

Manitoba Envirothon

Birds of Manitoba



By: Olwyn Friesen

Editors: Jennifer Bryson, Brock Houndle, Janine McManus, and Andrew Olynyk

Birds of Manitoba

Manitoba has a great diversity of birds, reflecting the wide diversity of ecosystems and seasonal shifts in resource availability. Over 145 bird species live within Manitoba, with over 88% of species migrating annually.

Manitoba is quickly acquiring a reputation to be one of the best places in the world to view a large variety of birds. As our province is located in the geographic centre of the continent, we host a combination of both northern and southern species, as well as birds from both the east and west.

Birds make up the class Aves. The taxonomy of genera and species as well as common and scientific names used in this book follow the seventh edition of the American Ornithologists' Union (AOU). This document is designed to give a brief overview of many of the important bird species living within Manitoba. The document is by no means an exhaustive list of all the species within the province, as many of the songbirds are not included, as well as domestic species and rare bird visitors.

Birds of Manitoba document is first split into larger functional groups, following the AOU Checklist of North American birds. Each entry aims to give a brief description of the appearance and size of the organism, a description of their songs and calls, some life history characteristics, current population status, as well as any unique features of the specific species. Please note that although many species have different plumages depending on sex and age not all may be shown in the accompanying picture.

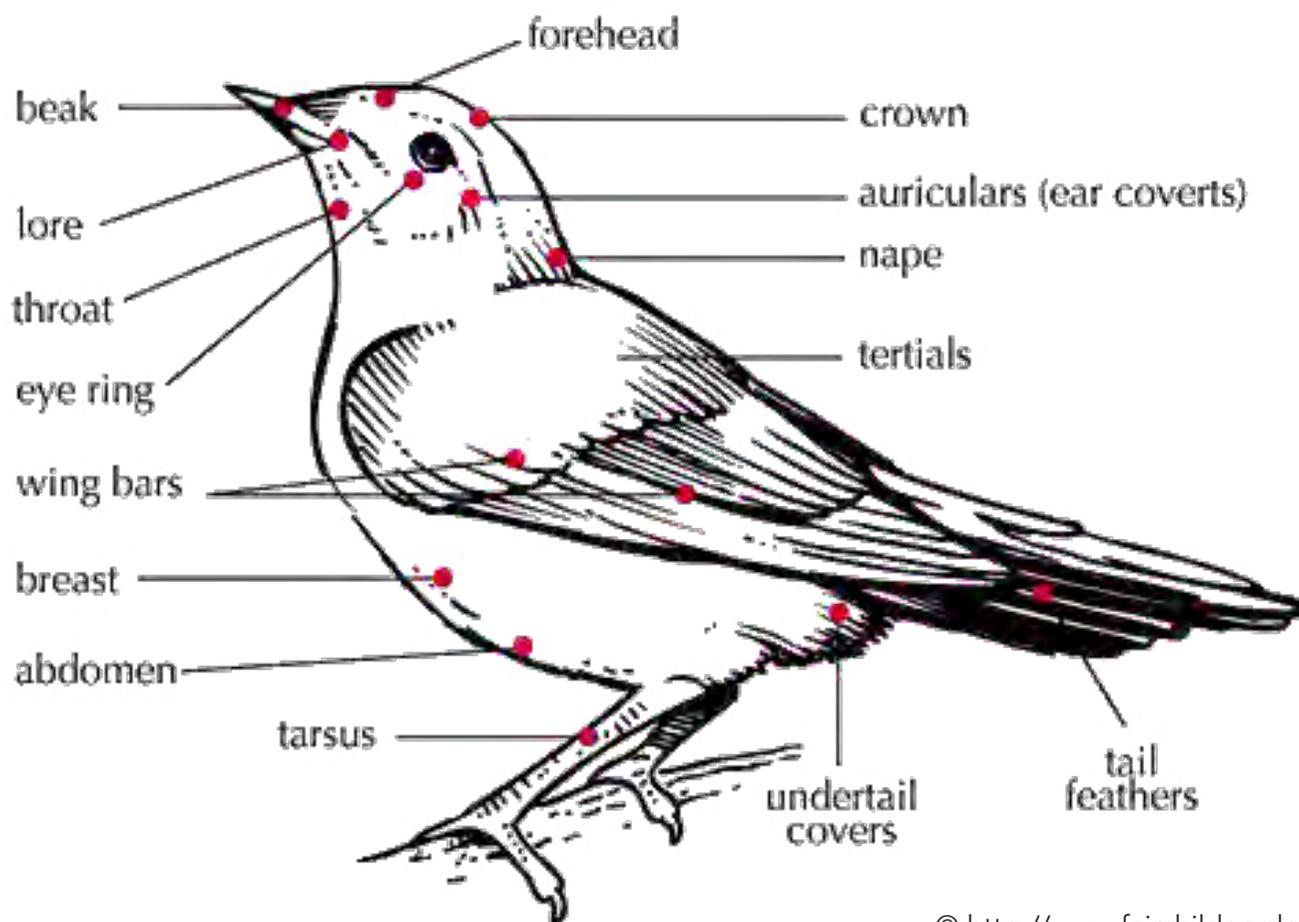
How to Identify Birds

One of the challenges with identifying different bird species is that they often have different plumage in spring and summer than they do in fall and winter. Many species have different breeding and non-breeding plumages and immature birds often look different from their parents and other adults. We will focus on the plumages that you are most likely to see in Manitoba.

Birds are covered with feathers, however their bodies are not uniformly covered. The feathers grow in discrete groups, leaving other parts of the body bare. Knowing the basic feather groups and how the feathers in each group are arranged may be the most important tools a scientist can possess when trying to identify a bird by its appearance. Learning the basis of common markings (e.g., wing-bars, eye-ring, etc.) will greatly enhance your understanding birds' appearance.

Parts of a Passerine

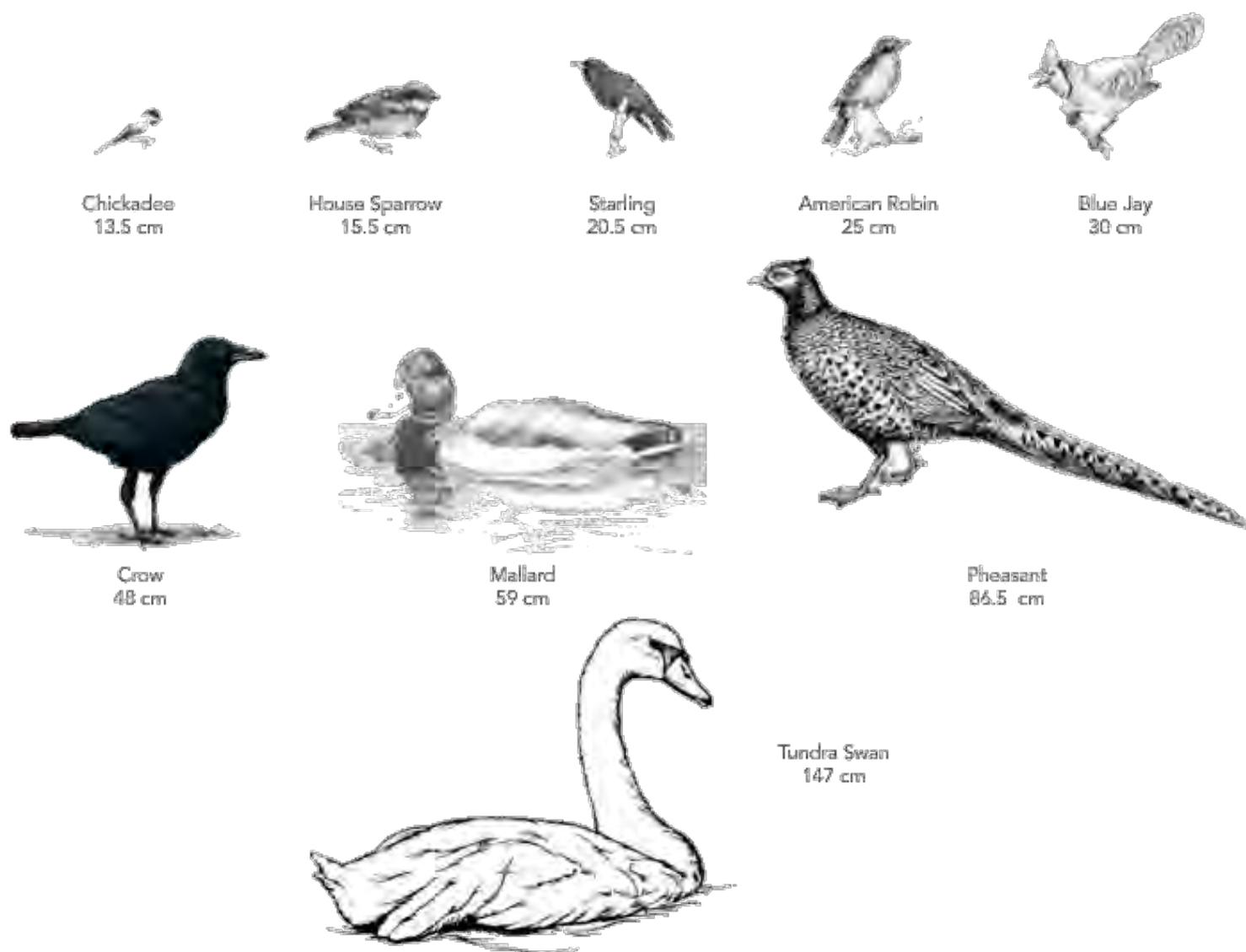
This figure shows the basic parts of a passerine, or songbird.



© <http://www.fairchildgarden.org/>

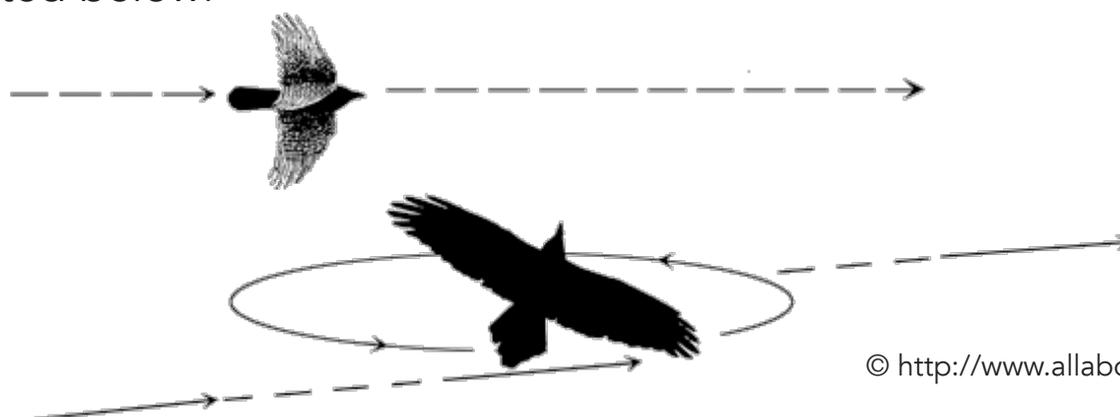
What size is it?

The best way to judge a bird's size is by comparing it with one of these nine common birds. Size is measured from the bill-tip to the tip of the tail.



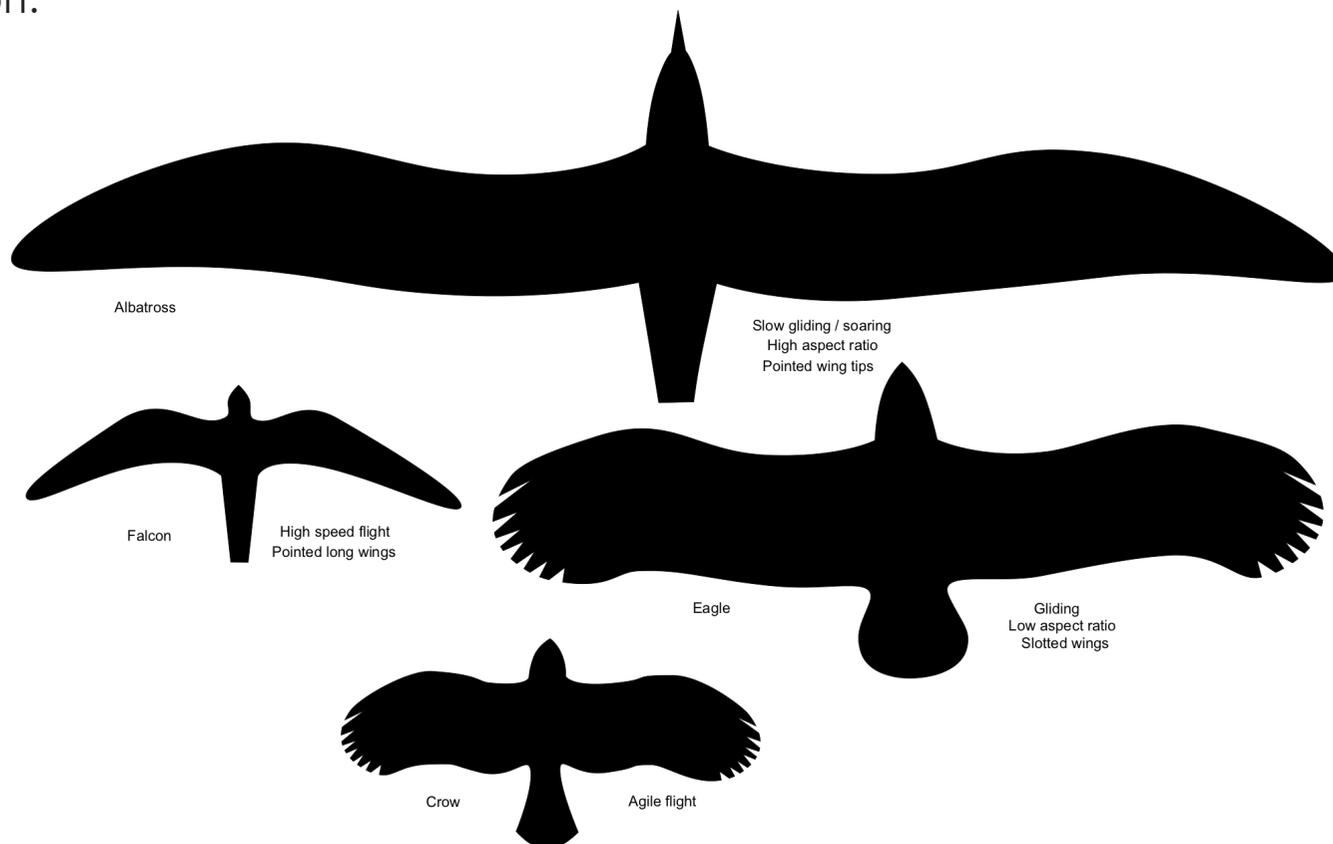
How does it fly?

Birds glide, soar, flap, hover, and perform a multitude of aerobatic tricks; and the way in which they fly can be very distinctive. A kestrel is unmistakable when hovering; so is a fly catcher when it darts from its perch to catch an insect. Some birds rise and fall rapidly, then holding them closed. For example, the difference in flight patterns between crows and ravens is illustrated below:



What shape are its wings?

Even when a bird is flying too high for anything else to show up, its silhouette is often enough to place it in a broad group; and practice at 'reading' silhouettes can lead to exact identification.



How long are its legs?

The design of a bird's legs reflect its way of life or the sort of habitat in which it lives.



Starling

Medium legs, for general purposes



Heron

Long legs, for wading through water

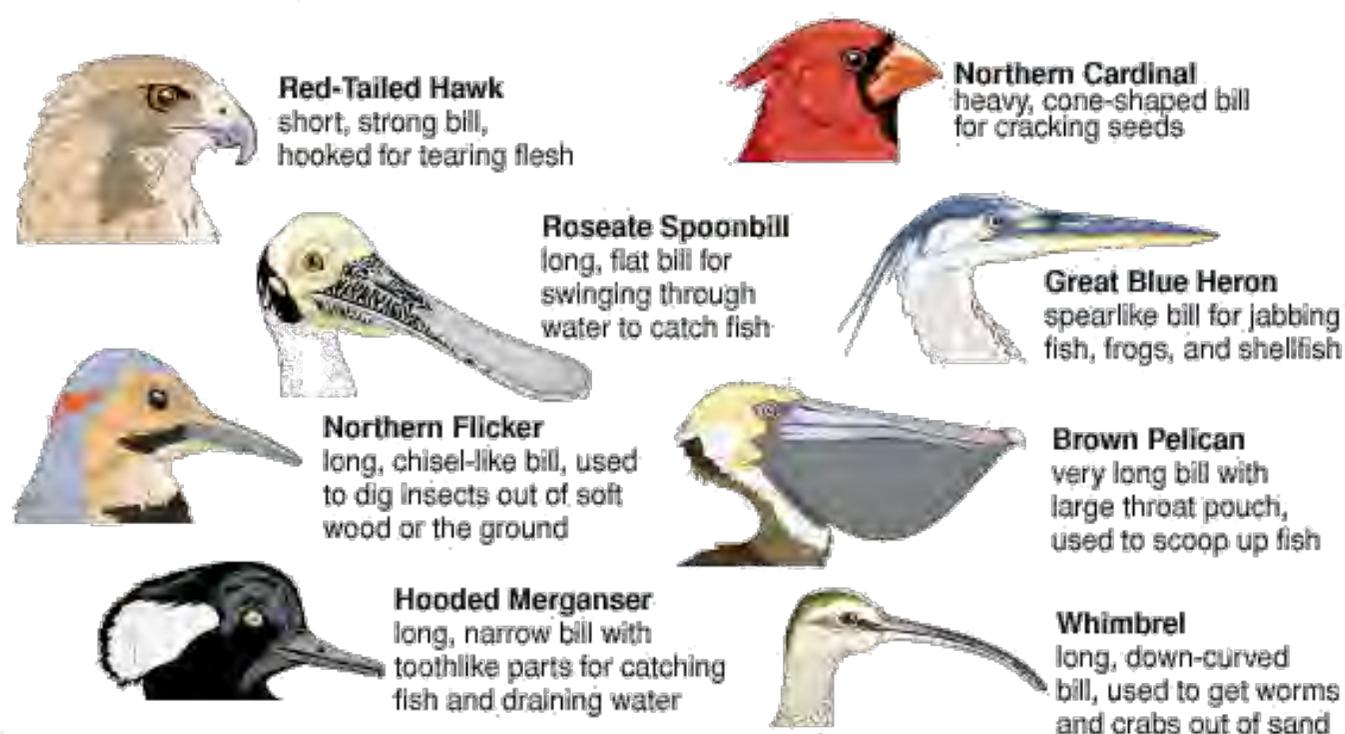


Snow Bunting

Short legs, for bunting

What shape is its tail or bill?

The shape of a bird's tail, like the shape of its wings, can be sufficiently distinctive to be a useful recognition feature even when it is flying high. A bird's bill is designed to suit the way it feeds, and the more specialized the feeding habits, the more distinctive the bird's appearance.



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Categorizing Birds

Birds can be grouped based on their behavior (rather than their biology). Four functional groups is a good place to start. Birds of prey are a predatory bird, distinguished by their hooked bill and sharp talons. Examples include owls, eagles, hawks, and falcons.

Songbirds are perching birds that belong belonging to the clade Passeri often having melodious songs or calls. They are amongst the smallest of all birds and can hold tightly to branches with their toes. Examples include warblers, sparrows, and blackbirds. Waterfowl are strong swimmers with medium to large bodies. They have historically been an important food source, and continue to be hunted as game, or raised as poultry for meat and eggs. Examples include ducks, geese, swans, grebes, loons, pelicans, and cormorants. Wading birds are long-legged birds that wade in water in search of food and commonly occur in reedy areas, shallow waters, ponds, and other bodies of water. Examples include herons, rails, and shorebirds.

1

Diving Birds

"In the middle of the night, as indeed each time that we lay on the shore of a lake, we heard the voice of the loon, loud and distinct, from far over the lake. It is a very wild sound, quite in keeping with the place and the circumstances of the traveler, and very unlike the voice of a bird." - Henry David Thoreau



Common Loon (*Gavia immer*)

© Andrew Olynyk

Loons, grebes, pelicans, and cormorants make up this group of waterbirds. All of these waterbirds consume fish and other aquatic animals through diving and pursuing them underwater. Loons (Family Gaviidae) are larger bodied than ducks, with their legs set far back on their bodies, and have straight, dagger-like bills. Grebes (Family Podicipedidae) appear like smaller loons with lobed toes and longer necks. Grebes fly less often and less strongly than loons. Pelicans (Family Pelecanidae) are distinguished by large skin flaps (gular skin) and webbed feet which allows them to be very efficient hunters. Finally, cormorants (Family Phalacrocoracidae) are specialized fish predators often found in flocks in any area of open water.

Common Loon (*Gavia immer*)

Size - Length 70-90 cm, Wingspan 120-150 cm

Habitat - Lake (especially with island or coves), bays, or estuaries

Food - Fish (surface dive)

Nesting - Ground

Voice - Low, melancholy yodeling or wailing cries

Special features - The Common Loon swims underwater to catch fish, propelling itself with its feet. It swallows most of its prey underwater. The common loon has sharp, rearward-pointing projections on the roof of its mouth and tongue that help it keep a firm hold on slippery fish. Unlike most birds, loons have solid bones that make them less buoyant and better at diving. They can quickly blow air out of their lungs and flatten their feathers to expel air within their plumage, so they can dive and swim quickly.

Conservation status - Least Concern



© Andrew Olynyk

Pied-billed Grebe (*Podilymbus podiceps*)

Size - Length 30-38 cm, Wingspan 58 cm

Habitat - Wetlands, lakes, or pond

Food - Fish, insects, crustaceans, or other small invertebrates (surface dive)

Nesting - Floating

Voice - Song of male far-carrying, vibrant throaty barks. Females gives low grunting notes.

Special features - The downy chicks of the Pied-billed Grebe can leave the nest soon after hatching, but they do not swim well at first and do not spend much time in the water in the first week. Young Pied-billed Grebes sleep on the back of a parent and are held close beneath its parents wings. For the first ten days young grebe's response to danger is to climb onto a parent's back.

Conservation status - Least Concern



© Gerrit Vyn

American White Pelican (*Pelecanus erythrorhynchos*)

Size - Length 130-180 cm, Wingspan 280 cm

Habitat - Lakes, ponds, shallow coastal bays, inlets, and estuaries

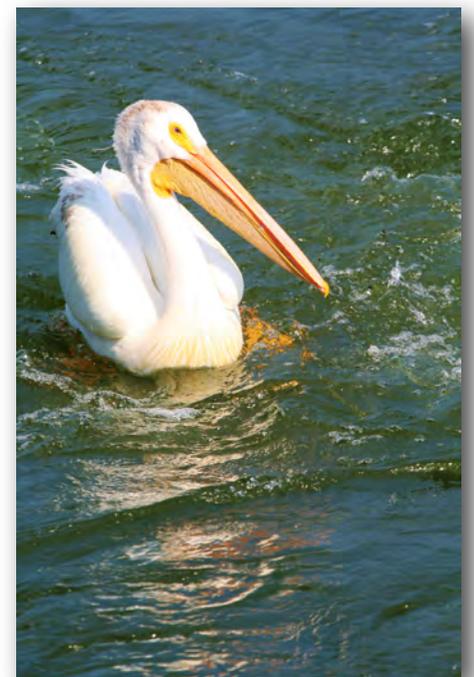
Food - Fish (surface hunting)

Nesting - Ground (on isolated islands)

Voice - Generally silent other than during breeding times when it makes a low grunting sound

Special features - The White Pelican does not dive for fish as the Brown Pelican does. Instead, White Pelicans dip their heads underwater to scoop up fish. Several pelicans may fish cooperatively, moving into a circle to concentrate fish, and then dipping their heads under simultaneously to catch fish.

Conservation Status - Least Concern



© Andrew Olynyk

Double-crested Cormorant (*Phalacrocorax auritus*)

Size - Length 80 cm, Wingspan 140 cm

Habitat - Lake or Pond (in colonial groups)

Food - Fish (surface diving)

Nesting - Ground

Voice - Hoarse bullfrog like grunting; clear-spoken yaaa yaa ya

Special features - In breeding colonies where the nests are placed on the ground, young cormorants leave their nests and congregate into groups with other youngsters (creches). They return to their own nests to be fed. The Double-crested Cormorant also makes a bulky nest of sticks and other materials. It often picks up junk, such as rope, deflated balloons, fishnet, and plastic to incorporate into the nest. Parts of dead birds are commonly used too.

Conservation status - Least Concern



© George McCarthy

2

Wading Birds

"In order to see birds it is necessary to become a part of the silence."
- Robert Lynd



Great Blue Heron (*Ardea herodias*)
© Stan Osolinski

Wading birds are often characterized by their long legs and beaks that assist them in hunting in their preferred habitat. These birds have a preference for the shallow waters of marshes, swamps, mud flats and other bodies of water. The 20 species of wading birds include bitterns, egrets, flamingos, herons, ibises, spoonbills, and storks. Bitterns, herons, and egrets have long necks and long, pointed bills used to spear fish or other prey. Ibises have curved bills used to probe in the mud. Roseate Spoonbill, Wood Stork, and Greater Flamingo have specialized bill shapes and correspondingly specialized foraging methods.

American Bittern (*Botaurus lentiginosus*)

Size - Length 60-85 cm, Wingspan 120 cm

Habitat - Freshwater marshes with tall vegetation

Food - Fish, insects, crustaceans, amphibians, and small mammals (stalking)

Nesting - Ground

Voice - A deep pumping *oong-ka-choonk*

Special features - The nest of the American Bittern is made of a foundation of emergent vegetation like reeds, sedges, or cattails. It typically sits 7.5-20 cm above the water. The nest is lined with grasses and has an outside diameter of 25-40 cm.

Conservation status - Least Concern



© Gerrit Vyn

Great Blue Heron (*Ardea herodias*)

Size - Length 100-130 cm, Wingspan 180 cm

Habitat - Freshwater and saltwater habitats, and also forage in grasslands and agricultural fields

Food - Fish, amphibians, reptiles, small mammals, insects, and other birds (stalking)

Nesting - Trees, usually in isolated swamps or on islands, and near lakes and ponds bordered by forests

Voice - Flight call is a very deep, hoarse, trumpeting *fraaahnk* or *braak*

Special features - Due to a specially shaped neck vertebrae, Great Blue Herons are able to curl their necks into an S shape for a more aerodynamic flight profile and allow them to quickly strike prey at a distance.

Conservation status - Least concern



© Pete Oxford

3

Waterfowl

"If it looks like a duck, and quacks like a duck, we have at least to consider the possibility that we have a small aquatic bird of the family anatidae on our hands."

- Douglas Adams



Mallard (*Anas platyrhynchos*)

© Laurie Campbell

Waterfowl are certain wildfowl of the family Anatidae, which includes ducks, geese, and swans. Waterfowl are strong swimmers with medium to large bodies and webbed feet. They tend to have a preference for open bodies of water, such as lakes, ponds, and other types of wetlands. They have historically been an important food source, and continue to be hunted as game, or raised as poultry for meat and eggs. The domestic duck is sometimes kept as a pet. Swans and geese are generally larger than ducks, with long necks and feed by tipping up or grazing. They are generally found in flocks and they will call loudly in flight. Dabbling ducks (e.g., Mallard, Northern Pintail, and Wood Ducks) rarely dive, and feed

mainly by dabbling their bills in the water or by tipping forward. Diving ducks (e.g., Canvasback and Ruddy duck) frequent deeper water and generally will dive underwater for food. Diving ducks are heavier-bodied so they can faster and need to run along the surface of the water to become airborne.

Snow Goose (*Chen caerulescens*)

Size - Length 60-80 cm, Wingspan 130-150 cm

Habitat - Lake or pond, breed on tundra spending time on land

Food - Plants (dabbler)

Nesting - Ground (in colonies)

Voice - Common call a harsh, descending *whouk* or higher *heenk*

Special features - Snow geese have two colour morphs, blue and white. The dark colour of the blue morph is controlled by a single gene, with the dark morph being dominant over the white.

Conservation status - Least Concern



© jon

Canada Goose (*Branta canadensis*)

Size - Length 55-122 cm, Wingspan up to 180 cm

Habitat - Habitats near water, grassy fields, and grain fields

Food - Seeds (ground forager)

Nesting - Ground

Voice - Various loud honks, barks, and cackles



© Mark Hamblin

Special features - Individual Canada Geese from most populations make annual northward migrations after breeding. Nonbreeding geese, or those that lost nests early in the breeding season, may move anywhere from several kilometers to more than 1500 km northward. There they take advantage of vegetation in an earlier state of growth to fuel their molt. Even members of "resident" populations, which do not migrate southward in winter, will move north in late summer to molt.

Conservation status - Least Concern

Tundra Swan (*Cygnus columbianus*)

Size - Length 120-150 cm, Wingspan 180-200 cm

Habitat - Breeds on tundra lakes, ponds, and pools along coast. Winters in shallow estuaries, lakes, ponds, and rivers.

Food - Plants (dabbler)

Nesting - Ground

Voice - a goose like honking



© Douglas Caldwell

Special features - Swan nests on the tundra are vulnerable to a host of predators, such as foxes, weasels, jaegers, and gulls. If the parents are present, they are able to defend the nest and nestlings from these threats. The Tundra Swan stays in flocks except when on a breeding territory. Although most swans spread out to breed, a large proportion of the population on the breeding grounds still can be found in flocks. These swans are not breeding, and may be young birds that have not yet bred, adult pairs whose breeding attempts failed, or adults that bred in the past but for some reason do not in that year.

Conservation status - Least Concern

Wood Duck (*Aix sponsa*)

Size - Length 43-50 cm, Wingspan 70-75 cm

Habitat - Forests, swamps, marshes, and beaver ponds

Food - Seeds, fruits, insects and other arthropods (dabbler)

Nesting - Cavity (in trees, man-made structures)

Voice - Female Wood Ducks make loud oo-eeek, oo-eeek. Male

Wood Ducks have thin, rising and falling *zeeting* whistle

Special features - The Wood Duck nests in trees near water, sometimes directly over water, but other times up to 2 km away. After hatching, the ducklings jump down from the nest tree and make their way to water. The mother calls them to her, but does not help them in any way. The ducklings may jump from heights of up to 89 m without injury. The Wood Duck is the only North American duck that regularly produces two broods in one year.

Conservation status - Least Concern



© Donna Ikenberry

Mallard (*Anas platyrhynchos*)

Size - Length 50-70 cm, Wingspan 75-100 cm

Habitat - Any wetland habitats, including permanent wetlands such as marshes, bogs, riverine floodplains, beaver ponds, lakes, reservoirs, ponds, city parks, farms, and estuaries

Food - Seeds, aquatic insects, snails, and other invertebrates

Nesting - Ground (dry ground close to water)

Voice - The classic duck's quack is the sound of the female mallard

Special features - Mallard pairs form long before the spring breeding season. Only the female incubates the eggs and takes care of the ducklings. Mallard pairs are generally monogamous, but paired males pursue females other than their mates. So-called *extra-pair copulations* are common among birds.

Conservation status - Least Concern



© Ian West

Northern Pintail (*Anas acuta*)

Size - Males Length 64-76 cm, Female Length 51-56 cm

Habitat - Open country with shallow, seasonal wetlands and low vegetation

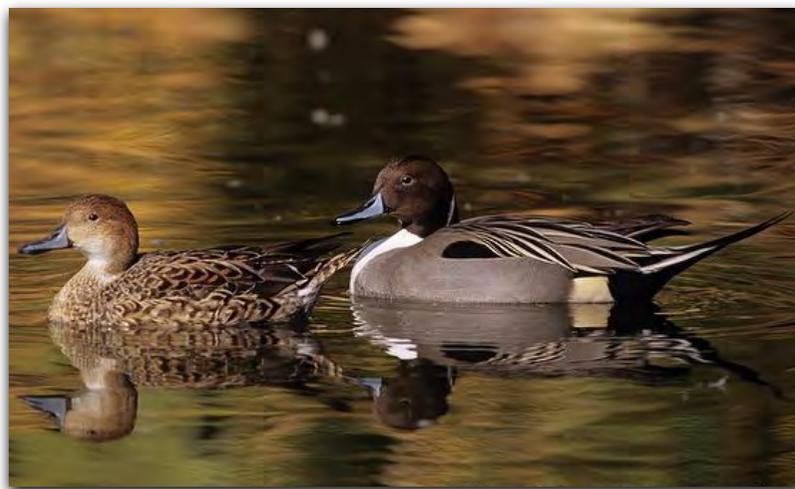
Food - seeds, snails, crustaceans and other aquatic invertebrates

Nesting - Ground

Voice - Male Northern Pintails make wheezy *mewing* notes and a whistle whereas the female pintail *quacks*

Special features - The Northern Pintail is among the earliest nesting ducks in North America, beginning shortly after ice-out in many northern areas.

Conservation status - Least Concern



© Barry Mansell

Canvasback (*Aythya valisineria*)

Size - Length 48-60 cm, Wingspan 70-90 cm

Habitat - Lakes, ponds, and other bodies of water

Food - Seeds, buds, leaves, tubers, roots, snails, and insect larvae (surface dive)

Nesting - Floating

Voice - Males make cooing notes in courtship. Female gives soft *krrr-krrr*.

Special features - The species name of the Canvasback, *Aythya valisineria*, comes from *Vallisneria americana*, or wild celery, whose winter buds and rhizomes are its preferred food during the nonbreeding period

Conservation status - Least Concern



© Roger Powell

Ruddy Duck (*Oxyura jamaicensis*)

Size - Length 38-41 cm

Habitat - Wetlands, lakes, and water reservoirs

Food - Aquatic insects, crustaceans, zooplankton, and other invertebrates, along with small amounts of plants and seeds

Nesting - Ground, using nearby vegetation

Voice - Generally silent, some hissing when approached

Special features - Ruddy Ducks are extremely aggressive toward each other and toward other species, particularly during the breeding season. They are even known to chase rabbits feeding on the shore. Ruddy Ducks lay big, white, pebbly-textured eggs—the largest of all duck eggs relative to body size. Energetically expensive to produce, the eggs hatch into well-developed ducklings that require only a short period of care.

Conservation status - Least Concern



© Marcia Nye

4

Birds of Prey

"In the hollow tree, in the old gray tower, The spectral Owl doth dwell; Dull, hated, despised, in the sunshine hour, But at the dusk--he's abroad and well! ... But at night, when the woods grow still and dim, The boldest will shrink away!"

- Barry Cornwall



Snowy Owl (*Bubo scandiacus*)

© Uri Golman

Birds of prey, also known as raptors, are birds that hunt or feed on other animals. The term "raptor" is derived from the Latin word *rapere* (meaning to seize or take by force). They are characterized by keen vision that allows them to detect prey during flight and powerful talons and beaks. Because of their predatory nature they face distinct conservation concerns. In most cases, the females are larger than the males.

Birds of prey include members of seven families: Accipitridae (hawks, eagles, buzzards, and kites), Pandionidae (osprey), Sagittariidae (secretary birds), Falconidae (falcons and caracaras), Strigidae (most owls), and Tytonidae (barn and bay owls). The

variety in the wing shape and body proportions of birds of prey are related to their hunting style and preferred prey. Species with similar shapes tend to have similar habitats.

Harriers are large, slender hawk-like birds with long tails and long thin legs. Eagles tend to be large birds with long, broad wings and massive feet. Ospreys are very similar to eagles with a single species found worldwide that specializes in catching fish and builds large stick nests. Kites have long wings and relatively weak legs and they spend much of their time soaring. Hawks are medium-sized raptors with long tails for turning on tight angles. Falcons are medium-size birds of prey with long pointy wings. Owls are variable-sized, typically night-specialized hunting birds (although they are NOT all exclusively nocturnal). They fly almost silently due to their special feather structure that reduces turbulence and they have particularly acute hearing.

Bald Eagle (*Haliaeetus leucocephalus*)

Size - Length 85-110 cm, Wingspan 180-230 cm

Habitat - Forested areas near water

Food - Fish, birds, reptiles, amphibians, invertebrates such as crabs, and mammals including rabbits and muskrats, as well as carrion of various animals.

Nesting - Large nest in high tree, 150 to 180 cm in diameter and 60 to 120 cm feet tall, and ranging in shape from cylindrical to conical to flat.

Voice - Bald Eagles will emit a series of high-pitched whistling or piping notes

Special features - Bald Eagles occasionally have been known to hunt cooperatively, with one individual flushing prey towards another. Bald Eagles often go after other animals' catches. A Bald Eagle will harass a hunting Osprey until the smaller raptor drops its prey in midair, where the eagle swoops it up. A Bald Eagle may even snatch a fish directly out of an Osprey's talons.

Conservation Status - Least Concern



© Darren Bennett

Northern Harrier (*Circus cyaneus*)

Size - Length 43-58 cm, Wingspan 97-122 cm

Habitat - Wetlands and grasslands with low, thick vegetation

Food - Small mammals, reptiles, amphibians, and birds

Nesting - Ground (males begin building platform, built out of vegetation that both male and female bring to the nest).

Voice - Fast series of *kek* notes

Special features - Northern Harriers are the most owl-like of hawks (though they're not related to owls). They rely on hearing as well as vision to capture prey. The disk-shaped face looks and functions much like an owl's, with stiff facial feathers helping to direct sound to the ears.

Conservation status - Least Concern



© Christophe Perelle

Red-tailed Hawk (*Buteo jamaicensis*)

Size - Male: Length 48-58 cm, Wingspan 120-150 cm; Female: Length 51-65 cm, Wingspan 120-150 cm

Habitat - Open woodland, including desert, scrublands, grasslands, roadsides, fields and pastures, and parks

Food - Mostly mammals, including hares, rabbits, and rodents, as well as small birds, snakes and carrion.



© Jim Zipp

Nesting - Crowns of trees

Voice - Hoarse, screaming *kee-eeeeee-arr* (raptor sound heard on many movies)

Special features - Birds are well adapted for life in the air. The Red-tailed Hawk is one of the largest birds in North America, yet even the biggest females weigh in at only about 3 pounds (1.4 kg).

Conservation status - Least Concern

Merlin (*Falco columbarius*)

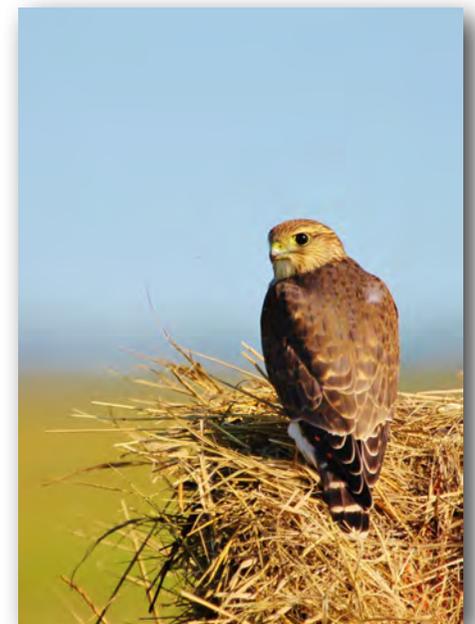
Size - Length 25-35 cm, Wingspan 60-68 cm

Habitat - Open woodland, including near forest openings, fragmented woodlots near rivers, lakes, bogs, and island lakes

Food - Mostly birds, including Horned Lark, House Sparrow, Bohemian Waxwing, Dickcissel, Least Sandpiper, Dunlin, and other shorebirds

Nesting - Abandoned nests (of crows and hawks) found in trees

Voice - Shrill, chattering call, *Ki-ki-kee* call



© Andrew Olynyk

Special features - Merlin pairs occasionally team up to hunt large flocks of waxwings. One Merlin will flush the flock by attacking from below while the other comes in moments later to take advantage of the confusion

Peregrine Falcon (*Falco peregrinus*)

Size - Length 36-49 cm, Wingspan 100-110 cm

Habitat - Open landscapes with cliffs,

Food - Mostly birds

Nesting - cliff ledges

Voice - Series of harsh *kak, kak, kak*



© Jim Zipp

Special features - The fast animal in the world, the peregrine falcon can reach 250 km per hour while chasing prey. The name "peregrine" means wanderer, and the Peregrine Falcon has one of the longest migrations of any North American bird. Tundra-nesting falcons winter in South America, and may move 25,000 km in a year.

Conservation status - Least Concern

Great Horned Owl (*Bubo virginianus*)

Size - Length 46-64 cm, Wingspan 90-150 cm

Habitat - Secondary-growth woodlands, swamps, orchards, and agricultural areas most often, also a wide variety of deciduous, coniferous or mixed forests

Food - Mostly mammals and birds, including rabbits, hares, and mice

Nesting - In trees (use nests built by other species)

Voice - Deep, soft hoots with a stuttering rhythm: *hoo-h'HOO-hoo-hoo*

Special features - Great Horned Owl's strong talons require a force of 28 pounds to open when clenched. The owls use this deadly grip to sever the spine of large prey. Although they are usually nocturnal hunters, Great Horned Owls sometimes hunt in broad daylight



© Lynn M. Stope

Conservation status - Least Concern

Snowy Owl (*Bubo scandiacus*)

Size - Length 50-70 cm, Wingspan 140-170 cm

Habitat - Treeless places and wide open spaces

Food - Rodents (especially lemmings), rabbits, hares, squirrels, weasels, wading birds, seabirds, ducks, grebes, and geese

Nesting - On ground (small shallow)

Voice - low, powerful, slightly rasping hoots

Special features - Unlike many owls, Snowy Owls are diurnal, extremely so. They'll hunt at all hours during the continuous daylight of an Arctic summer. And they may eat more than 1,600 lemmings in a single year.

Conservation status - Least Concern



© Markus Varesvuo

Great Gray Owl (*Strix nebulosa*)

Size - Length 60-84 cm, Wingspan 140-150 cm

Habitat - Boreal forest

Food - Small mammals, especially rodents

Nesting - Broken-topped dead trees or existing nest of other bird species

Voice - Series of deep, evenly spaced hoos

Special features - Great Gray Owls are Manitoba's provincial bird. Although they are the tallest North American owl with the largest wingspan, it is just a ball of feathers. It preys on small mammals and has relatively small feet. Both the Great Horned and Snowy owls weigh half again as much, and have larger feet and talons

Conservation status - Least Concern



© Mary Ann McDonald

Burrowing Owl (*Athene cunicularia*)

Size - Length 23-28 cm, Wingspan 50-60 cm

Habitat - Dry, open areas with no trees and short grass

Food - Insects, scorpions, small mammals, birds, amphibians, and reptiles

Nesting - Burrow, often dug by mammals

Voice - Two-note coo coooo

Special features - The Burrowing Owl collects mammal dung and puts it in and around its burrow. The dung attracts dung beetles, which the owl then captures and eats. The Burrowing Owl also catches food with feet. The Burrowing Owl appears to be diurnal because it can often be seen foraging during the day. In fact, it hunts all day and night long and is most active in the morning and evening. It catches more insects during the day and more mammals at night.

Conservation status - Least Concern although populations declining



© M. Watson

5

Shorebirds

"Shorebirds are travelers
From fields far flung
With lovely names like "plover"
that roll right off the tongue"
~Kimberly Kaufman



Lesser Yellowlegs (*Tringa flavipes*)

© Jim Zipp

Shorebirds are a large group of birds that are members of the order Charadriiformes, excluding the more marine web-footed seabird groups. All are small to medium-size with relatively thin bills and long legs. They are commonly found along sandy or rocky shorelines, mudflats, and shallow waters. Many species of Arctic and temperate regions are strongly migratory, but tropical birds are often resident, or move only in response to rainfall patterns. Some of the Arctic species, such as Little Stint, are amongst the longest distance migrants, spending the non-breeding season in the southern hemisphere.

The majority of shorebirds eat small invertebrates picked out of mud or exposed soil. Different lengths of bills enable different species to feed in the same habitat, particularly on the coast, without direct competition for food. Many shorebirds have sensitive nerve endings at the end of their bills which enable them to detect prey items hidden in mud or soft soil. Some larger species, particularly those adapted to drier habitats will take larger prey including insects and small reptiles.

Shorebirds include members of 5 families: Charadriidae (e.g., plovers), Haematopodidae (e.g., oystercatchers), Jacanidae (e.g., Northern Jacana), Recurvirostridae (e.g., American Avocet, Black-necked Stilt), Scolopacidae (e.g., yellowlegs, snipe, sandpipers, phalaropes).

Killdeer (*Charadrius vociferus*)

Size - Length 20-28 cm, Wingspan 46-48 cm

Habitat - Grassland

Food - Insects (ground forager)

Nesting - Ground

Voice - *kill-deer*



© Andrew Olynyk

Special features - The Killdeer's broken wing display leads predators away from the nest. To guard against large hoofed animals such as cows, the Killdeer uses a different display, fluffing itself up, displaying its tail over its head, and running at the beast to attempt to make it change its path.

Conservation status - Least Concern

Wilson's Snipe (*Gallinago delicata*)

Size - Length 27-32 cm, Wingspan 41-44 cm

Habitat - Bogs, fens, swamps, and around the marshy edges of ponds, rivers, and brooks

Food - Larval insects, worms, crustaceans, mollusks, some seeds

Nesting - Ground, woven cup of grasses

Voice - harsh *tuk-a-tuk-a-tuk*



© Kurt Kirchmeier

Special features - The clutch size of the Wilson's Snipe is almost always four eggs. The male snipe takes the first two chicks to hatch and leaves the nest with them. The female takes the last two and cares for them. There is no evidence that the parents have no contact after that point.

Conservation status - Least Concern

Wilson's Phalarope (*Phalaropus tricolor*)

Size - Length 20-28 cm, Wingspan 46-48 cm

Habitat - Marshes, meadows and pastures near bodies of water, lakes, lagoons, and estuaries

Food - Aquatic insects, brine shrimp, crustaceans, beetles, spiders, copepods, chironomids and sometimes vegetable matter

Nesting - Ground, bare cavity covered by vegetation

Special features - The females pursue males, compete for nesting territory, and will aggressively defend their nests and chosen mates. Once the females lay their eggs, they begin their southward migration, leaving the males to incubate the eggs and look after the young.

Conservation status - Least Concern



© Andrew Olynyk

Piping Plover (*Charadrius melodus*)

Size - Length 17-18 cm

Habitat - Open sandy beaches

Food - Insects and small aquatic invertebrates (ground forager)

Nesting - Ground

Special features - Can be very aggressive if approached

Conservation status - Near Threatened



© Tom Vezo

6

Gulls & Allies

"To the sea, to the sea! The white gulls are crying,
The wind is blowing, and the white foam is flying.
West, west away, the round sun is falling,
Grey ship, grey ship, do you hear them calling,"
- J.R.R. Tolkien



Bonaparte Gull (*Chroicocephalus philadelphia*)

© Melvin Grey

Gulls are one of the most familiar birds of the East Coast and many people just call them "seagulls." However, many of these species spend little to no time on the coast. In fact, some two dozen different species of gulls live in North America.

Gulls come from the family Laridae. They are most closely related to the terns. Gulls are medium to large birds, usually grey or white, often with black markings on the head or wings. They typically

have harsh wailing or squawking calls, stout, longish bills, and webbed feet. Most gulls are ground nesting carnivores, which will take live food or scavenge opportunistically. Gulls nest in large, densely packed noisy colonies. Gulls are resourceful, inquisitive and intelligent birds, demonstrating complex methods of communication and a highly developed social structure.

Many gull colonies display mobbing behaviour, attacking and harassing would-be predators and other intruders. Certain species (e.g. the Herring Gull) have exhibited tool use behaviour, using pieces of bread as bait with which to catch goldfish, for example. Many species of gull have learned to coexist successfully with humans and have thrived in human habitats. Others rely on kleptoparasitism to get their food. Gulls have been observed preying on live whales, landing on the whale as it surfaces to peck out pieces of flesh.

Herring Gull (*Larus argentatus*)

Size - Length 56-66 cm, Wingspan 137-146 cm

Habitat - Open water, intertidal pools and shallows, mud flats, landfills, newly plowed fields, picnic grounds, and fish-processing plants (and other human developments)

Food - Almost anything, e.g., marine invertebrates, fish, insects, smaller seabirds, and even on adults, young, and eggs of other gulls

Nesting - Ground

Voice - Variety, including *ha-ha-ha-ha* alarm call

Special features - An adult Herring Gull was spotted bait-fishing. It floated bits of bread on the surface of a Paris pond and attacked goldfish feeding on the bread. It ate none of the bread itself, indicating deliberate tool use.

Conservation status - Least Concern



© David Cayless

Bonaparte Gull (*Chroicocephalus philadelphia*)

Size - Length 28-38 cm, Wingspan 76-80 cm

Habitat - Lakes and marshes in boreal forest, rivers, marshes, bays, and beaches along coasts

Food - Small fish and large invertebrates, including insects

Nesting - Tree

Voice - Buzzy *keh-keh*

Special features - The Bonaparte's Gull is the only gull that regularly nests in trees.

Conservation status - Least Concern



© Malcolm Schuyt

7

Woodpeckers & Allies

"If only, if only," the woodpecker sighs,
"The bark on the tree was as soft as the skies."
While the wolf waits below, hungry and lonely,
Crying to the moo-oo-oon," If only, If only."

- Louis Sachar, *Holes*



Downy Woodpecker (*Picoides pubescens*)

© S., D., & K. Maslowski

The woodpeckers, piculets, wrynecks, and sapsuckers are from the family Picidae. There are about 200 species in this family. Most species live in forests or woodland habitats, although a few species are known to live in treeless areas, such as rocky hillsides and deserts. Many species are threatened or endangered due to loss of habitat or habitat fragmentation.

Most species possess predominantly white, black, brown, green, and red plumage, although many piculets

show a certain amount of grey and olive green. In woodpeckers, many species exhibit patches of red and yellow on their heads and bellies, and these bright areas are important in signaling. Woodpeckers and allies have strong bills for drilling and drumming on trees and long sticky tongues for extracting food. Woodpecker bills are typically longer, sharper and stronger than the bills of piculets and wrynecks; however their morphology is very similar. The bill's chisel-like tip is kept sharp by the pecking action in birds that regularly use it on wood. Species of woodpecker and flicker that use their bills in soil or for probing as opposed to regular hammering tend to have longer and more decurved bills. The long sticky tongues, which possess bristles, aid these birds in grabbing and extracting insects deep within a hole of a tree. The tongue wraps around the prey before being pulled out. To prevent brain damage from the rapid and repeated impacts, woodpeckers have evolved a number of adaptations to protect the brain. These include small brain size, the orientation of the brain within the skull (which maximizes the area of contact between the brain and the skull) and the short duration of contact. The millisecond before contact with wood a thickened nictitating membrane closes, protecting the eye from flying debris. The nostrils are also protected; they are often slit-like and have special feathers to cover them.

Downy Woodpecker (*Picoides pubescens*)

Size - Length 14-17 cm, Wingspan 25-30 cm

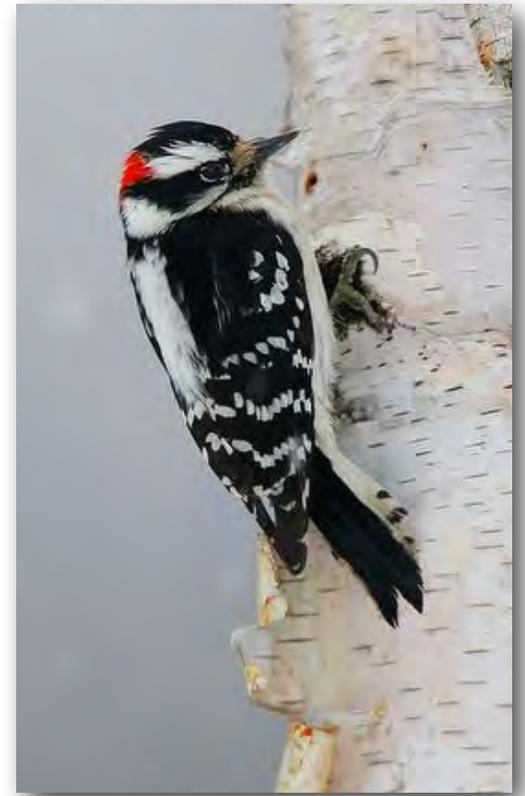
Habitat - Open woodlands

Food - Insects and plant materials (e.g., berries, acorns, and grains)

Nesting - Cavity (in dead trees, or dead portions of live trees)

Special features - Woodpeckers don't sing songs, but they drum loudly against pieces of wood or metal to achieve the same effect. It is sometimes thought that this drumming is part of the birds' feeding habits, but it isn't. In fact, feeding birds make surprisingly little noise even when they are digging into wood.

Conservation status - Least Concern



© Jim Zipp

Pileated Woodpecker (*Dryocopus pileatus*)

Size - Length 40-49 cm, Wingspan 66-75 cm

Habitat - Mature deciduous or mixed deciduous-coniferous woodland

Food - Carpenter ants, other ants and insects, wild fruits and nuts

Nesting - Cavity in dead trees (generally mature forest)

Special features - The feeding excavations of a Pileated Woodpecker are so extensive that they often attract other birds. Other woodpeckers, as well as House Wrens, may come and feed there.

Conservation status - Least Concern



© Tom and Pat Leeson

8

Jays, Crows, & Blackbirds

"People once believed that when someone dies, a crow carries their soul to the land of the dead. But sometimes, something so bad happens that a terrible sadness is carried with it and the soul can't rest. Then sometimes, just sometimes, the crow can bring that soul back to put the wrong things right."

- James O'Barr, *The Crow*



Male Yellow-headed Blackbird
(*Xanthocephalus xanthocephalus*)

© Gerrit Vyn

Corvidae is a cosmopolitan family birds that contains the crows, ravens, rooks, jackdaws, jays, magpies, treepies, choughs and nutcrackers. There are over 120 species. They are considered the most intelligent of the birds, and among the most intelligent of all animals having demonstrated self-awareness in mirror tests (European Magpies) and tool making ability (crows, rooks). Their total brain-to-body mass ratio is equal to that of great apes and cetaceans. They are medium to large in size, with strong feet and bills, rictal bristles and a single moult each year.

Blue Jay (*Picoides pubescens*)

Size - Length 25-30 cm, Wingspan 34-43 cm

Habitat - Forest, particularly near oak trees

Food - Insects, nuts and seeds, grains, dead vertebrates, eggs and nestlings

Nesting - Tree

Voice - loud jeer

Special features - The Blue Jay frequently mimics the calls of hawks, especially the Red-shouldered Hawk. These calls may provide information to other jays that a hawk is around, or may be used to deceive other species.

Conservation status - Least Concern



© Richard Day

American Crow (*Corvus brachyrhynchos*)

Size - Length 40-53 cm, Wingspan 85-100 cm

Habitat - Any open place that offers a few trees to perch in and a reliable source of food

Food - Wide variety, including grains, seeds, nuts, fruits, berries, and many small animals (e.g., eggs and nestlings, insects, and earthworms)

Nesting - Tree (hidden in a crotch near the trunk or horizontal branch)

Voice - Caws and *Comb* call

Special features - American crows sometimes will make and use tools. Examples include a captive crow using a cup to carry water over to a bowl of dry mash; shaping a piece of wood and then sticking it into a hole in a fence post in search of food; and breaking off pieces of pine cone to drop on tree climbers near a nest. American Crows will also congregate in large numbers in winter to sleep in communal roosts of between a few hundred up to two million crows.

Conservation status - Least Concern



© Jim Zipp

Common Raven (*Corvus corax*)

Size - Length 56-69 cm, Wingspan 116-118 cm

Habitat - Almost any habitat (except eastern forests and open Great Plains)

Food - Wide variety (e.g., carrion, small mammals, eggs, other insects, etc.)

Nesting - Cliffs, high trees, other high points (e.g., power lines, telephone poles, bridges, etc.)

Voice - *Cr-r-ruck*

Special features - Common crows use their intellect to put together cause and effect. Common Ravens aren't as social as crows; you tend to see them alone or in pairs except at food sources like landfills.

Conservation status - Least Concern



© Roy Mangersnes

Red-winged Blackbird (*Agelaius phoeniceus*)

Size - Length 17-23 cm, Wingspan 31-40 cm

Habitat - Wetlands (can use fields for feeding)

Food - Mainly insects, also grains and seeds

Nesting - Built among the vertical shoots of marsh vegetation, shrubs, or trees

Voice - *Conk-la-ree* (typical sound heard at marsh)

Special features - Male Red-winged Blackbirds fiercely defend their territories during the breeding season, spending more than a quarter of daylight hours in territory defense. He chases other males out of the territory and attacks nest predators, sometimes going after much larger animals, including horses and people.

Conservation status - Least Concern



Female
© Malcolm Schuyf

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)

Size - Length 21-26 cm, Wingspan 42-44 cm

Habitat - Wetlands

Food - Mainly insects, also grains and seeds

Nesting - Built among the vertical shoots of marsh vegetation, shrubs, or trees

Voice - Frequent *check* sounds

Special features - The Yellow-headed Blackbird often nests in the same marsh as the Red-winged Blackbird. The larger Yellow-headed Blackbird is dominant to the Red-winged Blackbird, and displaces the smaller blackbird from the prime nesting spots. The Yellow-headed Blackbird is strongly aggressive toward Marsh Wrens too, probably because of the egg-destroying habits of the wrens. When the Yellow-headed Blackbird finishes breeding and leaves the marsh, Marsh Wrens expand into former blackbird territories.

Conservation status - Least Concern



Female
© Tom Vezo

9

Songbirds

“The robin flew from his swinging spray of ivy on to the top of the wall and he opened his beak and sang a loud, lovely trill, merely to show off. Nothing in the world is quite as adorably lovely as a robin when he shows off - and they are nearly always doing it.”
- Frances Hodgson Burnett, *The Secret Garden*



Black-capped Chickadee
(*Poecile atricapillus*)

© Minette Layne

A songbird is a bird belonging to the clade Passeri of the perching birds. This group contains some 4,000 species found all over the world, in which the vocal organ typically is developed in such a way as to produce a diverse and elaborate bird song. Songbirds are among the smallest of all birds. Warblers, tanagers, orioles, finches, and hundreds of other species make up this diverse group of birds.

Tree Swallow (*Tachycineta bicolor*)

Size - Length 12-15 cm, Wingspan 30-35 cm

Habitat - Fields, marshes, shorelines, and wooded swamps (locations near bodies of water). Trees are needed for nesting (or nest boxes).

Food - Mainly insects (arial forager), occasionally plants

Nesting - Tree cavities (old woodpecker cavities, or dead trees, etc.).

Voice - A chirp, a whine, and gurgle - which they mix and match in a variety of patterns

Special features - Migrating and wintering Tree Swallows can form huge flocks numbering in the hundreds of thousands. They will gather together about an hour before sunset and form a dense cloud above a roost site (such as a cattail marsh or grove of small trees). With each pass, more birds drop down until they are all settled on the roost.

Conservation status - Least Concern



© Tom Vezo

Barn Swallow (*Hirundo rustica*)

Size - Length 15-19 cm, Wingspan 29-32 cm

Habitat - Open areas throughout most of the continent (with some structures to nest on and mud to build nests)

Food - Flies and other insects

Nesting - Built of mud on side of structure (e.g., buildings)

Voice - Long series of continuous warbling sounds followed by up to a dozen rapid, mechanical-sounding *whirrs*

Special features - Barn Swallows once nested in caves throughout North America, but now build their nests almost exclusively on human-made structures. Barn Swallow parents sometimes get help from other birds to feed their young. These “helpers at the nest” are usually older siblings from previous clutches, but unrelated juveniles may help as well.

Conservation status - Least Concern



© Andrew Olynyk

Black-capped Chickadee (*Poecile atricapillus*)

Size - Length 12-15 cm, Wingspan 30-35 cm

Habitat - Deciduous and mixed forests

Food - Half plant matter (e.g., seeds, berries, etc.), and half insects

Nesting - Tree cavities (e.g., natural holes, abandoned woodpecker cavities).

Voice - *chickadee-dee-dee*

Special features - Winter flocks with chickadees serving as the nucleus contain mated chickadee pairs and nonbreeders, but generally not the offspring of the adult pairs within that flock. Other species that associate with chickadee flocks include nuthatches, woodpeckers, kinglets, creepers, warblers and vireos. Most birds that associate with chickadee flocks respond to chickadee alarm calls.

Conservation status - Least Concern



© Andrew Olynyk

White-breasted Nuthatch (*Sitta carolinensis*)

Size - Length 13-14 cm, Wingspan 20-27 cm

Habitat - Mature woods, and more often found in deciduous than coniferous forests

Food - Mainly insects, but also seeds and nuts

Nesting - Tree cavities (e.g., natural cavities or abandoned woodpecker holes)

Voice - Rapid, nasal, fairly low-pitched *wha-wha-wha*

Special features - The White-breasted Nuthatch is normally territorial throughout the year, with pairs staying together. The male has to spend more time looking out for predators when he's alone than while he's with his mate. But the female nuthatch has to put up with the male pushing her aside from foraging sites, so she spends more time looking around (for him) when he's around than when she is alone.

Conservation status - Least Concern



© Rolf Nussbaumer

Marsh Wren (*Cistothorus palustris*)

Size - Length 12-15 cm, Wingspan 30-35 cm

Habitat - Wetlands, especially marshes

Food - Insects and spiders

Nesting - Domed nest attached to reed grasses

Voice - Gurgling, rattling trill

Special features - Eastern and western populations of the Marsh Wren show small differences in appearance, but large differences in song. In general, western birds are paler and drabber, and sing less musical songs. The differences may mean that the two forms are separate species, although they are still grouped as one species.

Conservation status - Least Concern, declining



© Andrew Olynyk

American Robin (*Turdus migratorius*)

Size - Length 20-28 cm, Wingspan 31-40 cm

Habitat - Open woodland

Food - Invertebrates (e.g., worms, and insects) and fruit (ground forager)

Nesting - Tree (cup made from twigs and grasses)

Voice - String of 10 or more *cheerily*

Special features - Robins are often considered harbingers of spring. However, many American Robins spend the whole winter in their breeding range. But because they spend more time roosting in trees and less time in your yard, you're much less likely to see them. The number of robins present in the northern parts of the range varies each year with the local conditions.



© S. & D.S.K. Maslowski

Conservation status - Least Concern

Palm Warbler (*Setophaga palmarum*)

Size - Length 12-14 cm, Wingspan 20-21 cm

Habitat - Open woodlands (also often near wetlands)

Food - Insects (ground forager)

Nesting - Ground (open cup with stalks, grass, sedges, bark shreds, and ferns)

Voice - A weak trill

Special features - The Palm Warbler is found in two different forms. Birds breeding in the eastern part of the range are entirely yellow underneath. Birds that breed in the western part of the range are duller and have whitish bellies



© Gerrit Vyn

Conservation status - Least Concern

White-throated Sparrow (*Zonotrichia albicollis*)

Size - Length 16-18 cm, Wingspan 20-23 cm

Habitat - Forest (both coniferous or deciduous)

Food - Seeds (ground forager)

Nesting - Ground (depression with moss)

Voice - Thin whistle *Old-Sam-Peabody-Peabody*

Special features - The White-throated Sparrow comes in two color forms: white-crowned and tan-crowned. The two forms are genetically determined, and they persist because individuals almost always mate with a bird of the opposite morph. Males of both color types prefer females with white stripes, but both kinds of females prefer tan-striped males. White-striped birds are more aggressive than tan-striped ones, and white-striped females may be able to outcompete

their tan-striped sisters for tan-striped males.

Conservation status - Least Concern

Dark-eyed Junco (*Junco hyemalis*)

Size - Length 14-16 cm, Wingspan 18-25 cm

Habitat - Forest (both coniferous or deciduous)

Food - Seeds (ground forager)

Nesting - Ground (made of grasses, pine needles, twigs, etc.)

Voice - High, short chip note that they often give in rapid succession

Special features - The Dark-eyed Junco is one of the most common birds in North America and can be found across the continent, from Yukon to Mexico, from British Columbia to the Maritimes. A recent estimate set the junco's total population at approximately 630 million individuals.



© Byard Miller



© Lawrence Michael

Conservation status - Least Concern

Snow Bunting (*Plectrophenax nivalis*)

Size - Length 15 cm, Wingspan 30 cm

Habitat - Grassland (Tundra)

Food - Seeds and insects (ground forager)

Nesting - Ground in cracks and other cavities in rocks

Voice - Low, husky warbling

Special features - The Snow Bunting places its nest deep in cracks or other cavities in rocks. Although such nest sites are relatively secure from predators, rocks are cold. The thick nest lining of fur and feathers helps keep the eggs and nestlings warm, but the female must remain on the nest for most of the incubation period. The male feeds her while

she is incubating so that she does not need to leave the nest very often.

Conservation status - Least Concern

Common Redpoll (*Acanthis flammea*)

Size - Length 12-14 cm, Wingspan 19-22 cm

Habitat - Open woodland (including tundra)

Food - Seeds and occasionally insects

Nesting - Shrub (base of small twigs laid across thin branches)

Voice - Mix of Common Redpoll call notes given in a long string

Special features - During cold winter days, some Common Redpolls will tunnel into the snow in an attempt to stay warm during the night. Tunnels may be more than a 30 cm long and 10 cm under the insulating snow.



© David Tipling



© Alan Williams

Conservation status - Least Concern

House Sparrow (*Passer domesticus*)

Size - Length 12-15 cm, Wingspan 30-35 cm

Habitat - Towns (close association with human structures)

Food - Grains and seeds (ground forager)

Nesting - Cavity (holes of buildings and other structures)

Voice - Series of *cheep* or *chirrup*

Special features - The House Sparrow was introduced into Brooklyn, New York, in 1851. By 1900 it had spread as far as the Rocky Mountains. House Sparrows are now common across all of North America except Alaska and far northern Canada. The House Sparrow prefers to nest in human structures such as eaves or walls of buildings, street lights, and

nest boxes instead of in natural nest sites such as holes in trees.

Conservation status - Least Concern



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Photos provided by:

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ARKive, Wildscreen. < <http://www.arkive.org>>

The Cornell Lab of Ornithology, All about Birds <<http://www.allaboutbirds.org>>

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