Report on gray wolf (*Canis lupus) management practices in British Columbia*

ECOLOGICAL IGNORANCE & ETHICAL BANKRUPTCY:

A TIME FOR CHANGE

October 2020

Wolf Awareness
Research • Education • Conservation

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This report is designed to provide a provincial progress report and brief overview of British Columbia's (BC's) management policies and practices for the gray wolf – *Canis lupus,* in 2020. The letter grades and their meaning were issued by Wolf Awareness using the BC Ministry of Education grading system as a model and used to indicate how the province scores regarding:

- Species protection
- Habitat protection and conservation planning
- Prevention of conflict with farm animals
- Management strategies
- Animal welfare

Letter grades are as follows:

A = The province demonstrates excellent or outstanding performance in relation to expected learning outcomes for the subject matter.

B = The province demonstrates very good performance in relation to expected learning outcomes for the subject matter.

C+ = The province demonstrates good performance in relation to expected learning outcomes for the subject matter.

C = The province demonstrates satisfactory performance in relation to expected learning outcomes for the subject matter.

C- = The province demonstrates minimally acceptable performance in relation to expected learning outcomes for the subject matter.

F = (Failed) The province has not demonstrated the minimally acceptable performance in relation to the expected learning outcomes for the subject matter.

Percentage:

A	86 – 100
B	73 – 85
C+	67 – 72
C	60 – 66
C-	50 - 59
F	0 - 49

SPECIES PROTECTION

Wolves receive no protection beyond the boundaries of National Parks, beyond which they are subject to lethal persecution from hunters, trappers, livestock producers, and government-contracted aerial shooters.

BC's approach to wolf "management" attempts to systematically legitimize the killing of wolves for various [presumed] purposes. The cumulative impacts of multiple pressures (mostly lethal) are dismissed.

Worth mention, Coastal wolves are genetically distinct from inland continental gray wolves and show unique ecological, morphological, and behavioural characteristics. Because of this, scientists consider the coastal wolf to be an *Evolutionary Significant Unit* - warranting special conservation status and necessitating new management strategies. Despite this, Coastal wolves receive no added species or habitat protection and are subject to the same policies which expose all wolves to harm.

GRADE: F

Wolf Awareness Note:

BC is an important stronghold for wolves – with potential to preserve predator-prey systems in their evolutionary waltz. However, to achieve this conservation goal management priorities, practices and strategies for wolves will need to change.

Coastal wolf pup: Trevor Ribeyre

BC'S COASTAL WOLF

These animals have evolved separately from mainland wolves, forming an ecologically unique group that largely feeds on marine life, including salmon.

Coastal wolves depend on beaches for traveling and to locate oceanic food resources found in intertidal zones and washed up on shore.

These wolves live along the coast of BC and southern Alaska, using mainland coastal and near-shore island habitat that is primarily composed of temperate rainforest.

Wolf family: Peter A. Dettling

HABITAT PROTECTION & CONSERVATION PLANNING

Wolves require large home ranges and connected habitat for long dispersals to maintain genetic flow and long-term viability. As such, wolves and other large carnivores can be used as focal species for ecosystem-level conservation planning.

Today, where wolves have remained as part of the landscape or are recolonizing their former habitat, much less natural habitat is available. Although there remain extensive 'natural' areas across the province of BC which provide wolves with varying degrees of habitat preservation and protection from human influences, the main threats to the survival of wolves include loss of habitat due to destruction, development, and encroachment of humans.

Wolves are sensitive to people, whereas many areas considered "protected" for wildlife are heavily used by people. Presently, even the largest National parks are inadequate in size to fully protect wolves and these areas provide a low probability of wolf persistence on their own. Beyond these artificial boundaries' wolves receive no protection.

The current rate of habitat loss and human activity are compromising the ability of wolf populations to persist in many areas of the province. BC lacks sufficiently large, designated areas managed for long term survival of viable populations of wolves, or other large carnivores. Scientists have termed these *carnivore conservation areas,* however achieving this goal is a component of a larger mission of conserving biological diversity.

GRADE: C-

Wolf Awareness Note:

Carnivore Conservation Areas will require interjurisdictional cooperation that prioritizes wolf and large carnivore conservation. Planning and co-operation are overdue.

PREVENTION OF CONFLICT WITH FARM ANIMALS

Although lethal removal of carnivores including wolves blamed for hunting livestock is still widely practiced in BC, an increasing amount of scientific evidence demonstrates that unless they are extirpated, lethal removal of wolves has no effect on reducing future predation events and can even contribute to increased levels of conflict[1,2,3,4,5].

Where wolves and livestock overlap there will always be occasional losses, yet perspective is paramount. Various factors such as weather, birthing, poisonous plants, transportation, respiratory problems and disease each pose a larger concern to producers. Predation of livestock can be a serious concern for individuals, but it is not a threat to the industry.

BC has developed educational guides on *Wild Predator Loss Prevention Best Management Practices* for cattle and sheep. However, hundreds of wolves are still killed annually through BC's *Livestock Protection Program* - coordinated by *BC's Cattleman Association* in partnership with the *BC's Trapper Association*. Far too often the program results in lethal control - despite its lack of proven efficacy in reducing future conflicts. While most livestock are raised on private property, tenures are also provided for crown land which often comes at a lethal cost to wolves and other carnivores. Range tenures for livestock cover more than 1/3 of BC's total land base. Grazing tenures even exist within provincial parks!

BC operates a federally subsidised *Livestock Loss Compensation Program* for producers whose cattle or sheep have been verified to have been killed by wolves (80% of market value for age group). Compensation programs may alleviate some immediate financial stress, but they are not a long-term solution; compensation does nothing to prevent livestock losses and there is little evidence to show that these programs are effective at improving tolerance levels for wolves. Compensation payments are only intended to go to those practicing responsible husbandry and prevention-based practices, however, compensation could mean that some individuals are less inclined to take preventative measures resulting in a perpetual state of conflict. BC does not invest support or incentives for prevention of predation, such as financial aid to help offset the cost of initial purchase or replacement of a livestock guardian animal. Monetary investments aimed at reducing future predation events should include *non-lethal preventative measures that last.* Examples that have ongoing effectiveness include establishing a human presence, using Livestock Guardian Animals, erecting barriers (e.g. turbofladry [electrified fladry]).

GRADE: F

Wolf Awareness Note: Several farmers & livestock producers are becoming more "predator-friendly" by preventing conflicts through non-lethal methods. Learn more through our Ranchers Guide to Coexistence.

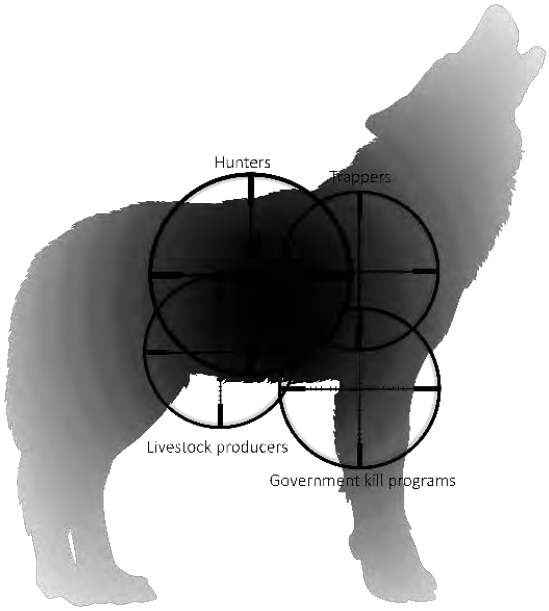
Livestock guardian dog with sheep: Louise

MANAGEMENT STRATEGIES

Post-colonial treatment of wolves across much of Canada involves management techniques which promote the killing of wolves. Wolves in BC are still subject to ideas and treatments based on the outdated North American Model of Conservation, which focuses largely on numerical population goals for wildlife and which views Nature to be for human consumption. Each province or territory in Canada has jurisdiction over wolf/wildlife management and conservation; ~94% of BC is provincial crown land [6]. Lethal practices continue despite the ineffectiveness of such programs at preventing future conflicts with domestic animals, predictably controlling wolf populations, or increasing human tolerance levels.

Wolves across BC are subject to:

- Liberal hunting and trapping regulations with long seasons
- Cash incentives and rewards to kill wolves through unofficial bounties and killing contests
- Reactive killing in areas with livestock (sometimes on public lands leased for grazing)
- Government contractors hired to shoot wolves from helicopters



Killing wolves to manage them?

Large carnivores including wolves have evolved to self-regulate their populations through biological and behavioural mechanisms that influence numbers and spacing (ie. population size and density). These processes are disrupted when wolves are killed by humans, however, lethal programs for wolves are carried out as "management" practices. For example, resident hunters and trappers are encouraged to help "manage" wolves by killing them, yet there is no evidence that hunting/trapping or population control (culling) of wolves provides a reliable outcome (numerical or behavioural), nor does it reduce conflicts with people or livestock.

Wolves are still often blamed and targeted in response to the idea that they are killing "too many ungulates" (ie. members of the deer family). However, studies have shown that ungulates killed by humans often have a higher reproductive value and overall greater total reproductive impact compared to wolves. Wolves, like people, can and do contribute to limiting prey populations – however human hunting does not mimic the role of top-predators, strong players in minimizing the spread of infectious prions such as Chronic Wasting Disease. Scientists suggest that healthy wolf populations contribute to reducing and limiting the spread of diseases[7,8,9].


Wolf family: Peter A. Dettling

The population of wolves in BC was guesstimated to be between 5,300 - 11,600 wolves in the 2014 Wolf Management Plan. While the exact number of wolves is unknown, wolf biologists have long stated that management and conservation of wolves should focus less on population numbers and more on maintaining stable family units and facilitating important ecological processes. Stable wolf families and populations not only benefit the environment, but they are also easier to manage because they are more predictable.

To better address socio-political objectives and environmental responsibilities which surround minimizing conflicts between livestock and wildlife while maintaining healthy forests and ungulate populations, BC would do better to allow wolves to live in stable families in which populations are able to self-regulate themselves.

Wolf Awareness Note: By mismanaging wolves' entire ecosystems are mismanaged. Opportunistic hunting of wolves disrupts the social cohesion and structure established within each family which can result in behavioural and biological changes that impact ecological functions and interactions with livestock and people.

Killing wolves as recreation?

Wolves are not eaten by people and thus killing them is not for sustenance. Nor can it be said that wolves must be killed to keep humans warm in winter by wearing their skin. Neither hunting nor trapping of wolves is considered as a reliable form of wolf management, as discussed above. Moreover, killing wolves often results in unforeseen outcomes for wolves as well as other animals and even plants.

Hunting and trapping of wolves in BC is very liberal: wolves can be killed by provincial residents using a general hunting licence for 9–12 months of the year; with no species license or tag required (i.e. anyone with a general hunting licence can kill a wolf). Almost half of BC has no maximum allowable kill quota (i.e."No bag limit" or “NBL”). Note that BC residents are allowed to kill a wolf outside of hunt/trap seasons if it is perceived to be in defence of livestock or property.

More than 1,000 wolves are killed each year in BC as part of recreational hunting and trapping. BC is divided into nine administrative regions (see map) which are broken down into 225 different Wildlife Management Units (WMUs). Most provincial parks allow hunting and trapping of wolves. Additionally, hundreds of wolves are killed annually in government-sponsored aerial shooting, and hundreds more killed by incentivised trappers where they overlap with livestock.

Hunting

- Annual resident hunting licence costs $32 (less if young, old, or new to hunting).
- No Species Licence is required for hunting a wolf (or coyote).
- Bag limits & seasons can range within WMUs in the same region (eg. Region 3 bag limit ranges from three wolves to No Bag Limit in some WMUs with some WMUs open year-round below 1100m elevation)
- Compulsory reporting of hunted wolves in only two of nine regions, 1 and 2.

Trapping

- An annual trapping licence is $40. The fur/skin royalty fee is $3.88.
- Wolves are listed as a Class 3 Species in BC Trapping Regulations, indicating that trappers are "encouraged" to trap them.
- No bag limit or maximum allowable quota for trapping wolves
- Compulsory reporting only in regions 1 and 2.

Wolf hunting seasons by Wildlife Management Unit

Region	Bag Limit	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1	3												
2	3												
3	3 - NBL												
4	3 - NBL												
5	3 - NBL												
6	3												
7a	NBL												
7b	3												
8	3												

Wolf trapping seasons by Wildlife Management Unit

Region	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1												
2												
3					restricted to private land							
4					no closed season below 1100 m.							
5					restricted to private land							
6												
7a												
7b							below 1100 m.					
8												

Hunting and Trapping regulations in BC. Darker colours indicate open season, lighter colour indicates open season in part of the Wildlife Management Unit.

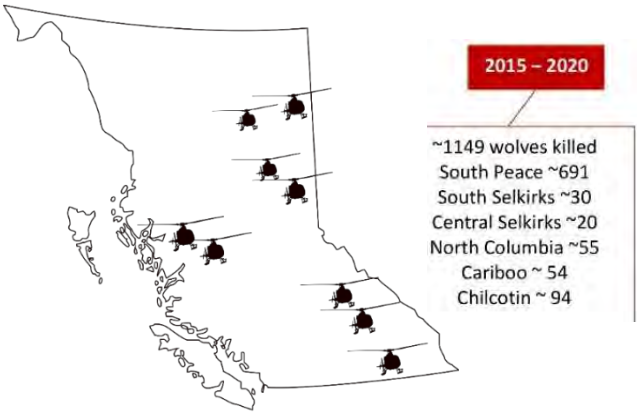
Killing wolves as *con*servation?

In 2015 BC began a government sponsored aerial wolf kill program which has since killed more than one thousand wolves. **498[10] wolves were killed last winter alone (2019/20).** Strangling snares and ground hunting are also used. The wide scale killing of wolves is carried out under the guise of caribou conservation. However, caribou ranges are still inflicted with destruction and alteration; namely due to resource extraction - the ultimate cause of their decline[11].

Wolves must exist at a sufficient density and distribution to exert their role as an ecological driver, and yet the province has not undertaken an environmental impact assessment to measure the major ecological effects of wolf reduction programs; he widespread destabilizing environmental damage that is likely occurring may not even be repairable.

Wolf kill programs fail to consider the immediate and long-term effects this type of "management" has on wolf genetic and social structures, other wildlife, and the sustainability of the entire ecosystem. Aside from the glaring ethical and ecological concerns associated with predator removal programs, destruction of caribou habitat continues where wolf kill programs are underway. The resilient reproductive nature of exploited wild canids does not excuse wide scale killing of these sentient animals.

Approximate provincial distribution and accounts of government sponsored wolf reduction programs to ostensibly support caribou recovery



Wildlife management and conservation practices should be ecologically and ethically sound. Wolf killing programs are neither and as such should be abandoned.

- Wolf Awareness Policy Position on Experimental wolf reduction programs underway in Western Canada (2018).

More than 1,700 wolves are killed annually in BC's wolf management programs[12], [13] [*conservative estimates:* caribou program: ~500, hunting/trapping: ~1,000, livestock: ~200[14]].

GRADE: F

Wolf Awareness Note: Whereas Yellowstone National Park in the US recently celebrated 25 years of wolf restoration and ecosystem rewilding at a cost of US ~ $30 million[15,16], BC is attempting to extirpate wolves across several caribou herd ranges; creating an ecological and economic debt that future generations will have to bear.

Wolf pups: Louise Liebenberg

ANIMAL WELFARE

BC continues to use and condone techniques on wolves that cause severe pain and distress, often for prolonged periods. Hundreds of individual wolves suffer extreme pain and distress prior to death each year.

According to the Canadian Council on Animal Care a killing method is humane if it causes rapid (immediate) unconsciousness and subsequent death without pain or distress[17,18]. Aerial gunning and strangling snares, both of which are used extensively across BC, fail to meet these criteria.

BC and Alberta are the only 2 provinces that have not adopted the Canadian Council on Animal Care standards intended to ensure humane killing methods for wild & domestic animals. That these provinces refuse to act in accordance with this national standard and continue to carry out inhumane killing of wolves is deeply concerning.

Aerial-shooting programs

The International Union for Conservation of Nature Canid Specialist Group has denounced the use of hunting with mechanised vehicles (e.g. aerial shooting) in wolf management programs[19]. Despite this, BC began hiring contractors to shoot wolves from aircraft in 2015. After net-gunning a wolf from a helicopter to fit with a radio collar, the wolf is released so that gunmen can be flown in at a later date to relocate the collared wolf with its family and kill them all. The collared wolf is left alive as it watches its entire family gunned down from the air, and *kept alive year after year* [20]. Winter conditions, aircraft, fleeing targets and rough terrain mean wolves are often shot multiple times, left wounded to suffer a slow death hidden under forest cover.

Snares

Neck killing snares designed to kill canids (wolves, coyotes and foxes) are inhumane. Due to the musculature and anatomy of wild canids these devices cause prolonged and excruciating suffering[21]. In addition, these devices kill and maim a considerable number of non-target animals, both wild and domestic. Snares should be immediately phased out due to their cruelty and indiscriminate nature. In the interim, it would be sensible for each snare placed on the landscape to require a 24-hour mandatory check-time to alleviate suffering and release non-target victims. Unfortunately, enforcing this regulation is not possible and thus a provincial ban on these devices is a warranted.

GRADE: F

Wolf Awareness Note: Detention for uncongenial behaviour!

OVERALL

The shortcomings of BC's wolf management and conservation practices highlighted in this report are directly impacting wolves, wildlife communities and healthy ecosystems. In the absence of ethical science-based wildlife management and habitat protection, we can expect wolves in British Columbia to continue to be killed both ruthlessly and needlessly, resulting in an ultimate deterioration of ecological interactions and resilient ecosystems. As it stands now, habitat loss and fragmentation combined with direct human persecution puts wolves in a position where conservation efforts and education are critical to help ensure wolves can continue to function as an integral part of healthy ecosystems across western Canada where this option remains viable.

BC still has the opportunity to maintain the evolutionary potential of wolves and preserve their role as a group apex predator through much of the province. The prospect of preserving wild wolves as an essential part of the landscape will be determined by the province's future goals, actions, and planning.

OVERALL GRADE: **F**

Wolf Awareness Note: In British Columbia we CAN do better for wolves and we MUST. Beginning NOW.

RECOMMENDATIONS FOR FUTURE

To help promote positive attitudes towards wolves as part of a healthy environment, BC would do well to invest in educational programs surrounding: i) the contribution wolves provide to maintaining forest and ungulate health, ii) transitioning farmers to non-lethal prevention-based practices with evidence of efficacy, iii) an accurate perspective of the impacts wolves have on the livestock industry, and iv) responsible behaviour and viewing etiquette in wolf country.

Management practices aimed at lethal reduction of wolves should be abandoned. Management goals must shift from a numbers-based focus to instead allow wolves to self-regulate their populations within the carrying capacity of the land, while working to minimize conflicts with people and maximize ecological benefits. A management goal of stable family units, taking into account the evolutionary behaviour and biology of wolves, would better serve to minimize conflicts with livestock while maintaining disease-free ungulates and demonstrating a myriad of other ecological benefits.

Carnivore Conservation Areas (CCA's) must be identified and established to provide habitat reserves sufficient to help ensure the long-term survival of wolves. Management and conservation goals must be founded on high scientific standards which include the external peer review process. High ethical standards that include animal welfare should be part of all wildlife management and conservation goals.

The cultural, ecological & economic benefits wolves bring to
British Columbia are invaluable & irreplaceable.

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