



Nature Around Us | Lead Toxicity In Birds

Article by Margie Manthey and published in the Westport Review Mirror, 2021



Lead has long been among the leading causes of poisoning in humans, but only recently has the seriousness of its toxicity been recognized, prompting regulations to reduce or ban its use in paint, gasoline, plumbing, cosmetics and other products, especially those used by children. Yet lead can still be used legally in outdoor sports where it continues to accumulate in the environment and kill wildlife. Birds are especially vulnerable, and several millions die from lead toxicity each year.

Ammunition is likely the largest unregulated source of lead discharged into the environment. Over time, the use of lead for hunting has resulted in the release of millions of toxic pellets. Lead jigs and fishing weights, or “sinkers,” have also produced a dangerous accumulation of toxins in and around bodies of water. When birds ingest lead, the results are deadly. Many birds, like loons, swallow grit to help grind food in the gizzard, but they cannot discern between pebbles and lead pellets. Once ingested, lead particles leach into the bloodstream and tissue, eventually causing organ failure and death. Loons, eagles and ospreys also ingest lead when they catch fish (or eat dead ones) with cut or broken fishing line and sinkers attached. Eagles and other raptors swallow lead ammunition when they feed on dead and dying game shot by hunters or on gut piles.

The Ottawa Valley Wild Bird Care Centre is the only rehab facility of its kind in the region. Open 365 days a year and manned by a small, dedicated staff, it answers over 30,000 calls annually. It receives no funding from the government, relying solely on public donations. According to Patty McLaughlin, Education Coordinator for the OVWBCC, 2020 saw an increase in patients with over 4,000 birds received, likely due to people encountering more wildlife while isolating at home.

Patty explained that typical admissions result from window impacts, collisions with cars, cat attacks and falls from nests, but sometimes a sick bird shows other troubling symptoms. Birds with lead toxicity are often weak and underweight with poor body condition, may experience neurological symptoms and paralysis or show respiratory distress with decreased blood flow. She explained that without an on-site X-ray machine to confirm lead toxicity, the centre acts as a triage for suspected cases (volunteers transport the sick birds to Sandy Pines Wildlife Centre in Napanee).

Sadly, by the time lead toxicity is apparent, the bird is usually past saving. Countless birds likely die in the wild without our knowing. “Wild animals hide symptoms until they’re at death’s door, so we likely never see the real mortality numbers,” Patty advised. “It’s a problem we know is there, but we also know the solution, and it’s a simple thing and a responsibility for anglers and hunters to stop using lead products.”

And there *are* other options for sportsmen and Skeet shooters: lead-free, environmentally-safe sinkers and shot made from steel or tungsten/nickel/iron combinations, but some are unwilling to spend the extra money for these alternatives. Meanwhile, wildlife pays the ultimate price as lead continues to pile up in our forests, fields and lakes, where it takes just one lead sinker to kill a loon.

Ontario's regulations regarding lead usage are confusing and inconsistent. It is illegal to hunt migratory birds with lead shot but permissible for rabbits and ground birds; and lead sinkers and jigs, while banned in National Parks and National Wildlife Areas, are permitted on other water throughout the province. There is no jurisdiction over lead use on private or native-owned land.

Sandy Pines Wildlife Centre, a rescue-rehab facility in Napanee, admitted over 5,000 patients in 2020. It receives no government funding, relying on public support and fundraising. Leah Birmingham, a registered Veterinarian Technician and Medical Director at Sandy Pines, sees firsthand the devastating impact of lead toxicity on birds.

She explained that fish-eating birds like loons and eagles tend to swallow lead sinkers and may show the presence of fishing line. Dabbling ducks, geese and swans often ingest lead shot from wetlands and farmland. The fact that these wild birds can be captured reveals how critically ill they are. Diagnosis requires X-rays and blood tests, but birds must be stabilized first. They are often too sickly to anesthetize for X-rays, let alone undergo risky surgeries to remove lead.

Leah described the treatments for birds suffering from lead toxicity. If lead is detected in a bird's gizzard, an endoscopic procedure called 'lavage' can sometimes flush it back out of the mouth (due to its anatomy, lead will not pass through the gizzard naturally). 'Chelation therapy' can help stabilize a bird for surgery. It entails intravenous and oral meds that bind to free-floating lead in the bloodstream or gastrointestinal track to help it pass safely through the kidneys. The medications, compounded at a special pharmacy, are very expensive with a short shelf life. Because lead toxicity can linger, rehab might take months as repeated blood monitoring and chelation are required. This can translate to thousands of dollars.

Despite herculean efforts, the recovery success rate for many birds is slim to none by the time they are captured and diagnosed. Leah has yet to see one loon or eagle survive lead toxicity. "Sometimes it is kinder to euthanize," Leah explained. Mallards and swans seem to have a better chance at recovery. However, it was recently discovered that lead can be stored in the bones, leach back out and cause a 'rebound effect'; so birds deemed recovered could relapse with lead toxicity after their release.

I asked Leah what the public can do to help protect wildlife from lead. Like Patty, she believes the answer lies within the supply chain. "Confront shop owners to provide lead alternatives that don't cause toxicity. Support stores that make the effort to sell ethical alternatives and share information about lead with friends and family who hunt and fish."

As an angler and conservationist, I urge all sportspersons to "get the lead out" starting today. We cannot profess concern for our wildlife resources on one hand while destroying them with the other. Meanwhile, we can all support our invaluable rescue organisations that work round the clock to help wildlife. Learn how at <http://www.wildbirdcarecentre.org/> and www.sandypineswildlife.org. (Sandy Pines is hosting a big fundraiser from May 7-10, including a virtual tour of the clinic on Mother's Day featuring wildlife babies, a prize raffle, vendor products and more. A link to the event is available on their website, shown above.)

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Photo courtesy of Sandy Pines Wildlife Ctr.