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Factors affecting the body condition of female-calf pairs in two herds of migratory caribou in Northern Québec/Labrador

Joëlle Taillon[1], Steeve D. Côté[1], Vincent Brodeur[2], & Maco Festa-Bianchet[3]

[1] Département de Biologie and Centre d'études nordiques, Université Laval, Québec, Québec, G1K 7P4, Canada (joelle.taillon@bio.ulaval.ca).
[2] Ministère des Ressources naturelles et de la Faune, Direction de l'aménagement de la faune, Nord-du-Québec, Chibougamau, Québec, G8P 2Z3.
[3] Département de biologie, Université de Sherbrooke, Sherbrooke, Québec, J1K 2R1.

In Northern Québec and Labrador, more than one million migratory tundra caribou range over nearly a million square kilometres. Of the two recognized populations, Rivière-aux-Feuilles herd is very large and may be declining; Rivière-George herd is currently estimated at about half the size of Rivière-aux-Feuilles herd but may be increasing. The factors influencing body condition of tundra caribou are poorly understood, but are essential to our understanding of natural and human-induced variations in the survival and reproductive success of individuals and in population dynamics. We compared the body condition and parasite load of 20 female-calf pairs in each herd during June (calving) and October-November (weaning) 2007. Adult females from Rivière-George herd were heavier than those from Rivière-aux-Feuilles herd, but they did not differ in skeletal size. Calves from Rivière-George herd were much heavier and larger at birth and at weaning than those from Rivière-aux-Feuilles herd. Combining the June and autumn datasets, we compared adult female body condition following lactation and calf body condition and early growth in the two herds. Differences in body condition of female-calf pairs appear to be useful indicators of demographic changes and could reflect the quality of available summer habitats. Our results suggest that Rivière-aux-Feuilles herd may be declining.