



Pacific Northwest Research Station
USDA Forest Service



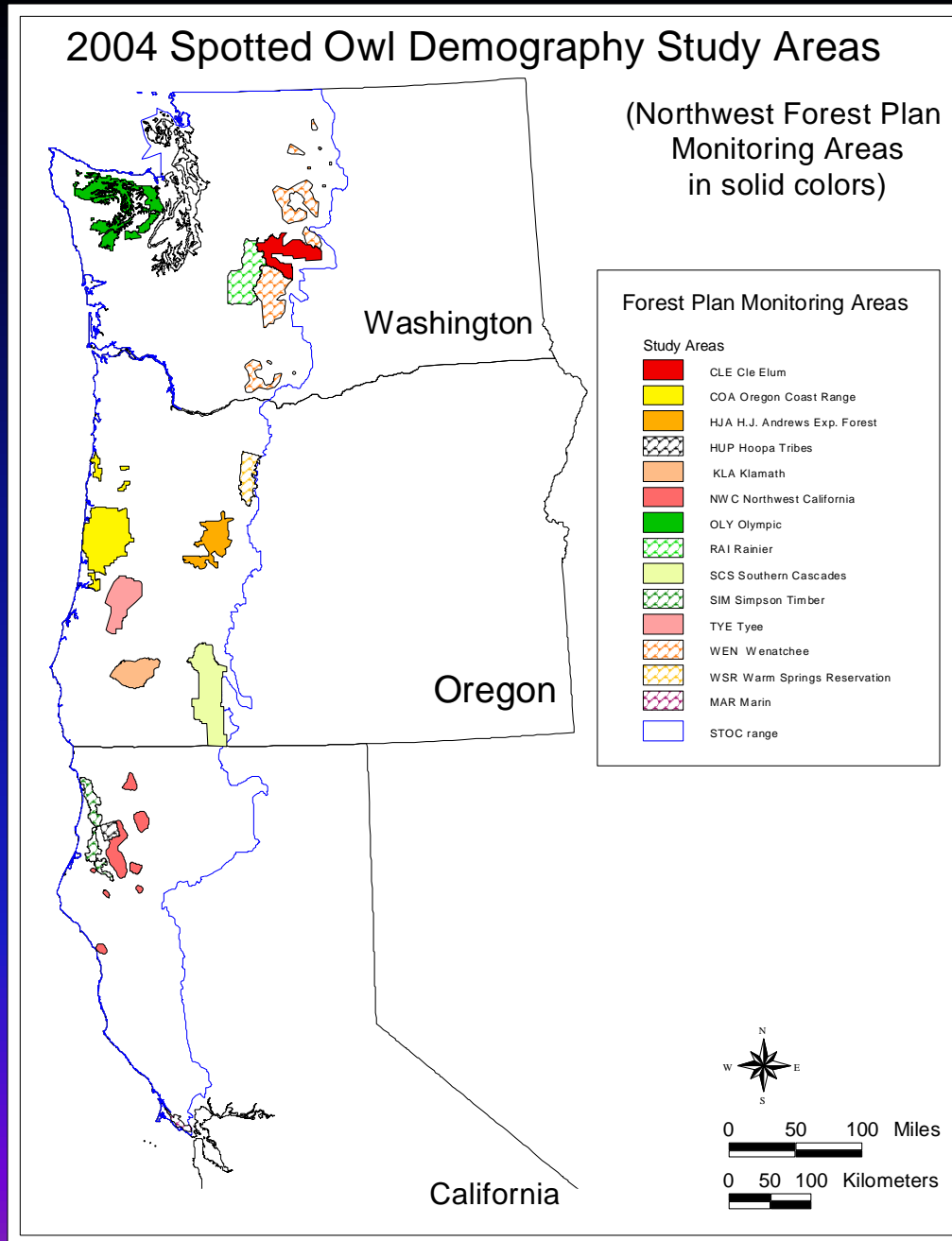
Wildlife Ecology Group

OSU
Oregon State
UNIVERSITY

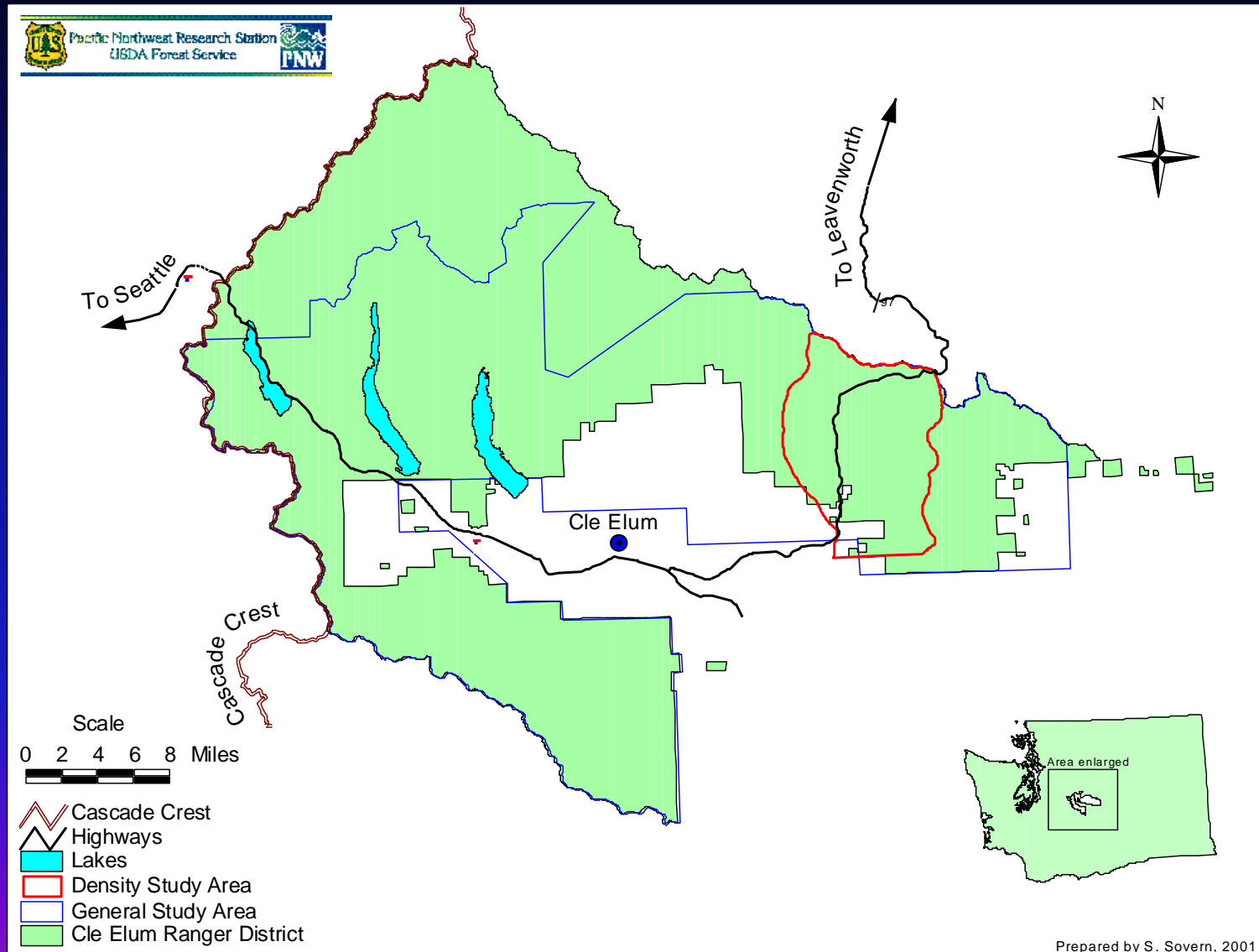




**2004 meta-analysis:
8 monitoring areas
included 7915
marked owls: 7
additional study areas
total of 11,432 owls**



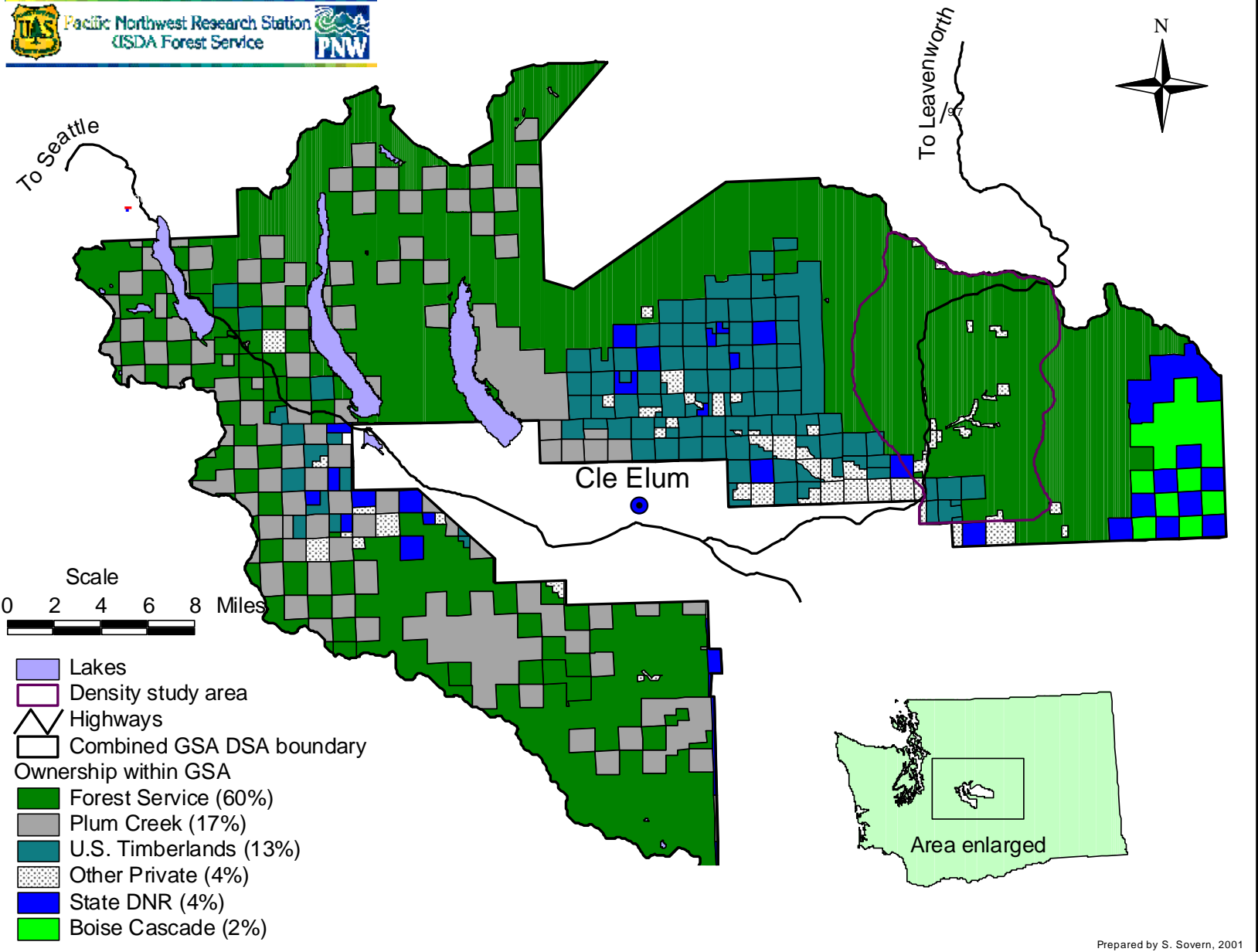
Cle Elum Study Area/Cle Elum Ranger District:



Cle Elum Study Area With Ownership (2001)



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Because of the mixed ownership on the Cle Elum Study Area, we have cooperated with the following landowners/contractors:



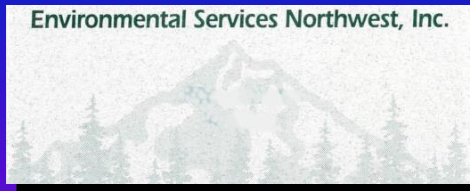
Plum Creek Timber Company



Raedeke Associates
contractors



American Forest Resources
/ Boise Cascade Corp.



Environmental Services Northwest
contractors



Washington State DNR

Methods for demography studies on the Cle Elum Study Area

❖ Two levels of survey effort:

❖ *General Study Area (Majority of the district)*

- ❖ Return to historic owl territories each year
- ❖ Determine territory occupancy
- ❖ Band new adults and all juveniles
- ❖ Determine reproduction

❖ *Density Study Area (Swauk drainage)*

- ❖ General study area survey plus:
- ❖ Attempt a total population count by surveying the complete area 3 times/year

Adult owls with color bands

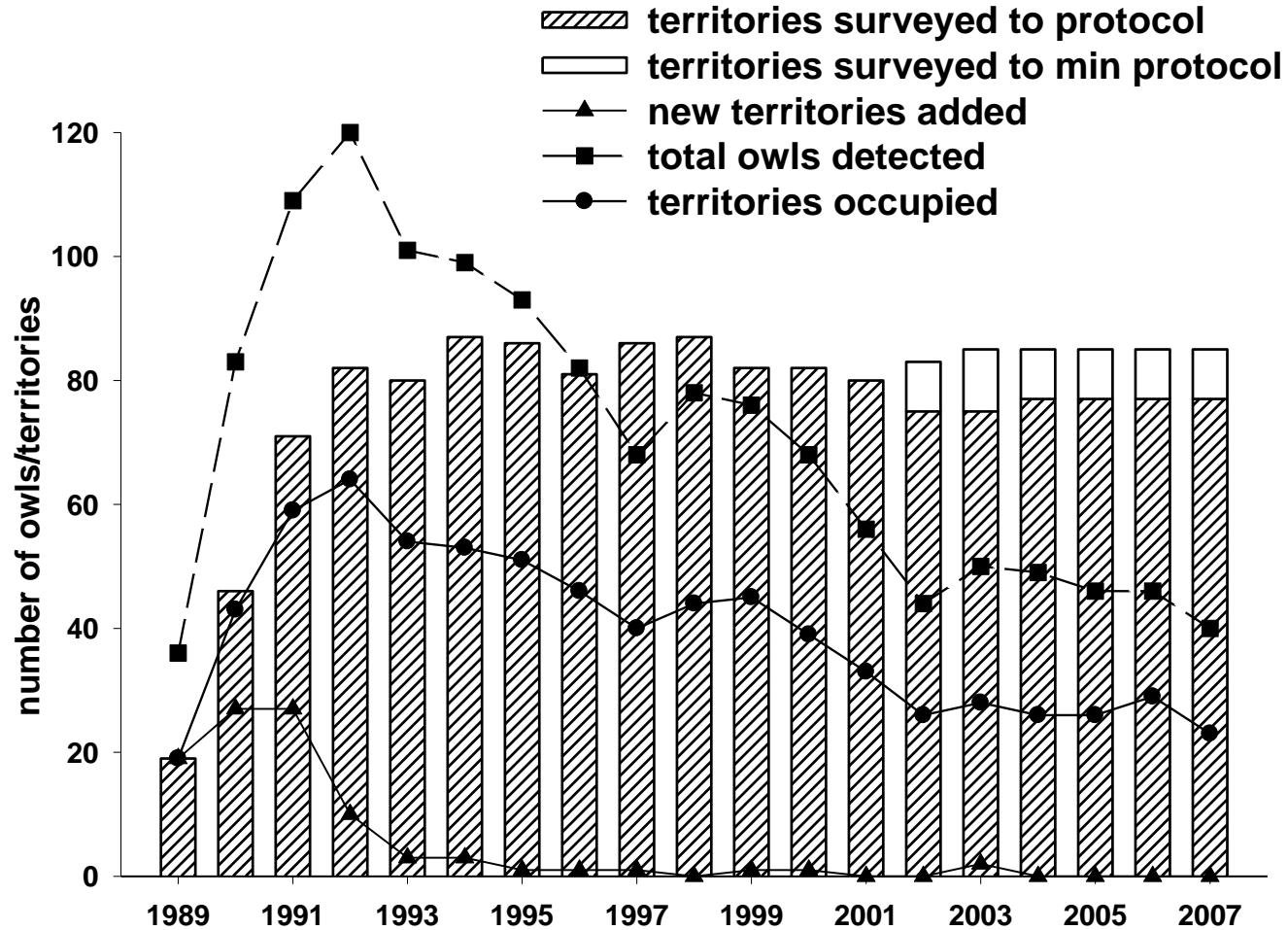


**Yellow band with
black dots on left leg**

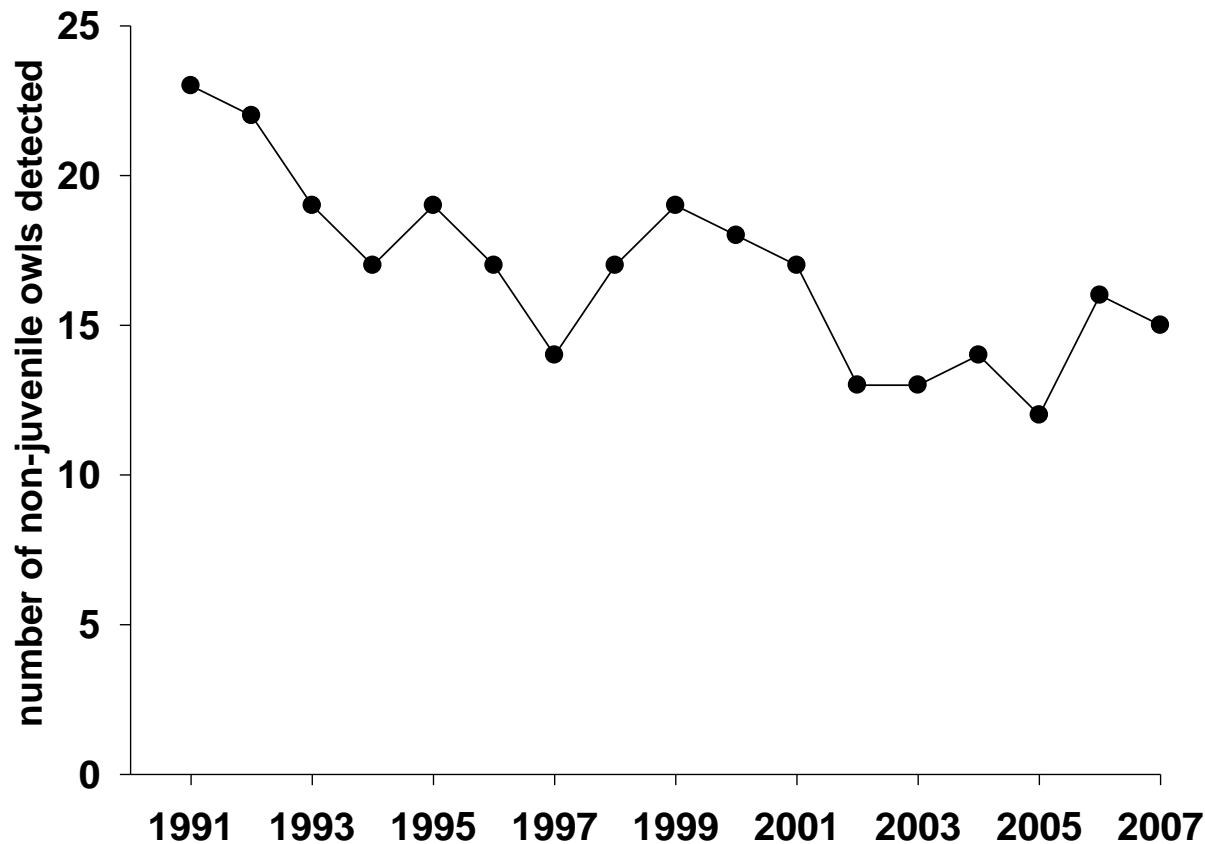


Blue band right leg

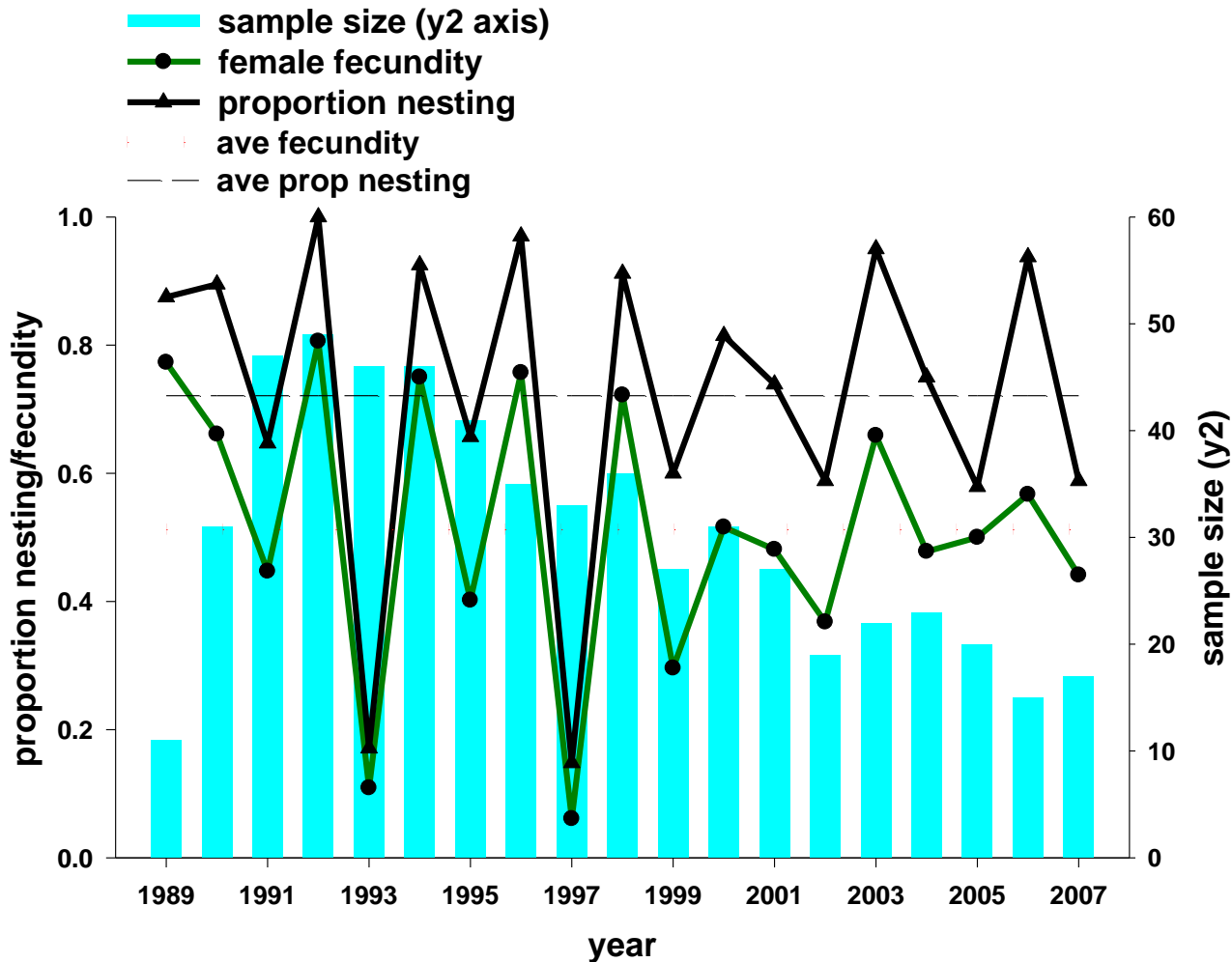
Number of owls detected, number of sites surveyed, and new sites added by year, Cle Elum Study Area, Wenatchee National Forest, Washington, 1989-2007



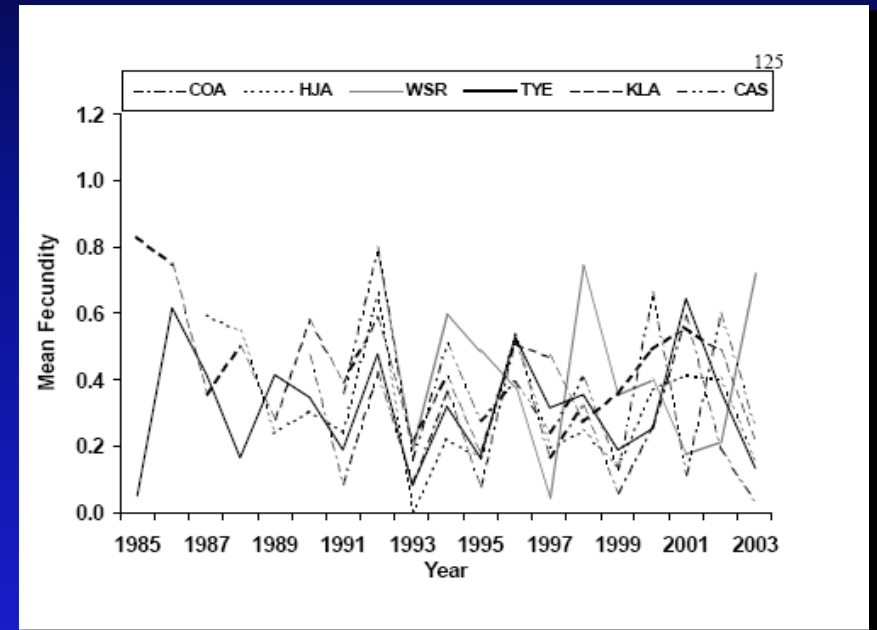
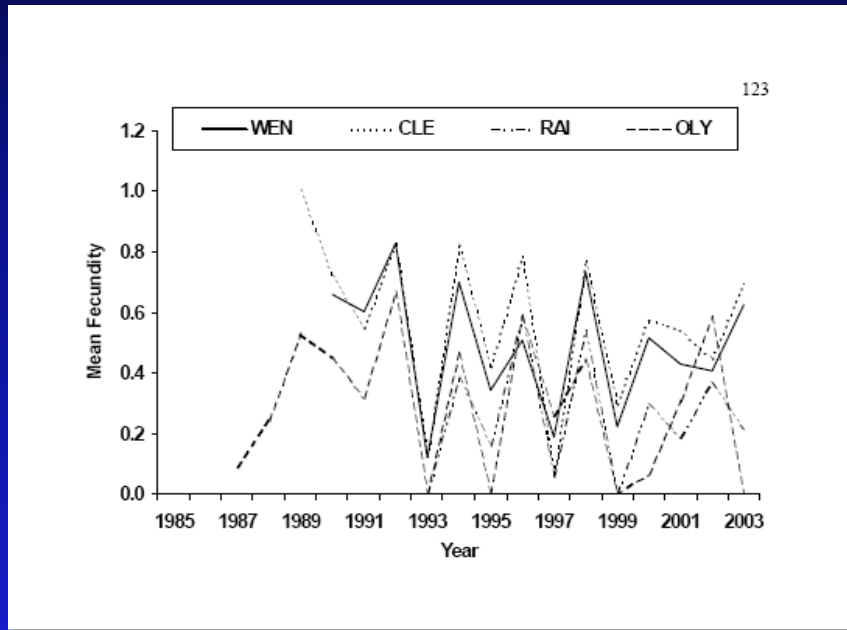
Number of territorial owls detected on the 204 km² Swauk Density Study Area, Wenatchee National Forest, 1991-2007



Reproductive indices of Spotted Owls on the Cle Elum Study Area, 1989-2007



Raw estimates of mean annual fecundity from study areas in Washington and Oregon



From Status and trends in Demography of Northern Spotted owls, 1985-2003

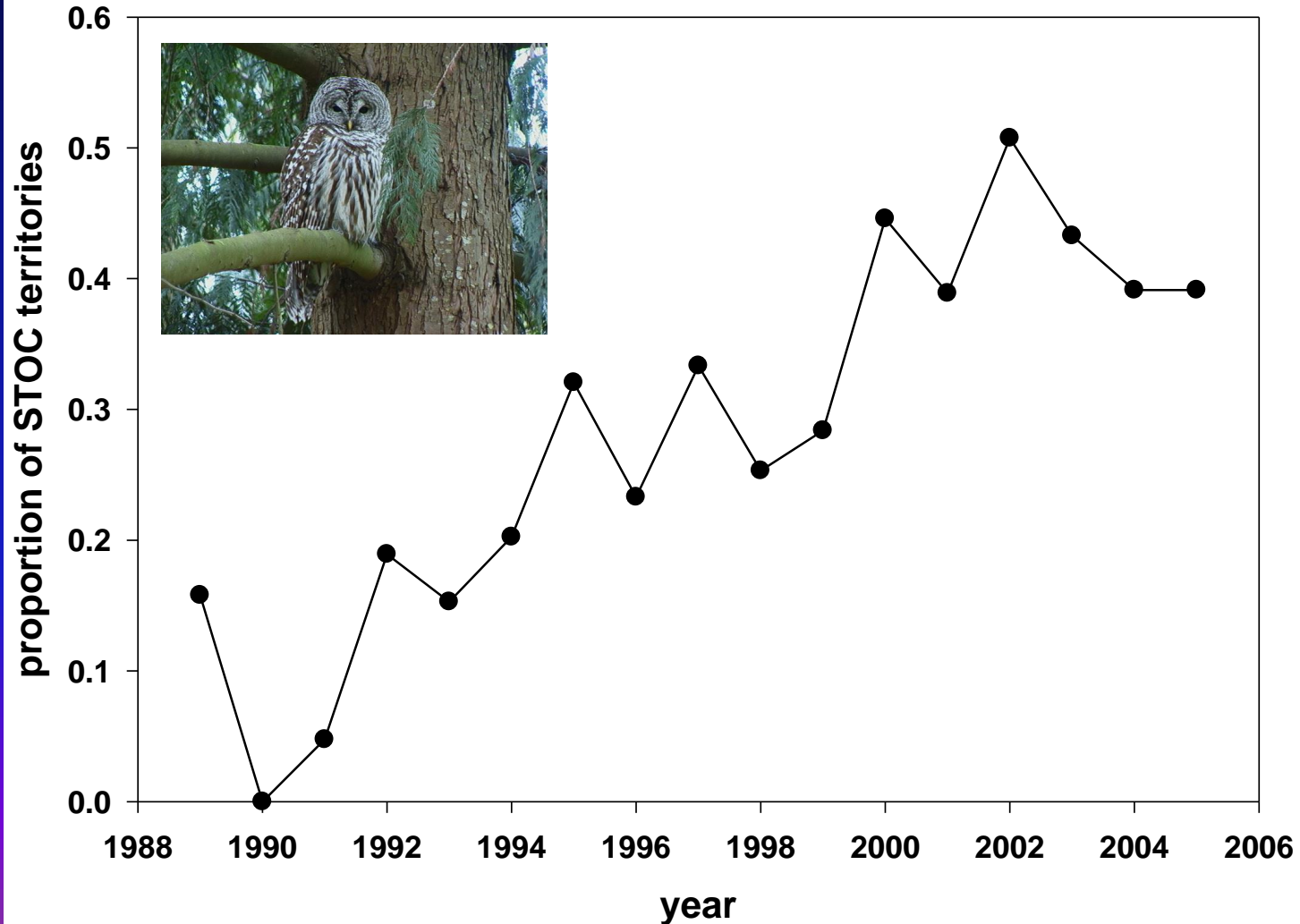
Status and trends in demography of northern spotted owls, 1985-2003.

Wildlife Monographs: 163

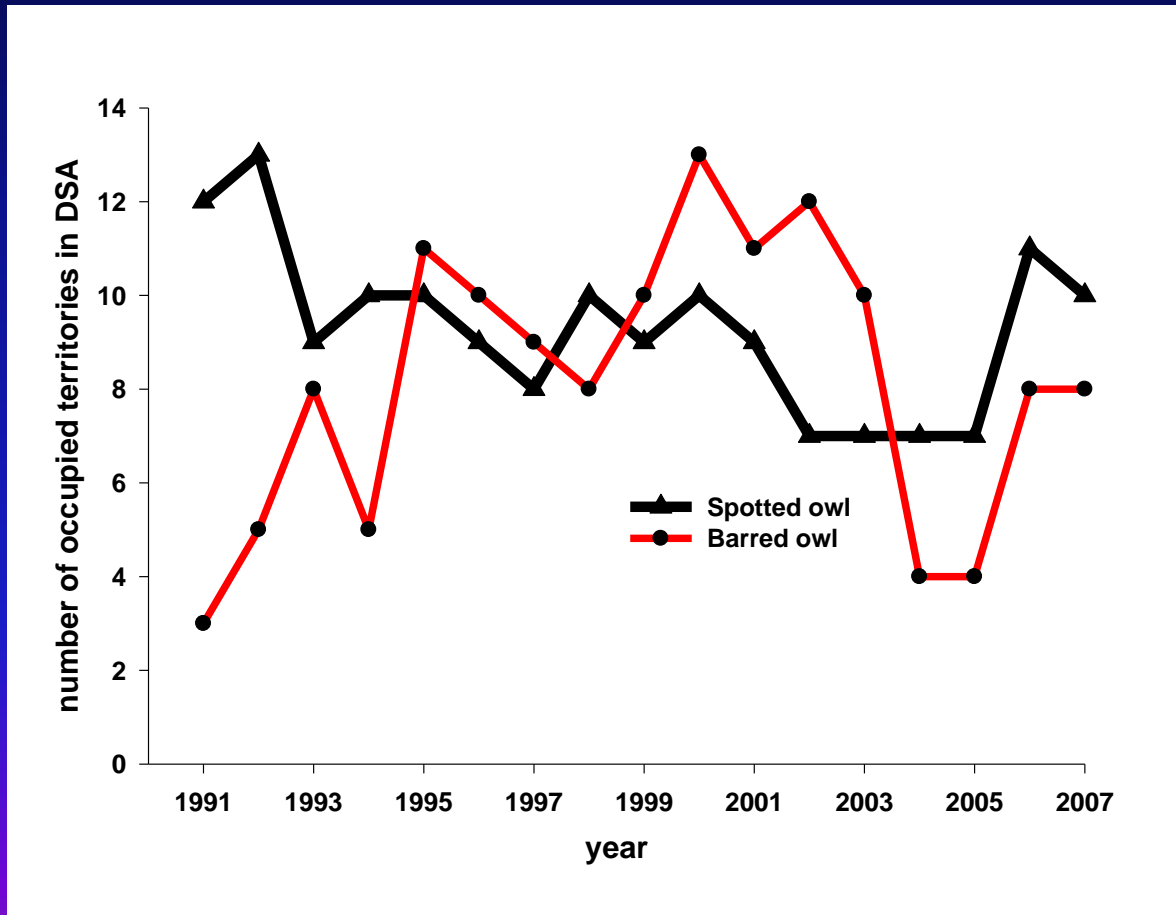
- ❖ Consisted of data from 14 study areas (including 8 NWFP monitoring areas)
- ❖ Indicated Spotted Owl populations, on average, declined by a rate of 3.7% per year 1987-2003
- ❖ Populations were declining on 9 of 13 study areas, 1 study area had insufficient data to derive estimates
- ❖ 5 of the 8 monitoring areas showed population declines. Average decline 2.4 %/year
- ❖ **Cle Elum population growth rate - 6.2% per year**
- ❖ Next meta-analysis winter 2009



Proportion of spotted owl territories surveyed each year where at least 1 barred owl detection was recorded, Cle Elum Demography Study Area, Washington, 1989-2005. A spotted owl territory was counted as containing a barred owl response if a barred owl was detected in a given year within 2.0 km of any of the annual territory centers for that territory.



Number of barred owls and spotted owls detected in the Swauk Density Study Area, 1991-2007



More info:

ssovern@fs.fed.us

Cle Elum Crew

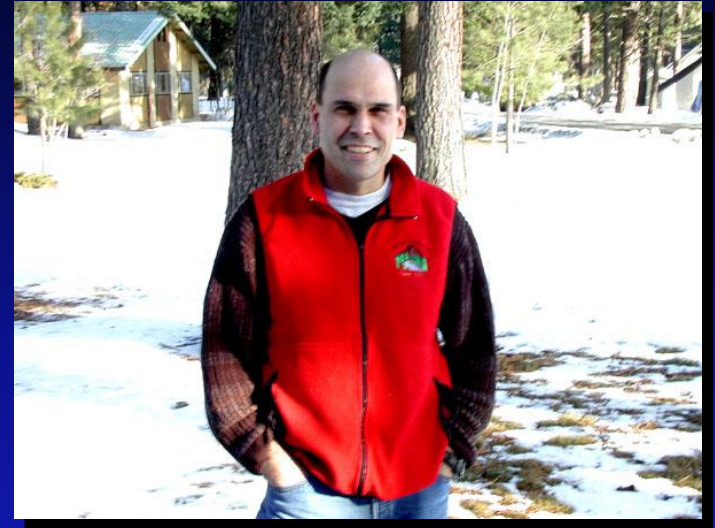
Dr. Eric Forsman

(Principle Investigator, USFS)



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Eric Forsman Watching Spotted Owl,
Smirking for Photographer

Stan Sovern



Margy Taylor

