

# After a Comeback, Eagles Face a New Threat From What Hunters Leave Behind

By MARIA CRAMER

The bald eagle, whose resurgence is considered one of the great conservation success stories of the 21st century, is facing a serious threat: lead poisoning.

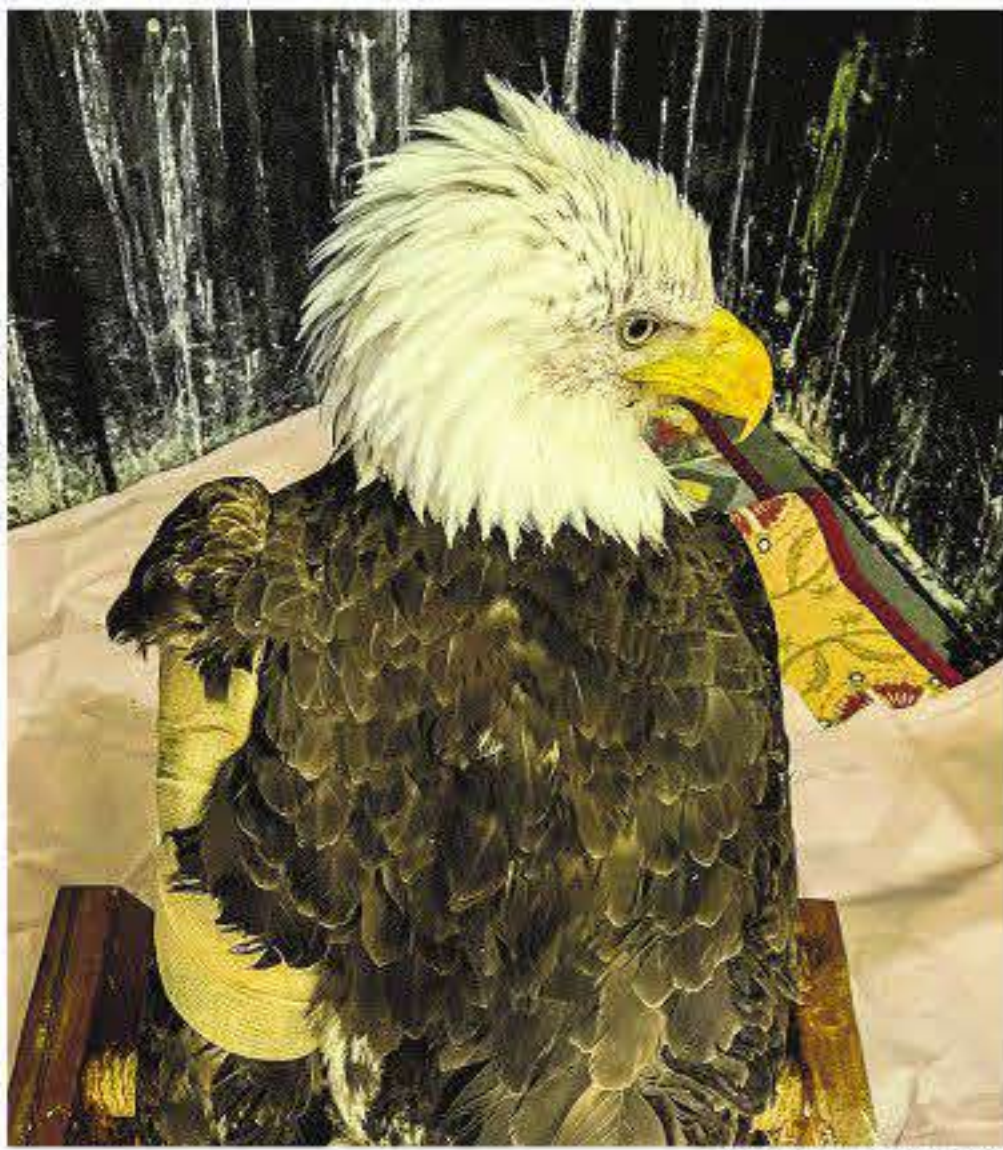
Researchers who tested the feathers, bones, livers and blood of 1,200 bald eagles and golden eagles, another bird of prey in the Northern Hemisphere, found that nearly half of them had been exposed repeatedly to lead, which can lead to death and slow population growth.

Scientists believe that the primary source of the lead is spent ammunition from hunters who shoot animals that eagles then scavenge, usually during the winter, according to the study, which was published on Thursday in the journal *Science*.

Nearly a third of the birds tested also showed signs of acute poisoning, or short-term exposure to lead, according to the study, which was led by scientists from the United States Geological Survey, Conservation Science Global, Inc. and the U.S. Fish and Wildlife Service.

The effects of lead poisoning are devastating, said Vincent A. Slabe, the lead author of the study and a research wildlife biologist for Conservation Science Global in Montana.

Lead poisoning can prevent an eagle from digesting food properly, eventually leading to starvation, he said. It can cause loss of locomotion so severe that an eagle will lose the ability not only to fly,



An injured bald eagle with lead poisoning and anemia was treated by Badger Run Wildlife Rehab in Oregon. It later died.

but also to move at all, he said.

"Lead can affect every single system of an eagle's body — their respiratory system, their digestive system, their reproductive system," Dr. Slabe said.

The study, which examined bald eagles and golden eagles from 38 states, is the first to look at

the effects of lead poisoning on the bird populations on such a large scale, said Todd E. Katzner, a research wildlife biologist at the U.S. Geological Survey.

The research also showed that poisoning slowed down population growth rates by about 4 percent for bald eagles and 1 percent

for golden eagles, which number about 35,000. The population of bald eagles is now above 300,000, according to researchers.

"These percentages seem small, but, over time, thousands and thousands of individual birds are being removed from the population" because of lead poisoning, Dr. Katzner said.

Bald eagles decades ago had been killed off largely by the widespread use of the synthetic insecticide DDT. A ban on DDT in 1972 and conservation efforts helped the population to rebound, with the bald eagle being removed from Endangered Species Act protection in 2007.

Dr. Slabe said he hoped the report's findings would help to educate hunters and encourage more of them to switch to lead-free ammunition.

"This is 100 percent human caused and totally preventable," said Laura Hale, president of the Badger Run Wildlife Rehab in Klamath Falls, Ore., whose organization has taken in bald eagles, golden eagles, as well as different species of hawks, that were poisoned by lead.

In 2018, the group tried to save an eagle that a hunter had found in the woods and was unable to fly and gasping for air. When Ms. Hale told the hunter that the eagle most likely became sick from feeding on contaminated gut piles — the remains left behind after a hunter strips the animal's carcass of its meat — she said that he was stricken.

"He was horrified," Ms. Hale recalled. "He wanted to stop hunt-

ing."

Ms. Hale said she told him that he did not have to stop hunting; he needed only to stop using lead ammunition.

Many hunters, concerned about effects not only on wildlife, but also on game meat consumed by humans, have been moving away from lead ammunition and have begun using copper bullets.

Sporting Lead-Free, a hunters and anglers group based in Wyoming that seeks to raise awareness about the adverse effects of lead ammunition, posted a short film with testimonials from hunters who stopped using it.

"Hunters are conservationists," said Bryan Bedrosian, a co-founder of Sporting Lead-Free and a raptor biologist. "This does not need to be a polarizing issue."

Some hunters hesitate to switch ammunition because of tradition, a mistaken belief that copper bullets are less effective, or because they have a backlog of lead bullets, he said.

"Then there are still folks who just don't know," said Mr. Bedrosian, who says he uses lead bullets at the range, where he knows the ammunition will not come into contact with wildlife.

Hannah Leonard, the group's outreach coordinator, said she hunted with lead bullets until four years ago, when she came upon an emaciated golden eagle hobbling on the ground while she was hunting in Anaconda, Mont.

"Her talons were really clenched, her wings were drooped," Ms. Leonard said. "You could tell she was in danger."

The eagle later died and Ms. Leonard said the animal rescue group she called to try to save the bird told her the cause of death was lead poisoning.

"It was a no-brainer for me to switch" types of ammunition, she said.

In January 2017, the U.S. Fish and Wildlife Service issued a policy to phase out the use of lead ammunition and fishing tackle used on national wildlife refuges, one of the last acts by the Obama administration. The Trump administration reversed the decision less than two months later.

On Friday, the service declined to say whether that policy would be reinstated as a result of the new study.

There has been a nationwide ban on the use of lead shot for hunting waterfowl since 1991, according to the service.

California prohibits the use of lead ammunition statewide, including on federal land, largely to prevent adverse impacts of lead on the California condor, which is endangered.

"The U.S. Fish and Wildlife Service uses the best available scientific data to conserve wildlife populations and evaluate compatible uses on the lands that we manage, as well as under applicable local, state and federal laws," Vanessa Kauffman, a spokeswoman for the agency, said on Friday.

Dr. Slabe said that hunters, once they were educated, would voluntarily stop using lead ammunition.

"Hunters are very receptive to this issue," he said. "Hunters are the solution to this problem."

## Poison Killed Brooklyn Boy And Grandmother, Police Say

By ALI WATKINS and TROY CLOSSON

When a 4-year-old boy, Wilhelm Ducati, died of a strange stomach illness in Brooklyn last May, it appeared he had tragically passed of natural causes. But when a doctor conducted a post-mortem examination, she discovered a strange rash on the boy and ordered a toxicology exam.

Detectives who later canvassed the boy's neighborhood then unearthed a surprising connection: Just months before, Wilhelm's 63-year-old grandmother, Tofoon Man, had also died after being admitted to the hospital for strange stomach pains — and a similar rash.

Now, investigators say the similarities between the woman's death and her grandson's were not coincidental — and that they were both killed, most likely by a material found in rodent poisoning that may have been put in their food while at the boy's home in the Bensonhurst neighborhood of Brooklyn.

After the city medical examiner's office found that Wilhelm may have been poisoned, Ms. Man's body was exhumed and investigators determined the two had not died of natural causes.

The police said that no one had been arrested in connection with the case as of Thursday morning. Ms. Man's daughter, who is also Wilhelm's mother, was interviewed by investigators twice last year in connection with the deaths, but has not been charged with a crime.

Earlier this winter, the city medical examiner's office ruled the official cause of death for Ms.

Karen Zraick contributed reporting. Susan C. Beachy contributed research.

*Deaths, months apart, had been thought to be of natural causes.*

Man and her grandson to be acute thallium poisoning. The Police Department announced those findings on Thursday — exactly one year after Ms. Man's death.

The police said that Ms. Man also held an address on the Lower East Side of Manhattan, but it was unclear whether she had been living full time at the Brooklyn home or was just visiting at the time of her death.

Outside the six-story apartment building in Brooklyn where Ms. Man and her grandson had fallen ill, television news crews gathered on the sidewalks Thursday afternoon as neighbors walked by. Some said they recalled police activity outside the building about a month ago.

Thallium was used as a material in rodent poisons through 1972, according to the Centers for Disease Control and Prevention, but has since been banned in the United States because accidental exposure can cause significant harm to people. The effects include stomach pain and vomiting, "followed by the failure of multiple body organs, brain injury, and death."

Thallium, a heavy metal, is no longer produced in the United States, but is still imported to manufacture certain electronics and medical materials.

It can be spread through food contamination or released as particles into the air. Because it is tasteless and odorless, the C.D.C. says it "has been used by murderers as a difficult to detect poison."

## Corrections

### METROPOLITAN

An article on Page 2 this weekend about the novelist Marlon James misstates the title of his new book. It is "Moon Witch, Spider King," not "Moon Witch, Spider Kingdom."

### ARTS & LEISURE

An article on Page 16 this weekend about the actor Sam Waterston misspells the given name of one of his daughters. It is Elisabeth, not Elizabeth. It also misstates the availability of "Law & Order" reruns; old episodes of the show no longer air on TNT.

### MAGAZINE

An article on Page 24 this weekend about the surge in the number of people quitting their jobs misstates Google's position regarding the formation of a union by its engineers. Google does not recognize the union as formal or official. The article also misstates the name of a publication. It is Insider, not Business Insider (its

former name). Also, a reference to the movie "Office Space" misidentifies a piece of office equipment being destroyed in a scene. It is a printer, not a computer.

An article on Page 48 this weekend about parents working at home misstates the age of a child pictured. Inez just turned 1, not 2.

### T: WOMEN'S FASHION

An article on Page 116 about Black psychedelia refers to the funk singer and songwriter Betty Davis. She died a few weeks after the article went to press.

An article on Page 138 about painted chapels in Michoacán, Mexico, misidentifies a church in Túpáaro. It is the church of Santiágo Apóstol, not Santo Santiago. The error is repeated in several photo captions.

Errors are corrected during the press run whenever possible, so some errors noted here may not have appeared in all editions.

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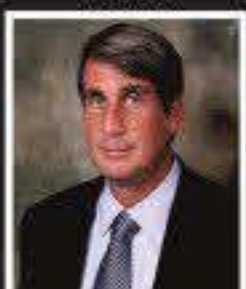
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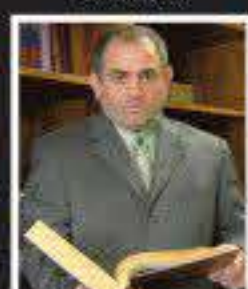
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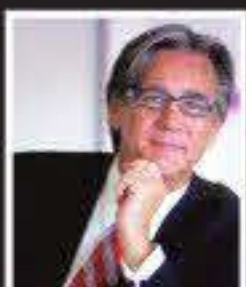
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