

Birds of Manitoba

Hudson Bay Lowlands

June 2023



Overview

The Hudson Bay Lowlands is a vast landscape along the shores of southern Hudson and James Bays that stretches 324,000 square kilometers across northern Manitoba, Ontario, and Quebec. More than 80% of the region is covered by wetlands, and in northern Manitoba, the lowlands spans across three geographical biomes—Boreal Forest, Boreal – tundra Ecotone, and Subarctic Tundra—that run parallel to the coast in concentric bands.

The interior lowlands of the Boreal Forest is characterized by spruce and tamarack forests interspersed with muskegs, lakes, and rivers. In contrast, the coastal tundra is an open habitat dominated by mosses, sedges, lichens, shallow fens, and peat plateau bogs, while the transition zone in between is a composite of both boreal and tundra landscape features.

The distinct hydrology and biotic character of the lowlands is largely due to the presence of thick peatland soils and the underlying permafrost that blanket the region. These attributes make it a site of worldwide importance as a freshwater and carbon storehouse, as well as a haven for a rich assortment of North American birdlife.



Birds of Manitoba's Hudson Bay Lowlands

The mosaic of wetlands, waterways, forests, and coastal tundra that weaves across Manitoba's Hudson Bay Lowlands provides essential habitat for as many as 250 bird species over the course of the year. And at least 131 of those species are known to breed in the region. Each spring millions of migratory birds travel from across the hemisphere to rear their young and take advantage of the lowlands' seasonal bounty of resources.

Indeed, Canada's iconic bird life is well-represented in this region—from the diminutive Wilson's Warbler flitting about in streamside thickets foraging for insects to the stately Great Gray Owl floating quietly over the meadows hunting for small rodents.

Photo By: Ken Shults, APA
Great Gray Owl



Birds of Manitoba's Hudson Bay Lowlands, Cont

Pacific and Red-throated Loons, Arctic Tern, Parasitic Jaeger, Herring Gull, Long-tailed Duck, Black Scoter, and Common Eider are among the many seabird and sea duck species that nest in the shoreline vegetation of freshwater ponds along the coast while making frequent trips to nearby marine waters to forage.

Tundra wetlands provide breeding habitat for large numbers of Canada and Snow Geese, Northern Pintail, and Sandhill Crane. The vegetation of the coastal tundra provides an excellent backdrop for the plumage of nesting shorebirds, such as American Golden Plover, Dunlin, and Red-necked Phalarope, that are well-camouflaged when sitting on ground nests in this landscape. This trait helps them elude nest and chick predators, like Northern Harrier, that can be seen gliding low over the landscape in search of prey.

This subarctic tundra region provides critical stopover and staging habitat for staggering numbers of migratory birds to rest and refuel for the next leg of their journey.



Photo By: Jennifer Leigh Warner, APA
Sandhill Crane with Chick



Photo By: Michael Cohen, APA
Canada Goose with Goslings

As you move south into the interior of the lowlands, you find many bogs, fens, marshes, lakes, ponds, waterways, and swamp forest, teeming with breeding habitat for wetland-dependent bird species. Fox Sparrow, Lincoln's Sparrow, Swamp Sparrow, Palm Warbler, and Northern Waterthrush abound in the region's muskeg and streamside thickets.



Birds of Manitoba's Hudson Bay Lowlands, Cont

Waterfowl species, such as Ring-necked Duck, Surf Scoter, Common Merganser, and White-winged Scoter, nest among the shoreline vegetation of the boreal wetlands and lakes. Ground-nesting shorebirds, like Greater and Lesser Yellowlegs, Wilson's Snipe, Spotted Sandpiper, and Least Sandpiper, also occupy this habitat, building their nests on dry hummocks above the water. Tree-nesting birds that prefer forest openings, particularly around lakes, bogs, and marshes, reside along the perimeter of the wetland, including Bohemian Waxwing, Olive-sided Flycatcher, Merlin, Bonaparte's Gull, and Solitary Sandpiper.

Further into the woods, Common Goldeneye and Bufflehead can be found nesting inside tree cavities before moving to nearby waterbodies to raise their young after hatching. And Blackpoll Warbler, Ruby-crowned Kinglet, Swainson's and Hermit Thrush, Tennessee Warbler, Dark-eyed Junco, Bohemian Waxwing, American Three-toed Woodpecker, Yellow-bellied Flycatcher, and Spruce Grouse all can be found within the spruce and tamarack forests.



Photo By: Alan D Wilson, Wikimedia
Harris's Sparrow

Photo: Alexander Viduersky, APA
Wilson's Warbler



Birds of Manitoba's Hudson Bay Lowlands, Cont

The region between the interior boreal and coastal tundra landscapes of Manitoba's Hudson Bay Lowlands draws a particularly unique assemblage of bird life. Boreal and tundra species at their respective northern and southern limits may be found here, but the region also supports species whose breeding range is comprised primarily of this narrow band of tree-line habitat. This includes shorebirds, such as Whimbrel, Hudsonian Godwit, and Stilt Sandpiper, that nest in the sedge meadow openings.

Smith's Longspur, Gray-cheeked Thrush, White-crowned Sparrow, and American Tree Sparrow may also be found here, as well as Harris's Sparrow—the only songbird to breed exclusively in Canada and which is listed as a Species of Special Concern due to recent population declines.



Photo By: Kyle
Dudgeon, APA
Dunlin

Birds of Manitoba: Hudson Bay Lowlands



Photo By: Douglas
DeNeve, APA
Whimbrel

Ecological Significance

The Hudson Bay Lowlands of Manitoba, Ontario, and Quebec collectively form the largest wetland network in North America and the third-largest wetland in the world. It is also the second-largest continuous expanse of northern peatland on Earth.

The bogs and fens of the Hudson Bay Lowlands form a “peat sea” that extends unbroken for 800 miles around the area’s lakes and rivers. Peatlands are a rare but globally significant habitat, storing one-third of global soil carbon—twice as much as the world’s forests—despite covering just 3% of the world’s terrestrial surface. These rich peaty soils support a dazzling array of more than 800 native plant species, such as cranberry, blueberry, cloudberry, wild rosemary, bog orchids, tamarack, and spruce. They also provide critical habitat for a unique group of invertebrate, fish, and other wildlife species.

More than 50 species of freshwater fish can be found within its lakes, rivers, and estuaries, as well as at least 20 terrestrial mammals, such as caribou, gray wolves, Arctic fox, and Canada lynx. The coastal environment of the lowlands is also important to marine mammals, including the southernmost population of polar bears, as well as 28% of the world’s beluga whale population.



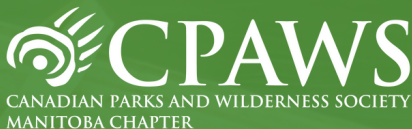
Conservation Opportunities

Manitoba's Hudson Bay Lowlands is a globally important landscape for mitigating climate change and should be considered a hot spot for conservation planning due to its massive carbon deposits.

Peatlands help to regulate climate by removing carbon from the atmosphere and storing it within its soils and the Hudson Bay Lowlands provides the valuable ecosystem service of storing an estimated 30 to 35 billion tons of carbon. Yet, few policies exist to protect Canada's peatlands from logging, mineral extraction, or oil and gas development; practices that would allow massive amounts of carbon to be released into the atmosphere.

The inclusion of the Hudson Bay Lowlands in Canada's conservation goal of protecting 30% of the nation's lands and waters from development by 2030 would help to safeguard the region's peatlands and carbon stores. It would also protect the incredible wealth of biodiversity the land sustains.

**Tell Manitoba's Premier to support
Indigenous Nations working to establish
protected areas using a simple letter
writing tool at CPAWSMB.org**



**You can learn more about the birds of
this region at Audubon.org/boreal**



Breeding Bird Species in Hudson Bay Lowlands

There are 131 birds that breed in the Hudson Bay Lowlands. These birds rely on the health of the region, taking advantage of the vast, untouched wetlands and the abundant food resources. The fragile ecosystem provides the perfect breeding ground, offering suitable habitats and safety from many natural predators. The seasonal change in this region also caters to their migration patterns, allowing these bird species to thrive and reproduce successfully.

Common Name	Scientific Name
Alder Flycatcher	<i>Empidonax alnorum</i>
American Bittern	<i>Botaurus lentiginosus</i>
American Black Duck	<i>Anas rubripes</i>
American Robin	<i>Turdus migratorius</i>
American Three-toed Woodpecker	<i>Picoides dorsalis</i>
American Tree Sparrow	<i>Spizella arborea</i>
American Wigeon	<i>Anas americana</i>
Arctic Tern	<i>Sterna paradisaea</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Bank Swallow	<i>Riparia riparia</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>
Black-backed Woodpecker	<i>Picoides arcticus</i>
Blackpoll Warbler	<i>Setophaga striata</i>
Black Scoter	<i>Melanitta americana</i>
Blue-headed Vireo	<i>Vireo solitarius</i>
Blue-winged Teal	<i>Anas discors</i>

Breeding Bird Species in Hudson Bay Lowlands

Common Name	Scientific Name
Bohemian Waxwing	<i>Bombycilla garrulus</i>
Bonaparte's Gull	<i>Chroicocephalus philadelphia</i>
Boreal Chickadee	<i>Poecile hudsonicus</i>
Boreal Owl	<i>Aegolius funereus</i>
Brown Creeper	<i>Certhia americana</i>
Bufflehead	<i>Bucephala albeola</i>
Canada Goose	<i>Branta canadensis</i>
Canada Jay	<i>Perisoreus canadensis</i>
Cape May Warbler	<i>Setophaga tigrina</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Chipping Sparrow	<i>Spizella passerina</i>
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
Common Eider	<i>Somateria mollissima</i>
Common Goldeneye	<i>Bucephala clangula</i>
Common Loon	<i>Gavia immer</i>
Common Merganser	<i>Mergus merganser</i>
Common Nighthawk	<i>Chordeiles minor</i>
Common Raven	<i>Corvus corax</i>
Common Redpoll	<i>Acanthis flammea</i>
Common Tern	<i>Sterna hirundo</i>

Breeding Bird Species in Hudson Bay Lowlands

Common Name	Scientific Name
Common Yellowthroat	<i>Geothlypis trichas</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Dunlin	<i>Calidris alpina</i>
European Starling	<i>Sturnus vulgaris</i>
Fox Sparrow	<i>Passerella iliaca</i>
Gadwall	<i>Anas strepera</i>
Gray-cheeked Thrush	<i>Catharus minimus</i>
Great Gray Owl	<i>Strix nebulosa</i>
Greater Scaup	<i>Aythya marila</i>
Greater Yellowlegs	<i>Tringa melanoleuca</i>
Green-winged Teal	<i>Anas crecca</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Harris's Sparrow	<i>Zonotrichia querula</i>
Hermit Thrush	<i>Catharus guttatus</i>
Herring Gull	<i>Larus argentatus</i>
Hoary Redpoll	<i>Acanthis hornemanni</i>
Hooded Merganser	<i>Lophodytes cucullatus</i>
House Sparrow	<i>Passer domesticus</i>
Horned Grebe	<i>Podiceps auritus</i>
Horned Lark	<i>Eremophila alpestris</i>

Breeding Bird Species in Hudson Bay Lowlands

Common Name	Scientific Name
Hudsonian Godwit	<i>Limosa haemastica</i>
Killdeer	<i>Charadrius vociferus</i>
Lapland Longspur	<i>Calcarius lapponicus</i>
Le Conte's Sparrow	<i>Ammodramus leconteii</i>
Least Flycatcher	<i>Empidonax minimus</i>
Least Sandpiper	<i>Calidris minutilla</i>
Lesser Scaup	<i>Aythya affinis</i>
Lesser Yellowlegs	<i>Tringa flavipes</i>
Lincoln's Sparrow	<i>Melospiza lincolnii</i>
Little Gull	<i>Hydrocoloeus minutus</i>
Long-tailed Duck	<i>Clangula hyemalis</i>
Magnolia Warbler	<i>Setophaga magnolia</i>
Mallard	<i>Anas platyrhynchos</i>
Merlin	<i>Falco columbarius</i>
Nelson's Sparrow	<i>Ammodramus nelsoni</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Goshawk	<i>Accipiter gentilis</i>
Northern Harrier	<i>Circus cyaneus</i>
Northern Pintail	<i>Anas acuta</i>
Northern Shoveler	<i>Anas clypeata</i>

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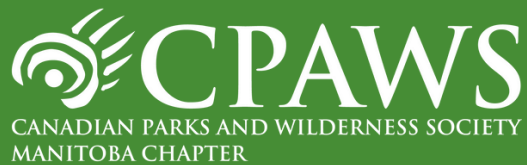
Common Name	Scientific Name
Northern Shrike	<i>Lanius excubitor</i>
Northern Waterthrush	<i>Parkesia noveboracensis</i>
Olive-sided Flycatcher	<i>Contopus cooperi</i>
Orange-crowned Warbler	<i>Oreothlypis celata</i>
Osprey	<i>Pandion haliaetus</i>
Pacific Loon	<i>Gavia pacifica</i>
Palm Warbler	<i>Setophaga palmarum</i>
Parasitic Jaeger	<i>Stercorarius parasiticus</i>
Pine Grosbeak	<i>Pinicola enucleator</i>
Red Crossbill	<i>Loxia curvirostra</i>
Red-breasted Merganser	<i>Mergus serrator</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Red-necked Phalarope	<i>Phalaropus lobatus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Red-throated Loon	<i>Gavia stellata</i>
Ring-billed Gull	<i>Larus delawarensis</i>
Ring-necked Duck	<i>Aythya collaris</i>
Ross's Goose	<i>Chen rossii</i>
Rough-legged Hawk	<i>Buteo lagopus</i>
Ruby-crowned Kinglet	<i>Regulus calendula</i>

Breeding Bird Species in Hudson Bay Lowlands

Common Name	Scientific Name
Ruffed Grouse	<i>Bonasa umbellus</i>
Rusty Blackbird	<i>Euphagus carolinus</i>
Sandhill Crane	<i>Grus canadensis</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Semipalmated Plover	<i>Charadrius semipalmatus</i>
Semipalmated Sandpiper	<i>Calidris pusilla</i>
Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>
Short-billed Dowitcher	<i>Limnodromus griseus</i>
Short-eared Owl	<i>Asio flammeus</i>
Smith's Longspur	<i>Calcarius pictus</i>
Snow Goose	<i>Chen caerulescens</i>
Solitary Sandpiper	<i>Tringa solitaria</i>
Sora	<i>Porzana carolina</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Spruce Grouse	<i>Falcipennis canadensis</i>
Stilt Sandpiper	<i>Calidris himantopus</i>
Surf Scoter	<i>Melanitta perspicillata</i>
Swainson's Thrush	<i>Catharus ustulatus</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
Tennessee Warbler	<i>Oreothlypis peregrina</i>

Breeding Bird Species in Hudson Bay Lowlands

Common Name	Scientific Name
Tree Swallow	<i>Tachycineta bicolor</i>
Tundra Swan	<i>Cygnus columbianus</i>
Whimbrel	<i>Numenius phaeopus</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
White-winged Crossbill	<i>Loxia leucoptera</i>
White-winged Scoter	<i>Melanitta fusca</i>
Willow Ptarmigan	<i>Lagopus lagopus</i>
Wilson's Snipe	<i>Gallinago delicata</i>
Wilson's Warbler	<i>Cardellina pusilla</i>
Winter Wren	<i>Troglodytes hiemalis</i>
Yellow Rail	<i>Coturnicops noveboracensis</i>
Yellow Warbler	<i>Setophaga petechia</i>
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>
Yellow-rumped Warbler	<i>Setophaga coronata</i>



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