



BRADLY J. BONER / NEWS&GUIDE FILE PHOTO

Biologist Bryan Bedrosian disentangles a bald eagle he caught on the National Elk Refuge in 2009. Migratory eagles that feed on gut piles left by hunters have tested for higher-than-average blood-lead levels.

Lead-free ammo aids area's ravens, eagles

Tests show declines in the 40 percent range in blood-lead levels of birds.

By Cory Hatch

The distribution of nonlead ammunition to hunters in Jackson Hole is likely helping prevent lead bullet fragments from poisoning scavengers like ravens and eagles, researchers say.

This is the second year researchers from Craighead Beringia South have tried to gauge the impacts of hunters' lead-free ammunition on blood-lead levels of big-game scavengers. Researchers distributed roughly 160 boxes of nonlead ammunition at a discounted price to some 100 hunters who had 2010 permits for the National Elk Refuge and the elk reduction hunt in Grand Teton National Park.

About 33 percent of refuge hunters and 31 percent of park hunters used the ammunition, researchers say. Biologists then captured ravens and eagles and measured the level of lead in the birds' bloodstream.

Previous research has shown that blood-lead levels in ravens and eagles rise during hunting season and then drop off after hunting season ends. Researchers believe the poisoning is from ingestion of lead bullet fragments.

the average blood-lead level of ravens could be due to more hunters switching to nonlead ammunition on their own, Bedrosian said. That could include hunters on the Bridger-Teton National Forest, where there is no way to determine what type of bullets they used last season.

In a related project, Craighead Beringia South researchers have expanded on a study designed to determine whether migratory eagles or Jackson Hole's resident eagles are ingesting lead bullet fragments.

In fall 2009, biologists captured 10 eagles as they fed on gut piles at popular local hunting areas such as the National Elk Refuge. Biologists then tested the birds for lead poisoning and fitted them with GPS backpacks, which have tracked their movements ever since.

After flying south for the winter, most of those eagles either summered or were breeding in Canada, Bedrosian said. Nine of those eagles tested positive for blood-lead levels that were above normal background levels, and of those birds, four had lead levels high enough for them to be considered clinically poisoned.

Of the six Canadian birds that still have functioning transmitters, five "came straight back to Jackson" for the 2010 hunting season, he said.

"Jackson could be considered a



RESIDENTIAL & COMMERCIAL CONDOS FOR SALE

A sophisticated urban mountain development located in the heart of downtown Jackson.



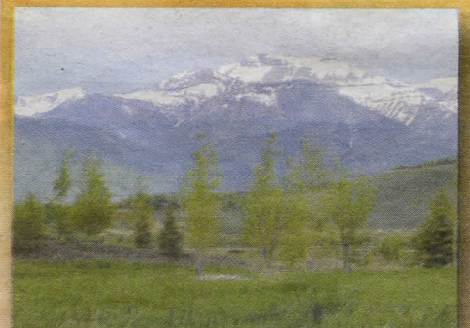
CRESCENT H

35 acre home site
 1,000 sq. ft. guest cabin
 Great Teton and mountain views
 Water access
OFFERED AT \$5,750,000



INVALUABLE FIND IN KELLY

Charming 2 bed, 2 bath custom log home
 In Grand Teton National Park
 Within proximity to Jackson's town amenities • Co-Listed with Nancy Clancy
OFFERED AT \$725,000



GREAT LOT IN INDIAN TRAILS

Incredible Glory Bowl and Teton views
 .67 acres located on Spring Creek
 Proximity to schools
 Rare Opportunity

PU
 FRIDA



GOLF
 • 1.10
 • Loc
 • Gre
 OFFE



CHAR
 Beaut
 Overs
 Small
 OFFE



BEST
 Buffal
 Big Te
 5.81 ac
 Nation

area's ravens, eagles

Tests show declines in the 40 percent range in blood-lead levels of birds.

By Cory Hatch

The distribution of nonlead ammunition to hunters in Jackson Hole is likely helping prevent lead bullet fragments from poisoning scavengers like ravens and eagles, researchers say.

This is the second year researchers from Craighead Beringia South have tried to gauge the impacts of hunters' lead-free ammunition on blood-lead levels of big-game scavengers. Researchers distributed roughly 160 boxes of nonlead ammunition at a discounted price to some 100 hunters who had 2010 permits for the National Elk Refuge and the elk reduction hunt in Grand Teton National Park.

About 33 percent of refuge hunters and 31 percent of park hunters used the ammunition, researchers say. Biologists then captured ravens and eagles and measured the level of lead in the birds' bloodstream.

Previous research has shown that blood-lead levels in ravens and eagles rise during hunting season and then drop off after hunting season ends. Researchers believe the poisoning is from ingestion of gut piles tainted with lead bullet fragments.

In ravens, the average blood-lead level was down almost 40 percent from what it should have been had all hunters used lead bullets, given the harvest rate, Craighead Beringia South biologist Bryan Bedrosian said. In eagles, the drop was almost 42 percent, he said.

Bedrosian cautioned that the results for eagles are more ambiguous because the researchers have only two years of baseline blood-lead data. Eagles also can exhibit a much wider variation in their blood-lead levels compared with ravens, making the analysis more difficult.

The results are more dramatic than the first year of the study, conducted during the 2009 hunting season, when researchers distributed 194 boxes of copper bullets to hunters with permits for the park and the refuge. An estimated 24 percent of hunters used copper bullets in 2009, resulting in a 28 percent drop in blood-lead levels in ravens compared with what would have been expected, based on the number of elk and bison killed, had hunters used only lead bullets.

This year's 40 percent decrease in

the average blood-lead level of ravens could be due to more hunters switching to nonlead ammunition on their own, Bedrosian said. That could include hunters on the Bridger-Teton National Forest, where there is no way to determine what type of bullets they used last season.

In a related project, Craighead Beringia South researchers have expanded on a study designed to determine whether migratory eagles or Jackson Hole's resident eagles are ingesting lead bullet fragments.

In fall 2009, biologists captured 10 eagles as they fed on gut piles at popular local hunting areas such as the National Elk Refuge. Biologists then tested the birds for lead poisoning and fitted them with GPS backpacks, which have tracked their movements ever since.

After flying south for the winter, most of those eagles either summered or were breeding in Canada, Bedrosian said. Nine of those eagles tested positive for blood-lead levels that were above normal background levels, and of those birds, four had lead levels high enough for them to be considered clinically poisoned.

Of the six Canadian birds that still have functioning transmitters, five "came straight back to Jackson" for the 2010 hunting season, he said.

"Jackson could be considered a stopover site for bald eagles where they ingest lead annually," he said. "What we're doing locally could be affecting eagles on a much larger scale. We have no idea what's going on with breeding [in Canada]."

While the news for Jackson's migratory eagle population seems grim, the local population could be avoiding the lead, Bedrosian said. This past summer, biologists captured eight birds using a fish snare on the Snake River. When the eagles' blood was tested, it contained "virtually no lead."

Three of those birds were subsequently fitted with GPS transmitters.

"Not one of those eagles left its territory once during the hunting season, which indicates that our local breeding population likely isn't ingesting lead from gut piles," Bedrosian said. "They're probably fishing."

"For the past two years, we've shown that a voluntary effort can reduce lead levels in our wildlife," Bedrosian said. "Even a little effort by the hunters in this community can have a positive effect on the health of our wildlife."

Researchers plan to continue to hand out lead-free ammunition next hunting season.

35 acre home sit
1,000 sq. ft. gues
Great Teton and
Water access
OFFERED AT



INVALUABLE FIN
Charming 2 bed,
In Grand Teton N
Within proximity
amenities • Co-L
OFFERED AT \$



GREAT LOT IN IN
Incredible Glory L
.67 acres located c
Proximity to schoo
Rare Opportunity
OFFERED AT \$



BEAUTIFUL BUFFA
3,485 sq. ft, 3 bedr
Amazing Teton Vie
Heated oversized 3
OFFERED AT \$2



EXCLUSIVE AFFILIATE OF
CHRISTIE'S
INTERNATIONAL REAL ESTATE

