REBECCA TYSON, University of British Columbia Okanagan, 3333 University Way, Kelowna, BC V1V 1V7
Recolonization of Harvested Forest stands by Tamiasciurus hudsonicus

We present a model for the population dynamics of *Tamiasciurus hudsonicus* within a forest environment subject to harvesting and regrowth. The forest is represented as a mosaic of patches at various levels of development from harvested to mature forest. Each patch grows over time, eventually becoming mature forest unless it is harvested again. At the same time, each harvested patch is gradually recolonized by squirrels. We find that the time it takes for a second growth forest patch to be recolonized at the mature forest level is much longer than expected. In particular, it is much longer than the time it takes for the second growth patch to produce as many cones as an equivalent mature forest patch. We also report that recolonization pressure decreases squirrel populations in neighbouring patches. We discuss reasons for these behaviours and predict how squirrel populations are affected by different harvesting geometries.