

RESEARCH
SMALL MAMMAL TRAPPING
ON U OF I
EXPERIMENTAL FOREST

Overview

Small mammal populations on the Experimental Forest have never been sampled. Data collected on the small mammal populations will provide information for future researchers regarding prey availability for raptors and mammalian predators, along with providing information for investigators studying seed survival and tree establishment. Understanding population dynamics of the small mammal species may aid in management of the Experimental Forest.

Small mammals will be trapped on the Experimental Forest using pitfall traps. The traps will be left in place and left for an undetermined amount of time; perhaps years. Traps can be activated or deactivated at any time. Traps may be removed if logging activities will be taking place on a site. Once a trap has been activated we will wish to leave it undisturbed for at least 60 days to get a representative sample of that site.

Objectives

We wish to obtain a representative sample of small mammals existing in various habitats on the Experimental Forest. Leaving the traps in place for years will allow us to observe changes in species composition as vegetation changes, or is changed through logging practices. Trapping sites will be chosen to represent a wide variety of vegetative regimes.

Trapping sites to be sampled:

- 1) Recent clear-cuts.
- 2) Areas to be clear-cut.
- 3) Areas with seed-tree cuts, or shelterwood cuts.
- 4) Areas which have been undisturbed for relatively long periods of time, and will not be logged in the near future.
- 5) One of the Natural Areas (an area which will not be impacted by silvicultural practices).

Traps will be installed and mapped by Ray Guse under the supervision of Dr. Greg Hayward. Dr. Oz Garton, currently on sabbatical, will supervise trapping and compilation of results; probably with the aid of future wildlife students for directed study credits.

Small Mammal Trapping
Univ. of Idaho's Experimental Forest

Wildlife 499 - Directed Study; Fall 1989
Raymond D. Guse

Eight small mammal pit traps were installed in different vegetation types within the Univ. of Idaho's Experimental Forest. Seven of the traps are located within the West Hatter Creek Unit. One trap is located within the Flat Creek Unit.

Signs directing you to the West Hatter Creek unit can be followed from Princeton, ID. Mileage between traps are measured from the locked gate marked on the attached map. Each trap is marked with a metal tag nailed to a tree approx 1.25 m above the ground. Each tag has the trap number and the magnetic bearing (not true bearings) to the trap stamped into it. In case someone blows bullet holes in the marker, rendering it unreadable, a duplicate tag has been nailed to the opposite side of the tree.

Site descriptions

The pit traps are marked with 4 corner stakes 1 m tall, and painted bright yellow. Trap 8, in the Hemlock Natural Area, is not marked with the yellow stakes. Each trap consists of four pits half filled with a mixture of water and 95% ethanol, covered with a thin layer of mineral oil to prevent evaporation. A sheet metal fence, 20 cm high and 2 m long, was placed so that two pits lie on either side. The fence acts to direct small mammals toward funnels attached to the top of the pits. Traps are covered with brush to detour animals that might cause damage to them. The brush also serves as camouflage for trap 8 in the natural area.

Trap 1 is located 1.4 mi. from the gate, and 142 degrees from the marker. This site was clearcut in 1982, and is approx. 10 acres in size. The site was planted with douglas fir and ponderosa pine in 1983. The trees are now approx. 2 m tall or more.

Trap 2 is located 3.2 mi. from the gate, and 110 degrees from the marker. This area is a group selection dominated by douglas fir and ponderosa pine. The site will probably be left alone for the next 20 years.

Trap 3 is located 3.5 mi. from the gate, and 295 degrees from the marker. This site is a 7 acre seed tree cut made in the fall of 1986. It is dominated by douglas fir and ponderosa pine.

Trap 4 is located 4.5 mi. from the gate, and 325 degrees from the marker. It is unlogged with a fairly tight crown dominated by douglas fir and ponderosa pine.

Trap 5 is located 5.0 mi. from the gate, and 020 degrees from the marker. It is a seed tree cut made in the summer of 1986. It is dominated by grand fir and ponderosa pine.

Trap 6 is located 5.15 mi. from the gate, and 090 degrees from the marker. You must turn right at the fork in the road encountered at 5.1 mi. The site has a dense canopy dominated by douglas fir with some grand fir and lodgepole pine. This site may remain unlogged for many years. The road that traps #6 and #7 are located on is not well graveled. The experimental forest policy is for researchers to exercise their own judgement as to when roads are too soft and their vehicles may cause damage and erosion. When the road is too soft for a vehicle, just grab your backpack and hike the two mile round trip.

Trap 7 is located 6.2 mi. from the gate along the same fork in the road as trap #6, and 075 degrees from the marker. This site is a group selection dominated by grand fir and ponderosa pine. It will remain unlogged for the next 20 years.

Trap 8 is located 1.9 mi. off State Highway 8 along the Flat Creek Unit road. The trap is within the Hemlock Natural Area marked as Point of Interest #5. The trap marker is located 100 paces up the right fork of the trail, and the trap is at 135 degrees and 50 paces from the marker. The site has a mixture of mature tree species.

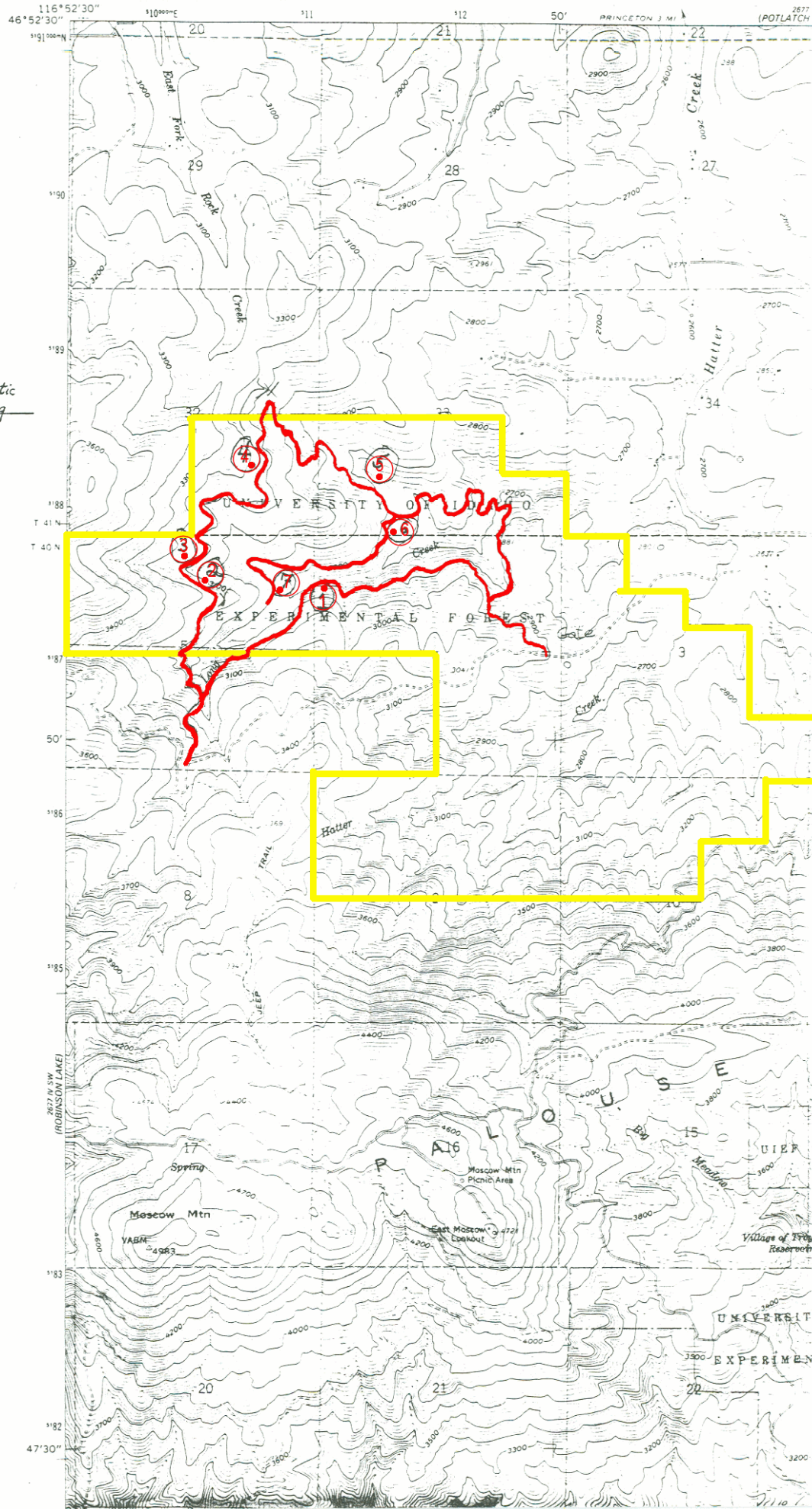
The traps were activated on Oct. 5, 1989 and checked Nov. 21, 1989. Trap 7 was temporarily misplaced at that time and consequently no data was collected. During the trapping period only 3 small mammals were caught. I was trying to collect some data before the end of the fall semester, and I was not surprised with the results since the period was only 48 days long. In the future, students continuing this trapping project will extend trapping periods over many months. All traps were left with a peice of tape across the trapdoor so that mammals will not be caught until this tape is removed.

Animals caught during the recent trapping period were:

<u>Trap #2</u>	<u>Trap # 3</u>	<u>Trap #6</u>
1 <u>Microtus</u>	1 <u>Peromyscus</u>	1 <u>Sorex vagrans</u> ? (even unicuspid)

Traps 1, 4, 5, and 8 caught nothing; trap 7 was not active. A lotus file has been created in which to compile data for this project. Dr. Garton or Greg Hayward will have the disk with this file. File name is pittrap.wk1.

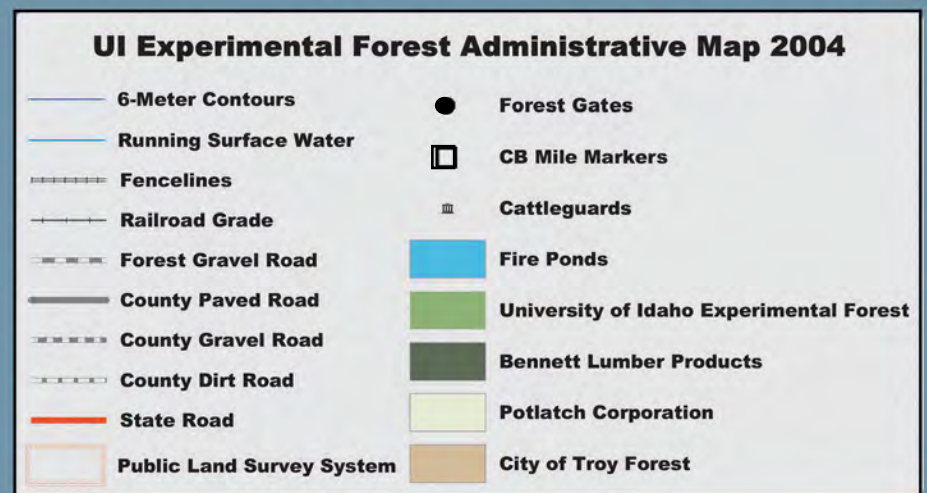
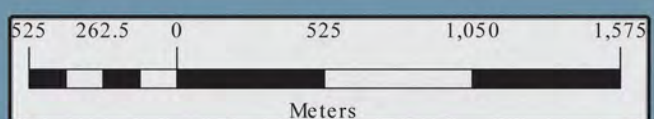
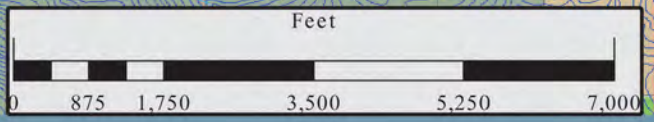
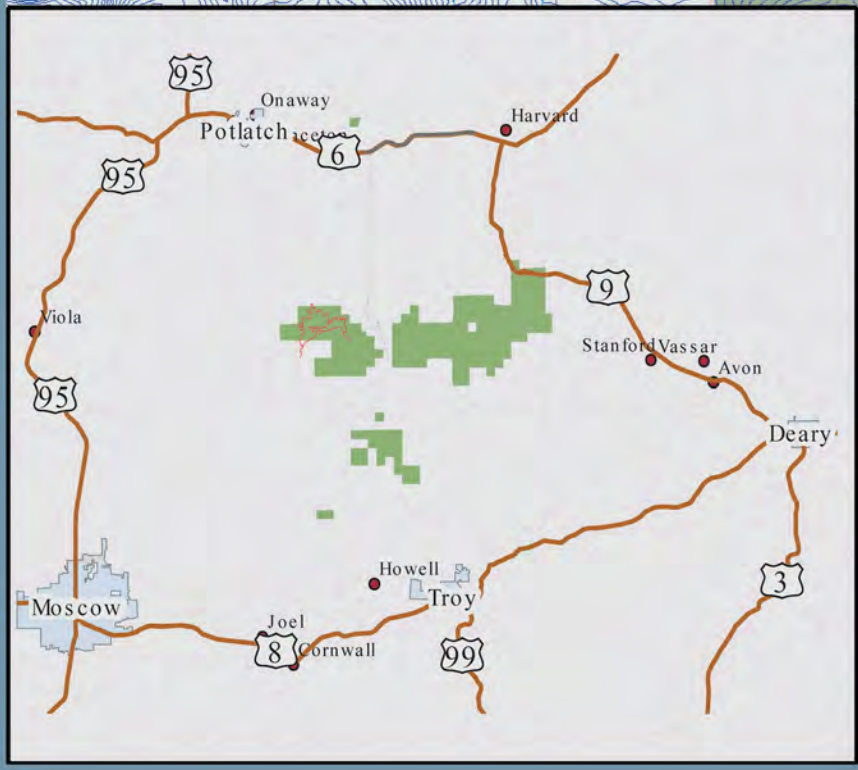
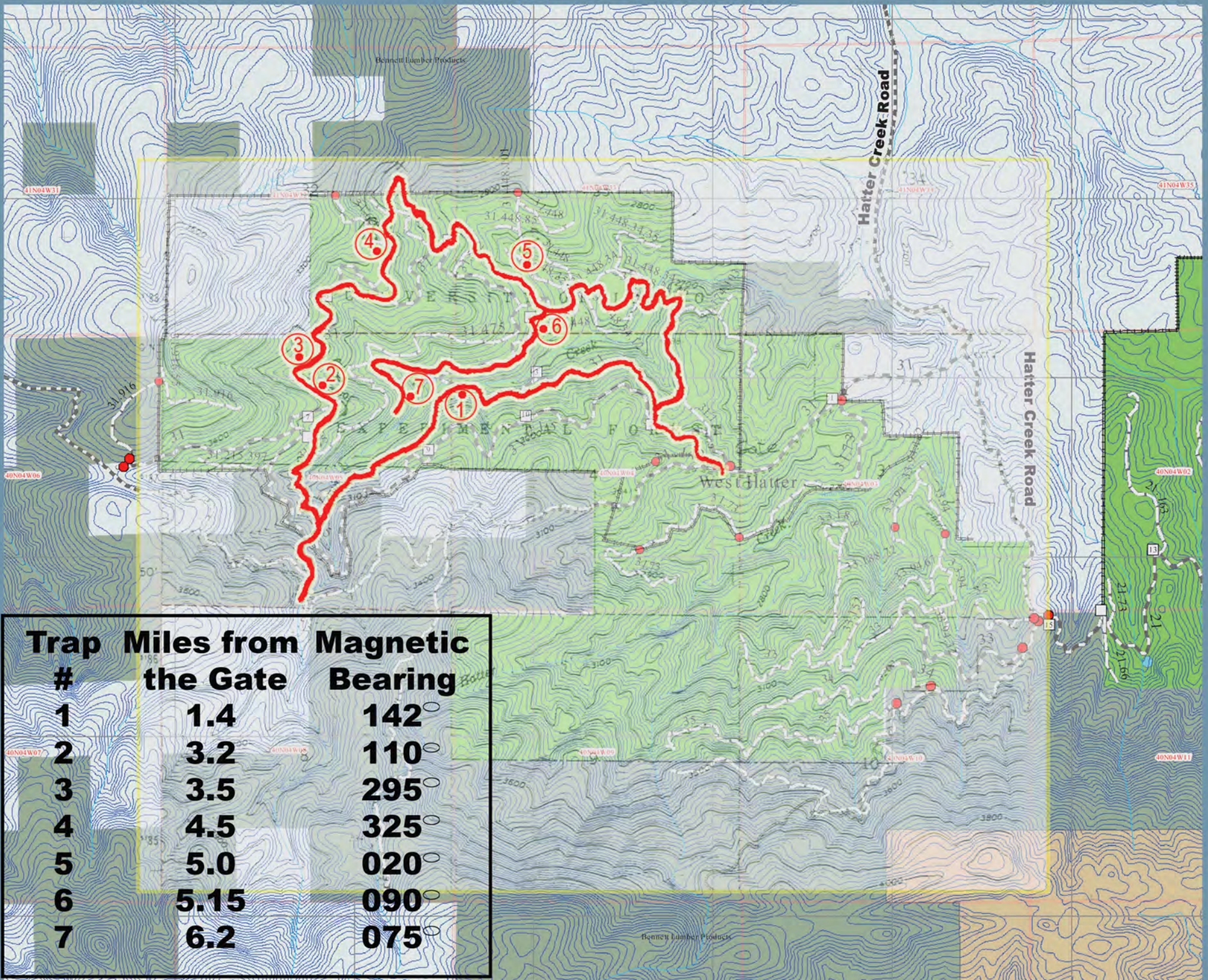
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



Trap #	Miles from Gate	Magnetic Bearing
1	1.4	142°
2	3.2	110°
3	3.5	295°
4	4.5	325°
5	5.0	020°
6	5.15	090°
7	6.2	075°

University of Idaho Experimental Forest

West Hatter Creek Unit





Location of Complete Research:

Author & Title: **Dr. Oz Garton**
Small Mammal Trapping

University of Idaho Library:

Call Number-**none**

College of Natural Resources:

Department-**Wildlife**

Notes: This began as a directed
study by Raymond D. Guse in
1989