

## Jackson Hole News & Guide

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Migratory eagles studied for lead ingestion

\*Transmitters could reveal if they eat bullet fragments in Jackson Hole.\*

/By Cory Hatch, Jackson Hole, Wyo./

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New research on the impacts of lead bullet fragments in hunter-killed meat could help scientists determine whether Jackson Hole's gut piles are poisoning eagles from other regions.

So far, biologists with Craighead Beringia South have captured three bald eagles and fitted them with transmitters that will enable them to track the movements of the birds once a day. The group plans to attach seven more transmitters for the study in the coming weeks.

The new research comes after previous studies that show ravens and eagles have significantly higher concentrations of lead in their blood during hunting season compared to other times of the year.

"If there's a migratory component to the wildlife, we could potentially be poisoning birds from across the western U.S. and Canada, depending where the birds are coming from or going to," said Bryan Bedrosian, avian program manager for Craighead Beringia South, a research group based in Kelly. "That would have more implications for the management strategies of our public lands managers."

The satellite data will also fill a gap in Bedrosian's research.

With a similar study on ravens, the biologists were able to capture the birds before, during and after hunting season. With eagles, capturing the birds before hunting season is difficult.

"All of our eagle data begins during the hunting season," he said. "We don't have that before-hunting-season sample. It's open to interpretation if eagles are beginning with high lead levels."

Another possibility is that migratory eagles get lead poisoning from other sources, such as waterfowl, before they get to Jackson Hole.

"By satellite tracking, we'll be able to answer most of those questions," Bedrosian said. "If all the birds were local, we know without a doubt it's some kind of local contamination, which lends itself more than likely to lead [bullet] fragments."

### Bird numbers unclear

Susan Patla, a nongame biologist with the Wyoming Game and Fish Department, said between 60 and 80 resident eagles live in the area between the northern part of Grand Teton National Park and Alpine. During certain times of the fall, especially October and November, she said, two to three times that many migratory birds come to the area as they travel to areas farther south.

"There is quite a movement of birds from farther north," she said. "They move down the major river drainages in Wyoming and concentrate in the major food areas."

Bedrosian and his colleagues are currently conducting surveys to better estimate the number of migratory eagles in the region.

"During the bison hunt on the [National Elk Refuge], I counted 87 bald eagles in a 2-mile stretch," he said. "You think to yourself, "These can't be local birds, because we don't have that many," but you don't really know for sure."

Craighead Beringia South biologists currently have several traps set up on carcasses around the Kelly area. When an eagle gets into position, they remotely fire a device called a net launcher, which is powered by shotgun shells, to catch the birds.

Bedrosian said the operation takes a lot of patience.

"We sat on an eagle that was directly above the bait for about three hours; then it left without feeding," he said.

#### An intimidating job

When they do catch an eagle, they make an effort to disentangle it from the net as quickly as possible.

"It's a little intimidating at first," he said. "You have to be very wary of the 3-inch talons. Bald eagles are also avid biters, so you have to be aware of where their beak is as well.

"Once we untangle them from the net, we'll put a leather hood over the head and the eyes," Bedrosian continued. "That basically subdues the bird."

The researchers then take the eagle to a lab, where they band it, take measurements and get a blood sample. Biologists use a hand-held meter to get a first-glance look at the bird's blood-lead level. If the device shows any lead contamination, they take the bird to a local veterinarian to take X-rays to try to confirm the presence of lead in the digestive tract.

The transmitter itself fits like a backpack that weighs about 2 percent of the animal's body weight.

"It would be like a 200-pound person carrying a 4-pound backpack," Bedrosian said.

The transmitter then sends out a signal to a satellite once a day for three years before it falls off.

So far, the hand-held lead detectors haven't shown any lead in the three eagles. Bedrosian hopes that a voluntary program that encourages the use of nonlead bullets is making a difference in the region. As part of that program, One Percent for the Tetons gave Craighead Beringia South

funding to distribute nonlead bullets to hunters with permits to hunt on the National Elk Refuge or as part of Grand Teton National Park's elk reduction program. The group has handed out 200 boxes of free ammunition so far.

Patla said she's excited to see the results of the migratory eagle study but pointed out that lead doesn't seem to be a big problem for the local eagle population.

"We haven't seen any decrease in productivity or the number of occupied nest sites in the Jackson area, she said. "It doesn't appear that the ingestion of lead is affecting our population overall."

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