

Small Mammal Survey Notes - 6 Nov. 2013 Andrew's Forest w/ Tom Manning
[Also a few notes on Spotted Owls from Steve Aikens <ackers? Fjs 113013>.]

DRAFT

Focus of survey is long-term tracking of populations of Spotted Owl prey. Larger traps for Northern Flying Squirrels and Townsend's Chipmunks (also capture occasional Snowshoe Hares, Spotted Skunks, Pica, Mountain Beaver). Smaller traps focus on Red-backed Voles (also capture Richardson's Voles (water rats), shrews, shrew-moles). Surveys in fall because that's when flying squirrels and RBVs come to the forest floor. Their interest is apparently on fungi (mycophagus?). Red Voles (as opposed to RBVs) apparently rarely come down from trees – they eat Doug Fir needles, stripping out the twin resin-ducts first which they use for nest materials. RTVs range limited to south of the Columbia River.

Grid #4. McCrea Creek Drainage. Off the 324 Spur of the 320 Road. This is one of 6 (?) grids. Stratified by elevation and forest type (mature vs. old growth?) #4 -- Mid-elevation. Lots of old-growth with more or less closed canopy. 8X8 grid over ~ 25 acres (10 hectares). Two live traps at each node. One on ground, one about 5' up tree on dry side. Covered with bark w/ cotton inside for dryness. Back half of trap covered with waxed gallon container for Iris potato salad. (a bought-out warehouse full of them in Olympia.) Bait peanut butter mixed with oats. Run for 3 weeks. Monday through Friday.

Processing for flyers: Weight in black nylon bag, width of tail, age estimate, sex and reproductive status (blow on belly hair to reveal – nipples? scrotal signs?), record ear tag(s) – 2 for flyers, take hair sample for possible DNA analysis, release. For chipmunks – only tag (one ear), sex, age estimate, and weight.

An interior grid of 10X10 with small metal traps run for one week. Pre-trap set for one week to condition critters to trap/food source. Like chumming.

Small mammals actually seem to get 'trap happy', rather than 'gun-shy'. Trapping success improves with time.

Unusual amount of care taken for welfare of critters. Dryness. Warmth. 12mm holes in backs of small traps to let out shrews (they don't survive well overnight). Committee on campus passes on techniques – for welfare issues.

We caught only chipmunks (most prevalent) and flyers. Most had been caught previously, but some were new captures. This was the second week of the 3 week study. A few were new captures. Some had been captured last year.

Impressions:

Side-slope (tricky to navigate) in mostly old growth. Doug Fir to 24.0' circumference, measured. Many in the 6' D range. Fairly open. Lots of mushrooms: lobsters, a few

Shrimp Russulas, Hedgehog, many pale and coral-colored corals, Winter Chanterelles, conks. The young temp (bio-graduate) workers generally become mycophyles while on Trekking pole often sinks a couple feet deep into rotting wood and other voids.

Stories and interesting facts:

Placed on a snag and urged upwards, flyers will launch themselves. Flaring at the end of their glide to stall and encounter tree head-up. Scramble to other side and climb again. While Tom was processing a trap I saw one (probably released by the other worker up-hill). It was traversing a suspended fallen log and leaped/glided off to the ground on spotting us. Great view of one flaring and landing on a large (6' D?) Doug fir bole. Pale squirrel as squarish parachute against the dark reddish bark. There is a 'spur' of cartilage at the wrist that extends the gliding surface – almost like a stay.

Ermine can squeeze into traps and kill catch. In one study Tom had something similar happen with Columbia Ground Squirrels killing chipmunks.

Infrequently the cotton in traps (closed or open) just disappears. No one knows why or how.

Last year a worker on this grid spotted a cougar; it was apparently chasing a deer.

It's possible to get diseases from mammal bites. Tom was bitten by an aggressive glider today. Diseases include relapsing fever and leptospirosis.

Max life span for glider maybe 10 years.

Both species are attractive – but in different ways. Gliders have very large dark eyes, soft brown-golden-gray pelage, long black whiskers, very flat, wide tails that they use to maneuver in the air – braking and turning. The chipmunks are comparatively dusky fairly muted stripes including an ochre central stripe on the bottom of the tail (also flattened but not so much as the flyers). Big cheek pouches for storing food are usually full in trapped individuals.

The 'complaint' of the flyers is a sort of guttural chirrrr that seems to come from deep in the throat.

Individual temperaments appear to vary, with some being more aggressive and high-strung, others calmer.

In winter gliders group up in nests for warmth. Up to maybe 15. Don't hibernate.

What do flyers/gliders eat? Cosmopolitan diet. Fungi in fall. Special mention of truffles, (Winter – 'hair moss' a lichen.) Also some bird eggs, nuts, fruit, insects. Maser (Chris) and Li did initial work on spores in flying squirrel scat. Some later controversy on whether flyer scat actually enhanced the growth of Doug Fir seedlings.

Chipmunks fill cheek pouches with bait.

Red Tree Voles can live communally in very large nests. Matrilineal groups.

Barred owls have wider diet than Spotted. Include crayfish!

Spotted skunks fairly mellow. Douglas Squirrels – not so much.

Questions and unexplained observations:

If chipmunks are ground-nesters, why the long tails? Probably some compromise for climbing?

Owls. Steve Aikens.

In southern populations (e.g. from Umpqua south) diet picks up bushy-tailed woodrat. From Columbia north, loses Red Tree Vole.

“Homewrecker” – while most Spotted owls are monogamous, this aggressive female would change mates every couple of years, sometimes driving off female of established pairs. Quite successful (re)productively.

Effects of calling may be detrimental. May draw Barred Owls. Barred owl effect stronger to north and northeast. They appear to be moving south deeper into southern Oregon.

Does calling for Spotted Owls attract Barred and thereby abet the displacement of Spotted? Are researchers somehow complicit? Banding. Can be caught by hand after being brought to a mouse. In general a loss of about 2% per year since studies began in the 90s. In 2009 summary populations being studied range from about 40% to 100% of ‘baseline’. A new 3 year summary should be out before too long.