



"Our environment is our future"

RESEARCH COLLOQUIUM SERIES

Dr. Olav Hjeljord

University of Life Sciences, Norway



Wednesday
Dec. 1, 2010

3:30 - 4:30

LECTURE THEATRE

7 - 212

High density Scandinavian moose populations — how to maintain high quality animals?

Over the past fifty years Scandinavian moose populations have increased dramatically. Concurrently, moose body mass and demographic performance have decreased in some regions, but have remained stable or decreased only slightly in other regions. By comparing the different regions, we tested the "Range quality hypothesis". This hypothesis states that moose with more preferred forage (rowan, aspen, *Salix* sp.) should have better demographic performance due to higher intake of energy and nutrients compared to moose feeding on browse of medium/low preference (birch). However, extensive surveys of browse utilization showed that preferred species made up 25-35% of the diet in our high-performance regions and 45-60% in the low-performance regions. Furthermore, the relationship between browsing pressure and shoot length was negative for rowan, aspen and *Salix* sp., but positive for birch. In spite of increased harvest and a reduction in animal density by up to 50% in regions of low moose performance over the last 10-20 years, animal condition has not improved. Results are discussed in relation to range carrying capacity, recovery of over-browsed ranges and cohort effects transferred between generations (smaller mothers producing smaller calves).