

CHAPTER TWO: GREAT BLUE HERONS

A study of 355 admissions in S-E Ontario. Please see earlier columns

CAUSES OF THEIR INJURIES IN THE WILD



campfire-charred branch causing death by starvation (see Inappropriate Ingesta, pg 2)

- **Collisions:** At least 21% or more, mainly with vehicles. I catalogue witnessed or very highly probable collisions as “vehicle,” “power-wire,” or “unknown” causes, the latter being most likely one of the former two. Stricken herons found collapsed on the side of the road without witnesses may be any of the above, but vehicles are the most common cause of a smashup. According to witnesses, this occurs when a heron coming from or going to a marsh tries to fly across a road that either borders it or bisects it. The heron’s lift-off is too slow, the vehicle too fast. One woman arrived in tears; she had seen the heron at the side of the road, about to fly across; she stopped; he changed his mind; she started up; he was startled into lift-off...*smash*. He died soon after she arrived. Post-mortem revealed a fracture of a coracoid and the pericardium bursting with blood (cardiac tamponade). What can these unfortunates think of these strange big things that rush out of nowhere and run them over? Nothing in their evolution has prepared them for that.
- **Collisions with power-wires:** 6%. Surprisingly, 60% of ours were either certain to have hit a wire (eg. on an island with no cars) or actually witnessed. 40% had fractures of the humerus, while two had a highly unusual injury—bilateral dead wingtips, from the destruction of circulation where both wingtips hit the wire. Some had straight-line wounds across the abdomen and even the liver.

People may wonder how a bird could fail to see a power-wire, but that is because we see them above us as black lines against a pale sky. Try going up a hill to view a power-wire *below* you, and it vanishes into the dark camouflage of the vegetation. One heron, however, almost certainly flew *up* from a lake edge where we had released him and hit a nearby power-wire over someone’s lawn; broken neck; immediate death, and I retrieved the body for examination.

The violence of the collision, the uncontrolled cascade bouncing off other wires followed by the long fall to the ground below, help explain why herons have so many fractures and so much internal damage.
- **Shot:** 5% +. Mostly during the hunting season. What’s new?
- **Fishline and hooks:** 4.3% (*see Injuries from Fishing Equipment, Pg 3*)
- **Leghold traps:** 4% +. Traps improperly set, and muskrat and mink underwater sets in ponds and small lakes are particularly destructive to herons. 93% of those caught in traps have dead legs, feet or toes and often metacarpal injuries as well from bashing frantically.
- **Fouled plumage:** 1.2% Usually with some sort of oil
- **Aggressive encounters with wildlife:** 1.2%. Muskellunge, snapping turtle, osprey, raccoon
- **Nest-falls:** 3 cases
- **Congenital and nest deformities:** 3 cases

- **Inappropriate ingesta causing death:** 2 cases. Both herons were young of the year. One swallowed a 295mm x 55mm branch weighing 415g (*see photo pg 1*), presumably when trying to seize a fish in dark, moving or murky water, or even at night. After swallowing it his stomach felt full, and he consequently starved to death—his long-empty intestines resembled coils of translucent plastic. On X-ray the piece of wood was not radio-opaque—his organs and spine could be seen clearly through it.

If he had ‘understood’ his poor choice of prey, he could easily have upchucked it—with other herons (when we rarely did try to force down a large fish like a sea herring about 285mm long) they easily tossed it back, even against the spines. So why didn’t this poor creature regurgitate his calorie-free burden? It must have been uncomfortable, as it stretched from part way up his esophagus to beyond the tips of the os pubis bones of the pelvis.

The other unfortunate heron, very recently fledged, tried to swallow a young 325g muskrat which got stuck in his throat. Unable to swallow anything in a very hot period of summer, the heron, who was in good flesh, died soon of true dehydration just as someone was trying to help him. His liver was shirred and the muskrat was P-U-trified, exempting it from a more thorough examination.

- **Dog attack:** (probably after original injury) 2 cases
- **Foot caught in dock:** 1 case
- **Electrocuted?** 1 case (see photograph). This was a second or third-year heron—it had a large area of pure white on the crown, so it had to be an adult. The site was a rural pole in the middle of a low field in an undisturbed area where only one house was just visible. Somehow, the poor thing was either electrocuted, or hit a wire, or even was shot (though I believe it very unlikely—I’ve never heard of them standing on top of telephone poles out in the open, even a low one like this) and fell through the two crossbars, getting his neck caught between a metal support and the pole. The wingtips look rather tattered and curiously, though we see the (inner) ventral surface of his right wing, the *dorsal* surface of his left wing is facing the camera, which I saw when I projected the slide. So was it broken or dislocated? None of these possible causes satisfy me, because of the position of the wires. Has anyone seen a similar accident? If so, I would love to hear about it.
- **Unknown:** 59%

CAUSES OF INJURIES IN CAPTIVITY

It is only fair to add to this list the accidents that occurred while in our care. Most were early in our heron-years and we did learn from them but nevertheless, we were responsible

#943 Tube-feed Inhalation. One of our earliest herons. By not knowing enough about them, we caused him more suffering than the dreadful humeral fracture he already had. Prey wouldn’t stay down (indoors, we were too close) so we tube-fed him as instructed by our peers; on regurgitating, he inhaled a lot of TF and died. Though, as I have remarked before, we seldom force down tubes, the prompt regurgitation reaction of herons is so consistent that I suspect that most people who try it find it usually fails. Another really big mistake



was not understanding that though an X-ray of the bones often leads to an attempted surgical repair, in *practice*, because of their long, heavy wings, very few heron humeral fractures can be repaired for perfect flight because vital soft tissues have been destroyed: muscles, tendons, ligaments, veins, arteries, nerves. And sometimes joints (the blow may have been to the elbow) to say nothing of accompanying internal body injuries likely with a violent collision. Today we would simply give immediate euthanasia because of these findings. In his case, his rotated compound humeral fracture was hopeless.

#2290. Wing fracture. While healing a badly broken humerus with a limited elbow, he tried to fly in panic in an aviary and broke his radius and ulna concurrently. Again today we would recognize the significance of his elbow limitation — if the elbow won't work freely, he won't be able to fly properly—, and instead give euthanasia and do a post-mortem to understand and document the injuries.

#7021.1 Wing fracture. While healing a paralyzed leg, though he had three undisturbed aviaries in which to fly about, he still managed to break his ulna, possibly when alarmed at night by a raccoon. It healed, but it emphasizes how panicky the herons and how fragile their wings.

#6329. Leg fracture. When capturing for release, a volunteer made a too-vigorous swing with a heavy fish-landing net and broke his tibia. Though with a walking cast it healed in a few weeks and he was released, since then we never try to bag them in nets, but merely direct them with a light-weight, long-handled pool-skimmer until they end up on the ground where their head can be covered and they can be carried off safely in one's arms.

#1571. Predated. Healthy heron. 20th day of healing a closed fractured ulna, now flying and to be released the next day. That night, the heron perching high on a branch, must have struck up at a raccoon overhead on the polypropylene-net roof. The raccoon fielded the beak and pulled it through, munching, until the heron was virtually decapitated and fell to the ground where he bled to death. (We used the bodily remains to trap the raccoon the next night.)

Since then we do not use polypropylene netting, but even chain-link roofing might allow this to occur, so now we try to place all their favourite perches under solid roofs. Nevertheless, raccoons remain our greatest danger.

INJURIES CAUSED BY FISHING EQUIPMENT (11)

FISHLINES

They strangled necks, beaks, wings and legs. 6 releases.

2213 Strangling on long fishline from mouth; line wound tightly around neck which prevented him from swallowing, causing death by dehydration and preventing the descent of the decomposing fish in his throat. Died soon. X-ray and post-mortem: line ended with fish-hook embedded in wall of lower esophagus just above stomach. The hook-tip had penetrated wall and the barb was neatly disarmed by a fleshy protective buildup; he might have lived a natural life (with perhaps occasional twinges!) if the hook had been his only problem. (see photos Pg. 5)

#1612, September. Staggered onto lawn and collapsed; fishing line tangled about beak and throat so tightly that neck was kinked and beak tangled firmly shut. Severely starved, weak and dehydrated, barely able to stand. Garrotte on neck had caused a constriction, as the fish I slid in collected above it. Gave tube-feeds through the narrowed area, followed by slender fish. Gradually it dilated, and after a few days the heron could catch and swallow slim fish himself, until he had gained 500g. On Day 10 banded and released.

This was a *really* good use of a tube!

#4105 AHY August. Found thoroughly tangled in fishline. No history. Some abraded areas, and small round holes deep into ventral surfaces both tibias, one with feather-plug in; also 2 wounds in neck. All cleaned, DMSO to sites, healed quickly, returned to site in 4 days. Could the ventral punctures in his legs have been from the heron trying to remove the fishline?

#5876 ATY, June. A man was setting night lines and in casting, his lure caught in a tree. It was nearly dark so he decided to leave it, set his rod on the dock and went home. In the night he could hear splashing but assumed it was a fish he had caught (flying fish?). In the morning he discovered it was a plump heron that regularly visited his dock; it was thoroughly entangled in the line. He and neighbours cut away most of line and brought it. Humid weather; heron very stressed, too weak to stand. Both wings had multiple, characteristic small red bruises and abrasions from the line. We put DMSO on abraded areas and out he went to largest aviary where he collapsed on the ground for a whole day. By Day 4, however, he was recovered, and was banded and released back at site.

#3330. September Leg dangling from tibio-tarsal (ankle) joint by a thread of ligament with a vicious tangle of fishline that had amputated the leg. Amazing that the heron was so well fed.

HOOKS 5. Releases: 4/5

6595. Adult, July. Had been in the shallows of river; came up on shore at a lawn. Easily caught. Quite thin, beautiful adult plumage. Curious head-twitching, lid-fluttering, as if brain-damaged. A shiny hook hung out one side of his beak, luckily not caught in flesh; we removed it at once. On the other side dangling fishline lead to a rusty 3-barbed hook inside the the mouth, with barbs stuck in the the palate and the flesh behind the glottis. We cut off two hooks, but the one in the glottal tissue looked painfully deep, so with a general anaesthetic and the help of the finders (one of whom fainted later) I happily extracted the last hook from a cavity, cleaned out the pockets of old dirty tissue and washed out the mouth.

Next am heron was dead; had never awakened. The anaesthetic was probably the final culprit, but this meant something was wrong with liver which was unable to metabolize the anaesthetic. Post-mortem revealed that he was severely dehydrated; the surface of tan-coloured liver (should have been deep wine red) was almost shirred and there was very little blood in body. Other organs were quite dried too. I was surprised because he was in the river for some days but apparently he could not drink because the hooks prevented him from swallowing. Stomach was empty except for some old blood. The twitching of the head on admission suggested perhaps he was already dying.

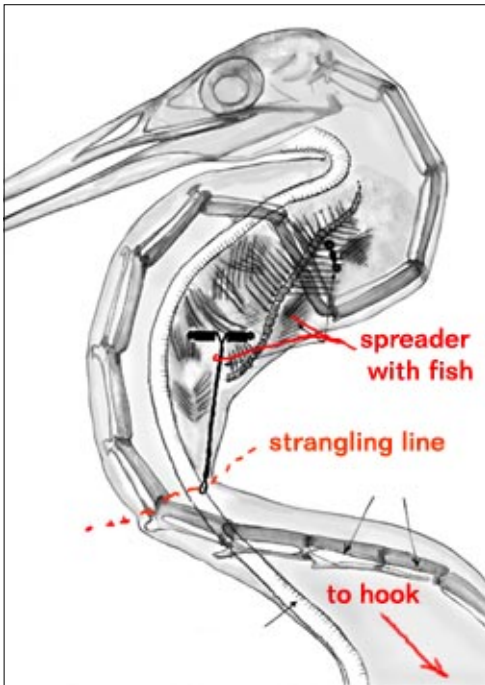
#7001 adult, June. Jumbled accounts of kids who left a rod on a dock with baited line and came back in evening to find heron attached. The heron was brought by neighbours about 2 hrs later after cutting line. The heron was deeply shocked by all this and was virtually immobile; as well, it was very hot and humid and she had been wrapped in a thin blanket. Her beak was dripping old dark watery blood which could be heard rasping in her trachea as well. About a foot of line was hanging from mouth. XRay= showed that the large lump in neck was a fish with swivel and snap, and a hook at head end. As the fish was still in her esophagus, I was sure she would regurgitate it from all the stress, so for treatment, I put heron out immediately in the cooling dark where she collapsed. But next morning she was running about and even flying; lovely pale small bird. In a corner of the aviary was the fish, complete with hook, swivel, line and snap. Banded and returned same day.

Somewhat the same scenario was re-enacted for the next heron, with an unexpected source of discomfort applied to all of us.

#6125 July, adult tethered by line into mouth. Allowed fishermen to catch him; they cut line short and kept him wrapped in a heavy sheet about 18 hours. Now very weak, stumbling, could hardly stand, flight feathers wet still. X-ray showed that a head-first fish in his throat had a single hook. Then we carried the exhausted, overheated heron out into a small aviary full of bushes and ferns and set him gently down...next to a hidden nest of yellow-jacket wasps in an old stump, who responded indignantly. I seized

the poor heron and dragged him outside as he was in a cloud of wasps, and en route he threw up the fish! It took him three days to recover. Banded and released at site.

In such hooked-fish or suspected hook swallowings there may be no need to “Do Something” (intrusive) about it. Most hooks used in casual inland lake sport have a large component of iron and they rust surprisingly fast with the help of the gastric acid. I have found several blackened, broken-up hooks in the gizzards of loons, along with hardened bits of what was probably monofilament line that were rendered harmless. If the presence of a hook is suspected one should never pull on the line because it might rupture the esophagus or stomach. (For more about hooks and ruptures see pgs 28-34 in *Beaks, Brains and Bones Vol. 3, Loons, Ospreys and Grebes.*) In my experience, the best “Do Something” when a hook is visualized or suspected inside a heron, loon, or gull is to cut the line as short as possible and leave it alone to rot.

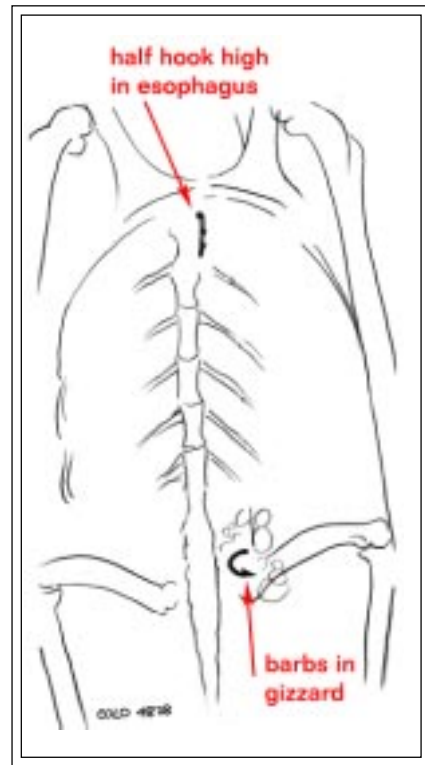


**#2213 drawing of Xray strangled by line
Fish & spreader above it, but hook in lower esophagus**



#2213. Piece of lower esophagus with hook embedded. If left, the hook would have rusted out

4878. Adult male, April, DOA. Body floating 5 days but well-preserved—v cold water. Died from 9 wraps of monofilament around beak and tongue. The broken hook showed that he had swallowed a hooked fish and that the hook quickly weakened and snapped. The hook-tip, blackened by gastric acid, was lying free among the pebbles; there was no damage in the gizzard.



Common Loon # 4878. Tracing of X-Ray shows half a new hook in upper esophagus; barbed half down in gizzard

More heron chapters to follow in weeks ahead!

Kit Chubb