



Protect the rusty

Photo by Jeff Nadler

The population of rusty blackbirds has been in decline for decades.

By Stacy McNulty

Although most people have never heard or seen one, the rusty blackbird (*Euphagus carolinus*) is a sentinel, or bellwether, species of North America's boreal ecosystems, and it is in trouble in New York State.

Rusty blackbirds summer in forested wetlands across Alaska, Canada, northern New England, and the Adirondacks. Yet this bird of peatlands and wooded river corridors is experiencing serious threats to its existence in the southeastern portion of its range. The state Department of Environmental Conservation (DEC) should consider adding the rusty to the state list of species that are endangered, threatened, or of special concern.

The rusty blackbird has experienced a population reduction of over 90 percent throughout its range since 1960, one of the continent's most significant declines in bird populations. The reason is unclear, but habitat fragmentation (both on breeding grounds in the northeastern United States and on wintering grounds in the Southeast), climate change, and mercury all may play a role.

The bird is considered rare or endangered throughout the East. Vermont recently listed it as endangered, and in New Hampshire and Maine, it has been designated a special-concern species. In New York, though it is not listed, DEC recognizes the rusty as a high-priority species that needs conservation action within the next ten years.

Researchers in the Adirondacks have spent over a decade documenting the bird's breeding, and the picture is not rosy. In a study by Dr. Michale Glennon of the Wildlife Conservation Society, the rusty blackbird was estimated to occupy only 23 percent of the dozens of suitable Adirondack wetlands surveyed. When the most recent years were included, site occupancy further declined to 16 percent. Substantial on-the-ground efforts to document the

bird in the past few years have resulted in just a handful of breeding-season sightings. Indeed, there has been a near-total failure to find nests or young birds in "classically rusty" wetland complexes in New York State.

Placing the rusty blackbird on the state list of endangered, threatened, and special-concern species would have several benefits. State agencies and non-governmental organizations would be able to develop land agreements to protect important habitat. It could lead to creation of a state recovery plan and funds for management and conservation. Listing also would enhance public awareness of the rusty's precarious status, fostering citizen support of conservation efforts.

Rusty blackbirds have large home ranges and particular habitat requirements. They nest as early as April in short, dense spruce-fir stands adjacent to wetlands. They are adapted to natural disturbances that create patchy, coniferous regeneration. Their population dynamics depend on the amount of wetland habitat and connectivity between wetlands.

The rusty blackbird can serve as an indicator of the ecological health of Adirondack wetlands. The Adirondacks are known as a mercury-pollution hotspot, and because of their diet of aquatic insects, rusties may be particularly sensitive to methylmercury (which causes neural and immune problems) in the environment. Unfortunately, the transformation of inorganic mercury into methylmercury—the type that enters the food chain—is abetted in wetlands by changes in water levels caused by beaver activity.

Rusties can still be seen in a few of the largest wetland complexes in the Adirondacks, and these are already protected from further development. However, the majority of wetlands in the Adirondack Park are smaller, and some sites are vulnerable to encroaching development or disturbance from recreation, roads, and other human influences. Wetlands also are at risk from pollution and invasive species. The existence of all of these threats

means that current land protections are insufficient.

Adirondack wetlands are also important as migratory stops for rusty blackbirds and other northern animals. As species adapt to changing environmental conditions, maintenance of connected landscapes is key. Whether rusty blackbirds are listed or not, boreal wetland complexes will remain important to a variety of species. A good goal is to conserve the ecological integrity of these places rather than maintaining a specific set of species.

What else can be done? Monitoring is critical to understanding the status of rusty blackbirds and associated species in the Adirondacks. Field data collection for the next *Atlas of Breeding Birds in New York State* begins in 2020, and dedicated volunteers will be needed to survey the region. Reducing pollution is important, as is controlling invasive species that threaten the diversity and structure of boreal ecosystems. Protecting forested wetlands from fragmentation and pollution will help ensure that forested wetlands maintain their vital role in the network of sites important to the rusty blackbird.

DEC has a directive "to perpetuate and restore native animal life within New York State for the use and benefit of current and future generations, based upon sound scientific practices and in consideration of social values, so as not to foreclose these opportunities to future generations." The common loon is listed as a species of special concern, yet its Adirondack population is increasing. Listing the rusty blackbird would not solve this species' problems, but doing so could improve the likelihood that this rare songbird might thrill wetland-goers with a *ker-lee* call as winter snows are still melting away.

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