





Goodbye to a Pioneer?

Have loggerhead shrikes disappeared from New York for good?

By Paul G. Novak

A warm sun rises slowly over the horizon, illuminating a pastoral landscape on the outskirts of Buffalo, New York. As the sun warms the fresh shoots in the pastures and hayfields, a robin-sized, gray and white bird perched in the branches of a hawthorn bush ruffles its feathers and lifts its head to reveal a black mask and hooked bill. After preening its feathers for a moment, the bird takes to the air in a low, undulating flight, its bright white wing patches and white outer tail feathers visible in the light. The bird is a loggerhead shrike.

The shrike swoops up to a roadside fencepost, lands, and peers down at the surrounding grasses. Moments later the bird's keen eyes spot the movement of a ground beetle on a nearby patch of bare soil. Leaving the fencepost, the shrike flies down and lands near the beetle, quickly capturing it in its bill. Rising from the ground, the successful predator takes flight and flies directly to a hawthorn bush along the roadside. The bird hops amongst the dense branches to the center of the bush where the beetle is fed to its mate sitting on a nest with eggs.

The year is 1869. Buffalo is a small but growing industrial city surrounded by hay and wheat fields, and pastures grazed by sheep, horses and cattle. Much of the state's countryside resembles these rural lands around Buffalo. Statistics maintained by the United States Department of Agriculture (USDA) for this year show that New York is 90% farmland. The



Shrikes are fierce predators, but lack strong talons necessary to quickly dispatch prey. Instead, they kill large prey like this mouse by repeatedly biting it with their small, hooked beak.

horse and carriage is the primary means of travel for the average rural family. The Ford Model T will not be introduced for another 40 years, and busily traveled paved highways and sprawling suburban development won't become commonplace until after World War II.

A young naturalist observes the shrikes at their nest and passes the information on to an ornithologist who includes the record in an article published in *The American Naturalist*.

More than a century later, as a graduate student in wildlife biology at Cornell

Paul Novak



Active or lightly grazed pastures make good shrike habitat. Shrikes thrive in areas that include suitable perches, nesting sites, good visibility, and either hawthorn or barbed wire.



Here an adult shrike feeds an insect prey item to one of its young.

What happened to this unique bird in New York during the intervening century?



University, I would find *The American Naturalist* article and include this 1869 observation in a table of breeding records as the first documented breeding for the loggerhead shrike in New York State. Sadly, at the close of my study in spring 1988, I would also record what might be the last nesting record for the loggerhead shrike in the state.

What happened to this unique bird in New York during the intervening century? That was the question I set out to answer in my study, which began in 1986. But the project was not easy. From 1980-1985, just 10 records of confirmed breeding were recorded for this species during the original New York State Breeding Bird Atlas. Despite intensive field surveys, I was only able to locate six nesting pairs during the three-year study,

all in northern Franklin County near the Quebec border. I observed these nesting birds for three summers—finding and checking their nests, watching them hunt, examining remains of prey left

impaled on hawthorns, looking at prey remains in regurgitated pellets, observing them feeding their young, and watching the young birds learn to fly.

Richard Ditch





About Our Shrikes

Thirty species of shrike are found in the world, but just two species—the loggerhead (*Lanius ludovicianus*) and the northern shrike (*Lanius excubitor*)—occur in North America and New York State.

The breeding range of the loggerhead shrike extends from southern Ontario west to Alberta, Saskatchewan, the Rocky Mountain states, central Washington and Oregon, and south to the southern United States and Mexico. The species is migratory in the northern parts of its range and has become rare in all northeastern and north central states. Ontario still supports a small breeding population in the southern part of the province.

The loggerhead occurs in New York as a very rare migrant in spring and fall, and formerly as a breeding species in summer.

The northern shrike is a winter visitor to New York. It is similar in appearance to the loggerhead, but has a paler head and back, barred under parts, and a larger bill with a more distinct hook.

Unique among “perching birds,” shrikes have characteristics similar to many hawks, including a hooked bill with a tomial tooth (a pointed projection on the outer edge of the upper bill that works a bit like a canine tooth).

Shrikes have the unique and unusual habit of impaling prey items on thorns, barbed wire, and other sharp objects. While this habit may have evolved as a means of handling large prey items, it may now serve a function in food storage, mate attraction, or territorial advertisement.

I also contacted other biologists studying shrikes across the country, and visited shrike sites in Virginia and Ontario. I examined aerial photographs and characterized the land use and vegetation around nest sites, and compared these sites to nearby areas with no shrikes, as well as to areas in Ontario, both with and without shrikes. I read any piece of information I could find concerning loggerhead shrikes, including recently published literature and

nest in isolated shrubs or hedgerows associated with grazed pastures and nearby hayfields as opposed to agricultural lands dominated by row crops such as corn. But many seemingly suitable pastures were searched to no avail; shrikes simply weren't there.

As in other studies, the shrikes in my study generally nested successfully and produced several young, but lost one or more fledglings to various causes. Shrikes

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early anecdotal notes and observations. I then compiled all records and observations of nesting or likely breeding loggerhead shrikes in New York State.

In the end, as is the case with many scientific studies, I had some answers, but even more questions. For example, my studies compared favorably with studies in Virginia, Minnesota and Ontario, and showed that in northeastern North America the loggerhead shrike prefers to

competed successfully with American kestrels for territories and foraging habitat, and one or more banded shrikes returned in subsequent years to the study area. At least one of the birds, a two-year-old adult, was killed by a collision with a vehicle—a potential problem cited in a number of studies. Shrikes are especially susceptible to road-kill mortality because they hunt along roadsides and have a flight pattern that can put them in the path of vehicles.

Richard Ditch

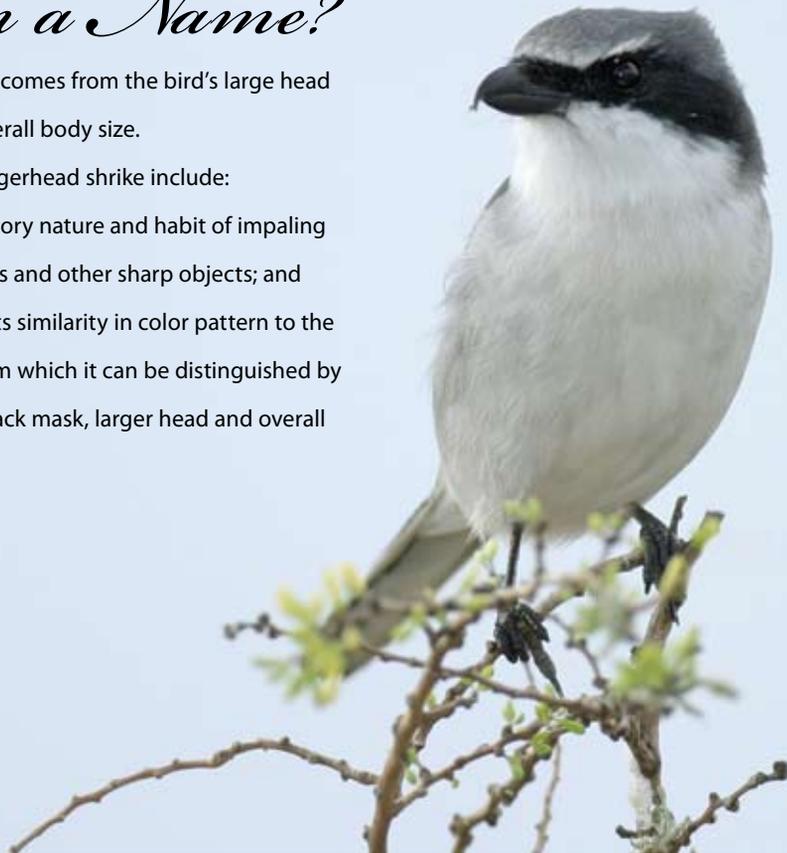


Shrikes sometimes impale prey on barbed wire (see illustration above) or long thorns to attract mates or to advertise their territorial dominance.

What's in a Name?

The name "loggerhead" comes from the bird's large head size in proportion to its overall body size.

Other names for the loggerhead shrike include: "butcherbird" for its predatory nature and habit of impaling prey on barbed wire, thorns and other sharp objects; and "French mockingbird" for its similarity in color pattern to the northern mockingbird, from which it can be distinguished by the shorter, hooked bill, black mask, larger head and overall shorter proportions.



Shrikes have a habit of claiming the highest perch or topmost branch. Watch for them there, and look for their fierce eye and aggressive demeanor to distinguish them from other birds.

The record of loggerhead shrike populations in New York, and most of the northeast, clearly shows a species that expanded its range and prospered with the settlement of the state and the clearing of wooded land for agriculture. The increase, and subsequent decline, in shrike breeding records in the state mirror the changes in farmland, hay and pasture acreage as documented by the USDA.

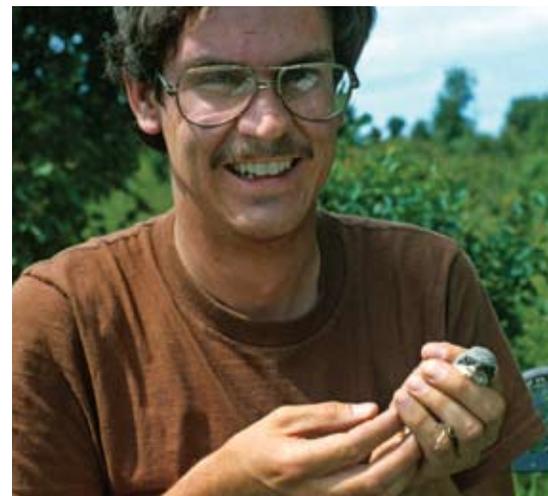
So does New York hold a future for the loggerhead shrike, or should we say goodbye to this unique pioneer that called our state "home" for more than a century? I remain hopeful. USDA figures show that the decline in farmland acreage has slowed, no doubt because we are increasingly recognizing the value of our farmers and farmlands. All around us we hear

the call for growing more food locally, for sustainability, and for preserving the cherished rural character of our communities. And more farmland means more suitable loggerhead shrike habitat.

Directly to our north, a recovery effort was initiated in Ontario in 1997. While land protection and habitat stewardship are critical components of the project, a captive breeding and release effort is also underway, and in the last few years it has begun to show signs of success.

So there is reason for hope. And while I was not able to find a loggerhead shrike near Binghamton this fall, perhaps next year, or in the near future, I will again be thrilled by the sight of a pair of loggerheads raising a brood somewhere in our great state.

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Courtesy of Paul Novak