management areas could only proceed as follows:

- In those areas where CORE, PAS or LRMP processes are under way or proposed, staff of the Wildlife Branch would provide input and make recommendations for the establishment of grizzly bear management areas. The decision as to whether such an area is recommended for designation would be the decision of the LRMP or CORE table itself, not the Wildlife Branch.
- In areas where there are no CORE, PAS or LRMP processes, the Wildlife Branch could suggest no-hunting areas following consultation with local interest groups. These would simply be no-hunting areas under the *British Columbia Wildlife Act* and would not restrict extractive or industrial activities. No-hunting areas would not be protected areas.

The creation of grizzly bear management areas will require consultation with the public. Representatives of First Nations and stakeholder groups such as the BC Wildlife Federation, the Guide Outfitters Association of BC, Federation of BC Naturalists, Canadian Parks & Wilderness Society and the Outdoor Recreation Council of BC will be included in the consultation process before new management areas are established.

Although creating grizzly bear management areas will be a key component to the Grizzly Bear Conservation Strategy, other management processes will be required in order to fully protect grizzly bears. For example, a separate Forest Practices Code field guide for grizzly bears will ensure that, as much as possible, logging on the majority of the land base outside of protected areas does not adversely affect key grizzly bear habitat. In addition, grizzly bear habitat could be protected through the designation of special management resource zones identified through provincial land-use planning.

Grizzly Bear Scientific Advisory Committee

An independent Grizzly Bear Scientific Advisory Committee will be established to advise government on the conservation needs of grizzly bears. The Committee will be made up of respected provincial, national and international grizzly bear experts, as well as First Nations representatives.

The Committee will advise government on such issues as:

- research priorities,
- inventory priorities,
- public safety issues related to bears,
- hunting regulations,
- bear population status and trends,
- new biological and ecological information, and
- international considerations.

The Scientific Advisory Committee will seek input from a public interest committee made up of representatives from key stakeholder groups.

The Grizzly Bear Scientific Advisory Committee will meet regularly and report to the Minister of Environment, Lands and Parks.

Research and Inventory

We still have many questions about grizzly bears in British Columbia that need answers in order to determine how best to manage this species. The government will be increasing and intensifying its research efforts around the grizzly bear in order to fill important gaps in our knowledge.

Government will:

- Revise estimates of grizzly bear populations in British Columbia, based on a province-wide inventory and assessment of grizzly bears, including available habitats and grizzly bear genetics and behaviour.
- Host a provincial workshop to examine methods of determining population estimates of grizzly bears.
- Identify potential grizzly bear ecosystems within each ecoprovince at small and medium map scales.
- Determine the extent of population variability, especially in small, potentially isolated populations.
- Conduct genetic analyses to determine gene flow and isolation of grizzly bear populations across British Columbia.
- Conduct studies to determine the habitat and dietary overlap of grizzly and black bears.
- Conduct more research into safety aspects of human/bear interaction.

Grizzly Bears and People

Garbage and Other Food Sources

The majority of all bear attacks on humans in North America have been by bears that had fed on garbage or on other food sources such as orchards and compost heaps. Garbage-conditioned bears are even more dangerous and unpredictable than wild bears. They learn to associate humans with food and thus lose their fear of humans.

Garbage-conditioned bears pose a threat to human safety and property, and this situation often results in the destruction of bears. From 1989 to 1993, an average of 20 grizzly bears had to be destroyed yearly in British Columbia because of the potential for conflict with humans. During the same time period, an average of 384 black bears had to be destroyed each year. The only message that is clear about the impact of human food and garbage on bears is this: a garbage-conditioned bear is a doomed bear.

It has been shown that bears that learn to associate humans and food remember the connection for life. Poor garbage and food waste management has negative impacts on both grizzly bears and humans:

- Bears may become predisposed to aggressive or "nuisance" behaviour and are more likely to attack humans.
- Bears that become "addicted" to human food are no longer "wild." This can adversely affect their quality of life as well as the public's perception of bears.
- The costs of dealing with bears that are in conflict with people are high, both in terms of tax dollars and the number of bears that have to be destroyed.
- The potential for illegal kills increases because of the vulnerability of bears near settled areas.
- The health of grizzlies may be compromised through direct injury from broken glass and sharp objects, the consumption of toxic materials (plastic, petroleum products, medicines, chemicals) and tooth decay.

The provincial government is developing policies to reduce the amount of garbage available to bears. An interagency committee within the Ministry of Environment, Lands and Parks will work with key stakeholders to address the issues of waste management and regulations and the handling of other bear attractants such as orchards, compost heaps and beehives.

The Waste Management Branch of the Ministry of Environment, Lands and Parks has earmarked \$250,000 annually for controlling waste to help eliminate garbage-habitation in bears throughout the province. Through this program government will:



- Work more aggressively with regional districts to close the majority of remote landfills and transfer stations.
- Provide support funding to regional districts to encourage building of "predator-proof" transfer stations.
- Provide funding of up to 25 per cent to regional districts for installation of effective electrical fencing (several pilot projects are already underway).
- Step up public education efforts for communities and individuals around the problem of bear attractants around the home, such as barbecues and garbage cans.
- Improve enforcement of permit conditions required for waste disposal sites.
- Provide funding, in partnership with the public, for the relocation of bears that have a high probability of a successful relocation.
- Explore ways to reduce bear conflicts around orchards.

A policy paper dealing with waste and other attractants will be released in fall 1995.

Relocation

One way of dealing with bears in conflict with humans is to move the bears to a location where there is less likelihood of interaction with humans. Although government policy allows for the relocation of grizzly and black bears that have a high probability of survival, relocation of bears is expensive, and is not considered highly successful. Bears that have been habituated to people or to garbage are not good candidates for translocation because they continue to search out garbage as a major source of food. Bears have been known to travel hundreds of kilometres to return to learned food sources. Injured bears, juvenile bears and bears that pose a danger to humans are also poor candidates. More research will be conducted in order to better determine suitable candidates for relocation.

Hunting

Government recognizes hunting as an important part of our heritage that is enjoyed by thousands of British Columbians, has spiritual and cultural significance to First Nations and others, provides food for many people and generates more than \$100 million in revenue - mostly in rural areas. Hunters also have a long tradition of contributing to projects to maintain and improve wildlife habitat.

We have concerns that in some areas population estimates have been inaccurate and have led to the over-hunting of grizzly bears. In consideration of the gaps in our knowledge, we must be sure to set limits on hunting that are sustainable.

The issue of hunting grizzly bears has polarized groups and individuals across the province, and the debate continues. The world's leading experts disagree on the long-term effects of hunting on grizzly bear sustainability. Since we are unsure as to the full effect hunting has and will have on grizzlies, we need to ensure that we are conservative in setting hunting limits until better information is available.

The government is taking a number of steps to ensure that hunting does not exceed sustainable levels:

- All areas of the province still open to grizzly bear hunting will be placed on Limited Entry Hunting (LEH), the province's lottery system for the allocation of limited hunting opportunities.
- There will be a Habitat Conservation Fund (HCF) surcharge on all bear species hunting licences. The HCF fee will be collected at the time the license is purchased. Revenues will be returned directly into grizzly bear research and inventory. The fee will be \$5 for residents of British Columbia and \$30 for non-residents.
- The government will implement an accelerated program of habitat and population inventory/research to improve population estimates and our confidence in indirect methods of estimating population density.
- Geographic Information System (GIS) maps will be prepared showing the most accurate boundaries for guide-outfitter territories, Management Units (MUs), CORE decisions and new study areas and proposals. Ecologically based areas will be derived, corresponding to approximate geographic population.

The government will continue to conduct ongoing reviews of hunting regulations and grizzly bear habitat capability, to ensure that regulations and LEH quotas are updated in order to best protect grizzly bear populations.

Bear Viewing

Seeing a grizzly in the wild is an experience that most people would cherish for the rest of their lives. Bear viewing in British Columbia is an emerging form of outdoor recreation that can affect grizzly bears and their habitats.

We can consider ourselves fortunate that British Columbia is still able to provide such an experience in settings where it is relatively safe for both humans and bears. However, being watched and photographed can have a negative impact on the wildlife being observed. Viewing bears has special considerations that the viewing of other wildlife does not. The mere presence of humans in bear habitat can create stress for grizzly bears and cause them to abandon a habitat, temporarily or permanently. Viewers may also be at risk if bears become too familiar with humans and lose their natural shyness of people.

Research around grizzly bear viewing will be conducted in order to make better decisions about managing activities in grizzly bear habitats. Research is needed to determine the impacts of bear viewing on bear behaviour and habitats and to determine which grizzly bear populations and locations might be best or least suited to this activity.

Poaching and the Trade in Wildlife Parts

The trade in bear parts has contributed greatly to the endangerment, extirpation, or even extinction of many populations of grizzly bears in Asia. International activity in this illegal business has reached alarming proportions. Although bear trade activity in Canada centres largely on black bears, it may also present serious consequences for grizzly bear populations.

In 1993, the provincial government banned the possession, trafficking, importation and export of bear gall bladders, genitalia and bear paws separated from the carcass or hide. The government has taken additional steps to reduce poaching and illegal killing of grizzly bears in British Columbia.

Under the Grizzly Bear Conservation Strategy, penalties for poaching grizzly bears will be increased substantially:

- First offence fines will increase from a minimum of \$200 and a maximum of \$10,000 to a minimum of \$1,000 and a maximum of \$25,000.
- Fines for second and subsequent offences will increase from a minimum of \$1,000 and a maximum of \$25,000 to a minimum of \$6,000 and a maximum of \$50,000.

Enforcement efforts will be stepped up around the province in efforts to further curtail illegal activity.

Education and Public Information

In order for the Grizzly Bear Conservation Strategy to be successful, the public must be committed to making it work. Only an informed public will be able to share the government's commitment to grizzly bear conservation.

A comprehensive environmental education program is being developed for intermediate and senior secondary-level students that will focus on the grizzly bear as a way of explaining concepts of habitat integrity, carrying capacity and ecosystem management. The program will integrate existing government environmental education learning modules.

Because grizzly bears and their habitats require a large land base and affect a great number of other plant and animal species, they serve as an ideal focal point for environmental education. By emphasizing the needs of grizzlies, an educational program will also demonstrate the complex web of life and the importance of conservation practices for all creatures. The intent of the program will be not only to raise awareness of the plight of the grizzly bear, but also to make real the importance of ecosystem and biodiversity preservation necessary to conserve this species and thousands of others - including our own.

Education of the general public - outside the formal classroom - is critical to the success of the Conservation Strategy. Increased public awareness programs and materials will be developed in order to garner more support for grizzly bears and to teach people about how to avoid potential conflicts with bears.

Public information will need to focus on key areas:

- **Bear safety:** Wilderness is grizzly country, and in a province with as much wilderness as British Columbia, the education of outdoor users is critical. The prevention of conflicts and bear safety is an issue for everyone. By becoming "bear aware" in wilderness, people will be able to better avoid situations that may endanger themselves and bears. Specific informational material will be targeted to outdoor user groups such as campers, hikers, cyclists and hunters.
- **Waste management:** Improper storage and disposal of waste is perhaps the number-one cause of bear attacks on humans. People must learn how to properly dispose of waste materials both in the wild and at home in order to reduce human/bear conflicts.
- **Bear ecology:** Better understanding of the ecological needs of grizzly bears will help the public to understand the trade-offs between development and conservation and subsequently make better decisions during land-use planning processes around the province.

- **Understanding legislation and regulations:** Informational packages outlining new regulations and legislation around grizzly bear conservation will be made available to guide outfitters and hunters, in order to avoid increases in violations. All regulations are detailed in the annual Hunting and Trapping Regulations Synopsis.

Community awareness programs will be delivered across the province through regional government agencies, including the Ministry of Environment, Lands and Parks, Ministry of Forests, Federal Department of Canadian Heritage and educational programs such as "Project Wild" and "The Green Team". Community and private sector partners will also play an important role in increasing public awareness for grizzlies. Groups such as the Northwest Wildlife Preservation Society have produced bear safety programs, including "Bears in our Backyards" and "Bear-friendly Communities and Schools."

Public Consultation

Government has a commitment to public involvement and consultation with any environmental initiative that might have an impact on resource use.

Throughout the implementation and further development of the Grizzly Bear Conservation Strategy, government will be seeking input and comment from First Nations, the general public and interested stakeholders.

The Grizzly Bear Conservation Strategy will be integrated with many of the current planning initiatives and land use processes (e.g., PAS, LRMPs, TSA reviews), all of which have a public involvement component. The public is invited to review and comment on the Grizzly Bear Conservation Strategy.

International Considerations

British Columbia is the heart of North America's remaining grizzly bear range. Much of the present grizzly bear habitat is shared between British Columbia and the United States. While British Columbia is home to half of Canada's grizzlies, we also have the fastest growing human population in Canada. We have the responsibility to act now in order to conserve grizzlies in North America. The international spotlight will be upon us as we embark on this ambitious and important conservation strategy.

The conservation of grizzlies requires the cooperation of all jurisdictions in which they occur. British Columbia will take a leadership role in managing grizzly bears in North America.

CONCLUSION

In only a few hundred years since Europeans first set foot on North America, we have managed to wipe out or alienate over half of the grizzly bears that once roamed the continent.

British Columbians have the opportunity and the obligation to act now in order to save this powerful symbol of the wild from extinction. Our grizzly population represents over half of the bears left in Canada.

But the grizzly's problems are increasing. As our human population continues to grow, we are very rapidly using up or damaging critical grizzly habitat. In addition, many of our resource needs are in direct competition with the needs of grizzlies.

The government of British Columbia is taking steps to conserve this marvellous creature. Through coordination of existing land-use processes, increased research and education and better resource management, we are leading the way in international grizzly bear conservation.

The work has just begun, and much more is still needed. But as all British Columbians work together towards the same goal, we can ensure that the grizzly bear - the symbol of British Columbia's wilderness - is guaranteed a future.

Suggested Reading

- Banci, V. 1991. The Status of the Grizzly Bear in Canada in 1990. COSEWIC Status Report commissioned by BC Environment, Wildlife Branch; Alberta Forestry, Fish and Wildlife Division; Yukon Government, Department of Renewable Resources, Victoria, B.C.
- British Columbia Ministry of Environment, Lands and Parks 1995. Grizzly Bear Conservation in British Columbia: A Background Report. Ministry of Environment, Lands and Parks, Wildlife Branch, Victoria, B.C.
- Fuhr, B., and D. A. Demarchi. 1990. A Methodology for Grizzly Bear Habitat Assessment in British Columbia. Wildlife Bulletin No. B-67, BC Environment, Wildlife Branch, Victoria, B.C.
- Futuyma, D. J. 1979. Evolutionary Biology. Sinauer Associates, Sunderland, Mass.
- Harding, L. E., and E. McCullum, Eds. 1994. Biodiversity in British Columbia: Our Changing Environment. Environment Canada, Canadian Wildlife Service, Vancouver, B.C.
- Herrero, S. 1985. Bear Attacks: Their Causes and Avoidance. Lyons & Burford Publishers, New York, N.Y.
- Lynch, W. 1993. Bears: Monarchs of the Northern Wilderness. Douglas & McIntyre, Vancouver, B.C.
- Servheen, C. 1992. Grizzly Bear Recovery Plan. 2nd review draft. U.S. Fish and Wildlife Service and the University of Montana, Missoula, Mont.
- Van Tighem, K. 1992. Wild Animals of Western Canada. Altitude Publishing, Canmore, Alta.

