

August 16, 2025

Dear Senator,

I am a retired wildlife biologist who worked for U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Navy, California Department of Fish and Game, and The Nature Conservancy. Of my 24 publications, 10 concerned my radio-telemetry studies of deer and elk (California), my bird song keys (Panama), and flight-initiation distances in birds (worldwide), while 14 of them focused on various aspects of the competition between spotted owls (*Strix occidentalis*) and barred owls (*Strix varia*). I worked extensively on the spotted owl/barred owl issue for U.S. Fish and Wildlife Service. Here I write to shed some light on some aspects of that agency's Barred Owl Management Plan. The purpose of this plan is to kill almost one-half million barred owls over 30 years to help its less-competitive, slightly smaller relatives—the federally threatened northern spotted owl (*Strix occidentalis caurina*) and the California spotted owl (*Strix occidentalis occidentalis*)—persist in some parts of their historical range.

The barred owl range expansion was facilitated by European settlers. Native Americans had kept much of central North America a treeless grassland for many millennia by frequent burning, which kills trees but encourages grasses to grow. Strength-of-evidence analysis showed that the Great Plains had acted as a range barrier to barred owls, and this lack of trees was eliminated by fire exclusion, fire suppression, and tree planting by European settlers (Livezey 2009a,b). This increase in trees allowed the beloved “hoot owl” of eastern North America, as well as at least 10 other forest-bird species, to expand their ranges westward starting in the late 1800s. So barred owls had been prohibited from expanding their range for many thousands of years due an ecological barrier put in place by one group of humans (Native Americans), but they were allowed to expand their range after that barrier was eliminated by another group of humans (European settlers).

Barred owls out-compete spotted owls. This range expansion put barred owls in competition with spotted owls. Relative to spotted owls, barred owls are slightly larger, produce more offspring per year, produce offspring more often (every year instead of every other year), have smaller home ranges, have higher densities, eat a wider variety of prey, and live in a wider variety of forests (Livezey 2007; Bierregaard et al. 2024). Due to their more-varied prey base, several pairs of barred owls often are present within each spotted owl territory. It is like the old Broadway musical: “Anything you can do, I can do better.”

Dispersing juvenile barred owls would quickly occupy territories of shot barred owls. The “management” plan proposes to kill barred owls on about 28% of the current range of the northern spotted owl. As stated in the plan, “barred owls would remain unmanaged on approximately 72 percent of the northern spotted owl range, and barred owl populations would continue to remain stable or increase in these areas” (p. 77). Juvenile, territorial birds must

disperse to find their own territories. Barred owls typically leave their natal range at about 4 months of age, and they routinely disperse about 30 miles. Virtually all occupied spotted owl territories include and are surrounded by many pairs of barred owls. If barred owls were shot in one area, other barred owls *would* move in and replace them. This kill plan would be a never-ending, bloody game of Whack-A-Mole.

The expensive plan would get more costly over time. The kill plan includes no cost estimates, but a \$4.5 million grant from National Fish and Wildlife Foundation to the Hoopa Valley Tribe to kill 1,500 barred owls places the cost at \$3,000 per owl. Extrapolating that figure to the 450,033 barred owls to be shot via the plan would put the grand total at more than \$1.35 billion. The method used to kill barred owls is to voice their calls (either vocally or with speakers) to lure the owls in close enough to shoot them. Some cost-efficiencies would be expected over time, but I expect the costs would increase due to artificial selection because some barred owls may witness the shooting of their mate, escape, learn to stay away, and teach their young to do so. More commonly, I believe, inherently wary barred owls would survive better and teach their young to be wary of people coming into their territories voicing barred owl calls. (We see this modification of behavior all the time; for example, deer in areas without hunting typically allow close approach, whereas deer in areas with hunting flee at long distances.) After a few generations, this would result in a significant change in their behavior, thereby making it much more costly to kill the barred owls.

We would have to kill barred owls forever. Barred owls were first reported in Washington in 1965, Oregon in 1972, and California in 1976. Decades ago, when they were just beginning to move southward into the Sierra Nevada mountains of California, there was still time to keep them at bay and protect the California spotted owl there. I even senior-authored a paper in which we proposed shooting barred owls in the Sierras (Livezey et al. 2007). At that time, we in the U.S. Fish and Wildlife Service found, due to healthy spotted owl populations and low barred owl numbers, insufficient justification to list that subspecies as threatened or endangered (Livezey 2005, 2006). But that was back when only about a dozen barred owls annually moved into the area; now, however, the Sierras are overrun with them. Barred owls now greatly outnumber spotted owls in the old forests throughout the Pacific Northwest and California where spotted owls are still present, which is just a fraction of the spotted owl's historical range. In addition, barred owls are common throughout virtually all of the young and old forests in much of the rest of North America. Consequently, there is an endless supply of barred owls, and killing them would be required "forever" to allow some spotted owls to persist in isolated locations.

The kill plan would set dangerous precedents. Worldwide, there were almost 200 instances of native bird species negatively affecting bird species of concern in 2010 (Livezey 2010a). The largest numbers of birds of prey killed in any of these cases was an average of 17 red-tailed hawks (*Buteo jamaicensis*) killed annually to protect the federally endangered Puerto Rican parrot (*Amazona vittata*). The plan would kill an average of 15,000 owls annually, or almost 1,000 times more birds of prey than any other program in the world. A second precedent is

evident when considering range expansions of other birds. As of 2010, 111 bird species in North America had recently expanded their breeding ranges into at least one new state or province, and 14 species had expanded their ranges into more states or provinces than did Barred Owls (Livezey 2010b). If hundreds of thousands of barred owls are killed because they expanded their range and are competing with a species of concern, it seems likely U.S. Fish and Wildlife Service soon would need to consider whether to lethally intervene in conflicts between many other species of native birds due to the high frequency and large extent of range expansions, probability that range expansions will continue, and continuing increases in the total number of listed species.

Single-species protection may distract from protection of old-growth forests. In Endangered Species Act recovery plans, managers determine what is threatening the continued existence of the listed species and then identify actions to counteract those threats. When I worked full-time for 2 years as one of the seven members of the interagency team that wrote the 2008 Northern Spotted Owl Recovery Plan, it was obvious that sufficient habitat was being protected for the spotted owl and that the main threat was the barred owl. The only feasible way to eliminate that threat would be to kill barred owls. However, such a massive kill program over such a vast area had never been attempted anywhere in the world. A challenge in implementing the Endangered Species Act, and in being the managers in charge of doing so, is that there is virtually no option to question “Is this really worth it?” For example, one might ask, “Why are spotted owls so important?” The answer is that spotted owls are the “poster child” for old-growth forests in the Pacific Northwest. To illustrate this point, let’s say there is a federally threatened, medium-sized owl called the timberline owl that lives in forests at high elevations and nests on rocky cliffs, and common ravens (*Corvus corax*) prey upon its nestlings. Would U.S. Fish and Wildlife Service propose spending 1 billion dollars to kill ravens? I doubt it, because people are not very concerned about high-elevation forests.

At present, large areas of old-growth forest are already being protected in National Forests (through the Northwest Forest Plan) and National Parks. It might be naïve to assume that all of the habitat protections that exist today will be retained in the decades to come, but one could anticipate that if barred owls were killed with some success relative to spotted owls, old-growth forests would be protected where those spotted owls were able to persist. But rather than protecting the forests where, due to the shooting program, spotted owls happen to survive, I suggest we use those funds to *identify* and *protect* the most-important old forests and old-growth forests, many of which may have spotted owls in them at present. Overall, I do not believe that spending more than 1 billion dollars to kill almost one-half million barred owls is worth the carnage, expense, precedents, and distraction from what is the more-important issue: protection of biodiverse old-growth forests. As far as the owls go, I suggest we let nature take its course. However, I suggest abandoning this kill plan *if and only if* these forests are protected. Maybe we need an Endangered Ecosystems Act or an Old-Growth Protection Act.

Feel free to contact me if you would like more information.

Sincerely,



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