

**New York State Department of Environmental Conservation  
Division of Fish, Wildlife, & Marine Resources  
Wildlife Pathology Unit**

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Alexander B. Grannis  
Commissioner

**MEMORANDUM**

TO: Christopher Amato, Patricia Reixinger, John Major, Peter Nye, Daniel Rosenblatt,  
Barbara Loucks

FROM: Kevin Hynes

SUBJECT: Wildlife Pathology Unit summary of lead poisoned birds

DATE: May 12, 2010 (**revised May 13, 2010**)

At our March 2, 2010 meeting on lead poisoned eagles, necropsy data was requested from the Wildlife Pathology Unit (WPU) to determine the number of species affected, the types of ingested lead projectiles or fishing tackle implicated, and the geographic distribution of avian lead poisonings in New York State. Data culled from the WPU files reveal at least 489 cases of lead poisoned birds.

A majority of these cases are Canada geese poisoned after ingesting large numbers of small lead birdshot at trap and skeet ranges in Suffolk and Rensselaer Counties. Geese also ingest spent lead birdshot while feeding in areas heavily contaminated prior to the ban on lead shot for waterfowl hunting. Lead poisoned geese were most common in Regions 1 (161), 4 (81), 7(40), and 6 (54).

There are 57 cases of lead poisoning in common loons documented by the WPU in New York, 61% (35) of these loons were poisoned by ingesting lead lure weights or jig heads which are not prohibited from sale under the current NY Regulation. Among New York resident breeding loons from the Adirondacks, 55% (11 out of 20) of lead poisoned loons ingested a lead lure weight or jig head. Lead poisoned loons were typically recovered from Regions 9 (26), 6 (11), 5 (10), and 8 (6). Most of the 32 lead poisoned loons from Regions 9 and 8 were diagnosed during Type E botulism surveillance and probably represent loons migrating from Canada. The 20 lead poisoned loons from regions 6 and 5 likely represent NY resident breeding loons.

Also confirmed were 22 cases of lead poisoning in bald eagles and 2 cases in golden eagles. The sources of lead for eagles are rarely definitively determined based on gross necropsy findings, this is largely due to the loss of ingested lead objects/particles through regular regurgitation

("casting") of undigested hair, scales, and bones. The WPU has documented eagles poisoned by ingested lead bullet fragments and ingested lead birdshot, but surprisingly, we have not yet documented a poisoned bald eagle due to ingested lead fishing tackle. The findings of other State and Federal Agencies and University researchers indicate that the most likely sources of lead for eagles are lead bullet fragments and birdshot found in gut piles and scavenged or killed prey items. The majority (77%) of our lead poisoned bald eagles were found during the months of December through April when fish are less available and gut piles from hunter-killed deer, carcasses of gunshot-wounded deer, birdshot-wounded waterfowl/turkey, and breasted and discarded waterfowl/turkey carcasses become available. Lead poisoned bald eagles were more often recovered from Regions 3 (7), 6 (7), 5 (2), and 4 (2) with only three cases from the western portion of the state. One lead poisoned golden eagle was found in Region 5 and one in Region 7.

**Lead poisoned birds diagnosed by the NYSDEC Wildlife Pathology Unit from April 1973 through March 2010**

Species	# of Pb cases	Birdshot	Fishing weights	Bullet fragment	Lure weights/Jig heads	unknown
A. goldeneye	1	1				
bald eagle	22	1		2		19
black duck	4	4				
Canada goose	351	329	3			19
canvasback duck	3	2				1
common loon	57		12		35	10
golden eagle	2					2
great cormorant	1		1			
greater scaup	2	1				1
mallard	12	11				1
mute swan	6	2	2			2
northern flicker	1					1
peregrine falcon	1					1
pileated woodpecker	1					1
redhead duck	8	1	5		1	1
red-tailed hawk	2					2
ring-neck duck	2	1	1			
rock pigeon	6					6
tundra swan	3	1				2
turkey vulture	1					1
whistling swan	2	2				
wild turkey	1	1				
Totals	489	357	24	2	36	70