

# Dall's Sheep in the Northern Richardson Mountains

## Status Report Summary

The Northern Richardson Mountains, a mountain range straddling the border between the Yukon and Northwest Territories, is home to one of Canada's most northern population of Dall's sheep. These mountain sheep play an important role in the ecology of this arctic mountain environment. Over the past 30 years there have been various attempts to develop a management plan for this isolated population. However, it wasn't until local land claims were settled that a plan was completed. Putting together a status report for the population was an important part of this management plan and will help guide future research and management decisions. The following is a summary of this status report.

## Population Overview

The Dall's sheep found in the Northern Richardson Mountains are at the northern edge of their species range. While there may be some migration between these sheep and those found in the Southern Richardson Mountains, about 75 kilometres away, they are for the most part isolated and as a result may be sensitive to disturbances to their habitat or population. According to local First Nation knowledge and early survey records, this population was historically small. However, throughout the 1980s the population grew and by the mid 1990s had almost tripled in size to over 1,500 animals. Since that time the population has decreased again to about 700 animals, which is closer to historical estimates.

No one knows why the number of sheep changed so dramatically, but there are several possible reasons. Cold winter and summer temperatures often mean that fewer lambs are born, especially when there is already a large population of sheep competing for food and other resources. Other grazers such as caribou, muskox, moose, ground squirrels, and snowshoe hares may also limit the sheep's food supply. Wolf, grizzly bear, golden eagle, wolverine, fox, lynx, and black bear eat sheep and can also have an impact on the population. Lungworm parasites have been found in some individuals, but disease does not seem to be a problem for Northern Richardson sheep.

## Habitat

The Northern Richardsons are made up of high, rugged, unglaciated mountains running north to south along the Yukon and Northwest Territories border. To the east and west, these mountains give way to more gentle rolling slopes and broad valleys. During winter, Dall's sheep tend to stay in the high mountains where the rugged terrain gives them places to escape predators and wind-blown slopes give them easier access to food. During the spring, they often move lower into the valleys where they can find more plants for grazing and have easier access to water. In the summer, ewes and lambs will stay close to mineral licks and cliffs where they are safer from predators. Rams may travel farther away from the mountains where there is more food to eat, but return in the fall during the rut.

Over the past decade, both the temperature and the overall amount of rain or snow in the region have increased. How these changes will affect the local sheep population and its habitat is hard to predict. Local land use and community conservation plans identify the

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Northern Richardson Mountains as an important ecological area, but there is still a chance that oil and gas or mineral development could happen there in the future – activities that may have an effect on Dall’s sheep habitat.

## **Harvest and Human Use**

In the Northern Richardsons, Dall’s sheep have been harvested by local First Nations for hundreds of years, but hunting them in their high mountain habitats is a challenge and the number of animals taken, even today, is not high. During the late 1960s and early 1970s when there was a rush on oil and gas exploration in the Mackenzie Delta, a large number of sheep were killed in the area – about 30 per year. Today the number is much lower with about 10 sheep kills reported each year. Hunters from the Northwest Territories have easier access to the population and are responsible for most of the harvest. On the Yukon side, two sheep hunting permits are given out to licensed resident hunters by lottery for the area each year and the Vuntut Gwitchin government estimates one sheep is taken by their citizens annually. It is important to note that the actual number of sheep killed by hunters each year may be much higher as some harvesting still goes unreported. Without a clear picture of the number, sex, age, and harvest location of all sheep taken in the Northern Richardson Mountains it is hard to know the sustainability of current harvest levels. Local residents also see value in the Dall’s sheep population as they provide wildlife viewing opportunities that attract photographers and tourists to the area.

## **Education and Information**

In order to ensure the long-term conservation of Dall’s sheep in the Northern Richardson Mountains, local communities need to be involved in their management and research. To do this, residents may be invited to participate in field studies; researchers and elders could visit local schools and organize community presentations; students may take school trips into the sheep’s range; renewable resource officers and councils can keep communities updated; and, local and traditional knowledge should be documented. The status of Dall’s sheep and any concerns about their population need to be a topic of conversation and information exchange. This will only happen if the individuals and groups involved in the management of this important population commit to carrying out these activities.

## **Cooperation**

Management of Dall’s sheep in the Northern Richardsons involves multiple parties, including: Yukon and Northwest Territories governments; Vuntut Gwitchin, Tetlit Gwich’in and Inuvialuit governments; as well as local renewable resources councils, hunters and trappers committees, and other public advisory bodies. Various legislation such as territorial wildlife acts and individual First Nation final agreements also guide the management of this population.

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