

An *aerie* of eagles



EACH FALL FOR THE LAST DECADE HUNDREDS OF BALD EAGLES HAVE FLOCKED TO LAKE ONALASKA TO FEAST ON WATERFOWL KILLED BY INVASIVE EXOTIC SPECIES.

Ruth Nissen

There is nothing quite as breathtaking as watching an adult bald eagle fly past the plane while conducting an aerial waterfowl census 150 feet above the surface of the water, unless it's the sight of thousands of tundra

swans sparkling in the sun on lower Pool 8 of the Mississippi River near La Crosse on a sunny day.



RUTH NISSEN

Cale Severson, Wisconsin Department of Natural Resources Mississippi River wildlife technician, has become used to such sights. He has been counting waterfowl in addition to pelicans, cormorants and eagles on the fall waterfowl aerial surveys on Pools 8-11 of the Mississippi River for the last two years. However on the November 20, 2015 survey, Severson saw an astounding sight.

As the plane flew south over Lake Onalaska, located in Pool 7 of the Mississippi River near La Crosse, and approached Cormorant Island, over 50 eagles sitting in the trees on the edge of the 3-acre, horseshoe-shaped island erupted from the trees in a flurry of wings. More eagles stood on the tip of the man-made island. Severson had scarcely finished counting those eagles when he glanced ahead at Old Cormorant Island, the small remnant of the original island. He estimated an additional 25 eagles sit-

Visitors may see bald eagles perched on stumps in the river or in trees along the riverbanks. Look for them as you drive on the highways bordering the river, but please stay in your vehicle to avoid flushing the eagles.

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Onalaska for years because there is an abundance of waterfowl during both the spring and fall migrations.

"Eagles are opportunistic and feed on both healthy and dead or sick waterfowl," explained Brian Stemper, wildlife biologist, Upper Mississippi River National Wildlife and Fish Refuge Headquarters. "In addition, Lake Onalaska is a Waterfowl Hunting Closed Area, which limits human disturbance during the fall. These two factors combined with numerous wooded islands used as daytime loafing sites, provide very attractive habitat for eagles."

Stemper was the observer on Pool 7 waterfowl surveys for the previous 15 years. "We usually see eagles in fairly large concentrations on the west side of Lake Onalaska during fall surveys, but for some reason they shifted to Cormorant Island this year."

The first time such a large concentration of eagles was observed during surveys was in 2003 when over 100 eagles were seen on Cormorant Island, with a total of 280 eagles counted on Lake Onalaska. The eagles were there in response to a readily available food supply in the form of thousands of ducks and coots that had died from a parasitic infection, combined with the normal mortality that occurs during fall migration.

ting on the mats of wild celery leaves floating on the surface of the water near the island. They were quickly followed by a wave of 200 eagles that emerged from a small cluster of trees on the tip of the island. Eagles flew from the ground and the other trees on the island and joined in the mass evacuation. Severson rapidly counted about 300 eagles in the vicinity of that island, which is less than one acre in size.

"You get accustomed to counting one to maybe 10 eagles in a cluster during the flights, and then to see that massive concentration of over 300 eagles take off was just amazing," said Severson, once we were back at the hangar. "A sight like this really puts it into perspective how far this species has come due to conservation efforts."

What's the attraction?

Eagles have been coming to Lake



U.S. GEOLOGICAL SURVEY

Cormorant Island, located in Lake Onalaska, is part of the Upper Mississippi River National Wildlife and Fish Refuge. While the island is not visible from the shore, there are several roadside overlooks on Pools 7 and 8 that offer opportunities to see eagles and thousands of ducks, geese and tundra swans in the fall.

The presence of abnormal mortality in ducks and coots was first noted on October 20, 2002, by Art Johnson, a local fisherman, while on the fish float below Mississippi River Lock and Dam 7. He reported the sighting of "lots of dead ducks collecting around the fish float and in the main channel." A sample of the dead birds in good condition was collected by refuge staff and sent to the U.S. Geological Survey National Wildlife Health Center in Madison. Shortly thereafter, similar situations were reported on Pools 8 and 9.

Dr. Rebecca Cole from the NWHC diagnosed trematodes, a type of intestinal parasite, as the cause of death. The ducks and coots were infected when they fed on faucet snails, which carried the infective stage of the trematodes. Both the snails and the trematodes are



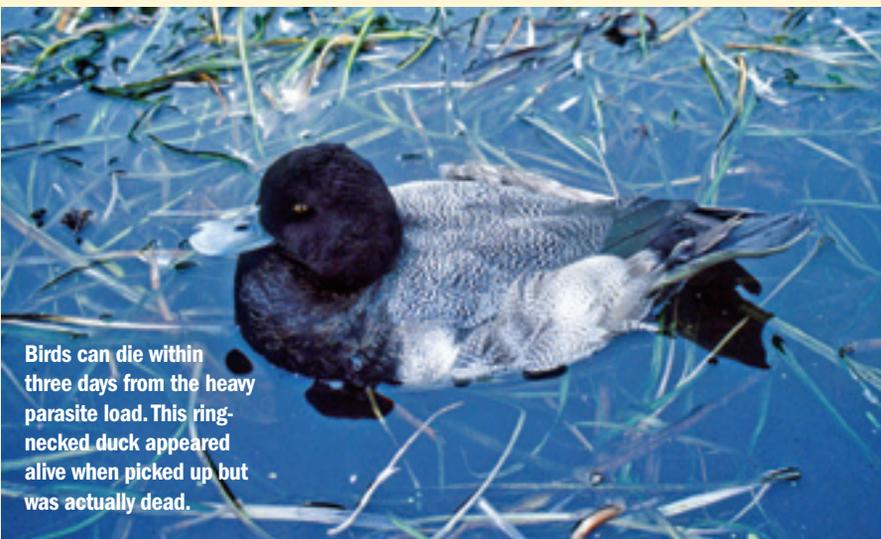
Eagles also take advantage of the new islands in lower Pool 8 constructed through the federal Upper Mississippi River Restoration Program. This program restored nearly 3,000 acres of wildlife and fish habitat in Pool 8.

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The waterfowl aerial survey crew — observers Cale Severson and Ruth Nissen, and pilot Leo Bunderson.



DNR FILES



Birds can die within three days from the heavy parasite load. This ring-necked duck appeared alive when picked up but was actually dead.

RUTH NISSEN

invasive exotic species. Depending on how heavily snail populations are infected, some birds can receive a lethal dose less than 24 hours after feeding. Generally the birds die within three to eight days after ingesting a lethal dose. Examinations conducted by wildlife disease specialists indicated the dead birds found on Lake Onalaska contained massive amounts of parasites, many hundreds or thousands more than required to kill a bird.

Dead and dying waterfowl were picked up at reference sites on Pools 7 and 8 by refuge and Department of Natural Resources staff to better understand the extent of mortality and to document the species of waterfowl and waterbeds affected. River users, including hunters, anglers and homeowners along the shoreline, also provided important information. For example, they notified the refuge about blue-winged teal dying in large numbers during August and September on Pools 7 and 8.



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The faucet snail population is quite abundant in some areas.

Refuge staff documented over 2,000 birds that died of the infection on Lake Onalaska during the fall of 2003. In subsequent years large losses of waterfowl occurred on Pool 8 as well. Because of the large area (about 35 miles of the Mississippi River), dense cover and their vulnerability to predators, the dead and dying waterfowl collected from 2002 to

2015 represent only a small fraction of the total number lost during the fall. Mortality since 2002 is estimated at over 60,000 birds. The number of species affected include 16 species of ducks — including diving ducks and dabbling ducks — and waterbirds such as American coot and sora rail.

Unfortunately, the snails and parasites have continued to spread. They have now been found in Minnesota as well.

A silver lining

It is now a common sight to observe avian predators and scavengers such as eagles, crows and gulls, actively hunting on the Mississippi River and feeding on sick and dead birds. It's a vivid demonstration that nothing in nature is wasted. The easily obtained food is especially beneficial to young eagles as by fall they aren't quite proficient at grabbing a healthy bird off the surface of the water with their talons. According to disease specialists at the National Health Center there is no documented threat that these raptors or scavengers are at risk of becoming infected with the trematodes.

What this means for visitors to the Mississippi River near La Crosse in the fall is the opportunity to see large numbers of these magnificent birds, in addition to the migrating tundra swans and other waterfowl. It is not unusual to see dozens of eagles soaring on the thermals above the bluffs bordering the river on a sunny afternoon, or to be able to watch eagles work the flocks of ducks and coots as they search for easy prey. This is always an enjoyable experience yet one that gives you pause; this spectacle of nature is a very graphic illustration of the effect of invasive exotic species on native species. ❧

Ruth Nissen is stationed in La Crosse and works with the DNR's Mississippi River Team.



HUNTERS TAKE CARE

No human health threats have ever been documented from handling or consuming waterfowl infected with these parasites. Under normal conditions, most wildlife species are infected by an assortment of intestinal parasites. However, hunters should observe the warning about not harvesting or consuming wildlife that appears sick or has abnormal tissues when dressed.