

Frequently Asked Questions

U.S. Fish & Wildlife Service Status Review of Northern Spotted Owl



What is the current status of the northern spotted owl?

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

The most recent annual survey indicates that the northern spotted owl continues to decline in the majority of the 11 long-term 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 variation, helping the species withstand potential future catastrophic events.

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 (ESA) 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 species 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. Under the 1994 Northwest Forest Plan, as replacement habitat has grown, the habitat threat facing spotted owls has also lessened. However, the threat

from barred owls has intensified. Our understanding of the magnitude of that threat has grown significantly since the northern spotted owl was listed, and barred owl populations continue to expand throughout the forests of the Pacific Northwest. The Service is concerned that the spotted owl is likely to be extirpated from some or all of its range without both barred owl management and continued habitat conservation.

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 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 ESA in 1990, the Service estimated that its habitat had declined 60 to 88 percent since the early 1800s. 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. In 2012, the Service identified approximately 9.5 million acres of critical habitat in the Final Revised Critical Habitat Rule for the Northern Spotted Owl.

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 the experimental removal of barred owls. If the experiment yields positive results, the Service may consider including barred owl removal on a broader scale as part of a comprehensive management strategy. This action would require an Environmental Assessment or Environmental Impact Statement under the National Environmental Policy Act.

How do encroaching barred owls affect northern spotted owls?

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.

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. Pressure on the spotted owl from diminished habitat is exacerbated by presence of the barred owl.

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. (<http://www.fws.gov/oregonfo/Species/Data/NorthernSpottedOwl/BarredOwl/Documents/NSORecoveryFactSheetBarredOwl.2.15.12.pdf>)

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, Canada, by about 1959, and continued to expand southward. They were first documented in Washington, Oregon and California in the 1970s and now outnumber spotted owls in many portions of the latter's range.

The barred owl's movement could have been a natural range expansion, human-caused or a combination of both; we don't have data to be able to determine which. There are several theories about why barred owls progressively moved westward. The most common 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.

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 Service to consider a scientific experiment to further study the effects of barred owl removal on spotted owls.

Early reports have indicated that spotted owl populations rebound if barred owls are removed. 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.

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. It is then 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 Ministry of Forests, Lands, and Natural Resource Operations 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.

Experimental removal of barred owls began in Northern California on the Hoopa Reservation in spring 2014. An update of the experiment can be found at: <http://www.fws.gov/oregonfwo/Species/Data/NorthernSpottedOwl/BarredOwl/Documents/Website%20update%208.2014.pdf>

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

The Service is undertaking a required status review of the northern spotted owl, which will evaluate whether it should be delisted, reclassified, or remain unchanged.

The ESA requires an evaluation on the status of a listed species every five years. The most recent northern spotted owl five-year review was completed in 2011, which confirmed its threatened classification.

This five-year status review will also serve as the a 12-month finding on a 2012 petition from the Environmental Protection Information Center requesting that the northern spotted owl be listed as endangered under the ESA. This follows a 90-day finding, published in the *Federal Register*, which determined that the petition included substantial information that warrants further review.

What is a petition?

A petition is a request filed under the Endangered Species Act by an interested party asking that a species be added to, removed from, or reclassified on the Federal Lists of Endangered and Threatened Wildlife or Plants.

What is a 90-day finding?

Section 4(b)(3)(A) of the ESA requires the Service to make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. If the Service finds that the petition contains substantial information, it initiates a review of the species to determine if the petitioned action is warranted.

What would change if the northern spotted owl is uplisted to endangered after the 12-month review is completed?

Incidental take for northern spotted owls is already carefully evaluated, considered, and monitored under the ESA Section 7 (interagency consultation process for federal agencies) and Section 10 (permitting for nonfederal entities). If the species were uplisted, these processes will continue and the regulatory impact of a potential uplisting would likely be minor. However, a positive 90-day finding is only the first step in a thorough evaluation process and there is a long way between this finding and any potential change in the owl's status.

For more information on the petition process, go to <http://www.fws.gov/endangered/what-we-do/listing-petition-process.html>