

FROZEN RIVER WALK 2010
Lesser Scaup and River Sedimentation
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Remember when a catbird sang “a rapture of enjoyment” on Jackson Island, causing Tom to wake the other boy-pirates to go a-fishing? When Jim told Huck to bait a catfish “six foot two inches long” with a skinned rabbit? Well, the Mississippi’s birds and wildlife sing secrets much muddier these days, and I hope to share some with you at the Frozen River Walk this Saturday at Aghaming Park and Preserve.

We’ll meet at the Wisconsin end of the Wagon Bridge, one o’clock. We may follow fox tracks to urine marks which may reveal secrets about food caches. We’ll visit a marsh where eagles, falcons and ospreys rebound from near-extinction. We’ll visit specialized nesting sites amid threatened woods and readily discuss the proposal for the Upper Mississippi River National Wildlife and Fish Refuge to help manage Aghaming. We’ll also gaze at bluffs and consider how nitrates and other sediments flow to the “Zone of Hypoxia” at the river’s mouth and how a duck and blackbird raise critical questions about Planet Earth.

Numbers of the duck called the lesser scaup or “bluebill” are about 50% less since the late 1970s, said Dr. Michael Anteau, Northern Prairie Wildlife Research Center. Bluebills seem intricately linked to the Mississippi. “Up to 86% of the scaup population winters in states bordering the Gulf of Mexico and potentially migrates along the Mississippi River valley,” Anteau wrote recently.

Bluebills forage in gulf waters and coastal marshes during winter, eating snails, clams and mussels, which hypoxia kills and diminishes. Though they stop at Aghaming during spring, they concentrate most densely on the river on Pool 19 near Hamilton, Illinois, where they find abundant fingernail clams and mussels. But they specialize on freshwater shrimp in the upper Midwest and find insufficient food as they continue north, according to Anteau. Hens have been found with 50% fewer fat reserves in Iowa and southern Minnesota than at Pool 19. Similar losses have been recorded in northwestern Minnesota.

Bluebills feed in wetlands where farm chemicals deplete freshwater shrimp. While flying, they may mistake turbid water caused by runoff for a visual cue for shrimp, says Anteau. They land, search, spend valuable energy.

Hens may arrive at nesting grounds such as Slave Lake in Alberta and Yellowknife in the Northwest Territories without enough fat stores to develop ovaries or eggs. They may die migrating or reach nest sites too late to raise chicks. They nest on floating mats of vegetation or shores of wetlands which global warming may dry up, and which logging, mining and other development usurps. As permafrost melts in the far north, water chemistry changes, and so may insect hatches chicks depend upon.

While bluebills feed at Aghaming, rusty blackbirds put on a frantically-paced show at flood pools, tossing leaves, probing mud, hopping onto floating logs, hammering into dead wood. Scientists estimate the species’ population at less than two million, down 99% since 1966. Hundreds—sometimes thousands—swarm Aghaming late March to mid-April.

Rusties rely much more upon aquatic insects, not corn and grain, than other blackbirds. They breed all across the northern continent in wooded wetlands which suffer similar losses and degradations as scaup habitat. The bottomland forests along the lower Mississippi supports the species' largest winter concentrations.

Scientists have found female rusties more reliant upon bottomland forests than males, and in less healthy conditions. This made me wonder if female rusties and other migratory birds find enough fat stores on the upper Mississippi, especially in marshes and floodplain forests like Aghaming's. Or if sedimentation contributes to a shortage?

"The stuff you're talking about is really exciting and has been barely studied in the upper Mississippi River," said Dr. Bill Richardson, an aquatic ecologist at USGS Upper Midwest Environmental Sciences Center, working with collaborators from USGS and Dr. Roger Haro at the River Studies Center, U-W La Crosse.

Scientists at USGS-UMESC suspect birds in the floodplain acquire much of their fat stores from insects and other invertebrates produced in the river, said Richardson. Fat reserves in shrimp in Pool 8 have been measured and seem sufficient for scaup feeding there. But much more work is in process. Scientists suspect the Asian carp, an exotic species, eats and holds enough of the river's fat sources to possibly have negative impacts on fat available in the food chain. They also know sedimentation has negative impacts on insects in other aquatic systems, but still need data for the upper Mississippi.

If you walk the frozen river, you can sense how the thaw pours down and bug-hungry birds hurry upriver during spring. Everyone can help appreciate Aghaming's habitat, especially kids with questions. We'll host a campfire on Latsch Island Beach afterward. The walk is free, thanks to Mississippi River Revival, a strong voice for the Mississippi since 1981. Bring binoculars, boots, cookies!

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