

Billing Code 4310-55

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS-R1-ES-2011-N259]

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**Draft Environmental Impact Statement for Experimental Removal of Barred Owls
To Benefit Threatened Northern Spotted Owls**

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; announcement of public meetings; request for comments.

SUMMARY: We, the U.S. Fish and Wildlife Service, announce the availability of a draft environmental impact statement for experimental removal of barred owls to benefit threatened northern spotted owls. The barred owl, a species recently established in western North America, is displacing the northern spotted owl and threatening its viability. The draft environmental impact statement analyzes a no-action alternative and

seven action alternatives to experimentally determine if removing barred owls will benefit northern spotted owl populations and to inform decisions on whether to move forward with future management of barred owls. The action alternatives vary by the number and location of study areas, the type of experimental design, duration of study, and method of barred owl removal. We also announce plans for public meetings and the opening of a public comment period on the draft environmental impact statement. All interested parties are invited to provide information, data, comments or suggestions.

DATES: To ensure consideration, we must receive comments before close of business (4:30 p.m.) on or before **[INSERT 90-DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. We will hold at least two public meetings within the range of the northern spotted owl. We will announce meeting locations and times in local newspapers and on the Internet at: <http://www.fws.gov/oregonfwo>.

ADDRESSES: To request further information, obtain a copy of the draft environmental impact statement (EIS), or submit or view written comments, please use one of the following methods and clearly indicate that your request or comment is in reference to the Barred Owl EIS:

- *Email:* barredowlEIS@fws.gov.
- *U.S. Mail:* Paul Henson, State Supervisor, U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office, 2600 SE 98th Ave., Suite 100, Portland, OR 97266.

- *In-Person Drop-off of Comments:* Comments can be delivered in person to the above address during regular business hours (Monday through Friday, 8 a.m. to 4:30 p.m.).
- *Viewing Comments and Supporting Materials, or Picking Up a Copy of the Draft EIS:* Call 503-231-6179 to make an appointment to view received comments or pick up a copy of the draft EIS at the above address.
- *Internet:* The draft EIS is available for review and downloading at <http://www.fws.gov/oregonfwo>.
- *Fax:* Paul Henson, 503-231-6195, Attn.: Barred Owl EIS.

FOR FURTHER INFORMATION CONTACT: Paul Henson, State Supervisor, Oregon Fish and Wildlife Office, at 503-231-6179. If you use a telecommunications device for the deaf, please call the Federal Information Relay Service at 800-877-8339.

SUPPLEMENTARY INFORMATION: We announce the availability of a draft environmental impact statement for experimental removal of barred owls to benefit threatened northern spotted owls. We are publishing this notice in compliance with the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*; NEPA) and its implementing regulations at 40 CFR 1506.6. This continues the public involvement process for our draft EIS, which was initiated through a notice of intent to prepare an EIS in the **Federal Register** on December 10, 2009 (74 FR 65546).

The draft EIS evaluates the impacts of seven action alternatives and a no-action alternative related to: (1) Federal involvement in barred owl removal experiments, and (2) the possible issuance of one or more scientific collecting permits under the Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) for lethal and non-lethal take of barred owls.

The northern spotted owl (*Strix occidentalis caurina*) is listed as threatened under the Endangered Species Act (16 U.S.C. 1531 *et seq.*; Act). Competition from barred owls (*Strix varia*) was identified as one of the main threats to the northern spotted owl in our 2011 Revised Northern Spotted Owl Recovery Plan (Recovery Plan) (USFWS 2011, p. III-62). To address this threat, the Recovery Plan recommended designing and implementing large-scale controlled experiments to assess the effects of barred owl removal on spotted owl site occupancy, reproduction, and survival (USFWS 2011, p. III-65). The draft EIS analyzes seven action alternatives and a no-action alternative for conducting experimental removal of barred owls and assessing the effects on spotted owl populations in specific study areas within the range of the northern spotted owl. Action areas may include from one to several study areas in western Washington, western Oregon, and northwestern California. The action alternatives vary by the number and location of study areas, the type of experimental design, duration of the study, and the method of barred owl removal.

Background

The Service listed the northern spotted owl as a threatened species under the Act in 1990, based primarily on habitat loss and degradation (55 FR 26114). As a result, conservation efforts for the northern spotted owl have been largely focused on habitat protection. While our listing rule noted that the long-term impact of barred owls on the spotted owl was of considerable concern, the scope and severity of this threat was largely unknown at that time (55 FR 26114, p. 26190). The Recovery Plan summarized information available since our listing rule and found that competition from barred owls poses a significant and immediate threat to the northern spotted owl throughout its range (USFWS 2011, pp. B-10 through B-12).

Historically, the barred owl and northern spotted owl did not co-occur. In the past century, barred owls have expanded their range westward, reaching the range of the northern spotted owl in British Columbia by about 1959. Barred owl populations have continued to expand southward within the range of the northern spotted owl, and were first documented in Washington and Oregon in the early 1970s, and in California in 1976 (Livezey *et al.* 2007, p. 49; Sharp 1989, p. 179). The population of barred owls behind the expansion front continues to increase, and they now outnumber spotted owls in many portions of the northern spotted owl's range (Pearson and Livezey 2003, p. 272).

There is strong evidence to indicate that barred owls are negatively affecting northern spotted owl populations. Barred owls displace spotted owls from high-quality habitat (Kelley *et al.* 2003, p. 51; Pearson and Livezey 2003, p. 274; Courtney *et al.*, pp. 7-27 through 7-31; Gremel 2005, pp. 9, 11, 17; Hamer *et al.* 2007, p. 764; Dugger *et al.* 2011, pp. 2464-1466), reducing their survival and reproduction (Olson *et al.* 2004, p.

1048; Anthony *et al.* 2006, p. 32; Forsman *et al.* 2011, pp. 41-43, 69-70). In addition, barred owls may physically attack spotted owls (Gutierrez *et al.* 2007, p. 187). These effects may help explain declines in northern spotted owl territory occupancy associated with barred owls in Oregon, and reduced northern spotted owl survivorship and sharp population declines in Washington (e.g., in northern Washington, spotted owl populations declined by as much as 55 percent between 1996 and 2006) (Anthony *et al.* 2006, pp. 21, 30, 32; Forsman *et al.* 2011, pp. 43-47, 65-66)). Without management intervention, it is reasonable to expect that competition from barred owls may cause extirpation of the northern spotted owl from all or a substantial portion of its historical range, reducing its potential for recovery.

We are proposing to conduct experiments to determine if removal of barred owls would increase site occupancy, survival, and reproduction, and improve population trends of northern spotted owls. Support for these experiments has been expressed in the scientific community. For example, Gutierrez *et al.* (2007, p. 191) notes, “[c]orrectly executed removal experiments should provide an unambiguous result regarding the effect of barred owls on spotted owl population declines.” The Wildlife Society sent a letter to the Director of the Service stating, “experiments to remove and control barred owls * * * [are] appropriate” (The Wildlife Society 2008, p. 11). Buchanan *et al.* (2007, p. 683) state, “[d]espite the potential for confounding effects, appropriately designed removal experiments should provide the strongest inference regarding the magnitude of the Barred Owl’s effect on Spotted Owls.”

The methods for, and the effects of, removing barred owls from northern spotted owl habitat are not fully understood. Three publications, Buchanan *et al.* (2007, entire), Livezey *et al.* (2007, entire), and Johnson *et al.* (2008, entire), analyze and discuss various methods of barred owl control. The Service considered the information in these documents as well as the information gathered in the scoping process in developing alternatives for barred owl removal.

Purpose and Need for the Action

The need for the action is that we lack desired information to:

- Determine the response of northern spotted owl occupancy, survival, reproduction, and population trend to barred owl removal;
- Evaluate whether barred owls can be effectively removed from an area and how much follow-up effort is required to maintain low population levels of barred owls;
- Determine the cost of removal in different types of forested landscapes to inform future management decisions; and
- Help inform timely decisions on whether to move forward with future barred owl management.

The purpose of the proposed action is to contribute to fulfilling the intent of the Act by rapidly implementing experimental research necessary for conservation of the northern spotted owl in accordance with Recovery Action 29 of the Recovery Plan (USFWS 2011, p. III-65). More specifically, the purpose of the proposed action is to:

- Obtain information regarding the effects of barred owls on northern spotted owl vital rates of occupancy, survival, reproduction, and population trend through experimental removal;
- Determine the feasibility of removing barred owls from an area and the amount of effort required to maintain reduced barred owl population levels for the study period;
- Estimate the cost of barred owl removal in different forested landscapes; and
- Develop the information necessary to make a future decision about the management of barred owls as expeditiously as possible.

Alternatives

The draft EIS describes and analyzes seven action alternatives and a no-action alternative. The action alternatives were developed to meet the purposes and need for the proposed action, with consideration given to comments received during public scoping. 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.

The potential impacts of the alternatives are assessed in the draft EIS. The alternatives vary by the number and location of study areas, the method of barred owl removal (lethal, or a combination of lethal and non-lethal), and the type of study (demography vs. occupancy).

All action alternatives are based on a simple treatment and control study design. Under this approach, study areas are divided into two comparable segments. Barred owls are removed from the treatment area but not from the control area. Spotted owl populations are measured using the same methodology on both areas, and the population measures (occupancy, survival, reproduction, and population trend) are compared between the control and treatment areas.

Experiments would occur over a period of 3-10 years, varying by alternative. The area affected by the action alternatives ranges from approximately 126,000 to 2,906,800 acres (51,000 to 1,176,000 hectares), or from 0.2 to 5.1 percent of the northern spotted owl's range. A brief description of each alternative follows.

Under the No-action Alternative, the Service would not conduct experimental removal of barred owls, thus not implementing one of the Recovery Actions designated in the Revised Recovery Plan for the northern spotted owl (USFWS 2001, p. III-65). Data that would inform future barred owl management strategies would not be gathered.

Alternative 1 would consist of a demography study in a single study area. The study area would be located within an existing spotted owl demography study area where long-term monitoring of northern spotted owl populations has occurred (Lint *et al.* 1999, p. 17; Lint 2005, p. 7). Only lethal removal would be applied in this alternative.

Alternative 2 would consist of a demography study in three study areas, which would be located within existing spotted owl demography study areas and distributed across the range of the northern spotted owl. Removal would include a combination of lethal and non-lethal methods.

Alternative 3 entails a demography study in two study areas. Barred owl removal would occur outside of existing spotted owl demography study areas, but within areas that have adequate data to conduct pre-removal demography analyses. A combination of lethal and non-lethal removal methods would be used.

Alternative 4 includes two subalternatives, 4a and 4b. Both subalternatives entail a demography study in two study areas outside existing spotted owl demography study areas. Both subalternatives use a combination of lethal and non-lethal methods. Subalternatives 4a and 4b differ in that 4a delays barred owl removal to collect pre-treatment data for comparison with treatment data, whereas 4b starts removal immediately and foregoes pre-treatment data collection.

Alternative 5 employs an occupancy study approach in three study areas. The portion of the study areas where barred owls would be removed is outside existing spotted owl demography study areas. Only lethal removal would be applied in this alternative.

Alternative 6 includes two subalternatives, 6a and 6b. Both subalternatives entail an occupancy study in three study areas. The portion of these study areas where barred owls would be removed is outside existing spotted owl demography study areas. Both subalternatives use a combination of lethal and non-lethal methods. Subalternatives 6a and 6b differ in that 6a delays removal to collect pre-treatment data for comparison with treatment data, whereas 6b starts removal immediately and foregoes pre-treatment data collection.

Alternative 7 includes a combination of demography and occupancy analyses across 11 study areas, some of which have current data while others do not. Three existing spotted owl demographic study areas would be included within these study areas. A combination of lethal and non-lethal methods would be used.

Public Availability of the Draft EIS

The draft EIS is available for viewing and downloading on our web site at <http://www.fws.gov/oregonfwo>. Unbound paper copies and digital copies on compact disk are available upon request. Copies of the draft EIS may also be picked up in person, by appointment, during regular business hours (9 a.m. to 4:30 p.m.) (see **ADDRESSES** section to request a copy or schedule a document pick-up time).

Next Steps

After this comment period ends, we will analyze comments and address them in a final EIS.

Public Comments

We request data, comments, new information, or suggestions from all interested parties. We will consider these comments in developing the final EIS. We particularly seek comments on the following:

- The barred owl and its population status and trend;
- The northern spotted owl and its population status and trend;

- Ongoing northern spotted owl demography studies;
- Effects of the proposed removal experiment on other wildlife 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 of the alternatives;
- Cultural resources that may be affected by the alternatives;
- Effects of the alternatives on visitor use and recreation, and visitor experience, especially in National Parks and Recreation Areas and other recreation sites; and
- Effects of the alternatives on Wilderness Areas and wilderness attributes.

You may submit your comments and materials by one of the methods listed in the **ADDRESSES** section.

Comments and materials we receive, as well as supporting documentation we used in preparing the draft EIS, will be available for public inspection by appointment, during normal business hours, at our office (see **ADDRESSES** section).

Public Availability of Comments

Written comments we receive become part of the public record associated with this action. Before including your address, phone number, email address, or other personal identifying information in your comments, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal

identifying information from public review, we cannot guarantee that we will be able to do so.

Public Meetings

We will hold at least two public meetings at locations within the range of the northern spotted owl (western Washington, western Oregon, and northwestern California). We will announce exact meeting locations and times in local newspapers and on the Internet at *<http://www.fws.gov/oregonfwo>*.

References Cited

A complete list of references cited in this notice is available upon request from our Oregon Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authority

We provide this notice under the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*), and its implementing regulations in the Code of Federal Regulations (CFR) at 40 CFR 1506.6. We also publish this notice under authority of the Migratory Bird Treaty Act (16 U.S.C. 703-712) and its specific implementing regulations at 50 CFR 10.13 and 50 CFR 21.23.

Dated: _____

Regional Director, Region 1,
U.S. Fish and Wildlife Service

~~[Draft Environmental Impact Statement Related to Experimental Removal of Barred
Owls for the Conservation Benefit of Threatened Northern Spotted Owls]~~