

General Habitat Description for the Barn Swallow (*Hirundo rustica*)

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
2	The area within 5 m of the nest
3	The area between 5 m and 200 m of the nest

Category 1

Barn Swallow nests are key features used in the reproduction life process and will be considered to have the lowest level of tolerance to alteration. These are areas the species depends on for egg laying, incubation, feeding, resting and rearing of young. The Barn Swallow will also accept artificial nest cups and nesting platforms (Brown and Brown 1999, Mercadante and Stanback 2011). Nests are often reused from year to year and can support multiple broods within the same year (Barclay 1988). Each individual, intact nest has the potential to support the reproductive success of a high number of individuals (Shield 1984, Barclay 1988, Safran 2004, 2006).

Category 2

The area within 5 m of the nest represents the area defended by male Barn Swallows during the breeding season and has a moderate tolerance to alteration. Barn Swallows depend on this area for roosting, feeding, rearing of young, and resting. Barn Swallows defend relatively small areas around their nests as compared to territories by other species. The size of the defended territory varies depending on the breeding stage. During the pair formation and egg laying stages, it is approximately 78 m² (i.e., the area within 5 m of the nest) (Møller 1990). That area declines to 4 m² during chick rearing. During the breeding season, females will roost on the nest while their partners roost and perch nearby (Thompson 1992). Once young fledge, they generally remain in or around the nest for about a week (Thompson 1992).

Category 3

Category 3 includes the area between 5 m and 200 m of the nest and has a high tolerance to alteration. Barn Swallows depend on this area for various life processes including rearing, feeding, and resting. Barn Swallows are insectivores, foraging in relatively low airspace on the wing (Waugh 1978). They feed at lower altitudes than most other North American swallows, usually no more than 10 m above ground and often lower than 1 m from ground (Brown and Brown 1999). They depend on nearby open areas that provide good sources of flying insects, such as waterbodies, pastures with livestock, and woodland edges (Brown and Brown 1999, Evans et al. 2007). The stage of the nesting cycle influences foraging distance. The period of greatest energy demand for a swallow is during nestling rearing (Bryant and Westerterp in Turner 1980). Turner (1980) found the average distance traveled by Barn Swallows while feeding the first brood to be 188 m and 138 m for the second. Weather plays an important role in the variation in food availability for swallows and therefore also influences foraging distance. Turner (1980) found the average distance traveled by Barn Swallows during the breeding season was 148 m when the temperature was above 20°C but increased to 203 m when it was 16°C or less.

Activities in Barn Swallow 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:

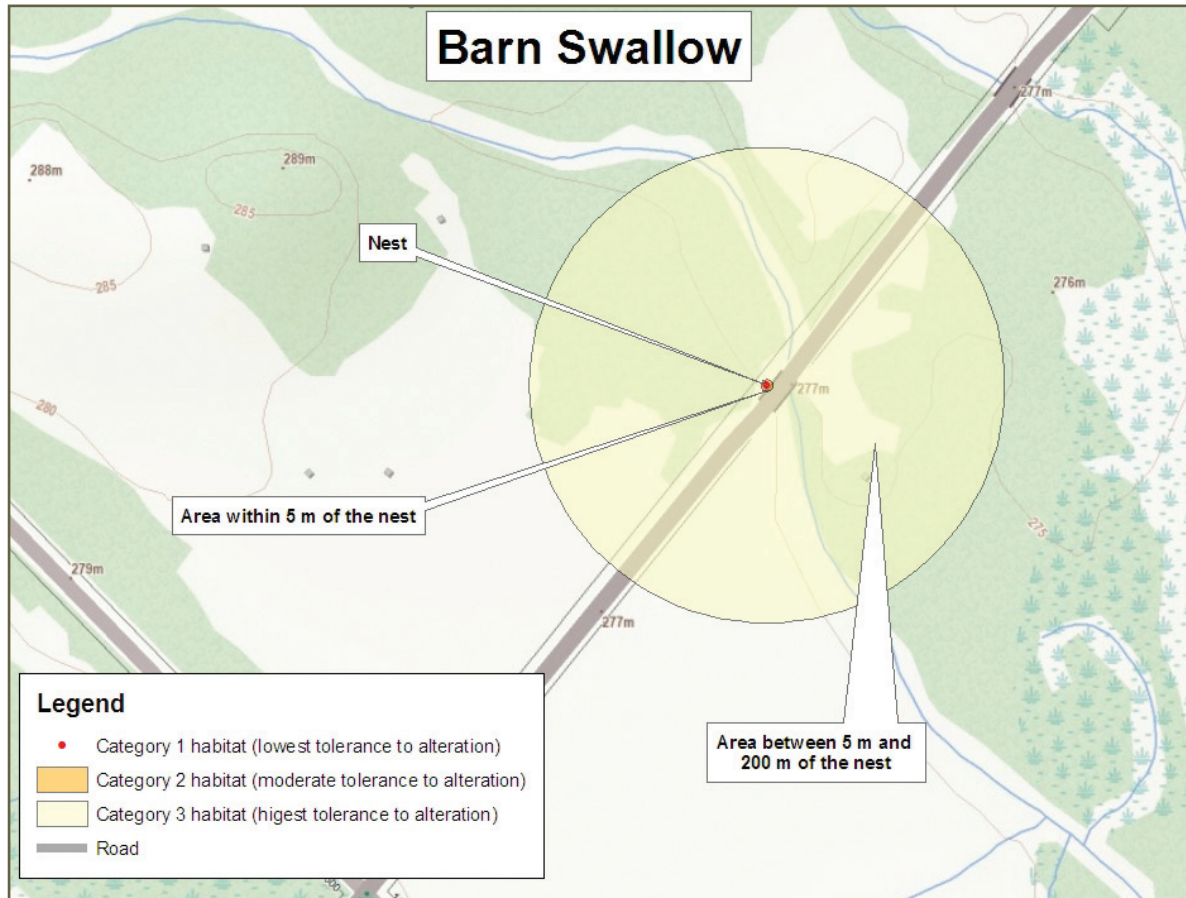
- Continuation of existing agricultural practices and planned management activities such as annual harvest, mowing, and cattle grazing.
- General building use and building improvements that do not impair the function of the habitat.

Generally not compatible:*

- Significant modifications to structures such as buildings and bridges where nests are found, which would render the nesting habitat unsuitable.
- Development activities that result in significant fragmentation or removal of large tracts of suitable 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 Barn Swallow



References

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