General Habitat Description for the Bobolink (*Dolichonyx oryzivorus*)

A general habitat description is a technical document that provides greater clarity on the area of habitat protected for a species based on the general habitat definition found in the Endangered Species Act, 2007. General habitat protection does not include an area where the species formerly occurred or has the potential to be reintroduced unless existing members of the species depend on that area to carry out their life processes. A general habitat description also indicates how the species' habitat has been categorized, as per the policy "Categorizing and Protecting Habitat Under the Endangered Species Act", and is based on the best scientific information available.

HABITAT CATEGORIZATION

1	Nest and the area within 10 m of the nest
2	The area between 10 m and 60 m of the nest or centre of approximated defended territory
3	The area of continuous suitable habitat between 60 m and 300 m of the nest or approximated centre of defended territory

Category 1

Bobolink nests and the area immediately around the nest (i.e., 10 m) are highly sensitive features supporting the species' reproduction life cycle and have the lowest tolerance to alteration. These are areas the species depends on for life processes including egg laying, incubation, feeding, resting and rearing of young. Nests are built on the ground beneath a cover of tall grasses and forbs and are used daily during the breeding season. Both males and females exhibit high breeding site fidelity (Gavin and Bollinger 1985, Wootton *et al*. 1986). The area immediately surrounding the nest (i.e., 10 m) is important to maintain the microclimate around the nest and provide cover from predators.

It is important to note that Bobolink nests are rarely identified due to their cryptic nature. It is inadvisable to search for Bobolink nests as this may inadvertently jeopardize the nesting site and/or offspring. However, if a nest is identified, it and the area within 10 m shall be categorized as Category 1.

Ontario

Category 2

The area between 10 m and 60 m of the nest or centre of approximated defended territory is included in Category 2 and is considered to have a moderate level of tolerance to alteration. This area includes the species' defended territory and is depended upon for courtship, mating, rearing young, feeding, resting and bathing. Throughout the species' breeding range, defended territories have been reported to range in size from 0.33 – 2 ha (Gavin and Bollinger 1985, Wootton *et al*. 1986, Martin and Gavin 1995, Fletcher and Koford 2003, Bollinger and Gavin 2004, Moskwik and O'Connell 2006, COSEWIC 2010, Weidman and Litvaitis 2011) and are used daily throughout the breeding season. Both males and females show site fidelity to previously used breeding sites. Territory size is generally smaller in high quality habitat and larger in lower quality habitat (Wittenberger 1980, Martin and Gavin 1995, Nocera 2009). On average, territories are 1.2 ha (or approximately the area within 60 m of a nest) in size although they may vary depending on the local habitat conditions.

Category 3

The area of continuous suitable habitat between 60 m and 300 m of a nest or centre of approximated defended territory is included in Category 3 and will be considered to have a high level of tolerance to alteration. These are areas the species depends on for feeding, rearing of young, resting, dispersal and concealment from predators. It also helps maintain the function of both Category 1 and 2 habitat. Bobolinks depend on suitable grassland habitat which includes, but is not limited to, hayfields, pastures, old or abandoned fields, and remnant prairies, savannahs and alvar grasslands (McCracken *et al*. 2013).

Many studies have demonstrated that Bobolink is area sensitive, requiring grassy patches much larger than their territory size (Herkert 1991, 1994, O'Leary and Nyberg 2000, Johnson 2001, Johnson and Igl 2001, Renfrew and Ribic 2008). Minimum area requirements to support breeding habitat for the species have been reported to range from 5 ha (Nocera, pers. comm. 2012), to 10 and 30 ha (Bollinger and Gavin 1992, Herkert 1991) to 50 ha (Herkert 1994, Helzer and Jelinski 1999). These larger habitat sizes are required to reduce edge effects such as predation and brood parasitism (Johnson and Temple 1990, Renfrew and Ribic 2003, Bollinger and Gavin 2004) and maintain good quality interior grassland habitat for breeding. Encroachment or loss of habitat edges reduces the amount of suitable interior and causes loss of habitat suitability for Bobolink. Patches of 10 ha or smaller contain little, if any, interior habitat (defined as more than 100 m from an edge – Helzer and Jelinksi 1999), especially if patches are irregularly shaped. In order to maintain breeding habitat function, the entire continuous grassy patch up to 300 m from the nest or approximated centre of the defended territory is important habitat for Bobolink.

Activities in Bobolink habitat

Activities in general habitat can continue as long as the *function of these areas for the species is maintained and individuals of the species are not killed, harmed, or harassed.*

Generally compatible:
- Continuation of existing agricultural practices and planned management activities such as annual harvest, mowing, and rotational cattle grazing.
- Hiking and non-motorized vehicle use on existing recreational trails.
- General yard work such as lawn care and gardening.

Generally not compatible*:

■ Development activities that result in significant fragmentation or removal of large tracts of suitable grasslands.

■ Indiscriminate application of pesticides within habitat.

* If you are considering an activity that may not be compatible with general habitat, please contact your local MNR office for more information.

Sample application of the general habitat protection for Bobolink
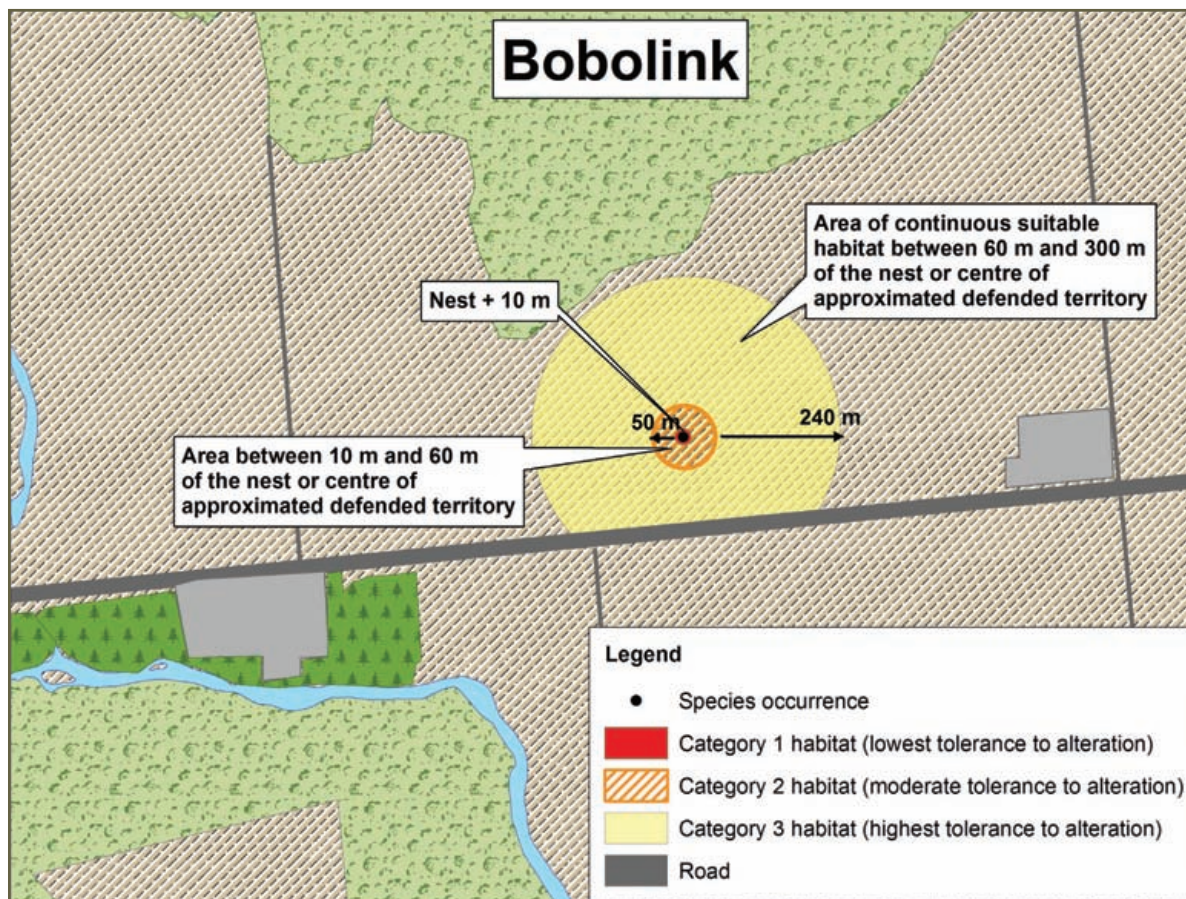
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