

***Executive Summary of Work to Date on Bonners Ferry Multi-species Habitat Modeling Project.***

**Summer 2003**

Crew of 28 workers from May 1-Sept 30.

Approximately 330 National Vegetation Pilot Plots surveyed for small mammals (four consecutive nights), snowshoe hare, ungulates, bears, reptiles and amphibians.

Total of over 4000 small mammals captured from over 10 different species. A tissue sample was taken from each captured animal for genetic analysis.

Over 65% of visited plots produced samples of bear hair for genetic analysis. Over 150 individual black bears were identified. Two grizzly bears were identified.

Cost – the 2003 field season cost approximately 450 thousand dollars, or approximately \$1300 per plot.

**Winter 2003-4**

In a collaborative effort between the University of Idaho, Idaho Department of Fish and Game, Idaho Panhandle National Forests, and the Rocky Mountain Research Station, we conducted extensive hair snare surveys for fisher and marten in the Northern Selkirk Mountains.

Crew of 2 workers January to April.

Total of 186 hair snares set in 18 hydrological basins in the Priest River and Kootenai watersheds.

113 produced hair samples, for a sample rate of 61%. We collected a total of 300 samples from these 113 snares.

Hair snare sampling using box traps, 3-inch spacing barbed wire is highly effective for obtaining hair samples during winter in our study area.

No fisher and no marten were identified from genetic analysis.

A small number (~25) were sequenced to identify the species. The most common species among these 25 samples were skunk, bobcat, and coyote.

The approach, coupled with genetic species identification, appears to be a precise and cost-effective method for large-scale surveys of mid-sized carnivore distribution.

Our results may suggest that fisher are rare or absent in the Northern Selkriks. However, marten are known to be widely distributed and are apparently somewhat common in the study area, as we have caught six in squirrel traps in the summer, and have observed them at least 7 other times. We don't know why we didn't record them in the survey. Perhaps it is because the survey focused on low elevation riparian areas, which may support lower marten densities than higher elevation forest types.

Cost – the winter hair snare survey cost approximately 45 thousand dollars including genetic analysis, or about \$250 per snare set.

### **Summer 2004**

Crew of 28 workers from May 1-Sept 30.

We are currently sampling approximately 390 National Vegetation Pilot Plots surveyed for small mammals (four consecutive nights), snowshoe hare, ungulates, bears, fisher and marten.

Additions this year: We are conducting four sampling sessions for bears in the Purcell half of the study area. This will enable the use of mark-recapture methods to estimate the number of black bears. We are conducting fisher/marten hair snaring on all small mammal sampling plots, using similar protocols to the winter project. We are conducting small mammal, hair snare, ungulate and snowshoe hare sampling on approximately 60 additional plots in areas that have received fuels reduction thinning treatments. We are conducting vegetation surveys identical to those conducted on the National Vegetation Pilot on these 60 additional fuels treatment plots.

Deletions from last year: We have dropped the amphibian/reptile surveys, given our observation last year of very few (less than 5) samples obtained in the herp searches last year.