

# Scientific Criteria for Evaluation and Establishment of Grizzly Bear Management Areas in British Columbia



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**ABOUT THE AUTHORS**

Four of the authors of this report are PhD conservation biologists with extensive experience with large carnivores including up to 20 years of experience working in the field with grizzly bears in British Columbia (BC). Another is a BC professional biologist (and former federal biologist) with 30 years of bear research experience. All are familiar with BC, its land base and its management.

Three of the authors have conducted a comprehensive critique of the BC Grizzly Bear Conservation Strategy. Two of the authors were on the former BC government Grizzly Bear Scientific Advisory Committee.

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## **EXECUTIVE SUMMARY & RECOMMENDATIONS**

Grizzly Bear Management Areas (GBMAs) have been a focal part of the British Columbia (BC) government's Grizzly Bear Conservation Strategy since 1995, and the BC government's Independent Scientific Panel again recommended in 2003 that they be implemented with provisions to maintain connectivity between populations. In order to develop a conservation biology based model for a comprehensive network of GBMAs, we used the scientific literature, a background review, expert opinion and a two-day workshop of independent bear scientists.

The authors concluded that GBMAs must;

- be fully protected from all ecologically damaging human activities and allow no grizzly bear sport hunting,
- each have a potential population of 500+ individuals,
- contain productive, roadless habitat, and,
- not be further apart than 20-50 km.

In order to maintain connectivity between populations, smaller Habitat Security Management Areas (HSMAs) are required. HSMAs;

- must be at least 68-84% of a female grizzly's home range,
- must be fully protected from all ecologically damaging human activities, and,
- may require no grizzly bear sport hunting.

Collectively, GBMAs and HSMAs must make up 68-84% of the habitat currently occupied by grizzly bears in British Columbia.

Currently, the BC government is proposing three GBMAs for the BC Coast and Mountains Ecoprovince. These are set up to be legally extinguished in a decade, and a preliminary analysis shows that they are poorly designed and likely too small to maintain viable grizzly bear populations. In addition, the habitat within the proposed GBMAs is not fully protected. This is inadequate given that a recent population viability analysis (PVA) for BC coastal grizzlies concluded that this species is already at risk of extirpation and that all grizzly habitat may need to be protected to sustain grizzly bear populations. Additionally, since the GBMAs proposed by the BC government fail to meet the science-based criteria outlined in this analysis, they cannot reasonably be expected to fulfill their stated aim: "to maintain in perpetuity the diversity and abundance of grizzly bears and the ecosystems on which they depend throughout British Columbia."

The authors concluded that pending the implementation of the strategy proposed in this report, or a strategy with equivalent robustness and rigour, all sources of grizzly mortality must be immediately reduced. Given the lack of evidence that, in particular, grizzly bear populations in coastal BC are sustainable, closure of sport hunting/killing of grizzly bears is an option that must be considered. It is therefore imperative that measures are taken to implement this strategy for the establishment of GBMAs of core protected habitat with no grizzly bear sport hunting including the establishment of HSMAs to maintain connectivity, or an equivalent strategy that will provide the necessary protection for grizzly bear populations and their habitats, without any further delay.