

## MOVEMENTS OF LYNX AT MULTIPLE SCALES IN NORTHWEST MONTANA: PRELIMINARY RESULTS<sup>TWS</sup>

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The future of the Canada lynx (*Lynx canadensis*) likely rests on multi-scale management for healthy and connected populations. To best direct such management, we are studying lynx movement at local and landscape scales with the following objectives: 1) describe lynx dispersal in terms of extent, timing, and crossings of natural and anthropogenic barriers; and 2) determine how lynx movements correlate to changes in local and landscape scales of habitat pattern. In 2003 we supplemented our studies in Seeley Lake, Montana with a new study area in the Purcell Mountains of northwest Montana. After first delineating the local distribution of lynx based on snow-track surveys, we deployed two forms of satellite telemetry to monitor lynx movements across spatial scales. Dispersal is a landscape-scale phenomenon that we are studying with ARGOS-based satellite telemetry, allowing us to remotely track dispersal movements. Currently, only ARGOS collars are suitable (110 g) for tracking kittens (9 month-olds). During the winter of 2003-2004, we instrumented 10 lynx kittens across both study areas with ARGOS collars; we are currently deploying additional ARGOS collars in 2005. To track local movements, we deployed a lightweight (~200g) store-on-board, GPS collars. In 2004, we tested this technology by deploying and retrieving data from collars placed on 2 males this winter. Preliminary data suggest GPS collars will provide lynx location data of greater quality and quantity than previously possible. We are currently deploying additional GPS collars on lynx in 2005.