

**BC Wildlife Federation Response:
Draft Management Plan for the Grey Wolf in British Columbia**

Prepared by the British Columbia Wildlife Federation

The BC Wildlife Federation is British Columbia's largest and oldest conservation organization. Our 40,000 members are passionately committed to protecting, enhancing and promoting the wise use of the environment for the benefit of present and future generations. Our members donate over 300,000 hours per year to stewardship activities.

Following is the BC Wildlife Federation's response to the Ministry of Forests, Lands and Natural Resources Draft *Wolf Management Plan*.

Management Goal and Objectives

The BC Wildlife Federation's management goal and objectives for wolves ties into management at the landscape level. Managing at the species level provides a myopic view of wildlife and assumes the over-arching structure for habitat, fish and wildlife management is sound: *it is not*. Habitat, fish and wildlife management in British Columbia operates below critical mass at both human resource and operational budget levels. In 2012, BC's expenditures for fish and wildlife management including Habitat Conservation Trust Foundation (HCTF) and Freshwater Fisheries Society of BC (FFSBC) totaled approximately \$19.5M in one of the largest and most ecologically diverse jurisdictions in North America. Comparatively, funding for Utah State's Division of Wildlife Resources, an area less than one quarter the size of BC, was \$62.7M.

The population estimate for wolves is based on the population estimate for ungulates, which is based on habitat capability, none of which have been adequately funded or surveyed to yield reliable estimates. It is impossible to create a measurable objective for wolves without objectives and targets for habitat and all wildlife populations across British Columbia. As a result, the BC Wildlife Federation will comment on areas where wildlife is impacted and how it relates in particular to wolves.

Resource Development/Extraction

In British Columbia, consideration for cumulative impacts and small scale resource development on habitat and wildlife values is virtually non-existent. Listed or endangered species are the only species given consideration.

The cumulative impacts of development at the landscape level has resulted in increased ungulate populations in some cases, but has had devastating effects on other prey species (mountain caribou, Vancouver Island marmot). Wide-scale resource development in British Columbia has altered natural predator-prey interactions due primarily to habitat succession and fragmentation. Early seral stages created by logging has created attractive forage habitat for prey species such as moose, deer, and elk, but at the expense of mountain caribou which are more reliant on forage associated with old seral forests. As well, caribou range is becoming more restricted and fragmented, leading to more overlap with other prey species, increasing vulnerability to predation. A somewhat similar situation played out on Vancouver Island, where higher elevation clearcuts attracted summer use by deer and elk, which in turn attracted cougars and wolves, resulting in marmot colonies suffering significant mortality due to chance predation.

In addition to habitat change, access afforded by increased road densities, trails and seismic lines increase the encounter rate between mountain caribou and wolves, resulting in unnaturally high predation on juvenile and adult caribou. Forms of recreation, such as

snowmobiling, can also increase incidence and predation rates by wolves. Research has shown snow compaction during the winter results in increased access into caribou range for wolves when wolves would normally be restricted to valleys. The 50% decline of moose in parts of the Cariboo and Omineca can likely be attributed to widespread mountain pine beetle salvage logging and road density which allows wolves to travel far more efficiently.

Hydro dams have also impacted predator and prey species, creating micro-climates, eliminating winter range for ungulates and fragmenting habitat and populations. It has pushed prey species into marginal habitat which favours predators, resulting in depressed prey populations.

Given that resource development/extraction will continue, the effects must be researched and mitigated, including wolf control, especially where population objectives for other species are not being met. Habitat recovery can take anywhere from decades to more than a century in the case of old growth forests. There must be a fully-funded and supported plan to mitigate the impacts of resource development/extraction before it occurs. The plan and funding should be held outside of government and out of the control of the developer. Currently, BC Hydro is one of the only developers which has been required to compensate for the loss of habitat due to resource development; unfortunately, the program has been poorly managed because it was left in the hands of the proponent, and funded at a fraction of the cost to wildlife.

Fire Suppression

A large portion of productive habitat in central and southern British Columbia is designated as NDT-3 or NDT-4 (Natural Disturbance Type Ecosystems). In these ecosystems natural disturbance typically means wildfire, at intervals from 5-200+ years. These ecosystems are host to a variety of species, including several species and habitats at risk.

Forest fires provide native ungulate species habitat which result in prey populations that are healthier, more productive and better able to avoid predation. Female ungulates reach sexually maturity at an earlier age and reproductive ability increases significantly. Due to increased vegetation, fitness levels of all ungulates increases. Survival rates for young and mature animals increase as they are able to better evade predators such as cougars and wolves.

Forest fires allow longer sight lines for native species such as sheep, elk, mountain goats and mule deer which rely heavily on their ability to visually detect predators.

Blow down resulting from forest fires also enables native species to use evolutionary defense strategies to avoid predators. Long legs allow moose to navigate through blow down with relative ease. Mule deer use their ability to stot to navigate through blow down and other obstacles. Wolves have an extremely difficult time navigating blow downs as are low to the ground and no mechanism to efficiently navigate over obstacles. Near Banff National Park, Hebblewhite et al. demonstrated wolves encounter rates were 1.3 times higher in pine forest and 4.1 times less in grassland than other habitats. The odds of being killed in pine forests increased 1.3 times and 4.1 times less in grasslands than other habitats (101).

Fire suppression is the most significant controllable factor in the disappearance of grasslands in southern British Columbia. Habitat loss due to fire suppression has had a negative impact on mule deer, mountain sheep, elk, mountain goats, grizzly bears, black bears, badgers, burrowing owls, sharp-tailed grouse, and several other species at risk. Without forest fires, predators such as cougars, and wolves become far more efficient resulting in depressed prey populations.

Species At Risk

Where wolf predation has been shown to negatively impact species or populations at risk, wolf control must be initiated as a primary measure, not a last resort. The costs of recovery increase exponentially as populations decrease. Currently there are caribou populations which may not be viable due to a lack of political effort. Historically, half-hearted attempts to buoy populations, such as caribou transplants, have not resulted in long-term increases in populations. Transplanted animals are frequently disoriented and wander aimlessly into unsuitable habitat, and areas where unmitigated predator densities are extremely high. In the case of Mountain Caribou, population abundance has become so low there are very few populations within the same ecotype to draw from – the transplant which occurred in 2012 was an unmitigated disaster and a complete waste of funding. **Predator reductions must occur before transplants.**

It must be recognized that the first objective is to establish self-sustaining populations, even if predation is a symptom of a bigger problem. In the case of the Vancouver Island Marmot, and many caribou populations, research indicates the over-arching problem is habitat, however caribou and marmots will disappear before habitat allows species recovery. When it comes to species such as the Vancouver Island Marmot and Mountain Caribou which depend on stable, undisturbed habitat, predator management is and will always be required where resource development/extraction occurs. Maternal penning and captive breeding are only to be used as a last resort after all other avenues have been exhausted. **Raising wildlife in captivity is not an acceptable form of wildlife management.**

Species Not at Risk

Management at the landscape level should be focused on restoring, maintaining and enhancing the health and integrity of ecosystems. Objectives must be set and met which ensure productive and naturally occurring species and populations of all wildlife. Wolves have an integral role within a naturally functioning ecosystem, however, when the ecosystem has been manipulated by man the effects should be mitigated. With logging, mining, oil and gas, highways, dams, recreational activities such as heli-skiing and snowmobiling, the concept of 'natural balance' between prey and predator does not exist: the impact must be managed.

In recent times, management objectives for mule deer, elk, white-tailed deer and moose have called for significant reductions in populations to ensure other objectives are met, including

aiding caribou recovery. Some bighorn sheep populations are at all-time lows due to a lack of investment in habitat management and transplants into those areas have failed due to unnaturally high predation. Goat populations have declined due to proximity of resource development and high predation, moose and mule deer populations are also in significant decline. These declines are a direct result of unnaturally high predation and an indirect result of fire suppression and resource development; it is unacceptable to reduce or eliminate prey populations due to overly high predation rates caused by resource development/extraction.

Managing for population objectives will result in required reductions of prey species at times and predators at other times. The laissez-faire approach to managing wildlife and habitat in BC will result in the extirpation of populations and listing of more species.

Value of Wildlife

The draft management plan recognizes the economic value of domestic livestock yet does not recognize the cultural, social and economic value of other wildlife for consumptive and non-consumptive users. The use of wildlife as a food source for all consumptive users, including First Nations, must be recognized and addressed. The provincial wildlife program plan references the importance of wildlife yet it is not acknowledged. Certainly ensuring the viability of an entire species such as the Vancouver Island marmot produces more value for future generations of British Columbians' than temporarily reducing wolf populations which are contributory in driving marmot colonies to extinction. The wolf management plan cannot be written in isolation of other over-arching management plans.

Landscape Level Management and Wolf Management

The BC Wildlife Federation recommends the approach to habitat and wildlife management be developed at the landscape level. Goals and objectives must be established for habitat and wildlife populations for all species to ensure a sustainable, long-term future for wildlife and British Columbians. Populations must be monitored and inventory conducted at regular intervals. Management must be at arm's length from government and it must be adequately funded. Any resource development/extraction must be researched, a plan put together to mitigate the effects and reclaim the habitat - the costs of which are to be borne by the developer. Until such a time as habitat and wildlife is managed at the landscape level and management is properly funded, development of species specific plans are an ineffective paper exercise.

In British Columbia we can have managed resource development, wolf management, and a positive outlook for species and populations at risk. Without wolf management, British Columbia will lose species and populations at risk, an outcome the BC Wildlife Federation does not support.

References

Hebblewhite, M., Merrill, E. H. And McDonald, T. L. 2005. Spatial decomposition of predation risk using resource selection functions; an example in a wolf-elk predator-prey system. – *Oikos* 111:101-111.