WINTER 2004-05

EASTERN LOGGERHEAD SHRIKE

Manitoba Recovery Action Group Update

Shrikes holding on

With the help of many local residents and birdwatchers, the Manitoba Eastern Loggerhead Shrike Recovery Action Group (EMRAG) was able to locate eight pairs of nesting eastern loggerhead shrikes over the summer of 2004. Five nests were found in the rural municipality (RM) of West St. Paul, two nests in the RM of Rosser, and one in the RM of Headingley. While this is great news, there still is grave concern for the eastern loggerhead shrikes survival. With such a low number of eastern loggerhead shrikes breeding in the province, one stochastic event, such as a spring storm, has the potential to wipe out the entire Manitoba breeding population.

Eastern loggerhead shrikes (*Lanius ludovicianus migrans*) breeding in Manitoba are proving to be different from the eastern loggerhead shrikes in Ontario. While Ontario's shrikes choose open grasslands and pasture areas for nesting, the Manitoba population nests in small residential lots, golf courses and parks. It seems that in Manitoba they are adapting to live with people, which over the long term may actually lead to species recovery. Research is also suggesting that the Manitoba eastern loggerhead shrike may be genetically different from the Ontario eastern loggerhead shrike.

Funding for EMRAG activities through 2004 was provided by a grant from the federal Habitat Stewardship Program, Environment Canada (Prairie & Northern Region and Ontario Region), Manitoba Conservation and Ducks Unlimited Canada.

The only known nesting populations of eastern loggerhead shrikes in Manitoba occurs near Winnipeg in West St. Paul, Rosser and Headingley. This suburban habitat, where the bird uses small trees in front and back yards for hunting and nesting, is not characteristic of the broad pastureland expanses that the eastern loggerhead shrike prefers.



Have you seen this bird?

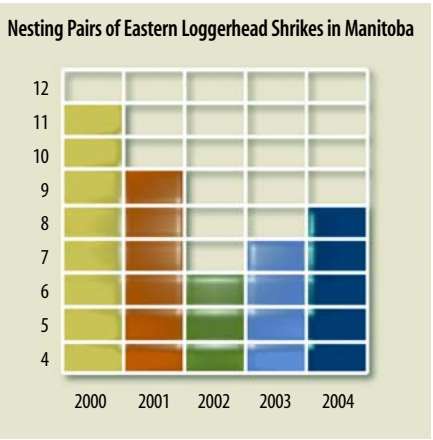
Slightly smaller than a robin, with grey and white markings, the **eastern loggerhead shrike** has black on its wings and tail and a raccoon-like mask of black around its eyes. Shrikes are unique grassland songbirds. They prey on mice, voles and insects, especially grasshoppers. After killing their prey, shrikes often hang or impale it on thorns or barbed wire fence. Since the bird lack talons, securing prey in this manner helps them tear off pieces, and serves as a method of storage for later consumption. The eastern loggerhead shrike nests in isolated trees and shrubs. It uses fences, power lines and other elevated perches to swoop down on prey. It can be seen from May to September while its similar, more common cousin, the northern shrike, can be spotted in Manitoba from October until early April.

A bird in decline

Grassland birds have shown the greatest declines of any bird species in North America.

And to make matters worse, loggerhead shrike numbers are declining faster than any other grassland bird in North America.

A widespread decline that started in the 1950s has reduced the population levels of the eastern loggerhead shrike. They were assessed in 1991 as an Endangered Species by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and later listed as Endangered in Manitoba in 1998. This means that the eastern loggerhead shrike is in imminent danger of becoming extinct. At one time the eastern loggerhead shrike was found throughout Manitoba's Interlake region, south to the American border and east into Ontario.



Manitoba home to three types of shrikes

Manitoba is home to three kinds of shrikes: the western (or prairie) loggerhead shrike, eastern loggerhead shrike and the northern shrike.

The western, or prairie, loggerhead shrike is a subspecies found in southwestern Manitoba. It too, is declining in population and is currently listed as threatened by COSEWIC – meaning if population trends continue to decline it will become endangered as well.

The northern shrike (right) is slightly larger, has lighter grey colouring and a less pronounced facial mask. It summers in the northern tundra and taiga and migrates through southern Manitoba in the fall and winter. If you see a shrike in the late fall or winter in Manitoba, it will be a northern shrike.



Species at risk recovery strategies and action plans

A recovery strategy outlines the long-term goals and short-term objectives for recovering a species at risk. This includes information on what is known about the species, what we need to learn, the threats to its survival and an identification of its critical habitat. It is the first step of a two-part recovery planning process, and is used to identify what needs to be accomplished to help the species recover.

The National Recovery Plan for the loggerhead shrike was first approved in 1993 and published in 1994, and is in the process of being updated.

The short-term goal is to halt the population decline of the eastern loggerhead shrike, while the long-term goal is a viable breeding population in Canada.

2 A recovery action plan outlines projects or activities required to meet the goals and objectives outlined in the recovery strategy. This includes information on the species habitat, protection measures, and an evaluation of the socio-economic costs and benefits. It is the second step of the two-part recovery planning process, and is used to implement activities to improve the species' status. A recovery action plan is being developed.



The butcher bird

The eastern loggerhead shrike is affectionately referred to as the "butcher bird." Shrikes lack strong talons (or claws) necessary to tear their prey into bite-sized pieces. Instead, the birds will impale food on thorns or barbed wire fences – "hanging meat" so they can tear their prey into smaller pieces. If there is a shrike nesting in your area, you may often see mice, voles, grasshoppers, small birds, frogs and even snakes impaled on thorny objects.



Right: A bee impaled on a barbed-wire fence marks the work of a shrike.

Where do shrikes spend the winter?

This question remains one of the largest missing pieces to the eastern loggerhead shrike puzzle.

Biologists still do not fully know where the shrikes go once they leave Manitoba for their wintering grounds. Discovering where eastern loggerhead shrikes overwinter and understanding the migration routes is critical to species conservation. It is believed that many of the shrikes die during migration and in their wintering habitat.

Banding studies have yet to put the pieces of the puzzle together. Radio transmitters and satellite transmitters are still not viable for tracking shrikes, so biologists have turned to feathers to help solve the puzzle. A procedure called stable isotope analysis is being used to help discover where shrikes overwinter. Feathers maintain an isotopic record of where they were grown. Isotopes are stable forms of chemical elements that differ in their atomic weights. When a shrike eats a grasshopper, the bird incorporates a geographic tag into its bones, muscles and feathers. And by 'reading' this information contained in the feathers, it is hoped that the regions where eastern loggerhead shrikes overwinter can be identified.



Above: Feathers are collected for stable isotope analysis.

Banding eastern loggerhead shrikes

Each year, EMRAG attaches small coloured leg bands on shrike chicks – and on adult shrikes – to help find out where these birds go after leaving Manitoba, and also to find out if the same birds return to Manitoba and who is "mating" with who. The chicks are banded at the nest, while adults are captured using a special potter's trap and a live mouse. A coloured leg band and a silver aluminum band are placed on each bird, essentially giving each captured bird a unique number combination or name. Different colour bands are used each year.

"We're finding out that the shrikes banded in Manitoba are returning to the same residential areas in West St. Paul, and in some cases to the same nesting tree used in the previous year" reports EMRAG biologist Cory Lindgren. "In one case, shrikes have returned to the same tree and the very same nest three years in a row."



Above: Biologist Ken De Smet uses a potter's trap to capture a shrike for banding. Banding provides crucial information on where shrikes are hatched and where migration takes them.

Monitoring nestling survival

Monitoring eastern loggerhead shrike nestling survival is an important part of species recovery. Information is collected annually in order to determine population and reproductive trends. Biologists monitor nesting activities of eastern loggerhead shrikes in Manitoba through weekly nest checks. Every precaution is taken to ensure that nest checks do not affect the shrike's nesting success. Information on the number of eggs laid, the dates the eggs were laid, hatch dates and fledging dates are recorded.

In 2004, eight pairs of eastern loggerhead shrikes produced a total of 56 eggs. Nest monitoring indicated that of the 56 eggs, 42 hatched and all the chicks survived to fledgling – the age when the chick has developed its feathers and is ready to leave the nest. This represents an increase in productivity when compared to 2003 data where six pairs produced 49 eggs, 24 eggs hatched and 23 nestlings survived to the fledgling stage. According to this information, there should be more shrikes returning each year to Manitoba. But this has not been the case.

"While we know the populations of eastern loggerhead shrikes are declining, the factors contributing to the decline remains uncertain," says Species At Risk biologist Ken De Smet.

It is thought that these factors may include habitat loss as traditional breeding habitats have been reduced and fragmented, pesticides applied to pastures or turf areas, insecticides applied for mosquito control, collisions with vehicles, climate change, parasites and diseases such as West Nile Virus.

A new generation of shrike stewards



The West St. Paul School grade 5 class has begun the process of building new generations of shrike stewards. The students have been studying Species at Risk issues in their class using the eastern loggerhead shrike as a teaching tool. "We're fostering awareness," says biologist Cory Lindgren. "The students are discovering that their very own yards provide critical breeding habitat for a Species at Risk and are learning where to look for shrikes this coming spring."

PARTNERS

EMRAG gratefully acknowledges the following individuals and organizations that have united under the common goal to conserve eastern loggerhead shrikes and habitat protection:

- Manitoba Conservation
- City of Winnipeg
- Ducks Unlimited Canada
- Portage Natural History Society
- West St. Paul Landowners
- Ryan Porteous

The Eastern Manitoba Loggerhead Shrike Recovery Action Group (EMRAG) was created in 2000 to establish a sustainable population of Manitoba's rare eastern loggerhead shrike through voluntary, cooperative habitat stewardship projects with landowners, partnerships with stakeholder groups, and by promoting stewardship through public education.

More Information

For more information on habitat stewardship programs for the eastern loggerhead shrike, or to report a sighting of a shrike, contact Ken De Smet with Manitoba Conservation in Winnipeg at (204) 945-5439 or Cory Lindgren at Oak Hammock Marsh at (204) 467-3269.

Web Sites

More information on eastern loggerhead shrikes can be found at www.naturenorth.com

Species At Risk Information

- www.speciesatrisk.gc.ca
- www.manitoba.ca/conservation/wildlife