



Moose

Resource Brief

Importance

Moose are an integral component of terrestrial systems in Alagnak Wild River (ALAG), Aniakchak NMP (ANIA), Katmai NPP (KATM), and Lake Clark NPP (LACL). During cycles of high abundance, moose have the potential to influence structure and function of terrestrial systems both through their browsing effects on vegetation communities and through their role as a prey species. Monitoring moose abundance and bull:cow ratios provides important information on dynamics of terrestrial systems. Moose also are an important natural and cultural resource to Alaskan sport and subsistence hunters.

Status and Trends

LACL biologists have used an aerial survey technique developed by the Alaska Department of Fish and Game (ADF&G) to estimate moose abundance and bull:cow ratios in portions of the park since 1992, and have used a modified version that accounts for sightability of animals in 3 survey units (Fig. 1) since 2003. Estimated numbers of moose decreased during the 2 years of surveys in Unit 1 (199±37 [SE] in 2004 to 134±27 [SE] in 2008) and in Unit 3-south (220±29 [SE] in 2003 and 165±24 [SE] in 2007). Bull:cow ratios increased by 12 bulls to 26 bulls:100 cows in Unit 1 and remained stable at 53-54 bulls:100 cows in Unit 3-south. There were an estimated 384±72 (SE) moose and 41 bulls:100 cows in Units 2 and 3 north during 2005. KATM does not currently have a park-specific monitoring program for moose, although its staff have cooperated with other agencies to monitor moose population trends on the Alaska Peninsula.

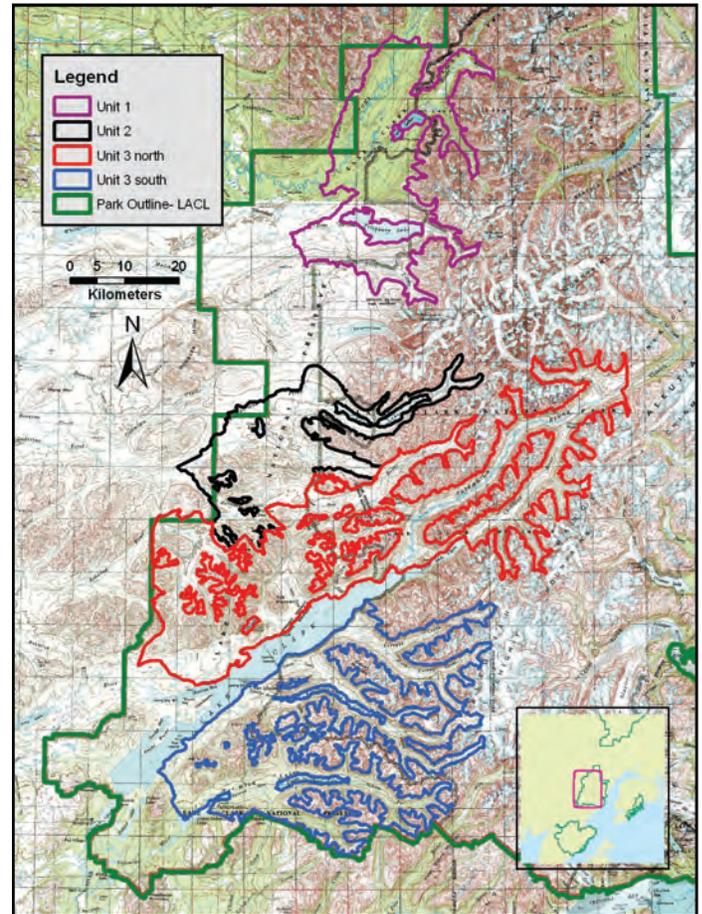


Figure 1. LACL moose survey units.

Discussion

The aerial survey method used by LACL for estimating moose abundance and bull:cow ratio does not translate well for use in KATM, because snow cover is more variable and patchy in KATM. A newer and more flexible survey method developed by statisticians from ADF&G will be field tested in KATM to assess its usefulness for monitoring KATM moose populations.

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Bull moose observed during LACL aerial survey.

NPS