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WOOD TURTLE BUTTERNUT
TERN FOXSNAKE BOBOLINK
**Accommodating
Wildlife Species at Risk**
The Farmers' Point of View
SHRIKE WOOD TURTLE
BADGER EASTERN FOXSNAKE
RHEAD SHRIKE BUTTERNUT
RICAN BADGER BOBOLINK

We usually think of species at risk as ones that are rarely seen or whose populations have declined to low numbers. By that time, though, it's almost too late for their continued survival.

Farmers and Stewardship

A “species at risk” is any naturally-occurring plant or animal in danger of extinction or of disappearing from the province. There are many reasons a species may become “at risk”.

We usually think of species at risk as ones that are rarely seen or whose populations have declined to low numbers. However, the issues around species at risk are as diverse as the species themselves. They include:

- Populations in decline versus those already at very low numbers
- Species originally abundant in Ontario versus those at the northern limit of their range
- Species requiring moderate recovery effort versus those with significant need
- Costs of recovery to an individual landowner versus costs for the broader interest of society

Many species at risk live in southern Ontario's agricultural lands. As stewards of Ontario's agricultural land, farmers hold the key to continued survival for many of the 190 plants and animals designated under Ontario's Endangered Species Act 2007 (ESA). The ESA encourages a stewardship first approach, providing support for stewardship efforts of private landowners, resource users, and conservation organizations.

Stewardship means making a commitment to the land to sustain and enhance it for future generations. Sometimes it means making simple changes in the way we do things. Other times it means changing the way we think about how we live on the land.

For some species at risk it is interior woodlands or wetlands that offer ideal habitat. For others, it is the very fields that are annually cropped or grazed by livestock.

Farming is a livelihood with an economic bottom line. Often there are costs to changing practices to enhance stewardship. Good stewardship should benefit both individual landowner and broader community. Various cost-share initiatives over the past years have recognized this. However, while cost-share is available to create wildlife habitat, there is no compensation to the farmer for lost production as a result of regulation compliance.

The presence of a species at risk is sometimes feared as a potential intrusion on property rights. As participants in the development of the Integrated Carden Conservation Strategy discovered, sharing information, and cooperation, can identify and resolve concerns (see the Loggerhead Shrike story).



Mark Trepanier - Eastern Foxsnake



Dominique Marrotte
Eastern Foxsnake

Farmers and the Endangered Species Act

Farmers generally support efforts to rebuild populations of species at risk. They are resistant, however, to regulation that hinders normal farm practice and their ability to make production decisions. There are concerns within the agricultural community about the way the ESA works.

There are two key sections to the ESA. Section 9 prohibits killing, harming, harassment, capture or taking of species designated threatened or endangered. Section 10 prohibits damage or destruction to the habitat of an endangered or threatened species.

Candidate species are reviewed and designated, if warranted, by the Committee on the Status of Species at Risk in Ontario (COSSARO), an independent body of members from public and private sectors. The committee must base its decisions on the best available scientific, community and aboriginal traditional knowledge.

Sometimes protected species damage property or interfere with normal farming practice. The ESA has tools that allow government to enter into agreements, make regulations and issue permits for a range of activities otherwise prohibited under the act. These tools enable activities that would not otherwise be permitted, as long as the intent is stewardship, protection, or rehabilitation of the species.

With its focus on protecting species in trouble, the Committee does not consider social and economic consequences of a designation. Once a species is designated, the act takes immediate effect. If the designation affects normal farming practice, farmers must take the time to pursue the tools available to continue their livelihoods while issues are resolved (see the Bobolink story).

The ESA requires preparation of a recovery strategy for endangered species within a year of designation, and within two years for threatened species. The strategy includes information about habitat needs, threats to the species and its habitat, and recommendations for protection and recovery.

Government then prepares a response statement for each strategy, outlining its intended actions and priorities for the recovery of that species, again based on best available knowledge. Social and economic factors are considered at this point.

Ontario Farm Families and Species at Risk

The following pages feature the stories of several farm families in communities across southern Ontario, their experience with species at risk issues, and how they are accommodating the needs of at-risk species such as Eastern Loggerhead Shrike, Butternut, American Badger, Eastern Foxsnake, Wood Turtle and Bobolink on their lands.

Their stories offer inspiration and encouragement. They provide clear evidence that it is not regulation that will ultimately guide behaviour in efforts to recover a wildlife species at risk, but rather the stewardship ethic and practices of individuals who recognize and appreciate the strength of a diverse ecosystem.



Druery Family
Loggerhead Shrike

For some species it is interior woodlands or wetlands that offer ideal habitat. For others, it is the very fields that are annually cropped or grazed by livestock.

Save the Farmer, Save the Bird

The endangered Loggerhead Shrike is a gray and black robin-sized bird, the only predatory song bird with a diet of small birds and rodents, in addition to grasshoppers and other large insects. Loggerhead Shrike depend on short grassland habitat that exists on shallow soil covering limestone plains, where thin vegetation allows easy foraging for prey.

These grasslands also offer pasture for grazing cattle, and grazing is one of the main means of keeping such areas open for good shrike habitat.

Ralph Armstrong, Don Yeomans and George Druery are all farmers who have participated in Loggerhead Shrike recovery since the early 1990s.

Limestone plains exist in five areas within Ontario. Armstrong and Yeomans farm near Newburgh on the Napanee Plain in eastern Ontario. Druery farms on the Carden Plain near Kirkfield north of Lindsay. Limestone plains are also prevalent on Manitoulin Island, the Bruce Peninsula and in the vicinity of Smiths Falls.

With recent difficulties in the cattle industry and fewer small herds of cattle on pasture, much of the short grassland habitat is reverting to shrub-land. Recovery efforts for shrike have focused on keeping cattle on pasture in the limestone plains, wherever possible. Stewardship activities, facilitated by various cost-share funding initiatives, have included removal of invading woody vegetation, fencing to allow cattle grazing and installation of alternate water sources.

Yeomans had leased land across the road from his farm for pasturing his dairy cattle. When the land was sold to Nature Conservancy Canada and developed as a nature reserve, he continued leasing it and now manages beef cattle on the 120-acre property for another farmer. With funding accessed through Wildlife Preservation Canada (WPC), invading Red Cedar were thinned and piled to open the grassland. A solar-powered water source was also installed.



Don Yeomans



Ethan Meleg



Yeomans has found it a win-win situation. "I like having something unique happening on property that I'm working. Volunteer assistance from local naturalist groups has gone a long way in making improvements that benefit both shrike and pasturing cattle. We need more of that kind of cooperation."

On the Carden Plain there are more stakeholders - quarry operations, real estate interests, naturalists, as well as farmers. Local concern with a species at risk impacting landowners' property rights resulted in development of the Integrated Carden Conservation Strategy involving various local interest groups.

John Kinghorn, a cattle rancher representing agricultural interests, notes, "The ultimate outcome was that the various groups found they had more in common than not and that more could be accomplished by working together than apart."

George Druery owns 300 acres, and leases 1000 on the Carden Plain. He has a cow-calf operation with 85 cows and maintains 900 acres of pasture land. Loggerhead Shrike were found at the start of the recovery effort on land he leases and have nested there every year since.

Loggerhead Shrike impale their prey on thorny shrubs such as hawthorn. However, hawthorn is an invasive species on the Carden Plain. Druery has thinned hawthorn on 6 hectares of his own land to improve shrike habitat adjacent to the historic site. He bulldozed selected hawthorn, then frost-seeded bare ground with a mixture of orchard grass, trefoil, red clover and oats as a nurse crop. Once established, cattle were turned in to graze.

Stewardship funding has been an essential incentive for much of the habitat improvement. "It's hard to justify the time and expense for work that doesn't show a reasonable return on economic investment in the short term," says Yeomans.

Druery adds, "The financial incentive helped folks see the shrike as more of a benefit than a liability. The green movement can work in your favour. A unique or rare species is an asset to your property."

And as Kinghorn puts it, "There is mutual benefit in maintaining short grassland habitats for both the cattle industry and species at risk."



Loggerhead Shrike were frequent visitors on our family's farm as I was growing up. They've been absent from our land for a while now, but they do nest on land next to us.

Ralph Armstrong



Robert McCaw

Butternut Genetics - Key to Recovery?

"We're leery of being over-regulated, but we're pleased these trees are protected and that the effort is there to save them. We didn't cut live butternut before, so it doesn't affect our logging plans now."

Charles McDonald

"I can remember cracking Butternuts as a child for the nutmeat inside," says John Dunsmore, who with wife Rosemary, raises cattle just east of Barrie. "It was part of putting food away for the winter. We also have a cabinet made of Butternut from one of our trees that snapped off in a wind storm."

Butternut was never abundant or of significant commercial value in Ontario, but it is part of our natural history and forest diversity. In the past 40 years, however, Butternut has undergone serious declines due to Butternut canker, a non-native fungal disease. Enough cankers will effectively girdle the tree, starving the root system and causing crown dieback.

A short-lived tree, seldom older than 80 years, Butternut grows best on deep, well-drained fertile soils. It can grow to 21 meters tall and 0.9 meters in diameter. Closely related to Black Walnut, Butternut wood is softer and suited to interior finishing, furniture, cabinets and woodenware.

Dunsmore selectively harvests saw logs and up to 40 cords of firewood from his 125 acres of woodlot each winter. He knows where each Butternut is. With input from local OMNR staff, he has thinned around these shade-intolerant trees to encourage their growth and the germination and growth of their seedlings. "I like diversity in my woodlot," says Dunsmore, "and having butternut there doesn't affect my own forest management activities."

Butternut is at the northern edge of its range in Ontario. Edge of range populations can have unique genetic variation and may hold the key to species survival.

Saving Butternut hinges on finding native trees that may be resistant to canker, such as healthy Butternut growing near heavily cankered ones. Grafting can clone and rejuvenate healthy genetic material to support a long-term breeding program that could ultimately produce resistant trees.

In Ontario, the Forest Gene Conservation Association (FGCA), Rideau Valley Conservation Authority and several Stewardship Councils are working together on Butternut recovery. These partners are working with landowners to find good seed trees, and ones with potential resistance to conserve through grafting.

In March frozen twigs are collected from healthy native Butternut and grafted onto two-year old Black Walnut root stock which is tolerant of the canker fungus. Grafts are protected in greenhouse and cold storage for two years, then permanently transplanted to a fenced archive. Seed and grafts from archived trees form the basis for Butternut restoration on the broader landscape.

Charles and Ken McDonald are cash crop farmers near Lancaster in eastern Ontario. They harvest 130 acres of mixed hardwood for firewood and logs. Butternut is present in small numbers throughout their bush. "We like having Butternut," says McDonald. "There are a few trees that appear disease-free, and we tend to find these in better conditions at woodlot edges," says McDonald. The McDonalds are willing to allow grafting of selected trees.

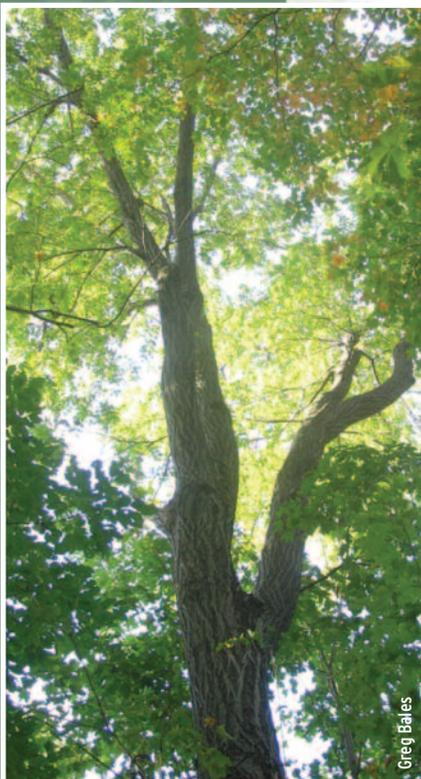
The ESA protects all Butternut unless they have been assessed as "non-retainable". Non-retainable trees may be cut and sold or bought for any use. The harm or removal of a healthy Butternut tree of any size requires an ESA permit. Farmers need to know that having Butternut trees in their woodlot does not prevent normal forest harvesting practices.

McDonald puts things in perspective. "We're leery of being over-regulated, but we're pleased these trees are protected and that the effort is there to save them. We didn't cut live butternut before, so it doesn't affect our logging plans now."

Landowners play a crucial role in butternut recovery by simply conserving them on their land, no matter how few.



Robert McCaw



Greg Bales

American Badgers Adapting to a Changing Landscape

"We never see them. They don't cause us any trouble, and having them around hasn't meant any changes to our operation," say Mike and Bernie Bilinsky about the endangered American Badger. The Bilinskys own a 25-acre parcel of land near Waterford in Norfolk County. Fifteen acres yield wheat straw for use on ginseng crops.

The Bilinskys first learned they had Badgers on their land when they met Josh Sayers radio-tracking them near their property. Sayers works with the Ontario Badger Project, part of a Trent University initiative researching the status of badgers.

American badgers are slightly larger than a raccoon. Their wide, flattened body is built for digging with short, powerful legs and large front claws. With distinctive black and white stripes on their heads, badgers measure up to 0.76 meters in length. A female badger averages 7 kilograms, and males can weigh up to 11 kilograms.

Badgers are a top predator in the native tallgrass prairie ecosystem, helping keep rodent populations in check. They are solitary, nocturnal and have territories of 5,000 to 10,000 acres, making them largely invisible to farmers and the general public alike.

Tallgrass prairie in southern Ontario exists only in scattered remnants now, and restoration to the expanse that originally supported Badgers is unlikely. The Ontario Badger Project, however, is finding Badgers in non-native vegetation of uncultivated corners of farmland, meaning that agriculture plays a major role in providing and maintaining their habitat.

Bilinsky discovered that firsthand. "I cleaned up a corner of our farm that was littered with debris. It was a sandy ridge between two fields, now covered with grape vines and grasses. There are four Badger dens there now. We've seen tracks, and hair snags installed just inside the den mouth also tell us they've been there."

Badgers are highly mobile and use many burrows in the course of their wanderings, making it difficult to establish their numbers. Monitoring efforts in Norfolk County estimate 400 burrows. A non-scientific estimate of the current southern Ontario Badger population is about 200.

Badgers prefer friable soil for digging their own burrows, and because such soils support smaller burrowing mammals, their main prey. Burrows are often dug in pursuit of prey and can extend 3 meters underground and contain up to 10 meters of tunnels. Badger dens for raising young usually have a larger soil mound at the entrance.

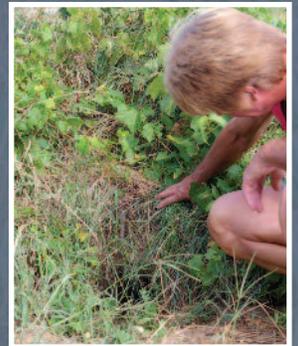
Badger habitat is protected by ESA Regulation 242/08. This regulation protects dens that are currently active or have been used in the past 12 months, as well as a 5-metre radius around the den's entrance.

Burrows of prey species, specifically Groundhog, within 850 meters of an active Badger den are also protected. While Groundhogs have traditionally been considered a nuisance, times are changing as our awareness of the interconnectedness of life increases.

The habitat regulation is intended to protect Badgers, not impose difficulties for farmers. Should it become an issue, farmers are encouraged to seek advice from OMNR for options to deal with Groundhogs or other prey that may be interfering with farming operations.

"We never see them. They don't cause us any trouble, and having them around hasn't meant any changes to our operation."

Mike and Bernie Bilinsky



Farmers Creating Habitat for Eastern Foxsnake

“Nature is amazing in its adaptability.”

Nancy Schrade



Dominic Marotte, Nancy Schrade and Mark Trepanier farm in Essex County and have had their share of close encounters with the Eastern Foxsnake, now designated as threatened. They overlook them for the sake of protecting a species they feel is an important part of our ecological heritage.

Trepanier and Schrade are cash crop farmers, growing wheat and soybeans on 450 acres. Marotte is a retired elk farmer, who leases half his 100 acres for soybean, corn and a few acres of hay. The remainder is forest.

“I first saw a Foxsnake 17 years ago in a flowerbed next to the house,” says Schrade. Foxsnakes have been frequent visitors around their buildings and gardens, particularly in the last five or six years, but Trepanier has never seen them in his crop fields. Marotte also sees Foxsnakes near his buildings on a regular basis, as well as in his hayfield at haying time.

Eastern Foxsnakes require a variety of habitat for hibernation, foraging, basking, nesting and travel corridors between. They prefer wide strips of prairie, old fields and semi-maintained grass along drainage ditches, creeks, roads and railway tracks.

Populations of Eastern Foxsnake exist in pockets in Essex County, the Long Point Region and along the eastern shore of Georgian Bay. At almost 1.8 meters in length, it is Ontario's second largest snake. It is harmless, but gives off a fox-like scent when disturbed, hence the name. Like the Massasauga Rattlesnake, the Foxsnake vibrates its tail as a warning, an action that has encouraged its persecution.

Foxsnakes hibernate from October to April. Mating occurs in late spring or early summer, with 15 to 20 eggs laid in mid-summer. The young hatch in early fall before moving to an underground hibernaculum, their wintering area below the frost line. Prey consists of small rodents, birds, eggs, frogs and toads.

The loss of wetland and forest-field patterns are a key cause of Eastern Foxsnake decline in southwestern Ontario. However, as long as there is wetland and natural cover nearby, Foxsnakes will frequent human-modified habitat.

Nesting and hibernation habitat are critical. Natural nesting habitat includes decomposing root masses and logs, which offer a dampness that snake eggs need to stay moist.

Foxsnakes will, however, also use man-made leaf, wood chip and compost piles. Schrade and Trepanier have an artificial nest on their property, constructed in 2010. A 1.2-m diameter circle of 5 x 10-cm page wire sits on the ground filled with a mixture of wood chips and straw.

Building hibernation sites requires more effort. Marotte is creating one on a field edge near his woodlot. Since hibernacula must extend below the frost line, Marotte will dig a 2m x 2m x 2m hole, fill it with rocks or concrete chunks and leave openings for underground access. Some rocks extend above ground level.

This hibernaculum doubles as a basking site, a place on top of the rocks for snakes to sun themselves, with an easy escape from predators under the rocks below.

“Nature is amazing in its adaptability,” says Schrade. Essex County is predominantly large cultivated fields, not preferred Foxsnake habitat. They are there, though, taking advantage of greatly altered habitat. Nevertheless, Eastern Foxsnake requires a variety of stable habitats within its active range, an area of 30-50 hectares.

Robert McCaw



Ron Gould - OMNR

Every Wood Turtle Counts

"I try to think like a turtle," says Steve McKay* of his work with endangered Wood Turtles. McKay is a retired dairy farmer in Huron County, now growing cash crops and finishing beef calves. He's also a member of the Huron Fringe Field Naturalists Club (HFFN).

Wood Turtles are sparsely distributed in southern, eastern and central Ontario. The current adult population is about 1000. Habitat loss, road mortality and illegal collection for the pet trade are the main threats. Of seven turtles listed at risk in Ontario, only Wood Turtles rely extensively on agricultural fields and forests as part of their range. They nest from mid-May to late June, preferring road shoulders, cropped fields, pastures, old fields and gravel pits.

With support and direction from University of Guelph and OMNR, McKay and HFFN have monitored their local Wood Turtle population since the early 1990s. In response to a local population decline, they established artificial nesting sites.

"We built nests at the edge of fields next to water where Wood Turtles were known to nest," explains McKay. "Sites are about 6 m x 9 m, dug to a depth of 0.6 m. We lined them with landscape cloth to prevent weed growth, then filled with sand." Raccoons, opossums and skunks proved willing predators of turtle eggs, so each site is fenced with electric wire powered by a 12-V car battery.

Another predator, parasites in the soil, led to additional methods for increasing nest and hatch success, as well as juvenile survival. Successfully hatched juvenile turtles are returned to their birth site. "If they make it to eight years of age," says McKay, "their chances for long-term survival are good. The first turtles released should reach maturity in another six years."

The top shell of the Wood Turtle is brownish-gray. It may contain yellow or orange markings and can reach lengths up to 23 cm. The underside is yellowish with dark blotches. Long-lived, they take 17-18 years to reach maturity. Females lay one clutch of eggs per year, averaging eight eggs, but not all females nest every year. As long as adult mortality is low, they can maintain their numbers.

Wood Turtles prefer rivers and streams of moderate current with sandy or stony substrates and diverse terrestrial habitat nearby for nesting, basking and foraging for earthworms, fruits, leaves and fungi. They hibernate below the frost line in holes in stream banks. Home ranges vary from 5 - 350 ha. The stretch of stream occupied also varies, with 2 km typical for southern Ontario.

ESA Regulation 242/08 protects areas actively used by Wood Turtles, as well as adjacent land with potential habitat. The regulation is flexible. "It does not restrict activities, such as agricultural operations, but offers a tool for protecting Wood Turtles and their habitat in situations of intentional destruction," says Karine Beriault of OMNR's Guelph District office.

OMNR holds information meetings with local farmers as part of the recovery program. Farm owners Jim and Wendy Reid* work off-farm, but lease their land for cash crops. They learned that raising cutting bars on equipment, limiting creek crossings, minimizing off-road vehicle traffic and not trimming along field edges when turtles are active are all helpful practices.

*Names have been changed to protect the location of Wood Turtles.



"We learned that May and June are the most sensitive times of year for the turtles, to keep an eye out and work around them..."

Jim Reid



Agriculture's Grasslands... Home to Bobolink

Historically, Bobolink graced the tallgrass prairie of central North America and southwestern Ontario. As settlers cleared the eastern forests and converted original prairie habitats, Bobolink took advantage of agriculture's grasslands - pastures and hayfields. By 1912 Bobolink ranged across the entire northern United States and southern Canada.

Bobolink are still quite common in parts of the province, the males distinctive in their breeding plumage, light-coloured on the back and black beneath, with a patch of yellow on the back of the head. Current population estimates peg the Ontario population at 300,000-400,000 breeding pair, so its recent designation as threatened under the ESA came as a surprise to many farmers.

Bobolink populations, however, have declined over 50 per cent in the last ten years, prompting the designation and creating potential impact on normal farming practices.

The ESA prohibits killing or harming an endangered or threatened species, or damaging or destroying its habitat. Bobolink nest on the ground in hayfields and lightly grazed pastures, consuming mainly insects. Timing of haying coincides directly with the peak nesting season for Bobolink, putting farmers in potential contravention of the Act.

Recent research suggests that delayed haying can significantly increase reproduction of grassland birds by avoiding disturbance during nesting. However, delayed hay harvest until mid-July is not the answer, as there are factors of nutritional quality, yield and palatability of forage crops from the farming perspective that cannot be ignored.

Current haying practice aims for higher quality nutrition for greater livestock productivity and that requires earlier cutting. Fields of primarily alfalfa are unattractive to nesting Bobolink due to their higher density and limited diversity, therefore earlier cutting in such fields is not an issue.

For farmers relying on grass hay, however, delaying harvest until the end of Bobolink nesting is not a viable option on a large scale. Grass hay, especially that in longer established hayfields, is precisely where Bobolink prefer to nest.

Bobolink declines are also linked to habitat loss. Fewer small herds of cattle on pasture due to recent difficulties in the beef industry, and abandonment of farms in some cases, are resulting in former hay fields and pastures reverting to shrub-land and forest.

Here's a twist though. According to breeding bird surveys, the highest densities of Bobolink occur in a broad band across southern Ontario from Huron County in the west, through the Dufferin Highlands and on into Renfrew County in the east. Interestingly, this coincides with the beef industry's cow-calf belt.



Beef producer Gerald Rollins of Renfrew County notes, "Ontario's cow-calf producers must be doing something right when it comes to providing nesting habitat for Bobolink. As an unintended consequence of typical grassland management practices, it appears we are providing a last refuge for these grassland birds."

Jack Kyle, OMAFRA Pasture Specialist, adds, "The best scenario for Bobolink may lie in modifications to rotational grazing practices. Managing rotations for blocks of ungrazed pasture at a suitable stage of growth during the Bobolink breeding season could provide additional nesting habitat."

"The future of Bobolink depends on agriculture's hayfields and pastures. Working with farmers and understanding their needs is crucial for Bobolink survival," emphasizes Jon McCracken of Bird Studies Canada. McCracken chairs a working group already developing a Bobolink Recovery Strategy as required by the ESA.

With cow-calf producers in the best position to provide Bobolink-friendly nesting habitat, but also with their own industry struggles, it becomes, as with Loggerhead Shrike, a case of "save the farmer, save the bird".

A host of agricultural and conservation interest groups, including Ontario Cattleman's Association, Ontario Sheep, Dairy Farmers of Ontario, Ontario Soil and Crop Improvement Association (OSCIA), Ontario Federation of Agriculture, Ontario Nature, Carolinian Canada and Bird Studies Canada, among others, are involved in ongoing discussions to find workable solutions.

Working together, these groups recently developed a concept for protecting Ontario's Bobolink habitat, as part of a larger grassland recovery effort. The government accepted the recommendations, resulting in a regulation under the ESA providing for a three-year exemption for farmers.

The exemption allows farmers to continue current agricultural practices without fear of liability. During this time, research projects and stewardship initiatives will investigate best management practices for both profitable grassland production and enhanced understanding of grassland conservation issues as they affect Bobolink and other grassland species.

"Ontario's cow-calf producers must be doing something right when it comes to providing nesting habitat for Bobolink. As an unintended consequence of typical grassland management practices, it appears we are providing a last refuge for these grassland birds."

Gerald Rollins



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For Further Information

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Tel: 519-826-4214, In Ontario 1-800-265-9751

Web Site: www.ontariosoilcrop.org Email: oscia@ontariosoilcrop.org

Ontario Ministry of Natural Resources

General Inquiry - Tel: 1-800-667-1940

Web Site : www.mnr.gov.on.ca

Provincial Stewardship Coordinator - Tel: 705-755-3278

Web Sites of Interest

Wildlife Preservation Canada - www.wildlifepreservation.ca

Endangered Species Act 2007 - www.e-laws.gov.on.ca

MNR / Species at Risk - www.mnr.gov.on.ca

Ontario Badger Project - www.ontariobadgers.com

Forest Gene Conservation Association - www.fgca.net

Butternut Identification - www.extension.purdue.edu

Ontario Stewardship - www.ontariostewardship.org

Reporting Sightings

American Badger - Ontario Badger Project - 1-877-715-9299 or your local OMNR office

Eastern Foxsnake - foxsnake@queensu.ca or Ron Gould, OMNR Aylmer 1-519-773-4735

Butternut - Forest Gene Conservation Association - www.fgca.net

Loggerhead Shrike Hotline - 1-866-833-8888 - Wildlife Preservation Canada

Stories developed by Nancy Tilt for OSCIA

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Greg Bates

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