

## COSEWIC Assessment and Status Report for Grizzly Bear – Western population (*Ursus arctos*) in Canada

### SUMMARY

The COSEWIC Assessment and Status Report for grizzly bears assess the status of Western and Ungava populations. The report indicates that the Ungava population of grizzly bears is extinct. This is a summary of the information provided in the Status Report about the Western population. The Grizzly Bear – Western population is being recommended for listing as a species of Special Concern under the *Species at Risk Act* (SARA).



#### Assessment Summary – May 2012

##### Common name

Grizzly Bear - Western population

##### Scientific name

*Ursus arctos*

##### Status

Special Concern

##### Reason for designation

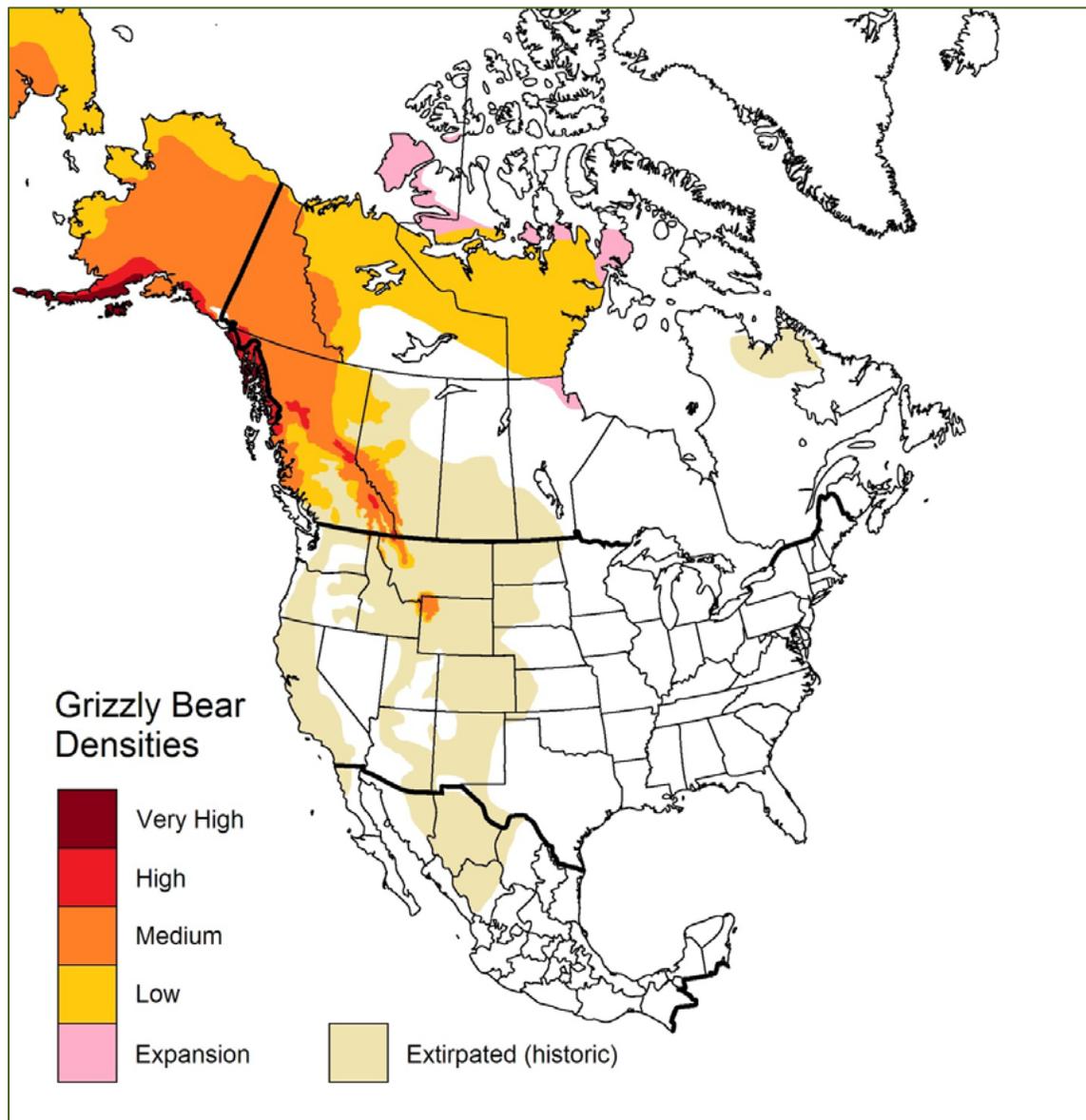
The global distribution of this large-bodied carnivore has declined by over 50% since the 1800s, with western Canada representing a significant core of the current North American range. A habitat generalist, its distribution and relative abundance in the absence of humans is largely driven by habitat productivity and seasonality. It is highly sensitive to human disturbance and is subject to high mortality risk in areas of human activity and where roads create access. Population estimates in much of the range are highly uncertain; the Canadian population is estimated at 26,000, but the number of mature individuals is uncertain and could be close to 10,000. While there is no evidence of a decline in the overall population during the past 20 years and increasing numbers of records indicating some range expansion in the north, a number of populations in the southern extent of its range in Alberta and southern BC are known to be declining and there are concerns about unsustainable mortality rates there and in parts of Yukon. There is strong evidence of genetic fragmentation in the southern parts of its range where some populations are increasingly isolated and subject to demographic stochasticity. 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.

##### Occurrence

Yukon, Northwest Territories, Nunavut, British Columbia, Alberta, Saskatchewan, Manitoba

##### Status history

The species was considered a single unit and designated Not at Risk in April 1979. Split into two populations in April 1991 (Prairie population and Northwestern population). The Prairie population was designated Extirpated in April 1991. Status re-examined and confirmed in May 2000 and in May 2002. The Northwestern population was designated Special Concern in April 1991 and confirmed in May 2002. In May 2012, the entire species was re-examined and the Prairie and Northwestern populations were designated Special Concern in April 1991 and confirmed in May 2002. In May 2012, the entire species was re-examined and the Prairie and Northwestern populations were considered a single unit. This newly-defined Western population was designated Special Concern in May 2012.



This is Figure 2 from the COSEWIC Assessment and Status Summary. It shows the boundaries of the current and historic distribution of the Grizzly Bear in North America. Areas in white are not known to have supported more than vagrant occurrences of Grizzly Bears in the past.

This summary is based on the information in the full English version of the COSEWIC Assessment and Status Report for Grizzly Bear – Western and Ungava populations in Canada. It is a summary of information in the report that is either of particular interest or is directly relevant to Nunavut (arranged by page numbers).

The original English copy of the COSEWIC Assessment and Status Report has been provided for reference.

### **Information about Grizzly Bear (pages 5-13)**

These pages describe what the grizzly bear looks like and other basic information about them.

- The grizzly bear is believed to have a most recent common ancestor with the Ussuri Brown Bear of northeastern Asia.
- The ancestors of modern grizzly bears are believed to have migrated from eastern Asia to North America between 50,000 and 100,000 years ago.
- Grizzly bears are large and muscular with a prominent shoulder hump, concave facial profile and long front claws.
- Instances of hybridization between polar bear and grizzly bear have been found in the wild. Successful cross-matings in captivity have produced young that are capable of reproducing.
- Grizzly bears in the north have more genetic differences than those in the south.
- Further studies have found that there is no evidence to consider grizzly bears, that once resided in the Prairies, different from those that range throughout the rest of Western Canada.
- Variation in body size, life history traits and food habits are seen across the range of grizzly bears. These factors have been found to be highly related to the quality of the environment.
- In Western and many Aboriginal cultures, the grizzly bear is seen to be one of the most powerful, popular and respected animals, though it is also sometimes feared.
- Few people hunt grizzly bears, however a grizzly bear is a highly, prized trophy. Licensed hunting opportunities exist in British Columbia, Yukon, Northwest Territories and Nunavut.

- Grizzly bears are sensitive to habitat and population fluctuations and have difficulty recovering from negative impacts. This makes them an ideal species to show how healthy or unhealthy the environment is.

### **Distribution and range of grizzly bears (pages 15-22)**

These pages describe the distribution of grizzly bears throughout the world and more specifically within Canada.

- Grizzly bears are distributed throughout the northern region of the world with populations in Europe, Asia, Canada and the United States.
- Grizzly bears that once lived in the non-mountainous areas of Alberta and parts of southern British Columbia no longer live there.
- There has been no significant reduction in the distribution of grizzly bears in Canada since they were originally assessed by COSEWIC in 1991.
- Grizzly bears have expanded their range in the far north and east of their current range in Canada, including the Northwest Territories, Nunavut, northern Saskatchewan and tundra regions of Manitoba.
- The Nunavut Wildlife Harvest Study, conducted between 1996 and 2001, shows kill records of grizzly bears in Baker Lake, Gjoa Haven, Arctic Bay, Kugaaruk and Cambridge Bay.
- In 1999 a study showed that the population of grizzly bears was increasing by 3% per year.
- Grizzly bears have been seen crossing from the mainland to Victoria Island, on King William Island, and a single grizzly bear was seen on Melville Island in 2007.

### **Habitat and Biology (pages 22-35)**

These pages describe the habitat requirements and habitat use by grizzly bears, their biology, physiology and behaviour.

- Grizzly bears can be found in all types of habitat.

- They eat both animals and plants but mostly eat plants.
- The type of habitat they occupy varies through the seasons and often reflects the timing of plant availability, spring caribou/muskox calving and fish migration.
- Age at first reproduction is related to body size and therefore depends on the conditions of the environment.
- Litter size is 1-3 cubs; the number of cubs and their likelihood to survive depends on the availability of food.
- During a 'bad year' in Nunavut, Inuit report seeing only one cub per female.
- Maximum age of grizzly bears ranges from 20 to 30 years in the wild.
- Pregnant females usually enter dens first and emerge last; adult males usually spend the shortest time in dens.
- In the low arctic tundra of Nunavut, males spend on average 185 days in the den while females spend an average of 199 days in the den.
- In Nunavut, grizzly bears usually hibernate from October or November to April or May.
- A study in Nunavut and the Northwest Territories showed that caribou was the most common food item for most of the year but in early summer when caribou are not as common, they eat horsetails, sedges and cotton grass.
- The home range size for grizzly bears is dependent on the quality of the habitat. Bears that have access to an abundance of high quality of food often have smaller home ranges. Those living in drier, colder climates have larger home ranges. Males have larger home ranges than females
- In the low arctic tundra of Nunavut and the Northwest Territories, male grizzly bears travel faster than females. Males travel the most in spring when they need food the most and are looking for mates. Females travel the most in the summer when food availability is low.

### **Population Size and Trends (pages 36-41)**

These pages describe sampling efforts to determine grizzly bear population size, abundance of grizzly bears and trends and fluctuations in their population.

- It is difficult and costly to estimate the abundance of grizzly bears, especially in large and remote areas.
- The most commonly used methods to determine grizzly bear abundance are capture-mark-resight methods (with or without radio-telemetry), mark-recapture techniques that include camera traps (the bear trips the camera and photographs itself), and DNA fingerprinting of hair samples from bears attracted to baited barbed-wire snags.
- The Grizzly Bear – Western population is approximately 26,000 bears.
- Estimates suggest that the number of mature bears may be around 11,500.
- Grizzly bears have been extirpated from 17 countries in the past 500 years, and from 10 other countries before that.
- Although there has been some range expansion, the grizzly bear has lost approximately 50% of its global range and abundance since the mid-1800s.
- There is evidence of expanding distributions and increasing local abundance of grizzly bears in mainland Nunavut and into Manitoba, and the Arctic Archipelago of Nunavut and the Northwest Territories.
- Grizzly bear distribution has been relatively stable for the last few decades; however in areas that are heavily fragmented their numbers are small or are in decline.

### **Threats and Limiting Factors (pages 41-52)**

These pages describe the things that threaten grizzly bear populations or keep their populations from increasing. These threats include:

- Licensed hunting
- Aboriginal subsistence hunting
- Kills in defense of life or property
- Research-related deaths
- Undocumented and illegal killing
- Changes in habitat (due to human development)
- Declines in Pacific Salmon
- Inability of grizzly bear population growth in some areas

- Climate change

### **Protection, Status and Ranks (pages 52-56)**

These pages describe international and Canadian protection and the status of grizzly bears.

- Worldwide, the grizzly bear is listed as 'Least Concern' by The World Conservation Union (IUCN).
- The Convention on International Trade in Endangered Species lists grizzly bears as not necessarily now threatened with extinction but may become so unless trade is closely controlled, while grizzly bears in some countries are listed on the list of most endangered plants and animals.
- NatureServe, which provides scientific information about species and ecosystems to help guide effective conservation action and natural resource management, ranks grizzly bears as 'Apparently Secure' globally, although it shows that grizzly bears have been extirpated from 16 of 26 North American states, provinces and territories.
- Grizzly bears in the lower 48 states of the USA were listed in 1975 under the *Endangered Species Act* as 'Threatened' and remain so today.
- Grizzly bears in Canada have not yet been listed under SARA.
- The Canadian NatureServe rank is 'vulnerable'.
- The 2010 General Status rank for grizzly bears in Canada was 'Sensitive'.
- In Alberta, grizzly bears are listed as 'Threatened'; in British Columbia and the Yukon, they are listed as 'Vulnerable' by NatureServe. In Nunavut and the Northwest Territories they are listed as 'Not Ranked'. The General Status conservation rank of grizzly bears in British Columbia, the Yukon and the Northwest Territories is 'Sensitive'.
- In Nunavut, under the Nunavut Land Claims Agreement, each Inuk has the right to harvest grizzly bears. There are no formal agreements on harvest restrictions, but some Hunters and Trappers Organizations may have restrictions on harvest within their respective communities. Inuit beneficiaries do not need a license, permit or tag to hunt grizzly bears.

- The grizzly bear hunting season in Nunavut is year-round.
- Non-residents in Nunavut must pay a trophy fee and are required to report their harvest.