EXECUTIVE SUMMARY – Recovery Strategy for the Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna)* in Ontario

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The Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) both rely upon grasslands for breeding, have similar breeding distributions in Ontario, often co-occur in the same fields, have similar population trajectories, and face similar threats. Because of these relationships, the two species are represented within a single recovery strategy.

Prior to European settlement in eastern North America, Bobolinks and Eastern Meadowlarks nested in native prairies, savannahs, alvar grasslands, beaver meadows, burned-over areas, and areas cleared for agriculture by First Nations. Although most such habitat was destroyed following European settlement, the two species quickly adopted newly-created surrogate grasslands – primarily pastures and hayfields – as nesting habitat. Indeed, were it not for the creation of these agricultural habitats for livestock, the two species may well have disappeared from large parts of their original range.

Though still common and widespread, the Bobolink and Eastern Meadowlark were recently designated as threatened species in Ontario, primarily as a result of strong population declines that have been occurring in Ontario and across most of their breeding ranges. Population losses in Ontario have been occurring over much of the last half century. Over the most recent 10-year period, it is estimated that the Bobolink population in Ontario has declined by an average annual rate of 4 percent, which corresponds to a cumulative loss of 33 percent. Over the same period, Eastern Meadowlark populations have declined at an average annual rate of 2.9 percent (cumulative loss of 25%).

There are several probable factors responsible for driving population declines in Ontario. Chief among them is loss of breeding habitat, especially pasturelands and hayfields which have either been abandoned outright or have been converted to other crop types. In addition, there have been changes in hayfield composition and management that affect habitat quality (e.g., a decrease in the proportion of grass cover as a result of an increase in the amount of Alfalfa planted, because of its higher nutritional value to livestock). Poor reproductive output is also a primary factor. Nest losses are apt to be unsustainably high in intensively-managed hayfields, when the mowing period overlaps with the peak of the birds' breeding season. All of the foregoing issues are ultimately driven by agri-economic forces affecting the livestock industry in Ontario, particularly dairy and beef cattle.

Habitat loss also figures prominently on the wintering grounds of both species. In winter, the Bobolink faces additional threats in South America, where it may be

exposed to direct human persecution and to toxic effects from insecticides used on agricultural rice crops.

Recovery of the Bobolink and Eastern Meadowlark in Ontario poses a significant conservation challenge. The majority of their breeding populations occur on private lands managed by farmers for the production of agricultural goods and services. Given the well-documented, ongoing decline in the extent of pasture and in cattle numbers, coupled with similar declines in the area of hay dominated by grass, a challenge will be to slow the loss of agricultural grasslands in the face of market forces.

The long-term recovery goal is to maintain stable, self-sustaining populations of Bobolinks and Eastern Meadowlarks in Ontario, and in so doing contribute to the conservation of the guild of grassland birds. In the short term (over the 10-year period from 2013-2023), the goal is to slow the annual rate of population decline for both species to an average of no more than 1 percent per year (i.e., no more than 10% over 10 years). Achieving population stability at roughly 90 percent of the present-day population size is the long-term goal thereafter.

Informed by an adaptive management framework, the goals can be achieved through a suite of targeted protection and recovery objectives, which are to:

- describe priority habitats and regions for conservation, identify key issues and factors that may impede or assist species recovery, and establish the target levels of habitat supply and habitat management regimes that are needed to meet the recovery goal;
- increase public awareness of the two species and their habitat;
- improve nesting productivity and habitat quality;
- increase habitat supply of native grassland;
- maintain existing habitat supply of agricultural grasslands to the extent practicable;
- establish strong links to other conservation planning efforts underway for other grassland species that are of high conservation concern, both in Ontario and in other relevant jurisdictions;
- apply appropriate ESA protection, habitat regulations and any other provincial or federal policies and assess the degree to which they help stabilize populations of the two species; and
- track and report on the state of populations in relation to recovery activities.

It is recommended that the habitat regulation for the Bobolink and Eastern Meadowlark focus on sites that one or both species have recently occupied during the breeding season. This includes open country habitats consisting of natural and semi-natural grassland (including but not limited to tallgrass prairie, alvar grasslands, beaver meadows, and grassy peatlands), hayfields, pastures, grassland habitat restoration sites, and abandoned fields where one or both

species have been confirmed to breed or probably bred during the current or previous three years. It is also recommended that the habitat regulation should exclude annual row crops (e.g., winter wheat and rye). It is recommended that regulated habitat be delineated (mapped) on a case-by-case basis using the Ecological Land Classification system.