**Rachel Ward Seminar – Dec 13th**

**Title:** What to eat? Browsing preferences, diet composition, and bite size of moose in northeastern Minnesota.

**Abstract:**

As large herbivorous ruminants moose spend their day foraging and ruminating through forest stands in order to acquire adequate energy. However, browse species differ in growth patterns and nutritional quality and are not evenly distributed across the landscape. To estimate diet composition and browse species preferences of moose we measured browse availability and use along foraging paths of GPS radio-collared moose in northeastern Minnesota. At each foraging path in summer and winter we used both traditional methods and a newly developed method that more accurately reflects moose foraging behavior. Simulated bites were also collected and used to form diameter at point of browsing – biomass regressions for each browse species. These regressions varied by canopy closure and were used to estimate biomass consumed at foraging paths. We found that our new method was a more effective way to measure diet and browse selection from the moose's perspective. Our method combined with the use of GPS collars allowed us to quantify and compare the diet composition and browse selection of individual free-ranging moose.

**Papers to read for Seminar class:**

SHIPLEY L.A. 2010. Fifty years of food and foraging in moose: lessons in ecology from a model herbivore. Alces. 46:1-13.

PEEK, J.M., D.L. URICH, and R.J. MACKIE. 1976. Moose habitat selection and relationships to forest management in northeastern Minnesota. Wildlife Monographs. 48:3-65.

IMPORTANT for the Peek paper – Only read pages 6-10 and 25 through 31 (starting at FOOD HABITS on 25 read through the Utilization section on 36). The discussion at the end mostly discusses habitat instead of browsing so it isn’t critical, but if interested it is pages 54-61.