



Guide Outfitters  
Association of British Columbia  
*Wildlife Stewardship is our Priority*

# GOABC Wildlife Stewardship

## SERIES III



**Mountain Goats – Preparing for the Future**  
*An Action Plan for the Mountain Goat*

**MARCH 2009**

**Our thanks to our funding partner:**

**The Wild Sheep Foundation**



## **Executive Summary**

In December of 2008 the Guide Outfitters Association of British Columbia (GOABC), with funding from the Wild Sheep Foundation (formerly the Foundation for North American Wild Sheep), hosted a workshop at Thompson Rivers University in Kamloops, British Columbia. The purpose of the workshop was to gather information from various sources that have a qualified knowledge of mountain goats (*Oreamnos americanus*) and their ecology.

Following the presentations that were put forward by biologists from British Columbia, Alberta, Alaska, and Wyoming, along with a presentation from our own association, we analyzed the common issues and proposed solutions to the problems currently facing mountain goats in British Columbia. Some of these issues include; sustainable harvest rates, population estimates, historical ranges, and population trends.

Mountain goats in British Columbia are considered by some to be the true mascot for a “Supernatural BC.” They live in such harsh environments, which makes them an inspiration to anyone who has the chance to observe them in their natural habitat.

## **Background**

Mountain goats (*Oreamnos americanus*) currently range over British Columbia, Yukon, Northwest Territories, Alaska, Alberta, Washington, Montana, Wyoming, and other scatterings throughout North America. With populations estimated at 50,000 in British Columbia, we house approximately 50% of the mountain goat population. Variances in population estimates and large discrepancies in current numbers are issues that must be addressed.

- 1 Recently there have also been localized reductions in mountain goat populations for unknown reasons. With the growth of the commercial recreation tenures in the province, and the expansion of the Oil and Gas industry, the effects of these disturbances must be measured to understand the effects they may have on mountain goats and other wildlife in these areas. Discussions on viable harvest levels for mountain goats have been started at the provincial level; with suggested harvest rates ranging from 2% to 6%. At the same time, there were concerns raised over the definition of a population and what is a standalone population. With some encouragement from government, the GOABC board of directors decided that it would be practical to facilitate a workshop for mountain goats as part of our Wildlife Stewardship Series.

## **The Recommendations**

This document contains recommendations that were developed during the workshop. Presentations were given on mountain goats from various regions of North America, and it became apparent that there were significant knowledge gaps with mountain goat management. After the presentations the group was divided into working groups with stakeholders from the various regions. Each group was asked to come up with three recommendations to improve mountain goat management in British Columbia. The recommendations that were created are outlined in this document. The main focus of the recommendations revolves around; population inventories and trending, access (travel) management, predators, and harvest rates/female harvest levels. The recommendations were created in a consensus from each working group and do not necessarily represent the view of the GOABC.

## ***Conceptual Model of Mountain Goat Ecology in British Columbia***

The mountain goat exists only in North America. This makes them one of the most distinct species in the world. The closest relatives to the mountain goat (the chamois, goral and serow) exist in Europe and Asia. Due to the steep terrain and glaciations of the mountain goat's territory, their fossil record is limited to the last 100,000 years. This gives us little information regarding their true origins.

Mountain goat ranges in British Columbia extend across the province with varying degrees in density. They inhabit both wet and dry climates. The only geographic portions of British Columbia that do not hold populations are the Coastal Islands (i.e. Vancouver and Queen Charlotte Islands). Mountain goats have limited competition from other species for forage. Their diet is largely versatile as they will consume a wide selection of plants; including, coniferous and deciduous trees, lichens, ferns, grasses, herbs, and shrubs. Mountain goat habitat is largely protected from industrial and commercial development due to its ruggedness and location. Yet, in recent years, localized pressure has been put on this range from logging, mining, and some commercial recreation tenures. Also, with the increase in fire suppression, some winter range has suffered from the lack of early seral vegetation.

Overall mountain goat populations are stable throughout the province, but certain localized populations are under pressure. Consequently, we suggest that mountain goat population sizes be suitable to the available terrain, and to insure that their habitat remains suitable to support healthy populations of mountain goats into the future.

### ***Harvest Management***

#### **Problems**

- Mountain goats are highly susceptible to female harvest. Currently government monitors for a maximum 30% of the total harvest to be female. Some specific areas may be seeing harvest rates higher than the desired.
- Disagreement on sustainable harvest rates.

#### **Objectives**

- Educate mountain goat hunters on identifying mountain goats (male and female) and the effects of harvesting nannies.
- Determine sustainable harvest rates.

#### **Strategies**

**Recommendation #1 – Create a program to educate hunters about the effects of “nanny harvest” and how to correctly differentiate between “nannies” and “billies.” This material must be easily accessible to hunters across the province.**

Currently the state of Alaska has a video that they use for educating hunters. We may be able to access this video for the education of British Columbian hunters. This information should be available on the internet to increase it's accessibility to hunters (possibly on the GOABC website, or the BCWF website). Alaska also uses a point system for female harvest. A review of this system should be completed to assess the applicability of this system for British Columbia.

## **Recommendation #2 – Study areas should be implemented to study the effects of different harvest rates on mountain goat populations in British Columbia.**

It is critical that the Ministry of Environment understand what harvest rates are sustainable to mountain goat populations. These harvest rates should be monitored to determine the effects these rates are having on the overall population to ensure a sustainable harvest.

### ***Population - Inventory/Monitoring***

#### **Problem**

- Currently mountain goat population estimates in British Columbia range from 36,000 – 63,000 animals province wide.
- Lack of funding.
- Herd health.

#### **Objectives**

- Develop a system to incorporate the knowledge of guide outfitters as a system of monitoring populations and their trends.
- Acquire knowledge of the physical health of mountain goats in the province.

#### **Strategies**

### **Recommendation #3 – Develop a relationship between the Ministry of Environment and guide outfitters throughout the province to assess and monitor mountain goat populations.**

Work to get accurate population surveys in areas with poor population estimates (once they have been determined). Following the surveys, the relationship must continue to create a monitoring system whereas the guide outfitters can continue to keep track of population trends. At the same time, it would be beneficial to create a training program through the Provincial veterinarian to work as a mountain goat health monitoring system.

### **Recommendation #4 – A review should be conducted of all compulsory inspection data that has been collected since 1963.**

This data can be analyzed to see trends to forecast mountain goat populations.

### ***Habitat Management***

#### **Problem**

- Areas with declining mountain goat populations.
- Increased access throughout the province to sensitive mountain goat habitats may be disrupting mountain goat populations.
- Wind power developments are on the increase, and may have adverse affects on mountain goats.

## Objectives

- Assess and determine effects of access to mountain goat populations. These issues may be caused by either on the ground access (snowmobile, ATV) or air access (helicopters etc.).
- Restore populations to historical numbers in areas that have seen a reduction.
- Create better integration between habitat and population managers.

## Strategies

**Recommendation #5 – Using the information that will be gathered from the mapping of mountain goat habitat, determine and flag where access or disturbance are a concern. A formal paper outlining the concerns of access and travel management issues in mountain goat habitat will also be necessary.**

Mountain goat habitat, especially winter habitat, requires intensive mapping throughout the province. Possible threats caused by access or travel methods in mountain goat range should be outlined with a formal paper created to recognize that access or travel methods may have an impact on mountain goat populations.

## Predator Management

### Problem

- Declining mountain goat populations due to increased predation.

### Objectives

- Determine cause of declining mountain goat populations.

### Strategies

**Recommendation #6 - Implement predator management programs in areas where it is found that predators are causing declines to mountain goat populations.**

Predators have been on the increase throughout the province for many years. Although some areas are putting stronger predator management areas into effect, mountain goats may get overlooked due to the location of their habitats.

## Conclusion

British Columbia is home to a significant array of diverse species. The Wildlife Stewardship Series has hosted workshops pertaining to mountain caribou, Stone's sheep, and mountain goats. These workshops are facilitated by the Guide Outfitters Association of British Columbia to have a positive effect on wildlife management and knowledge to ensure a continued enjoyment of these species into the future.

Outlined in this document are six main recommendations for the management of mountain goat populations. These recommendations, when implemented, will have a positive effect on the status of mountain goat populations in British Columbia. It is our hope to see these recommendations are implemented to ensure that mountain goats continue to prosper in this province and throughout North America.

