

California biologists shoot scores of bully owls to protect endangered spotted owls

By Natalie Jacewicz

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The barred owl has speckled brown wings, teddy bear eyes and a hoot that sounds like a puppy mouthing a sock. This one also has a red laser dot on its head. After getting a good look, Lowell Diller fires his rifle. The owl tumbles off its perch to the ground.

Diller has pulled the trigger on barred owls more than 100 times in the forests of Humboldt and Del Norte counties, but he's no poacher or renegade woodsman. He's a wildlife biologist who, as part of an experiment sanctioned by the U.S. Fish and Wildlife Service, kills one bird to protect another. The northern spotted owl, a smaller Pacific Northwest native that became symbolic of the region's timber conservation battles, is threatened with extinction.



Jack Dumbacher, curator of the California Academy of Sciences Department of Ornithology and Mammalogy, looks at a collection of barred owl specimens in San Francisco on Thursday, Feb. 25, 2016. (Karl Mondon/Bay Area News Group)

Diller, a biologist and contractor for Green Diamond Resource Co., a lumber company managing timberland in Humboldt, Del Norte and Trinity counties, agrees the barred owl is "an amazing bird, a wonderful bird."

But it has invaded California from the eastern United States, muscling out northern spotted owls upstate, and spreading south toward San Francisco. If the barred owls continue their advance, they may swoop in on other birds as well, such as the California spotted owl in the Sierra National Forest and Monterey.

A study soon to be published in the Journal of Wildlife Management and Wildlife Monographs shows the results of Diller's grisly conservation experiment: It works.

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Without barred owls competing for habitat, northern spotted owls bounce back. And conservationists now are staring down the barrel of a big question: How far should humans go to take sides in owl wars?

"By the time I'm done with this," Diller said, "I'm going to need a lot of therapy."

Diller couldn't have chosen a more charismatic creature for extermination. Owls pop up in plushies, knickknacks and even tote bags. Andrea Jones, the National Audubon Society's California director of bird conservation, suggested people admire owls because "they're part of a lot of lore and history." Plus, she added, "Humans love things with big eyes."

Unfortunately, the big-eyed barred owl is also a big bully. The owl spread from the East, likely as trees were planted in the Midwest and people increasingly suppressed forest fires. Upon arrival, barred owls become real estate moguls and chase other birds from their territory. These bullied birds may fall mute to avoid detection, fail to call out to potential mates and plummet in number.

Northern spotted owl populations, for example, have fallen in some areas by about 12 percent each year, despite efforts enacted in the 1990s to protect their old-growth forest habitat.

"Can you imagine letting something like that go extinct?" Diller asked. "It's really not acceptable."

Northern spotted owls also have winning personalities. They're curious and tend to come closer than many other species when human researchers offer mice. The males carry the mice back to nests to feed their mates. And the owls can remember individual people.

"They very quickly learn that you're the source of the mouse," Diller said. "So they'll kind of get attached to you."

Once barred owls swooped in, northern spotted owls seemed to disappear, but this evidence was circumstantial. To be sure barred owls were causing the decline, someone needed to create a controlled experiment.

A NEW OWL MOVES IN

Limited to the eastern United States in 1900, the barred owl has spread north into Canada and westward over the past century, moving most recently into California. Tree planting in the Great Plains and improved suppression of forest fires may have facilitated the barred owl's spread.



*Includes the northern, California and Mexican spotted owl
Source: J. David Wiens of U.S. Geological Survey BAY AREA NEWS GROUP

Timberlands with northern spotted owls have to submit habitat conservation plans. Diller had noticed spotted owl numbers were slipping when he met Jack Dumbacher, ornithology curator at the California Academy of Sciences. Dumbacher needed to collect some barred owl specimens, and he had a permit to do so. Diller saw an opportunity.

He realized he could apply for a permit from U.S. Fish and Wildlife to test whether barred owls were actually cutting into northern spotted owl populations. If the experiment supported Diller's hunch, he could use the findings to inform future habitat conservation plans for Green Diamond, maximizing trees that could be sustainably harvested while protecting a threatened species.



A spotted owl, left, and a barred owl specimen are held side-by-side by Jack Dumbacher, curator of the California Academy of Sciences Department of Ornithology and Mammalogy, in San Francisco on Thursday, Feb. 25, 2016. Studies are being conducted to understand how the invasive East Coast barred

owl is impacting West Coast populations of the threatened spotted owl. (Karl Mondon/Bay Area News Group)

In 2009, with permission from the feds and the state Department of Fish and Wildlife, Diller set aside patches of timberland to remove barred owls. In other patches, he did nothing. After four years, he would see how northern spotted owl numbers differed in the areas with and without barred owls.

Dumbacher and Diller went into the woods together at dusk, first playing a spotted owl call. If a spotted owl appeared, the pair moved on. If not, they played a barred owl call and waited for a barred owl to move to a perch for a clear visual identification. With one shot, Dumbacher killed the first bird.

"It was quite traumatic, the first one," Diller recalled. "It was so foreign, the idea of doing something like this. I couldn't even watch him do it."

Eventually, he grew comfortable enough to kill the birds without Dumbacher's help. But Diller's study suggests his trauma has paid off: In the areas without barred owls, northern spotted owls are no longer declining. The study is the first to prove this treatment works.

Green Diamond has applied for more permits to continue removing barred owls. Gary Rynearson, the company's chief communications officer and forest policy director, said that more spotted owls does not mean Green Diamond will increase logging, but it does mean that current rates of logging can continue. Though logging companies have often been at odds with threatened species such as the northern spotted owl, the company is excited about the study's results, Rynearson said.

"When you can protect and sustain a business and jobs and also conserve the northern spotted owl," he said, "why not do it?"

Now, the Fish and Wildlife Service is conducting four other experiments over larger landscapes in Washington, Oregon and California. These studies could pave the way for more widespread management of barred owls if they continue to move farther south in California.

But the ethics leave some conservationists uncomfortable.

"It's sort of a no-win situation," Audubon's Jones said grimly. "We're not advocating for the killing or against the killing."

She blames old-growth habitat destruction for pitting the two owls against each other in the first place.

PETA called the approach "cheap, dirty, destructive and unimaginative," while Shawn Cantrell, Defenders of Wildlife's northwestern program director, suggested that barred owl removal should play a short-term role in spotted owl conservation, while habitat restoration should play a bigger one. "When we mess things up, we have an obligation to fix them," he said.

Even Dumbacher has his doubts about what's the right approach.

"Right now, it's a bunch of us nerdy scientists out there, doing what we think is best," he said. "I don't know what's best. I have a broken heart when I think about the forest. There's no wilderness left in California. We don't have the resources to save everything."

When haunted by the killing, Diller tries to focus on what he's saving: the northern spotted owl. He talks about a pair of owls that emerged from hiding only two weeks after he'd removed barred owls from their old home.

Though he hadn't seen them in a while, Diller recognized the two owls, thanks to tags. "They were looking for a free mouse and flew up to greet me," he said. "That was thrilling."

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