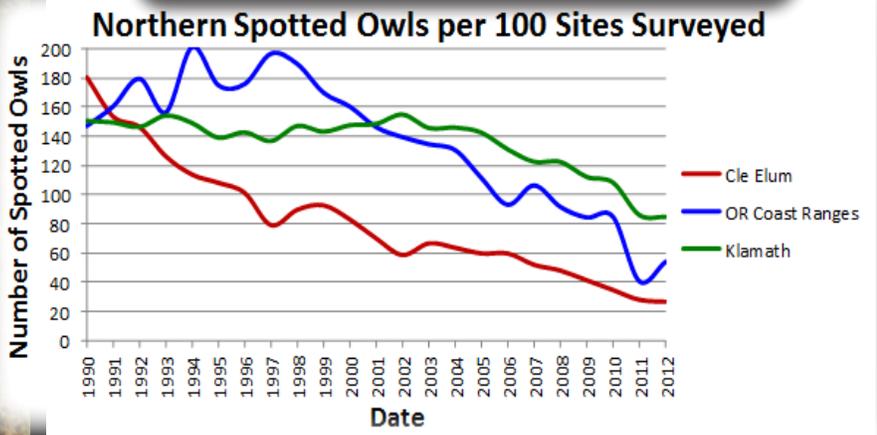




# Saving the Spotted Owl



The northern spotted owl was listed as threatened under the Endangered Species Act in 1990. Habitat loss and competition from barred owls are the greatest threats to the northern spotted owls' survival and recovery.



The Northwest Forest Plan has gone a long way to protect the spotted owl's habitat. Over the 20 years the plan has been in place, the spotted owl's preferred late successional forest habitat has only decreased by 3% - primarily due to wildfire. Unfortunately, competition from barred owls has increased.

- Look inside to learn:*
- why the barred owl is a threat to the spotted owl's recovery
  - how an experiment is being conducted to test whether removing barred owls would improved northern spotted owl recovery



**Northern Spotted Owl**

- Smaller
- Less aggressive
- Lives in old growth forest
- Dietary specialist



**Barred Owl**

- Bigger
- More aggressive
- Adaptable to forest type
- Dietary generalist

*Barred owls have a greater advantage over spotted owls in competing for food or space since they are larger and eat a wider variety of prey.*

## The Conflict

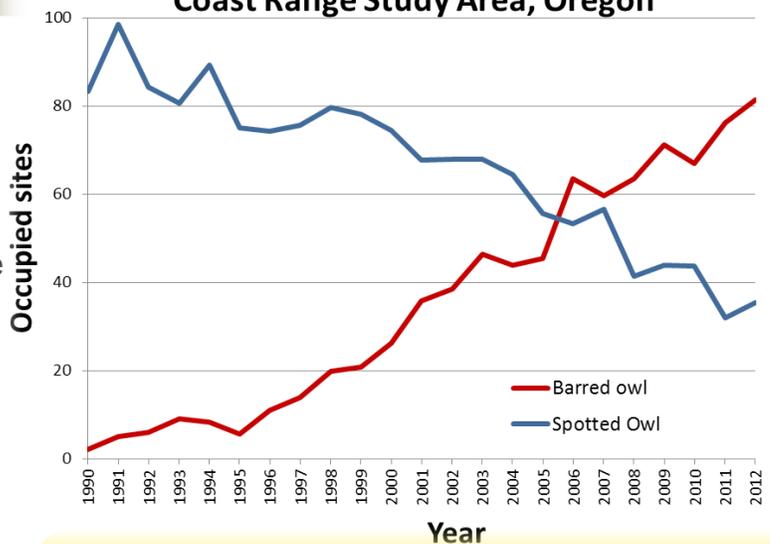
Barred owls are native to the eastern US, expanding westward over last 100 years.

Barred owls were first detected with the range of the northern spotted owl in 1959, and now occupy their entire range in WA, OR, CA.

Barred owls outnumber spotted owls in many areas.

Barred owl populations are increasing rapidly in many areas, concurrent with declining spotted owl populations.

**Number of Occupied Sites per 100 Sites Surveyed  
Coast Range Study Area, Oregon**



Declines in northern spotted owls are sharpest in the north where barred owls have been present the longest and in the greatest density. In northern Washington, northern spotted owl populations dropped by as much as 85% between 1990 and 2012.

# The Experiment

Pilot studies in California and British Columbia have shown that once barred owls are removed, spotted owls quickly re-occupy most sites.

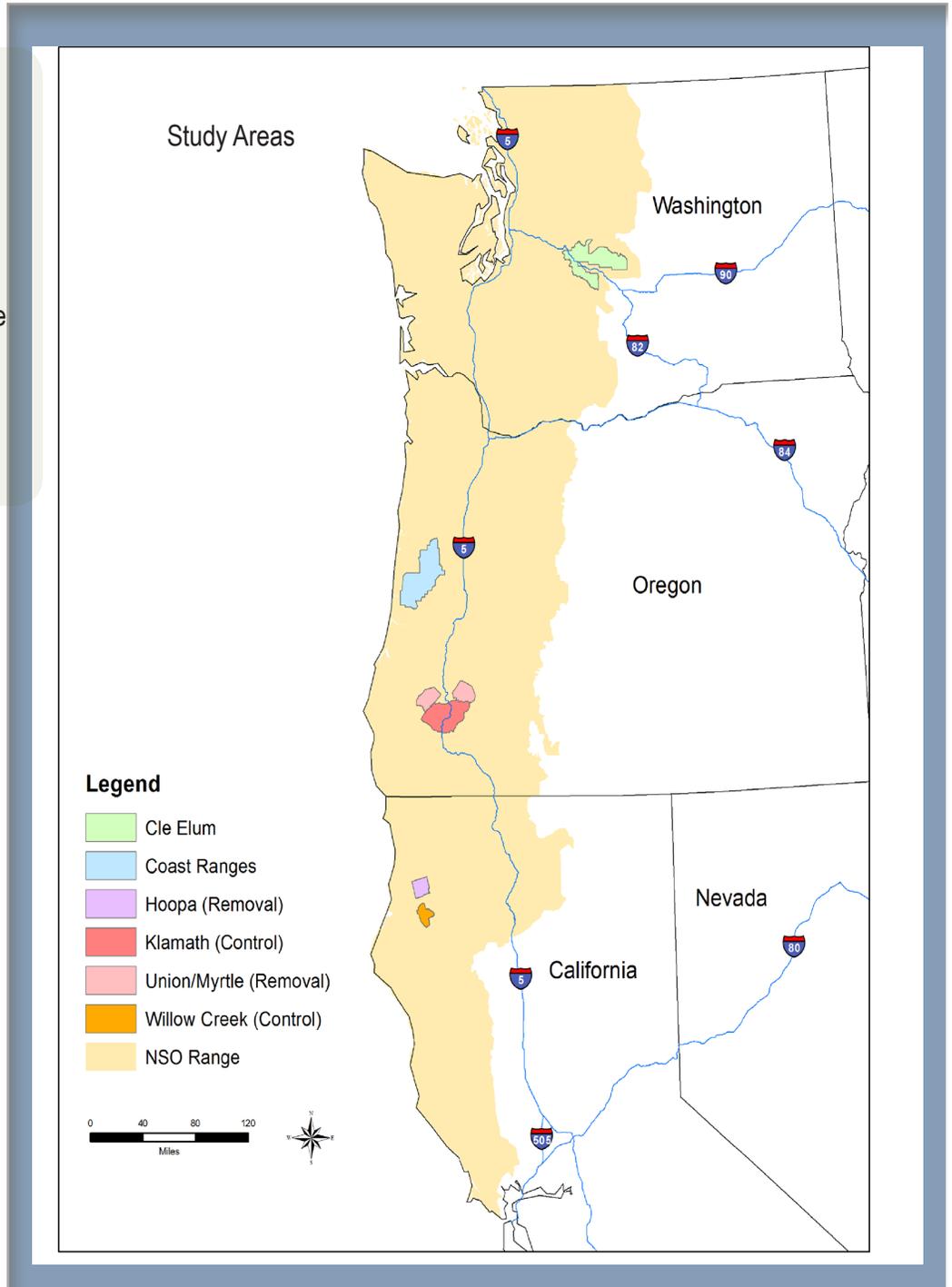
*Following a thorough public review process, the U.S. Fish and Wildlife Service signed a record of decision in 2013 to test the effects of removing barred owls on northern spotted owl populations in select study areas.*

## We are investigating:

- Effects of barred owl removal on spotted owl rates of occupancy, survival, reproduction and population trend
- Feasibility and effort required to reduce barred owl populations
- Cost of removal

## Experimental Approach:

- 1) Divide each study area into 2 comparable portions (treatment/control)
- 2) Survey for spotted owls and barred owls across the study area
- 3) Remove barred owls from treatment portion
- 4) Compare spotted owl population trends between the treatment and control areas



*"The only thing harder than shooting a barred owl, is watching the northern spotted owl go extinct." Paul Henson, Oregon State Supervisor, USFWS*

## Preliminary Results to Date

### Hoopla Reservation, California

Year 1: 71 barred owls removed, barred and spotted owl surveys complete

Year 2: 54 barred owls removed, barred and spotted owl surveys in process

### Oregon & Washington

Year 1: Pre-removal surveys underway

### *Optimizing Opportunities*

We are working with the California Academy of Sciences and other scientists to maximize the results from barred owl removal. Tissues are collected for studies to gather additional information on barred owls in the west that can be informative for other wildlife species as well.

| Tissue          | Analyses      |
|-----------------|---------------|
| Muscle          | Genetics      |
| Liver           | Rodenticides  |
| Pancreas        | Rodenticides  |
| Skin/Feathers   | Molt Patterns |
| Digestive Tract | Food Habits   |



### *The Future*

The experiment will run for the next few years. Results from this experiment will help inform future development of a barred owl management strategy. Any strategy would be a separate process subject to decision and open public review under the National Environmental Policy Act.