

T11.3 OPEN-HABITAT BIRDS

HABITAT FACTORS

Open lands are essentially two-dimensional habitats, lacking the vertical component of forest and shrub habitats. Birds of open habitats must nest on the ground, or on artificial structures or nearby cliffs. However, most open-country birds use the power of flight to add a vertical dimension to one or more aspects of their activities; thus, Horned Larks and Bobolinks use song-flights as part of their courtship rituals; Northern Harriers and Short-eared Owls fly continuously, low over marshes and fields, in search for their small-mammal prey; and European Starlings rise into the air in a dense cloud to confuse the attack of a passing Peregrine Falcon. (Birds of prey are discussed in further detail in T11.4.) Permanently open habitats were scarce in Nova Scotia before Europeans began clearing the forests for agriculture or settlement (see T12.10), and thus the few open-country birds here include most of the introduced species, which were pre-adapted to such places, e.g., Ring-necked Pheasant, Gray Partridge, Rock Dove, Starling and House Sparrow.

DENSITIES AND COMMUNITIES

Because of the lack of vertical stratification, total densities of birds of grasslands and barrens average lower than those of all but the most sparse forest habitats, usually only 100–200 pairs per km². Densities on open bogs and the drier parts of marshes are in a similar range. In the open habitats resulting from fire or clear cutting of forests, shrubs appear after the first year or so, providing vertical zonation and allowing densities of 150–450 pairs per km².

Natural grasslands and barrens in Nova Scotia had few native species, most using also bogs and marshes, for example

- Northern Harrier
- American Kestrel (nesting in tree cavities)
- Short-eared Owl
- Common Nighthawk
- Cliff Swallow (nesting on cliffs originally)

- Barn Swallow (nesting on cliffs originally)
- Vesper Sparrow
- Savannah Sparrow
- Sharp-tailed Sparrow (only tidal marshes)
- Bobolink
- American Goldfinch



Plate T11.3.1: The Common Nighthawk is an aerial insectivore, feeding entirely on flying insects during both the night and the day. It breeds on bare ground and sometimes on flat gravel roofs. Photo: M. Elderkin

Horned Lark colonized eastern North America as a breeding species early in the twentieth century. Larks and Vesper Sparrows later declined as the short-grass habitats they favoured became scarce under recent agricultural regimes; now Horned Larks breed most regularly at airports and in fields, and Vesper Sparrows frequent blueberry fields. Common Nighthawk appear to be declining in eastern North America for reasons that are not yet clear (see Plate T11.3.1).

In the earliest (open) stages of forest succession, the bird community comprises mainly birds associated with low-shrub cover, with a few that make use of the stubs and snags that survive most forest disturbances:

- American Kestrel (nesting in tree cavities)
- Northern Flicker (nesting in tree stubs)
- Olive-sided Flycatcher (foraging and courting from stubs)
- Alder Flycatcher
- Eastern Kingbird
- Eastern Bluebird (nesting in tree cavities)
- Cedar Waxwing (foraging from stubs and snags)
- Common Yellowthroat
- Song Sparrow
- Lincoln's Sparrow
- White-throated Sparrow
- Northern Junco

Most of these species also occur in edge situations around and throughout the forested parts of the province.

The Eastern Bluebird is listed as a vulnerable species in Nova Scotia by COSEWIC. The Loggerhead Shrike is also a bird of open habitat listed by COSEWIC. Its status is endangered in Nova Scotia. The Ipswich Sparrow was treated as a separate species from the Savannah Sparrow until 1957. It is almost confined to Sable Island (District 890).¹

BIRD USE OF OPEN HABITATS OUTSIDE THE BREEDING SEASON

Many more birds use open habitats in Nova Scotia at other seasons than do so in summer. This is partly because of the movement southward of birds that breed on the treeless tundra of the far north. The four common song birds of the Arctic—Horned Larks, American Pipits, Lapland Longspurs, and Snow Buntings appear in fall on beaches and salt marshes, coastal barrens and dyked grasslands, and some of them (except the pipits) remain all winter anywhere that the seed-heads of the plant cover protrude above the snow. The arctic predators, Rough-legged Hawks and Snowy Owls, come south in varying numbers, depending on the cyclic numbers of their lemming prey in the arctic.

Many other birds that breed in forest and edge habitats forage in open lands in fall and spring. However, fewer of these remain for the winter, as the oldfield habitats (see H5.2) that offer much weed seed tend to be deeply snow covered for several months each year. These birds include most of the common and familiar birds of garden and edge, such as the American Crow, the American Robin, various sparrows, and especially the blackbirds, with Ameri-

can Goldfinches. The introduced species are mostly year-round residents and frequent oldfields in fall and spring, but often rely on waste grain and other food scraps around human settlements in winter. The large scavengers—jays, crows, and ravens, and also the large gulls—range widely across open lands and other habitats outside the breeding season, in search for anything edible, including other birds.

The open habitats of early succession after clear cutting are little used outside the breeding season. The ground cover is often too disturbed to provide favourable feeding opportunities. After the breeding season, birds are free to move wherever the feeding is easiest at other seasons.



Associated Topics

T11.1 Factors influencing Birds, T11.2 Forest and Edge-habitats Birds, T11.4 Birds of Prey, T11.5 Freshwater Wetland Birds and Waterfowl, T12.11 Animals and Resources

Associated Habitats

H4.1 Bog, H4.2 Fen, H4.4 Freshwater Marsh, H5.1 Barren, H5.2 Oldfield, H5.3 Cliff and Banks

References

- 1 Erskine, A.J. (1992) *Atlas of Breeding Birds of the Maritime Provinces*. Nimbus Publishing & Nova Scotia Museum, Halifax.

Additional Reading

- Erskine, A.J. (1977) *Birds in Boreal Canada*. Canadian Wildlife Service. (*Report Series* no. 41).
- Sabeen, B. (1987) "Our Hungarian Partridge." *N.S. Conservation*, Winter 1987.