



## Why do caribou calve where they do?

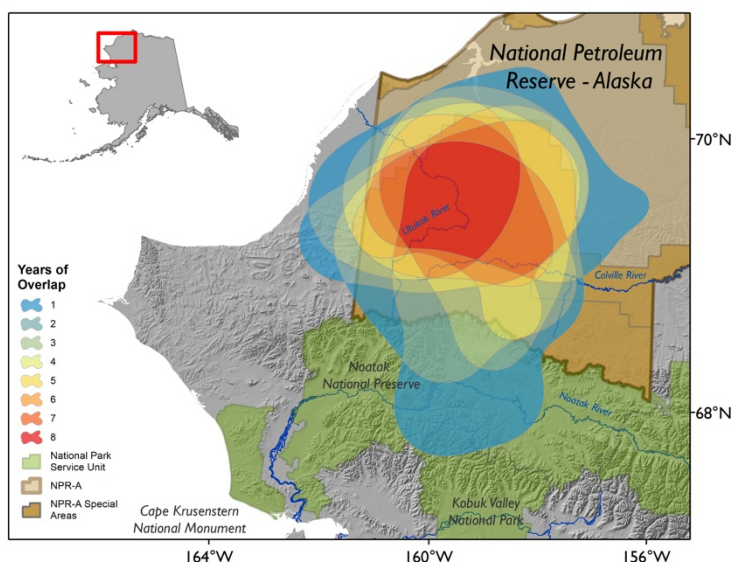


*A Western Arctic Herd female and her newborn calf.*

Caribou are well-known for returning to calving areas each spring, but *why* do they use those particular places? Researchers at the National Park Service and University of Alaska - Fairbanks set out to investigate this question for Alaska's largest caribou herd, the Western Arctic Herd, that lives in northwest Alaska. They determined where females delivered their calves using GPS collar data from 2010 through 2017, calculated the calving area for each year, and then compared each calving area to every other year to see how consistent they were. Lastly, they used satellite

data to test what characteristics of the landscape caribou selected for calving. They found that calving areas typically differ from year to year but share a common area of consistent overlap.

Use of this general area, called the Utukok Uplands in the North Slope, has not changed since the first study to document calving areas for the herd in the early 1960s. They also found that calving areas are characterized by high-quality vegetation at *the average time* when females have their calves. This finding suggests that caribou are using memory to guide them to the calving area each year, and then once in the general area, are searching for high-quality forage such as the flowering heads of cottongrass. Read the manuscript, linked below, for a more detailed account of the study and the implications for migratory species around the world.



*Map of annual Western Arctic Herd calving areas from 2010 - 2017. Color indicates number of years an areas was used, with blue indicating one year and eight years in red.*

[Pronounced fidelity and selection for average conditions of calving area suggestive of spatial memory in a highly migratory ungulate.](#) *Frontiers in Ecology and Evolution* 8: e564567.

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Homepage for the Western Arctic Herd Vital Sign: <https://www.nps.gov/im/arcn/caribou.htm>