

Fixing the cormorant disaster on the Columbia: 'How could this have come out any worse?'

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Credit: Pixabay/CC0 Public Domain

White streaks of bird waste paint the steel trusses beneath the Astoria-Megler Bridge over the Columbia River. Every flat surface and hidey-

hole of this bridge is stuffed and stippled with nests. Black birds roost on the girders, evenly spaced as beads on a string, then take wing: double-crested cormorants.

Pariahs wherever they live and roost, the birds have run into their most recent trouble here, on this bridge connecting Washington and Oregon.

It wasn't always this way, not until the humans got involved. Every time people have messed with this cormorant colony, the situation has worsened—and the birds are in the crosshairs yet again.

They were chased out of their roost at East Sand Island eight miles downriver by the U.S. Army Corps of Engineers. At its 2013 peak, this was the largest double-crested cormorant colony in North America, with some 30,000 birds, more than 40% of the species' population in the western U.S., according to the Corps.

They were booted from their island because of the threat they posed to threatened and endangered salmon.

By 2011, some 20 million baby salmon and steelhead were being eaten by the birds as they swam past the island on their way to the sea, according to the Army Corps, including species listed for protection under the Endangered Species Act. Wild Columbia and especially Snake River salmon already are facing an increased threat of extinction because of dams, hatcheries and habitat losses, all worsened by the warming climate.

With the backing of multiple tribes and agencies, including the National Oceanic and Atmospheric Administration, which is charged with protecting listed salmon, and with a permit from the U.S. Fish and Wildlife Service, which otherwise protects the birds—the Corps in 2015 unleashed a concerted kill program on the cormorants to control

predation on baby salmon sluicing downriver to the sea.

This was war: Government agents gunned down cormorants from the sky, shot them on their nests at night from towers using night-vision goggles, and oiled their eggs to suffocate the embryos within. In all, the Corps killed 5,575 cormorants and destroyed 6,181 nests. Then they bulldozed a hunk of the island back into the river.

The plan was to leave a core population of about 5,600 breeding pairs on what was left of the island. But in 2016 the colony collapsed, as every remaining bird on the island—some 17,000 birds—fled in a single day. About a third of the breeding pairs went just where critics warned they might: to the Astoria-Megler Bridge, where, because they are feeding farther from the estuary, they are likely eating more salmon as a percentage of their diet than before all this started. That is because the birds had a wider variety of fish to choose from at the island, which is in the estuary, than they have at the bridge.

While the program was obviously bad for the birds and for the bridge, it's never been proven it did any good for the salmon either.

"With cormorants, we don't know whether it did or didn't make a difference on adult (salmon) returns," said Dan Roby, emeritus wildlife ecology professor at Oregon State University, who has studied the colony at East Sand Island.

It's just too hard to tell, he explained, with so many factors affecting salmon survival in the Columbia Basin, from dams to hatcheries to fishing, predators of all kinds, and ocean conditions, which were terrible for salmon during the same time as the kill program. Today, 13 runs of salmon and steelhead in the basin are still at risk of extinction.

But the birds were eating so much management was warranted, Roby

said; though, he believes, not by lethal means.

This is just another example of killing one species to save another. On the Columbia River, California and Steller's sea lions—native species taking advantage of the dams people built—are being killed for eating threatened and endangered salmon.

The U.S. Fish and Wildlife Service recently put out its proposal for killing more than half a million barred owls to save endangered spotted owls. "Lethal removal" is the term usually used for killing animals people have decided are in the wrong places doing the wrong things in situations the people have created.

This time, it's cormorants, thriving with such success on the bridge that it is now the home to the largest colony of double-crested cormorants in the western U.S. Mostly dispersed now for winter, by spring they will return. By summer, some 10,000 birds will be nesting on the bridge—and feeding in the river.

In addition to upping their take of baby salmon in their new home, the colony is bedeviling transportation authorities. They are dealing with mountains of guano, deteriorating paint, dead birds in the travel lanes and even navigation lights thatched with nests, causing a hazard for boaters.

A cross-disciplinary group convened by the Oregon Department of Transportation met over the summer to figure out what to do now. ODOT recently issued the report on their work, with the group's recommendations. In sum, scare the birds off the bridge and entice them to move back where they came from. It won't be easy: The birds have it good on the bridge, with plenty of food and an environment free of their dreaded foe, bald eagles.

The work group proposes what it calls a "push-pull program." The push is using everything from water cannons to firecrackers and lasers to scare the birds off the bridge. The pull involves setting up a fake colony back on East Sand Island to lure birds there. Tires with fake stick nests, broadcasts of cormorant calls and cormorant decoys are all hoped to lure the birds—colony nesters who prefer to go where there already are birds of a feather with whom to flock together.

Will it work?

That's anyone's guess. The risk of the \$18 million, 4-year program—which would continue indefinitely at about \$400,000 a year to keep monitoring and hazing and cleaning up after the birds—is that instead of going back to the island, the cormorants will go even farther upriver. There, with even fewer food options, they would eat even more salmon as a percentage of their diet.

Cormorant spending has rung up at least \$11.5 million so far for the work at East Sand Island, according an Army Corps' written statement. "The management of avian predation on salmonids in the Columbia River estuary is a complex regional issue," the statement said, and the agency is working with other entities to find a solution to the cormorants roosting on the bridge.

Some who warned all this could happen now fear the worst.

Bob Sallinger, executive director of Bird Conservation Oregon, opposed the kill program during his 30 years at Portland Audubon. "Every single thing we warned would happen, did," Sallinger said.

With the caveat that no more cormorants be killed, Bird Conservation Oregon and bird conservation and animal welfare organizations that were part of the study group reluctantly and cautiously support the new

concept, only because the kill program had such disastrous results that they must be addressed.

"This is one of the great episodes of wildlife mismanagement of the last half-century," Sallinger said. "You have to ask, how could this have come out any worse?"

Guano, vomit, maggots and fleas

The pale green steel span at the mouth of the Columbia is a regional landmark. Built by the Oregon and Washington departments of transportation, the Astoria-Megler Bridge carries more than 9,000 travelers a day crossing in both directions on Highway 101, a main artery from Canada to Mexico. Opened in 1966, it is more than 4 miles long and built to withstand vicious currents and waves and winds of up to 150 mph howling through the Columbia River Gorge.

But it was not built for this.

There have always been some double-crested cormorants on the bridge. But nothing like today. When the birds vamoosed from East Sand Island, the population on the bridge ballooned from 333 breeding pairs in 2014 to a peak of more than 5,000 pairs in 2020.

On a recent day, with the birds gone for winter, their calling cards from last summer were quite evident, despite storms removing some of the waste and nests. And that is just part of the problem.

This is a narrow bridge, with barely room to stand on the shoulder of the two-lane roadway, shuddering with fast-moving traffic. There is nowhere to go if something sudden or unexpected happens—like a bird the size of a small goose crashing into the windshield.

During the [nesting season](#), so many cormorants get trapped on the bridge (they aren't able to fly straight up to clear the concrete sides) that struggling, fleeing and flying birds are a danger to drivers. So far there have been no fatalities—for people. For the cormorants, the slaughter is gruesome.

"We used to just chuck them off the bridge," said David McFadden, transportation maintenance coordinator for ODOT. Now, with so many birds struck by cars, in the summer the agency has to deploy two workers with shovels to peel flattened cormorants off the roadway.

The corrosive guano and nests everywhere also are creating problems with maintenance and inspection.

Painting is both harder and more expensive to do, with all the cleanup necessary before painting can begin. Workers have to suit up in protective gear to face the mess. Just throwing away all the nests and bird poo that can't just be dumped in the river and other extra maintenance due to the cormorants is costing about \$1 million annually, said Rebecca Burrow, bridge preservation and design manager for ODOT. All the bird guano also decreases the life span of the paint.

Cleaning up after the birds is an awful job. "Two to 3 inches of guano, these birds puke a lot, you get your flies, maggots—it makes you gag," McFadden said. Some workers have quit rather than face the fleas that come with the birds, the stink and the mess.

The birds also complicate inspections, which must be done to keep an eye out for cracks in the steel. It is important to catch cracks when they are small, Burrow said. But with the bridge covered in bird mess, "when they are tiny, you can't see them, and it gets bigger." The department wants to avoid having to close a lane on the bridge to deal with a bigger fracture.

Even boaters are at risk: Nests plastered on the bridge piers obscure navigation lights, a hazard in a channel often cloaked in fog.

"The birds themselves are really cool," Burrow said. "I just want them to be someplace that isn't so expensive and so hard for us to manage ... and it's not safe for them either, and it's not good for the fish.

"We've built them a structure that makes a perfect fishing pier."

James Lawonn, avian predation coordinator for the Oregon Department of Fish and Wildlife, said he gets why the public might be a little skeptical about the latest plan to deal with the birds. "The proposed solution seems a little absurd; they were there, now they are here, and we want to put them back where they were," Lawonn said. "I get why that sounds silly to the public." But there may not be much choice. "With the threat to the bridge alone, some management seems likely."

Management is one of those great euphemisms in this sort of work, especially when it comes to cormorants. But this time, Lawonn, who was a member of the work group, said the goal is to avoid killing cormorants to solve the problem.

But that is no guarantee it won't happen.

Misunderstood and maligned

The cormorant is a deeply misunderstood and maligned species, said Melisa Colvin, bird curator at the Wildlife Center of the North Coast in Astoria. She ought to know: She is best friends with Cormie, a double-crested cormorant in residence at the center.

Cormie dropped from the sky one day, injured perhaps by an eagle attack, and was brought to the center by a taxi driver who saw something

hanging from a tree.

Recently fledged from her nest, she was nursed back to health by the staff. But her injuries made her non-releasable, so today she is an ambassador for her species, a tough job in a fishing town.

But Cormie is up to it. On a recent visit, she provided an up-close and personal encounter that reveals what people almost never see: just how smart, even witty, and gorgeous these birds are. People don't know the intelligence and sumptuous beauty of this bird.

Cormie's eyes are turquoise and sparkly; her feathers a silky black with a sheen of iridescence, sometimes green, sometimes lavender depending on the light. And that is not even her breeding plumage, when her eyes turn aquamarine, with matching stipples around the edges, and the inside of her mouth turns cobalt blue. That too is when she will sprout jaunty white tufts on either side of her head—the breeding plumage that gives these cormorants their double-crested name.

There was an electric alertness in her attention as she swam and dived for herring Colvin tossed in her tank. Cormie's memory also regularly astounds her, Colvin said.

Cormorants are remarkable athletes. While not particularly strong flyers—they are heavy for their wing span, and waddle on land—they are liquid grace in water, powering more than 25 feet deep to chase down fish.

Their feet are adapted for powerful swimming, with every toe webbed. But they also can grip and climb. This makes cormorants highly adaptable, capable of nesting in trees, on beaches, on land and, yes, on bridges and pilings. They also eat a wide variety of fish, enabling them to live in freshwater lakes and tidal estuaries, and everywhere in between.

Cormorants are an ancient species, on the Earth for millions of years, and they evolved with salmon in the Northwest. They used to be far more numerous here than they are today, science shows. But pressure to gun them down to reduce their competition for fish has been relentless and taken its toll. Western U.S. populations of cormorants have seen significant decline, according to the ODOT report.

With the start of another nesting season just a few short months away, the first step now, according to the report, is to develop a consensus among the key players—including the Corps, which owns East Sand Island—on a path forward. Intergovernmental agreements, permits and funding all are still needed to undertake the push-pull program.

Right now, it looks like the [bridge](#) is in for another doozy of a nesting season.

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