



National Park Service Update
Gates of the Arctic National Park and Preserve
North Slope Regional Advisory Council Meeting
February 22-23, 2021

Subsistence

The Gates of the Arctic National Park Subsistence Resource Commission (SRC) met on November 18, 2020 via teleconference. The SRC received updates on the Ambler Mining District Road project and the Federal Subsistence Board wildlife proposal results for the 2020 to 2022 regulatory cycle. Additionally, the SRC heard updates on wildlife projects from NPS staff. The SRC will be sending a letter to Secretary of Interior Debra Haaland welcoming her to her new position and sharing concerns about the SRC appointment/reappointment process and the length of time it takes. The SRC will also be submitting a comment letter to the Board of Game on proposals affecting the Dalton Highway Corridor Management Area. The next SRC meeting is scheduled for April 2021 via teleconference.

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Western Arctic Caribou Herd

Each fall, for more than 10,000 years, caribou have moved south off of their summering grounds and crossed the Kobuk River to reach their wintering areas. As recently as 2011, the first caribou normally crossed in August. But, the first caribou are coming later and later. This year, with everyone anxiously awaiting the return of caribou to their region, not a single GPS-collared caribou crossed the Kobuk River by mid to late October, making this the latest-ever fall migration on record.

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Moose

Moose are a cold-adapted species, occurring mostly in the northern states and at higher altitudes in the Rocky Mountains further south. Population declines of moose in the Lower-48 states have been linked to increasing summer temperatures. Heat stress had not previously been examined for moose in the Arctic because, well, *it is the Arctic*. However, temperatures in the short Arctic summer can reach 90 degrees or more and warming is happening faster in the Arctic than anywhere else on the planet. A large team of researchers examined how moose responded to warmer temperatures in four study areas in Alaska, including the northernmost study area in and around Gates of the Arctic, which is entirely above the Arctic Circle. Moose in all areas sought out increased forest canopy cover to reduce heat stress, but moose in the park exhibited some of the strongest reactions. Warmer summer conditions may lead to more wildfires and less forest canopy cover that offers a thermal refuge for moose, even in the Arctic. Warmer summer temperatures with less thermal cover is something that needs to be monitored when considering moose management in Alaska.

Jennewein, J. S., M. Hebblewhite, P. Mahoney, S. Gilbert, A. J. H. Meddens, N. T. Boelman, K. Joly, K. Jones, K. A. Kellie, S. Brainerd, L. A. Vierling, and J. U. H. Eitel. 2020. Behavioral modifications by a large, northern herbivore to mitigate warming conditions. *Movement Ecology* 8(39).

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