



## Update on Experimental Removal of Barred Owls in Support of Northern Spotted Owl Recovery - August 2011

*This newsletter provides a status update from the U.S. Fish and Wildlife Service on the Draft Environmental Impact Statement (Draft EIS) on issuance of a migratory bird permit for the experimental removal of barred owls from selected areas within the range of the northern spotted owl. The northern spotted owl is listed as threatened under the Endangered Species Act. This newsletter also provides background information for those just learning about this proposed experiment. The experiment would implement a recovery action in the 2011 Revised Northern Spotted Owl Recovery Plan. Work on the Draft EIS began in 2009 and initial scoping was completed in 2010. The U.S. Fish and Wildlife Service continues to work towards completion of the Draft EIS for public release in the fall of 2011 for review and comment.*

The U.S. Fish and Wildlife Service is preparing a Draft EIS for issuance of a permit under the Migratory Bird Treaty Act for an experiment to test the effects of competition from barred owls on northern spotted owl populations through removal of barred owls from select study areas.

### Why is the U.S. Fish and Wildlife Service proposing this experiment?



The two main threats to the northern spotted owl, shown above, are habitat loss and competition from barred owls.

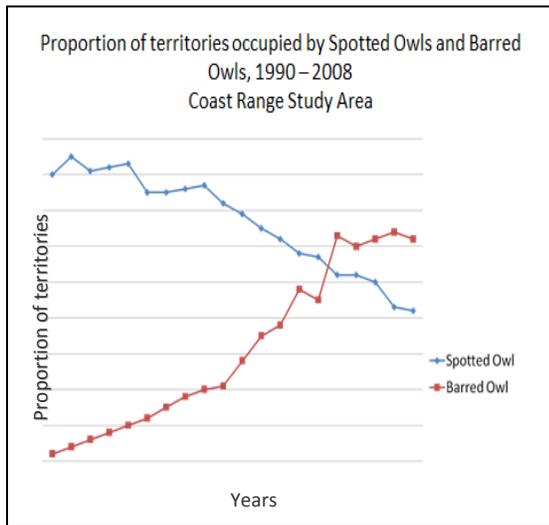
Barred owls, which are slightly larger, more aggressive and more adaptable than northern spotted owls, negatively affect northern spotted owl populations. Barred owls are native to eastern North America, but expanded their range westward over the last century, perhaps due to human caused changes in habitat in the last 100 years. The barred owl's range and populations have continued to expand since they were first detected within the range of the northern spotted owl in 1959. Barred owls now occupy the entire range of the northern spotted owl in Washington, Oregon, and California, outnumbering northern spotted owls in large portions of the range, and barred owl populations are increasing rapidly

in many areas. Northern spotted owl populations are declining rangewide.



Photo: Ray Bosch

The barred owl, shown above, is believed to displace and disrupt northern spotted owls and compete for food.



Competition for food or space, or disruption by barred owls, has been implicated in the continuing decline of northern spotted owl populations. This is demonstrated by the fact that declines of northern spotted owls are sharpest in the north where barred owls have been present the longest and in the greatest densities. For example, northern spotted owl populations in northern Washington dropped by as much as 55% between 1996 and 2006 (Forsman et. al. 2011). However, no specific studies have been conducted to test whether barred owls are, in fact, a major contributor to this decline or whether barred owl removal is a potential, or even effective, management tool.

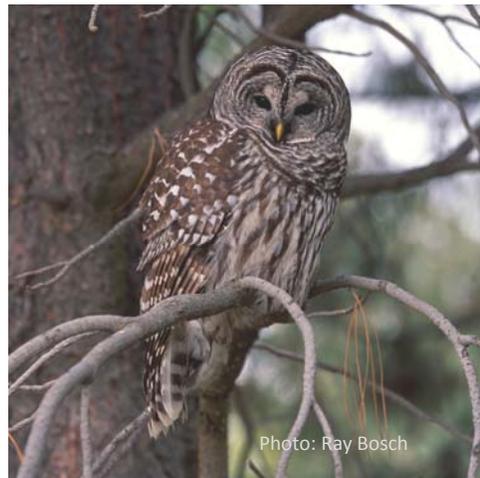
### How does this experiment relate to northern spotted owl recovery?

The 2011 Revised Northern Spotted Owl Recovery Plan describes habitat loss and competition from barred owls as the greatest threats to the northern spotted owl’s survival and recovery. The Revised Recovery Plan recommends conducting an experiment to determine if removing barred owls would improve northern spotted owl site occupancy, survival rates, and population trend, as well as to test the feasibility of such removal. The U.S. Fish and Wildlife Service would use information from this experiment to inform future discussions and decisions on the potential to use removal of barred owls as a management tool to protect the threatened and declining northern spotted owl. Any decision to implement such management would be a separate process and would be subject to future decision and public review processes under the National Environmental Policy Act (NEPA).

### The Public Scoping Process

The U.S. Fish and Wildlife Service issued a Notice of Intent to develop an EIS and a request for information (also called a scoping notice) on December 10, 2010. This was to ensure that we considered a full range of potential alternatives and identified all significant issues. The public comment period closed January 11, 2011. We received 54 written comments from 29 different organizations (including environmental, conservation, animal welfare, and industry groups; tribes; professional societies; government agencies; and zoological parks) and 25 individuals.

We also received information from two groups established under the Northern Spotted Owl Recovery Plan; the Barred Owl Work Group and the Barred Owl Stakeholder Group. These groups, which included invited members representing the perspectives of agencies, tribes, environmental groups, animal welfare groups, and industry groups, provided individual feedback, perspective, and suggestions to the U.S. Fish and Wildlife Service on the issues to be addressed, including biological, ethical, economic, and feasibility aspects of the potential experiment. We recognize the sensitivity of the issue, so we hired a bioethicist to assist in our collection and consideration of information on social and ethical issues associated with this experiment. All comments are being considered to develop the alternatives and analyze effects.



## Development of the Draft EIS

**Alternatives:** The Draft EIS will evaluate a full range of reasonable alternatives, including a No Action Alternative (no removal of barred owls) and several Action Alternatives. The Action Alternatives will vary by the number and location of the study areas, the type of experimental design, and the method of barred owl removal. Implementation of the experiments would likely occur over a period of approximately 4 to 10 years.

**More Information on:**  
**Purpose and Need for the**  
**Experimental Removal of Barred**  
**Owls**

The proposed experiment is designed to: 1) support northern spotted owl recovery; 2) document effects of barred owls on northern spotted owl populations through experimental removal; 3) determine if barred owls can be effectively removed from an area and how much follow-up is required to maintain low barred owl populations; 4) document the cost of barred owl removal; and 5) gather this information expeditiously for use in decisions about potential future management of barred owls.

Action alternatives may include from one to several study areas across the range of the northern spotted owl in Washington, Oregon, and California. Potential study areas include currently active northern spotted owl demography study areas, historic demography study areas, or other areas with varying levels of past northern spotted owl surveys. Most study areas are focused on Federal lands, and may include areas within National Forests, BLM-managed lands, National Parks and Recreation Areas (North Cascades National Park, Ross Lake National Recreation Area, Lake Chelan National Recreation Area, Olympic National Park, and Mount Rainier National Park), and some Wilderness Areas. The U.S. Fish and Wildlife Service is also considering a study area on the Hoopa Valley Indian Reservation. In some cases, interspersed private and state lands may occur within the boundaries of a study area, but would only be included in the experiment with landowner permission.

**Experimental approach:** Two types of studies are under consideration—demography and occupancy. In demography studies, individual northern spotted owls are banded with unique leg bands and their home ranges surveyed each year to determine if the individual is still present. Scientists use this information to calculate survival and recruitment rates (the rate at which new individuals are added to the population) from which they can estimate the annual population growth rate of northern spotted owls in the study area.

In occupancy studies, scientists follow northern spotted owl sites rather than individuals (individuals are not banded) and use the presence or absence of northern spotted owls at individual sites to estimate occupancy rates. In its simplest form, scientists would record only presence or absence, though they could also gather information about the number of young produced on each site. Scientists can use site occupancy data to estimate the rate of population change, but only if the study area is extensively surveyed.

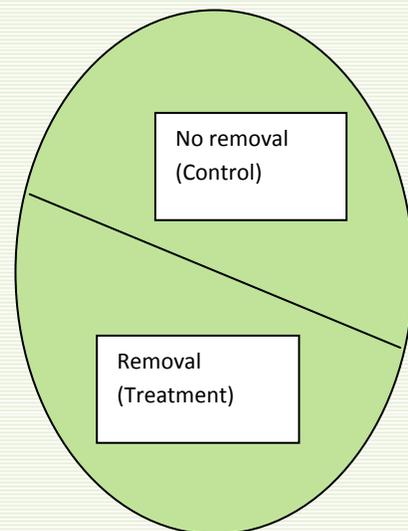
Demography studies allows scientists to track the actual population trend and determine the basis for any observed effect, e.g. are any observed differences due to changes in adult northern spotted owl survival rates or reproductive success. Occupancy studies are less labor intensive and can be more easily accomplished in areas where they lack current demography data, but do not allow them to determine if survival or recruitment rates have changed. Because scientists do not band or follow individual northern spotted owls in occupancy studies, they cannot tell if observed changes in site occupancy are due to northern spotted owls surviving longer, or being constantly replaced.

**Removal methods:** In the Draft EIS, we will evaluate lethal removal (killing), non-lethal removal (capture and placement in captivity or release in historic range), and a combination of these methods. Our goal is to accomplish removal, lethal or non-lethal, in the most humane way possible for the barred owls.

**More Information on:**

**How Would the Experiment Be Conducted?**

The general approach for this experiment would involve: 1) dividing each study area into two comparable portions, 2) removing barred owls from one portion, 3) tracking northern spotted owl populations in both portions, and 4) comparing northern spotted owl populations between the removal and non-removal areas. In areas where we have data prior to the removal, we can also compare northern spotted owl populations on the removal area before and after removal, a very powerful measure of change.



**Potential list of topics and issues:** In the Draft EIS, we will analyze and evaluate the effect of the experiment on the following issues:

- ◆ The barred owl and its population, in the west and rangewide
- ◆ Northern spotted owls, their populations and trends
- ◆ Ongoing northern spotted owl demography studies
- ◆ Other wildlife species, including potential for predation by barred owls for at-risk species
- ◆ Social and human value/ethics, including the intrinsic value of spotted and barred owls and human culpability in the presence of barred owls in the west
- ◆ Economic effects
- ◆ Cultural resources
- ◆ Visitor use and recreation, including National Parks and Recreation Areas, other recreation sites, and visitor experience
- ◆ Wilderness Areas and wilderness attributes



Results of the proposed experiment would help the U.S. Fish and Wildlife Service evaluate decisions on the feasibility and practicality of a sustained barred owl management effort.

### **Interested? To Get Involved...**

When the U.S. Fish and Wildlife Service issues the Draft EIS this fall, we will provide ample opportunity for public review during which your comments will be both welcome and appreciated. If you wish to be personally notified of the availability to the Draft EIS, please send an email to [barredowleis@fws.gov](mailto:barredowleis@fws.gov) or provide your mailing address to: Barred Owl EIS Request, U.S. Fish and Wildlife Service, 2600 SE 98<sup>th</sup> Ave, Suite 100, Portland, Oregon 97266. We will notify you when the Draft EIS is available, and provide information on how you may obtain a copy (download or paper) for your review.

*Our team continues to work on completing the Draft EIS for public release. The Overview and Timeline below provides our current timeline for completion.*

### **OVERVIEW AND TIMELINE OF THE PROCESS**

- |  |                                      |
|--|--------------------------------------|
| Step 1 – Define purpose and need; develop preliminary alternatives   | Fall 2009                            |
| Step 2 – Conduct external scoping  | December 10, 2010 – January 11, 2011 |
| Step 3 – Review scoping comments, refine alternatives and analyses   |                                      |
| Step 4 – Prepare draft plan/environmental document   | <b>← We are here</b>                 |
| Step 5 – Release draft - Public review of Draft EIS  | Fall 2011                            |
| Step 6 – Analysis of public comment  |                                      |
| Step 7 – Recommend final plan/agency decision documents for approval   |                                      |
| Step 8 – Release Final EIS   |                                      |
| Step 9 – Release approved plan/agency decision documents to public<br>(If we decide to move forward with an experiment...) |                                      |
| Step 10 – Issue Migratory Bird Permit and other required permits   |                                      |
| Step 11 – Initiate experiment  |                                      |