

MOOSE ACTIVITY BUDGET STUDY--KENAI PENINSULA, ALASKA

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A telemetry system is currently being developed at the Moose Research Center on the Kenai Peninsula, Alaska for a moose activity budget study. The primary objective of the study is to compare the winter activity budgets of adult moose under low and high nutritional stress situations. A two transmitter system--one unit placed on the front foreleg and the other on the animal's head--will be used to detect lying, walking, feeding, ground feeding and cratering. During the study, eight moose (4 per treatment) will be fitted with the 2 transmitters and signals will be monitored using a data acquisition system designed by Telonic, Inc. Data will be collected over 24 hour periods. Equipment design and testing is ongoing.

Essentially, the leg transmitter is mounted vertically on the front foreleg by means of a nylon legband. The head transmitter is mounted horizontally next to the animal's snout by means of a halter. Two mercury tip-switches within the leg transmitter cause signal pulse interval to differ when the animal's leg is vertical and horizontal, allowing separation of lying and standing activities. Pulse interval varies with leg movement. A mercury switch within the head transmitter changes pulse interval when the animal lowers its head to the ground. Information will be collected simultaneously from both transmitters and activity will be assigned to each sampling period based on pulse interval data from both transmitters.



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