

# Barred Owl

## *Frequently Asked Questions*

### Frequently Asked Questions about Barred Owls

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## Status of the Northern Spotted Owl:



### What is the status of the northern spotted owl?

Since 1990, the northern spotted owl has been listed under the Endangered Species Act as “threatened,” meaning it is likely to become “endangered” within all or a significant portion of its range in the foreseeable future. Endangered status is more serious, meaning a species is already in danger of extinction.

The most recent annual survey indicates that the spotted owl continues to decline in the majority of the 11 longterm study areas. The decline is greatest in the northern part of the range where barred owls have been present for the longest time and are in high concentrations. The overall population is declining at a rate of 2.9 percent per year.

The most important factors scientists consider in assessing the viability of the spotted owl are: 1) whether population trends are increasing; and 2) whether spotted owls are maintaining their geographic distribution throughout their range. Recovery efforts seek to promote an increasing population trend so that spotted owls are well-distributed across their range. This will ensure sufficient genetic interchange and the species’ ability to withstand catastrophic events.

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### What are the main threats to the northern spotted owl?

There are two main threats to the northern spotted owl’s continued survival. One is habitat loss, primarily due to timber harvest and catastrophic fire. The other is competition from barred owls, a larger, more aggressive, and more adaptable relative from eastern North America that has progressively encroached into the spotted owl’s range. Spotted owl recovery can only be achieved by addressing both of these threats.

Both threats were identified when the spotted owl was listed under the Endangered Species Act in 1990, but their magnitude has changed over the years. In the early years after the spotted owl was listed, the U.S. Fish and Wildlife Service anticipated that the spotted owl would continue to decline in the short term and that it would take decades to re-grow habitat that has been lost over the last 100 years or more. As replacement habitat is grown, the habitat threat facing spotted owls should lessen. Barred owls were recognized as a threat when the spotted owl was listed, but our understanding of the magnitude of that threat has grown significantly since then as their populations continue to expand throughout the forests of the Pacific Northwest. We are concerned that the spotted owl is likely to go extinct in some or all of its range without barred owl management.

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### How much habitat is there for the northern spotted owl?

The northern spotted owl generally inhabits late-successional forest habitats with high canopy cover and larger trees (late-successional forests are dominated by stands of mature and old growth age classes of trees). The spotted owl ranges from southwest British Columbia through the Cascade Mountains and coastal ranges in Washington, Oregon, and California.

When the spotted owl was listed under the Endangered Species Act in 1990, the U.S. Fish and Wildlife Service estimated that its habitat had declined 60 to 88 percent since the early 1800s. Habitat protections put

in place since that time have slowed habitat loss and are starting to increase the amount of older forest habitat available for spotted owls.

The latest data indicate there are about 8.6 million acres of nesting and roosting habitat on federal lands and about 3.5 million acres of nesting and roosting habitat on non-federal lands throughout the spotted owl's range. Spotted owls use a broader area for foraging, but recovery efforts focus more on nesting and roosting habitat.

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### **How do encroaching barred owls affect northern spotted owls?**

The U.S. Fish and Wildlife Service has identified competition from encroaching barred owls as one of two main threats to the northern spotted owl's continued survival (habitat loss is the other).

Barred owls now outnumber spotted owls in many portions of the latter's range. Researchers have noted that spotted owl population declines are more pronounced in areas where barred owls have moved into their range. Declines are greatest where barred owls have been present the longest. We are concerned that the spotted owl is likely to go extinct in some or all of its range without barred owl management.

Barred owls are larger, more aggressive, and more adaptable than spotted owls. They displace spotted owls, disrupt their nesting, and compete with them for food. Researchers have observed barred owls interbreeding with or attacking spotted owls in a few cases. Because the spotted owl is already struggling due to diminished habitat, the effect of the barred owl's presence is like throwing gas on a fire. An already vulnerable population, as with the spotted owl, has a much more difficult time withstanding dramatic changes in the ecosystem such as the encroachment of a competitor.

See this [fact sheet](#) for more information on the evolution of the barred owl threat, as well as references to the most commonly cited research related to barred owl/spotted owl interactions.

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### **How long will it take to recover the northern spotted owl?**

Recovery of species listed under the Endangered Species Act usually occurs in three general phases. First, a listed species is prevented from going extinct. Then, initial recovery actions help a listed species' population stabilize. The final phase is turning the trajectory around and helping the species rebound to the point it no longer needs Endangered Species Act protection. This final recovery phase is often the most difficult and time-consuming.

The northern spotted owl recovery plan outlines actions over a 30-year timeframe and envisions that recovery can be accomplished in that time if those actions are effectively implemented. Reducing competition from the encroaching barred owl is one of the major challenges in recovering the spotted owl. With strong habitat conservation and forest restoration, the U.S. Fish and Wildlife Service maintains there is a good chance of succeeding in recovering the spotted owl over the long term if we adequately address the barred owl threat in the short term.

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## **Barred Owl / Northern Spotted Owl Interaction:**

### **What is known about the barred owl's movement into the northern spotted owl's range?**

Barred owls are native to eastern North America. They began moving west of the Mississippi River around the turn of the 20th century. Barred owls reached the range of the northern spotted owl in British Columbia by about 1959, continued to expand southward, and were first documented in Washington, Oregon, and California in the 1970s. Barred owls now outnumber spotted owls in many portions of the latter's range.

The barred owl's movement could have been a natural range expansion or human-caused or a combination of both; we don't have data to be sure either way. There are several theories about why barred owls progressively moved westward. The most common one is that it was caused by changes to the environment in the Great Plains as people increasingly settled there and dramatically altered the landscape. Changes in climate, fire suppression, the decimation of bison, and orchard or shelterbelt planting, among other changes, may have created patches of habitat, altering natural barriers that previously inhibited the barred owl's expansion westward.

See this [fact sheet](#) for more information on the evolution of the barred owl threat, as well as references to the most commonly cited scientific research related to barred owl/spotted owl interactions.

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### **What is the U.S. Fish and Wildlife Service doing about the barred owl threat to the northern spotted owl?**

About one-third of the northern spotted owl recovery plan focuses on addressing the threat of the encroaching barred owl. The most significant effort is this proposal to conduct a barred owl removal experiment to test the feasibility of barred owl removal as a management tool. The Final Environmental Impact Statement (EIS) for the experiment outlines the alternatives considered for removing barred owls from certain areas of the spotted owl's range in an experimental approach to test whether this will have a positive effect on spotted owl populations. If the experiment yields positive results, the U.S. Fish and Wildlife Service may consider including barred owl removal on a broader scale as part of a comprehensive management strategy for barred owls. This is a separate decision and would require a separate EIS under the National Environmental Policy Act.

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### **More information on the proposal for experimental removal of barred owls:**

#### **What action is the U.S. Fish and Wildlife Service taking today?**



The U.S. Fish and Wildlife Service is releasing a Final Environmental Impact Statement (EIS) outlining alternatives, including our preferred alternative, for experimental removal of barred owls from certain areas of the northern spotted owl's range to determine if removing barred owls would have a positive effect on spotted owls.

No policy decision is made in this Final EIS. The purpose of releasing this document is to respond to comments received on the Draft EIS. The Final EIS includes the Service's preferred alternative for experimental removal of barred owls. Public comments are not being accepted on this Final EIS. A Record of Decision (ROD) will be published no sooner than 30 days following this release.

The alternatives we considered varied by number and location of study areas, type of study design, duration, and combination of non-lethal and lethal removal methods (non-lethal methods include capture and permanent

captivity). The Final EIS also includes a “no action” alternative.

The purpose of the experiment would be:

- To obtain and evaluate information on the effects of barred owls on spotted owl occupancy, survival, reproduction, and population trend through experimental removal;
- To determine the feasibility of barred owl removal as a management tool; and
- To expeditiously develop information for potential decisions on future management of barred owls.

If the proposed experiment proceeds, it would provide valuable information about how barred owls impact the population growth and dynamics of spotted owls. The experiment would allow us to gather information to assess the efficacy and feasibility of barred owl population management. We hope to determine whether the barred owl population could be managed to an extent that would allow the spotted owl a chance to rebound enough that the two species can eventually co-exist.

The Final EIS includes nine potential courses of action, called “alternatives,” and a “no action” alternative. Each alternative includes information on the experiment location(s), the estimated cost and duration, the approximate number of barred owls that would be removed, the potential effect on other species, and any potential social, economic, cultural, and recreational effects. If it proceeds, the experiment would take place over a period of 3 to 10 years (the duration varies in the different alternatives). The cost of the experiment would depend on the alternative chosen, but we estimate it would range from approximately \$400,000 to \$12 million.

View the [executive summary](#) of the Final EIS. - **NEED LINK HERE**

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### **How is the Final EIS different from the Draft EIS?**

In the Final EIS, we summarize and respond to the public comments received on the Draft EIS. We developed a preferred alternative based on the input from the comments, interagency meetings and internal discussions, and provide a complete analysis of effects of the preferred alternative. We also updated the information on the estimated number of barred owls removed and the cost of the different alternatives.

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### **Are there opportunities for public review and comment on the Final Environmental Impact Statement on experimental removal of barred owls?**

No. The U.S. Fish and Wildlife Service accepted public comments for 90 days following the release of the Draft EIS in March 2012. We received 75 comments which are summarized in Appendix K of the Final EIS.

View the Final EIS. - **NEED LINK HERE**

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### **Is there evidence that barred owl removal might benefit northern spotted owls?**

There are reasons to believe that removing encroaching barred owls may benefit northern spotted owls. This is part of what led the U.S. Fish and Wildlife Service to consider a scientific experiment to further study the

effects of barred owl removal on spotted owls.

In 2006, the California Academy of Sciences obtained permits to collect 20 barred owl specimens in northern California. They collected some of these barred owls from three sites formerly occupied by spotted owls on Green Diamond Resource Company's lands in coastal northern California. Spotted owls returned to all three sites after barred owls were removed. While only a small pilot effort, this indicates that spotted owls will re-occupy sites from which barred owls are removed, at least under some circumstances.

In addition, in southern British Columbia, where spotted owls are on the brink of extinction, the provincial government is undertaking an effort that involves protecting about a dozen known birds remaining in the wild, bringing a small number of spotted owls into captivity for a breeding program, and conducting limited barred owl removal from spotted owl sites. In 2007, the British Columbia natural resources agency began an effort to capture and translocate barred owls from about 10 sites historically occupied by spotted owls, but doing so proved extremely challenging. In 2009, the agency included lethal methods of removal. About 90 barred owls have been removed so far, and seven spotted owls that were not known to exist have returned to previously occupied sites, some as soon as a year after removing barred owls. Successful breeding also was observed following barred owl removal.

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### **Did the U.S. Fish and Wildlife Service take ethical considerations into account when developing this proposal?**

Yes. See the Final EIS on experimental removal of barred owls to support northern spotted owl recovery, Chapter 6.

As part of our spotted owl recovery plan implementation process, in early 2009, we established a Barred Owl Stakeholder Group. This group included representatives of broad-interest environmental organizations, bird-specific conservation groups, animal welfare organizations, the timber industry, tribes, state and local government agencies, and others.

The Barred Owl Stakeholder Group was one of a variety of sources of information that helped the U.S. Fish and Wildlife Service consider the ethical aspects of potential barred owl management decisions (See Appendix B of the Final EIS). To facilitate constructive group dialogue, we hired an environmental ethicist who helped all of us better understand the value conflicts embedded in environmental controversies. He also provided background information for exploring various ethical theories and moral questions to gain insight on a range of perspectives on wildlife-related ethics.

View the [full Final EIS](#) document that will soon be published in the *Federal Register*. **NEED LINK HERE**

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### **What removal methods are the U.S. Fish and Wildlife Service considering?**

The Final EIS on experimental removal of barred owls to support northern spotted owl recovery evaluates the use of non-lethal and lethal methods of removal, and combinations of the two. Non-lethal methods would include capture and permanent captivity. Capture would be conducted with tested techniques such as mist nets with decoys. Lethal methods would involve killing on site using a shotgun; this is considered the best way to minimize the potential for trauma, pain, and suffering because it is most likely to result in instantaneous death.

If the experiment proceeds, all barred owl removal would be conducted using methods that are as safe, humane, and efficient as possible. Every effort would be made to minimize the risk of unnecessary injury or trauma to barred owls and other species. A description of the methods is found in Section 2.1.5 of the final EIS and a detailed description of the potential procedures is described in Appendix D of the Final EIS.

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### **Is there potential for translocation of captured barred owls or placement in permanent captivity?**

As part of assessing the feasibility of a potential barred owl removal experiment, the U.S. Fish and Wildlife Service explored options for translocation of captured barred owls or placement in permanent captivity. The details of our assessment is found in Section 2.2.2.2 of the EIS.

We chose not to consider releasing captured barred owls in other areas of the Northwest. This was primarily because it could increase their population even more and lead to other problems, such as barred owl predation on other species that did not evolve with it.

We considered translocating barred owls back to their historical range. We contacted 29 state fish and wildlife agencies within the historical range of the barred owl about the potential for translocation of captured barred owls and their release into the wild. We also have initiated contact with zoos nationwide about the potential for placing captured barred owls in permanent captivity.

More than 20 state agencies have responded to our requests for assistance with this effort, but none was willing to accept barred owls from the Northwest. Their reasons included a lack of sufficient unoccupied habitat; concerns over dilution of local gene pools; potential conflicts with resident barred owls; disease or parasites; costs; and conflicts with other species. Details of this effort are described in Appendix C of the Final EIS. So far, we have heard from only a few zoos, and they indicated an interest in providing for permanent captivity for up to five birds.

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### **If it proceeds, when would the barred owl removal experiment begin?**

If the U.S. Fish and Wildlife Service moves forward with the proposed barred owl removal experiment to support northern spotted owl recovery, the soonest we would expect to take any removal action would be the fall of 2013.

### **If it proceeds, where would the barred owl removal experiment take place?**

If the U.S. Fish and Wildlife Service moves forward with the proposed barred owl removal experiment to support northern spotted owl recovery, study areas depend on the alternative chosen. Our preferred alternative involved removal of barred owls on four study areas, Cle Elum in Washington, half of the combined Oregon Coast Ranges and Veneta in Oregon, Union/Myrtle (Klamath) in southern Oregon, and Hoopa (Willow Creek) in California.

Most proposed study areas for the experiment are focused on federal lands managed by the U.S. Forest Service, Bureau of Land Management, and National Park Service. Interspersed state and private lands may occur within the boundaries of a study area but would only be included in the experiment with landowner permission. Each experiment site would include a treatment area where barred owls would be removed and control areas where they would not to allow comparisons of spotted owl data before and after removal.

Maps of the study areas and alternatives can be found in Section 2.2.3 of the Final EIS.

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### **Does the U.S. Fish and Wildlife Service plan to use barred owl removal as an ongoing management tool?**

If the proposed experimental removal of encroaching barred owls proceeds, any decision on barred owl removal as a broader management tool to support northern spotted owl recovery would first depend on two things: 1) whether the experiment is effective; and if so, 2) whether it would be feasible to apply the approach on a broader scale.

Even if the answer to both of those questions is yes, it doesn't necessarily mean the U.S. Fish and Wildlife Service would choose to employ broad-scale removal as a management tool. There would likely be other things to consider once we completed the experiment. If we did decide to pursue it, we would be required by the National Environmental Policy Act to initiate a separate process on any proposal to use barred owl removal as a management tool. The current proposal is only for the experiment to study the effects of limited barred owl removal on spotted owls.

View the [executive summary](#) of the Final EIS. **NEED LINK HERE**

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### **Has the U.S. Fish and Wildlife Service used wildlife removal as a management tool in other situations?**

There have been several occasions when the U.S. Fish and Wildlife Service found it necessary to carry out removal measures for one species to safeguard another species listed under the Endangered Species Act or a species of concern. Such measures are only considered when there are few other viable options. Even so, these are very difficult considerations and we don't take them lightly. Our actions are always designed to minimize trauma, pain, and suffering.

Examples of the agency's use of removal as a management tool include removing: red-tailed hawks to help endangered parrots; brown-headed cowbirds to protect Kirkland's warblers and southwestern willow flycatchers; and several species of raptors to protect San Clemente Island loggerhead shrikes. In the Northwest, we have removed sea lions and **Caspian terns** to benefit listed salmon, and foxes, coyotes, and crows to protect the threatened western snowy plovers.

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## Aren't Barred Owls also a protected species?

Barred owls are protected under the Migratory Bird Treaty Act of 1918, a law that implements four bilateral treaties, or conventions, for the protection of a shared migratory bird resource (treaties signed between the U.S. and Canada, Mexico, Japan, and Russia). These treaties protect over 1000 species of birds in the U.S. Under the Migratory Bird Treaty Act it is unlawful to pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg of any such bird, unless authorized under a permit. This EIS is part of the information we will use in applying for a scientific collection permit. These permits are issued by USFWS [Regional Migratory Bird Permit Offices](#) and for this experiment, the permit would be issued by the Pacific Region in Portland, Oregon.

