Reducing roadkill a possible savior for sage grouse

Ravens attracted by carcasses also eat sage grouse eggs and chicks

By JAYSON JACOBY

Baker City Herald

BAKER COUNTY The connection between a dead deer rotting on the roadside, a live raven and a live (or budding) sage grouse is a somewhat circuitous one.

And not just because only two of the three things are birds.

Sometimes, though, this trio forges a link of sorts, and the only one that prospers from the confluence is the raven.

The deer, obviously, is already gone.

The problem, said Dallas Hall Defrees, coordinator for the Baker County Sage Grouse Local Implementation Team (LIT), is that the deer carcass can attract ravens, which then tend to stay in the area, searching for other easy meals.

Including sage grouse eggs.

Or recently hatched sage grouse chicks.

Research has shown that ravens can be a significant predator on sage grouse eggs and chicks, Defrees said.

"Ravens are very opportunistic," she said.

A survey in the spring of 2016 in some of Baker County's best sage grouse habitat, mainly east of Baker City including the Virtue Flat and Keating areas, showed raven populations were high enough to potentially pose a threat to sage grouse.

Research suggests that ravens pose a particular threat when their population densities exceed 0.7 birds per square kilometer, Lee Foster, then the Oregon Department of Fish and Wildlife's (ODFW) sage grouse conservation coordinator, said

The 2016 ODFW survey between April 1 and May 30 — when sage grouse are nesting a preliminary population density estimate of 0.9 ravens per square kilometer.

Identifying, and trying to mitigate, threats to sage grouse is the focus of the effort that Defrees, a Baker County native, is coordinating.

That campaign is spearheaded by a six-year, \$6.2 million grant from the Oregon Watershed Enhancement Board that started in 2019. The money comes from Oregon Lottery revenue.

Defrees said the roadkill project, which is in its preliminary stages and has no definite timeline, aims to reduce the number of raven-attracting carcasses along Highway 86, which runs east from Baker City and bisects some of the county's best sage grouse habitat.

"If we can deter ravens from being there, it would be highly beneficial for sage grouse," Defrees said.

She emphasized, though, that curbing the presence of carcasses is, at best, a partial solution.

"This is not to say this is going to solve our raven problem, because it's not," she said. "But it is a deterrent. If we're doing a good job of denying food sources to ravens, they'll have to travel farther, and probably not spend



Nick Myatt/Oregon Department of Fish and Wildlife, File A male sage grouse inflates the air sacs in its breast and fans its tail feathers as part of the bird's elaborate spring courting ritual.



Christopher Bruno/Contributed Photo, File Ravens are opportunistic feeders that will eat sage grouse eggs and

as much time in that area (that includes sage grouse habitat).'

Sage grouse tend to remain in relatively small areas, Defrees said, so the consistent presence of ravens can constitute an ongoing threat to the grouse.

Defrees said Oregon State University researchers are studying, in the Cow Valley area along Highway 26 in northern Malheur County, centrations by removing roadkilled animals.

Reducing raven numbers

Dealing with ravens is not so simple as summoning a group of volunteers with shotguns. That's because ravens, unlike sage grouse, are protected under the Migratory Bird Treaty Act.

That federal law does allow government agencies to apply for permits to kill ravens, however.

In Baker County, the U.S. Fish and Wildlife Service and ODFW last year started a two-year project to remove raven nests in and near sage grouse habitat in Baker County, Defrees said.

Depending on how effective that tactic is at curbing raven populations, the agencies could also use a permit to kill ravens, Defrees said.

Birds and politics

Sage grouse, which are about the size of a chicken, have been a candidate for federal protection for more

than a decade. In September 2015 the U.S. Fish and Wildlife Service decided not to list the bird as threatened or endangered.

But environmental groups have repeatedly

asked the federal government to classify the bird as a threatened or endangered species, a decision that could curtail activities, including cattle grazing and motorized vehicle use on public land, that could degrade sage grouse

According to ODFW's 2021 sage grouse report, the estimated population of the birds in Baker County (and a small part of southern Union County) in the spring of that year was 704. That's a 42.6% increase from the estimate of 494 birds in spring 2020, but the report notes that this increase "was likely a result of the analysis methodology used to generate population estimates."

The report states that sage grouse populations in the county have risen since 2014, including an average annual increase of 1.7% in the number of male grouse at "leks" — the open areas where the birds gather each spring and where the males perform the species' elaborate courting ritual, which includes inflating air sacs in their breasts and fanning their tail feathers.

However, between 2005 and 2021, among leks that were surveyed in both years, the number of males present declined by 81%.

"This area has experienced a long-term population decline and has remained stagnant in recent years," the report states.

Carcass conundrum

Although other animals are killed by cars, deer are the biggest animals frequently hit on Highway 86 east of Baker City.

The challenges, Defrees said, are how to gather the carcasses in a timely way, and then what to do with



Carcasses of roadkilled deer can attract scavengers, including ravens.

She said Oregon Department of Transportation (ODOT) crews can't be expected to pick up carcasses and haul them to a processing site.

The proposed place for that is Baker Sanitary Service's landfill near Sutton Creek, a few miles southeast of Baker City off Old Highway 30.

The idea, Defrees said, is to turn the carcasses into compost.

ager for ODOT's District 13, which includes Baker County, said he has met with Defrees and Baker Sanitary Service officials about the proposal, most recently on Jan. 13.

Ace Clark, man-

Clark said ODOT does not plan to use any of the LIT's Lottery money to do any work in Baker County in collecting and hauling carcasses. He said ODOT did give Defrees and Baker Sanitary Service information about the composting guidelines the agency uses.

For about a decade. ODOT has had a composting center near Heppner where roadkilled deer are taken from just the local area, including state highways 206, 207 and 74.

That facility was built to discourage scavengers such as coyotes from congregating near ranches and farms, and potentially increasing the risk of more collisions between cars and wildlife. ODOT also cited bacteria and other pathogens on animal carcasses that potentially cause health and environmental hazards in its request for a permit for the compost center.

That project has nothing to do with sage grouse, since there are no nearby populations of the birds.

David Henry, president of Baker Sanitary Service, and Garrett Virtue, the landfill manager, said the company is interested in working with Defrees and the sage grouse LIT to dispose of roadkilled deer and turn the carcasses into compost.

Baker Sanitary opened a compost facility at the landfill in the summer of 2021. It initially processed yard waste, but Virtue said the company wants to add food waste and other meat to the facility. Deer carcasses present a different challenge, he said, because they would need to be ground up before

being added to the coma win-win situation for everyone," Virtue said. post process.

He said he'd like to have the company contribute to the effort to potentially

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- Dallas Hall Defrees, coordinator, Baker County Sage Grouse Local Implementation

> benefit sage grouse and create another source of material for the compost processing.

"If we can help out and do a good thing, it's

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Henry said Baker Sanitary Service would also need to ensure it has a

reliable supply of woody material to add to the mix, as an increase in meat and other food wastes would need to be offset by wood debris to ensure the proper ratio to produce usable compost.

Virtue said Baker Sanitary is still looking at the best way to sell, or otherwise make use of, the compost it

One possible option is to use the material to improve the condition of soils in rangelands in the area, he said.

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