Conservation Northwest
Keeping the Northwest Wild

Barred Owl Frequently Asked Questions:

Are barred owls native to the Pacific Northwest?
No. Barred owls are an invasive species in the Pacific Northwest. Originally from the east coast, scientist believe European settlement likely facilitated the westward movement of barred owls across the North American Great Plains through new forests patches and corridors that developed after fire suppression, tree planting, cessation of indigenous burning, and bison and beaver eradication. Barred owl movement also corresponded with human-caused climate change that allowed barred owls to expand into Canadian forests north of the Great Plains.

Do invasive barred owls harm spotted owls, other native species, and Pacific Northwest ecosystems?
Yes. Although habitat loss and degradation from timber harvest caused northern spotted owl population declines and continues to pose extinction threats, barred owl competition and interference is currently a primary threat to northern spotted owls. Barred owls are larger, more aggressive and fecund, aggregate in higher densities, and displace spotted owls, disrupting nesting and competing for food. As a generalist and novel predator, barred owls prey on a broad spectrum of mammals, birds, reptiles, amphibians and insects that have not previously been subject to this predator, raising the potential for broader ecological disruption. For example, barred owl abundance has been correlated with declines in screech owls on Bainbridge Island.

What's a northern spotted owl?
Northern spotted owls are medium-sized demure owls that depend on contiguous old forests in the Pacific Northwest with large trees, snags, and down wood. They are highly territorial and intolerant of habitat disturbance, have large home-ranges, and ecologically function as a top predator, mostly eating northern flying squirrels, but also woodrats, snowshoe hare, and other small mammals. Most spotted owl pairs do not breed every year.

How many barred owls could be killed?
As many as 16,000 per year. At maximum, only about 0.5 percent of the barred owl population will be killed annually. Taking lethal action against some barred owls will allow spotted owls to persist, ensuring the conservation of both species in their native range.

Are there better options for controlling barred owls than lethal action?
Killing barred owls is currently the only feasible, humane, and experimentally validated approach for effectively and rapidly reducing the threat to spotted owls from barred owls. Translocation was considered but there is nowhere to relocate the barred owls requiring removal, especially given concerns of disease transmission to native populations. Disrupting barred owl reproduction doesn't address the immediate direct threats from barred owls, is untested, and would require time, expertise, and resources not currently available.

Is it unethical to kill barred owls to protect spotted owls and other species associated with old-growth forests in the Pacific Northwest?

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The U.S. Fish and Wildlife Service formed a 40-member stakeholder group to address this question. The group concluded:

- Compassion was key to barred owl management
- Society has a moral obligation to assist the spotted owl
- Lethal control experiments are justified but should minimize harm and suffering
- Viable non-lethal alternatives should be developed

Lethal control is often used as a tool in wildlife management (e.g. brown-headed cowbirds for Kirkland warbler, bullfrogs for native frogs, cormorants for salmon and trout, mice for albatross, golden eagles for Catalina Island fox, wolves for Mountain caribou). In this case, it reflects a choice between increased mortality and loss of spotted owls as a species and death of some barred owl individuals from lethal control. It has the potential to maintain spotted owls in the wild but will not affect native barred owls in eastern North America, thereby conserving both species.

Strict lethal removal and training protocols are well-established, and use of shotguns are efficient, humane, and cost-effective. During lethal removal effectiveness experiments, nearly all barred owls were killed with a single shot. Non-lethal approaches must be developed to supplement or replace lethal control, but the swift decline of diminished spotted owls caused by barred owls requires the immediate and strategic removal of barred owls from specific locations.

Why can't we wait until other barred owl control approaches are developed?
Time is of the essence. Rapid response to invasive species that are negatively impacting ecosystems can effectively limit the near-term extinction threat to local fauna. Rapid response can prevent the spread of invasive species into new areas before they become entrenched. Delays and inaction only increase the effort needed to control or eliminate invasive species, including costs, and runs against the ethic of lethally removing as few individuals as possible to achieve conservation goals. Recent demographic studies show that spotted owls in its northern range have declined by more than 75% in two decades and continue to decline.

Will it work?
Yes, it is possible to reduce barred owl populations at strategic locations including where they have not yet established a strong presence in central Oregon and northern California where spotted owl populations remain strong, around owl nest sites, and in other defensible parts of spotted owl range, such as the Olympic peninsula. Costs are predicted to reach $4.5 to $12 million annually across spotted owl range in Washington, Oregon and California, and then decline after the first few years. Scientists predict that barred owl densities could be reduced to levels compatible with viable spotted owl populations in many areas in 5-10 years. Other areas could require more time. A strong monitoring and adaptive management component will provide evaluations of success and effectiveness every 5 years.

How do you feel about it?
It's incredibly sad to be in this position, still reckoning with past decisions to liquidate most of our old-growth forest habitat and causing significant spotted owl decline, making their small populations more vulnerable to barred owls. Killing barred owls in strategic locations until

spotted owl populations stabilize and start to recover is an unpleasant and necessary action to prevent spotted owl extirpation in Washington and range-wide extinction in the West.

Resources:

Dumbacher, JP, Franklin, AB. 2024. When avifauna collide: the case for lethal control of barred owls in North America. Front Ecol Environ. e2817
Holm, SR, Noon BR, Wiens JD et al. 2016. Potential trophic cascades triggered by the barred owl range expansion. Wildlife Soc B **40**:615-24
USFWS (US Fish and Wildlife Service). 2023. Final barred owl strategy.

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