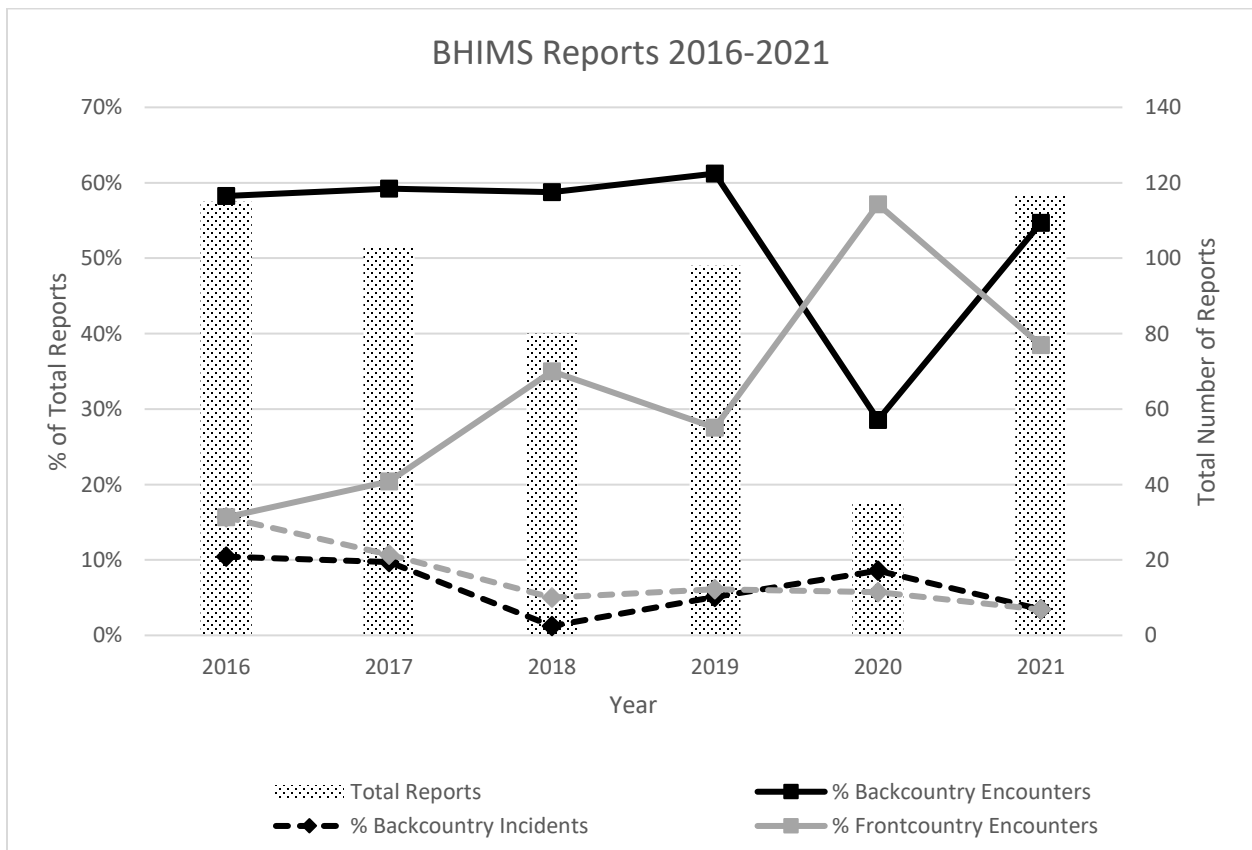


Denali National Park and Preserve Wildlife Updates January 2022

Bear Monitoring –Four radio collars remain from a long running project in the northeast corner of the park studying bear movements in and outside the park in that area. No field work is occurring except occasional radio tracking as part of other projects. Data analysis continues. Remaining collars are due to release in September 2022. A poster describing the project has been accepted and will be presented at the virtual International Bear Association conference in September 2021.

The park road will be closed for at least the next two years due to a landslide at approximately mile 45. In an effort to determine the effect of no traffic/traffic on bears, a project has been proposed to radio collar up to 20 bears along the closed portion of the park road corridor for the next four years. The project is currently pending final plans and funding decisions.

Bear Management - Denali’s Wildlife Management program strives to educate visitors about how to recreate in areas where bears are present. Tracking interactions between bears and people is organized in the Bear Human Incident Management System (BHIMS). This system provides a way for people to report their interactions with bears and for wildlife staff to rate the severity of those interactions and track patterns. Interactions are divided into back- and front-country locations and fall into three basic categories: observation (seeing a bear), encounter (close proximity, bear aware of people), and incident (bear charge, physical contact with person or property, bear getting human food).



Bear management activities are quiet for the winter while bears are denning. A 2021 end of season report is in near final draft and should be completed within the month.

Moose Monitoring - Moose monitoring surveys are on hold indefinitely. Evaluation of protocol is ongoing.

Due to extraordinary snow and rain fall in the area in late December, moose are congregating in areas of the park where snow has been cleared or packed such as roads, parking lots, and trails. Moose are stressed and showing some aggression. Human-moose and human-dog conflicts can be expected.

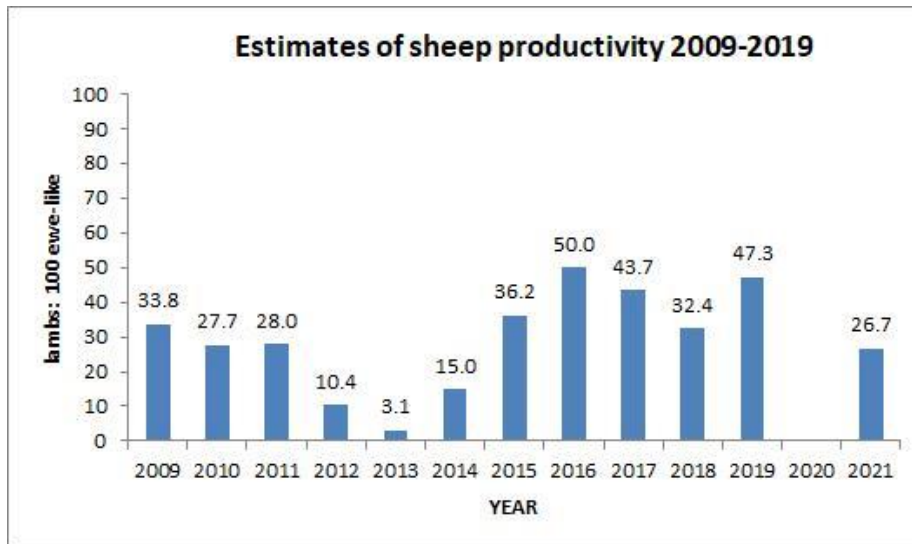
Caribou Monitoring –

Highlights from 2021 research on caribou include:

- 35 caribou collared/re-collared
- Preliminary fall herd estimate 2215 (down from 2446).
- Calf survival was relatively low at about 11%.
- Annual mortality rate for cows was 23% (average is 11%).

Looking at the weather data, a cold winter in 2019-2020 and cold and snowy conditions in March 2020 may have affected survival rates for both caribou calves and cows. While snow depth at park headquarters was just about normal in 2020, snow depth at Kantishna was 182% of normal. Deep snow is a hindrance to movement and requires more energy output from caribou. The March snows came at a time when pregnant caribou cows already have the highest nutritional need.

Sheep Surveys – No update from August 2021. Ground based surveys were conducted in July. Assessing 4 sites (instead of the more typical 6) on Margaret Ridge, Mt. Wright, Cathedral, and Igloo, 87 sheep in 13 bands (groups of sheep) were observed. Estimated productivity, as measured as the ratio of lambs per 100 ewe-like sheep, is about 27. Heavy late season snowfalls have anecdotally impacted observations in the past (see 2013); a decrease is not surprising this year.



Wolf Monitoring – Den activity and pup productivity have been monitored through radio tracking flights as well as data received remotely from Iridium radio collars all season. As pups are beginning to become more active and move away from den sites, pup numbers will be determined.

Highlights from 2021 research on wolves on include:

- 22 wolves collared and re-collared
- Overall fall count of 121 wolves in 12 packs with the Grant Creek pack up to 22 wolves.
- A wolf was spotted with a leghold trap and trailing chain stuck on its foot. The wolf was darted and the trap removed.
- 1 new pack this fall: Hana in the Sushana/Stampede Corridor

Visit Denali’s wolf webpage for the full report and more data and information.

<https://www.nps.gov/dena/learn/nature/wolves.htm>

Alpine Wildlife Project - No update from August 2021. Field work resumed in 2021 with a graduate student and 2 interns. The Denali Alpine Wildlife Crew conducted field research between May 31st and August 11th. Researchers hiked a total of 433 km in the backcountry, visited 109 sites, conducted 74 field surveys, and recorded 332 additional visual and acoustic observations of key alpine wildlife- Arctic ground squirrels, collared pika, and hoary marmots- throughout Denali National Park and Preserve. Signs of alpine wildlife were present at 85% of surveyed sites, with Arctic ground squirrel signs at 49%, collared pika signs at 26%, and hoary marmot signs at 11% of surveyed sites.

Researchers also launched the Denali Alpine Wildlife citizen science project this year, creating the Denali Alpine Wildlife Instagram account (@denalialpinewildlife, 41 posts, 136 followers) in November 2020 and posting about 35 posters throughout Denali National Park and Preserve and Kantishna (i.e. Denali Visitor Center, Backcountry Information Desk, Eielson Visitor Center, Toklat rest stop, Denali Bus Depot, Camp Denali, Kantishna Roadhouse, and Denali

Backcountry lodge, among others). To date, about 64 people have submitted observations in 2021, including a total of 74 submissions through iNaturalist (53 Arctic ground squirrel, 7 collared pika, 8 hoary marmots, and 6 Dall sheep) and 11 submissions through email (denialpinewildlife@gmail.com).

Field work will continue in 2022.

Avian Projects – No change from Aug 2021. Some avian projects resumed or started in 2021.

- Golden eagles – Nest occupancy surveys were conducted in April and productivity surveys were conducted in July. Occupancy of known nesting territories was high. Reproductive success in terms of females that laid eggs or pairs that raised young was low. This is a factor of low prey abundance and lack of snowshoe hares due to a low in their cycle.
- On-road Breeding Bird surveys were conducted in June. The number of bird species as well as number of individuals detected was as expected. Anecdotal reports from areas to the south indicate an influx of woodpecker species, nuthatches, and brown creepers. This is very likely due to the spread of spruce bark beetles.
- A nest predation study was conducted by a crew from USGS. Camera traps and site visits were utilized to detect nest predation rates and document nest predation events in a wide variety of avian species. Preliminary results are expected to be presented in September.

Please contact Carol McIntyre, Denali wildlife biologist, if you have any questions about any avian programs, projects, or studies. carol_mcintyre@nps.gov, 907-455-0671.

Please contact Pat Owen, Denali wildlife biologist, if you have any questions about any wildlife programs, projects, or studies. pat_owen@nps.gov, 907-683-9547.