

Editor-in-Chief François Vuilleumier

Content previously published in Birds of North America

THE ULTIMATE PHOTOGRAPHIC GUIDE

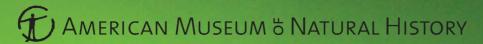


BIRDS OF NORTH AMERICA

WESTERN REGION







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DEDICATION

F.V. dedicates this book to the memory of John Bull, John Farrand, and Stuart Keith, top birders, field guide authors, AMNH colleagues, first-rate ornithologists,

and friends.

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PREFACE



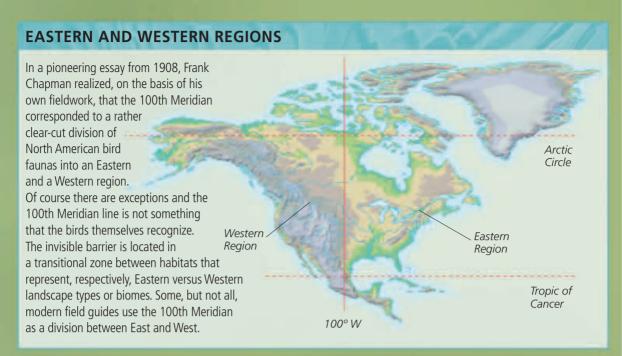
THRUSHES
Back in the early 1900s,
the great wildlife artist
Louis Agassiz Fuertes already
painted birds in the style of
modern field guides, as shown
in this plate from Chapman's
Handbook of the Birds of
Eastern North America.

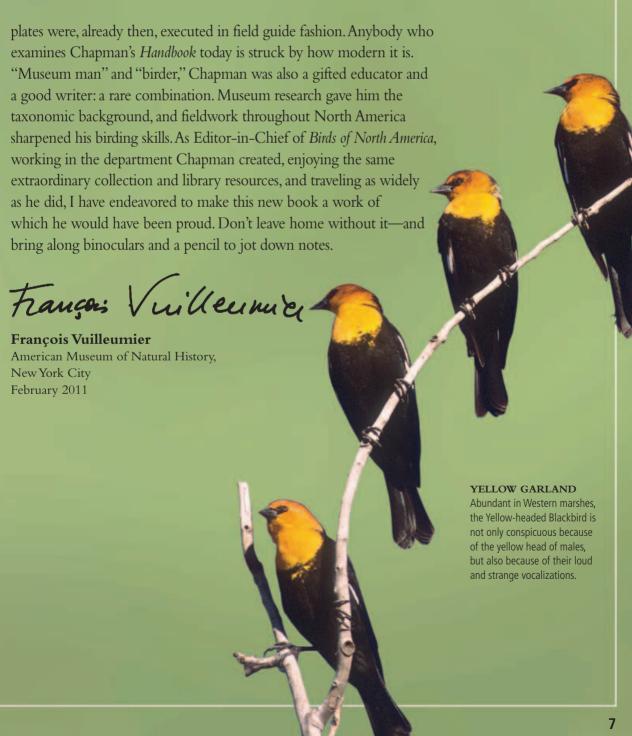
 $oldsymbol{V}$ Tith its eastern and western volumes, Birds of North America attempts to fill a gap in the North American bird book market. No other work offers, for every North American bird species, the same combination of stunning iconography, including beautiful photographs and precise distribution maps; scientifically accurate and readable accounts of salient characteristics; data on identification, behavior, habitat, voice, social structure, nest construction, breeding season, food, and conservation status; diagrams of flight patterns; statistics of size, wingspan, weight, clutch size, number of broods per year, and lifespan; and geographic information about breeding, wintering, and migration. Furthermore, no other bird book introduces, in such an up-to-date and lavishly illustrated manner, general material about birds: their evolution, classification, anatomy, flight, migration, navigation, courtship, mating, nests, and eggs. Scientific jargon has been avoided, but a glossary identifies concepts that benefit from an explanation. With their user-friendly format, these eastern and western guides to Birds of North America should permit readers either to enjoy studying one species account at a time, or browse to make cross comparisons.

Many field guides exist, as well as treatises on groups like gulls, hummingbirds, or sparrows; other books are dictionary-like, or focus on species of conservation concern. However, no bird book today can be called a "handbook," a concise reference work that can be conveniently carried around. I hope that these books will be useful in this role to all persons interested in birds, whether young or older, enthusiastic birder or beginner.

Historically, *Birds of North America* can be viewed as a successor to Frank M. Chapman's epochal *Handbook of the Birds of Eastern North America*, published in 1895. During his 54 years at the American Museum of Natural History in New York City, Chapman, dean of American ornithologists, blazed a trail that contributed substantially to what American ornithology, bird conservation, and birding have become. The facts that the new book has the imprint of the American Museum of Natural History, and that I, as its Editor-in-Chief, have worked there for 31 years as Curator of Ornithology and as Chairman of its Department of Ornithology, are not coincidental.

In his Handbook, Chapman treated all birds found in Eastern North America. The description of each species was followed by data on distribution, nest, and eggs, and a readable, often even brilliant text about habitat, behavior, and voice. The illustrations included plates by two pioneer American wildlife artists, Louis Agassiz Fuertes and Francis Lee Jaques, whose style inspired all those who followed them. Some of these





HOW THIS BOOK WORKS

This guide covers over 600 Western North American bird species. The species are arranged into three sections: the first profiles common species, each being given full-page treatment; the second covers rarer birds in quarterpage entries; the third section consists of a list of rare visitors.

▽ COMMON SPECIES

The main section of the book features the 369 most commonly seen bird species in Western North America. Each entry is clear and detailed, following the same format.

∇ INTRODUCTION

The species are organized conventionally by order, family, and genus. Related birds appear together, preceded by a group introduction. The book follows the most up-to-date avian classification system, based on the latest scientific research.



In this book, North America is defined as the area from the southern tip of Florida and the US–Mexico border northward to the Canadian High Arctic. Each species profile includes a map showing its range, with different colors reflecting seasonal movements. KEY Resident all year Breeding distribution Nonbreeding distribution During migration

GROUP NAME

The common name of the group the species belong to is at the top of each page.

COMMON NAME

IN FLIGHT

Illustrations show the bird in flight, from above and/or below—differences of season, age, or sex are not always visible.

DESCRIPTION

Conveys the main features and essential character of the species including:

VOICE

A description of the species' calls and songs, given phonetically where possible.

NESTING

The type of nest and its usual location; the number of eggs in a clutch; the number of broods in a year; the breeding season.

FEEDING

How, where, and what the species feeds on.

SIMILAR SPECIES

Similar-looking species are identified and key differences pointed out.

LENGTH, WINGSPAN, AND WEIGHT

Length is tip of tail to tip of bill; measurements and weights are averages or ranges.

SOCIAL

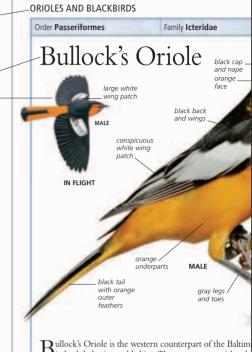
The social unit the species is usually found in.

LIFESPAN

The length of life, in years, obtained from either zoo birds or from banding and recovery records of wild birds. The actual average or maximum life expectancy of many bird species is still unknown.

STATUS

The conservation status of the species; (p) means the data available is only provisional.



Bullock's Ottole is the Western Counterpart of an about the behavior and habitat. The two were considered a belong to a single species, the Northern Oriole (*I. galbula*), because they interbreed where they overlap in the Great Plair Recent studies, however, suggest that they are separate specie. Unlike many other orioles, Bullock's is more resistant to bro parasites and removes cowbird eggs from its nest.

VOICE Varied string of one- and two-part notes often mum at the end; similar to, but less melodious, than the Baltimore NESTING Hanging basket of woven plant strips located at the branches; 4–5 eggs; 1 brood; March–June.

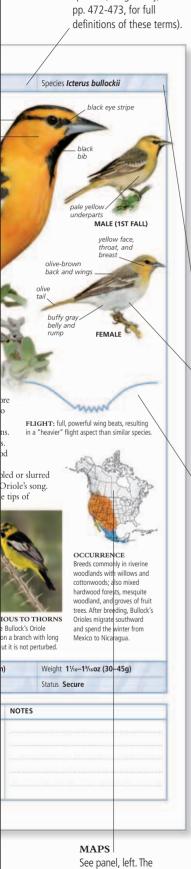
FEEDING Forages for insects, in particular grasshoppers and caterpillars, but also ants, beetles, and spiders; nectar and fruit when available.



-Length 6 ½- 7 ½ir		Wingspan 10–12in/(25-
Social Pairs/Floc	ks	Lifespan Up to 8 years
DATE SEEN	WHERE	
	-	
		31112-1200000000000000000000000000000000
		0.0111111111111111111111111111111111111
74		

HABITAT/BEHAVIOR

Photographs reveal the species in its habitat or show interesting behavior.



occurrence caption

describes the bird's preferred habitats and range within

North America.

CLASSIFICATION

The top band of each

species (see glossary,

entry provides the scientific

names of order, family, and



COLOR BAND

The information bands at the top and bottom of each entry are color-coded for each family.

PHOTOGRAPHS

These illustrate the species in different views and plumage variations. Significant differences relating to age, sex, and season (breeding/nonbreeding) are shown and the images labeled accordingly; if there is no variation, the images have no label. Unless stated otherwise, the bird shown is an adult.

FLIGHT PATTERNS

This feature illustrates and briefly describes the way the species flies. See panel below.

VAGRANTS ▷

Very rare and accidental visitors are listed at the back of the book with a brief indication of the species' status.

□ RARE SPECIES

Over 200 less common birds are presented on pp. 418-469. Arranged in the same group order used in the main section, these entries consist of one photograph of the species accompanied by a description of the bird. Information on geographical distribution, occurrence, and voice is also given.

VAGRANTS & ACCIDENTALS

THE LIST THAT FOLLOWS INCLIDES species that occur rarely in western North America (defined in this book as Canada and the continental United States user of the 100th Meridian). These species can reach North America from Eurais, Central or South America, Africa, and even Oceania, and Antarctica. The US and Canada can receive birds that drift off course, during migration, from estern Asia across the Pacific Ocean, or from Europe across the Adantic Western Mestern States and Canada and Canada

reach aimost all the way across the Bering Sea to the Russins Far Esst.

The occurrence of "uggrant" species is classified by the American Birding Association, depending on their relative frequency, and this terminology is followed in the "status" column for each species. Rare species are reported every year in small numbers. Casual visitors have been reported at least a dozen times. Accidental species have been recorded on more than five times. However, because of climatological, biological, and other factors, the status of "vagrant" species is constantly changing.

Waterfowl			
Eurasian Wigeon	Anas penelope	Anatidae	Rare visitor from Eurasia to West Coast
Garganey	Anas querquedula	Anatidae	Rare visitor from Eurasia to the Pribilofs; casual in California
Whooper Swan	Cygnus cygnus	Anatidae	Rare visitor from Eurasia to Aleutians, south to Californ
Tufted Duck	Aythya fuligula	Anatidae	Rare visitor from Eurasia to Alaska; casual along the West Coast
Smew	Mergellus albellus	Anatidae	Rare visitor from Eurasia to Alaska; casual to California
American Black Duck	Anas rubripes	Anatidae	Introduced to British Columbia and Washington state
Petrels, Shearwaters, and	d Storm-Petrels		
Cook's Petrel	Pterodroma cookii	Procellariidae	Regular visitor from New Zealand off the coast of California
Flesh-footed Shearwater	Auffinus cameipes	Procellariidae	Rare visitor from New Zealand and Australia to Californ
Wedge-rumped Storm-Petrel	Oceanodroma tethys	Hydrobatidae	Rare visitor to California coast; breeds on Galapagos an islands off Peru
Ibises and Herons			
Wood Stork	Mycteria americana	Ciconiidae	Accidental visitor from Mexico to California
Glossy Ibis	Plegadis falcinellus	Threskiomithidae	Casual visitor from the East or Central America to California
Yellow-crowned Night Heron	Nyctanassa violacea	Ardeidae	Casual visitor from Mexico to California
Reddish Egret	Egretta rufescens	Ardeidae	Rare visitor from Mexico to California
Tricolored Heron	Egretta tricolor	Ardeidae	Rare visitor from Mexico to southern California
Little Blue Heron	Egretta caerulea	Ardeidae	Rare visitor from Mexico to West Coast from Cali fornia to British Columbia
Pelicans and Relatives			
Brown Booby	Sula leucogaster	Sulidae	Rare visitor to southern California
Eagles			
Steller's Sea Eagle	Haliacetus pelagicus	Accipitridae	Casual visitor from eastern Asia to Alaska
Plovers and Sandpipers			
Common Ringed Plover	Charadrius histicula	Charadriidae	Casual visitor from Eurasia to the Aleutian and Pribilof Islands
Lesser Sand Plover/ Mongolian Plover	Charadrius mongolus	Charadriidae	Rare visitor from Asia to West Alaska and Pacific Coast
Wood Sandpiper	Tringa glareola	Scolopacidae	Rare visitor from Eurasia to Alaska and south to Californ
American Woodcock	Scolopax minor	Scolopacidae	Casual from the East to the West and Southwest
Black-tailed Godwit	Limosa limosa	Scolopacidae	Casual visitor from Eurasia to the Aleutian and Pribilof Islands
Common Sandpiper	Actitis hypoleucos	Scolopacidae	Casual visitor from Eurasia to western Alaska and the Aleutian Islands
Gray-tailed Tattler	Heterascelus brevipes	Scolopacidae	Rare visitor from Asia to Alaska, southward to Californi
170			

FLIGHT PATTERNS

Simple line diagrams are used to illustrate eight basic flight patterns.

wing beats

Woodpecker-like: bursts of wing beats between deeply undulating glides.

Finch-like: light, bouncy action with flurries of wing beats between deep, undulating glides.

Grouse-like: bursts of wing beats between short, straight glides.

Accipiter Hawk-like: straight, with several quick, deep beats between short glides.

Gull-like: continually flapping, with slow, steady wing beats; also glides.

Duck-like: continually flapping, with fast wing beats.

Buteo-like: deep, slow wing beats between soaring glides.

Swallow-like: swooping, with bursts of wing beats between glides.

EVOLUTION

RNITHOLOGISTS AGREE THAT BIRDS evolved from dinosaurs about 150 million years ago, but there is still debate about the dinosaur group from which they descended. Around 10,000 species of birds exist today, living in many different kinds of habitats across the world, from desert to Arctic tundra. To reconstruct how avian evolution occurred, from *Archaeopteryx* on up to the present, scientists use many clues, especially fossil birds, and now DNA.

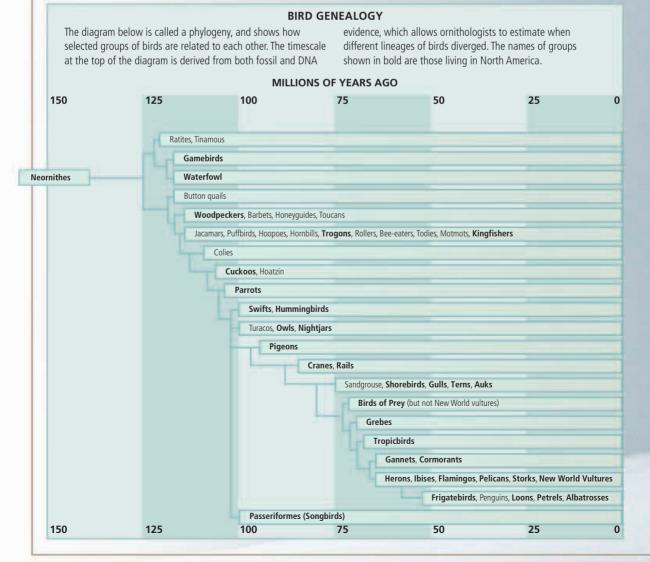


MISSING LINK?

Archaeopteryx, shown here, is a 145-million-year-old fossil. It had dinosaur-like teeth, but hird-like feathers

SPECIATION

What are species and how do they evolve? Species are biological entities. When two species of a genus overlap they rarely interbreed and produce hybrids. The Northern Flicker has an eastern (yellow-shafted) and a western (red-shafted) form; after the discovery that these two forms interbreed in the Great Plains, the flickers, which were formerly "split" into two species, are now considered one. In other cases, a previously single species, such as the Sage Grouse, has been divided. Such examples illustrate how species evolve, first by geographic separation, followed in time by overlap. This process can take from tens of thousands to millions of years.





This magnificent species is diurnal, unlike most other owls, which are nocturnal. The Snowy Owl breeds in the Arctic tundra, and if the ground is covered with snow, it blends in perfectly.

CONVERGENCE

The evolutionary process during which birds of two distantly related groups develop similarities is called convergence. Carrion-eating birds of prey are one example. Old World vultures belong to the hawk family (Accipitridae), while New World vultures are more closely related to storks. However, both groups are characterized by hooked bills, bare heads, and weak talons. Convergence can involve anatomy and behavior, as in the vultures, or other traits, including habitat preference.

PARALLEL EVOLUTION

The African longclaws (family Motacillidae) and North American meadowlarks (family Icteridae) show convergence in plumage color and pattern. Both groups live in grasslands.



LONGCLAW

WESTERN MEADOWLARK

EXTINCTION

During the last 150 years, North America has lost the Passenger Pigeon, the Great Auk, the Carolina Parakeet, the Labrador Duck, and the Eskimo Curlew. Relentless hunting and habitat destruction are the main factors that have led to extinction. Some species that seemed doomed have had a reprieve. Thanks to a breeding and release program, the majestic California Condor soars once again over the Grand Canyon.

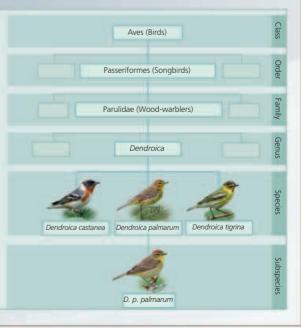


OVERHUNTING

The Passenger Pigeon was eradicated as a result of over hunting.

CLASSIFYING BIRDS

All past and present animal life is named and categorized into groups. Classifications reflect the genealogical relationships among groups, based on traits such as color, bones, or DNA. Birds make up the class "Aves," which includes "orders;" each "order" is made up of one or more "families." "Genus" is a subdivision of "family," and contains one or more "species." A species is a unique group of similar organisms that interbreed and produce fertile offspring. Some species have distinct populations, which are known as subspecies.



ANATOMY AND FLIGHT In spite of their external diversity, birds are remarkably similar internally. To allow flight, birds have a skeleton that is both rigid and light. Rigidity is achieved by the fusion of some bones, especially

the lower vertebrae, while lightness is maintained by having hollow limb bones. These are connected to air sacs, which, in turn, are connected to the bird's lungs.

SKELETON

Avian skeletal features include the furcula (wishbone), the keeled sternum (breastbone), and the fused tail vertebrae.

*j*ertehrae fused tail vertebrae furcula keeled sternum secondaries

rump

primaries

"hand"

FLIGHT ADAPTATIONS

For birds to be able to fly, they need light and rigid bones, a lightweight skull, and hollow wing and leg bones. In addition, pouch-like air sacs are connected to hollow bones, which reduce a bird's weight. The air sacs also function as a cooling system, which birds need because they have a high metabolic rate. The breast muscles, which are crucial for flight, attach to the keeled sternum (breastbone). Wing and tail feathers help support birds when airborne. Feathers wear out, and are regularly replaced during molt.

BIRD BONE STRUCTURE

Most bird bones, except those of penguins and other flightless birds, are hollow, which reduces their weight. A honeycomb of internal struts makes the bones remarkably strong.

UNDERPARTS

Underwing coverts have a regular pattern

of overlapping rows

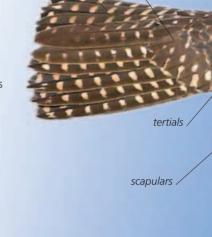
Short feathers

cover the head

flanks. In most

birds, the toes

breast, belly, and



uppertail

coverts

tail

feathers

LEGS, FEET, AND TOES

When you look at a bird's leg, you do not see its thigh, which is inside the body cavity, but the leg from the knee down. When we talk about a bird's feet we really mean its toes. The shin is a fused tibia and fibula. This fused bone plus the heel are known as the "tarso-metatarsus." The four examples below illustrate some toe arrangements.



axillaries

undertail



Ground-foraging birds usually have a long hind claw.

enables strong grip on branches CLIMBING Most climbers have two toes

forward and two backward.



SWIMMING

Waterbirds have webbing between their toes.



Birds of prey have powerful toes and strong, sharp claws.





coverts. The tertials are adjacent to the secondaries.

FEATHERS

All birds, by definition, have feathers. These remarkable structures, which are modified scales, serve two main functions: insulation and flight. Special muscles allow birds to raise their feathers or to flatten them against the body. In cold weather, fluffed-out feathers keep an insulating layer of air between the skin and the outside. This insulating capacity is why humans often find wearing "down" jackets so effective against the cold. The first feathers that chicks have after hatching are down feathers. The rigidity of the flight feathers helps create a supporting surface that birds use to generate thrust and lift.

TYPES OF FEATHERS Birds have three main kinds of feathers: down, contour, and flight feathers. The rigid axis of all feathers is called the "rachis." CONTOUR FLIGHT FEATHER FEATHER FFATHER

WING FUNCTIONS

Flapping, soaring, gliding, and hovering are among the ways birds use their wings. They also exhibit colors or patterns as part of territorial and courtship displays. Several birds, such as herons, open their wings like an umbrella when foraging in water for fish. An important aspect of wings is their relationship to a bird's weight. The ratio of a bird's wing area to its weight is called wing loading, which may be affected also by wing shape. An eagle has a large wing area to weight ratio, which means it has lower wing loading,

whereas a swallow has a small wing area to weight ratio, and therefore high wing loading. This means that the slow, soaring eagle is capable of much more energy-efficient flight than the fast, agile swallow.



LONG AND BROAD

The broad, long, rectangular wings of an eagle allow it to soar. The outstretched alulae (bastard wings) give it extra lift.



SHORT AND ROUND

Short, broad, and round wings permit warblers to move easily in dense vegetation.

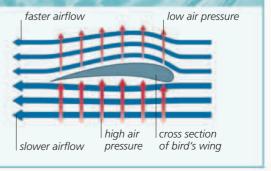


POINTED Broad at their base and tapering toward a point, and bent at the wrist, a swallow's

wings enable fast flight and sharp turns.

WING AERODYNAMICS

The supporting surface of a bird's wing enables it to take off and stay aloft. Propulsion and lift are linked in birds—which use their wings for both—unlike in airplanes in which these two functions are separate. Large and heavy birds, like swans, flap their wings energetically to create propulsion, and need a long, watery runway before they can fly off. The California Condor can take off from a cliff with little or no wing flapping, but the Black and Turkey Vultures hop up from carrion, then flap vigorously, and finally use air flowing across their wings to soar. This diagram shows how airflow affects lift.



MIGRATION

NTIL RECENTLY, THE MECHANICS, or the "how" of migration, was poorly understood. Today, however, ornithologists know that birds use a variety of cues including visual and magnetic, whether they migrate by day or by night. Birds do not leave northern breeding areas because of the winter cold, but because day-length is getting shorter and food scarcer.



NIGHT MIGRANTS

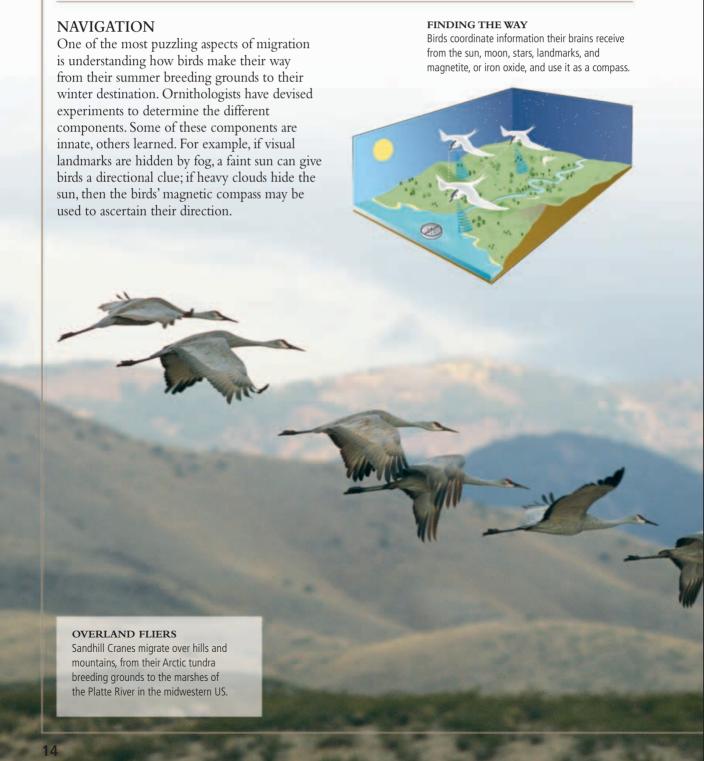
During migration, ornithologists can point a telescope on the moon and count the birds that cross its surface.



REFUELINGRed Knots stop on their journey from Tierra del Fuego to the Arctic to eat horseshoe crab eggs.

INSTINCTIVE MOVE

Even though many birds use visual cues and landmarks during their migration, for example, birds of prey flying along the Appalachians, "instinctive" behavior must control much of how and where they move. Instinct is a loose term that is hard to define, but ornithologists generally understand it as a genetically programmed activity. They assume that natural selection has molded a behavior as complex as migration by acting on birds' DNA; this hypothesis is reasonable, but hard to prove. Nevertheless, it would seem to be the only explanation why many juvenile shorebirds leave their breeding grounds after their parents, and yet find their way to their final destination.



EPIC JOURNEY

migrant, breeding in Arctic

and Subarctic regions, and

wintering in the pack ice of

Antarctica before returning north, a round-trip distance

of at least 25,000 miles

(40,000km).

The Arctic Tern is a notorious long-distance

GLOBETROTTERS

Some bird species in North America are year-round residents, although a few individuals of these species move away from where they hatched at some time in the year. However, a large number of North American species are migratory. A few species breed in Alaska, but winter on remote southwest Pacific islands. Others breed in the Canadian Arctic Archipelago, fly over land and the Pacific Ocean, and spend the winter at sea off the coast of Peru. Many songbirds fly from the Gulf Coast to northern South America. The most amazing globetrotters, such as the Red Knot, fly all the way to Tierra del Fuego, making only a few stops along the way after their short breeding season in the Arctic tundra. The return journeys of some of these travelers are not over the

some of these are not over the same route—instead, their entire trip is elliptical in shape.

KEY

Trans-Pacific routeCoastal Pacific route

Arctic to Pacific routeTrans-Gulf route

Atlantic to Caribbean route
Argentina to Arctic route

Arctic-Atlantic Neotropical route



NEOTROPICAL MIGRANT

Many wood-warblers, such as this Blackpoll Warbler, breed in boreal forests, before migrating to their wintering grounds in the Caribbean, or Central or South America.



MIGRATION ROUTES

The map above shows the range of migration routes that some North American species take to and from their breeding grounds.

V-FORMATION

Geese and other large waterbirds fly in a V-formation. The leader falls back and is replaced by another individual, saving energy for all the birds.

PARTIAL MIGRANT

The American Robin is a good example of a partial migrant, a species in which the birds of some populations are resident, whereas others migrate out of their breeding range. Most Canadian populations of the American Robin fly south, US populations are largely resident, and quite a few birds from either population spend the winter in the Southwest, Florida, or Mexico.

KEY

Breeding distributionResident all year

Nonbreeding distribution



COURTSHIP AND MATING

Whether monogamous or not, males and females need to mate for their species to perpetuate itself. With most species, the male plays the dominant role of advertising a territory to potential mates using vocal or visual displays. Females then select a male, and if the two respond positively to each other, a period of courtship follows, ending in mating. The next steps are nest building, egg laying, and rearing the young.



DANCING CRANES
During courtship, Sandhill
Cranes perform spectacular
dances, the two birds of a pair
leaping into the air with wings
opened and legs splayed.

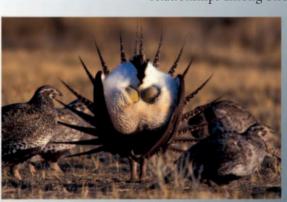
DISPLAYS Mutual attraction between the sexes starts with some sort of display, usually performed by the male. These displays can take a number of forms, from flashing dazzling breeding plumage, conducting elaborate dancing rituals, performing complex songs, offering food or nesting

WELCOME HOME

Northern Gannets greet

their mates throughout the breeding season by rubbing bills together and opening their wings.

material, or actually building a nest. Some birds, such as grebes, have fascinatingly intricate ceremonies, in which both male and female simultaneously perform the same water-dance. Because they are usually very ritualized, displays help ornithologists understand relationships among birds.



LADIES' CHOICEOn a lek (communal display area), male Sage-Grouse inflate chest pouches while females flock around them and select a mate.

COURTSHIP FEEDING

In some species, males offer food to their mate to maintain the pair-bond. For example, male terms routinely bring small fish to their mates in a nesting colony, spreading their wings and tail until the females accept the fish.



MAINTAINING RELATIONS

A male Northern Cardinal offers food to the female, which is a way of reinforcing their pair bond.

BREEDING

After mating, a nest is made, often by the female, where she lays from one to a dozen eggs. Not all birds make nests, however. Nightjars, for example, lay their eggs directly on the ground. In many species, incubation doesn't start until the female has laid all the eggs. Incubation, usually done by the female, varies from about 12 days to about 45 days. Songbirds breeding from the temperate zone northward to the Arctic show a range in clutch size with more eggs produced in the North than in the South. The breeding process can fail at any stage, for example, a predator can eat the eggs or the chicks. Some birds will nest again after such a failure, but others give up breeding for the season.



POLYGAMY
This Winter Wren collects
nesting material for one of
the several nests he will build.

MONOGAMOUS BONDS

Some birds, such as Snow Geese, remain paired for life after establishing a bond.



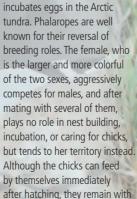
MATING TERNS

Mating is usually brief, and typically takes place on a perch or on the ground, but some species, like swifts, mate in the air. This male Black Tern balances himself by opening his wings.

MUTUAL PREENING

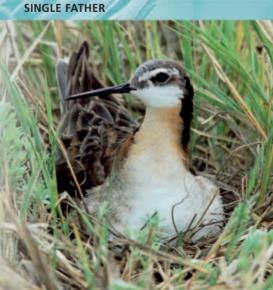
Many species of albatrosses, like these Black-footed Albatrosses from the Pacific, preen each other, with one bird softly nibbling the feathers on the other's head.





a male before growing feathers and living on their own.

A male Red-necked Phalarope



NESTS AND EGGS

MOST BIRD SPECIES BUILD THEIR OWN NEST, which is a necessary container for their eggs. Exceptions include some species of cuckoos and cowbirds, that lay their eggs in other species' nests. Nest-building is often done by the female alone, but in some species the male may help or even build it himself. Eggs are incubated either by females only, or by males and females, depending on the species. Eggs, consisting of 60 percent water, contain a fatty yolk for nourishment of the embryo, as well as sugars and proteins. Eggshells are hard enough to sustain the weight of incubating parents, yet soft enough for a chick to break its way out. Hatching is an energy-draining process, and can last for several hours.

NEST TYPES

In addition to the four types shown below, nests range from a simple scrape in the ground with a few added pebbles to an elaborate woven basket-like structure. Plant matter forms basic nest material. This includes twigs, grass stems, bark, lichens, mosses, plant down, and rootlets. Some birds add mud to their nest for strength. Others incorporate animal hair or feathers to improve its softness and insulation. Female eider ducks line their nest with down feathers plucked from their belly. Some birds include bits of plastic or threads in their nests. Several species of flycatchers add shed snakeskins to their nests. Many birds make their nest or lay their eggs deep inside the empty burrows of other animals. Burrowing Owls nest in prairie dog burrows, where they coexist with the rodents.

UNTIDY NEST

Huge stick nests, built on top of dead trees, are the hallmark of Ospreys. They also readily use custom-made nesting platforms erected by humans specifically for them.



EGG CUP

A clutch of three blue robin's eggs rest in a cup lined with grass stems and strengthened with mud. Robins build their nests either in shrubs or trees.



Cavity-nesting bluebirds have been affected by habitat loss, and compete with other birds for nest sites, which may include human-made structures.



New World orioles weave intricate nests from dried grass stems and other plant material, and hang them from the tip of branches, often high up in trees.



EGG SHAPES

There are six basic egg shapes among birds, as illustrated to the right. The most common egg shapes are longitudinal or elliptical. Murres lay pear-shaped eggs, an adaptation for nesting on the narrow ledges of sea cliffs; if an egg rolls, it does so in a tight circle and remains on the ledge. Spherical eggs with irregular red blotches are characteristic of birds of prey. Pigeons and doves lay white oval eggs, usually two per clutch. The eggs of many songbirds, including sparrows and

buntings, are conical and have a variety of dark markings on a pale background.



PEAR SHAPED LONGITUE



COLOR AND SHAPE

Birds' eggs vary widely in terms of shape,

Robin's egg on the left is a beautiful blue.

colors, and markings. The American

LONGITUDINAL



ELLIPTICAL



OVAL



CONICAL



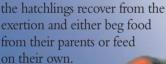
SPHERICAL

NEAT ARRANGEMENT

Many shorebirds, such as plovers and sandpipers, lay four conical eggs with the narrow ends pointed in toward each other.

HATCHING CONDITION

After a period of incubation, which varies from species to species, chicks break the eggshell, some of them using an egg tooth, a special bill feature that falls off after hatching. After a long and exhausting struggle, the chick eventually tumbles out of the shell fragments. The transition from the watery medium inside the egg to the air outside is a tremendous physiological switch. Once free of their shell, the hatchlings recover from the





FOOD DELIVERY

Tern chicks, although able to move around, cannot catch the fish they need to survive, and must rely on their parents to provide food until they can fly.



PARENTAL GUIDANCE

Birds of prey, such as these Snowy Owl owlets, need their parents to care for them longer than some other bird species, and do not leave the nest until their feathers are sufficiently developed for their first flight.



Coots, gallinules, and rails hatch with a complete covering of down, and can feed by themselves immediately after birth.

BROOD PARASITISM



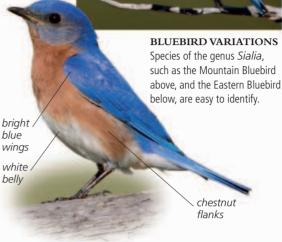
Neither cowbirds in the New World nor cuckoos in the Old World make a nest. Female cowbirds deposit up to 20 eggs in the nests of several other species. If the foster parents accept the foreign egg, they will feed the chick of the parasite until it fledges. In the picture below, a tiny wood-warbler feeds its adopted chick, a huge cowbird hatchling that has overgrown the nest. Whereas some host species readily incubate the foreign egg, others reject it or abandon the nest.

IDENTIFICATION

Some species are easy to identify, but in many other cases, species identification is tricky. In North America, a notoriously difficult group in terms of identification is the wood-warblers, especially in the fall, when most species have similar greenish or yellowish plumage.

GEOGRAPHIC RANGE

Each bird species in North America lives in a particular area that is called its geographic range. Some species have a restricted range; for example, Kirtland's Warbler occurs only in Michigan. Other species, such as the Red-tailed Hawk, range from coast to coast and from northern Canada to Mexico. Species with a broad range usually breed in a variety of vegetation types, while species with narrow ranges often have a specialized habitat; Kirtland's Warblers' is jack pine woodland.



SIZE AND WEIGHT

From hummingbird to Tundra Swan and from extra-light (1/160z) to heavy (15 lb), such is the range of sizes and weights found among the bird species of North America. Size can be measured in several ways, for example the length of a bird from bill-tip to tail-tip, or its wingspan. Size can also be estimated for a given bird in relationship with another that is familiar. For example, the less familiar Bicknell's Thrush can be compared with the well-known American Robin.



Smaller shorebirds, with shorter legs and bills, forage in shallow water, but larger ones have longer legs and bills and can feed in deeper water.



SEMIPALMATED PLOVER



LESSER YELLOWLEGS



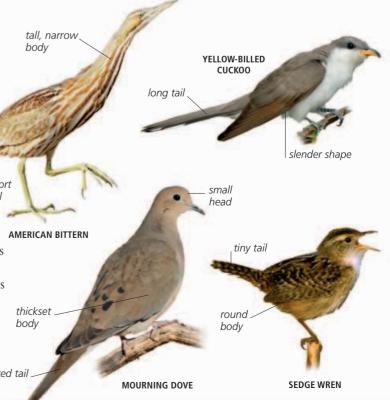
HUDSONIAN GODWIT



LONG-BILLED CURLEW

GENERAL SHAPE

Just as birds come in all sizes, their body shapes vary, but size and shape are not necessarily correlated. In the dense reed beds in which it lives, the American Bittern's long and thin body blends in with stems. The round-bodied Sedge Wren hops in shrubby vegetation or near the ground where slimness is short tail not an advantage. In dense forest canopy, the slender and long-tailed Yellow-billed Cuckoo can maneuver easily. Mourning Doves inhabit rather open habitats and their plumpness is irrelevant when it comes to their living space. The relative shape and length of wings and tail are often, but not always, an important component of how a particular bird long, pointed tail species behaves.



BILL SHAPE

These images show a range of bill shapes and sizes relative to the bird's head size. In general, bill form, including length or thickness, corresponds to the kinds of food a birds consumes. With its pointed bill, the Mountain Chickadee picks tiny insects from crevices in tree bark. At another extreme, dowitchers probe mud with their long thin bills, feeling for worms. The avocet swishes its bill back and forth in briny water in search of shrimp.



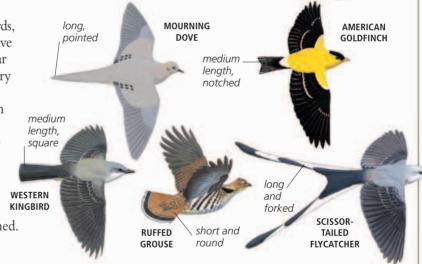
WING SHAPE

Birds' wing shapes are correlated with their flight style. The long, round-tipped wings of the Red-tailed Hawk are perfect for soaring, while the tiny wings of hummingbirds are exactly what is needed to hover in front of flowers and then to back away after a meal of nectar. When flushed, quails flutter with their round wings and quickly drop down.



TAIL SHAPE

It is not clear why some songbirds, like the American Goldfinch, have a notched tail while other similar sized birds do not. Tail shapes vary as much as wing shapes, but are not so easily linked to a function or to the habitat in which a given species lives. Irrespective of shape, tails are needed for balance. In some birds, tail shape, color, and pattern are used in courtship displays or in defensive displays when threatened.



COLORS AND MARKINGS

Melanin and carotenoid pigments determine color. Gray and brown birds have melanin (under hormonal influence), yellow and red ones, carotenoid (derived from food). Flamingos are pink because they eat carotenoid-rich crustaceans. Diversity in color and markings also results from scattering of white light by feathers (producing blue colors) and optical interference (iridescence) due to the structural properties of some feathers (as in hummingbirds). Bare patches of skin are often used in displays.



SPECIES GUIDE



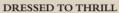
GAMEBIRDS

This diverse and adaptable group of birds thrives in habitats ranging from hot desert to frozen tundra. Gamebirds spend most of their time on the ground, springing loudly into the air when alarmed.

QUAILS

Among the most terrestrial of all gamebirds, quails are renowned for their great sociability, often forming large family groups, or "coveys," of up to 100 birds. The five species found in western North America each live in a specific habitat or at a particular elevation, but the single species found in

the East, the Northern Bobwhite, ranges over a variety of habitats.



With its striking plumage, Gambel's Quail is one of the best-known desert birds in southwestern North America.



The most numerous and widespread of gamebirds, the 12 different species of grouse can be divided into three groups based on their preferred habitats. Forest grouse include the Sooty Grouse and Dusky Grouse in the West, as well as the Spruce Grouse and Ruffed Grouse in the North. Prairie grouse, including the Sharp-tailed Grouse, are found throughout the middle of the continent. All three tundra and mountaintop grouse or ptarmigan are found in the extreme North and the Rockies. Grouse often possess patterns that match their surroundings,

providing camouflage from both animal and human predators.

GRASSLAND GROUSE

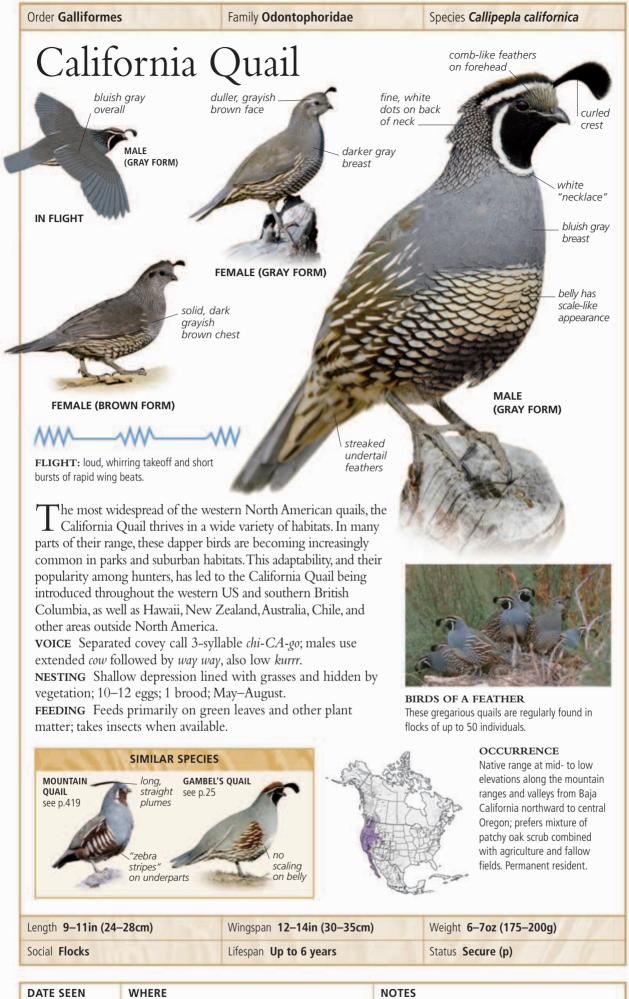
The aptly named Sharp-tailed Grouse is locally common in western prairies. It searches for grasshoppers in the summer.



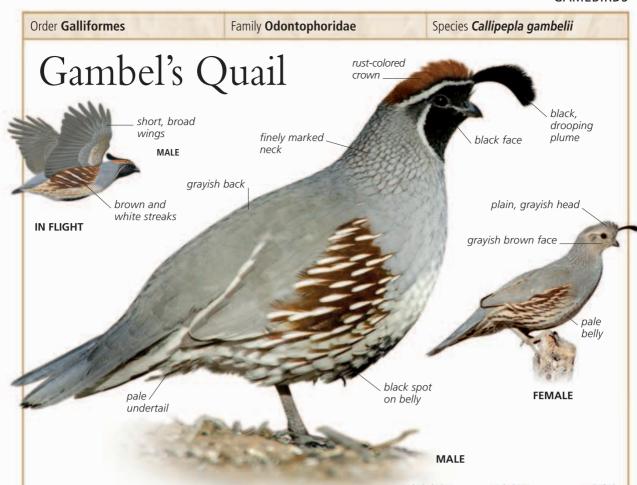
PHEASANTS & PARTRIDGES

These Eurasian gamebirds were introduced into North America in the 19th and 20th centuries to provide additional targets for recreational hunters. While some introductions failed, species such as the colorful Ring-necked Pheasant adapted well and now thrive in established populations.





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ambel's Quail is a highly social bird of the low-elevation deserts and valley floors of the Southwest, particularly Arizona and northern Mexico, where it it often known as the Desert or Arizona Quail. While tolerant of hot, dry conditions, its breeding success depends entirely on local rainfall, which produces the green plants that make up most of its diet. Gambel's Quail is a popular game bird throughout its range, readily identified by its drooping black "topknot," or plume, in addition to its distinctive calls.

VOICE Most common call: chi-CA-go-go; males attract mates with kaa or kaaow; alarmed birds utter chip-chip-chip.

NESTING Small depression defined by twigs and lined with

March–June. **FEEDING** Feeds mainly on seeds, green leaves, and grasses, also berries, cactus fruit; insects eaten by young and breeding birds.

grass and leaves, usually within cover; 10-12 eggs; 1 brood;

FLIGHT: prefers running; makes short, explosive flight of rapid wing beats followed by glide.



SHOWING OFF ITS CHESTThis Gambel's Quail shows its distinctive blue, white, and blackish underparts.

SIMILAR SPECIES MOUNTAIN QUAIL See p.419 long, thin, straight plume broadly striped flanks SIMILAR SPECIES CALIFORNIA QUAIL See p.24 buff forehead scaly lower belly; no black spot

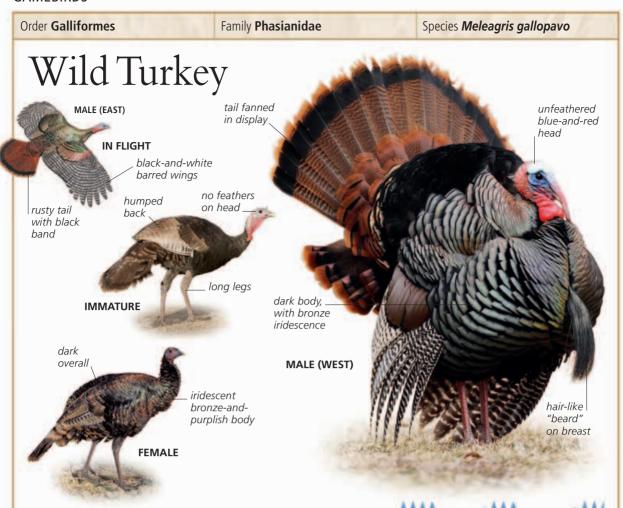


Strongly associated with scrub/shrub river edge or gulley vegetation, including mesquite, various grasses, and a variety of cactus species, especially where these species border agricultural properties.

OCCURRENCE

Length 9 ½ –11in (24–28cm)	Wingspan 12½–14in (32–35cm)	Weight 6oz (175g)
Social Flocks	Lifespan Up to 4 years	Status Secure

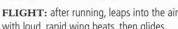
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nce proposed by Benjamin Franklin as the national emblem of the US, the Wild Turkey—the largest gamebird in North America—was eliminated from most of its original range by the early 1900s due to over-hunting and habitat destruction. Since then, habitat restoration and the subsequent reintroduction of Wild Turkeys has been very successful.

VOICE Well-known gobble, given by males especially during courtship; female makes various yelps, clucks, and purrs, based on mood and threat level.

NESTING Scrape on ground lined with grass; placed against or under protective cover; 10-15 eggs; 1 brood; March-June. FEEDING Omnivorous, it scratches in leaf litter on forest floor for acorns and other food, mostly vegetation; also takes plants and insects from agricultural fields.

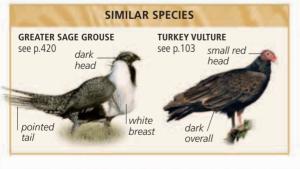


with loud, rapid wing beats, then glides.



COLLECTIVE DISPLAY

Once the population expands into new areas, numerous males will be seen displaying together.





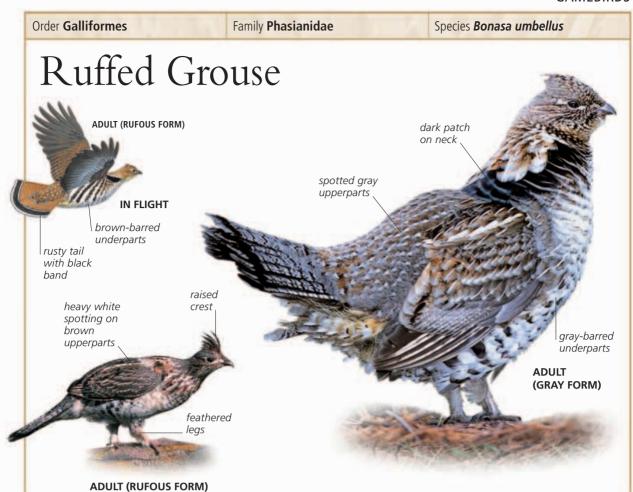
OCCURRENCE

Found in mixed mature woodlands, fields with agricultural crops; also in various grasslands, close to swamps, but adaptable and increasingly common in suburban and urban habitats. Quite widespread, but patchily distributed across North America.

Length 23/4-4ft (0.9-1.2m)	Wingspan 4–5ft (1.2–1.5m)	Weight 10–24lb (4.5–11kg)
Social Flocks	Lifespan Up to 9 years	Status Secure

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The Ruffed Grouse is perhaps the most widespread gamebird in North America. There are two color forms, rufous and gray, both allowing the birds to remain camouflaged and undetected on the forest floor, until they eventually burst into the air in an explosion of whirring wings. The male is well known for his extraordinary wing beating or "drumming" display, which he performs year-round, but most frequently in the spring.

VOICE Hissing notes, and soft *purrt*, *purrt*, *purrt* when alarmed, by both sexes; males "drumming" display when heard from distance resembles small engine starting, *thump...thump...thump...thump...thuthuthuth*.

NESTING Shallow, leaf-lined bowl set against a tree trunk, rock or fallen log in forest; 6–14 eggs; 1 brood; March–June.

FEEDING Forages on ground for leaves, buds, and fruit; occasionally insects.





WARM RED
The rufous form of the Ruffed
Grouse is more common in
wetter parts of the continent.

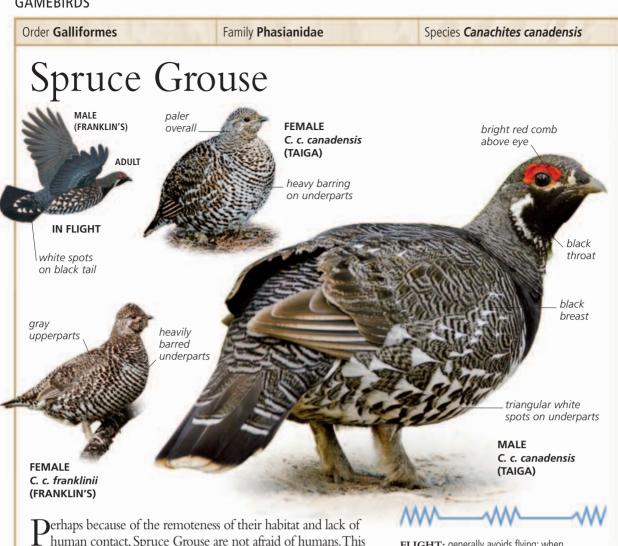
 $\label{flight:flight:flight:flight} \textbf{FLIGHT:} \ \ \text{an explosive takeoff, usually at close} \\ \ \ \text{range, glides for a short distance before landing.} \\$



Found in young, mixed forests throughout the northern US and much of Canada except tundra. Southern edge of range extends along higher elevations of the Appalachians and middle levels of the Rocky Mountains, if suitable habitat is available.

Length 17–20in (43–51cm)	Wingspan 20–23in (51–58cm)	Weight 20–22oz (575–625g)
Social Solitary/Small flocks	Lifespan Up to 10 years	Status Secure

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human contact, Spruce Grouse are not afraid of humans. This lack of wariness when approached has earned them the name "fool hens." Their specialized diet of pine needles causes the intestinal tract to expand in order to accommodate a large volume of food to compensate for its low nutritional value. There are two subspecies (C. c. canadensis and C c. franklinii), both of which have red and gray forms; Franklin's is found in the Northwest.

VOICE Mostly silent; males clap their wings during courtship display; females often utter long cackle at dawn and dusk. **NESTING** Lined with moss, leaves, feathers; often at base of tree; naturally low area in forest floor 4-6 eggs; 1 brood; May-July. FEEDING Feeds mostly on pine but also spruce needles; will eat insects, leaves, fruits, and seeds when available.

FLIGHT: generally avoids flying; when disturbed, bursts into flight on whirring wings.



RUFOUS BAND The male "taiga" subspecies displays the thin rufous band on the tip of his tail.

SIMILAR SPECIES **RUFFED GROUSE DUSKY GROUSE** much see p.29 see p.27 largei spotted grav longer, charcoalgray tail. grayer gray-barred underparts



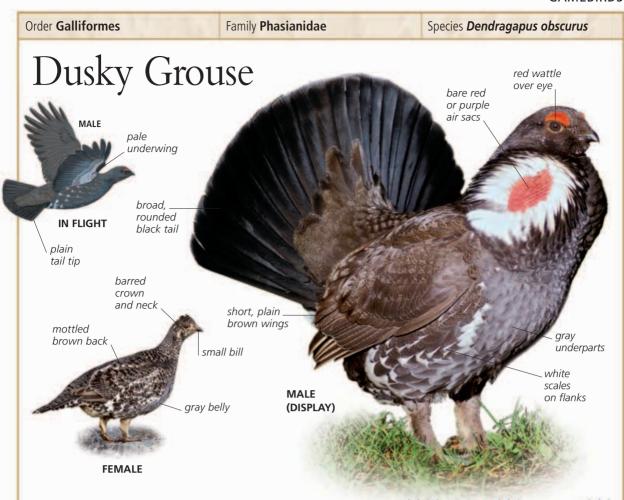
Present year-round in forests dominated by conifers, including Jack, Lodgepole, Spruce, Red Spruce, Black Spruce, Balsam Fir, Subalpine Fir, Hemlock, and Cedar. Found from western Alaska to the Atlantic Coast.

OCCURRENCE

Length 14–17in (36–43cm)	Wingspan 21–23in (53–58cm)	Weight 16oz (450g)
Social Solitary	Lifespan Up to 10 years	Status Secure

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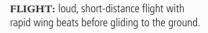


Once considered a single species, the Blue Grouse, the Dusky Grouse, and the Sooty Grouse are now considered distinct species. Male Dusky Grouse can be identified by their courtship displays, which are primarily ground-based and quieter than those of the Sooty Grouse, and by their reddish purple air sacs. The Dusky Grouse also has a plain tail, lacking the gray tip of the Sooty, and its chicks are more gray than brown.

VOICE A series of five soft hoots; also a hiss, growl, and cluck; females emit a whinnying cry.

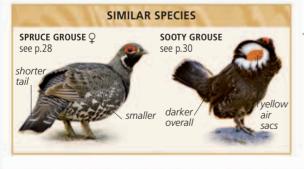
NESTING Shallow scrape, usually lined with dead grass, leaves, or other plants, located under shrubs, against rocks or logs; 7–10 eggs; 1 brood; March–May.

FEEDING Feeds on leaves, flowers, fruit, also some insects; evergreen needles, buds, and cones in season.





FREEZING FOR SAFETYThis female Dusky Grouse stands still as a statue, relying on camouflage, not flight, for protection.





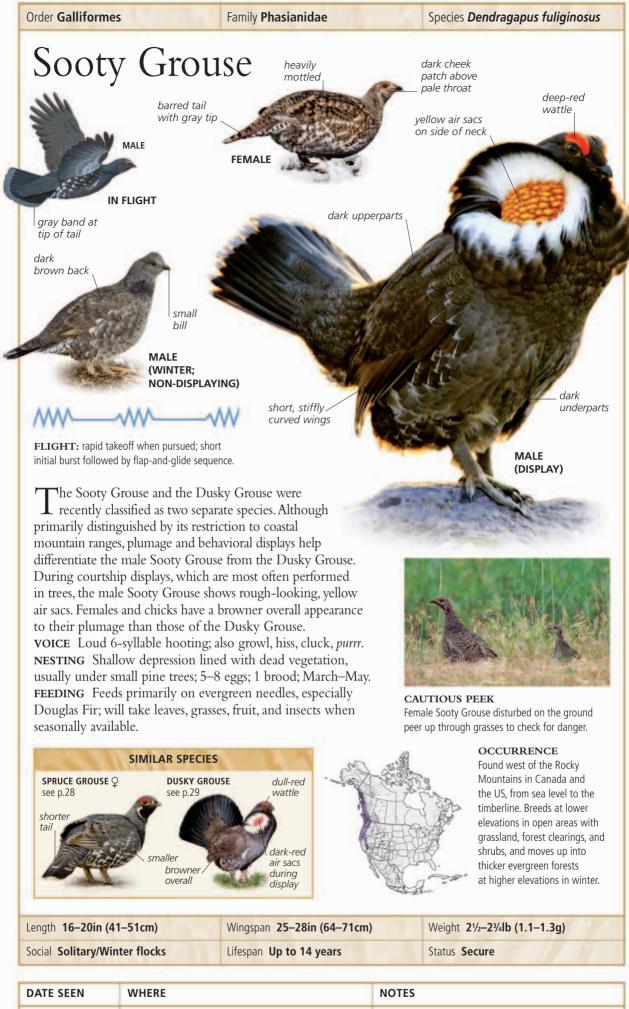
OCCURRENCE

Found in the northern and central Rocky Mountains in Canada and US in high or mid-altitude open forests and shrublands. Typically uses older, denser, mixed, or evergreen forests at higher elevations in winter, more open-country, lighter forests at lower elevations in summer.

Length 16–20in (41–51cm)	Wingspan 25–28in (64–71cm)	Weight 2½–2¾lb (1.1–1.3kg)
Social Solitary/Winter flocks	Lifespan Up to 14 years	Status Localized

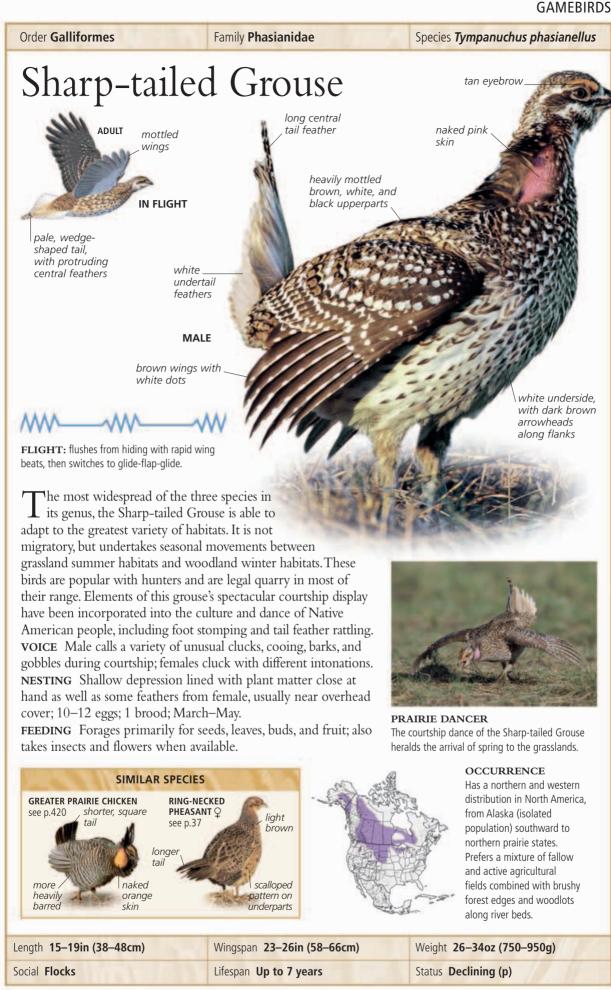
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The smallest and most southern of the three North American ptarmigan, the White-tailed Ptarmigan's native range is still largely intact. In the winter, its completely white plumage—unique among gamebird species—blends in perfectly with its icy mountain home. Its plumage is one of several adaptations to the inhospitable environment it inhabits. The feathers on its feet increase the surface area in contact with the ground, and so help to prevent the bird from sinking into the snow.

VOICE Males emit various cackling clucks, *cuk-cuk-cuuuk* during display; females cluck, purr, and growl softly.

NESTING Scrape in ground lined with plants and feathers; 4–8 eggs; 1 brood; May–June.

FEEDING Feeds heavily on willows, eating mostly leaves, buds, and twigs; insects when nesting.

WILLOW PTARMIGAN ☆

see p.34

reddish brow

summer plumage

SIMILAR SPECIES

ROCK PTARMIGAN ☆

see p.33

grayer summ



FLIGHT: rarely flies unless pursued; flush on explosive wing beats, then flap-and-glide sequence.



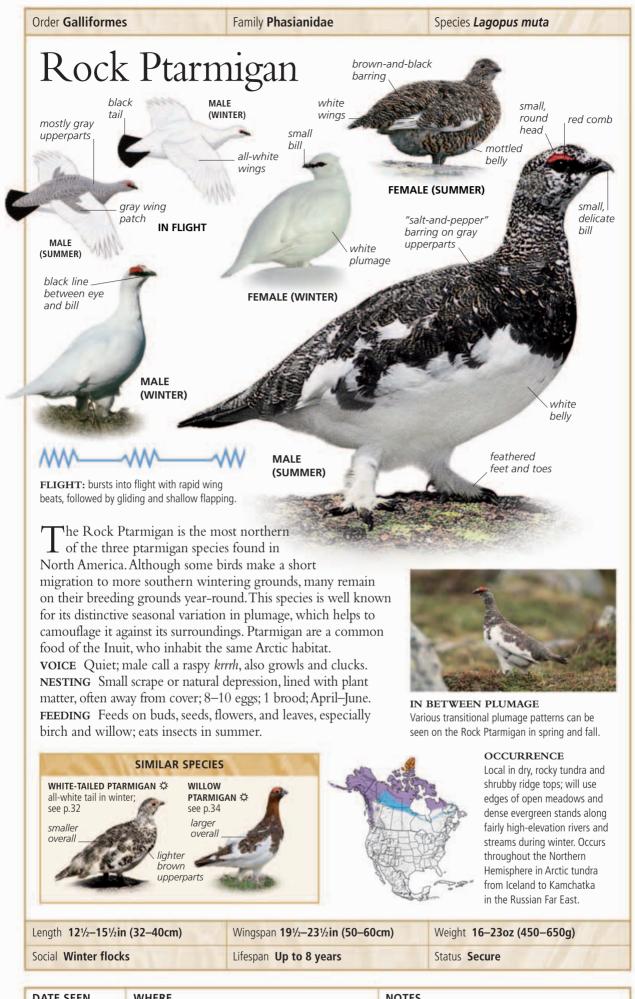
WHITE ON WHITE Immobile on white snow, the male blends in superbly with the wintry surroundings.

OCCURRENCE

Has a more restricted distribution than Rock and Willow Ptarmigan, occurring from Alaska south to Idaho and Montana; small isolated populations exist in Colorado and New Mexico. Strongly associated with willow stands above tree-line; also meadows and evergreen stand mixtures.

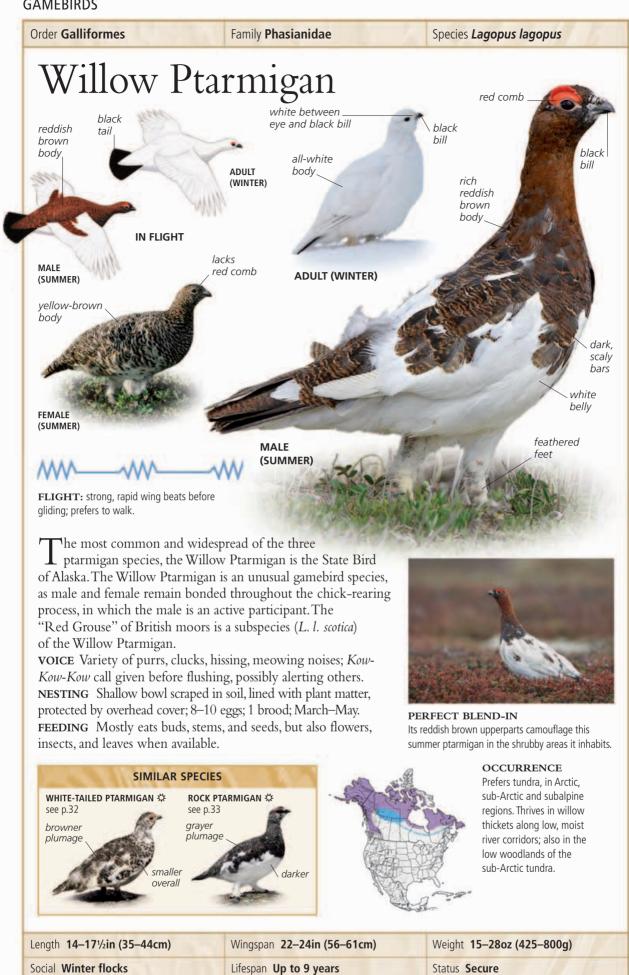
overall overall	parts	above tree-line; also meadows and evergreen stand mixtures.
Length 12in (30–31cm)	Wingspan 20–22in (51–56cm)	Weight 12–16oz (350–450g)
Social Large flocks	Lifespan Up to 15 years	Status Secure

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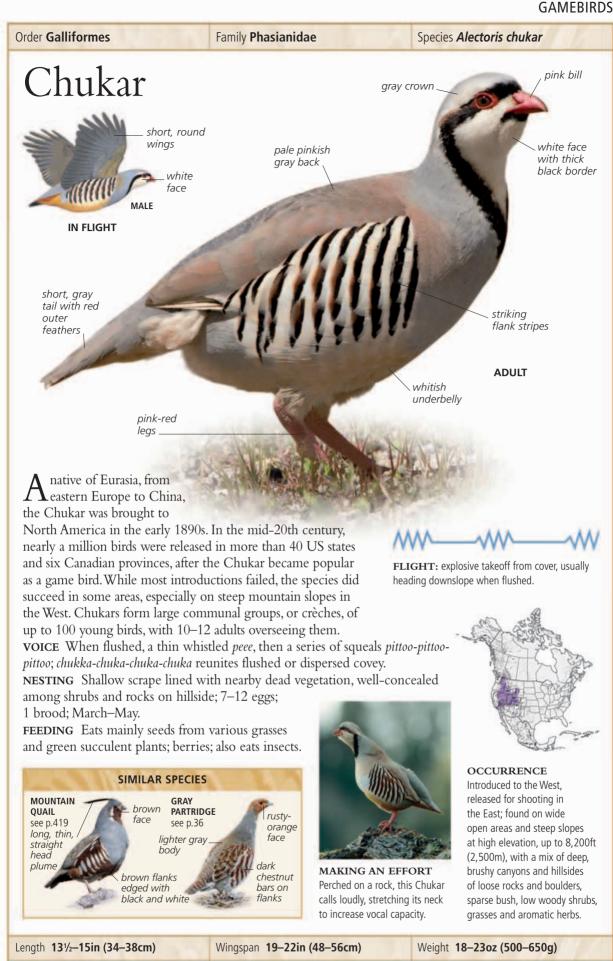


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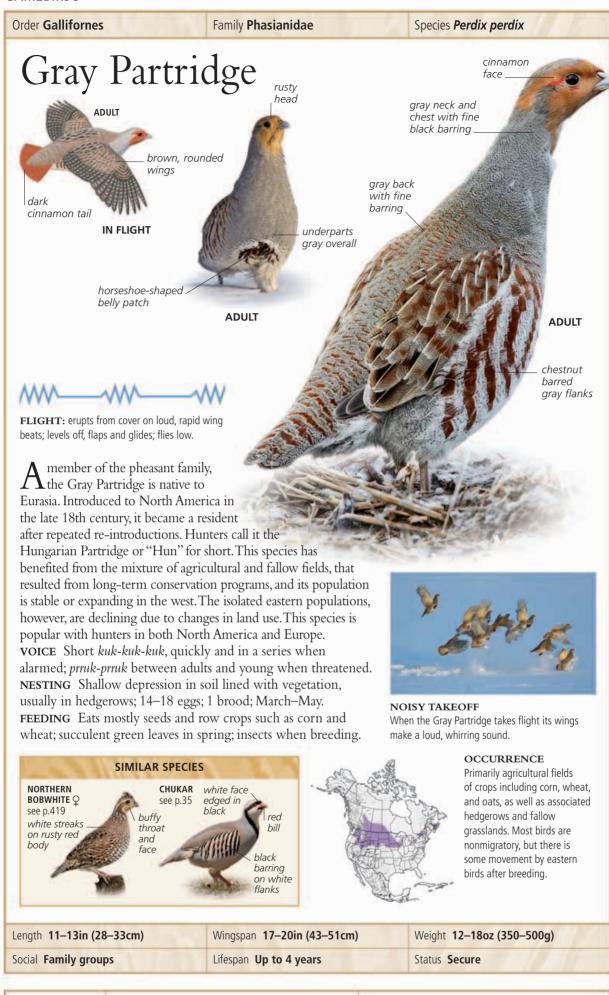


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Status Secure

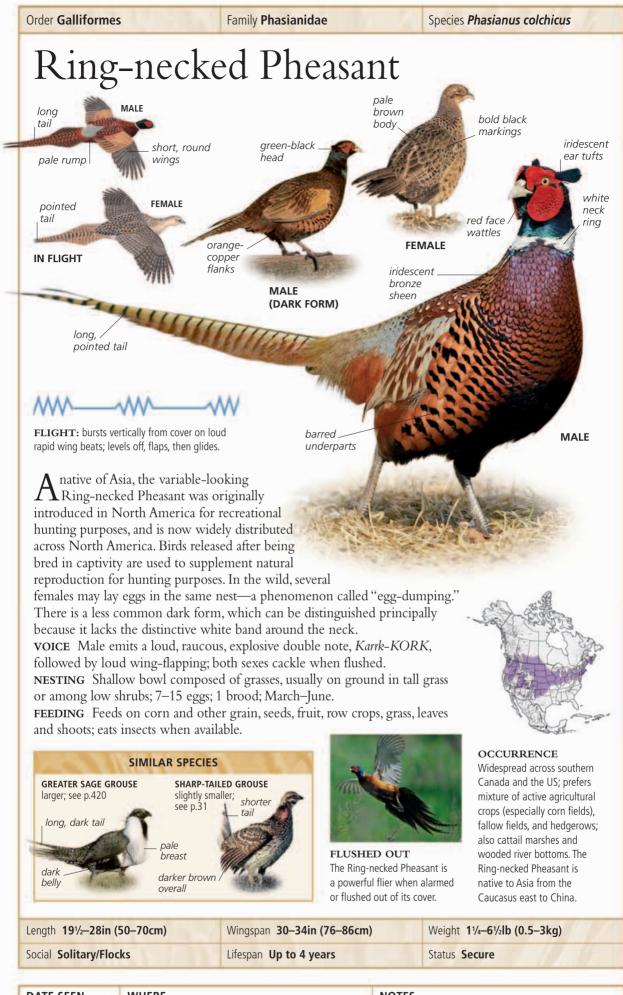
Lifespan Up to 3 years

Social Family groups



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WATERFOWL

RECENT SCIENTIFIC studies indicate that waterfowl are closely related to gamebirds. Most species of waterfowl molt all their flight feathers at once after breeding, making them flightless for several weeks until they grow new ones.

GEESE

Ornithologists group geese and swans together into the subfamily Anserinae. Intermediate in body size and neck length between swans and ducks, geese are more terrestrial than either, and are often seen grazing on dry land. Like swans, geese pair for life. They are highly social, and most species are migratory, flying south for the winter in large flocks.

SWANS

Swans are essentially large, long-necked geese. Their heavier weight makes them ungainly on land, and they tend to be more aquatic than their smaller relatives. On water, however, they are extremely graceful. When feeding, a swan stretches

its long neck to reach water plants at the bottom, submerging up to half its body as it does so. The Trumpeter Swan is North America's largest native waterfowl, growing up to 5ft (1.5m) long, and weighing up to 25lb (12kg).

DUCKS

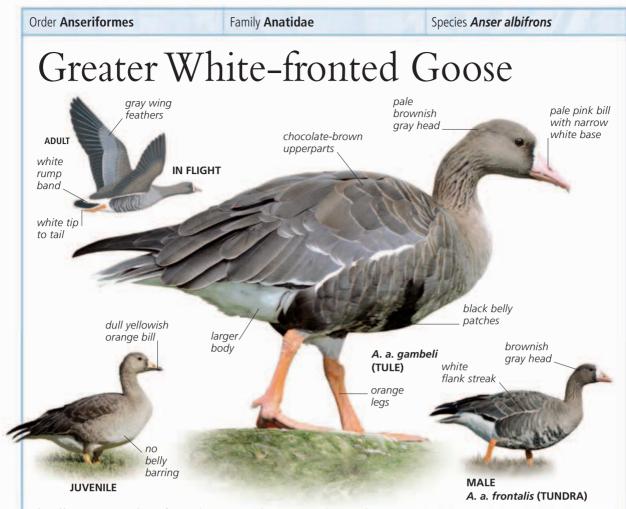
Classified in their own subfamily, called the Anatinae, ducks are more varied than swans or geese, with many more species. They are loosely grouped by their feeding habits. Dabblers, or puddle ducks, such as the Mallard, teals, and



INSTANT TAKEOFF
Puddle ducks like the Mallard
can shoot straight out of the
water and into the air.

wigeons, eat plants and animal matter, such as snails. They feed by upending on the surface of shallow water. By contrast, diving ducks, a group that includes scaups, scoters, eiders, mergansers, and the Ruddy Duck, dive deep underwater for their food.





The Greater White-fronted Goose is the most widespread goose in the Northern Hemisphere. It is easily distinguished by its black-barred belly and the patch of white at the base of its bill. There are five subspecies, two of which are commonly seen in North America. The "tundra" (A. a. frontalis) makes up the largest population, breeding in extreme northwestern Canada and Alaska. The "tule" (A. a. gambeli), while the larger, occurs in smaller numbers, and is restricted in range to north-central Canada.

VOICE Laugh-like *klow-yo* or *klew-yo-yo*; very musical in a flock. **NESTING** Bowl-shaped nest made of plant material, lined with down, constructed near water; 3–7 eggs; 1 brood; May–August. **FEEDING** Eats sedges, grasses, berries, and plants on both land and water in summer; feeds on grasses, seeds, and grains in winter.

FLIGHT: strong, direct flight; flies alone, in multiple lines, or in a V-formation.

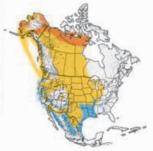


FLIGHT FORMATIONSThis heavy-bodied, powerful flier can often be seen in tightly packed flocks.

CANADA GOOSE see p.42 black head, neck, and bill white chin strap



HEAVY GRAZER
Grass is the major component of this goose's diet.

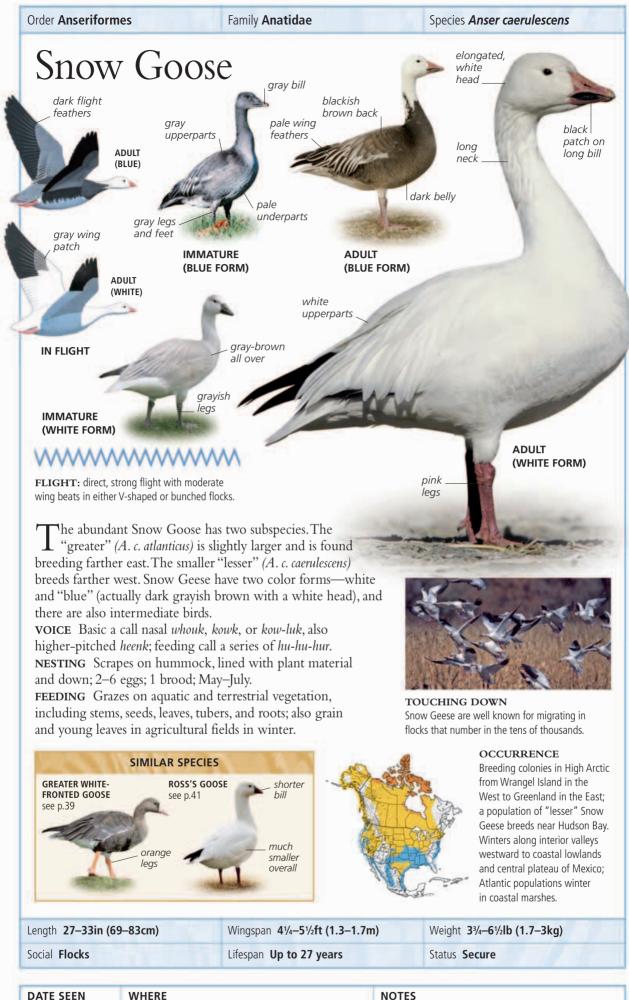


OCCURRENCE

Different habitats are utilized for breeding and wintering.
Nesting areas include tundra ponds and lakes, dry rocky fields, and grassy slopes in Alaska and northern Canada. In winter, coastal marshes, inland wetlands, agricultural fields, and refuges are used along Pacific Coast and Mexico.

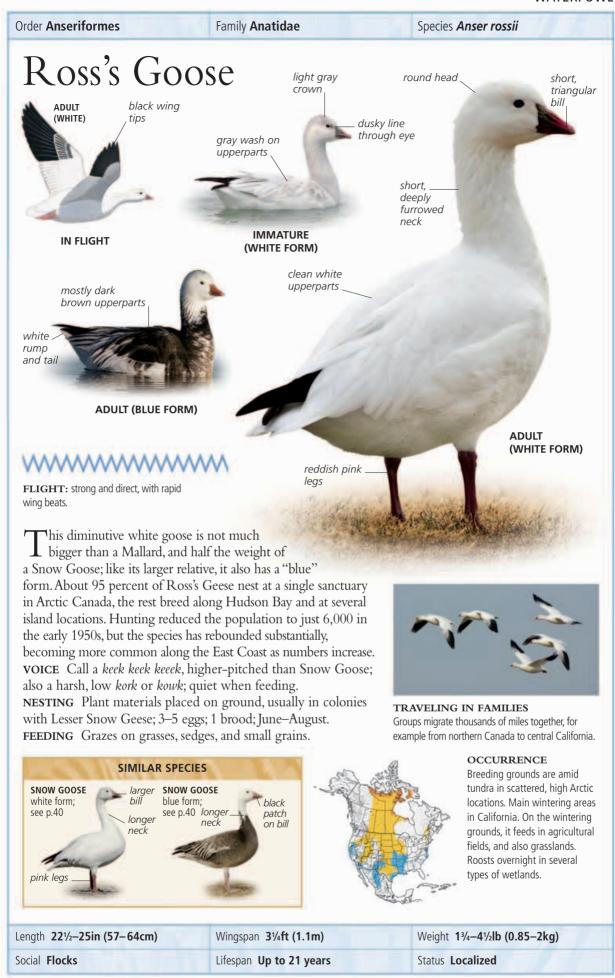
Length 25–32in (64–81cm)	Wingspan 4¼–5¼ft (1.3–1.6m)	Weight 4–6½lb (1.8–3kg)
Social Flocks	Lifespan Up to 22 years	Status Secure

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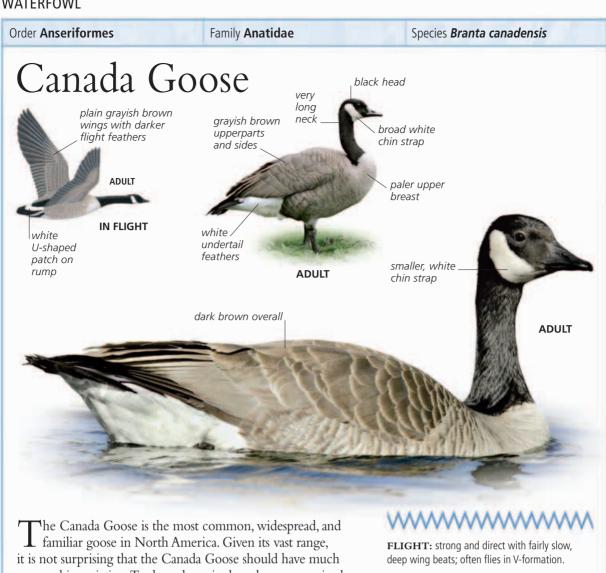
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geographic variation. Twelve subspecies have been recognized. With the exception of the Cackling Goose, which has recently been separated, it is difficult to confuse it, with its distinctive white chin strap, black head and neck, and grayish brown body, with any other species of goose. It is a monogamous species, and once pairs are formed, they stay together for life.

VOICE Male call *honk* or *bark*; females have higher pitched *hrink*. NESTING Scrape lined with available plant matter and down, near water; 1-2 broods; 2-12 eggs; May-August.

FEEDING Grazes on grasses, sedges, leaves, seeds, agricultural crops, and berries; also insects.



TRICK OF THE LIGHT A low sun can play tricks—these birds are actually pale grayish underneath.

SIMILAR SPECIES GREATER WHITE-**CACKLING GOOSE** FRONTED GOOSE see p.422 steep see p.39 forehead smallei overall belly patch

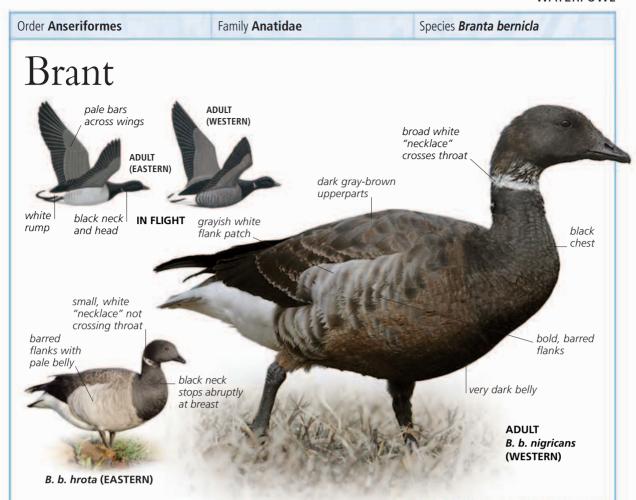


OCCURRENCE

Variety of inland breeding habitats near water, including grassy urban areas, marshes, prairie, parkland, coastal temperate forest, northern coniferous forest, and Arctic tundra. Winters in agricultural fields, mudflats, saltwater marshes, lakes, and rivers.

Length 21/4-31/2ft (0.7-1.1m)	Wingspan 41/4-51/2ft (1.3-1.7m)	Weight 61/2-93/4lb (3-4.4kg)
Social Flocks	Lifespan Up to 25 years	Status Secure

WHERE	NOTES
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Asmall-billed, dark, stocky sea goose, the Brant winters on both the east and west coasts of North America. There are two subspecies in the US (three overall)—the pale-bellied "Atlantic" Brant (B. b. hrota), found in the east, and the darker "black" Brant (B. b. nigricans), in the west. In addition, there is an intermediate gray-bellied form that winters in the Puget Sound region along the Washington State coast. Unlike other North American geese, the Brant feeds mainly on eelgrass in winter.

VOICE Nasal cruk, harsh-sounding in tone; rolling series of cut cut cronk, with an upward inflection at end.

NESTING Scrape lined with grass, plant matter, and down on islands or gravel spits; 3–5 eggs; 1 brood; May–July.

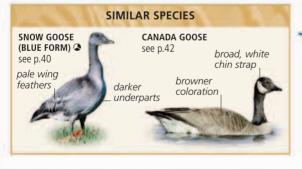
FEEDING Eats grass and sedges when nesting; eelgrass in winter; also green algae, salt marsh plants, and mollusks.

FLIGHT: rapid and strong; low, irregular flight formations.



GRASSY MEAL

In winter, Brants forage almost exclusively on eelgrass between the high and low tide marks.



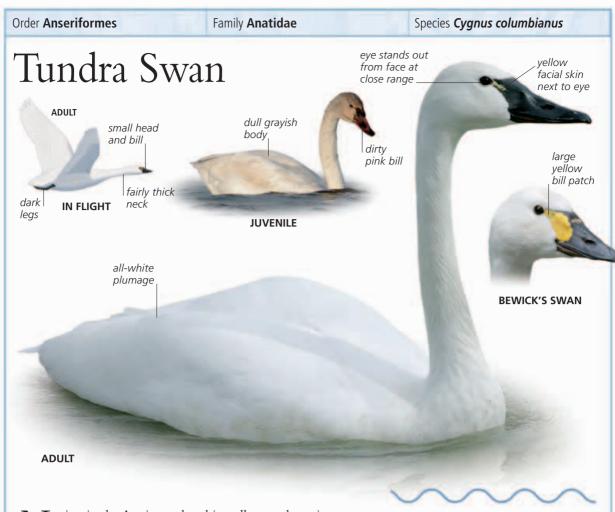


OCCURRENCE

Breeds in colonies in northern Canada and Alaska, and winters along both Pacific and Atlantic coasts. The western breeding population of the Brant ("black") winters from the Aleutian Islands to northern Mexico, while the pale-bellied form ("Atlantic") is restricted in range to the East Coast.

Length 22–26in (56–66cm)	Wingspan 3½–4ft (1.1–1.2m)	Weight 2½-4lb (1-1.8kg)
Social Flocks	Lifespan Up to 25 years	Status Secure

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Nesting in the Arctic tundra, this well-named species is North America's most widespread and smallest swan. Two populations exist, with one wintering in the West, and the other along the East Coast. The Tundra Swan can be confused with the Trumpeter Swan, but their different calls immediately distinguish the two species. When they are silent, weight and bill structure are the best way to tell them apart. In Eurasia, this species is known as Bewick's Swan and possesses a larger yellow patch at the base of its bill.

VOICE Clear, high-pitched yodelling *whoo-hooo* calls mixed with garbles, yelping, and barking sounds.

NESTING Mound-shaped nest made of plant matter near water; 3–6 eggs; 1 brood; May–September.

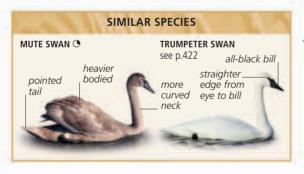
FEEDING Eats aquatic vegetation, insects, mollusks; also grain.

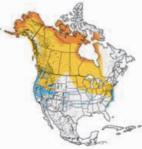
FLIGHT: flight pattern like that of other swans but with slightly faster wing beats.



WINTER FLOCKS

Its size, white plumage, and flocking habits make the Tundra Swan a conspicuous species.



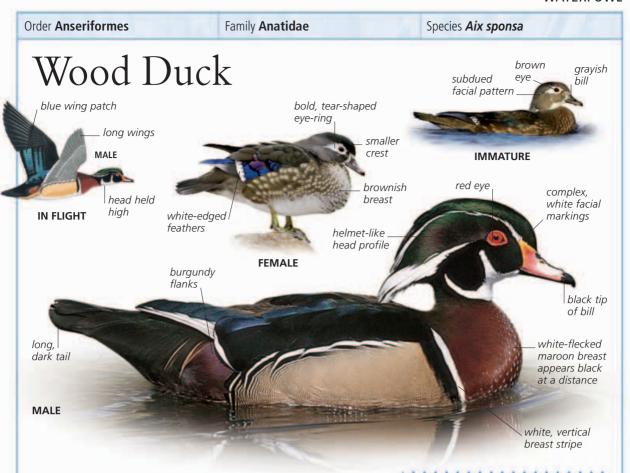


OCCURRENCE

Nests around lakes and pools in northern tundra from the Aleutians to the Yukon, and east to northwest Québec. Winters in southern British Columbia, western US, and mid-Atlantic states, mostly New Jersey to south Carolina. Winter habitat includes shallow coastal bays, ponds, and lakes.

Length 4–5ft (1.2–1.5m)	Wingspan 61/4-71/4ft (1.9-2.2m)	Weight 12–18lb (5.5–8kg)
Social Flocks	Lifespan Up to 21 years	Status Secure

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The male Wood Duck is perhaps the most striking of all North American ducks. With its bright plumage, red eye and bill, and its long sleek crest that gives its head a helmet-shaped profile, the male is unmistakable. It is related to the Mandarin Duck of Asia. The Wood Duck is very dependent on mature swampy forestland. It is typically found on swamps, shallow lakes, ponds, and park settings that are surrounded by trees. Although it adapts to human activity, it is quite shy. When swimming, the Wood Duck can be seen jerking its head front to back. Of all waterfowl, this is the only species that regularly raises two broods each season. **VOICE** Male gives a wheezy upslurred whistle *zweeet*; female's call a double-note, rising oh-eek oh-eek.

NESTING Nests in natural tree cavities or nest boxes in close proximity to water; 10-13 eggs; 2 broods; April-August. FEEDING Forages for seeds, tree fruits, and small acorns; also spiders, insects, and crustaceans.

FLIGHT: rapid flight with deep wing beats; flies with head up; leaps straight off the water.



PLAIN BELLY Wings raised, a male reveals one of the only plain areas of its plumage—its pale belly and underwing.

SIMILAR SPECIES BUFFLEHEAD Q HOODED MERGANSER ♀ white on narrower wings; see p.63 see p.66 no evering long, tan shorte

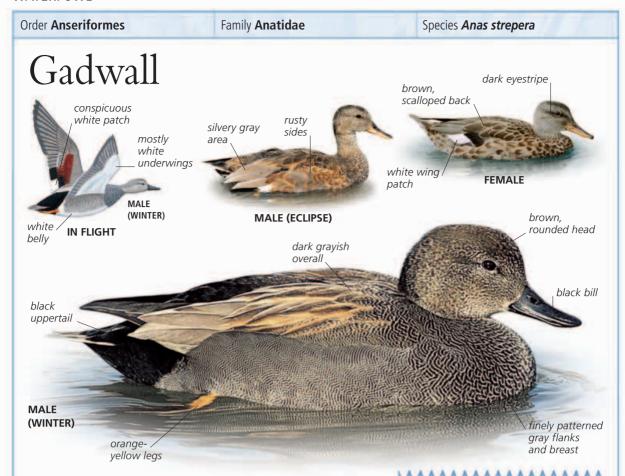


OCCURRENCE

Usually found throughout the year, along rivers, streams, and creeks, in swamps, and marshy areas. Has a preference for permanent bodies of water. If good aquatic feeding areas are unavailable, the Wood Duck feeds in open areas, including agricultural fields.

Length 181/2–211/2in (47–54cm)	Wingspan 26–29in (66–73cm)	Weight 16–30oz (450–850g)
Social Small flocks	Lifespan Up to 18 years	Status Secure

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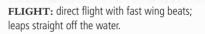


Although the Gadwall's appearance is somewhat somber, many birders consider this duck one of North America's most elegant species because of the subtlety of its plumage. Despite being common and widespread, Gadwalls are often overlooked because of their retiring behavior and relatively quiet vocalizations. This dabbling duck is slightly smaller and more delicate than the Mallard, yet female Gadwalls are often mistaken for female Mallards. Gadwalls associate with other species, especially in winter.

VOICE Low, raspy *meep* or *reb* given in quick succession; female *quack* similar to that of female Mallard, but higher-pitched and more nasal; high-pitched *peep*, or *pe-peep*; both sexes give *tickety-tickety-tickety-tickety* chatter while feeding.

NESTING Bowl nest made of plant material in a scrape; 8–12 eggs; 1 brood; April–August.

FEEDING Dabbles on the surface or below for seeds, aquatic vegetation, and invertebrates, including mollusks and insects.





BROOD ON THE MOVE

Females lead their ducklings from their nest to a brood-rearing habitat that provides cover and ample food for the ducklings to forage.





OCCURRENCE

From the western prairie pothole country of Canada and the northern US, the Gadwall's range has expanded as it has adapted to man-made bodies of water, such as reservoirs and ponds. In winter, mostly found on lakes, marshes, and along rivers.

Length 18-221/2in (46-57cm)	Wingspan 33in (84cm)	Weight 18–45oz (500–1,250g)
Social Winter flocks	Lifespan Up to 19 years	Status Secure

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ften found in mixed flocks with other ducks, the American Wigeon is a common and widespread, medium-sized dabbling duck. This bird is an opportunist that loiters around other diving ducks and coots, feeding on the vegetation they dislodge. It is more social during migration and in the nonbreeding season than when breeding.

VOICE Slow and fast whistles: male's most common call

VOICE Slow and fast whistles; male's most common call a slow, high-pitched, wheezy, 3-syllable *whew-whew-whew*, with middle note loudest; also, a faster *whee* whistle.

NESTING Depression lined with plant material and down,

usually in tall grass away from water; 5–10 eggs; 1 brood; May–August. **FEEDING** Grazes on grass, clover, algae, and, in agricultural fields; feeds on many seeds, insects, mollusks, and crustaceans during the breeding season.



FLIGHT: rapid, fairly deep wing beats; leaps almost vertically off the water.



COMING IN FOR LANDING

This male's cream-colored forehead is clearly visible, as is the sharp contrast between the white belly, and the pinkish breast and flanks.

FLAPPING WINGS

This bird has a white patch on its underwing, while the Eurasian Wigeon has a gray patch.



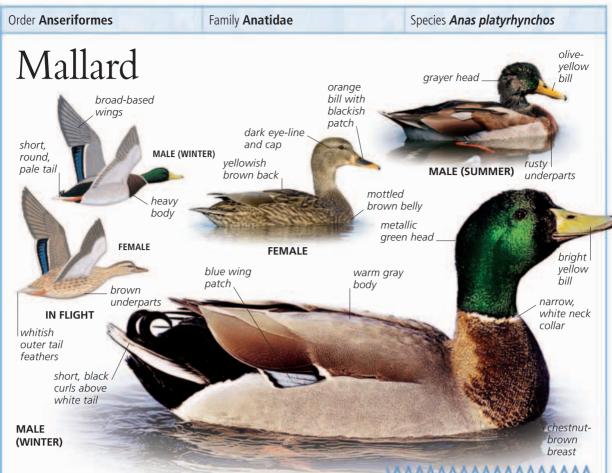


OCCURRENCE

The northernmost breeder of the dabbling ducks, occurs from Alaska to the Maritimes. Prefers pothole and grassland habitats; found almost anywhere near water in winter. Winters south to northern South America and the Caribbean, in freshwater and coastal bay habitats.

Length 171/2-23in (45-58cm)	Wingspan 33in (84cm)	Weight 11%-3lb (0.5-1.3kg)
Social Flocks	Lifespan Up to 21 years	Status Secure

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The Mallard is perhaps the most familiar of all ducks, and occurs in the wild all across the Northern Hemisphere. It is the ancestor of most domestic ducks, and hybrids between the wild and domestic forms are frequently seen in city lakes and ponds, often with patches of white on the breast. Mating is generally a violent affair, but outside the breeding season the wild species is strongly migratory and gregarious, sometimes forming large flocks that may join with other species.

VOICE Male's call a quiet raspy *raab*; during courtship a high-pitched whistle; female call a *quack* or repeated in series. **NESTING** Scrape lined with plant matter, usually near water, often on floating vegetation; 6–15 eggs; 1 brood; February–September.

FEEDING Feeds omnivorously on insects, crustaceans, mollusks, and earthworms when breeding; otherwise largely vegetarian; takes seeds, acorns, agricultural crops, aquatic vegetation, and bread.

FLIGHT: fast, shallow, and regular; often flies in groups.



STICKING TOGETHER

The mother leads her ducklings to water soon after they hatch. She looks after them until they can fend for themselves.



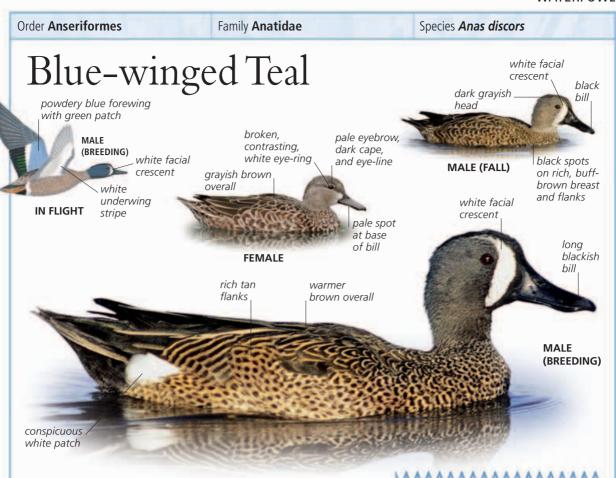


OCCURRENCE

Occurs throughout the region, choosing shallow water in natural wetlands, such as marshes, prairie potholes, ponds, and ditches; can also be found in man-made habitats such as city parks and reservoirs, preferring more open habitats in winter.

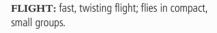
Length 191/2-26in (50-65cm)	Wingspan 32–37in (82–95cm)	Weight 11%-3lb (0.9-1.4kg)
Social Flocks	Lifespan Up to 29 years	Status Secure

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This small dabbling duck is a common and widespread North American breeding species. With a bold white crescent between bill and eye on its otherwise slate-gray head and neck, the male Blue-winged Teal is quite distinctive. The Blue-winged and Cinnamon Teals, together with the Northern Shoveler, constitute the three "blue-winged" ducks; this is a feature that is conspicuous when the birds are flying. The Cinnamon and the Blue-winged Teals are almost identical genetically and interbreed to form hybrids. The Blue-winged Teal winters mostly south of the US and migrates back north in spring. VOICE Male a high-pitched, raspy peew or low-pitched paay during courtship; female a loud single quack.

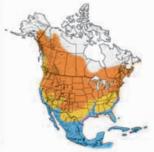
NESTING Bowl-shaped depression lined with grasses, close to water's edge, in meadows; 6–14 eggs; 1 brood; April–September. **FEEDING** Eats seeds of a variety of plants; feeds heavily on insect larvae, crustaceans, and snails, when breeding.





OUTSTRETCHED WINGWing stretch behavior shows the white feathers between the blue forewing and green speculum.

SIMILAR SPECIES CINNAMON TEAL Q See p.50 plain face different wing pattern warmer/ brown Streaked / rump GREEN-WINGED TEAL Q See p.53 Smaller, more compact body Smaller bill

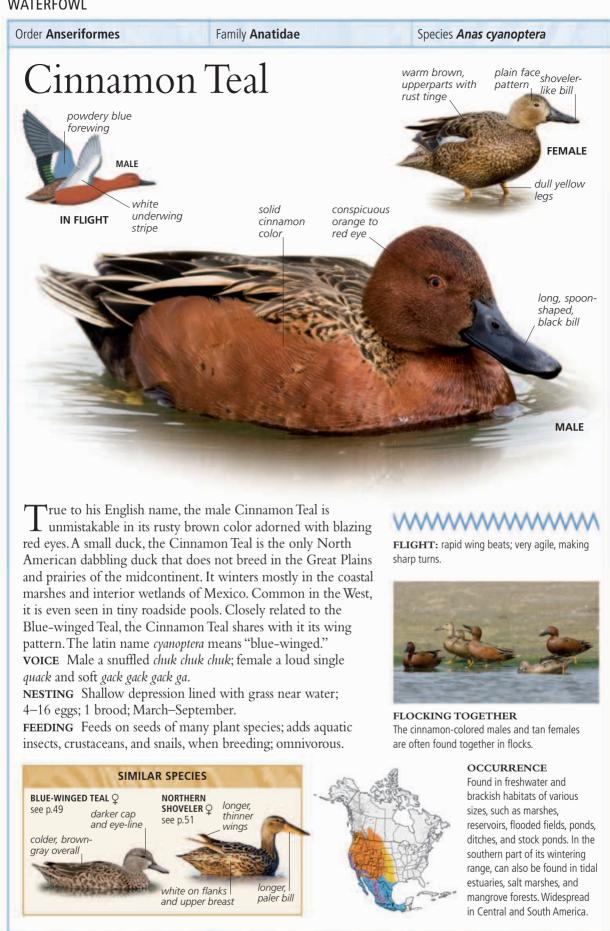


OCCURRENCE

Nests across North America, with highest numbers in the prairie and parkland regions of the midcontinent. Prefers shallow ponds or marshes during nesting; freshwater to brackish water and (less so) saltwater marshes during migration. In winter, prefers saline environments, including mangroves.

Length 141/2-16in (37-41cm)	Wingspan 231/2-25in (60-64cm)	Weight 11–18oz (300–500g)
Social Flocks	Lifespan Up to 17 years	Status Secure

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Weight 10-17oz (275-475g)

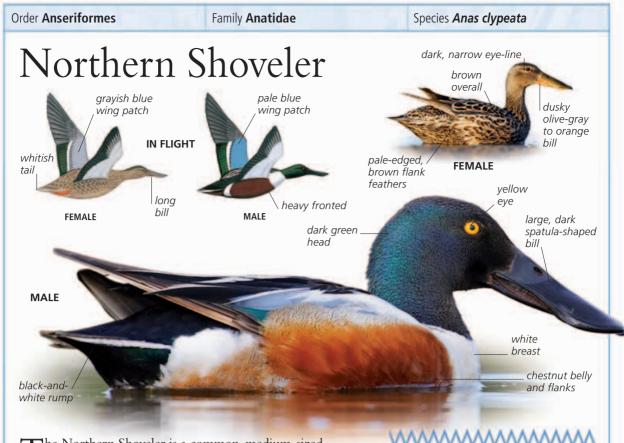
Status Secure

Wingspan 22in (56cm)

Lifespan Up to 12 years

Length 14-17in (36-43cm)

Social Winter flocks



The Northern Shoveler is a common, medium-sized, dabbling duck found in North America and Eurasia. It is monogamous—pairs remain together longer than any other dabbler species. Its distinctive long bill is highly specialized; it is wider at the tip and contains thin, comb-like structures (called "lamellae") along the sides, used to filter food items from the water. Shovelers often form tight feeding groups, swimming close together as they sieve the water for prey.

VOICE Male call a nasal, muffled *thuk thuk...thuk thuk*; also a loud, nasal *paaaay*; female call a variety of *quacks*, singly or in a series of 4–5 descending notes.

NESTING Scrape lined with plant matter and down, in short plants, near water; 6–19 eggs; 1 brood; May–August. FEEDING Forages for seeds; filters small crustaceans and mollusks out of the water.



FLIGHT: strong direct flight; male's wings make a rattling noise when taking off.



UPSIDE DOWN FEEDER

This male upends to feed below the water's surface, revealing his orange legs.

FILTER FEEDING

Their bills open, these ducks sieve small invertebrates from the water.

OCCURRENCE

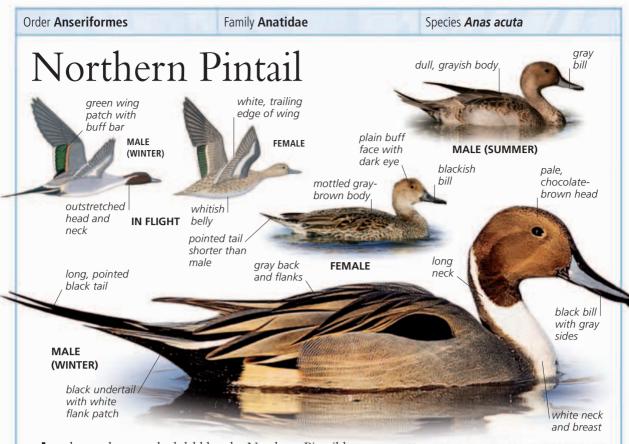
Widespread across North America, south of the tundra. Breeds in a variety of wetlands, in edges of shallow pools with nearby tall and short grasslands. Occurs in fresh- and salt marshes, ponds, and other shallow bodies of water in winter; does not feed on land.





Length 171/2-20in (44-51cm)	Wingspan 27–33in (69–84cm)	Weight 14–29oz (400–825g)
Social Flocks	Lifespan Up to 18 years	Status Secure

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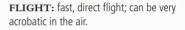


An elegant, long-necked dabbler, the Northern Pintail has extremely distinctive marking and a very long tail—in fact, the longest tail to be found on any freshwater duck. One of the earliest breeders in the year, these ducks begin nesting soon after the ice thaws. Northern Pintails were once one of the most abundant prairie breeding ducks. However, in recent decades, droughts, combined with the reduction of habitat on both their wintering and breeding grounds, have resulted in a significant decline in their population.

VOICE Male call a high-pitched rolling *prrreep prrreep;* lower-pitched wheezy *wheeeee*, which gets louder then drops off; female call a quiet, harsh *quack* or *kuk* singularly or as short series; also a loud *gaak*, often repeated.

NESTING Scrape lined with plant materials and down, usually in short grass, brush, or even in the open; 3–12 eggs; 1 brood; April–August.

FEEDING Feeds on grains, rice, seeds, aquatic weeds, insect larvae, crustaceans, and snails.





FEEDING TIMEEven when tipping up to feed, these pintails can be identified by their long, black, pointed tails.

SIMILAR SPECIES GADWALL Q see p.46 shorter tail white wing patch SIMILAR SPECIES AMERICAN WIGEON Q see p.47 shorter tail darker gray head tail chestnut / breast and flanks



OCCURRENCE

Widely distributed in North America; breeding in open country in shallow wetlands or meadows in mountainous forest regions. Found in tidal wetlands and saltwater habitats in migration and winter; dry harvested and flooded agricultural fields in autumn and winter.

Length 20–30in (51–76cm)	Wingspan 35in (89cm)	Weight 18–44oz (500–1,250g)
Social Flocks	Lifespan Up to 21 years	Status Declining

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The Green-winged Teal, the smallest North American dabbling duck, is slightly smaller than the Blue-winged and Cinnamon Teals, and lacks their blue wing patch. Its population is increasing, apparently because it breeds in more pristine habitats, and farther north, than the prairie ducks. The species has three subspecies, A. c. crecca (Eurasia), A. c. carolinensis (North America), and A. c. nimia (Aleutian Islands). Carolinensis males have a conspicuous

vertical white bar, whereas Eurasian *crecca* males do not. **VOICE** Male call a high-pitched, slightly rolling *crick crick*, similar to cricket; female a call quiet *quack*.

NESTING Shallow scrape on ground lined with nearby vegetation, often placed in dense vegetation near water; 6–9 eggs; 1 brood; April–September.

FEEDING Eats seeds, aquatic insects, crustaceans, and mollusks year-round; also feeds in grain fields in winter.

FLIGHT: fast flight; often flying in twisting, tight groups reminiscent of shorebird flocks.



SINGLE PARENTThe female duck is deserted by her partner during incubation, so she must provide all parental care.

SIMILAR SPECIES BLUE-WINGED TEAL ♀ larger overall; see p.49 spot at different base of bill wing pattern SIMILAR SPECIES CINNAMON TEAL ♀ longer larger overall; see p.50 rich brown overall yellowish _____ legs

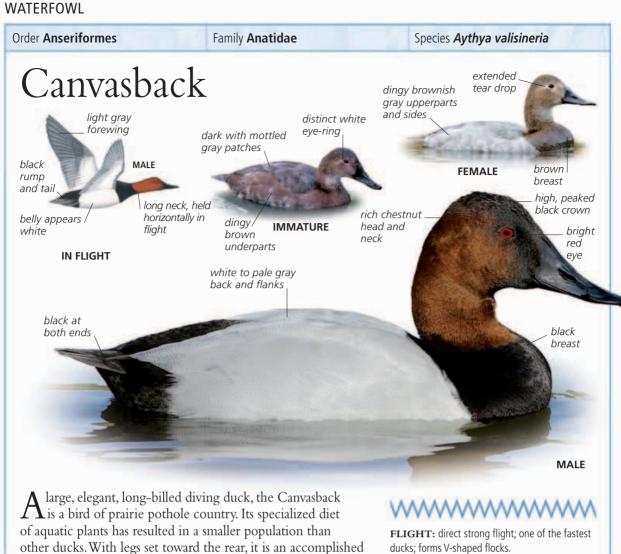


OCCURRENCE

Breeds from central US northward to Canada and Alaska; around ponds in forests and deciduous woodlands. Prefers shallow vegetated wetlands. In winter and migration, inland and coastal marshes, sloughs, and agricultural fields. Winters south of the Caribbean and in southern Mexico.

Length 12–151/2in (31–39cm)	Wingspan 201/2–23in (52–59cm)	Weight 7–16oz (200–450g)
Social Flocks	Lifespan Up to 20 years	Status Secure

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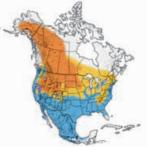


other ducks. With legs set toward the rear, it is an accomplished swimmer and diver, and is rarely seen on land. Weather conditions and brood parasitism by Redheads determine how successful the Canvasback's nesting is from year to year. **VOICE** Mostly silent except during courtship when males make soft cooing noises; females emit a grating krrrrr krrrrrr krrrrr; females give loud quack when taking off; during winter, both sexes make soft wheezing series of rrrr rrrr rrrr sounds. **NESTING** Platform over water built of woven vegetation; occasionally on shore; 8-11 eggs; 1 brood; April-September. FEEDING Mainly eats aquatic tubers, buds, root stalks, and shoots, particularly those of wild celery; also eats snails when preferred plants are unavailable.



DEEP WATER Canvasbacks prefer deeper-bodied waters that support the aquatic vegetation they eat.

SIMILAR SPECIES REDHEAD of LESSER SCAUP of see p.55 see p.57 shorter vellow gray, blacktipped bili eye darker smaller gray on back overall vellow eve

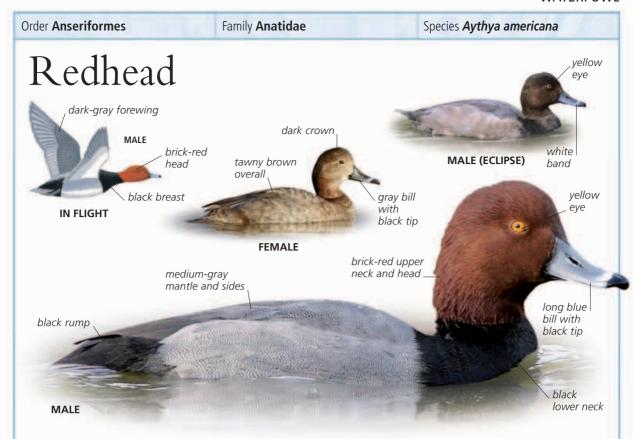


Found in potholes, marshes, and ponds in prairie parkland, tundra; northerly forests preferred where their favorite foods grow. Winters in large numbers in large bays and lakes, and deltas, with smaller numbers scattered across North America and Mexico.

OCCURRENCE

Length 19–22in (48–56cm)	Wingspan 31–35in (79–89cm)	Weight 1¾-3½lb (0.8-1.6kg)
Social Flocks	Lifespan Up to 22 years	Status Secure

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The Redhead, a medium-sized diving duck belonging to the Pochard group, is native only to North America. Only when seen up close is it apparent that the male's seemingly gray upperparts and flanks are actually white, with dense, black, wavy markings. The Redhead often feeds at night and forages mostly around dusk and dawn, drifting during the day. It parasitizes other duck nests more than any other duck species, particularly those of the Canvasback and even other Redheads.

VOICE Male courtship call a wheezy rising then falling whee ough, also meow; female call a low, raspy kurr kurr kurr.

NESTING Weaves solid nest over water in dense vegetation

such as cattails, lined with down; 7–14 eggs; 1 brood; May–September. **FEEDING** Omnivore; feeds on aquatic plants, seeds, tubers, algae, insects, spiders, fish eggs, snails, and insect larvae; diet is variable depending on location.



FLIGHT: direct flight; runs on water prior to takeoff.



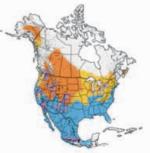
MALE DISPLAY

This male is performing a spectacular courtship display called a head throw, while remaining otherwise completely still on the water.

EASY IDENTIFICATION

The long blue bill with a whitish band and black tip is clearly visible in males.





OCCURRENCE Breeds in shallow wetlands

across the Great Basin and Prairie Pothole region, very densely in certain marsh habitats. The bulk of the population winters in coastal lagoons along the Atlantic Coast and the Gulf of Mexico.

Length 17–21in (43–53cm)	Wingspan 30–31in (75–79cm)	Weight 13/8-31/4lbs (0.6-1.5kg)
Social Flocks	Lifespan Up to 21 years	Status Secure

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Ring-necked Duck



A resident of freshwater ponds and lakes, the Ring-necked Duck is a fairly common medium-sized diving duck. A more descriptive and suitable name might have been Ring-billed Duck as the bold white band on the bill tip is easy to see whereas the thin chestnut ring around the neck can be very difficult to observe. The tall, pointed head is quite distinctive, peaking at the rear of the crown. When it sits on the water, this bird typically holds its head high.

VOICE Male normally silent; female makes low *kerp kerp* call.

NESTING Floating nest built in dense aquatic vegetation, often in marshes; 6–14 eggs; 1 brood; May–August.
FEEDING Feeds in water at all times, either by diving, tipping up, or

either by diving, tipping up, or dabbling for aquatic plant tubers and seeds; also eats aquatic invertebrates such as clams and snails.

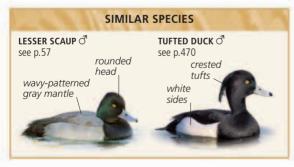


UNIQUE BILLA white outline around the base of the bill and the white band on the bill are unique markings.

FLIGHT: strong flier with deep, rapid wing beats; flight somewhat erratic.



FLAPPING WINGSBold white wing linings are apparent when the Ring-necked Duck flaps its wings.





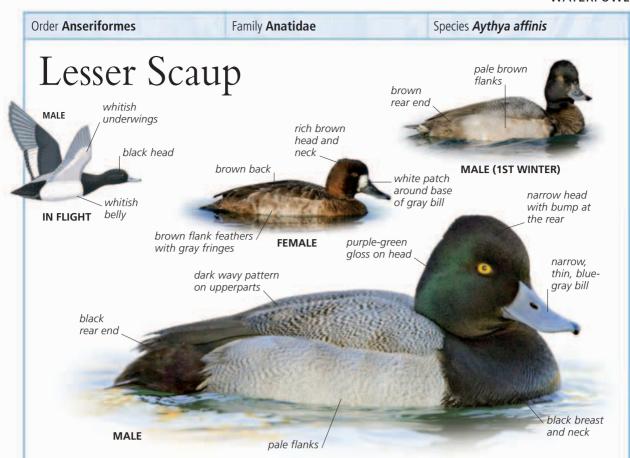
OCCURRENCE

Breeds across Canada, south of the Arctic zone, in shallow freshwater marshes and bogs; sporadically in the western US. Winters in freshwater and brackish habitats such as swamps, lakes, estuaries, reservoirs, and flooded fields. Migrants are found in the Midwest near stands of wild rice.

Length 15–18in (38–46cm)	Wingspan 24–25in (62–63cm)	Weight 11/8-2lbs (500-900g)
Social Flocks	Lifespan Up to 20 years	Status Secure

DATE SEEN	WHERE	NOTES

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The Lesser Scaup, far more numerous than its somewhat larger relative (their size and weight ranges overlap), is also the most abundant diving duck in North America. The two species are very similar in appearance and are best identified by shape. Identification must be done cautiously as head shape changes with position. For example, the crown feathers are flattened just before diving in both species; thus, scaups are best identified when they are not moving. VOICE Males mostly silent except during courtship when they make a wheezy wheeow wheeow wheeow sound; females give repetitive series of grating garref garref notes. **NESTING** Nest built in tall vegetation or under shrubs, sometimes far from water, also on islands and mats of floating vegetation; 8–11 eggs; 1 brood; May–September. FEEDING Feeds mainly on leeches, crustaceans, mollusks,

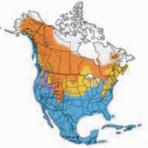
FLIGHT: rapid, direct flight; can jump off water more easily than other diving ducks.



PREENING SCAUP Ducks are meticulous preeners, and the Lesser Scaup is no exception.

SIMILAR SPECIES RING-NECKED DUCK ♀ GREATER SCAUP ♀ see p.422 see p.56 prominent more white more tawny around bil brown upperparts solid dark back

aquatic insects, and aquatic plants and seeds.



Breeds inland from Alaska to eastern Canada in open northern forests and

OCCURRENCE

forested tundra. Winters in the Caribbean, southern US, and south to northern South America. Majority winter along coasts; others winter inland on lakes and reservoirs.

Length 151/2-171/2in (39-45cm)	Wingspan 27–31in (68–78cm)	Weight 1–23/4lb (0.45–1.2kg)
Social Flocks	Lifespan Up to 18 years	Status Secure

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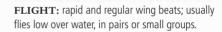


This small, hardy duck is a superbly skilful swimmer, diving to forage on the bottom of turbulent streams for its favorite insect prey. Despite the male's unmistakable plumage at close range, it looks very dark from a distance. With head and long tail held high, in winter it can be found among crashing waves, alongside larger and bigger-billed Surf and White-winged Scoters, who feed in the same habitat.

VOICE Male a high-pitched squeak earning it the nickname "sea mice"; female's call a raspy ekekekekekek.

NESTING Nests near water under vegetation or base of tree; also tree cavities; 3-9 eggs; 1 brood; April-September.

FEEDING Dives for insects and their larvae, and fish roe when breeding; in winter, eats mollusks, crustaceans, crabs, snails, fish roe, and barnacles.



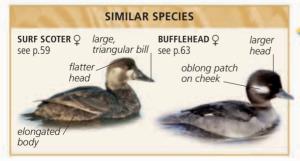


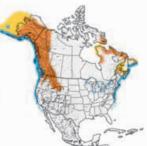
MALE GROUPS After the breeding season, many males may gather

and forage together. PAIR IN FLIGHT

Note the crisp white markings

on the slate-blue male in flight.





OCCURRENCE

Breeds near rushing coastal and mountain streams. During winter, found in small groups or mixed in with other sea ducks close to the shore, particularly along shallow rocky shorelines, jetties, rocky beaches, and headlands. Western populations are widespread, unlike Eastern ones. Also breeds in Iceland.

Length 13-211/2 in (33-54cm)	Wingspan 22–26in (56–66cm)	Weight 18–26oz (500–750g)
Social Small flocks	Lifespan Unknown	Status Secure

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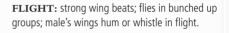


Surf Scoters, one of three species of scoters living in North America, migrate up and down both coasts, often with the other species. They take their name from the way they dive for mollusks on the sea floor, in shallow coastal waters, through heavy surf. Groups often dive and resurface in unison. Black and Surf Scoters can be difficult to tell apart as both have all-black wings. The underside of the Surf Scoter's wings are uniform black, whereas the Black Scoter has gray flight feathers, which contrast with the black underwing feathers.

VOICE Normally silent; courting male's variety of calls includes liquid gurgled *puk-puk*, bubbled whistles, and low croaks; female call a harsh *crahh*, reminiscent of a crow.

NESTING Ground nest lined with down and vegetation on brushy tundra, often under low branches of a conifer tree; 5–10 eggs; 1 brood; May–September.

FEEDING Dives for mollusks and other aquatic invertebrates.





DISTINGUISHING FEATURESThe white forehead and bright orange bill, in addition to the red-orange legs and toes, identify male Surf Scoters.



OCCURRENCE

Nests on lake islands in forested regions of interior Alaska and northern Canada. Nonbreeders in summer and adults in winter are strictly coastal, with numbers decreasing from north to south along the Pacific coast. In the East, most overwinter in the mid-Atlantic coast region.

Length 19–23½in (48–60cm)	Wingspan 30in (77cm)	Weight 13/4-23/4lb (0.8-1.2kg)
Social Flocks/Pairs	Lifespan Unknown	Status Secure

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Black Scoters, the most vocal of the scoters, are medium-sized sea ducks that winter along both coasts of North America. Riding high on the waves, they form dense flocks, often segregated by gender. While swimming, the Black Scoter sometimes flaps its wings and while doing so drops its neck low down, unlike the other two scoters. This scoter breeds in two widely separated sub-Arctic breeding areas and is one of the least studied ducks in North America. The Eurasian subspecies, known as the Common Scoter, has much less orange on its bill with a smaller knob at the base.

VOICE Male call a high-whistled *peeew*; female a low raspy *kraaa*. **NESTING** Depression lined with grass and down, often in tall grass on tundra; 5–10 eggs; 1 brood; May–September. **FEEDING** Dives in saltwater for mollusks, crustaceans, and plant

FLIGHT: strong wing beats; male's wings make whistling sound during takeoff.



YELLOW BILLMale Black Scoters are distinctive with their black plumage and yellow bill-knob.



matter; feeds on aquatic insects and freshwater mussels.



OCCURRENCE

Breeding habitat is somewhat varied, but is generally close to fairly shallow, small lakes. Winters along both coasts. Populations wintering farther north prefer water over cobbles, gravel, or offshore ledges, whereas in southern locations, sandier habitats are chosen.

Length 17–21in (43–53cm)	Wingspan 31–35in (79–90cm)	Weight 1¾-2¾lb (0.8-1.2kg)
Social Flocks	Lifespan Unknown	Status Declining

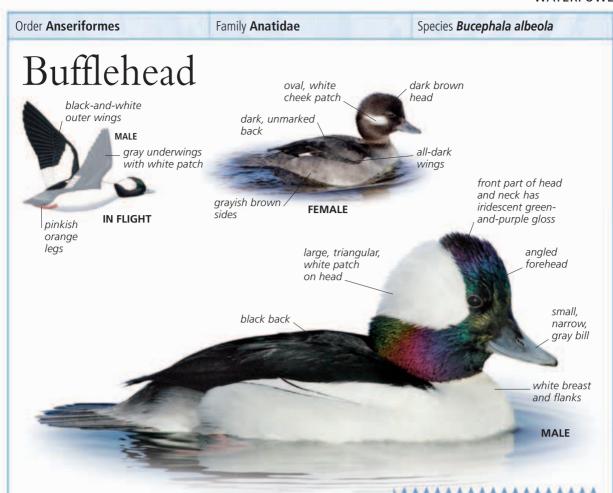
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white win	g patches	large freshwater lakes.
Length 14–23in (35–58cm)	Wingspan 28in (72cm)	Weight 18–39oz (500–1,100g)
Social Flocks	Lifespan Up to 22 years	Status Secure

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The smallest diving duck in North America, the Bufflehead is a close relative of the Common and Barrow's Goldeneyes. Males make a bold statement with their striking head pattern. In flight, males resemble the larger Common Goldeneye, yet the large white area on their head makes them easy to distinguish. The Common Goldeneye's wings create a whirring sound in flight whereas the Bufflehead's do not. The northern limit of the Bufflehead's breeding range corresponds to that of the Northern Flicker, as the ducks usually nest in abandoned Flicker cavities.

VOICE Male a low growl or squeal; chattering during breeding; female mostly silent except during courtship or calling to chicks.

NESTING Cavity nester, no nesting material added, near water; 7–9 eggs; 1 brood; April–September.

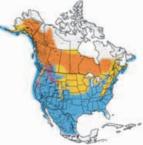
FEEDING Dives for aquatic invertebrates: usually insects in freshwater, mollusks and crustaceans in saltwater; also eats seeds.

FLIGHT: very rapid wing beats; no flight sound, unlike Goldeneyes.



IMMEDIATE TAKE OFFUnlike other diving ducks, the small, compact
Bufflehead can take off almost vertically.



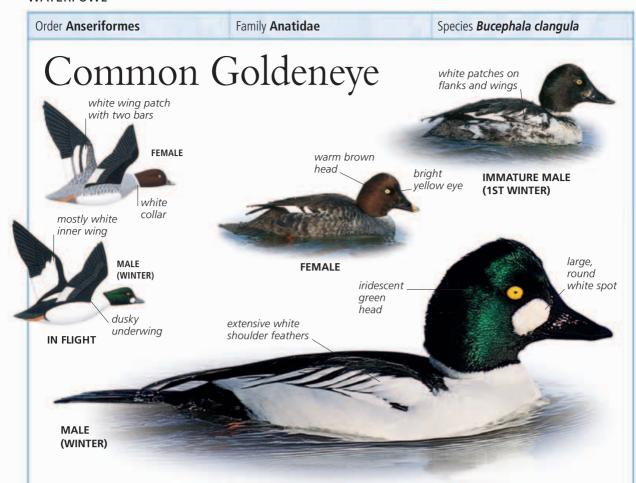


OCCURRENCE

Breeds in forest from Alaska to eastern Canada, in woodlands near small lakes and permanent ponds, where young are raised. Winters largely along the Pacific and Atlantic Coasts with lower densities scattered across the continent, south to northern Mexico, and in Bermuda.

Length 12½–15½in (32–39cm)	Wingspan 21½–24in (54–61cm)	Weight 10–18oz (275–500g)
Social Flocks	Lifespan Up to 15 years	Status Secure

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Common Goldeneyes closely resemble Barrow's Goldeneyes. Found in North America and Eurasia, this is a medium-sized, compact diving duck. It is aggressive and very competitive with members of its own species, as well as other cavity-nesting ducks. It regularly lays eggs in the nests of other species—a behavior that is almost parasitic. Before diving, the Common Goldeneye flattens its feathers in preparation for underwater foraging. The female's head shape changes according to her posture.

VOICE Courting males make a faint *peent* call; females a harsh *gack* or repeated *cuk* calls.

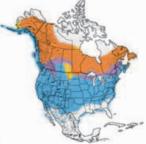
NESTING Cavity nester in holes made by other birds, including Pileated Woodpeckers, in broken branches or hollow trees; also commonly uses nest boxes; 4–13 eggs; 1 brood; April–September. **FEEDING** Dives during breeding season for insects; in winter, mollusks and crustaceans; sometimes eats fish and plant matter.

FLIGHT: rapid with fast wing beats; male's wings make a tinkling sound in flight.



MALE TAKING OFFQuite a long takeoff, involving energetically running on the water, leaves a trail of spray.

SIMILAR SPECIES BUFFLEHEAD ♀ BARROW'S GOLDENEYE ♂ see p.63 white oval patch behind eye on face SIMILAR SPECIES BARROW'S GOLDENEYE ♂ see p.65 smaller bill large crescent _____on face



OCCURRENCE

Breeds along wetlands, lakes, and rivers with clear water in northern forests, where large trees provide appropriate nest cavities. Winters across continent, with highest densities located from north New England to the mid-Atlantic on coastal bays and in the West from coastal southeast Alaska to British Columbia.

Length 151/2-20in (40-51cm)	Wingspan 30–33in (77–83cm)	Weight 19–44oz (550–1,300g)
Social Flocks	Lifespan Up to 15 years	Status Secure

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Barrow's Goldeneye is a slightly larger, darker version of the Common Goldeneye. Although the female can be identified by her different head structure, her bill color varies seasonally and geographically. Eastern Barrow's have blacker bills with less yellow, and western populations have entirely yellow bills, which darken in summer. During the breeding season, the majority of Barrow's Goldeneyes are found in mountainous regions of northwestern North America.

VOICE Males normally silent; courting males grunt *ka-KAA*; females *cuc* call, slightly higher pitched than Common Goldeneye. **NESTING** Tree cavity in holes formed by Pileated Woodpeckers, often broken limbs or hollow trees; also uses nest boxes; 6–12 eggs; 1 brood; April–September.

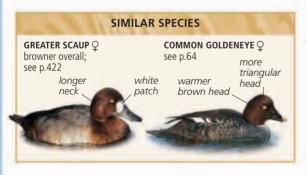
FEEDING Dives in summer for insects, some fish, and roe; in winter, mainly mollusks and crustaceans; some plant matter.

FLIGHT: rapid flight with fast, deep wing beats; flies near water surface on short flights.



COURTING DISPLAY

A male thrusts his head back and gives a guttural call. His feet then kick back, driving him forward.



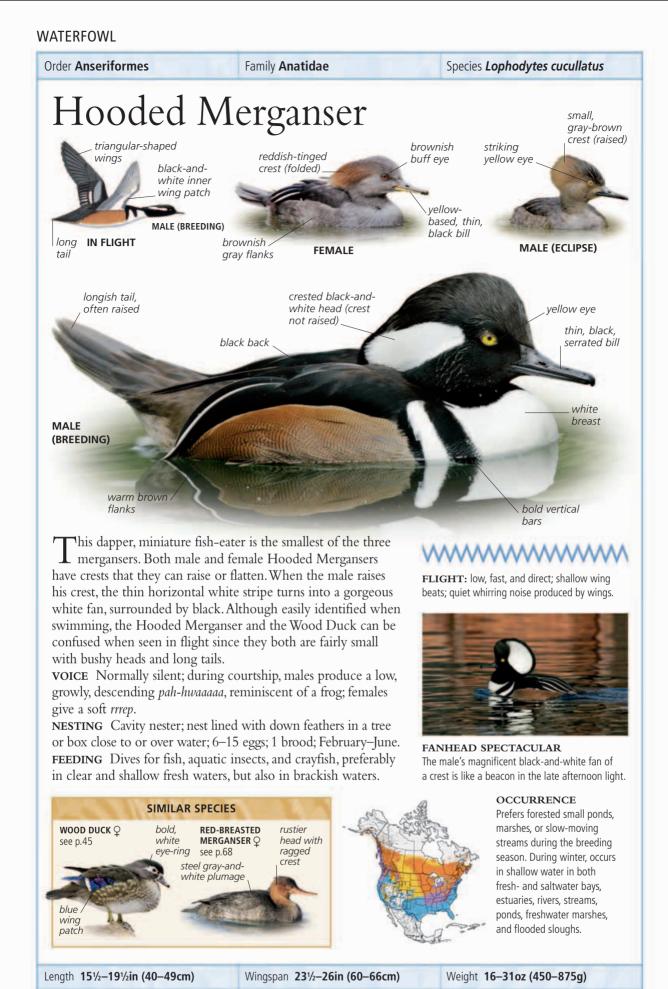


OCCURRENCE

Winters along the Pacific Coast between southeast Alaska and Washington, with small populations in eastern Canada. Smaller numbers found inland from the lower Colorado River to Yellowstone National Park. Eastern population is localized in winter with the highest count in St. Lawrence estuary.

Length 17–19in (43–48cm)	Wingspan 28–30in (71–76cm)	Weight 17–46oz (475–1,300g)
Social Flocks	Lifespan Up to 18 years	Status Secure

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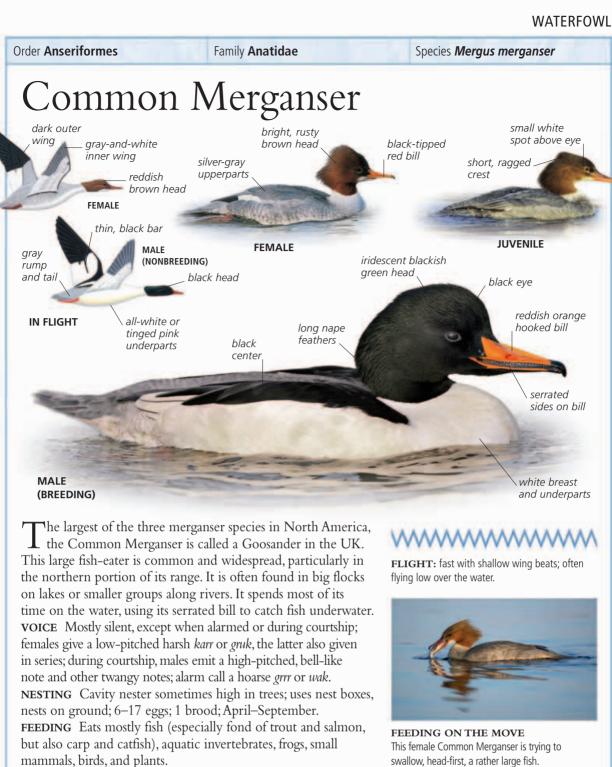


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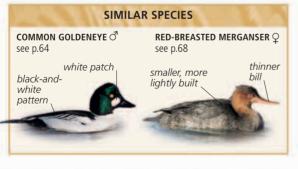
Lifespan Unknown

Status Secure

Social Small flocks



swallow, head-first, a rather large fish.



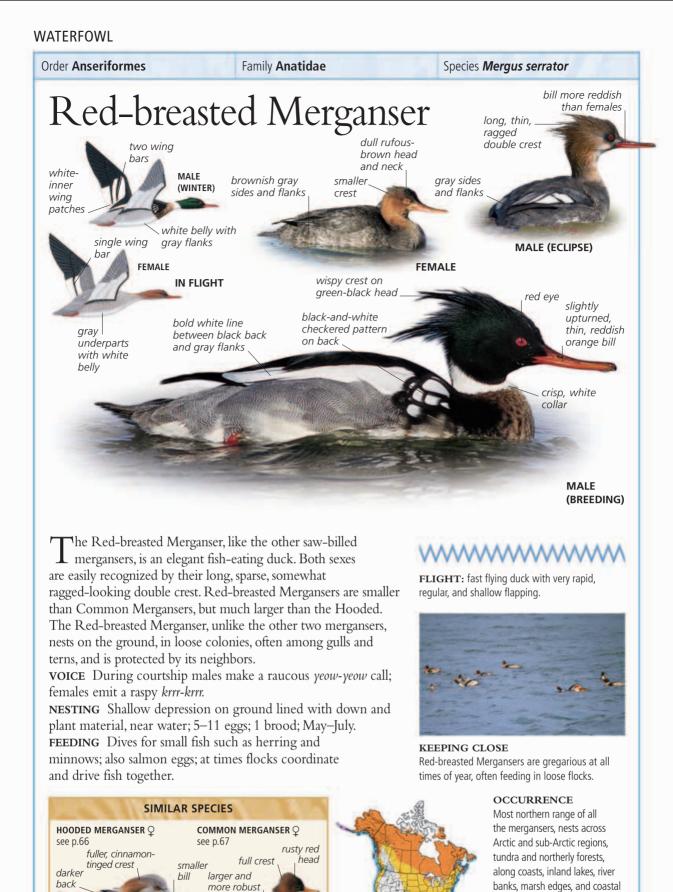
Breeds in the northern forests from Alaska to Newfoundland;

OCCURRENCE

winters south to north central Mexico. It winters farther north than most other waterfowl as long as water remains open. Prefers freshto saltwater locations.

Length 21½-28in (54-71cm)	Wingspan 34in (86cm)	Weight 13/4-43/4lb (0.8-2.1kg)
Social Flocks	Lifespan Up to 13 years	Status Secure

DATE SEEN	WHERE	NOTES
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Length 20–25in (51–64cm)	Wingspan 26–29in (66–74cm)	Weight 1¾–2¾ lb (0.8–1.3 kg)
Social Flocks/Colonies	Lifespan Up to 9 years	Status Secure

breast and chin

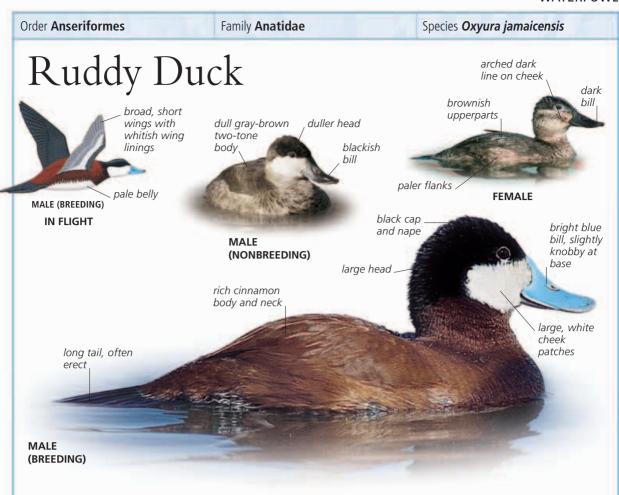
islands. Winters farther south than other mergansers, mostly in protected bays, estuaries.

or on the Great Lakes.

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smaller overall



Small and stiff-tailed, the Ruddy Duck is comical in both its appearance and behavior. Both sexes often hold their tail in a cocked position, especially when sleeping. During courtship displays, the male points its long tail skyward while rapidly thumping its electric blue bill against its chest, ending the performance with an odd, bubbling sound. In another display, males make a popping sound by slapping their feet on the water's surface. Large feet, on legs set far back on its body, make the Ruddy Duck an excellent swimmer and diver; however, on land it is perhaps one of the most awkward of diving ducks. Females are known to push themselves along instead of walking.

VOICE Females give a nasal *raanh* and high pitched *eeek*; males vocally silent, but make popping noises with feet.

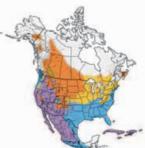
NESTING Platform, bowl-shaped nest built over water

vegetation, rarely on land; 6–10 eggs; 1 brood; May–September. **FEEDING** Dives for aquatic insects, larvae, crustaceans, and other invertebrates, particularly when breeding; during

winter, also eats plants.

in thick emergent





FLIGHT: rapid and direct, with fast wing beats; not very agile in flight, which seems labored.



HEAVY HEADA female "sitting" on the water streamlines her body before she dives, making her head look large.

OCCURRENCE

Breeds in the prairie pothole region in wetland habitats; marshes, ponds, reservoirs, and other open shallow water with emergent vegetation and open areas. Majority winter on freshwater habitats from ponds to large lakes; smaller numbers found on brackish coastal marshes, bays, and estuaries.

Length 14–17in (35–43cm)	Wingspan 22–24in (56–62cm)	Weight 11–30oz (300–850g)
Social Flocks	Lifespan Up to 13 years	Status Secure

WHERE	NOTES

LOONS

ORLDWIDE THERE ARE ONLY five species of loon, comprising a single genus (Gavia), a single family (the Gaviidae), and a single order (the Gaviiformes). The five species are limited to the Northern Hemisphere, where they are found in both northern North America and northern Eurasia. One feature of loons is that their legs are positioned so far to the rear of their body that loons must shuffle on their bellies when they go from water to land. Not surprisingly, therefore, loons are almost entirely aquatic birds. In summer they are found on rivers, lakes, and ponds, where they nest close to the water's edge. After breeding, they occur along coasts, often after flying hundreds of miles away from their freshwater breeding grounds. Excellent swimmers and divers, loons are

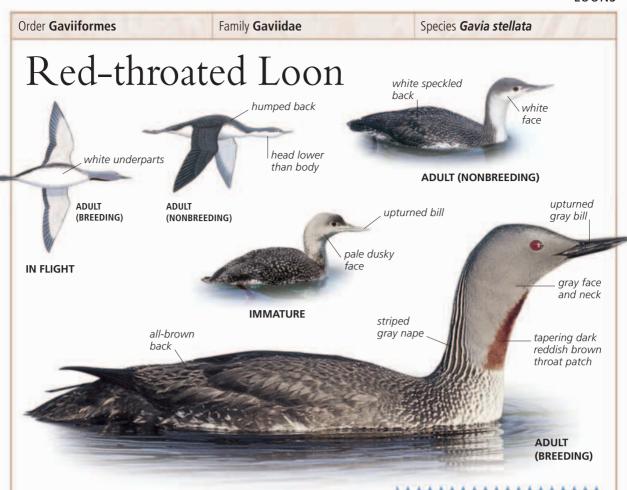
unusual among birds in that their bones are less hollow than those of other groups. Consequently, loons can expel air from their lungs and compress their body feathers until they slowly sink beneath the surface. They can remain submerged like this for several minutes. A



LOON RANGER
The Common Loon has a wider range than any other in North
America, as its name suggests.

loon's wings are relatively small in proportion to its body weight. This means that they have to run a long way across the surface of the water, flapping energetically, before they can become airborne. Once in the air they keep on flapping and can fly at up to 60mph (95kmh).





Eunmistakable, with a pale, slim body, upward tilted head, and a thin, upturned bill. Unlike other Loons, the Red-throated Loon can leap straight into the air from both land and water, although most of the time it needs a "runway." The Red-throated Loon has an elaborate breeding ritual—side by side, a pair of birds races upright across the surface of water. Downy chicks climb onto the parents back only when very young.

VOICE High gull-like or even cat-like wail and low goose-like growl; vocal on breeding grounds, otherwise silent.

NESTING Scrape with mud and vegetation added during incubation, placed at water's edge in coastal and lake bays, shallow ponds, often at high altitudes; 2 eggs; 1 brood; April–July. FEEDING Mainly eats fish; also spiders, crustaceans, and mollusks; flies long distances from shallow ponds when food is scarce.

FLIGHT: very direct; fast, with constant wing

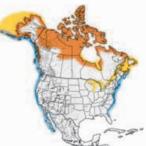
FLIGHT: very direct; fast, with constant wing beats; head held lower than other loons.



TAKING OFF

While this bird is using the water's surface to takeoff, it can leap directly into flight from water and land.





OCCURRENCE

Lives in open areas within northern boreal forest, muskeg, and tundra; in Canadian Arctic Archipelago, sometimes in areas almost devoid of vegetation. Winters on the Great Lakes, and both coasts southwards to Florida and northern Mexico.

Length 24–27in (61–69cm)	Wingspan 3½ft (1.1m)	Weight 3 1/4 lb (1.5kg)
Social Solitary/Loose flocks	Lifespan Up to 23 years	Status Declining

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Although the Pacific Loon's breeding range is about a third of that of the Common Loon, it is believed to be the most abundant loon species in North America. It shares its habitat in northern Alaska with the nearly identical, but slightly larger and darker Arctic Loon. It is a conspicuous migrant along the Pacific Coast in spring, but disappears to its remote breeding grounds in summer. The Pacific Loon is an expert diver and swimmer, capable of remaining underwater for sustained periods of time, usually in pursuit of fish. However, on its terrestrial nesting site, its chicks are vulnerable to a number of mammalian predators.

VOICE Deep barking *kowk*; high-pitched wail, croaks, and growls when breeding; makes a yelping noise when diving.

NESTING Simple scrape in flat area close to water, vegetation and mud added during incubation; 1–2 eggs; June-July. **FEEDING** Eats fish, aquatic insects, and mollusks in breeding lake or nearby waters; may dip or dive, depending on the depth.

FLIGHT: swift and direct with constant wing beats; humped back, but head in line with body.



LEVEL GROUNDAs loons cannot takeoff from land, nest sites need to be on flat land close to the water.

SIMILAR SPECIES ARCTIC LOON A



OCCURRENCE Breeds across Arctic

Breeds across Arctic and sub-Arctic North America, from Alaska and northern Canadian provinces to Hudson Bay and on some of the islands of the Canadian Arctic; tundra lakes and muskeg. Small numbers in Great Lakes and along East coast from Québec to Florida. Vagrant elsewhere.

Length 23–29in (58–74cm) Wingspan 2¾–4¼ft (0.9–1.3m) Weight 2½–5½lb (1–2.5kg) Social Flocks Lifespan Up to 25 years Status Secure	4
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The Common Loon has the largest range of all loons in North America and is the only species to nest in a few of the northern states. It is slightly smaller than the Yellow-billed Loon but larger than the other three loons. It can remain underwater for well over 10 minutes, although it usually stays submerged for 40 seconds to 2 minutes while fishing, or a few more minutes if it is being pursued. Evidence shows that, occasionally, it interbreeds with its closest relative, the Yellow-billed Loon, in addition to the Arctic and Pacific Loons.

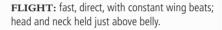
VOICE Most recognized call a 3-10 note falsetto yodel, rising,

then fading; other calls similar in quality.

NESTING Simple scrape in large mound of vegetation, a few feet from open water; 2 eggs; 1 brood; April–June.

FEEDING Feeds primarily on fish underwater; also eats crustaceans, mollusks, amphibians, leeches, insects, and aquatic plants.







COZY RIDE

Downy Common Loon chicks climb up the backs of male and female adults for a safe ride.

BATHING RITUAL

Common Loons often shake their wings after bathing.

OCCURRENCE

Breeds across North America, Canada, and south to northern US. Winters on large ice-free lakes in Canada and the US, and along the Pacific and Atlantic Coasts, south to Baja California and Florida. In the Old World breeds only in Iceland.

Length 26–36in (66–91cm)	Wingspan 41/4-5ft (1.3-1.5m)	Weight 41/2-18lb (2-8kg)
Social Family groups	Lifespan Up to 30 years	Status Vulnerable

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TUBENOSES

The NAME "TUBENOSES" IS GIVEN to several families of seabirds with tubular nostrils, which help get rid of excess salt and may enhance their sense of smell. Tubenoses are all members of the order Procellariiformes.

FLAP AND GLIDE Shearwaters alternate stiff-winged flapping with bouts of gliding over the ocean's surface, or in strong winds, glide in wide arcs, high

over the waves.

ALBATROSSES

The long, narrow wings of albatrosses (family Diomedeidae) are perfectly suited for tackling the strong, constant winds that prevail on the southern oceans that form their main habitat. While they are expert gliders, albatrosses cannot take off from the ground without sufficient wing to give them lift.

SHEARWATERS

Shearwaters and gadfly petrels (family Procellariidae) are smaller than albatrosses. Like their larger relatives they are excellent gliders, but their lighter weight and proportionately shorter wings mean that they use more powered flight than albatrosses. They range over all the world's oceans. With its numerous islands, the Pacific Ocean is home to a greater variety of shearwaters than the Atlantic. During and after storms are the best times to look for these birds from the shore, because this is when they drift away from the deep sea due to wind and waves.

STORM-PETRELS

The smallest tubenoses in North American waters, the storm-petrels (family Hydrobatidae) are also the most agile fliers. They often patter or "dance" as they fly just above the surface of the ocean in search of small fish, squid, and crustaceans.

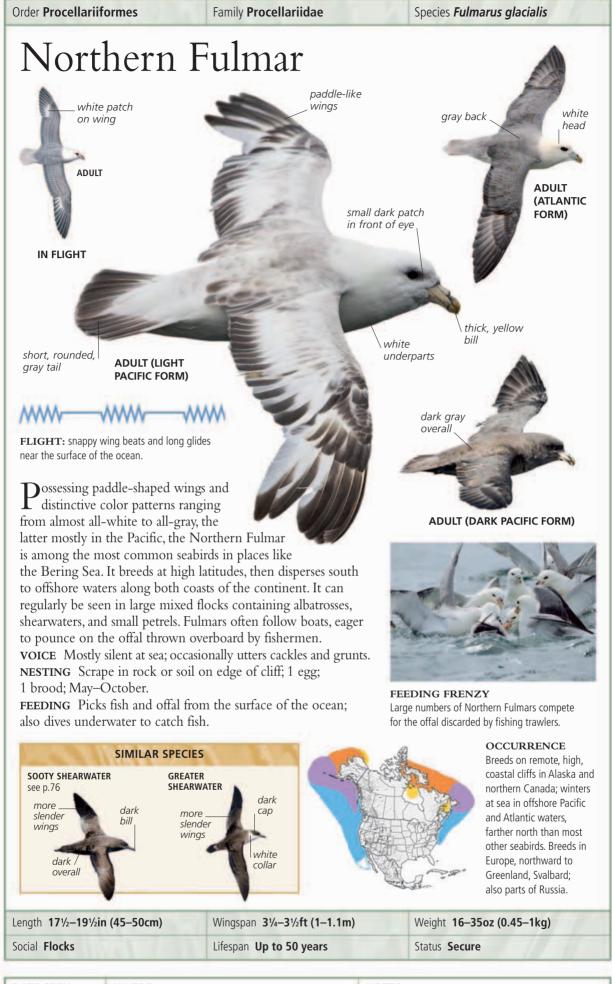
Storm-petrels spend most of their lives flying over the open sea, only visiting land in the breeding season, when they form colonies. The apparent fragility and small size of storm-petrels is belied by their ability to live as far away from land as their larger relatives, the



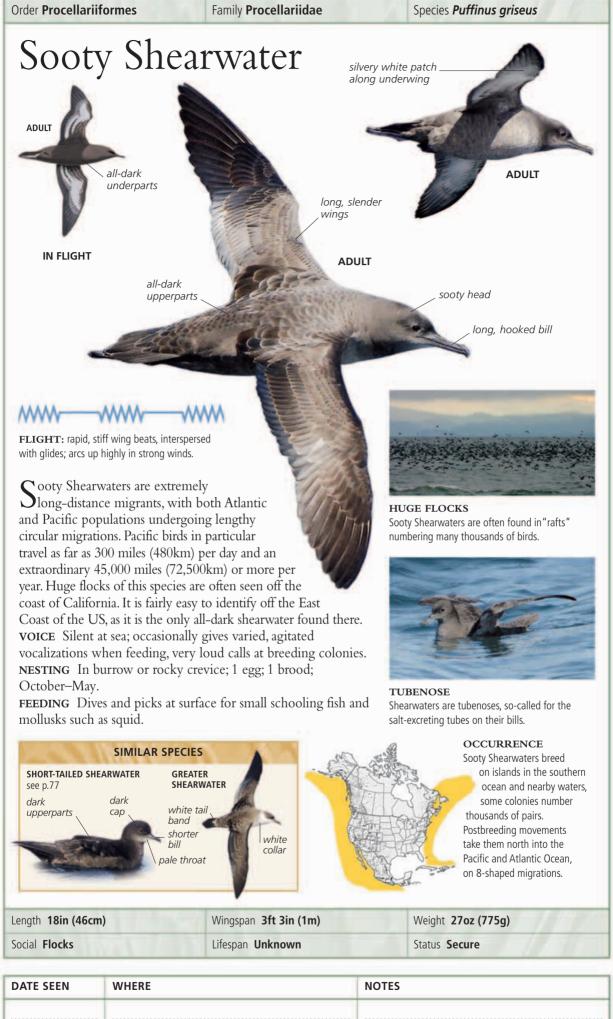
HOOKED BILL
All tubenoses have hooked bills in addition to their tubular nostrils.

albatrosses and shearwaters. Storm-petrels are nocturnal at their breeding colonies and nest under the ground, in burrows, or under rocks, two traits that reduce the chance of predation.





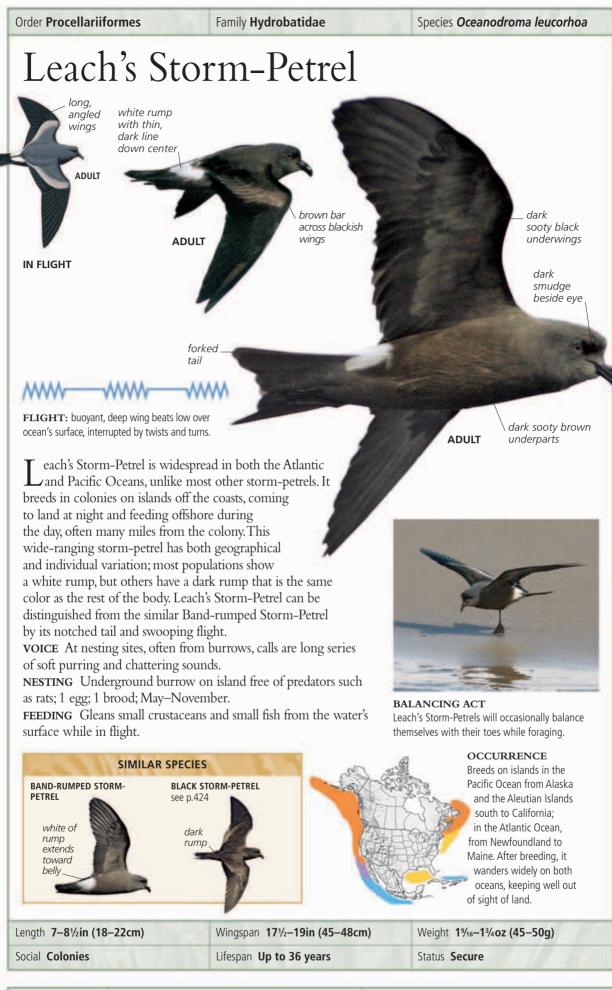
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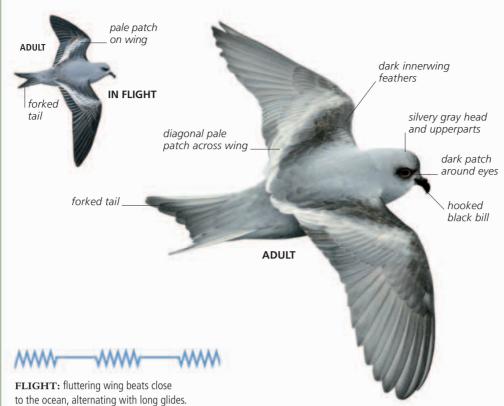
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Fork-tailed Storm-Petrel



The Fork-tailed Storm-Petrel is one of the most distinctive of all storm-petrels in North American waters, with its ghostly silvery gray plumage, and forked tail. It is the most northerly breeding storm-petrel in the North Pacific, nesting all the way north to the Aleutian Islands. It incubates its eggs at lower temperatures than other petrels do, and its chicks can be left alone between feeding for a longer time—apparently an adaptation to northern conditions. Its chicks can also lower their body temperature, thereby conserving energy.

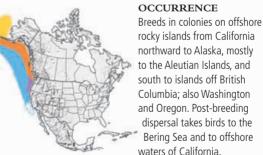
VOICE Silent at sea; various purring sounds at colonies. NESTING Underground burrow on offshore island; 1 egg; 1 brood; March-November.

FEEDING Plucks shrimps, squids, and small fish from the surface of the ocean.



AERIAL SURVEY Flying low over the ocean, the Fork-tailed Storm-Petrel looks out for fish below.

SIMILAR SPECIES LEACH'S STORM-PETREL ASHY STORM-PETREL see p.78 see p.424 dark slightly brown brown overall smalle white rump patch



south to islands off British Columbia; also Washington and Oregon. Post-breeding dispersal takes birds to the Bering Sea and to offshore waters of California.

Length 8in (20cm)	Wingspan 18in (46cm)	Weight 2oz (55g)	7/1/
Social Colonies	Lifespan At least 14 years	Status Secure	

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GREBES

GREBES RESEMBLE LOONS and share many of their aquatic habits, but anatomical and molecular features show that they are actually unrelated. They are placed in a different order: the Podicipediformes. Grebes have streamlined bodies, which offer little resistance when diving and swimming. Underwater their primary means of propulsion is the sideways motion of their lobed toes. The legs are placed far back on a grebe's body, which greatly aids the bird when it swims above or below the surface. Grebes have short tails, and their trailing legs and toes serve as rudders when they



A FINE DISPLAY
This Horned Grebe reveals the colorful plumes on its head as part of its elaborate courtship display.

fly. The position of the legs makes it impossible, however, for grebes to stand upright for long or easily walk on land. This means that grebes are tied to water even when breeding; and their nests are usually partially floating platforms, built on beds of water plants. Grebes' toes have broad lobes that splay when the bird

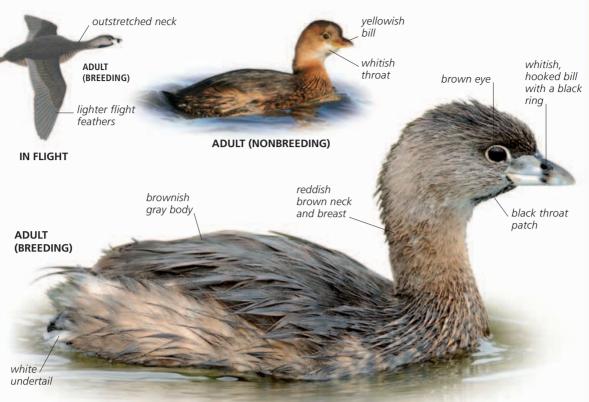


PIED BILL
The black-and-white bill pattern clearly distinguishes this bird as the Pied-billed Grebe.

thrusts forward through the water with its feet. Grebes dive to catch fish with a short, forward arching spring. Unusually among birds, they swallow feathers, apparently to trap fish bones and protect their stomachs, then periodically disgorge them. Like loons, grebes can control their buoyancy by exhaling air and compressing their plumage so that they sink quietly below the surface. They are strong fliers and migratory.



Pied-billed Grebe



The widest ranging of the North American grebes, the Pied-billed Grebe is tolerant of highly populated areas and is often seen breeding on lakes and ponds across North America. It is a powerful swimmer and can remain submerged for 16–30 seconds when it dives. In contrast to some of the elaborate displays from other grebe species, its courtship ritual is more vocal than visual and a pair usually duet-call in the mating season. Migration, conducted at night, is delayed until its breeding area ices up and food becomes scarce. The Pied-billed Grebe is capable of sustained flights of over 2,000 miles (3,200km).

VOICE Various grunts and wails; in spring, call a cuckoo-like repeated gobble *kup-kup-Kaow-Kaow-kaow*, gradually speeding up.

NESTING Floating nest of partially decayed plants and clipped leaves, attached to emergent vegetation in marshes and

quiet waters; 4–7 eggs; 2 broods; April–October. **FEEDING** Dives to catch a variety of crustaceans, fish, amphibians, insects, and other invertebrates; also picks prey from emergent vegetation, or catches them mid-air.



FLIGHT: strong, direct flight with rapid wing beats, but rarely seen.



BACK OFFWhen alarmed, a Pied-billed Grebe may flap its wings in a defensive display.

OCCURRENCE

Breeds on a variety of water bodies, including coastal brackish ponds, seasonal ponds, marshes, and even sewage ponds. Winters in the breeding area if food and open water are available, otherwise chooses still waters resembling its breeding habitat.

Length 12–15in (31–38cm)	Wingspan 18–24in (46–62cm)	Weight 13–17oz (375–475g)
Social Family groups	Lifespan At least 3 years	Status Vulnerable

NOTES



The Red-necked Grebe is smaller than Western and Clark's Grebes, but larger than the other North American grebes. It migrates over short to medium distances and spends the winter along both coasts, where large flocks may be seen during the day. It runs along the water's surface to become airborne, although it rarely flies. This grebe doesn't come ashore often; it stands erect, but walks awkwardly, and prefers to sink to its breast and shuffle along. VOICE Nasal, gull-like call on breeding grounds, evolves into bray, ends with whinny; also honks, rattles, hisses, purrs, and ticks.

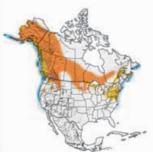
NESTING Compact, buoyant mound of decayed and fresh vegetation in sheltered, shallow marshes and lakes, or artificial

wetlands; 4–5 eggs; 1 brood; May–July. **FEEDING** An opportunistic hunter, eats fish, crustaceans, aquatic insects, worms, mollusks, salamanders, and tadpoles.

FLIGHT: fast, direct, wing beats, with head and outstretched neck mostly level with line of body.



COURTSHIP DISPLAYThis courting pair face each other, with outstretched necks and raised neck feathers.



OCCURRENCE

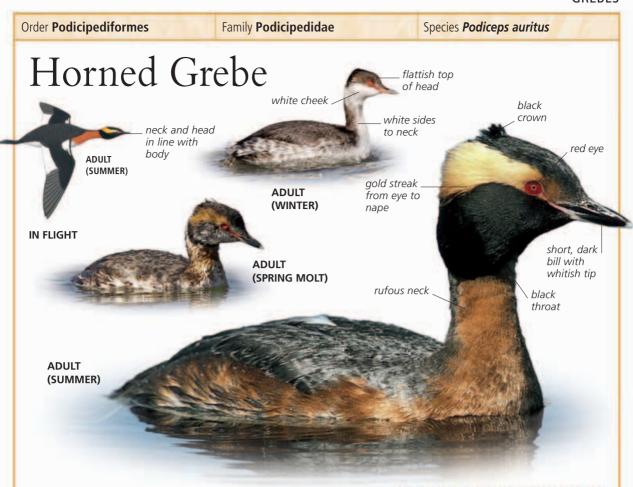
Breeds from northern prairies and forests, almost to the tree line in the northwest; limited to suitable interior bodies of water such as large marshes and small lakes. Winters primarily in estuaries, inlets, bays, and offshore shallows along Atlantic and Pacific Coasts; can also be found on the Great Lakes.

Length 16½-22in (42-56cm)	Wingspan 24–35in (61–88cm)	Weight 13/4-31/2lb (0.8-1.6kg)
Social Pairs/Loose flocks	Lifespan Up to 6 years	Status Vulnerable

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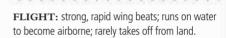
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The timing of the Horned Grebe's migration depends largely on the weather—this species may not leave until its breeding grounds get iced over, nor does it arrive before the ice melts. Its breeding behavior is well documented since it is approachable on nesting grounds and has an elaborate breeding ritual. This grebe's so-called "horns" are in fact yellowish feather patches located behind its eyes, which it can raise at will. **VOICE** At least 10 calls, but descending *aaanrrh* call most common in winter, ends in trill; muted conversational calls when birds are in groups.

NESTING Floating, soggy nest, hidden in vegetation, in small ponds and lake inlets; 3-9 eggs; 1 brood; May-July. FEEDING Dives in open water or forages among plants, mainly for small crustaceans and insects, but also leeches, mollusks, amphibians, fish, and some vegetation.

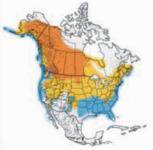




HITCHING A RIDE In common with other grebes, Horned Grebe chicks often ride on the back of a swimming parent.

OCCURRENCE

SIMILAR SPECIES EARED GREBE ₩ upturned see p.82 see p.84 brownish dark darker eye



Breeds in small freshwater, even slightly brackish, ponds and marshes, including

man-made ponds. Prefers areas with open water and patches of sedges, cattails, and other wetland vegetation. Winters on saltwater close to shore; also on large bodies of freshwater.

Length 12–15in (30–38cm)	Wingspan 18–24in (46–62cm)	Weight 11–20oz (300–575g)
Social Pairs/Loose flocks/Colonies	Lifespan Up to 5 years	Status Declining

WHERE	NOTES
]	



The most abundant grebe in North America, the Eared Grebe is quite remarkable in terms of physiology. After breeding, it undergoes a complex and drastic reorganization of body-fat stores, along with changes in muscle, heart, and digestive organ mass to prepare it for fall migration. All of this increases the bird's energy reserves and body mass, but renders it flightless. It may have the longest periods of flightlessness of any flying bird—up to 10 months.

VOICE Various trills during courtship, including squeaky, rising *poo-eep*; sharp *chirp* when alarmed; usually silent at other times. **NESTING** Sodden nest of decayed bottom plants anchored in thinly spaced reeds or submerged vegetation in shallow water of marshes, ponds, and lakes; 1 brood; 1–8 eggs; May–July.

FEEDING Forages underwater for small crustaceans and aquatic insects; also small fish and mollusks; consumes worms in winter.

FLIGHT: flies with neck outstretched, held at a low angle; rarely flies except during migration.



SALTY WATERThe Eared Grebe prefers salty water at all times except when breeding.



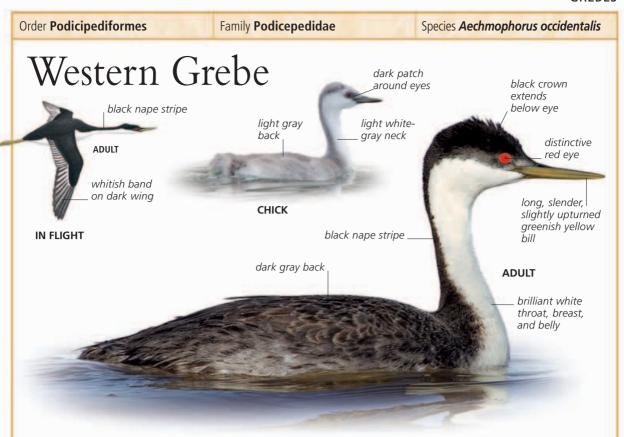


OCCURRENCE

Breeds in marshes, shallow lakes, and ponds. After breeding, many birds seek saline waters, such as Mono Lake, or lakes in Utah where their favorite foods thrive—brine shrimp and alkali flies. Winters in coastal bays of Pacific coast and is a vagrant on Atlantic coast. Also breeds in Eurasia.

Length 12–14in (30–35cm)	Wingspan 22 ½ –24in (57–62cm)	Weight 7–26oz (200–725g)
Social Flocks	Lifespan Up to 12 years	Status Secure

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Western and Clark's Grebes are strictly North American species. They share much of their breeding habitat and elaborate mating rituals, and were, until 1985, classified as different color forms of a single species. Interbreeding is uncommon, perhaps because of slight differences in calls, bill colors, and facial patterns. Although hybrids are rare, they appear to be fertile, and produce chicks of their own. Female Western Grebes are smaller than males and have smaller, thinner, slightly upturned bills. The Western Grebe dives more frequently than Clark's, and remains submerged for about 30 seconds.

VOICE Nine calls, each with a specific purpose, such as alarm, begging, and mating calls; advertising call a harsh, rolling two-noted *krrrikk krrreek*.

NESTING Floating pile of available plants, attached to thick growth of submerged vegetation; occasionally constructed on land; 2–3 eggs; 1 brood; May–July.

FEEDING Mainly catches a wide variety of freshwater or saltwater fish; also crustaceans, worms, occasionally insects.

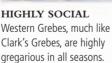
FLIGHT: fast and direct with rapid wing beats; neck extended with feet stretched out behind.

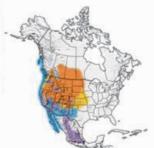


SELF-DEFENSEThe posture of this Western Grebe shows it is ready to defend itself when threatened.

SIMILAR SPECIES CLARK'S GREBE see p.86 bright orangeyellow bill white between crown and eye





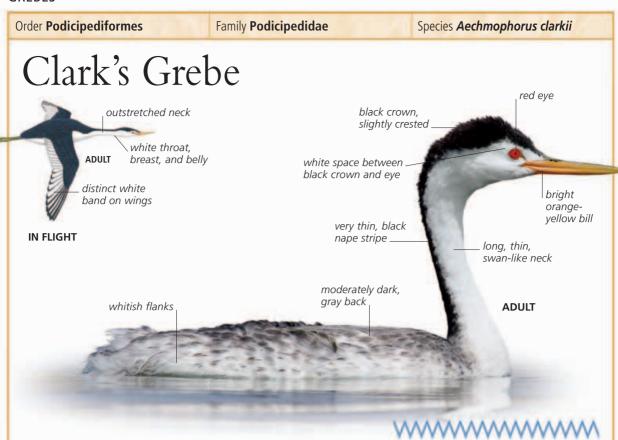


OCCURRENCE

Western North America, breeds from southern Canada to Mexico, in freshwater lakes and marshes with open water and emergent vegetation; rarely on tidewater marshes; also man-made marshes and artificial habitats. Winters along Pacific Coast, in bays and estuaries in the southwest US and Mexico.

Length 21 ½ –30in (55–75cm)	Wingspan 30–39in (76–100cm)	Weight 1¾ –4lb (0.8–1.8kg)
Social Flocks	Lifespan At least 15 years	Status Declining

WHERE	NOTES



Clark's and Western grebes are closely related and very difficult to distinguish. They rarely fly except when migrating at night. Both species seldom come to land, where their movement is awkward because their legs and toes are located so far back, although they have been reported to run upright rapidly. Their flight muscles suffer wastage after their arrival on the breeding grounds, which also inhibits their ability to travel, but during the incubation period adults may feed several miles from the colony by following continuous water trails. VOICE Variety of different calls, including a harsh, reedy, grating, 2-syllable, single, rising kree-eekt advertising call.

NESTING Floating pile of available plants, attached to thick growth of submerged vegetation; occasionally constructed on land; 2–3 eggs; 1 brood; May-July.

FEEDING Mainly catches saltwater or freshwater fish; also crustaceans.



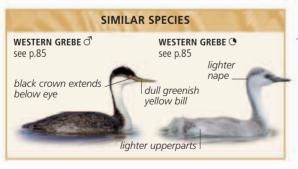
FLIGHT: swift and direct with quick wing beats; neck extended with feet trailing.



HOW TO SWALLOW? It is not unusual for grebes to catch large fish;

they crush the head first before swallowing.

FORAGING IN DEEP WATER
Clark's Grebe has a distinctive white S-shaped
neck and black crown.





OCCURRENCE

Breeds in freshwater lakes and marshes with open water bordered by emergent vegetation; rarely tidewater marshes; has been nesting in man-made Lake Havasu marshes since 1960s. Winters along Pacific Coast, and in bays and estuaries in the southwest US and Mexico.

Length 211/2-30in (55-75cm)	Wingspan 32in (82cm)	Weight 11/2-33/4lb (0.7-1.7kg)
Social Flocks	Lifespan At least 15 years	Status Declining

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STORKS, IBISES, & HERONS

These are large water and wetland birds that have long legs and look rather similar, but have different habits. They eat fish and other aquatic prey as well as plants. Most breed in colonies.

IBISES

Birds of the marshlands or of dry land, ibises (Threskiornithidae) are characterized by rounded bodies, long legs, short tails, rounded wings, and small, often bare, heads on curved necks that merge into



EYE-CATCHING IBISThe White-faced lbis has a distinctive white patch around its eye in the breeding season.

long, curved bills. Their medium-length legs and strong feet allow an easy, long-striding walk. Gregarious birds, ibises fly in long lines or in "V" formation. They feed mostly on insects, worms, small mollusks, and crustaceans, probing for prey in the water and wet mud.

BITTERNS, HERONS, & EGRETS

These are mostly waterside birds (Ardeidae), with long slender toes, broad wings, short tails, forward-facing eyes, and dagger-shaped

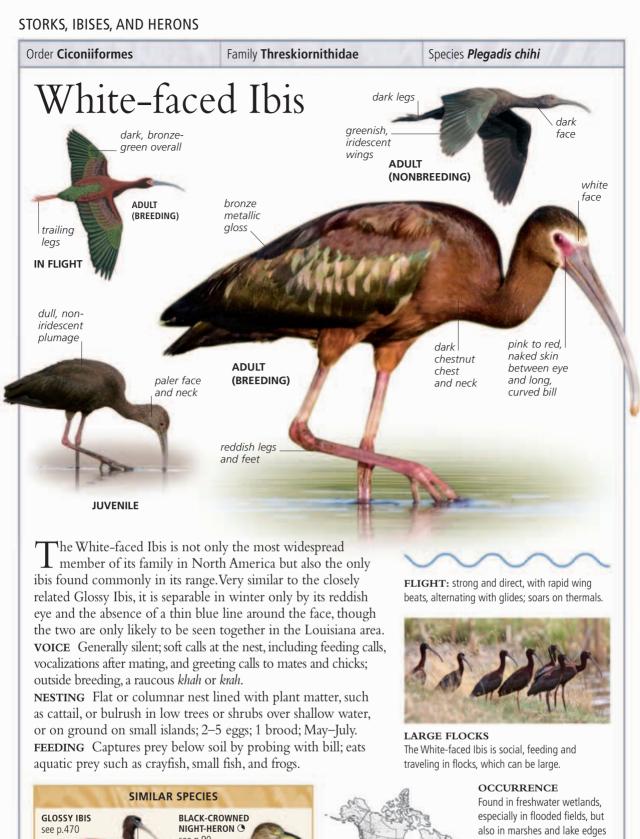
bills. Bitterns and night-herons have smooth, dense feathers on their nape, while egrets' long, slender necks are tightly feathered, with a "kink" that allows them to make lightning-fast stabs for prey. Bitterns, herons, and egrets fly with their legs trailing and their necks coiled



EVER ALERTThe Green Heron stalks fish by watching and waiting patiently until prey is near.

into their shoulders. Some make obvious, bulky treetop nests and feed in the open, but others, especially bitterns, nest and feed secretively. In fact, often the only clue to a bittern's presence in dense reedbeds is the booming call it makes to keep in touch with its mate.





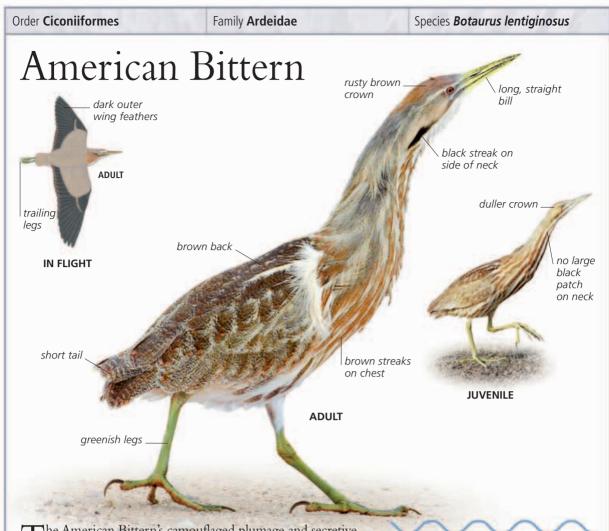


Found in freshwater wetlands, especially in flooded fields, but also in marshes and lake edge with cattails and bulrushes. Although birds may disperse farther east after breeding, they are, for the most part, restricted to the western part of the United States, and in Central and South America.

Length 23in (59cm)	Wingspan 36in (92cm)	Weight 22oz (625g)
Social Flocks/Colonies	Lifespan Up to 14 years	Status Secure

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The American Bittern's camouflaged plumage and secretive behavior help it to blend into the thick vegetation of its freshwater wetland habitat. It is heard much more often than it is seen; its call is unmistakable and has given rise to many evocative colloquial names, such as "thunder pumper."

VOICE Deep, resonant *pump-er-unk*, *pump-er-unk*; calls mainly at dawn, dusk, and nighttime, but also during the day in the early mating season.

NESTING Platform or mound constructed of available marsh vegetation, usually over shallow water; 2–7 eggs; 1 brood; April–August.

FEEDING Stands still or moves slowly, then strikes downward with bill to catch prey; eats fish, insects, crustaceans, snakes, amphibians, and small mammals.





LOOKING UP
Bitterns are secretive birds,
but can occasionally be found
walking slowly through reeds.

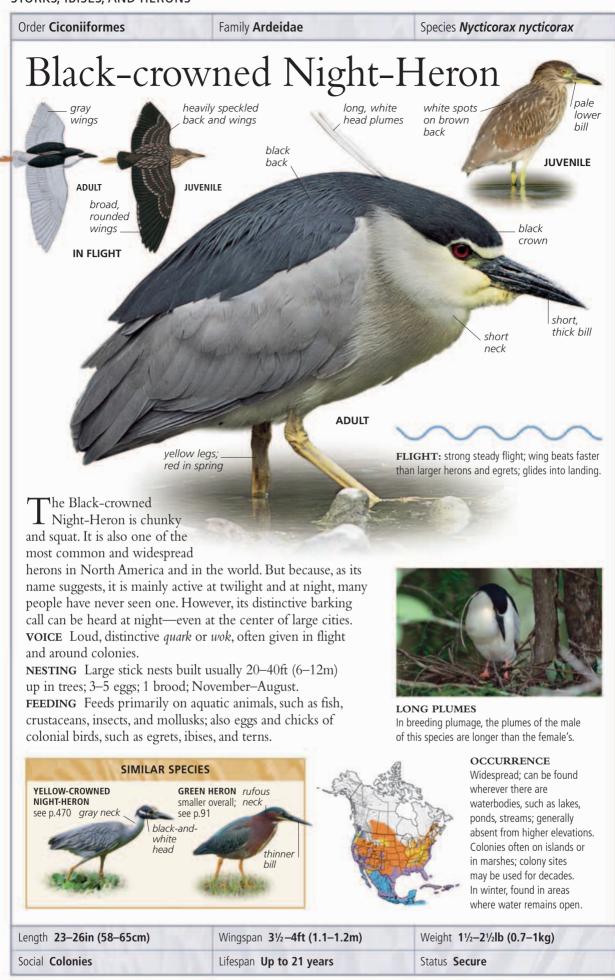
FLIGHT: steady, deep, slightly stiff wing beats; usually flies relatively low and direct.

OCCURRENCE

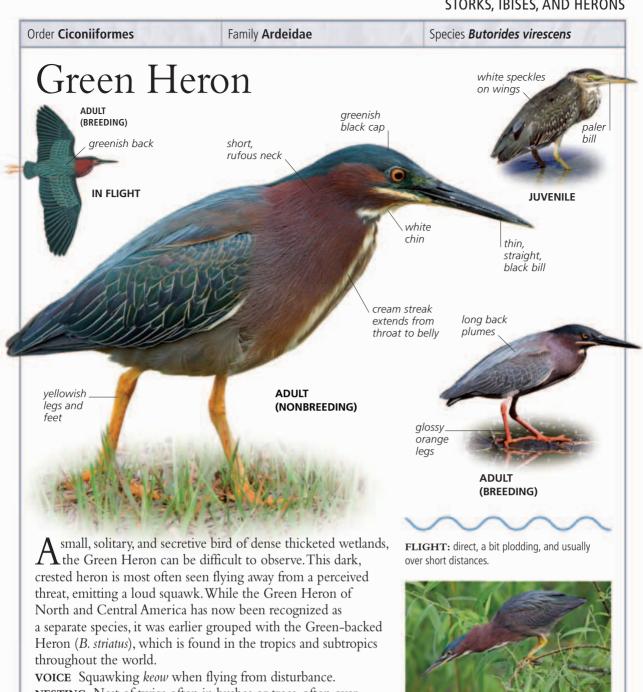
Breeds in heavily vegetated freshwater wetlands across the northern US and southern Canada; also occasionally in estuarine wetlands; winters in southern and coastal wetlands where temperatures stay above freezing; can appear in any wetland habitat during migration.

Length 231/2-31in (60-80cm)	Wingspan 3½–4¼ft (1.1–1.3m)	Weight 13–20oz (375–575g)
Social Solitary	Lifespan At least 8 years	Status Declining

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NESTING Nest of twigs often in bushes or trees, often over water but also on land; 1-2 broods; 3-5 eggs; March-July. FEEDING Stands quietly on the shore or in shallow water and strikes quickly; mainly fish, but also frogs, insects, and spiders.

OCCURRENCE

READY TO STRIKE Green Herons usually catch their prey by lunging forward and downward with their whole body.



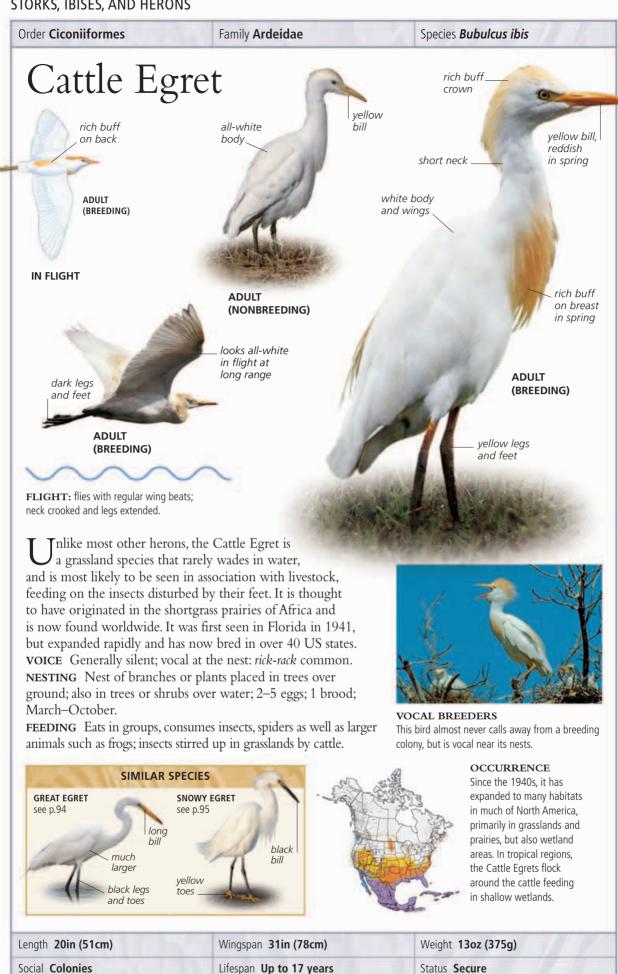
An inhabitant of swampy thickets, but occasionally dry land close to water across much of North America, but missing in the plains, the Rocky Mountains, and the western deserts that do not

provide appropriate wetlands. Winters in coastal wetlands.

Length 14½–15½ in (37–39cm)	Wingspan 25–27in (63–68cm)	Weight 7–9oz (200–250g)
Social Solitary/Pairs/Small flocks	Lifespan Up to 10 years	Status Secure

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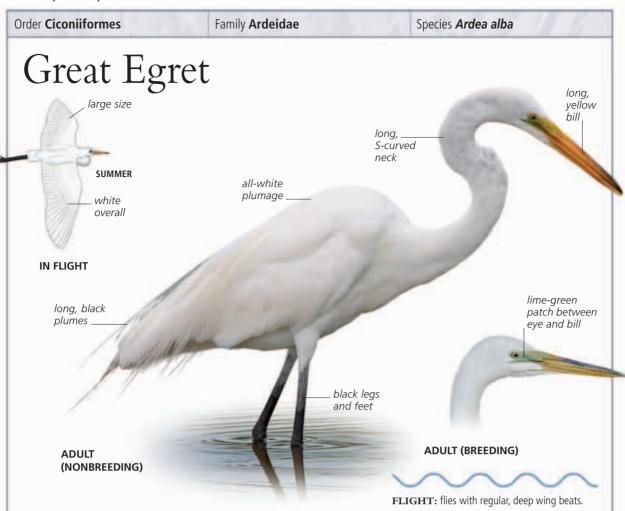


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This large white heron is found on every continent except Antarctica. When feeding, the Great Egret would apparently rather forage alone than in flocks—it maintains space around itself, and will defend a territory of 10ft (3m) in diameter from other wading birds. This territory "moves" with the bird as it feeds. In years of scarce food supplies, a chick may kill a sibling, permitting the survival of at least one bird.

VOICE Largely vocal during courtship and breeding; otherwise, *knaak* or *cuk-cuk-cuk* when disturbed or in a combative encounter.

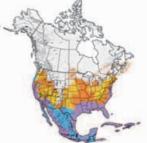
NESTING Nest of twigs in trees, over land or water; 2–4 eggs; 1 brood; March–July.

FEEDING Catches prey with quick thrust of bill; feeds on aquatic prey, primarily fish, also crustaceans.



TREE PERCHESGreat Egrets nest in trees and regularly perch in them when not feeding.

SIMILAR SPECIES LITTLE BLUE **SNOWY EGRET** black bill: see p.470 twosee p.95 toned smaller hill overall smalle vellowoverall green legs yellow feet

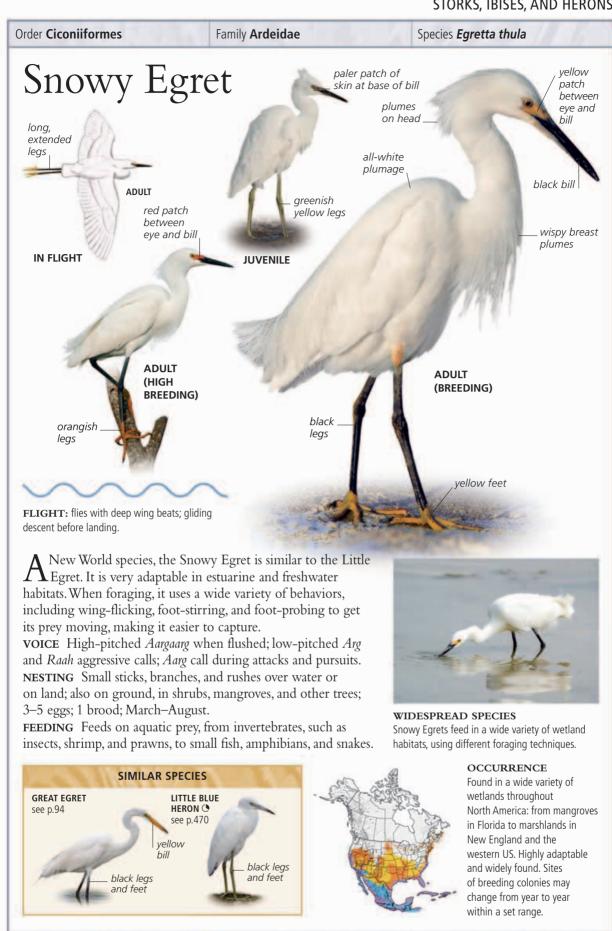


OCCURRENCE

Breeds in trees over water or on islands; forages in almost all types of freshwater and marine wetlands from marshes and ponds to rivers. Migratory over much of its North American range; more southerly populations resident. Distance migrated depends on severity of winter.

Length 3¼ft (1m) Social Solitary	Wingspan 6ft (1.8m) Lifespan Up to 25 years	Weight 1¾–3¼ft (0.8–1.5kg) Status Secure
Social Solitary	Lilespair Op to 23 years	Status Secure

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Weight 12oz (350g)

Status Secure

Wingspan 31/2ft (1.1m)

Lifespan Up to 22 years

Length 24in (62cm)

Social Solitary

PELICANS & RELATIVES

PELICANS AND THEIR relatives belong to an order of large to huge fish-eating birds, Pelecaniformes, with four toes connected by leathery webs, and with fleshy, elastic pouches beneath their bills.

PELICANS

The pelican family includes seven large species, two of which—the American White Pelican and the Brown Pelican—breed in North America. All pelicans are buoyant swimmers and excellent fliers, capable of great lift on their long, broad wings with wing feathers spread. Flocks can be seen soaring to great heights on migration and when flying to feeding grounds. Pelicans feed by sweeping with open bills for fish, often cooperatively, or by plunging from a height to scoop up fish and water in their large, flexible bill pouches.

CORMORANTS

With 36 species worldwide, these are medium to large waterbirds, some marine, others freshwater, with broad, long wings, rounded tails, short, strong legs and hook-tipped bills often tilted upward

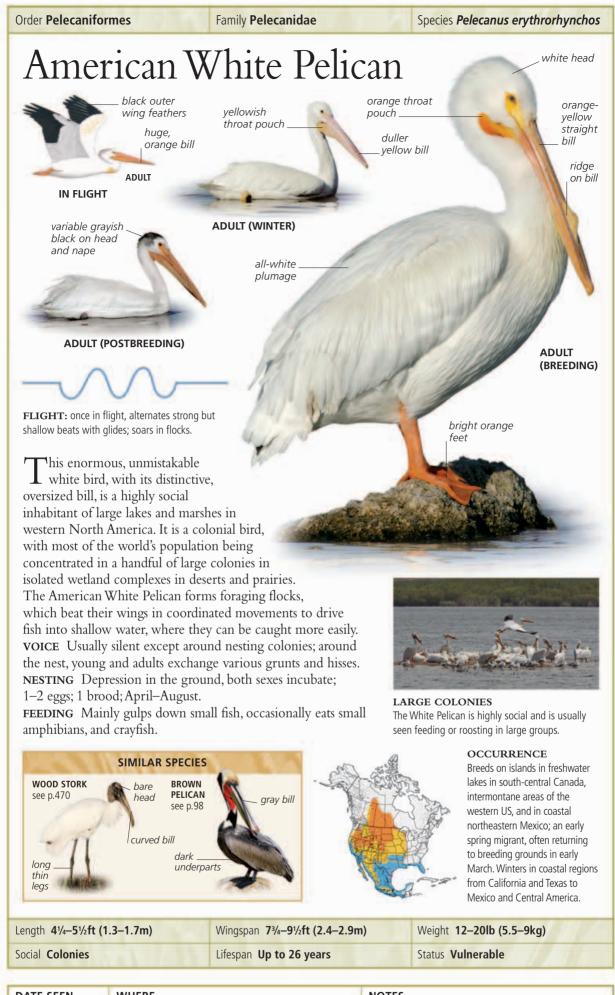


when swimming. In flight, the neck is extended and noticeably kinked. When hunting

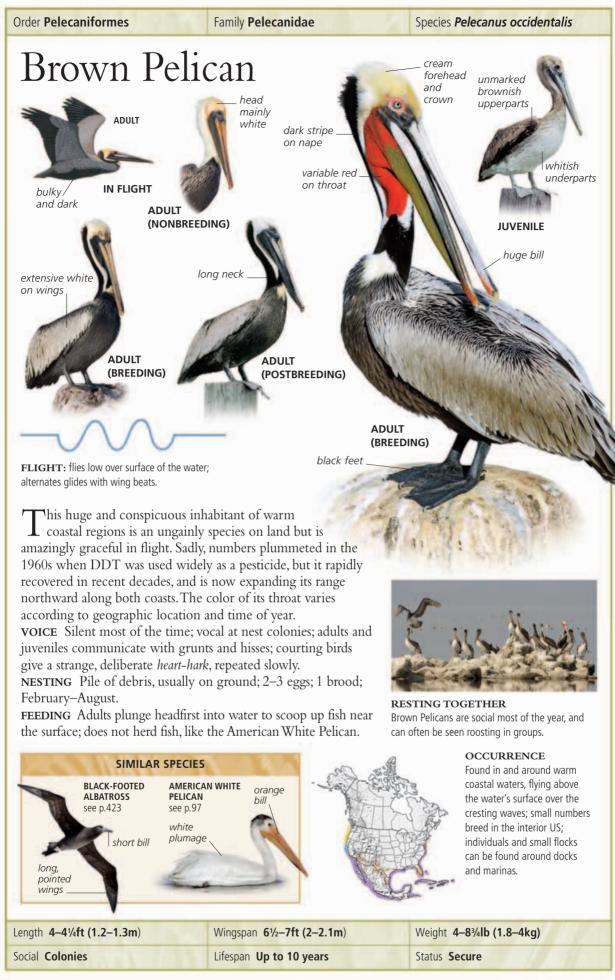
WING SPREADING
For this Neotropic Cormorant
grooming includes spreading its
wings to dry them in the sun.

for fish, cormorants dive from the surface of the water, rolling smoothly under or with a forward leap, and then swim underwater with closed wings, using their webbed toes for propulsion. Most are dark birds, apart from distinctive facial patterns on areas of bare skin which become more colorful in early spring. Most cormorants nest on cliff ledges, others use both cliffs and trees. There is one flightless and highly endangered cormorant species in the Galápagos Islands.

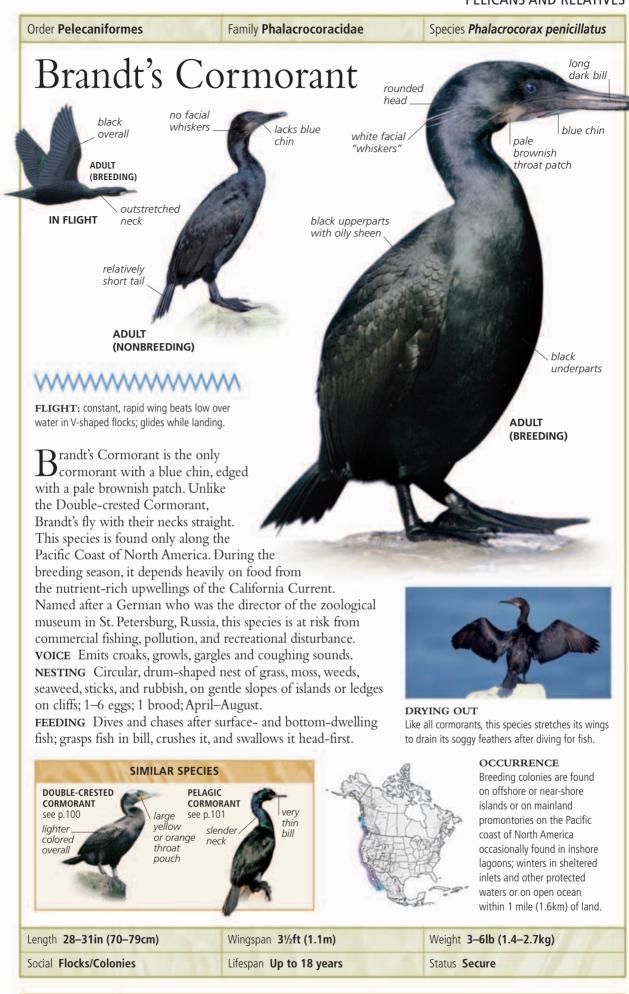




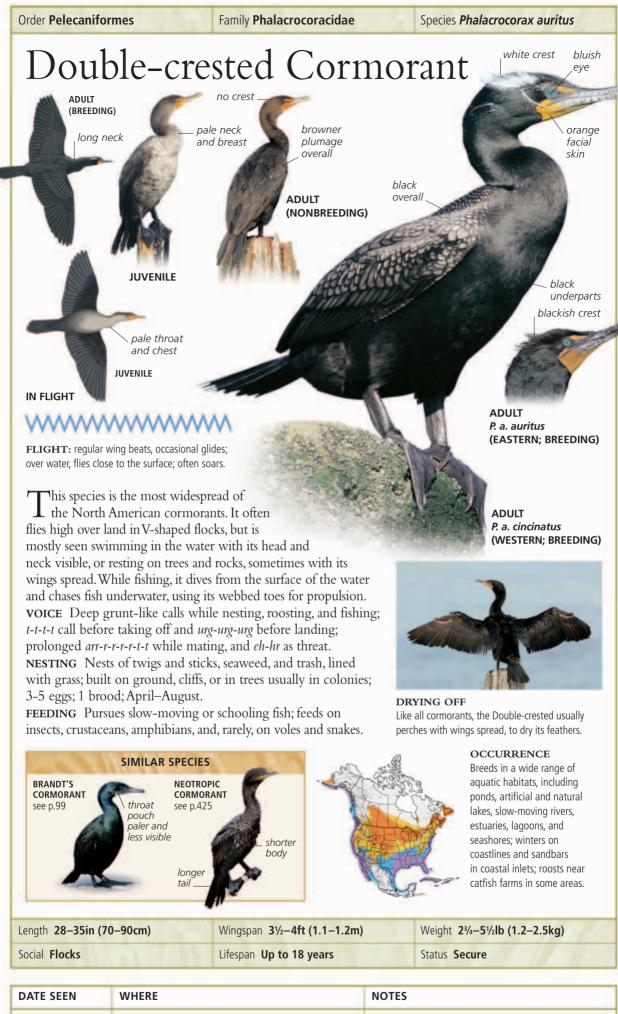
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BIRDS OF PREY

The defining features of birds of prey, or raptors, are strong feet with sharp talons for catching and holding prey, and a powerful, hooked bill for tearing the catch to pieces. Vultures eat carrion, not live prey.

VULTURES

Of the seven New World species of vulture, three occur in North America: the Black Vulture, the Turkey Vulture, which has an acute sense of smell that enables it to detect carrion hidden from sight



WEAK TOOLIn spite of its sharp beak, the Turkey Vulture cannot always break the skin of carcasses.

beneath the forest canopy, and the rare California Condor, the continent's largest soaring land bird. All three can stay in the air for hours on end, using the lift provided by updrafts to minimize the energy spent on wing flapping.

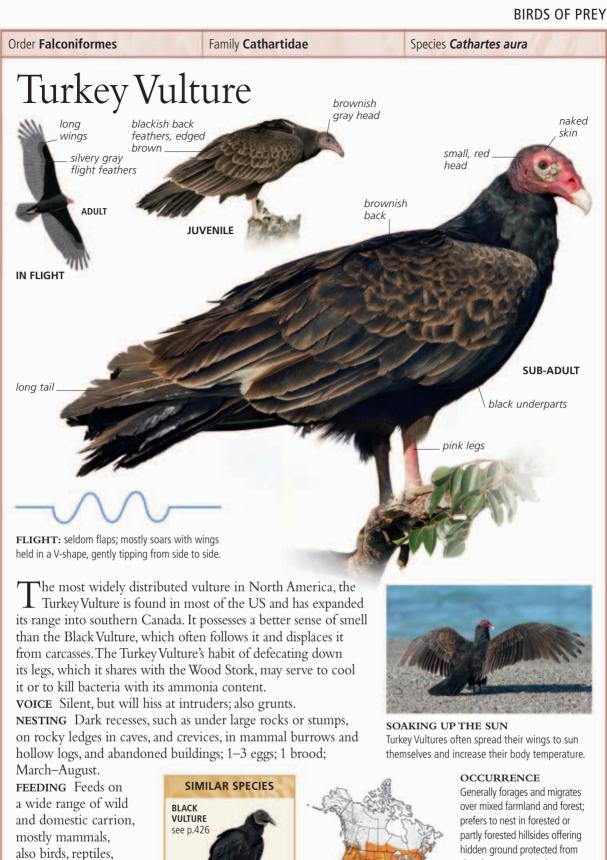
FALCONS

Ranging in size from the diminutive American Merlin, with northern breeding habitats, to the large, powerful Gyrfalcon, which nests in the Arctic, this group also includes the Kestrel, the Prairie Falcon, and perhaps the best-known raptor of all—the fast-diving Peregrine Falcon. Falcon prey ranges from insects to large mammals and birds.

EAGLES AND HAWKS

This group covers a wide range of raptors of varying sizes, from the iconic Bald Eagle and the majestic Golden Eagle to smaller birds, such as the Northern Harrier, and various hawks and kites. These birds use a wide range of hunting methods. For example, forest-dwelling hawks rely on speed and stealth to pounce on small birds among the trees in a sudden, short dash. By contrast, the Osprey hovers over water until it sees a fish below, then dives steeply, pulling up at the last moment to pluck its prey clean out of the water with its talons.





or trapped birds. Length 25-32in (64-81cm) Wingspan 5½-6ft (1.7-1.8m) Weight 41/2lb (2kg) Social Flocks Lifespan At least 17 years Status Secure

black

shorter

tail

amphibians, and fish;

occasionally takes live

prey such as nestlings

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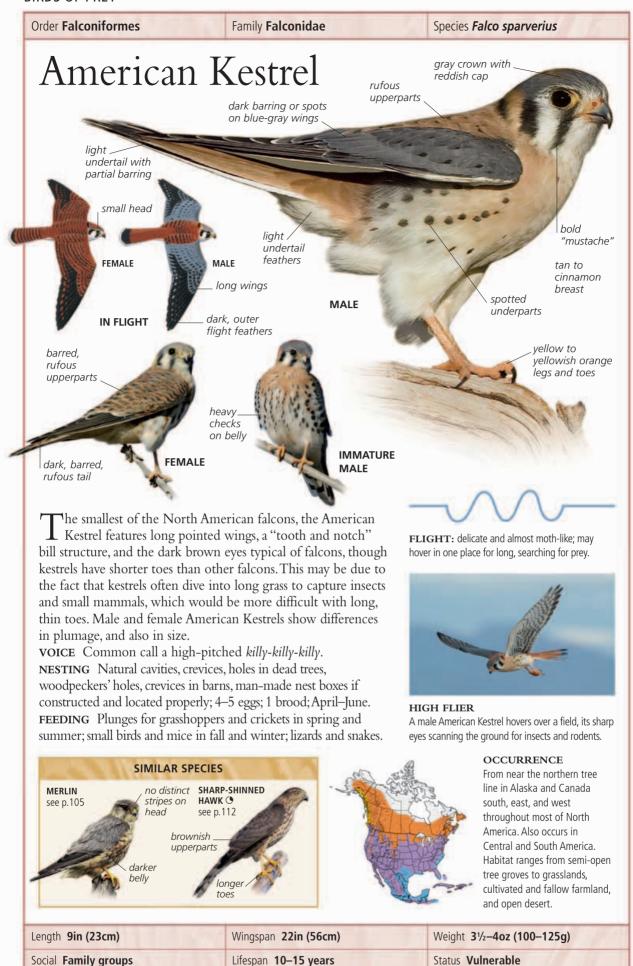
disturbance; roosts in large trees

transmission towers: some winter

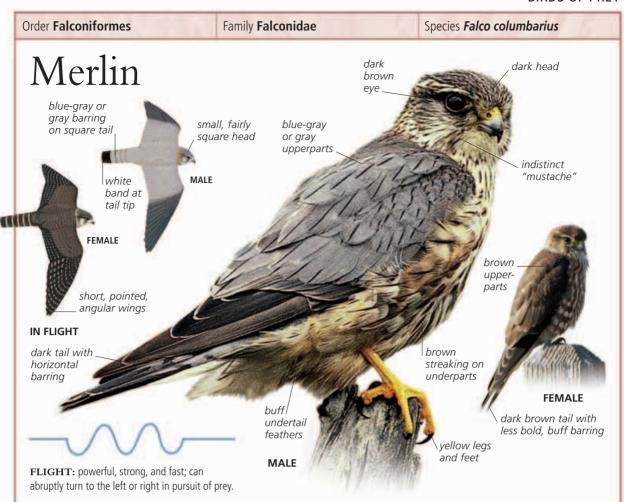
in urban areas and near landfills.

such as cottonwoods, on rocky

outcrops, and on power line



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Merlins are small, fast-flying falcons that were formerly known as "pigeon hawks," because their shape and flight are similar to those strong fliers. Merlins can overtake and capture a wide variety of prey. They can turn on a dime, and use their long, thin toes, typical of falcons, to pluck birds from the air after launching a direct attack. Males are smaller than females, and different in color. Both males and females show geographical color variations. **VOICE** Male call a high-pitched *ki-ki-ki-ki*; female call a low-pitched *kek-ek-ek-ek-ek*.

NESTING Small scrapes on ground in open country, or abandoned nests of other species, such as crows, in forested areas; 4–6 eggs; 1 brood; April–June.

FEEDING Catches small birds in midair, and occasionally birds as large as doves; also feeds on small mammals, including bats.



An adult female Merlin sits on a moss-covered rock, about to "rouse," or fluff out and shake her feathers.

OCCURRENCE

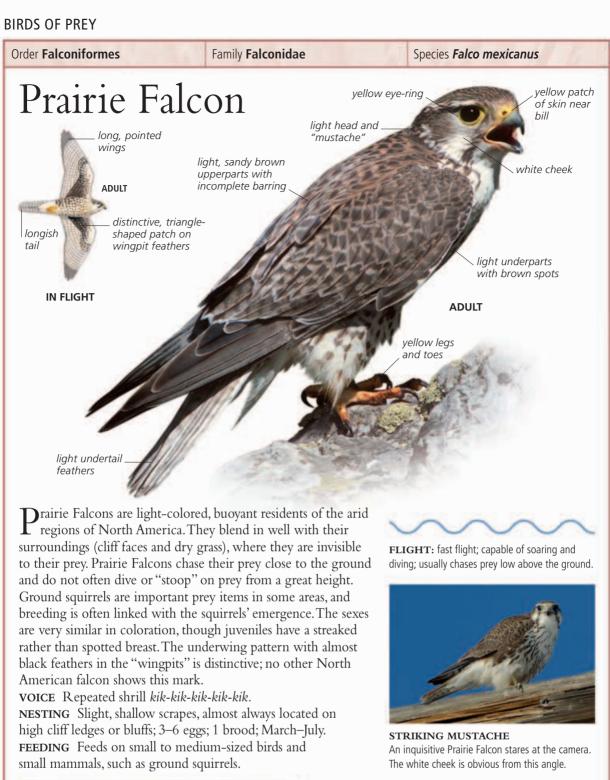




Breeds from northern California east to Newfoundland, and south to Louisiana, Texas, and Mexico. Merlins can be seen hunting along coastlines, over marshlands and open fields, and in desert areas. Eastern birds migrate to southern areas.

Length 10in (25cm)	Wingspan 24in (61cm)	Weight 5–7oz (150–200g)
Social Pairs/Family groups	Lifespan 10–15 years	Status Secure

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SIMILAR SPECIES MERLIN PEREGRINE darkei see p.105 FALCON (head see p.107 smallei overall streaked underparts heavily yellow or_ bluish gray underparts legs and toes



OCCURRENCE

Interior North America, from central British Columbia east to western North Dakota and south to southern California, and Mexico, Arizona, northern Texas. Found in open plains, prairies, and grasslands, dotted with buttes or cliffs. A partial migrant, it moves east of its breeding range in winter.

Length 16in (41cm)	Wingspan 31/4 (1m)	Weight 22–30oz (625–850g)
Social Solitary/Pairs	Lifespan 10–20 years	Status Localized

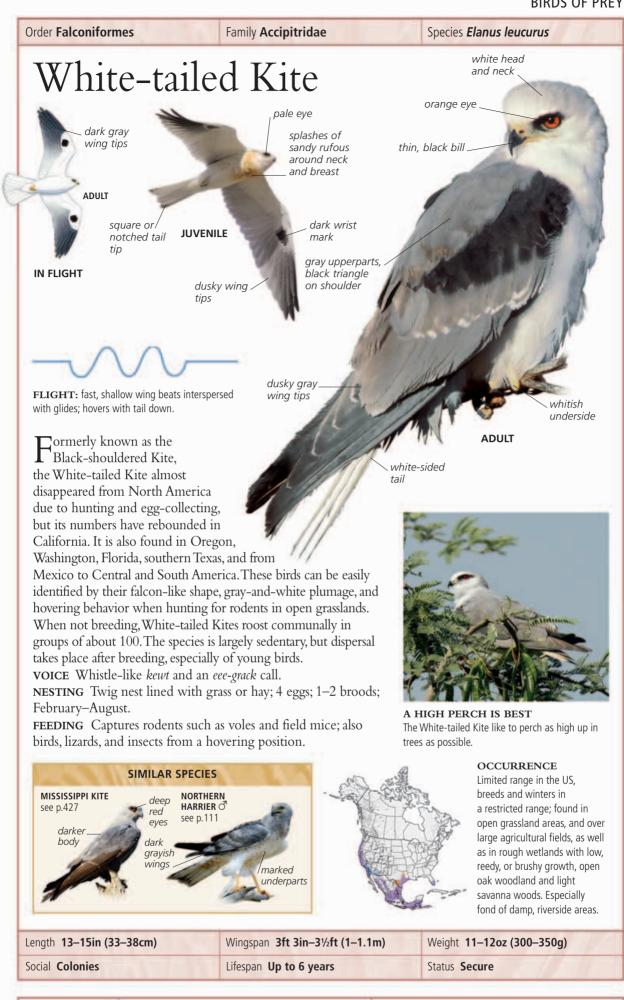
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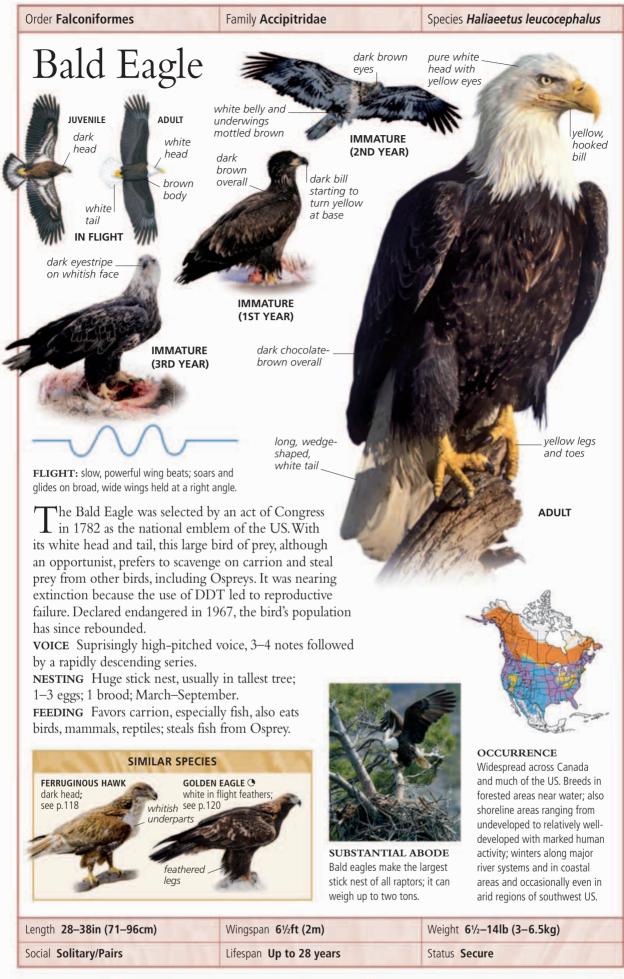


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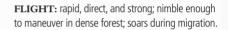


This small and swift hawk is quite adept at capturing birds, occasionally even taking species larger than itself. The Sharp-shinned Hawk's short, rounded wings and long tail allow it to make abrupt turns and lightning-fast dashes in thick woods and dense shrubby terrain. With needle-like talons, long, spindle-thin legs, and long toes, this hawk is well adapted to snatching birds in flight. The prey is plucked before being consumed or fed to the nestlings.

VOICE High-pitched, repeated *kiu kiu kiu call*; sometimes makes squealing sound when disturbed at nest.

NESTING Sturdy nest of sticks lined with twigs or pieces of bark; sometimes an old crow or squirrel nest; 3–4 eggs; 1 brood; March–June.

FEEDING Catches small birds, such as sparrows and wood-warblers, on the wing, or takes them unaware while perched.





HUNTING BIRDS

A Sharp-shinned Hawk pauses on the ground with a freshly captured sparrow in its talons.



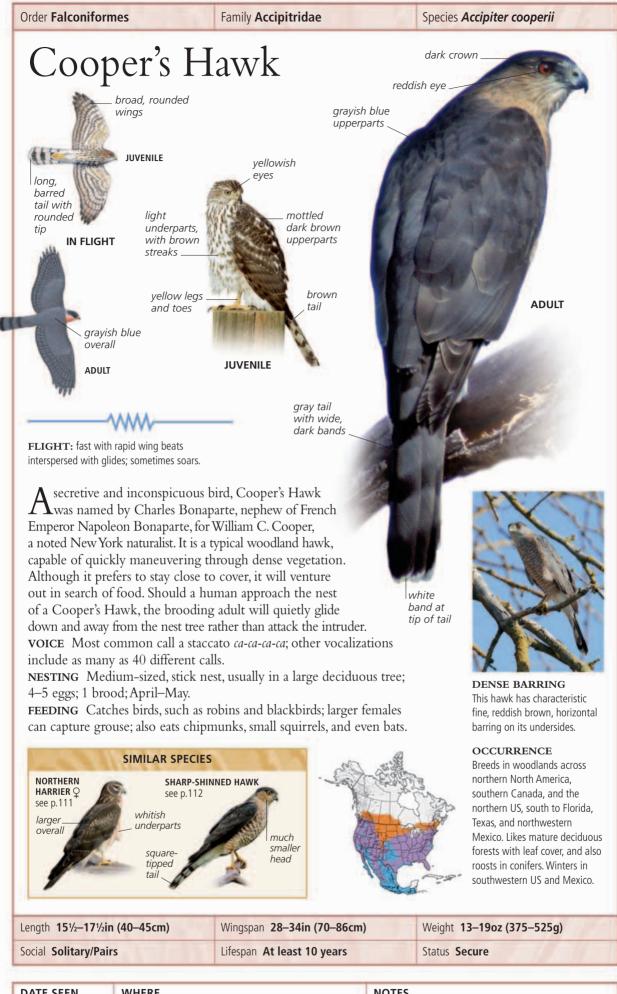


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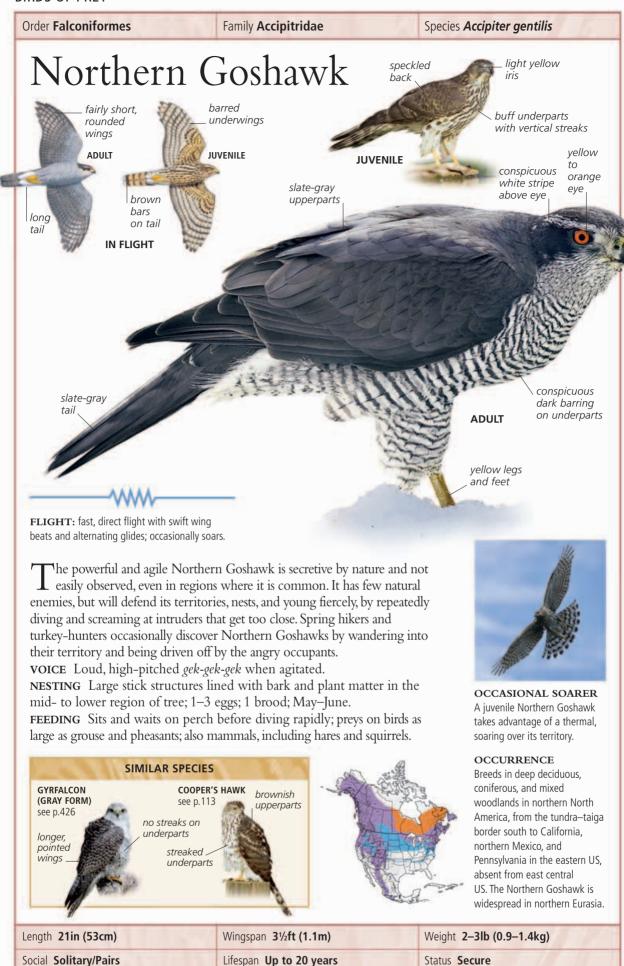
Deep coniferous forests and mixed hardwood—conifer woodlands across North America from the tree limit in northern Canada to the Gulf states. During fall migration sometimes seen in flocks of hundreds of individuals. Winters in Central America from Guatemala to Panama.

Length 11in (28cm)	Wingspan 23in (58cm)	Weight 3½–6oz (100–175g)
Social Solitary/Flocks	Lifespan At least 10 years	Status Secure

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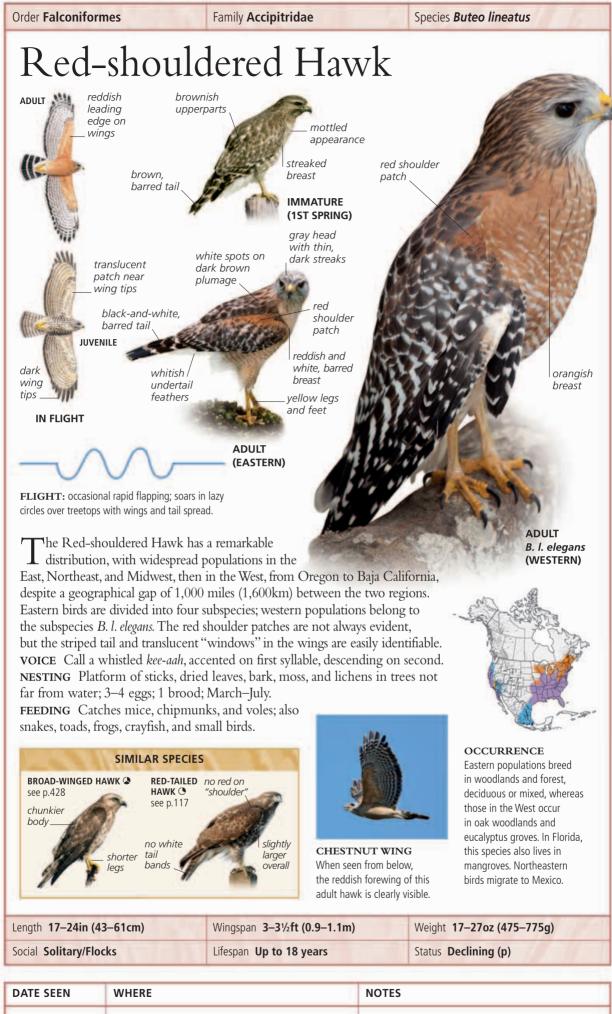


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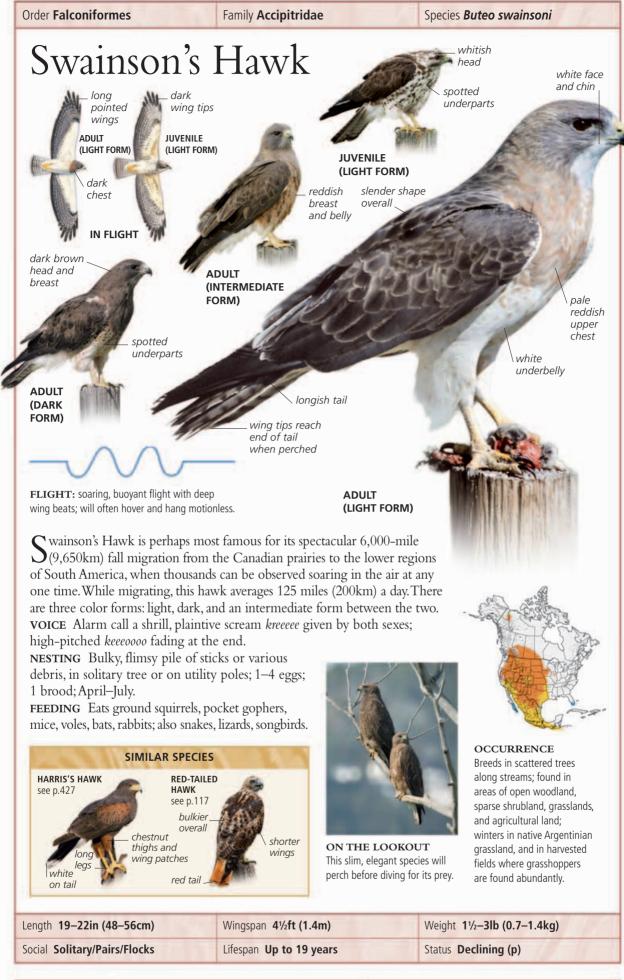
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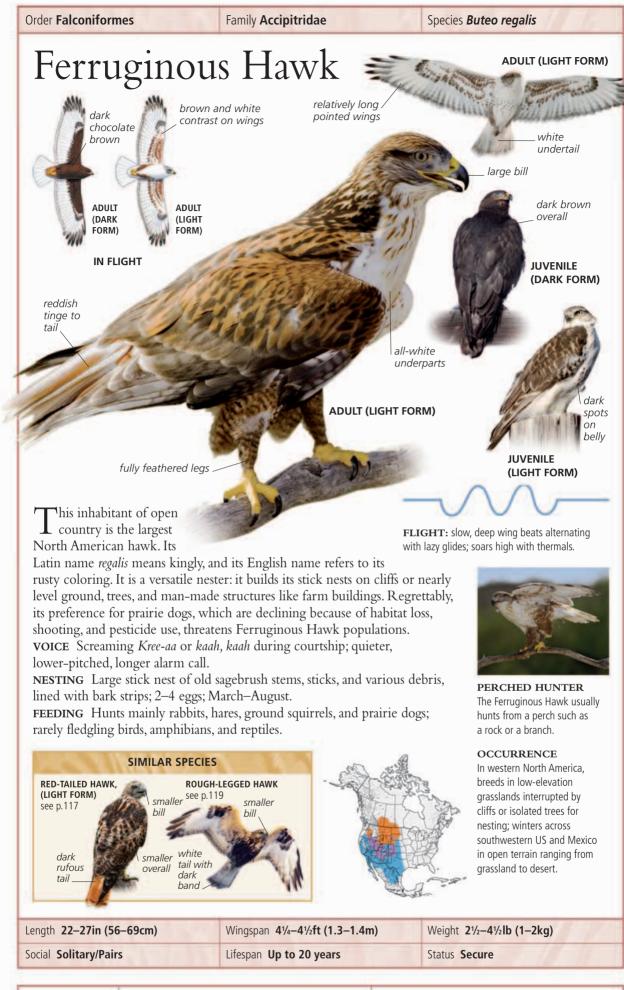


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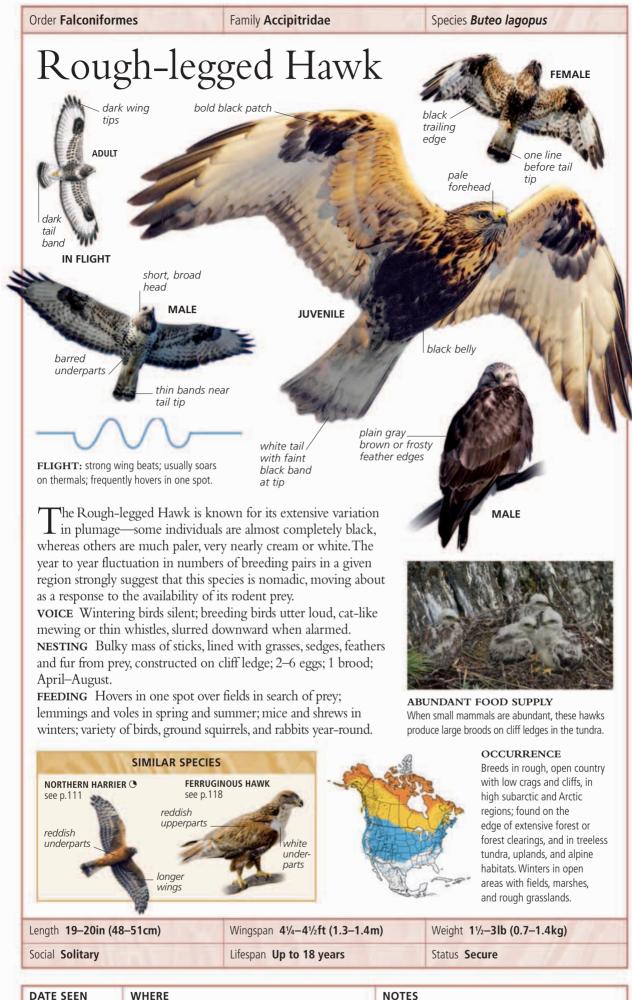


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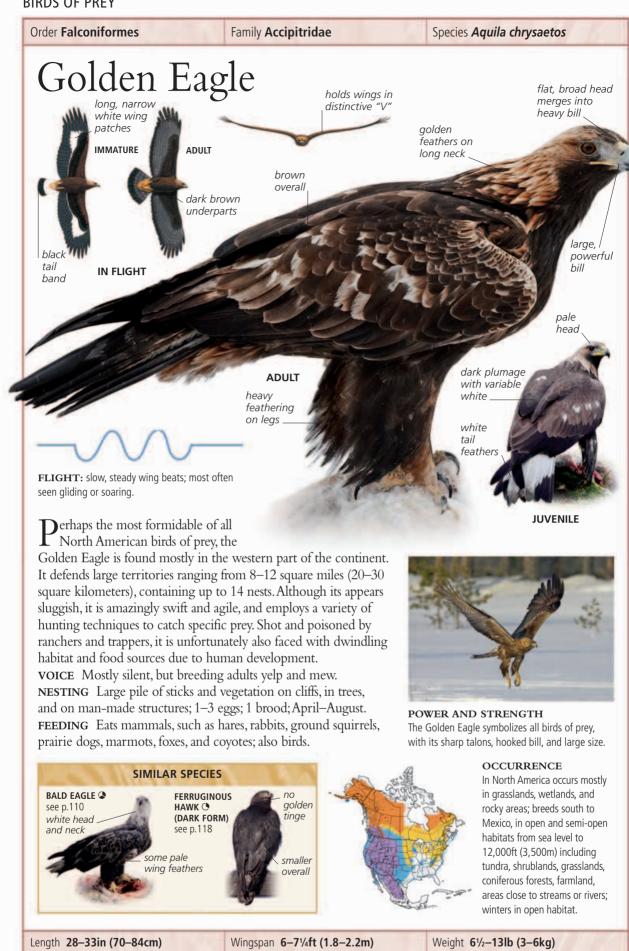
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Status Declining (p)

Lifespan Up to 39 years

Social Solitary/Pairs

RAILS & RELATIVES

THE RALLIDAE, OR RAIL family, is a diverse group of small to medium-sized marsh birds. In the US and Canada, rallids, as they are known collectively, are represented by three rails, three crakes, two gallinules, and a coot. Rails and crakes inhabit dense marshland and are secretive, solitary, and inconspicuous, whereas coots and gallinules are seen on open water. Rallids are chicken-like birds with stubby tails and short, rounded wings. Rails have drab, camouflage coloring, and are long-legged, long-billed, and narrow-bodied. Crakes are smaller but similar, with shorter necks and stout, stubby bills. Both rails and crakes walk and run on the ground in marsh

vegetation, but can swim well. Colorful gallinules include the Common Moorhen and the Purple Gallinule. Rallids look like

weak flyers, but many migrate great distances at night. None has a specialized diet; their food includes insects, small crabs, slugs, snails, and plant matter. Rallids nest in pairs, the birds keep in close contact by calling loudly and clearly.



THIN AS A RAIL
This marsh-dwelling Clapper Rail
has a narrow body that enables
it to slip easily through reedbeds.



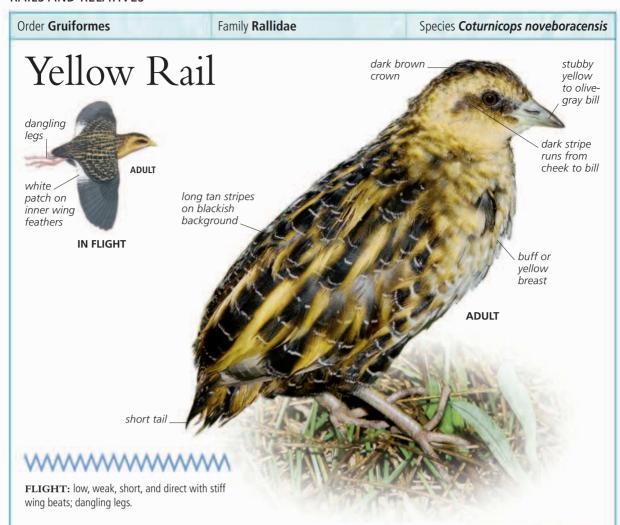
CRANES

CRANES ARE LARGE wading birds, superficially similar to storks and to the larger herons and egrets. However, several anatomical differences place them in a different family (Gruidae), within a different order (Gruiformes). The two North American crane species have much lighter bills than storks. Typically, too, long inner wing feathers form a "bustle" on a standing crane, giving it a different profile than a heron. Additionally, cranes fly with their necks straight out, rather than in the tight S-curve regularly seen in

similar-sized herons. The Whooping Crane is the tallest bird in North America, standing nearly 5ft (1.5m) high.

CRANE RALLY
Large numbers of Sandhill
Cranes gather on feeding
grounds in winter. Groups
arrive in V-formation.





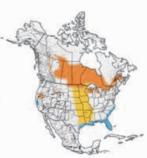
A lthough widespread, the diminutive, secretive, nocturnal Yellow Rail is extremely difficult to observe in its dense, damp, grassy habitat, and is detected mainly by its voice. The Yellow Rail, whose Latin name of noveboracensis means "New Yorker," has a small head, almost no neck, a stubby bill, a plump, almost tail-less body, and short legs. The bill of the male turns yellow in the breeding season; for the rest of the year, it is olive-gray like the female's. Although the Yellow Rail tends to dart for cover when disturbed, when it does fly, it reveals a distinctive white patch on its inner wing.

VOICE Two clicking calls followed by three more given by males, usually at night, reminiscent of two pebbles being struck together; also descending cackles, quiet croaking, and soft clucking.

NESTING Small cup of grasses and sedges, on the ground or in a plant tuft above water, concealed by overhanging vegetation; 8–10 eggs; 1 brood; May–June.

FEEDING Plucks seeds, aquatic insects, various small crustaceans, and mollusks (primarily small freshwater snails) from vegetation or ground; forages on the marsh surface or in shallow water, hidden by grass.







CURIOUS LISTENER Imitating the "tick" calls of the Yellow Rail is often an effective way to lure it out into the open.

OCCURRENCE

Breeds in brackish and freshwater marshes and wet sedge meadows in Canada and the north central US; there is an isolated breeding population in Oregon. Winters predominantly in coastal marshes along the eastern seaboard.

Length 7 1/4 in (18.5cm)	Wingspan 11in (28cm)	Weight 13/4oz (50g)
Social Pairs	Lifespan Unknown	Status Secure

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Asmaller version of the King Rail, this freshwater marsh dweller is similar to its other relatives, more often heard than seen. Distributed in a wide range, the Virginia Rail spends most of its time in thick, reedy vegetation, which it pushes using its "rail thin" body and flexible vertebrae. Although it spends most of its life walking, it can swim and even dive to escape danger. The Virginia Rail is a partial migrant that leaves its northern breeding grounds in winter.

VOICE Series of pig-like grunting *oinks* that start loud and sharp, becoming steadily softer; also emits a series of double notes *ka-dik ka-dik*.

NESTING Substantial cup of plant material, concealed by bent-over stems; 5–12 eggs; 1–2 broods; April–July.

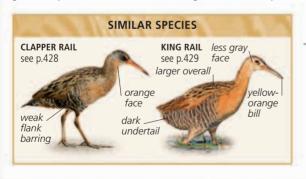
FEEDING Actively stalks prey or may wait and dive into water; primarily eats snails, insects, and spiders, but may also eat seeds.

FLIGHT: weak and struggling with outstretched neck and legs trailing behind.



HARD TO SPOT

The secretive Virginia Rail is difficult to spot in its reedy habitat.



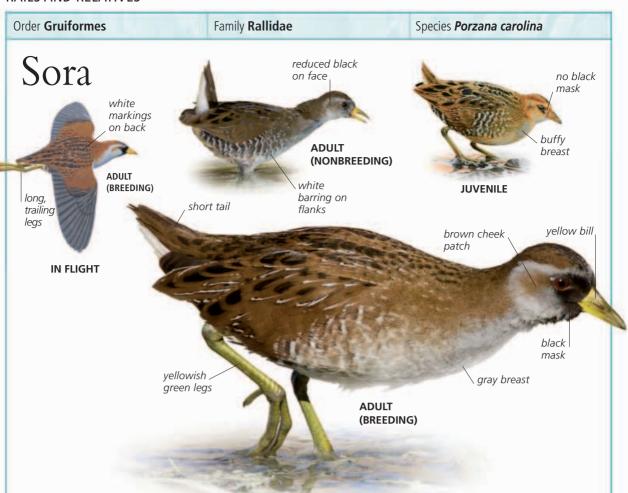


OCCURRENCE

Breeds in freshwater habitats across North America, and is found throughout the year along the West Coast of the US. Other western populations move to central Mexico for the winter.

Length 9 ½ in (24cm)	Wingspan 13in (33cm)	Weight 3oz (85g)
Social Pairs	Lifespan Unknown	Status Secure

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Despite being the most widely distributed rail in North America, the Sora is rarely seen. It breeds in freshwater marshes and migrates hundreds of miles south in winter regardless of its weak and hesitant flight. It swims well, with a characteristic head-bobbing action. The Sora can be spotted walking at the edge of emergent vegetation—its yellow bill and black mask distinguish it from other rails.

VOICE Call a long, high, and loud, descending, horse-like whinny ko-wee-hee-hee-hee; has an upslurred whistle.

NESTING Loosely woven basket of marsh vegetation suspended

NESTING Loosely woven basket of marsh vegetation suspended above water or positioned in clumps of vegetation on the water's surface; 8–11 eggs; 1 brood; May–June.

FEEDING Rakes vegetation with feet or pulls with bill in search of seeds of wetland plants, insects, spiders, and snails.

FLIGHT: appears weak, yet strenuous; wing beats hurried and constant.



CHICKEN-LIKE WALKA rare sight, the Sora walks chicken-like through a marsh, its body in a low crouch.

OCCURRENCE



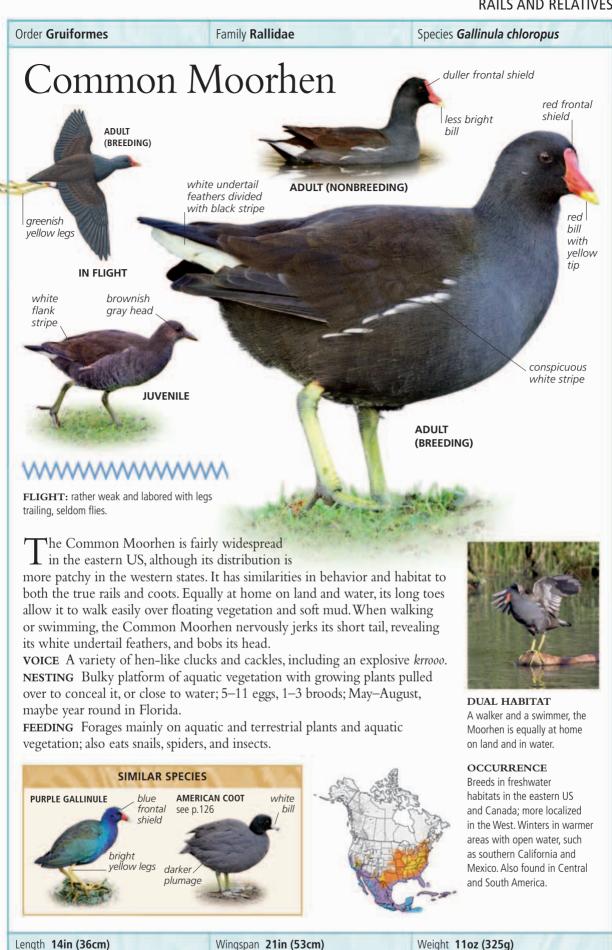


Breeds in freshwater marshes with emergent vegetation across most of temperate North America; rarely in salt marshes along the Atlantic Coast. Winters in freshwater, calturator, and bracklish

marshes along the Atlantic Coast. Winters in freshwater, saltwater, and brackish marshes with spartina grass from the southern US to northern South America.

Length 81/2in (22cm)	Wingspan 14in (36cm)	Weight 2 % oz (75g)
Social Solitary	Lifespan Unknown	Status Secure

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Status Secure

Lifespan Up to 10 years

Social Pairs



A abundant and widely distributed of North American rails. Its lobed toes make it well adapted to swimming and diving, but are somewhat of an impediment on land. Its flight is clumsy; it becomes airborne with difficulty, running along the water surface before taking off. American Coots form large flocks on open water in winter, often associating with ducks—an unusual trait for a member of the rail family.

VOICE Various raucous clucks, grunts, and croaks and an explosive *keek*.

NESTING Bulky cup of plant material placed in aquatic vegetation on or near water; 5–15 eggs; 1–2 broods; April–July. **FEEDING** Forages on or by diving under shallow water and on land; primarily herbivorous, but also eats snails, insects, spiders, tadpoles, fish, and even carrion.





SWIMMING AWAYThe red-headed, baldish looking American Coot chicks leave the nest a day after hatching.

SIMILAR SPECIES PURPLE GALLINULE COMMON MOORHEN © see p.125 gray head red bill with yellow tip bright yellow legs white flank stripe



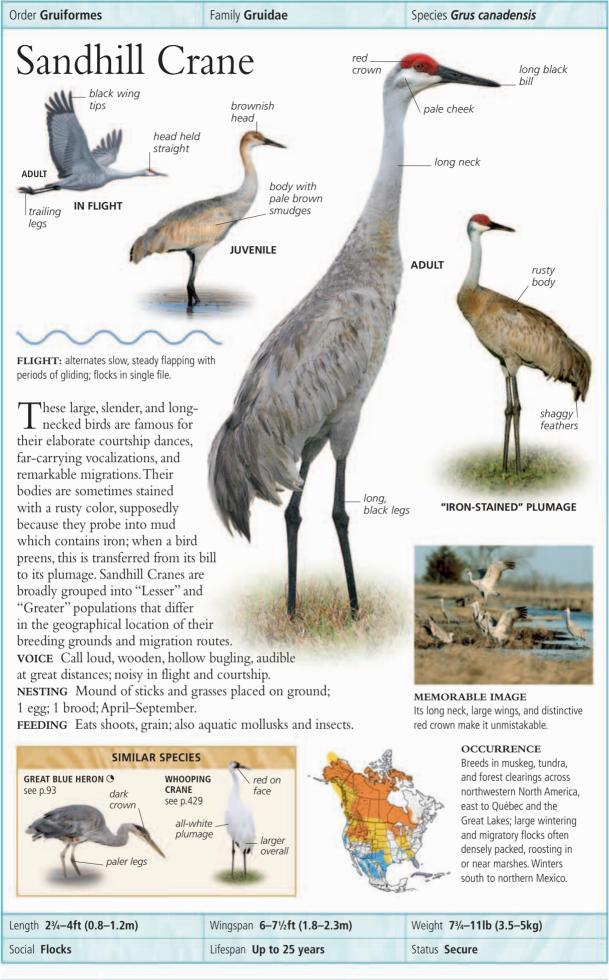
OCCURRENCE

Breeds in open water habitats west of the Appalachians and in Florida. Moves from the northern parts of its range in winter to the southeastern US, where open water persists; also migrates to western and southern Mexico.

Length 15 ½ in (40cm)	Wingspan 24in (61cm)	Weight 16oz (450g)
Social Flocks	Lifespan Up to 22 years	Status Secure

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SHOREBIRDS, GULLS, & AUKS

THE DIVERSE SHOREBIRD, gull, and auk families together form the order Charadriiformes. They are small to medium-sized, mostly migratory birds, associated with aquatic habitats. Over 100 species are found in North America.

SHOREBIRDS

The various species popularly known as shorebirds belong to several different families. In North America there are the oystercatchers (Haematopodidae), the avocets and stilts (Recurvirostridae), the plovers (Charadriidae), the sandpipers (Scolopacidae), and the phalaropes (the subfamily Phalaropodinae, of Scolopacidae). They have long legs in proportion to their bodies, and a variety of bills, ranging from short to long, thin, thick, straight, down-curved, and up-curved.

GULLS

The over 20 species of North American gulls in the family Laridae all share similar stout body shapes, sturdy bills, and webbed toes. Nearly all are scavengers. Closely associated with coastal areas, few gulls venture far out to sea. Some species are seen around fishing ports and harbors, or inland, especially in urban areas and garbage dumps.

TYPICAL GULL

Most large gulls, such as
this Western Gull, have white
heads and underparts with long
dark wings and a bright sturdy bill.

TERNS

Terns are specialized long-billed predators that dive for fish. More slender and elegant than gulls, nearly all are immediately recognizable when breeding, with their black caps and long, pointed bills. The related Black Skimmer also catches fish but has a different bill.

AUKS, MURRES, & PUFFINS

Denizens of the northern oceans, these birds only come to land to breed. Most nest in colonies on sheer cliffs overlooking the ocean, but puffins excavate burrows in the ground, and some murrelets nest away from predators high up in treetops far inland.

COLOR-CHANGE BILL

The bright colors of a breeding Tufted Puffin's bill fade to more muted tones in winter, after the breeding season.







This large, striking oystercatcher shares the typical round-bodied, hunch-backed, and squat-necked shape of other oystercatchers, as well as their typically thick legs and bill. But it is instantly recognizable because of its all-dark plumage, making the pale eyes and colorful bill all the more conspicuous. It is restricted to rocky coasts, where it feeds in pairs or family groups, using well-defined territories in summer. In winter, the birds gather in larger flocks where they are numerous, sometimes in hundreds, where mussels and barnacles are abundant. These are noisy, demonstrative birds, and always entertaining to watch.

VOICE Flight call a loud, whistled wheeu, with emphasis on first part of call: alarm call sharper wheen; courtship and posturing

part of call; alarm call sharper *wheep*; courtship and posturing calls a series of whistles based on flight call, accelerating into descending piping calls.

NESTING Simple scrape just above high-tide line, often lined with broken shells and pebbles; 2–3 eggs; 1 brood; May–June.

FEEDING Feeds on slightly submerged shellfish beds; diet includes mollusks, particularly mussels and limpets; also eats a variety of crustaceans, such as crabs and barnacles; oysters are rarely consumed.





FLIGHT: strong, powerful flight with shallow wing beats.



on top of exposed barnacle beds at low tide.

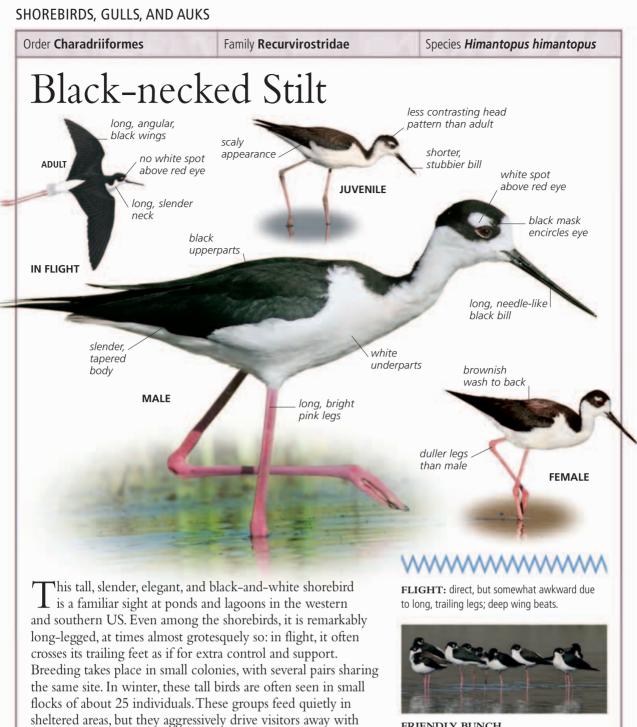
OCCURRENCE

Feeds in the area between the high and low tide marks on rocky shores of western North America, from Alaska southward to Baja California. Breeds just above high-tide line on rocky headlands or sand, shell, and gravel beaches. In winter, also found on rocky jetties in southern part of range.

Length 161/2–181/2in (42–47cm)	Wingspan 30–34in (77–86cm)	Weight 18–25oz (500–700g)
Social Pairs/Flocks	Lifespan 10–15 years	Status Secure

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their raucous calls, dog-like yips, and noisy communal protests. The increased use of pesticides and loss of wetland habitat could cause a decline in its numbers in the future. The US populations belong to the subspecies mexicanus. VOICE Flight and alarm call a loud, continuous poodle-like yip-yip-yip, given in a long series when alarmed.

NESTING Simple scrape lined with grass in soft soil; 4 eggs; 1 brood; April-May.

FEEDING Walks slowly in shallow water, picking food off surface; diet includes tadpoles, shrimp, snails, flies, worms, clams, small fish, and frogs.

FRIENDLY BUNCH

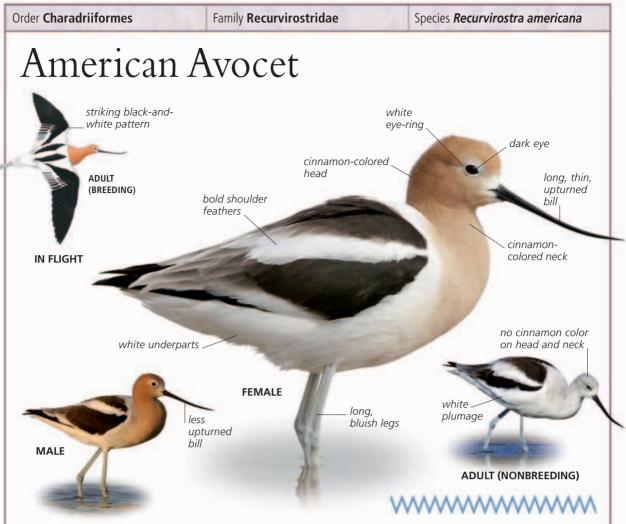
Black-necked Stilts are gregarious by nature, and often roost together in shallow water.

OCCURRENCE

Breeds around marshes, shallow grassy ponds, lake margins, and man-made waterbodies, such as reservoirs; uses similar habitats during migration and winter, as well as shallow lagoons, flooded fields, and mangrove swamps. Southern birds migrate locally only.

Length 14–15½in (35–39cm)	Wingspan 29–32in (73–81cm)	Weight 4–8oz (125–225g)
Social Small flocks	Lifespan Up to 19 years	Status Secure

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With its long, thin, and upturned bill, this graceful, long-legged shorebird is unmistakable when foraging. When it takes off, its striking plumage pattern is clearly visible. It is the only one of the four avocet species in the world that changes plumage when breeding. Breeding birds have a cinnamon head and neck, and bold, patterns on their black-and-white wings and upperparts. The American Avocet forms large flocks during migration and in winter. VOICE Flight call a variable melodic *kleet*, loud and repetitive, given when alarmed and by foraging birds.

NESTING Simple scrape in shallow depression; 4 eggs; 1 brood; May–June. FEEDING Uses specialized bill to probe, scythe, or jab a variety of aquatic invertebrates, small fish, and seeds; walks steadily in belly-deep water to chase its prey.



TRICKY BALANCE
During mating, the male supports
himself with raised wings as the
female extends her neck forward.

FLIGHT: fast, direct, and graceful; very long legs extend beyond tail.



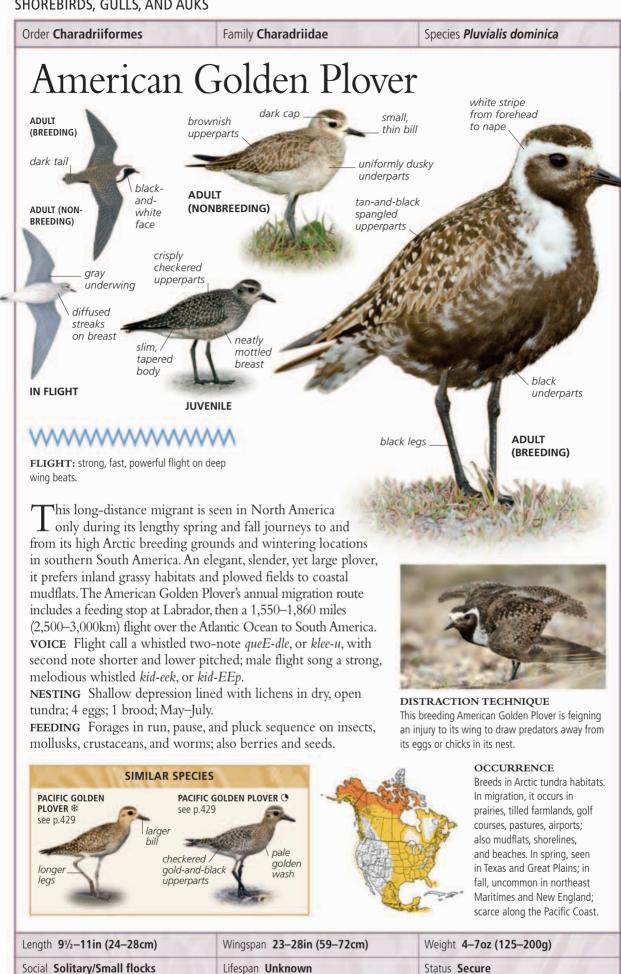
FORAGING FLOCKThese birds walk through shallow water in flocks searching mainly for insects and crustaceans.

OCCURRENCE

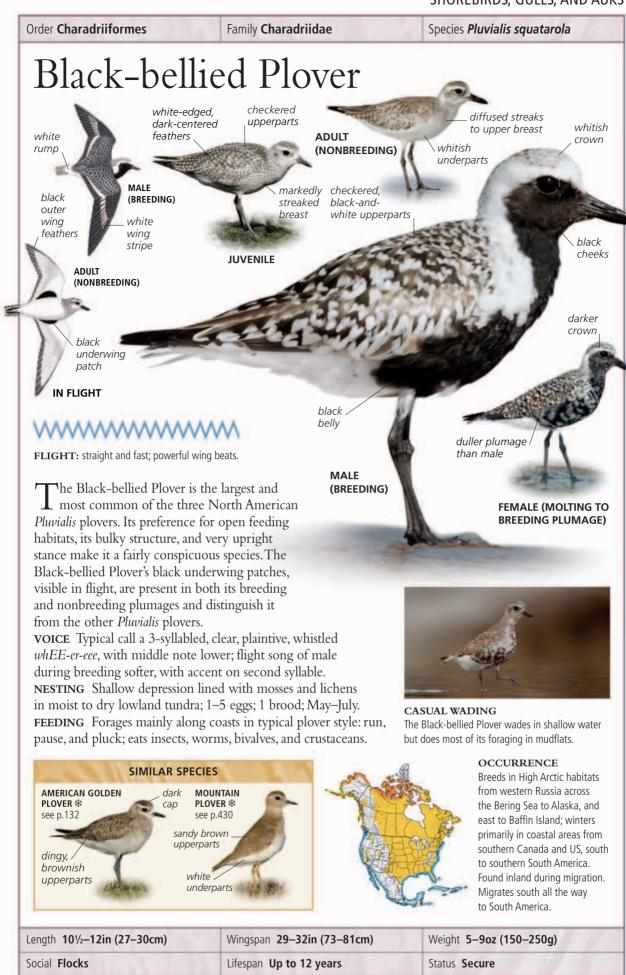
Breeds in temporary wetlands, in dry to arid regions. In winter and migration, found in shallow water habitats, including ponds, reservoirs, fresh- and saltwater marshes, tidal mudflats, and lagoons. Each year, a flock of about 10,000 birds winters at Bolivar Flats, Texas. Regular East Coast visitor.

Length 17–18½in (43–47cm)	Wingspan 29–32in (74–81cm)	Weight 10–12oz (275–350g)
Social Large flocks	Lifespan Up to 9 years	Status Secure

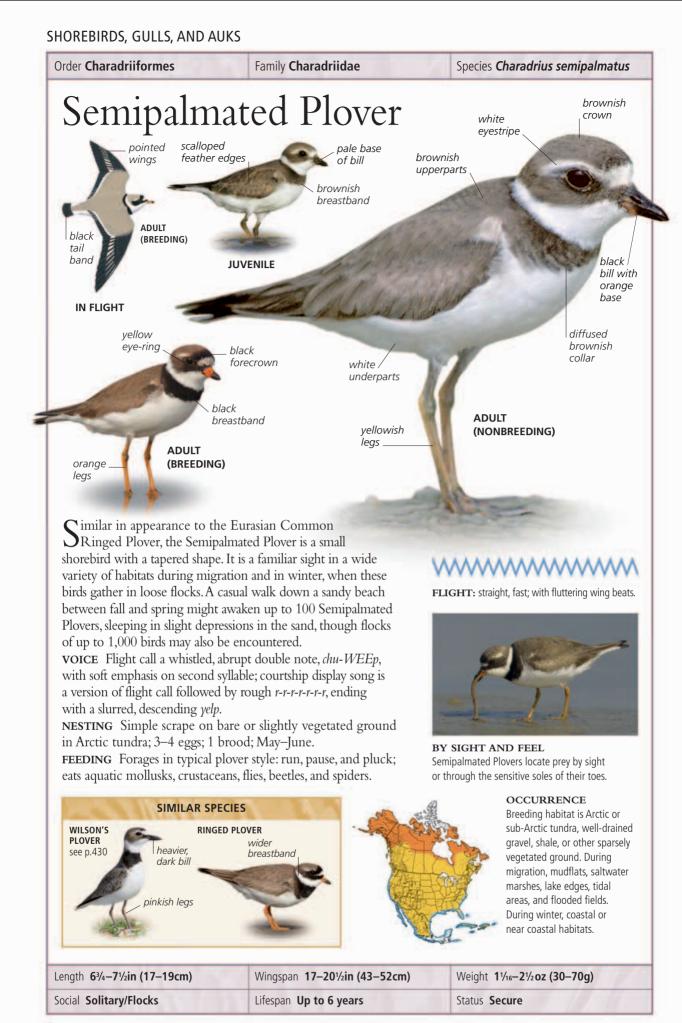
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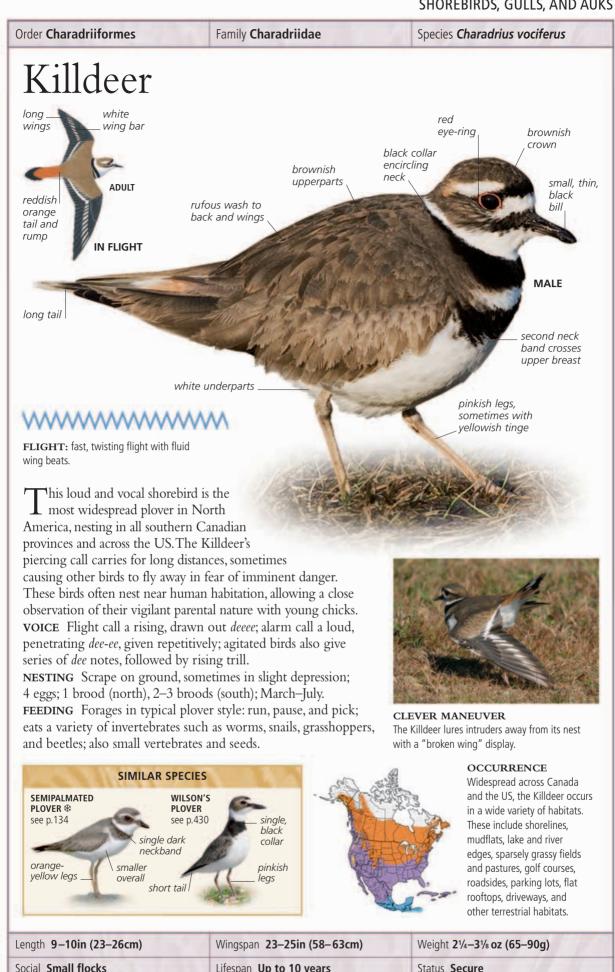
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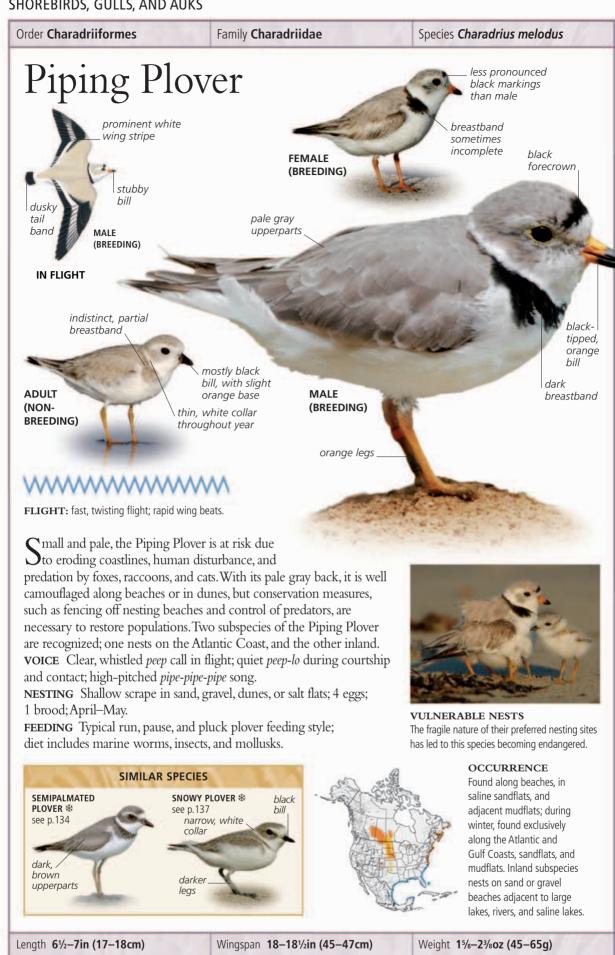
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Lifespan Up to 10 years

Status Secure



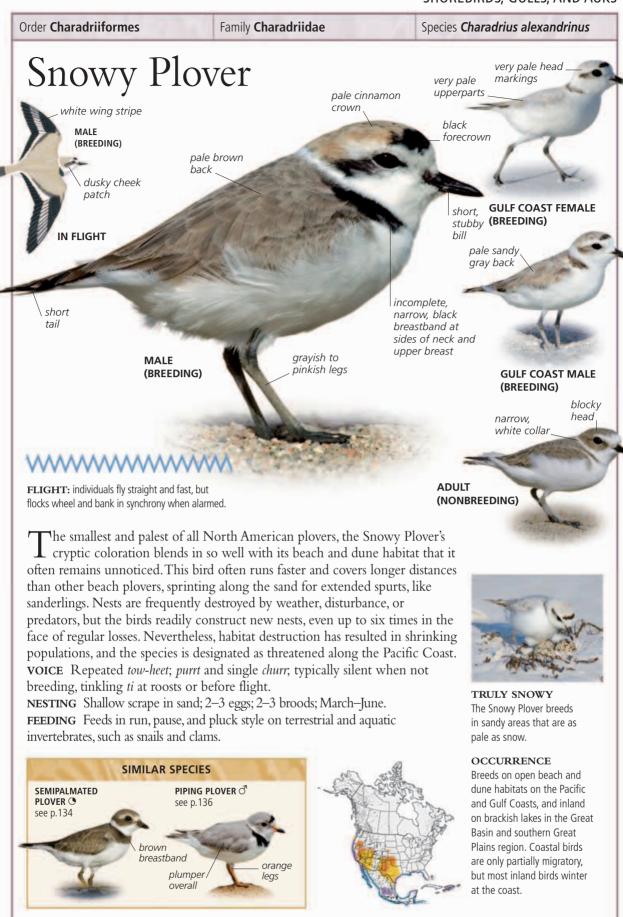
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Lifespan Up to 11 years

Status Vulnerable

Social Small flocks



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Wingspan 16-18in (41-46cm)

Lifespan Up to 4 years

Length 6-61/2 in (15-17cm)

Social Large flocks

Weight 11/4-21/80z (35-60g)

Status **Declining**

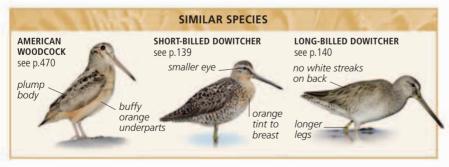


Also known as the Common Snipe, this secretive and well-camouflaged member of the sandpiper family has an unsettled taxonomic history. On its breeding grounds Wilson's Snipe produces rather eerie sounds during its aerial, mainly nocturnal, display flights. The birds fly up silently from the ground, then, from about 330ft (100m) up, they descend quickly, with their tail feathers spread, producing a unique, loud and vibrating sound through modified feathers. The North American populations belong to subspecies *delicata*.

VOICE Alarm and overhead flight call raspy *kraitsch*; perched and low flying breeding birds give repetitive, monotonous *kup-kup-kup-kup* in alarm or aggression; distinctive whistling sound during territorial displays.

NESTING Elaborate woven nest lined with fine grass on ground, sedge, or moss; 4 eggs; 1 brood; May–June.

FEEDING Forages in mud or shallow water; probes deep into subsoil; diet includes mostly insect larvae, but also crustaceans, earthworms, and mollusks.



Wilson's Snipe's russet-colored tail is usually hard to see, but it is evident on this preening bird.



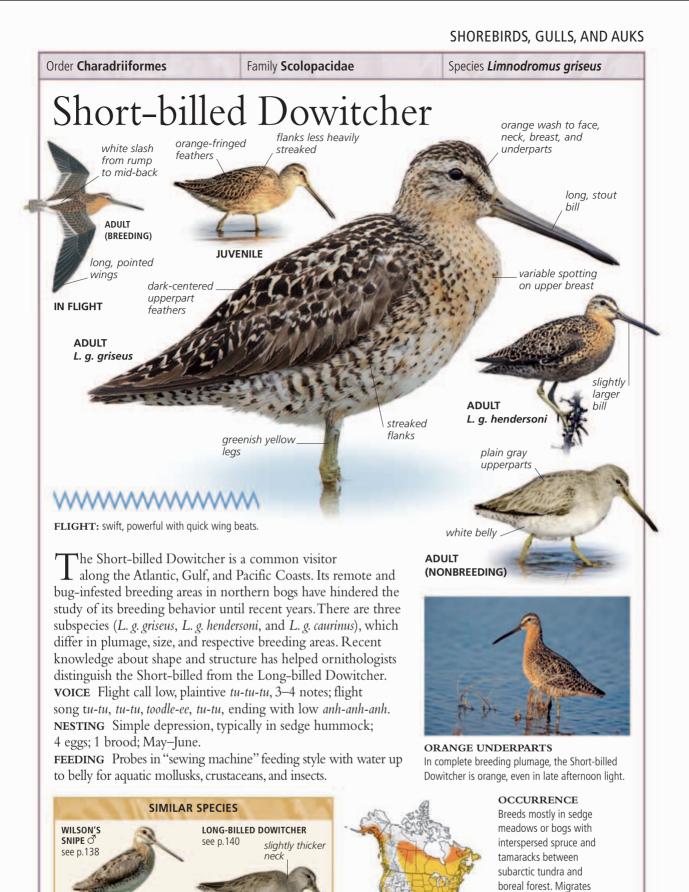
OCCURRENCE

Widespread from Alaska to Québec and Labrador south of the tundra zone; breeds in a variety of wetlands, including marshes, bogs, and open areas with rich soil. Winters further south, where it prefers damp areas with vegetative cover, such as marshes, wet fields, and other bodies of water.

i	Length 10–11in (25–28cm)	Wingspan 17–19in (43–48cm)	Weight 21/8-5oz (80-150g)
i	Social Solitary	Lifespan Up to 10 years	Status Secure

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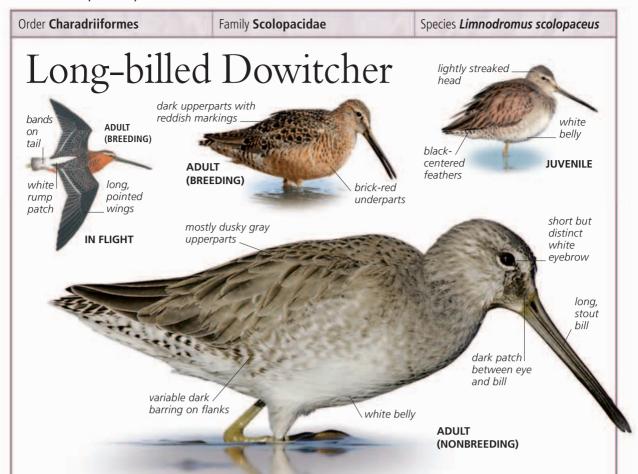
legs legs		mudflats, salt marshes or adjacent freshwater pools.
Length 9–10in (23–25cm)	Wingspan 18–20in (46–51cm)	Weight 2 ½– 5 ½ oz (70–155g)
Social Pairs/Flocks	Lifespan Up to 20 years	Status Secure (p)

slightly longe

DATE SEEN	WHERE	NOTES
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south to Central and South

America, preferring coastal



Tt was not until 1950 that, after museum and field studies, scientists recognized two separate species of dowitcher in North America. The Long-billed Dowitcher is usually slightly larger, longer-legged, and heavier in the chest and neck than the Short-billed Dowitcher. The breeding ranges of the two species are separate, but their migration and en route stop-over areas overlap. The Long-billed Dowitcher is usually found in freshwater wetlands, and in the fall most of its population occurs west of the Mississippi River.

VOICE Flight and alarm call sharp, whistled keek, given singly or in series when agitated; song buzzy pipipipipii-chi-drrr.

NESTING Deep sedge or grass-lined depression in sedge or grass; 4 eggs; 1 brood; May–June.

FEEDING Probes wet ground with "sewing-machine" motion for spiders, snails, worms, insects, and seeds.

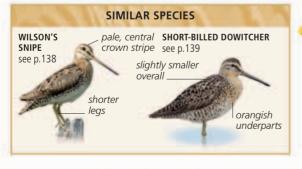


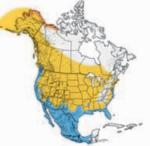
wing beats.



TOUCHY FEELY

Sensitive touch-receptors at the tip of the bird's bill enable it to feel in the mud for food.





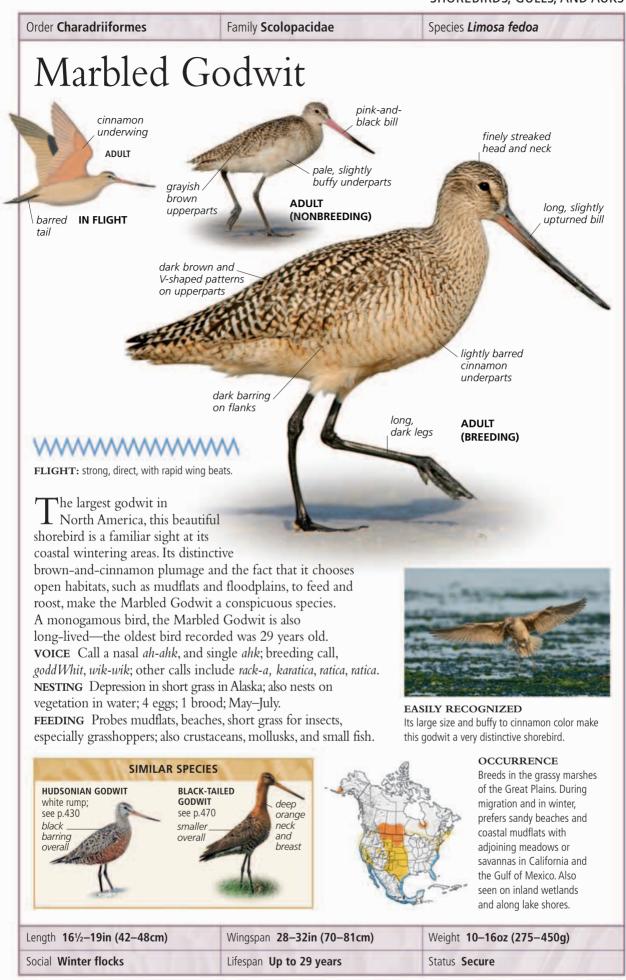
OCCURRENCE Breeds in wet, grassy meadows

or coastal sedge tundra near freshwater pools. Migrates to Mexico and Central America, south to Panama, where found in freshwater habitats, including ponds, flooded fields, lake shores, also sheltered lagoons, salt marsh pools, and tidal mudflats.

Length 91/2-10in (24-26cm)	Wingspan 18–20½in (46–52cm)	Weight 3–4oz (85–125g)
Social Pairs/Flocks	Lifespan Unknown	Status Secure

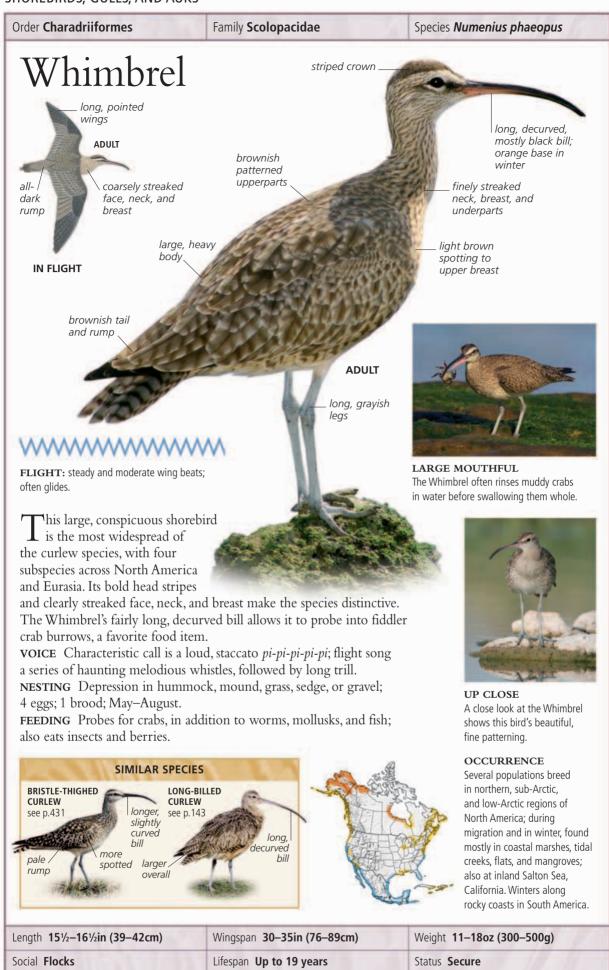
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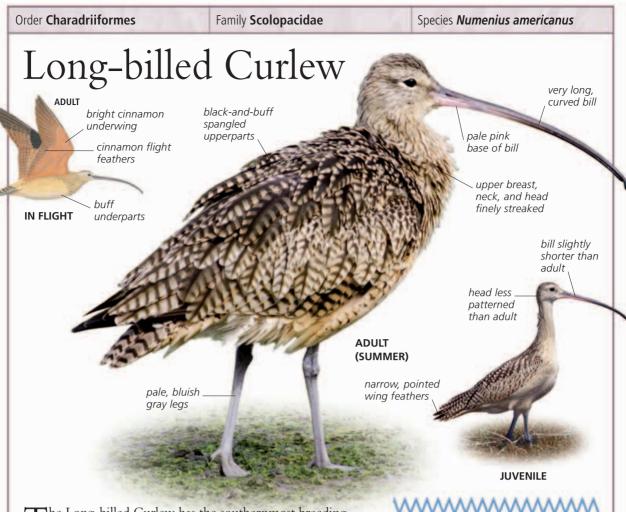


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The Long-billed Curlew has the southernmost breeding range and northernmost wintering range of the four North American curlews. It is also one of nine species of birds that are endemic to the grasslands of the Great Plains. Its large size and tame behavior on its wintering grounds in North America add to its mystique. The curvature of its bill is adapted to probe for food in soft mud and sand.

VOICE Flight call a 2-note *cur-LUoo*, often accompanied by rapid *qui-pi-pi-pi-pi*; flight song consists of haunting whistles, trills *werr-EEEer*.

NESTING Shallow depression in sparsely vegetated prairie habitat; 4 eggs; 1 brood; April–May.

FEEDING Picks insects on the surface or probes in soft mud for insects, crustaceans, mollusks, and worms; also eats fish.

FLIGHT: graceful and strong series of flaps alternating with a glide.



APTLY NAMEDThe Long-billed Curlew is the longest billed shorebird in North America.

SIMILAR SPECIES straight WHIMBREL MARBLED GODWIT smaller; see p.141 see p.142 streaks on face, more neck. body shape breast darker, grayish legs brownish upperparts



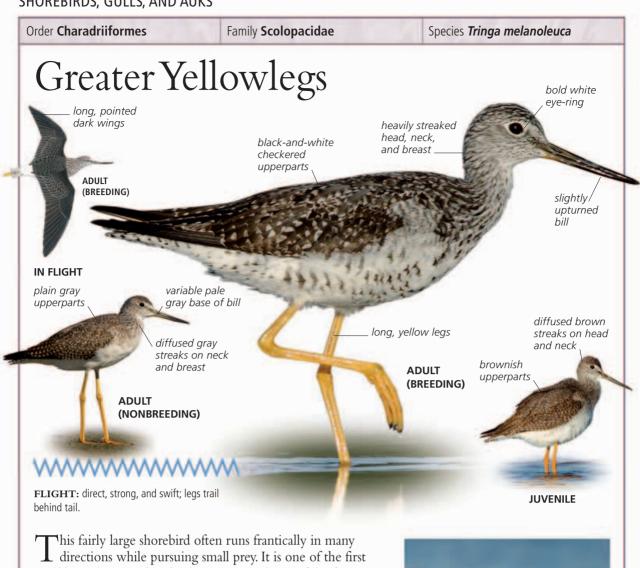
OCCURRENCE

Breeds in prairies, short grass and mixed-grass habitats of the Great Basin and Great Plains. Winters in wet pastures, marshes, beaches, and tidal mudflats primarily of California, Texas, and Mexico, with some stragglers occurring in Florida. Generally not a "shorebird" found along shores.

Length 20–26in (51–65cm)	Wingspan 30–39in (75–100cm)	Weight 16–28oz (450–800g)
Social Solitary/Winter flocks	Lifespan At least 8 years	Status Vulnerable

DATE SEEN	WHERE	NOTES

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northbound spring shorebird migrants, and one of the first to return south in late June or early July. Its plumage, a mixture of brown, black, and white checkered upperparts, and streaked underparts, is more streaked during the breeding season. **VOICE** Call a loud, penetrating tew-tew-tew; agitated birds make repetitive keu notes; song a continuous too-whee. NESTING Simple scrape in moss or peat, usually close to

water; 4 eggs; 1 brood; May–June. FEEDING Picks water surface and mud for small aquatic and terrestrial crustaceans and worms; also eats small fish, frogs, seeds, and berries.



EFFECTIVE METHOD The Greater Yellowlegs often catches its prey by sweeping its bill sideways through water.

SIMILAR SPECIES LESSER YELLOWLEGS WILLET heavier, thicker bill see p.148 see p.145 lacks checkered upperparts thinner. pointed bill angular body contours

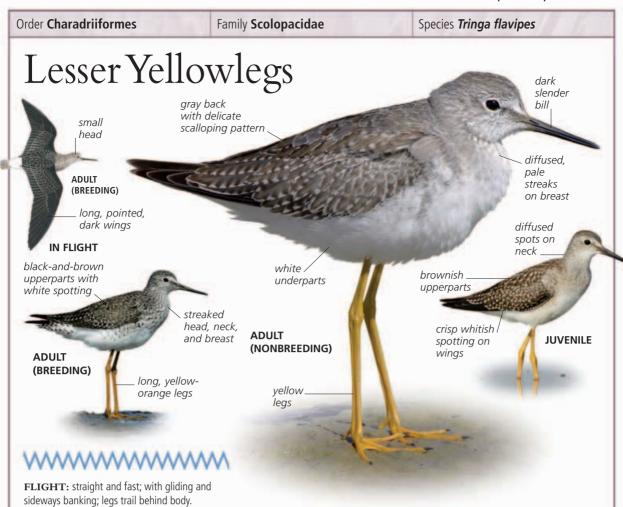


OCCURRENCE

Breeds in openings in northerly forests with bogs and wet meadows, a habitat called muskegs. In migration and winter, uses a wide variety of shallow water habitats, including freshwater and saltwater marshes, reservoirs, and tidal mudflats.

Length 11½-13in (29-33cm)	Wingspan 28–29in (70–74cm)	Weight 4–8oz (125–225g)
Social Solitary/Flocks	Lifespan Unknown	Status Secure

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With its smaller head, thinner bill, and smoother body shape, the Lesser Yellowlegs has a more elegant profile than the Greater Yellowlegs. It prefers smaller, freshwater, or brackish pools to open saltwater habitats, and it walks quickly and methodically while feeding. Although this species is a solitary feeder, it is often seen in small to large loose flocks in migration and winter.

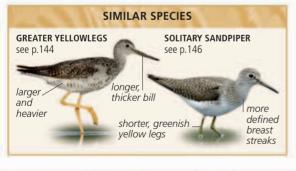
VOICE Low, whistled *tu*, or *tu-tu* call; series of *tu* or *cuw* notes when agitated; display song a *pill-e-wee*, *pill-e-wee*, *pill-e-wee*.

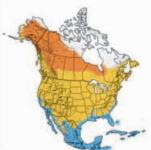
NESTING Depression in ground or moss, lined with grass and leaves; 4 eggs; 1 brood; May–June.

FEEDING Eats a wide variety of aquatic and terrestrial insects, mollusks, and crustaceans, especially flies and beetles; also seeds.



READY TO FLYThis Lesser Yellowlegs raises its wings before takeoff.



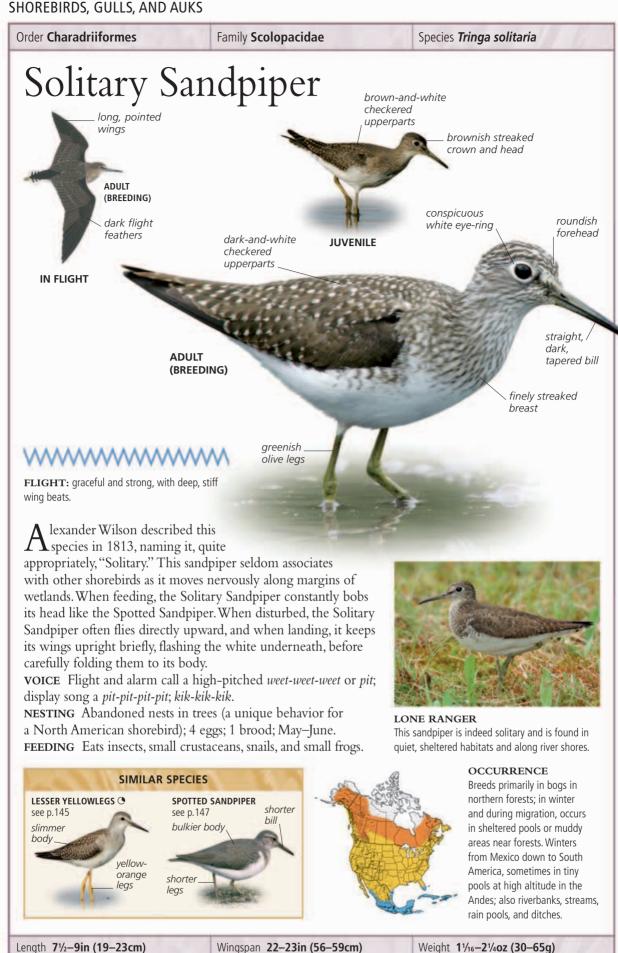


OCCURRENCE

Breeds in northerly forest with clearings, and where forest meets tundra. In migration and in winter, uses wide variety of shallow wetlands, including flooded pastures and agricultural fields, swamps, lake and river shores, tidal creeks, and brackish mudflats. Winters from Mexico to Argentina.

Length 9–10in (23–25cm)	Wingspan 23–25in (58–64cm)	Weight 2–3 % oz (55–95g)
Social Flocks	Lifespan Unknown	Status Secure

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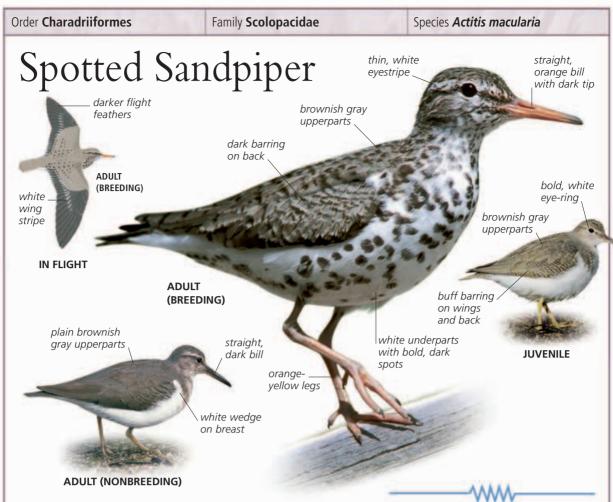


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Status Secure

Lifespan Unknown

Social Solitary/Small flocks



ne of only two species of the genus *Actitis*, from the Latin meaning "a coastal inhabitant," this small, short-legged sandpiper is the most widespread shorebird in North America. It is characterized by its quick walking pace, its habit of constantly teetering and bobbing its tail, and its unique style of flying low over water with stiff wing beats. These birds have an unusual mating behavior, in which the females take on an aggressive role, defending territories and mating with three or more males per season.

VOICE Call a clear, ringing note *tee-tee-tee*; flight song a monotonous *cree-cree-cree*.

NESTING Nest cup shaded by or scrape built under herbaceous vegetation; 3 eggs; 1–3 broods; May–June.

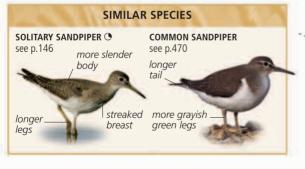
FEEDING Eats many items, including adult and larval insects, mollusks, small crabs, and worms.

FLIGHT: mostly shallow, rapidly, stiffly fluttering wing beats, usually low above water.



BEHAVIORAL QUIRKS

This sandpiper "teeters," raising and lowering its tail while walking along the water's edge.

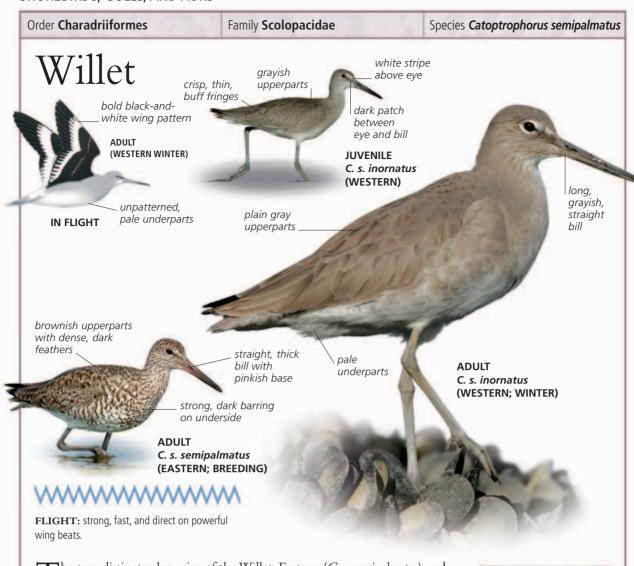




Breeds across North America in a wide variety of grassy, brushy, forested habitats near water, but not high Arctic tundra. During migration and in winter found in habitats near freshwater, including lake shores, rivers, streams, beaches, sewage ponds, ditches, seawalls, sometimes estuaries.

Length 71/4-8in (18.5-20cm)	Wingspan 15–16in (38–41cm)	Weight 1%16–13/4 oz (45–50g)
Social Small flocks	Lifespan Up to 12 years	Status Secure

DATE SEEN	WHERE	NOTES
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The two distinct subspecies of the Willet, Eastern (*C. s. semipalmatus*) and Western (*C. s. inornatus*), differ in breeding habit, plumage coloration, vocalizations, and migratory habits. The Eastern Willet leaves North America from September to March; whereas the Western Willet winters along southern North American shorelines south to South America.

VOICE Flight call a loud *kyah-yah*; alarm call a sharp, repeated *kleep*; song an urgent, rapid *pill-will-willet*.

NESTING Depression in vegetated dunes, wetlands, prairies, or salt marshes; 4 eggs; 1 brood; April–June.

FEEDING Picks, probes, or swishes for crustaceans, such as fiddler and mole, crab, aquatic insects, marine worms, small mollusks, and fish.







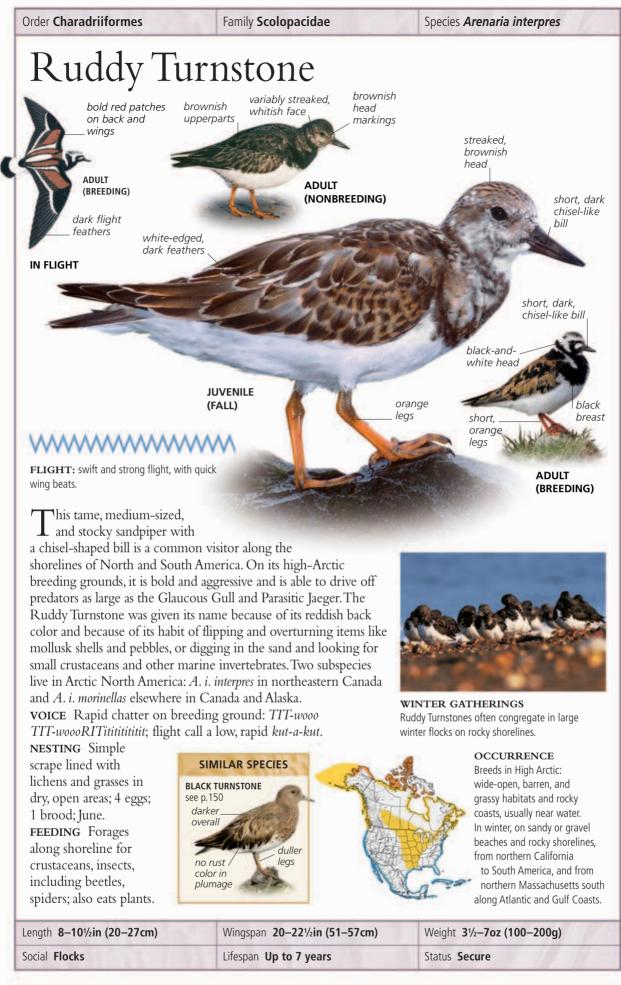
EXPOSED PERCHWillets display on exposed perches at breeding grounds.

OCCURRENCE

Eastern subspecies breeds in coastal saltwater habitats: salt marshes, barrier islands, beaches, mangroves; winters in similar habitats. Western subspecies breeds near sparsely vegetated prairie wetlands or adjacent semi-arid grasslands; winters in coastal regions.

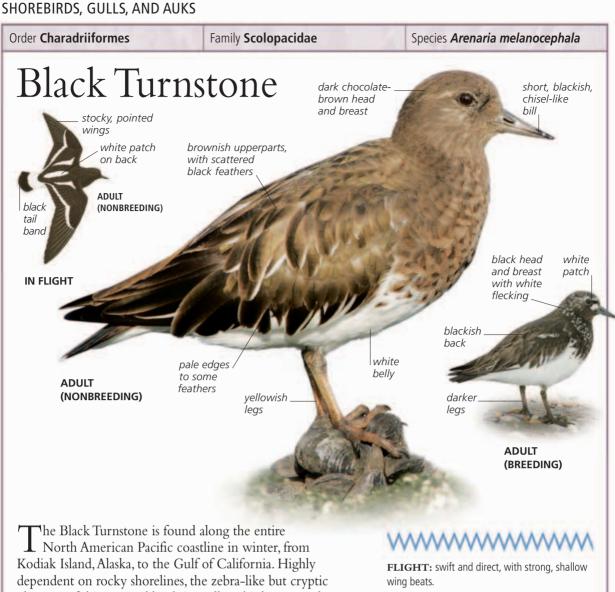
Length 12½–16½in (32–42cm)	Wingspan 21½–28½in (54–72cm)	Weight 7–12oz (200–350g)
Social Flocks	Lifespan Up to 10 years	Status Secure

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North American Pacific coastline in winter, from Kodiak Island, Alaska, to the Gulf of California. Highly dependent on rocky shorelines, the zebra-like but cryptic plumage of this species blends in well, and it becomes almost invisible when it forages or roosts on dark, rocky surfaces. Although the Black Turnstone flips stones and beach litter in search of food, it uses its chisel-like bill to pry loose or crack tougher prey, particularly mussles and barnacles. On its breeding grounds, this species is a vocal and aggressive defender of the nesting community, even physically attacking predators such as jaegars.

VOICE Flight call a *breerp*, often continued as rapid chattering; variety of trills, purrs, and a *tu-whit* call.

NESTING Hollow depression in tundra; 4 eggs; 1 brood; May–June. FEEDING Eats invertebrates such as mussels, barnacles, limpets, snails, and crabs, also seeds, small bird eggs, and carrion.





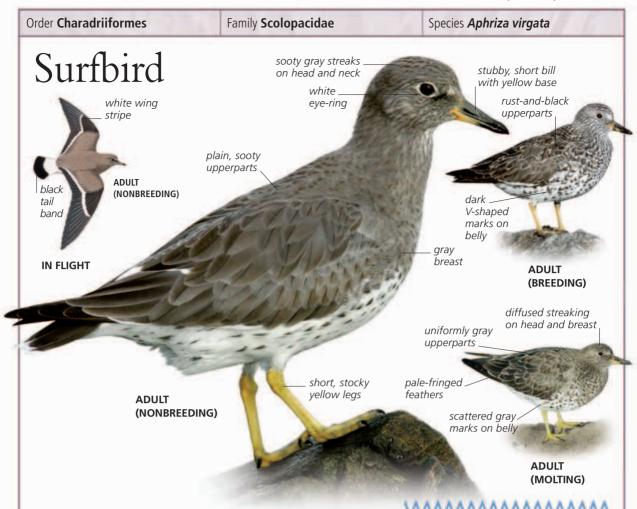


OCCURRENCE

Breeds in tundra of western Alaska; also inland along rivers and lakes. It is strictly coastal during migration and winter where it is found in the tidal zone of rocky shorelines, on sand and gravel beaches, mudflats, and rocky jetties of the West Coast, south to Baja California.

Length 8½–10½in (22–27cm)	Wingspan 20–22½in (51–57cm)	Weight 31/8–6oz (90–175g)
Social Flocks	Lifespan At least 4 years	Status Secure

DATE SEEN	WHERE	NOTES



The chunky, stubby-billed Surfbird has a dual lifestyle—it breeds in the high mountain tundra of Alaska and then migrates to the rocky Pacific coasts of both North and South America. Some individuals migrate as far as southern Chile, a round trip of about 19,000 miles (30,500km) each year. This remarkable wintering range is among the largest of all North American shorebirds. The extent of the rust color on the upperparts of breeding Surfbirds is variable.

VOICE Flight call a soft *whiff-if-if*; feeding flocks soft, chattering *whiks*; display call *kree*, *kree*...*ki-drr* ki-drr, and quoy quoy quoy.

NESTING Shallow lined depression on vegetated or bare ground; 4 eggs; 1 brood; May–June.

FEEDING Eats mainly insects, especially beetles; also aquatic mollusks and crustaceans, such as mussels and barnacles.

FLIGHT: swift and direct, with strong, powerful wing beats.



COASTAL PROXIMITYExcept when breeding, Surfbirds spend their lives along rocky intertidal shores.

PURPLE SANDPIPER * ROCK SANDPIPER see p.431 purplish gray upperparts darker feathers on back longer bill short, yelloworange legs



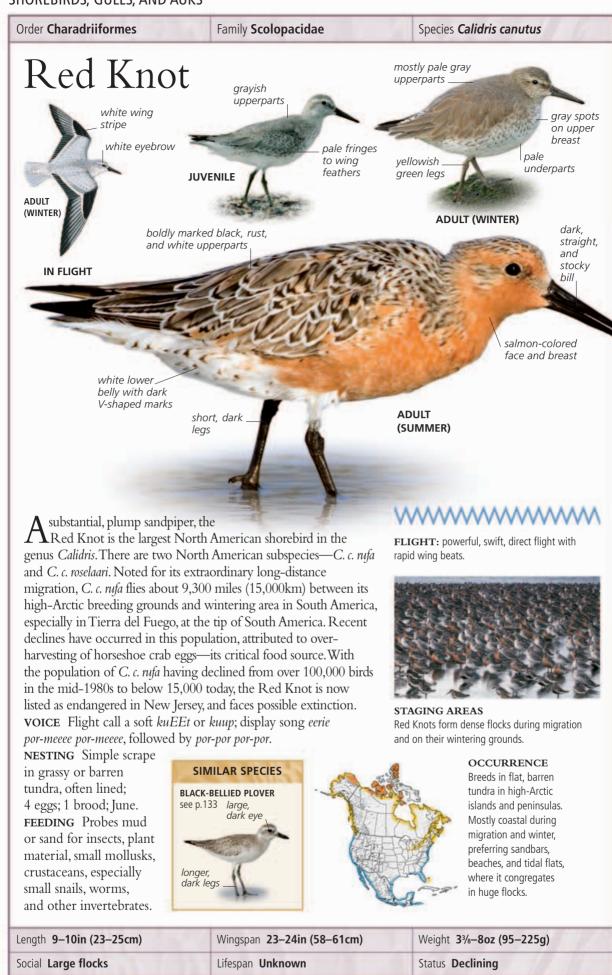
OCCURRENCE

Breeds in low to high-elevation steep, rocky slopes of ridges and mountains; the rest of the year it spends exclusively on rocky Pacific coastlines, typically within 61/sft (2m) of the high-tide line (the narrowest range of all North American shorebirds).

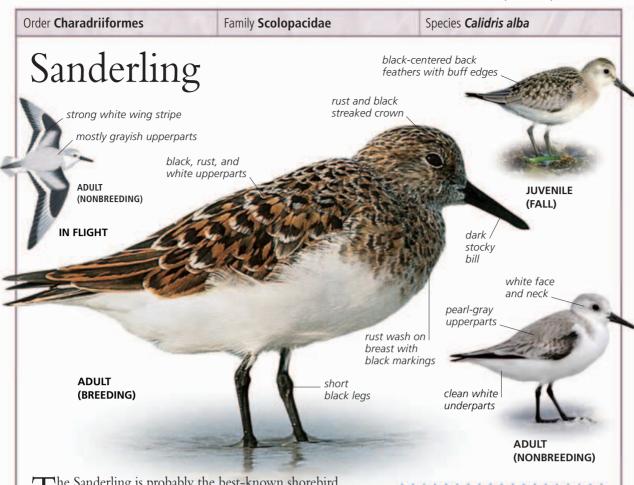
Length 9½–10½in (24–27cm)	Wingspan 25–27in (63–68cm)	Weight 4–8oz (125–225g)
Social Small flocks	Lifespan Unknown	Status Secure

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The Sanderling is probably the best-known shorebird in the world. It breeds in some of the most remote, high-Arctic habitats, from Greenland to Siberia, but occupies just about every temperate and tropical shoreline in the Americas when not breeding. Indeed, its wintering range spans both American coasts, from Canada to Argentina. Feeding in flocks, it is a common sight in winter on sandy beaches. In many places, though, the bird is declining rapidly, with pollution of the sea and shore, and the disturbance caused by people using beaches for various recreational purposes, the main causes. **VOICE** Flight call squeaky *pweet*, threat call *sew-sew-sew*; display

song harsh, buzzy notes and chattering cher-cher. **NESTING** Small, shallow depression on dry, stony ground;

4 eggs; 1–3 broods; June–July.

SIMILAR SPECIES

nalei

throat and

SEMIPALMATED SANDPIPER ☆

see p.154

upperparts

less contrastino

FEEDING Probes along the surf-line in sand for insects, small crustaceans, small mollusks, and worms.

WESTERN

SANDPIPER

see p.155

prominent

tapering

evebrow



FLIGHT: rapid, free-form; birds in flocks

twisting and turning as if they were one.

CHASING THE WAVES The sanderling scampers after retreating waves to pick up any small creatures stranded by the sea.

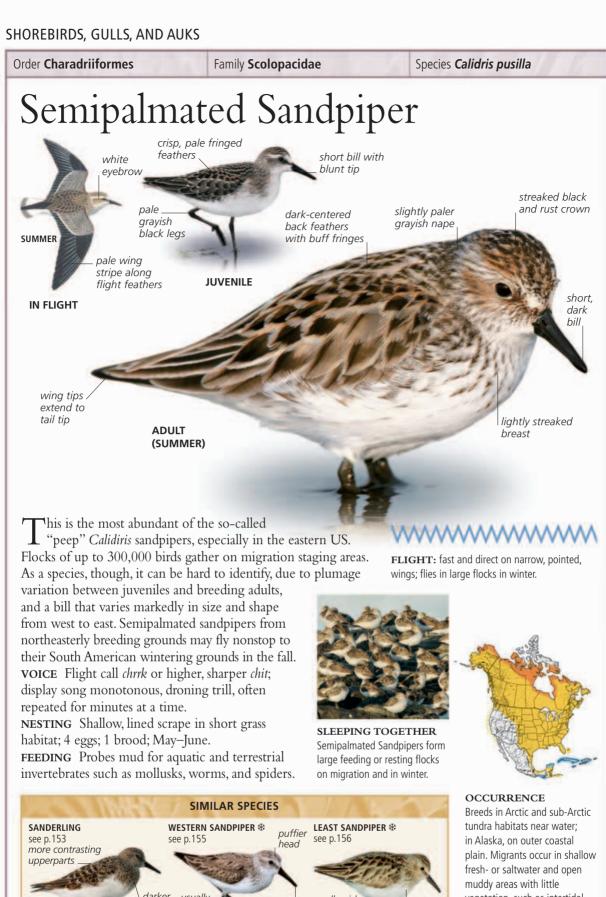


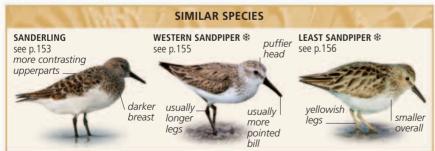
OCCURRENCE

Breeds in barren high-Arctic coastal tundra of northernmost Canada, including the islands, north to Ellesmere Island. During winter months and on migration, found along all North American coastlines, but especially sandy beaches; inland migrants found along lake and river edges.

Length 7 ½ –8in (19–20cm)	Wingspan 16–18in (41–46cm)	Weight 17/16-31/20z (40-100g)
Social Small flocks	Lifespan Up to 10 years	Status Declining

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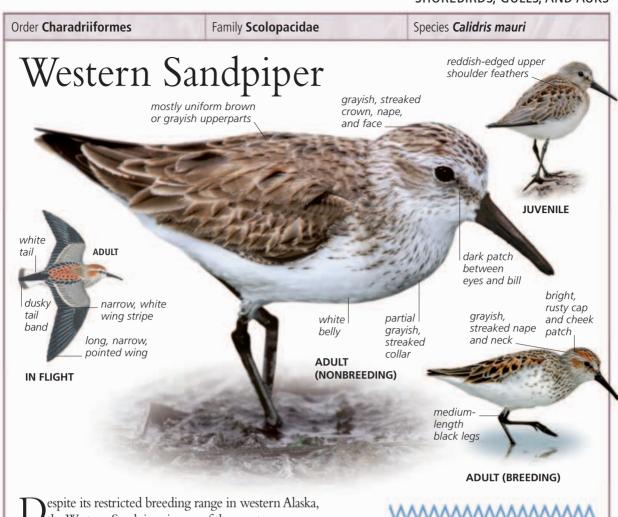




vegetation, such as intertidal flats or lake shores. Winters in Central and South America. south to Brazil and Peru.

Length 51/4-6in (13.5-15cm)	Wingspan 13½–15in (34–38cm)	Weight ½-1½60z (14-40g)
Social Large flocks	Lifespan Up to 12 years	Status Secure

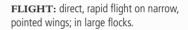
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espite its restricted breeding range in western Alaska, the Western Sandpiper is one of the most common shorebirds in the Western Hemisphere. During its spring migration spectacularly large flocks are seen at several Pacific coast locations. At the Copper River Delta in Alaska, for instance, over four million Western Sandpipers stop on their way to their tundra breeding grounds to fatten up and refuel for the last hop northward. Many of these migrate over relatively short distances to winter along US coastlines, so the timing of their molt in fall is earlier than that of the similar Semipalmated Sandpiper, which migrates later in winter. VOICE Flight call loud chir-eep; flushed birds make sirp call, or chir-ir-ip; song tweer, tweer, tweer, followed by descending trill. **NESTING** Shallow depression on drained Arctic and sub-Arctic

tundra; 4 eggs; 1 brood; May-June.

FEEDING Probes mud for insect larvae, crustaceans, and worms.





FORAGING FOR FOOD The Western Sandpiper feels for hidden prey with the touch-sensitive tip of its bill.

SIMILAR SPECIES DUNLIN ₩ longer, SEMIPALMATED SANDPIPER ☆ see p.160 downcurved bill see p.154 smaller, dusky head more and neck rounded head smaller slightly more bluntshorter legs tipped bill

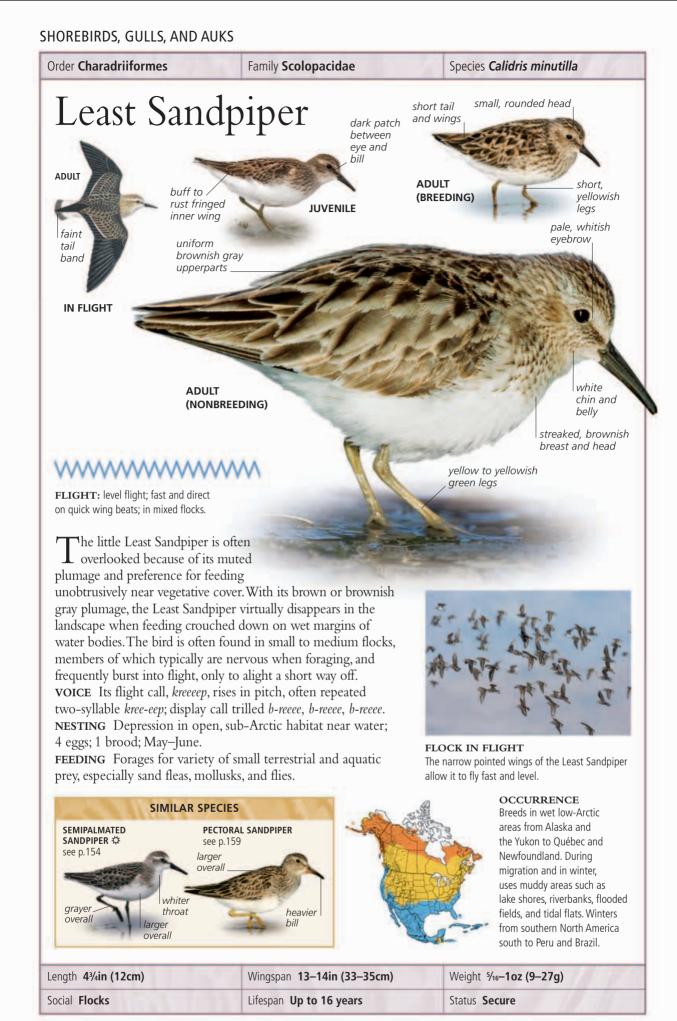


Breeds in wet sedge, grassy habitats with well-drained microhabitats; in migration and in winter, prefers shallow freshwater or saltwater habitats with open muddy or sandy areas and little vegetation,

such as intertidal mudflats and lake shores. Winters along both coasts.

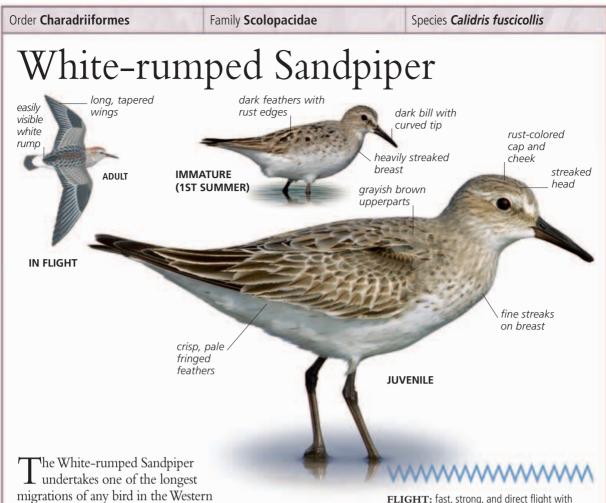
Length 5½-6½in (14-16cm)	Wingspan 14–15in (35–38cm)	Weight 11/16-11/4oz (19-35g)
Social Flocks	Lifespan Up to 9 years	Status Secure

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Hemisphere. From its high-Arctic breeding grounds in Alaska and Canada, it migrates in several long jumps to extreme southern South America—about 9,000–12,000 miles (14,500–19,300km), twice a year. Almost the entire population migrates through the central US in spring, with several stopovers, which are critical to the success of its journey. While associating with other shorebird species during migration and winter, it can be overlooked in the crowd. Its insect-like call and white rump aid identification.

VOICE Call a very high-pitched, insect-like *tzeet*; flight song an insect-like, high-pitched, rattling buzz, interspersed with grunts. **NESTING** Shallow depression in usually wet but well-vegetated tundra; 4 eggs; 1 brood; June.

FEEDING Picks and probes for insects, spiders, earthworms, and marine worms; also some plant matter.

FLIGHT: fast, strong, and direct flight with deep wing beats.



WING POWER

Long narrow wings enable this species to migrate to and from the Arctic and Tierra del Fuego.



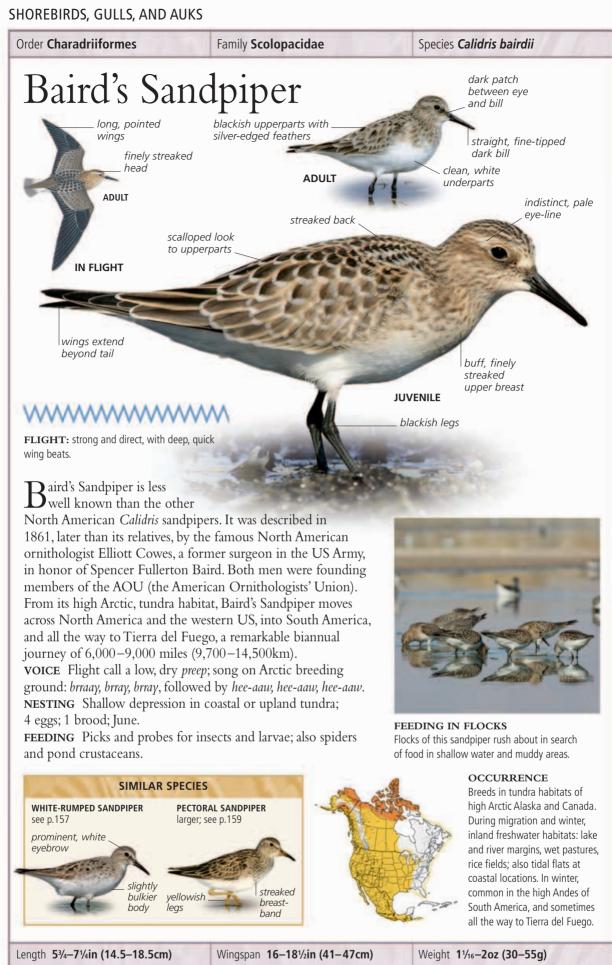


OCCURRENCE

Breeds in wet but well-vegetated tundra, usually near ponds, lakes, or streams. In migration and winter, grassy areas: flooded fields, grassy lake margins, rivers, ponds, grassy margins of tidal mudflats, and roadside ditches. On wintering grounds, often associates with Baird's Sandpiper.

Length 6–6 ¾ in (15–17cm)	Wingspan 16–18in (41–46cm)	Weight ⁷ / ₈ –1 ³ / ₄ oz (25–50g)
Social Flocks	Lifespan Unknown	Status Secure

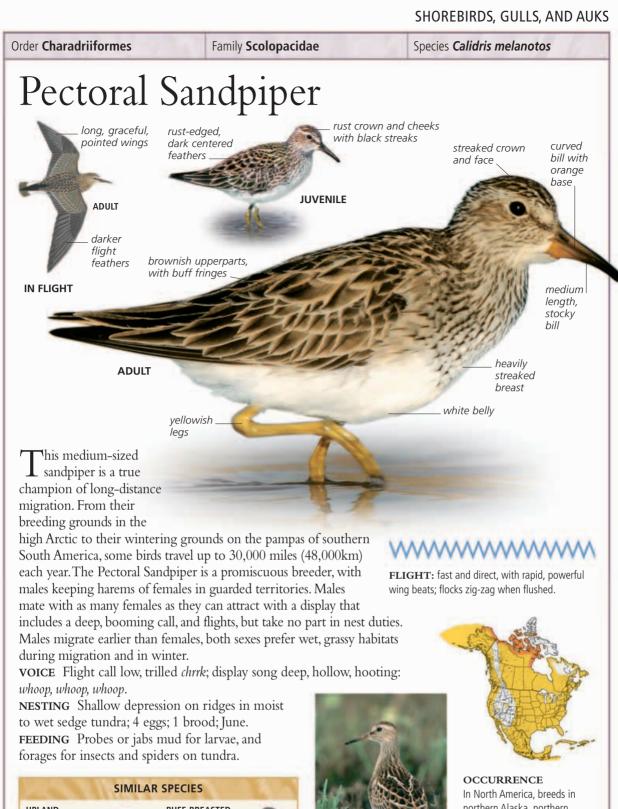
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Social Flocks	MELLI	Lifespan Unknown		Status Secure
Length 3 %-7% (1	4.5–16.5(111)	wingspan 16–1672111 (41–47C)	11)	vveignt 1716-202 (30-339)

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SIMILAR SPECIES

UPLAND
SANDPIPER
see p.431
larger
overall

long
tail

SIMILAR SPECIES

BUFF-BREASTED
SANDPIPER
see p.432
face

dark
bill

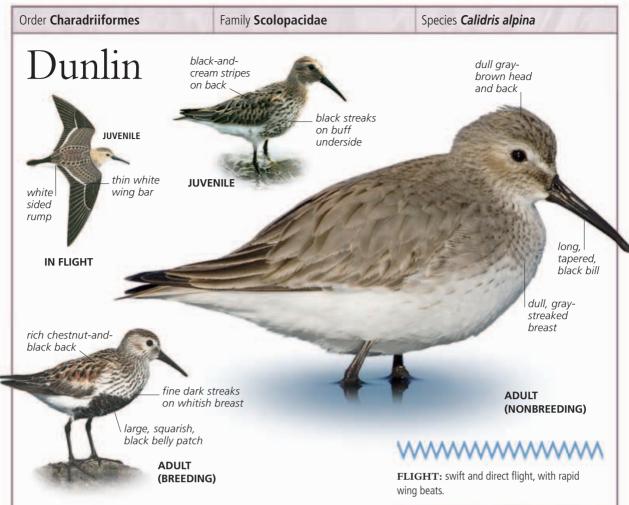
LONG JOURNEYS
This species migrates long distances to arrive in southern South American for the winter.

OCCURRENCE
In North America, breeds in
northern Alaska, northern
Yukon, Northern Territories,
and some islands of the
Canadian Arctic Archipelago,
in wet, grassy tundra, especially
near coasts. On migration and
in winter favors wet pastures,
the grassy margins of ponds

and lakes, and salt marshes.

Length 7 ½ –9in (19–23cm)	Wingspan 16½–19½in (42–49cm)	Weight 1¾–4oz (50–125g)
Social Migrant flocks	Lifespan Up to 41/2 years	Status Secure

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The Dunlin is one of the most abundant and widespread of North America's shorebirds, but of the ten recognized subspecies, only three breed in North America: C. a. arcticola, C. a. pacifica, and C. a. hudsonia. The Dunlin is unmistakable in its striking, red-backed, black-bellied breeding plumage. In winter it sports much drabber colors, but more than makes up for this by gathering in spectacular flocks of many thousands of birds on its favorite coastal mudflats.

VOICE Call accented trill, *drurr-drurr*, that rises slightly, then descends; flight call jeeezp; song wrraah-wrraah.

NESTING Simple cup lined with grasses, leaves, and lichens in moist to wet tundra; 4 eggs; 1 brood; June-July.

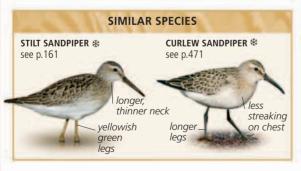
FEEDING Probes for marine, freshwater, terrestrial invertebrates: clams, worms, insect larvae, crustaceans; also plants and small fish.

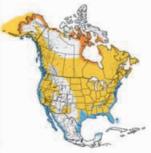




OLD RED BACK

The Dunlin was once known as the Red-backed Sandpiper due to its distinct breeding plumage.





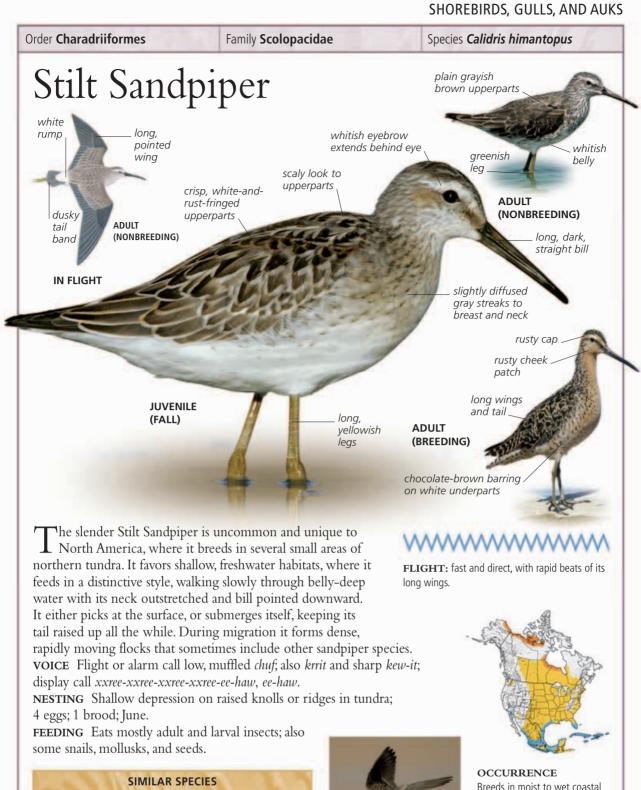
OCCURRENCE

Breeds in Arctic and sub-Arctic moist, wet tundra, often near ponds, with drier islands for nest sites. In migration and winter, prefers coastal areas with extensive mudflats and sandy beaches; also feeds in flooded fields and seasonal inland wetlands.

Length 6½-8½in (16-22cm)	Wingspan 12½–17½in (32–44cm)	Weight 1%6–21/4oz (45–65g)
Social Large flocks	Lifespan Up to 24 years	Status Declining

DATE SEEN	WHERE	NOTES

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SIMILAR SPECIES		
DUNLIN * shorter see p.160 shorter neck	CURLEW SANDPIPER ❖ see p.471	
shor blac	black curved bill rter,	

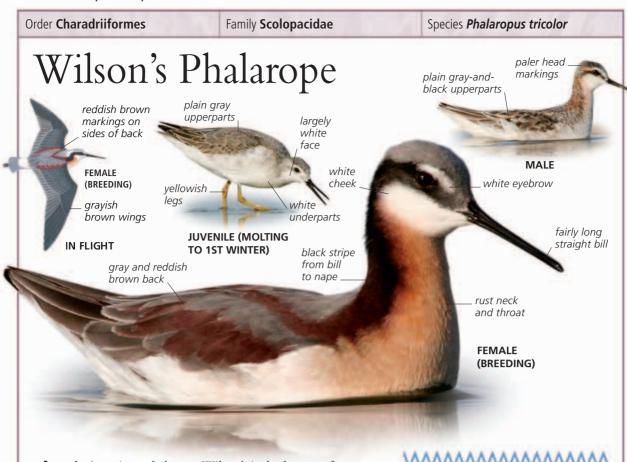


PALE BELOWWading through shallow water, this Stilt Sandpiper displays its whitish underparts.

Breeds in moist to wet coastal tundra on well-drained, raised knolls or ridges in Alaska, Yukon, and northwestern territories and Hudson Bay. During migration and in winter, prefers freshwater habitats, such as flooded fields, marsh pools, reservoirs, and sheltered lagoons to tidal mudflats.

Length 8–9in (20–23cm)	Wingspan 17–18½ in (43–47cm)	Weight 1¾–21/8 oz (50–60g)
Social Pairs/Flocks	Lifespan At least 3 years	Status Secure

DATE SEEN	WHERE	NOTES



Atruly American phalarope, Wilson's is the largest of the three phalarope species. Unlike its two relatives, it does not breed in the Arctic, but in the shallow wetlands of western North America, and winters mainly in continental habitats of Bolivia and Argentina instead of in the ocean. This species can be found employing the feeding technique of spinning in shallow water to churn up adult and larval insects, or running in various directions on muddy wetland edges with its head held low to the ground while chasing and picking up insects. This bird is quite tolerant of humans on its breeding grounds, but this attitude changes immediately before migration, as it has gained weight and its movement is sluggish.

VOICE Flight call a low, nasal werpf; also higher, repetitive emf, emf, emf, emf, or luk, luk, luk.

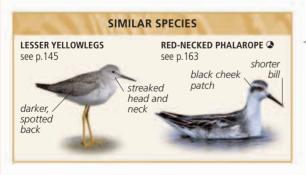
NESTING Simple scrape lined with grass; 4 eggs; 1 brood; May–June.

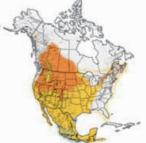
FEEDING Eats brine shrimp, various insects, and insect larvae.



FLIGHT: fast and direct with quick wing beats.

ODD ONE OUT
Unlike its two essentially oceanic relatives, Wilson's
Phalarope is also found in freshwater habitats.





OCCURRENCEBreeds in shallow, grassy wetlands of interior

wetlands of interior
North America; during
migration and winter,
occurs in salty lakes and
saline ponds as well as
inland waterbodies. In
winter, tens of thousands
can be seen in the middle
of Titicaca Lake in Bolivia.

Length 81/2-91/2in (22-24cm)	Wingspan 15½–17in (39–43cm)	Weight 11/4–3oz (35–85g)
Social Large flocks	Lifespan Up to 10 years	Status Secure

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Wingspan 121/2-16in (32-41cm)

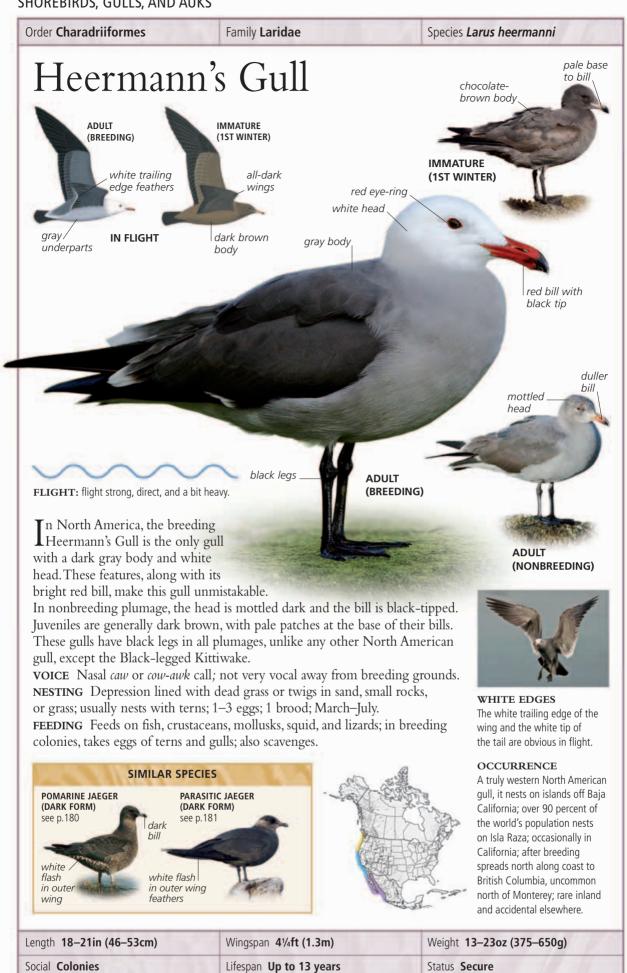
Lifespan Unknown

Length 7-71/2 in (18-19cm)

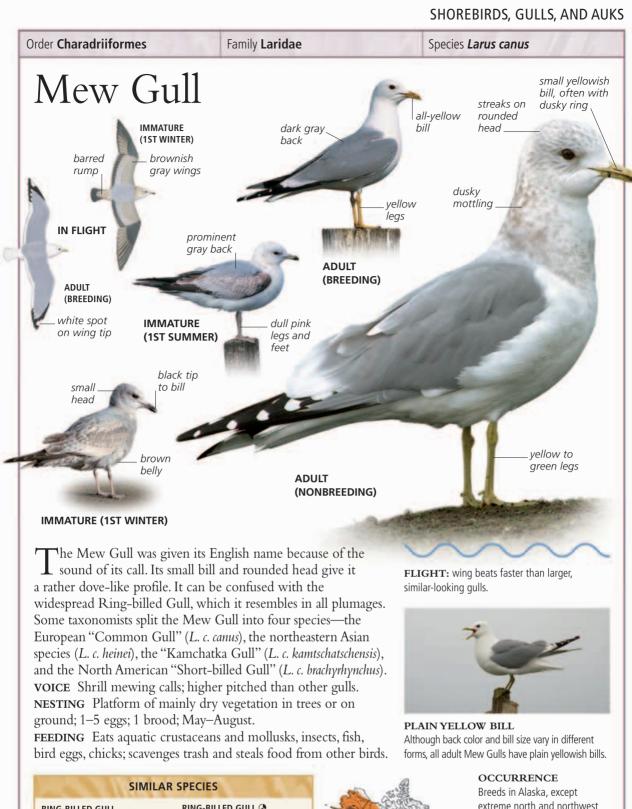
Social Flocks

Weight 11/16-19/16 oz (30-45g)

Status Secure



DATE SEEN	WHERE	NOTES
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SIMILAR SPECIES

RING-BILLED GULL
see p.166

paler back

dark mark
on bill
paler
back

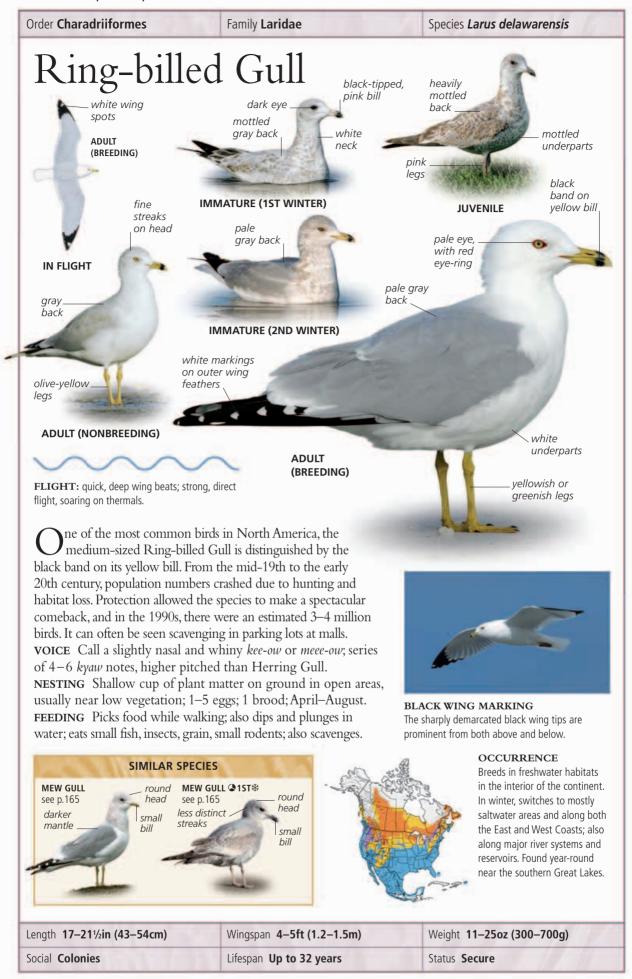
smaller
white spots
in wing tips



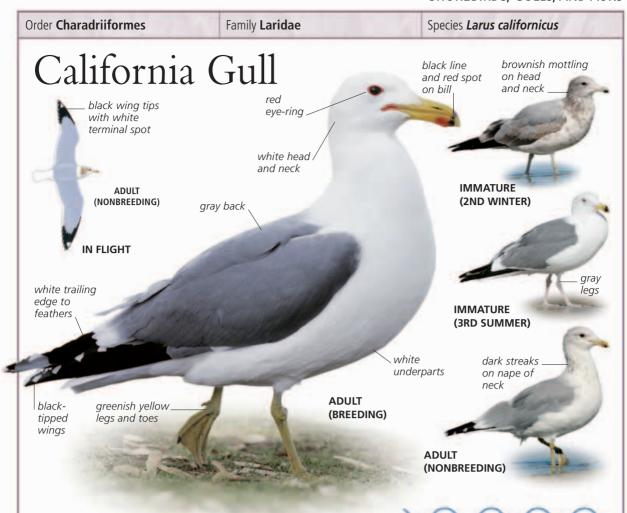
extreme north and northwest
Canada, south along coast to
British Columbia; winters along
the Pacific Coast south to
Baja California and inland
on major river systems. Casual
to accidental across the
continent to Atlantic Coast.

Social Pairs/Colonies	Lifespan Up to 24 years	Status Secure
Length 15–16in (38–41cm)	Wingspan 3ft 3in-4ft (1-1.2m)	Weight 13–18oz (375–500g)

DATE SEEN	WHERE	NOTES



DATE SEEN	WHERE	NOTES



Slightly smaller than the Herring Gull, the medium-sized California Gull has a darker back and longer wings. In breeding plumage, it can also be distinguished by the black and red coloration on its bill and its greenish yellow legs. In winter and on young birds, dark streaks are prominent on the nape of the neck. A common interior gull, it is honored by a large, gilded statue in Salt Lake City that commemorates the birds' rescue of the settlers' crops from a plague of grasshoppers in 1848.

VOICE Call a repeated kee-yah, kee-yah, kee-yah.

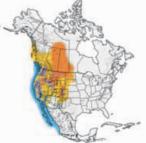
NESTING Shallow scrape, lined with feathers, bones, and vegetation, usually on islands; 2–3 eggs; 1 brood; May–July. **FEEDING** Forages around lakes for insects, mollusks; hovers over cherry trees dislodging fruits with its wings.

FLIGHT: strong and direct, but somewhat stiff, with deep wing beats.



AGGRESSIVE POSTUREThis California Gull is displaying signs of aggression—possibly against another bird.

SIMILAR SPECIES HERRING GULL paler see p.172 back Berning GULL streaking see p.172 on head paler back paler back



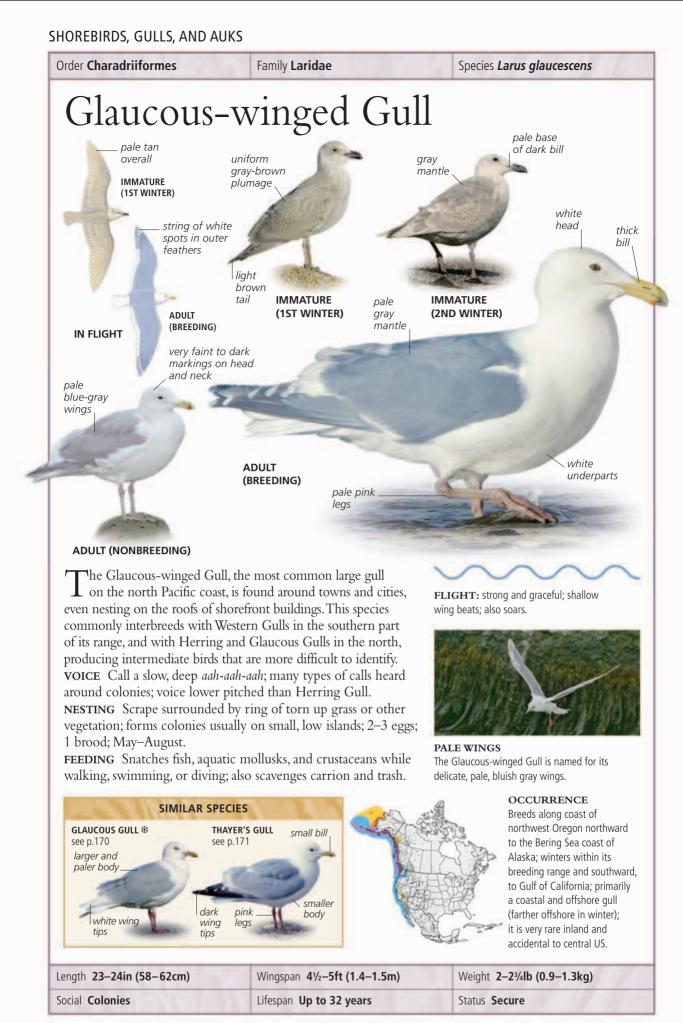
OCCURRENCE Breeds at scattered I

Breeds at scattered locations across interior western
Canada and the US. Some of the largest colonies are on the highly saline Mono Lake and the Great Salt Lake; winters along the Pacific Coast from British Columbia to Mexico; strays increasingly reported in the East.

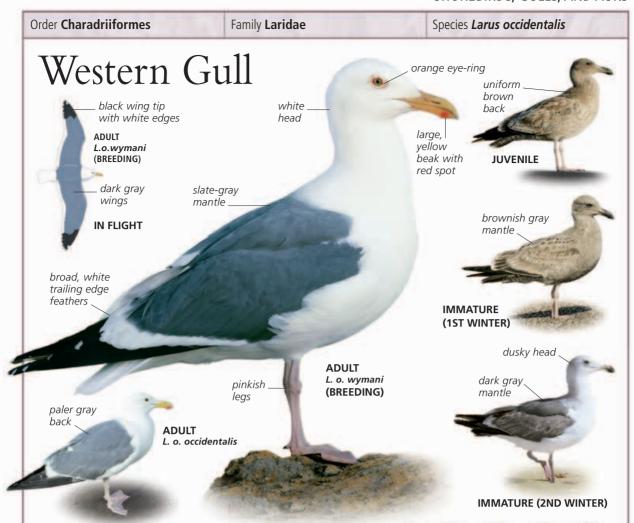
Length 17½–20in (45–51cm)	Wingspan 4–4½ft (1.2–1.4m)	Weight 18–35oz (0.5–1kg)
Social Colonies	Lifespan Up to 30 years	Status Secure

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The Western Gull is the only dark-backed gull found regularly within its normal range and habitat. However, identification is complicated due to two subspecies: the paler occidentalis in the north, and the darker wymani in the south. Western Gulls interbreed with Glaucous-winged Gulls, producing confusing hybrids. The total population of these gulls is small, and the small number of nesting colonies makes conservation a concern. **VOICE** Shrill, repeated heyaa...heyaa similar to Herring Gull,

but lower in pitch, harsher; very vocal at breeding sites.

NESTING Scrape filled with vegetation, usually next to bush or rock; 3-4 eggs; 1 brood; April-August.

FEEDING Eats crabs, squid, insects, fish, bird eggs, and chicks; also eats sea lion pups; scavenges.

> SLATY-BACKED GULL

SIMILAR SPECIES

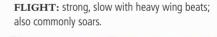
YELLOW-FOOTED

see p.432

darkei

back







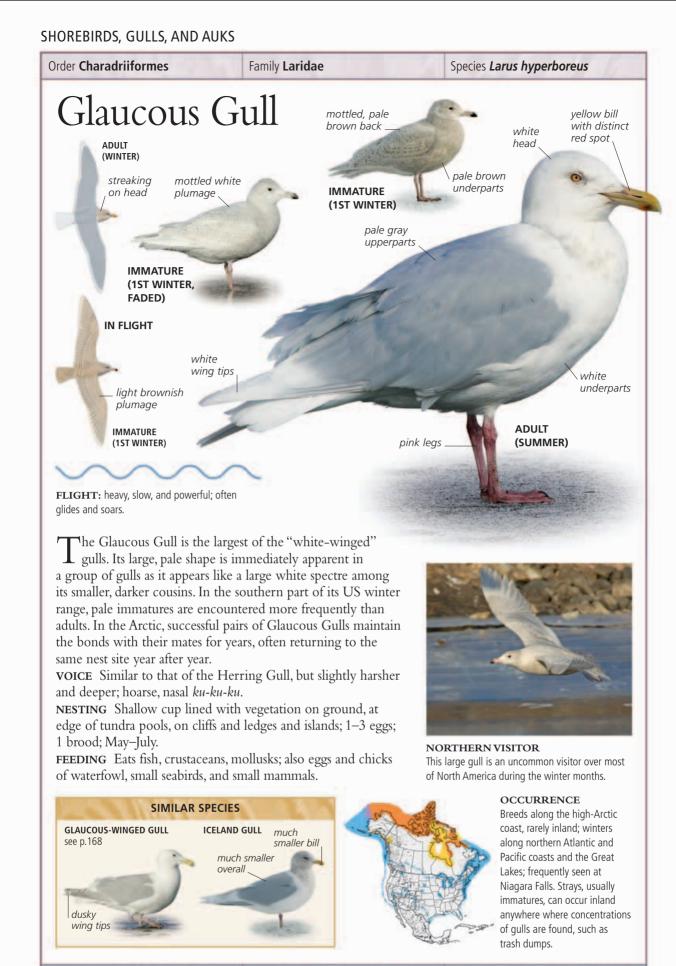
OCCURRENCE

Nests on offshore islands along West Coast; about one-third of the total population breeds on Southeast Farallon Island, west of San Francisco; nonbreeders and wintering birds occur along the coast and in major bays and estuaries southward to Baja California; very rare inland or far offshore.

Length 22–26in (56–66cm)	Wingspan 41/4-41/2ft (1.3-1.4m)	Weight 13/4-23/4lb (0.8-1.2kg)
Social Colonies	Lifespan Up to 28 years	Status Secure

thinner

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Weight 23/4-6lb (1.2-2.7kg)

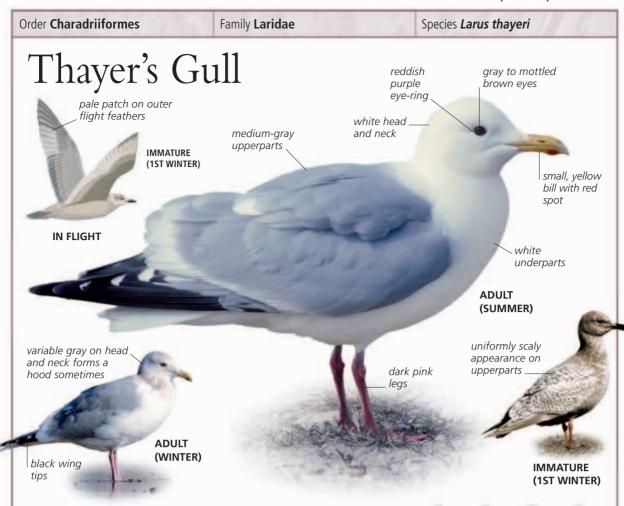
Status Secure

Wingspan 5-6ft (1.5-1.8m)

Lifespan Up to 21 years

Length 26-30in (65-75cm)

Social Colonies



The classification of Thayer's Gull as a species is still slightly puzzling. After it was described in 1915, it was classified as a subspecies of the Herring Gull, but in the 1970s, it was considered a full species. Although it is still usually treated as a separate species, many authorities now consider the Thayer's Gull to be a subspecies of the Iceland Gull. When standing with the Herring and Iceland Gulls, this bird is difficult to identify. Positive identification is complicated further by the existence of hybrid gulls of various parentages.

VOICE Mewing squeals, like herring gulls' familiar *kee-yow*; calls more on breeding grounds than on wintering grounds. **NESTING** On cliff ledges; 2–3 eggs; 1 brood; May–August. **FEEDING** Picks fish, mollusks, and crustaceans from the water's surface; swallows food while in flight.

FLIGHT: steady and direct, but wing beat varies greatly with wind conditions.



TWO-TONED WINGSImmature birds have two-toned wings, with a prominent pale patch on the outer flight feathers.

OCCURRENCE

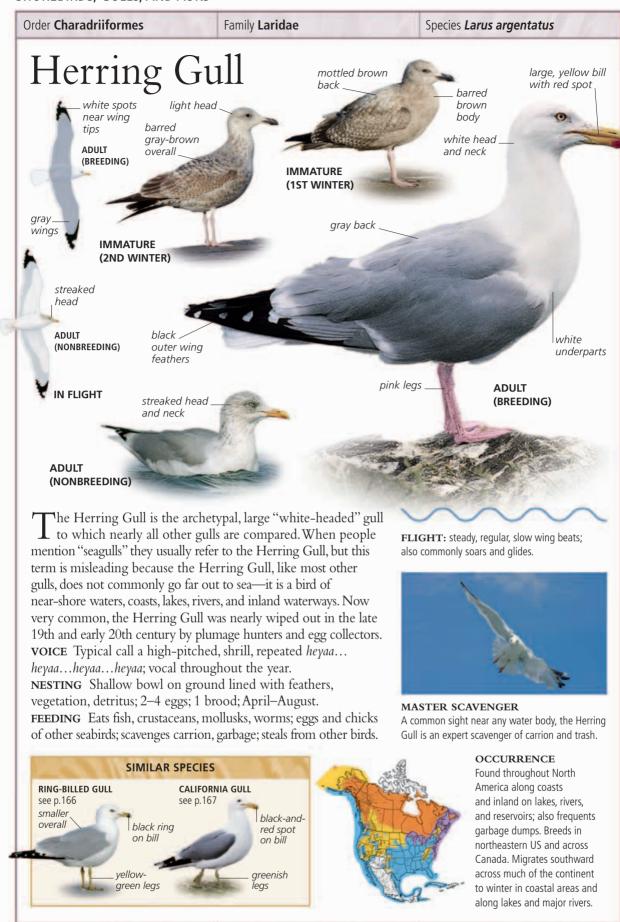




Nests on cliff ledges of fiords facing the Canadian high Arctic. Winter movements not fully understood; occurs mainly along the Pacific Coast, but is also found across the interior and along the East Coast.

Length 22 ½ –25in (57–64cm)	Wingspan 41/4–5ft (1.3–1.5m)	Weight 25–39oz (700–1,100g)
Social Colonies	Lifespan Unknown	Status Secure (p)

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Weight 28-42oz (800-1,200g)

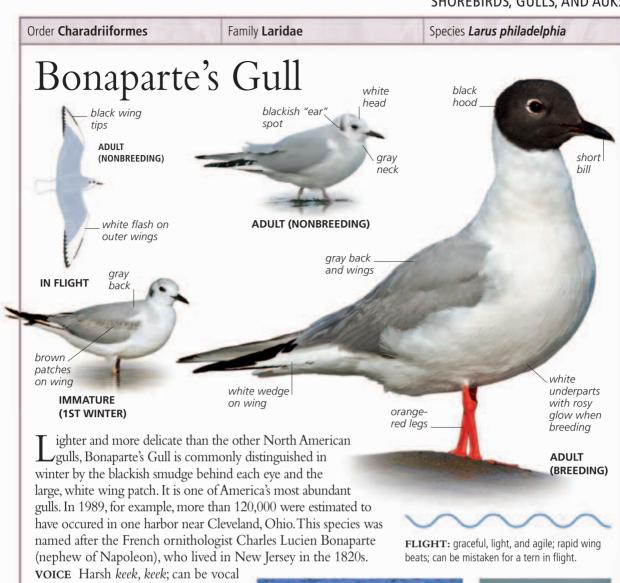
Status Secure

Wingspan 4-5ft (1.2-1.5m)

Lifespan At least 35 years

Length 22-26in (56-66cm)

Social Colonies



in feeding flocks, kew, kew, kew. **NESTING** Stick nest of twigs, branches, tree bark, lined with mosses or lichens; usually in conifers 5-20ft (1.5-6m) above ground; also in rushes over water; 1-4 eggs; 1 brood; May-July. FEEDING Catches insects in flight on breeding grounds; picks crustaceans, mollusks, and small fish from water's surface; also plunge-dives.



TERN-LIKE GULL Bonaparte's Gulls are very social and, flying in flocks, these pale, delicate birds look like terns.



WHITE UNDERWINGS In all plumages, Bonaparte's Gulls have white underwings, unlike other similar small gulls.

SIMILAR SPECIES BLACK-HEADED GULL LITTLE GULL dark outer wind smallei feathers red bill uniform gray upperwing larger

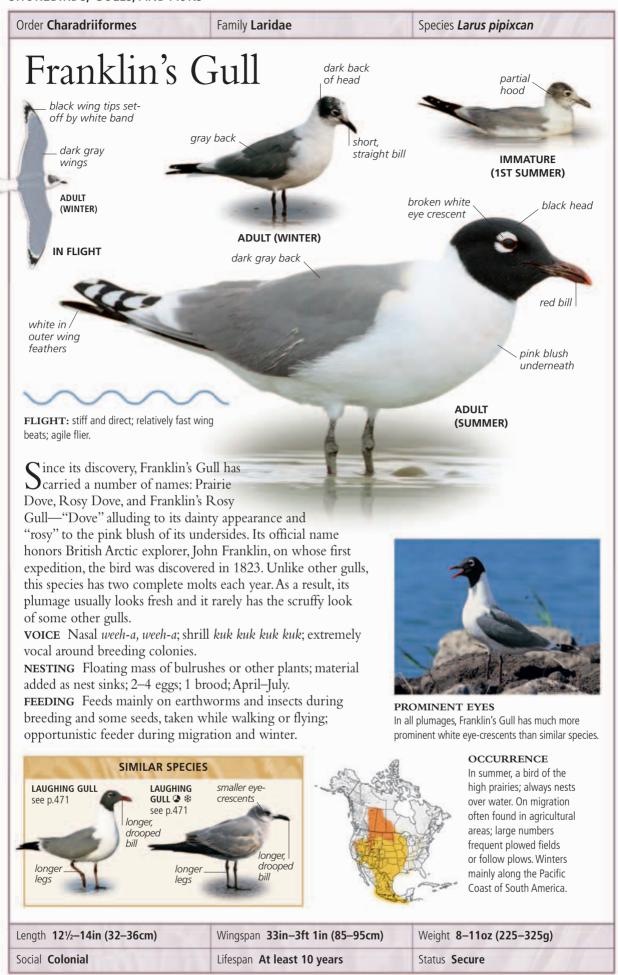


OCCURRENCE During breeding season, found in northern forest zone, in lakes, ponds, or bogs; on migration, may be found anywhere where there is water: ponds, lakes, sewage pools, or rivers. Winters on Great Lakes and along the coast; often found in large numbers at coastal inlets.

Length 11–12in (28–30cm)	Wingspan 35in–3ft 3in (90–100cm)	Weight 6–8oz (175–225g)
Social Flocks	Lifespan Up to 18 years	Status Secure

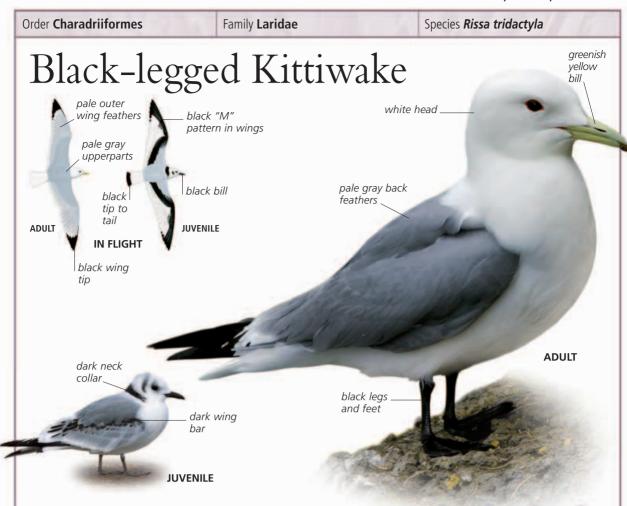
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kittiwake nesting colony is an impressive sight, with sometimes thousands of birds lined up along steep cliff ledges overlooking the sea. The ledges are often so narrow that the birds' tails stick out over the edge. Kittiwakes have sharper claws than other gulls, probably to give them a better grip on their ledges. In the late 20th century, the Black-legged Kittiwake population expanded greatly in the Canadian maritime provinces, with numbers doubling in the Gulf of St. Lawrence. VOICE Repeated, nasal kit-ti-wake, kit-ti-wake call; vocal near nesting cliffs; usually silent in winter.

NESTING Mound of mud and vegetation on narrow cliff ledge; 1-3 eggs; 1 brood; April-August.

FEEDING Snatches small marine fish and invertebrates from the surface, or dives just below the water's surface; feeds in flocks.

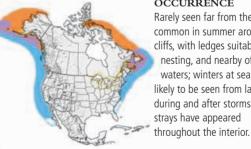
FLIGHT: very stiff-winged; rapid, shallow wing beats; overall more buoyant than most gulls.



LIVING ON THE EDGE Young and adult kittiwakes pack together tightly on their precariously narrow cliff ledges.

OCCURRENCE

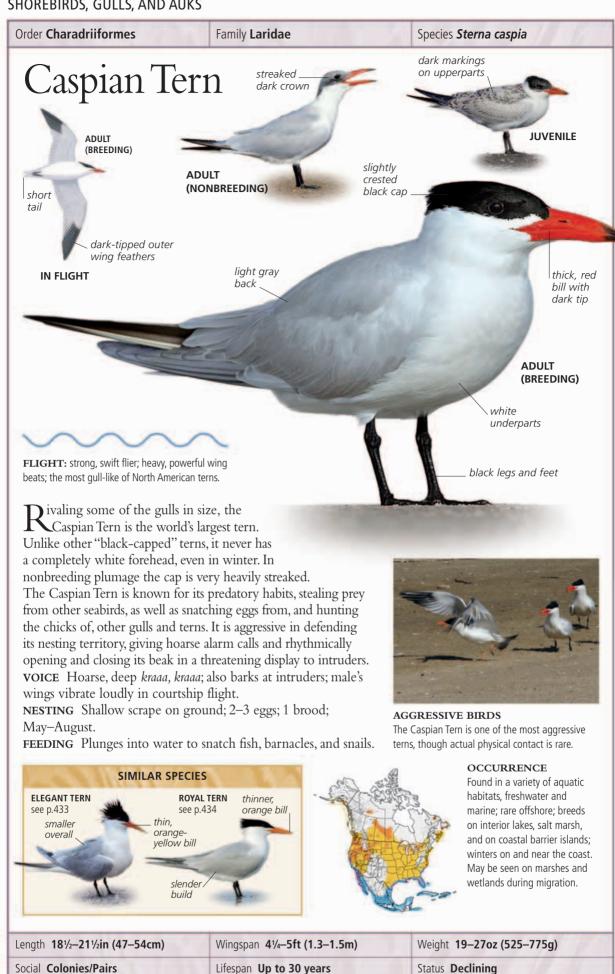




Rarely seen far from the ocean; common in summer around sea cliffs, with ledges suitable for nesting, and nearby offshore waters; winters at sea; most likely to be seen from land during and after storms; strays have appeared

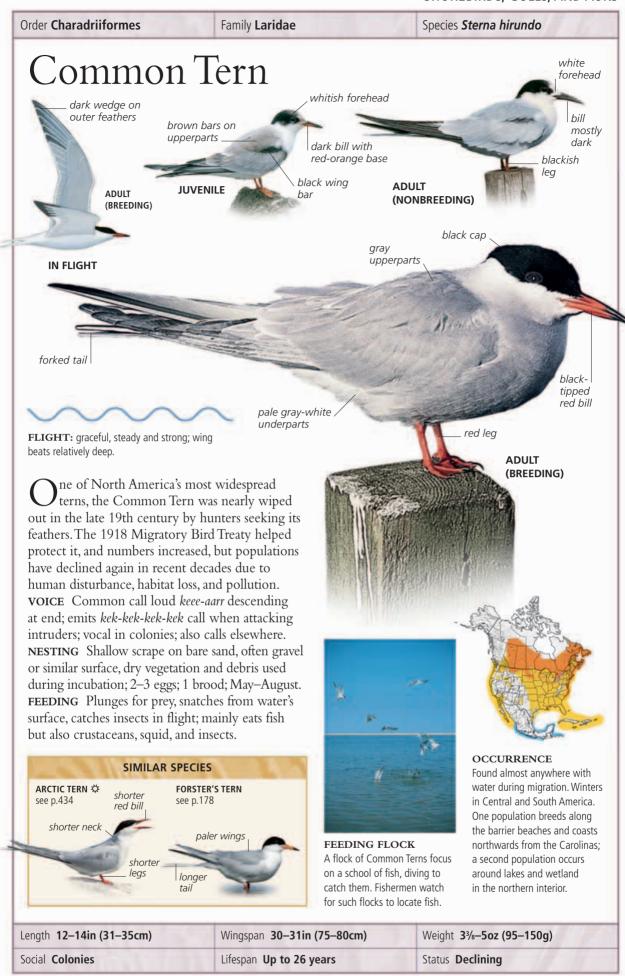
Length 15–16in (38–41cm)	Wingspan 3ft 1in-4ft (0.95m-1.2m)	Weight 11–18oz (300–500g)
Social Colonies	Lifespan Up to 26 years	Status Secure

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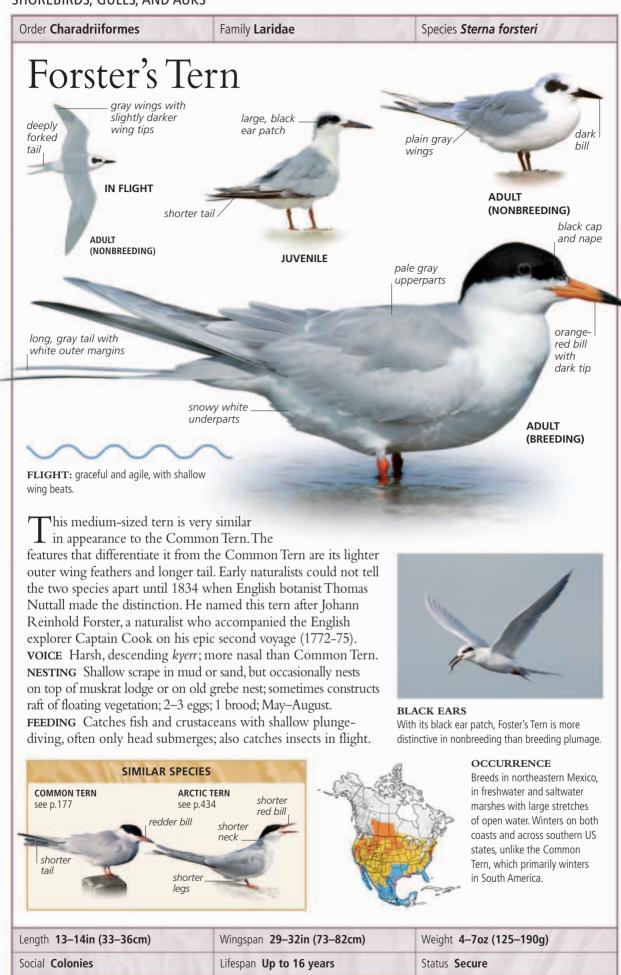
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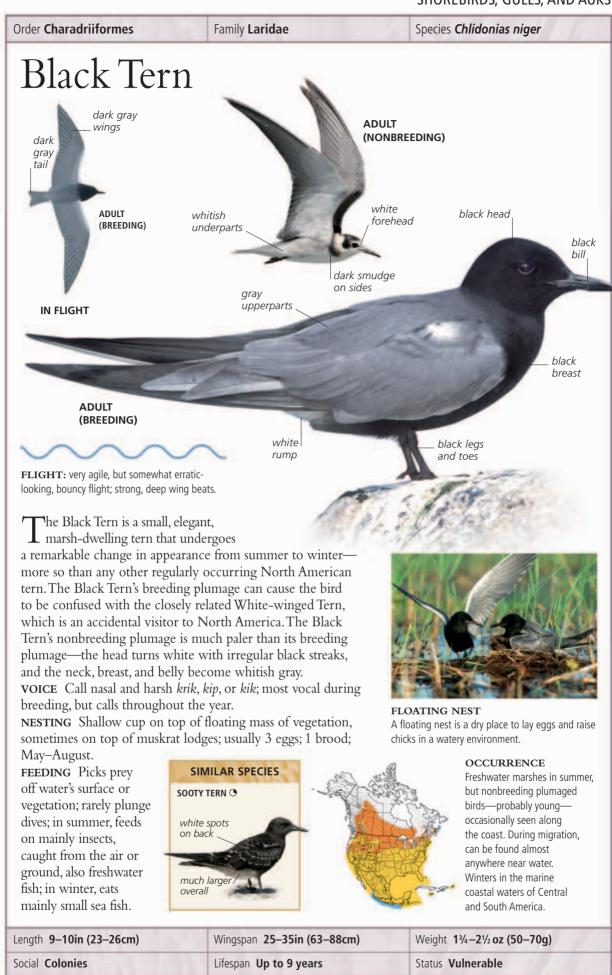


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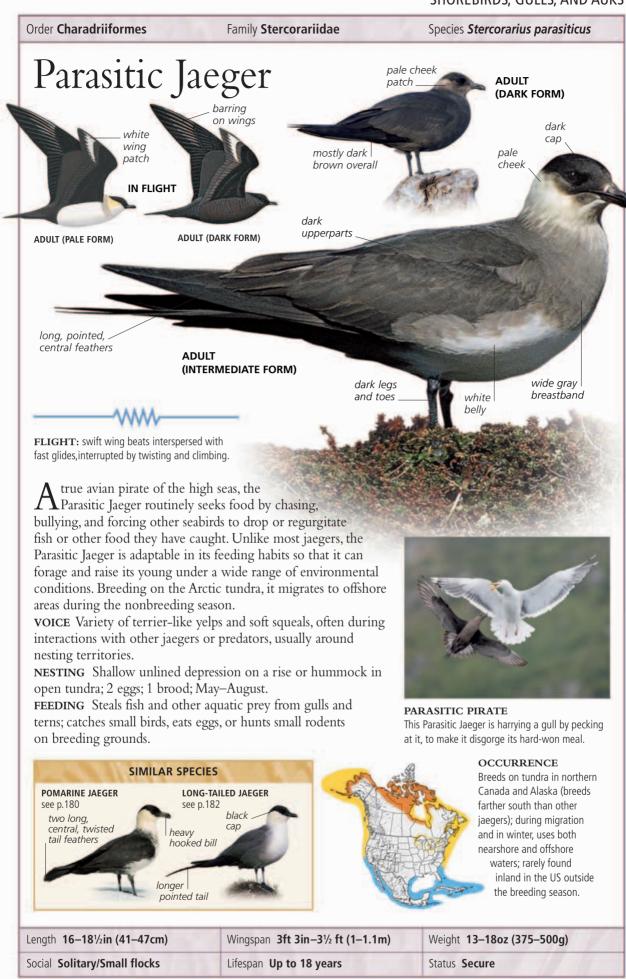


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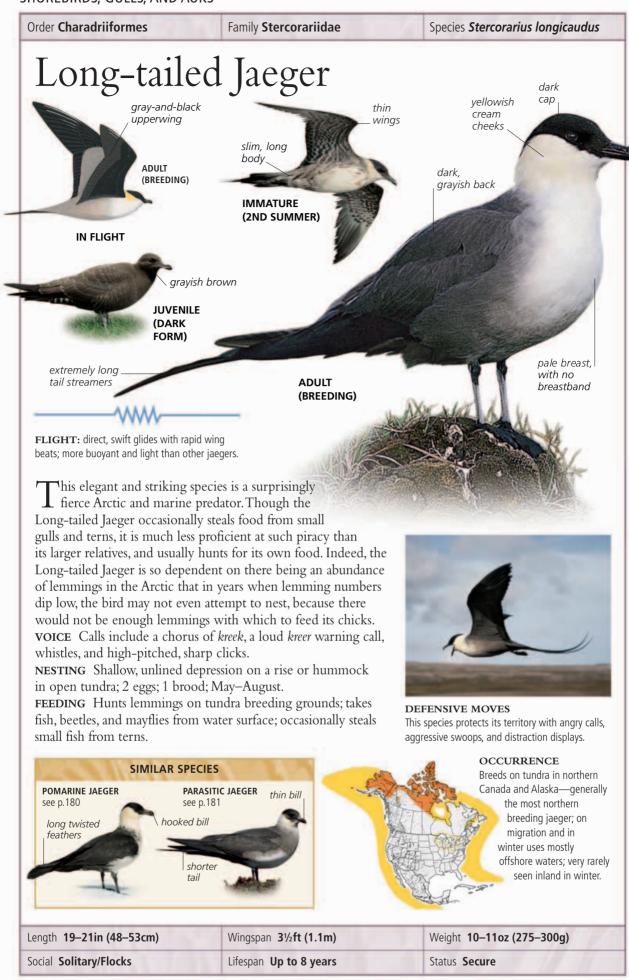
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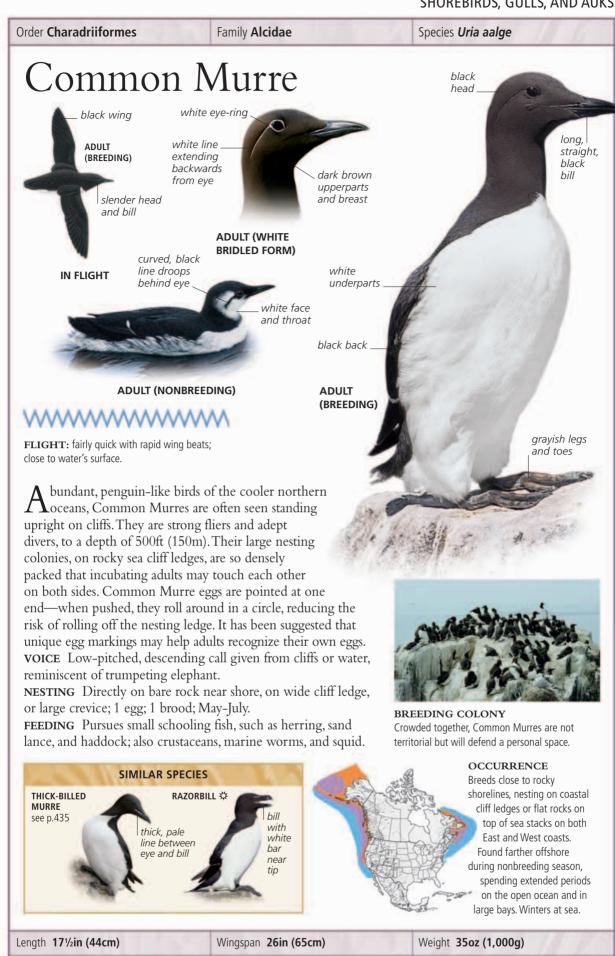


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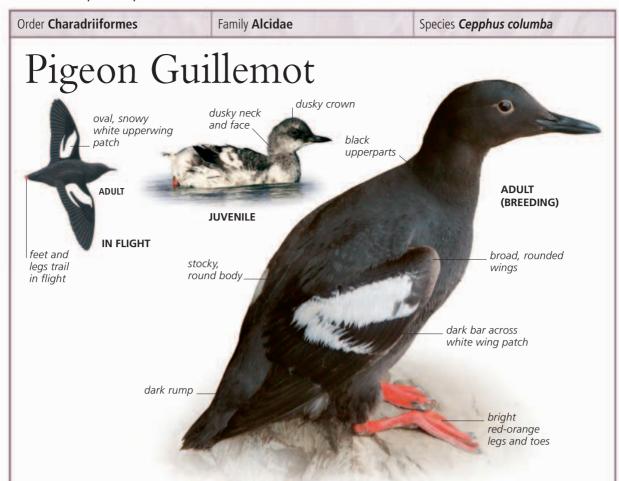


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Status Localized

Lifespan At least 40 years

Social Colonies



The Pigeon Guillemot, a North Pacific seabird, is found along rocky shores in small colonies or isolated pairs. This auk nests in burrows or under rocks, often on small islands that provide protection from land-bound predators. The male excavates a burrow, or chooses an abandoned burrow or crevice, to build a nest. During the breeding season, the bird's striking red-orange legs and mouth lining are used in courtship displays to attract a mate.

VOICE Excited, squeaky whistles, and twitters; nesting birds give a weak whistle *peeeee*.

NESTING Shallow scrape in burrow or crevice; 2 eggs; 1 brood; May–August.

FEEDING Feeds near shore; dives to seabed, then uses bill to forage for small rock eels, sculpin, crabs, shrimp, marine worms, and mollusks; carries food for chicks in beak.

FLIGHT: flies close to water surface with very rapid, fluttering wing beats.



PREDATOR BECOMES PREYPredatory gulls can kill adult Pigeon Guillemots and sometimes eat their chicks and eggs.

SIMILAR SPECIES BLACK GUILLEMOT See p.436 mottled white upperparts gray neck white underparts

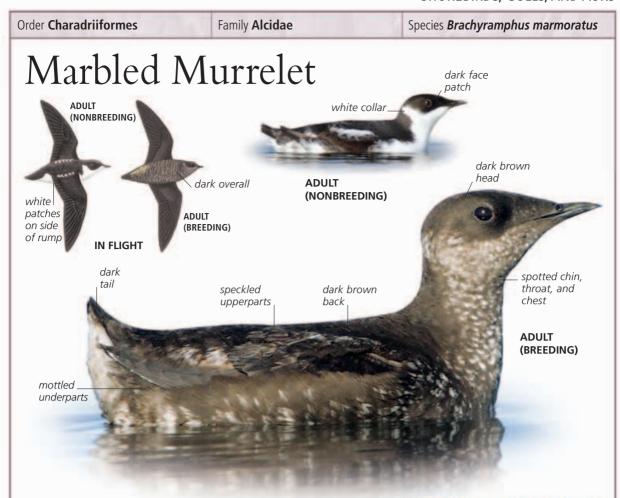


OCCURRENCE Breeds on rocky islands,

coastlines, and cliffs where it is less accessible to predators. At sea, it generally remains close to rocky coasts, except in the Bering Sea, where it is found further out along the edges of the pack ice. In winter, some populations are forced south by sea ice.

Length 13½in (34cm)	Wingspan 23in (58cm)	Weight 18oz (500g)
Social Colonies	Lifespan Up to 14 years	Status Localized

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The breeding habits of the Marbled Murrelet, a bird of both sea and forest, remained a mystery until 1974, when the first nest was discovered high in a Douglas Fir in a California park. Unlike most auks and their relatives, which have black and white breeding plumage, the Marbled Murrelet's breeding plumage is brown, to camouflage the bird on its nest in the branches of trees or, in places, on the ground. Ornithologists are eager to learn more about this secretive seabird, even as its numbers decline due to clear-cutting of old-growth conifer forests, where it nests, entanglement of the bird in fishing gear, and oil pollution out at sea, where it feeds.

VOICE Flight call series of high-pitched, squealing, slightly descending *kleeer* notes.

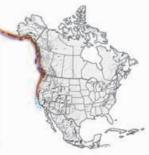
NESTING In northern part of its range, on island mountainsides;

forests; 1 egg; 1 brood; April–September. FEEDING Short dives to catch small fish and crustaceans in shallow offshore waters, "flying" underwater; feeds at night, in pairs.

in the south, on tree

limbs in old-growth





FLIGHT: straight, fast, and low over water, with extremely rapid wing beats.



The Marbled Murrelet flaps its wings energetically and runs across the surface to become airborne.

OCCURRENCE

Relies on marine and forested habitats for both feeding and breeding, on Pacific coasts from Alaska to California; at sea, usually found near coast, in relatively shallow waters. In the breeding season, travels back

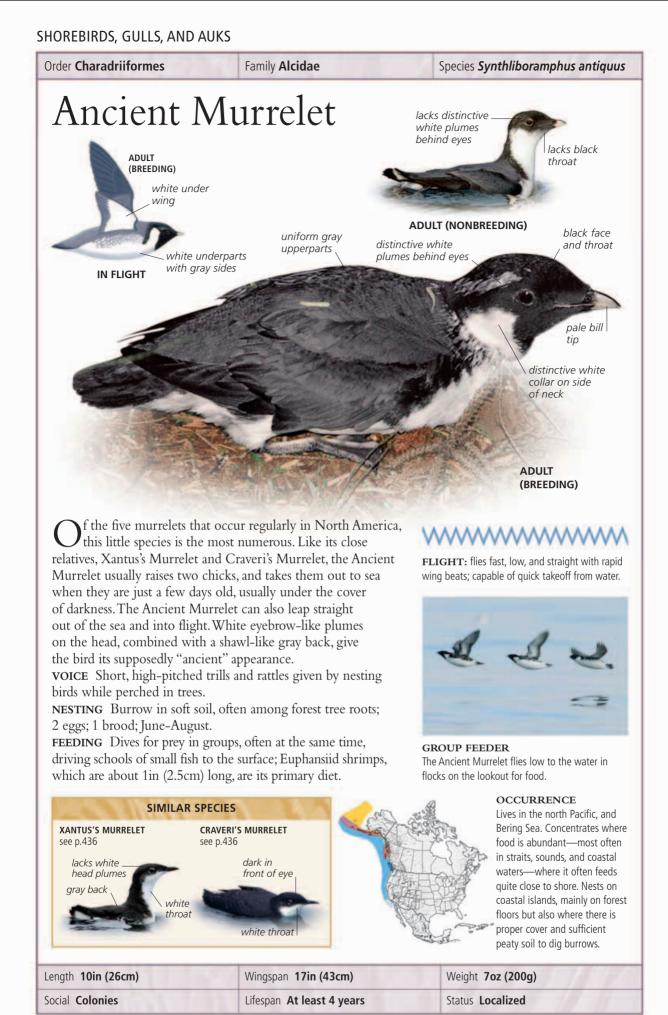
and forth between the sea and

inland breeding grounds.

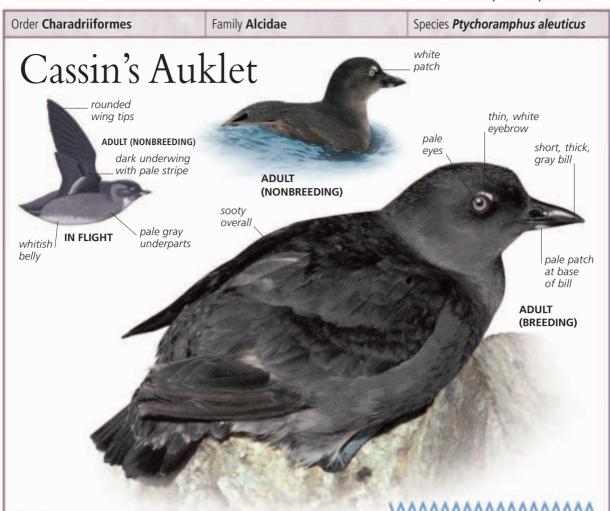
Length 10in (26cm)	Wingspan 16in (41cm)	Weight 8oz (225g)
Social Pairs/Small groups	Lifespan Unknown	Status Vulnerable

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This secretive little seabird usually nests in an underground burrow, which can take a breeding pair many weeks to scratch out. Parent birds fish by day, returning to the nest in the safety of darkness to avoid gulls and other predators. Nestlings encourage regurgitation by nibbling at a white spot at the base of the parent's lower mandible. Uniquely for a member of the alcid family, Cassin's Auklet has been known to raise more than one brood in a season.

VOICE Hoarse, rhythmic night calls in colonies; squeals and peeps when in burrow; silent at sea.

NESTING On offshore islands, in crevices or burrows; 1 egg; 1–2 broods; March–September.

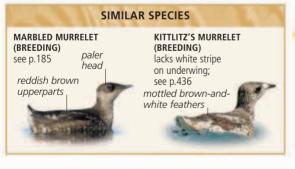
FEEDING Dives and swims underwater using wings to pursue small crustaceans, fish, and squid.

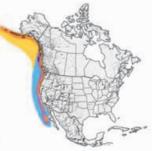
FLIGHT: low over the surface of the sea, with rapid wing beats.



RUNNING ON WATER

After a long run and some energetic wing beating, Cassin's Auklet eventually takes off from the water.





OCCURRENCE

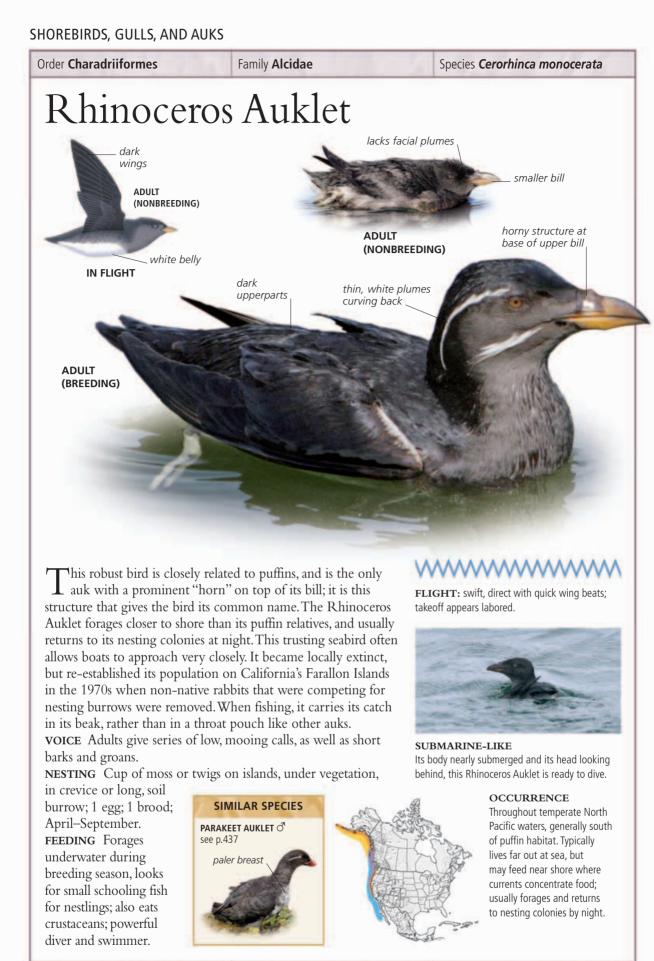
Pacific distribution; breeds on cliffs, grassy plains, or slopes on coastal islands. During the nonbreeding season, northern birds found in deep waters beyond the continental shelf, where upwelling currents bring food from the depths.

Southern birds remain near their colonies year-round.

Length 9in (23cm)	Wingspan 15in (38cm)	Weight 6oz (175g)
Social Colonies	Lifespan At least 6 years	Status Localized

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Length 15in (38cm)	Wingspan 22in (56cm)	Weight 16oz (450g)
Social Colonies	Lifespan Unknown	Status Localized

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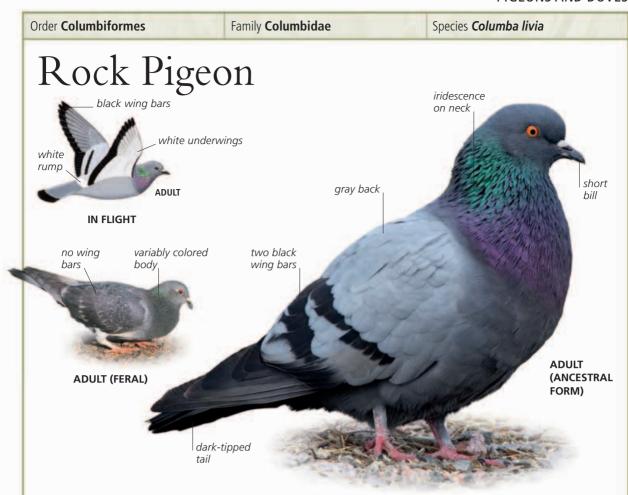
PIGEONS & DOVES

THE LARGER SPECIES WITHIN the family Columbidae are known as pigeons, and the smaller ones as doves, although there is no actual scientific basis for this distinction. All Columbidae

NATIVE PIGEONA native species, the Bandtailed Pigeon is sadly declining through much of its range.

are fairly heavy, plump birds with relatively small heads and short necks. They have slender bills with the nostrils positioned in a fleshy mound at the base. Among other things, members of this family have strong wing muscles, making them powerful and agile fliers. When alarmed, they burst into flight, with their wings emitting a distinctive clapping or swishing sound. Pigeons and doves secrete a nutritious "crop-milk" to feed their young. Despite human activity having severely affected members of this family in the past (the leading cause of the Passenger Pigeon's extinction in the 19th century is thought to be overhunting), the introduced Rock Pigeon has adapted and proliferated worldwide, as has the recently introduced Eurasian Collared-Dove, albeit on a smaller scale. The introduced Spotted Dove has not shown a similar tendency for explosive expansion, however, and remains limited to southern California and the islands of Hawaii. Among the species native to North America, only the elegant Mourning Dove is as widespread as the various species of introduced birds.





The Rock Pigeon was introduced to the Atlantic coast of North America by 17th century colonists. Now feral, this species is found all over the continent, especially around farms, cities, and towns. This medium-sized pigeon comes in a wide variety of plumage colors and patterns, including bluish gray, checkered, rusty-red, and nearly all-white. Its wings usually have two dark bars on them—unique among North American pigeons. The variability of the Rock Pigeon influenced Charles Darwin as he developed his theory of natural selection.

VOICE Soft, gurgling coo, roo-c'too-coo, for courtship and threat.

NESTING Twig nest on flat, sheltered surface, such as caves, rocky outcrops, and buildings; 2 eggs; several broods; year-round.

FEEDING Eats seeds, fruit, and rarely, insects; human foods such as popcorn, bread, peanuts; various farm crops in rural areas.

FLIGHT: strong, direct; can reach speeds up to around 60mph (95kph).



CITY PIGEONS

Most Rock Pigeons in North America descend from domesticated forms and exhibit many colors.



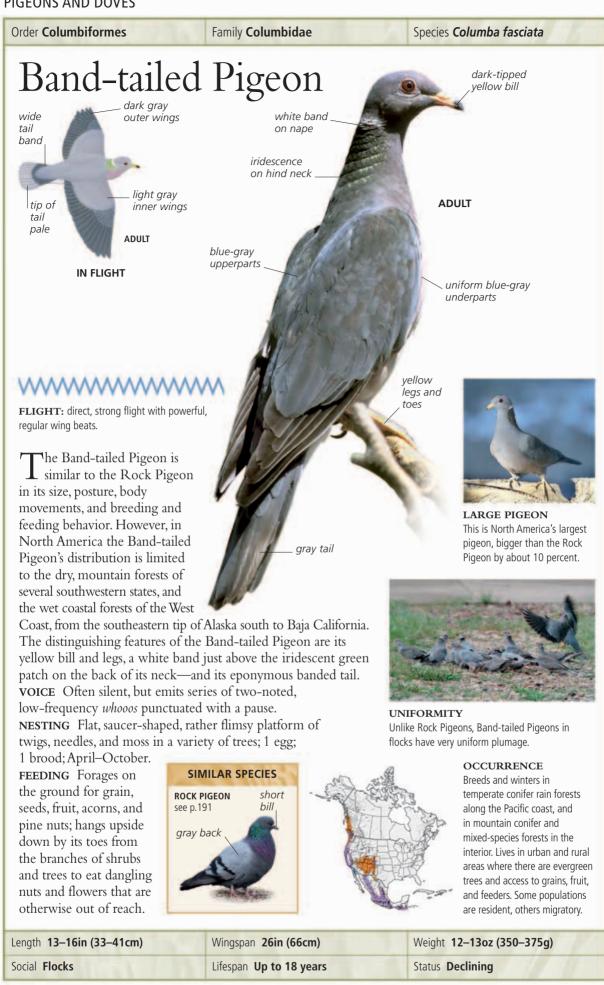


OCCURRENCE

Across southern Canada and North America; nests in human structures of all sorts; resident. Original habitat in the Old World was (and still is) sea cliffs and inland canyons; found wild in some places, such as dry regions of North Africa, but feral in much of the world.

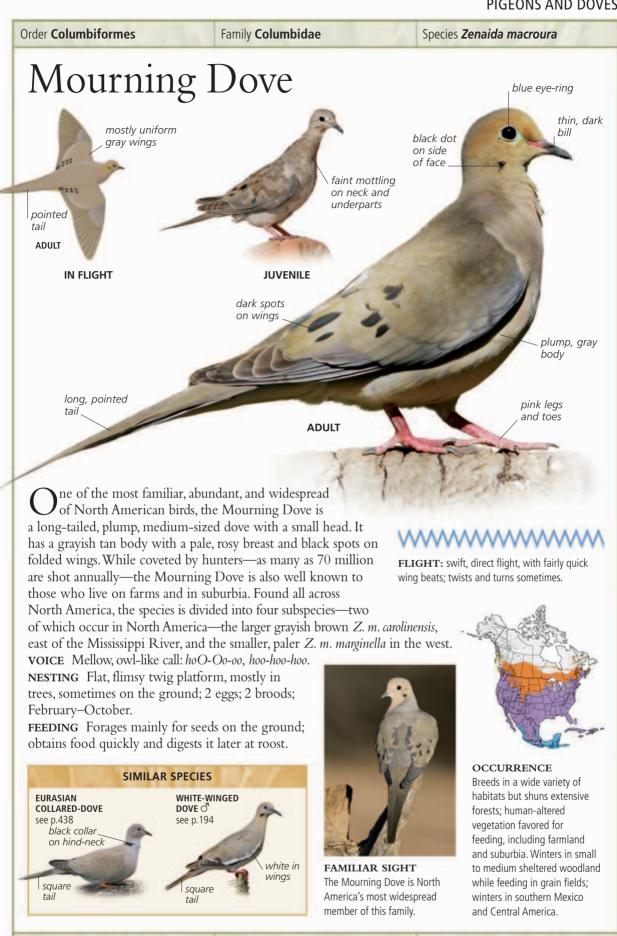
Length 11–14in (28–36cm)	Wingspan 20–26in (51–67cm)	Weight 9–14oz (250–400g)
Social Solitary/Flocks	Lifespan Up to 6 years	Status Secure

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Wingspan 141/2-171/2in (37-45cm)

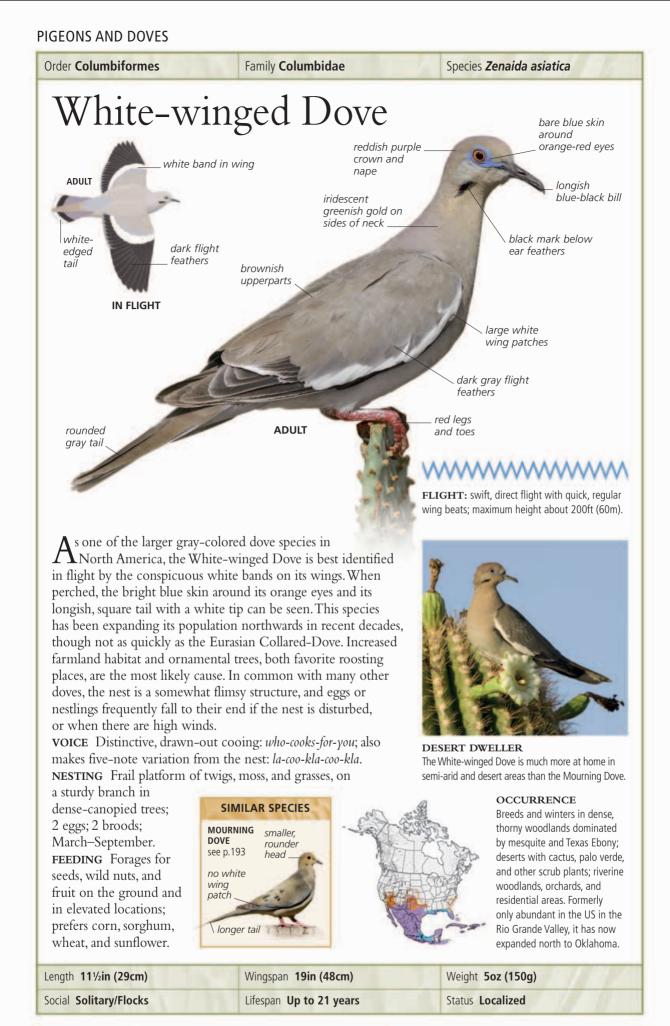
Lifespan Up to 19 years

Length 9-131/2 in (23-34cm)

Social Pairs/Winter flocks

Weight 3-6oz (85-175g)

Status Secure



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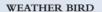
CUCKOOS & RELATIVES

Cin other birds' nests, but of the three species in North America, one never does this, and two seldom do so. Their close relatives on the continent are the Greater Roadrunner, and two species of Ani.

CUCKOOS

Generally shy and reclusive, the Black-billed Cuckoo, Yellow-billed Cuckoo, and Mangrove Cuckoo all favor dense, forested habitats. All three species usually build a nest and raise their own offspring. The Black-billed Cuckoo and the Yellow-billed Cuckoo occasionally lay their eggs in other birds' nests, including each other's, and even the nests of their own species. In flight, cuckoos are often mistaken for small birds of prey. They sometimes pounce on lizards, frogs, and other small animals—even small birds—but mostly they glean insects from the foliage of

trees. Much remains to be learned about these birds.



Folklore has it that the Yellow-billed Cuckoo, or "Raincrow," calls mostly on cloudy days.

GREATER ROADRUNNER

The Greater Roadrunner is a ground-based member of the Cuckoo family, and an inhabitant of the arid Southwest. It is capable of running at over 15mph (25kph), and is one of the few species of birds that actively hunts rattlesnakes, doing so in pairs. The Greater Roadrunner has been seen pulling small birds out of mist nets set by scientists for research purposes. It does not fly often, and rarely above a few yards.

ANIS

In North America both the Groove-billed Ani and the Smooth-billed Ani are at the northern edge of their range, being much more widespread in open country in tropical and subtropical regions farther south. Anis are typically weak, short-distance fliers,



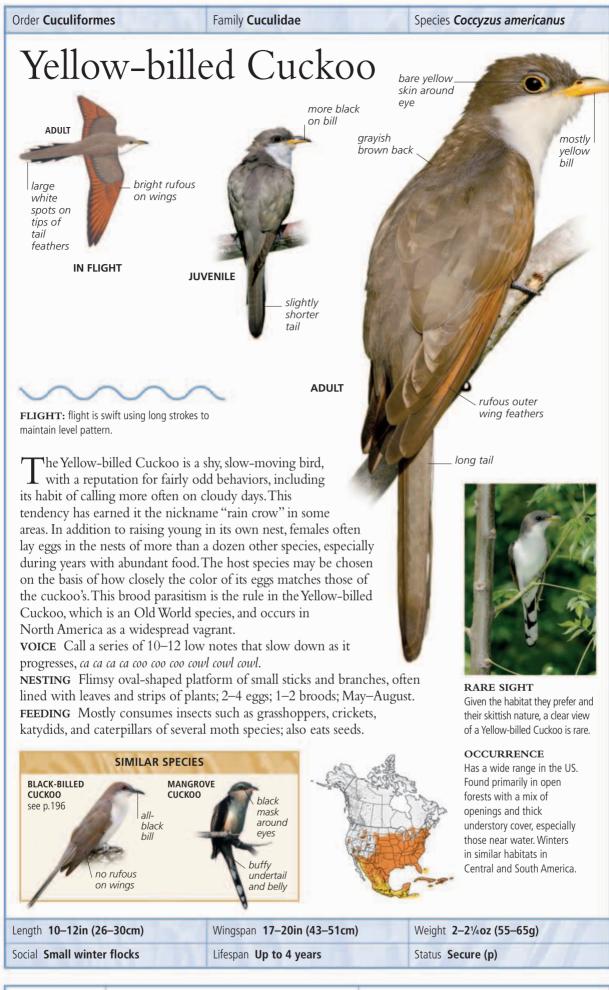
STRONG STOMACHThe Black-billed Cuckoo can safely eat caterpillars that are poisonous to other birds.

but, like the Greater Roadrunner, they are sturdy on their feet and often run and hop after their insect prey. They breed communally, several pairs of birds laying their eggs in one nest, then all help to raise the young.

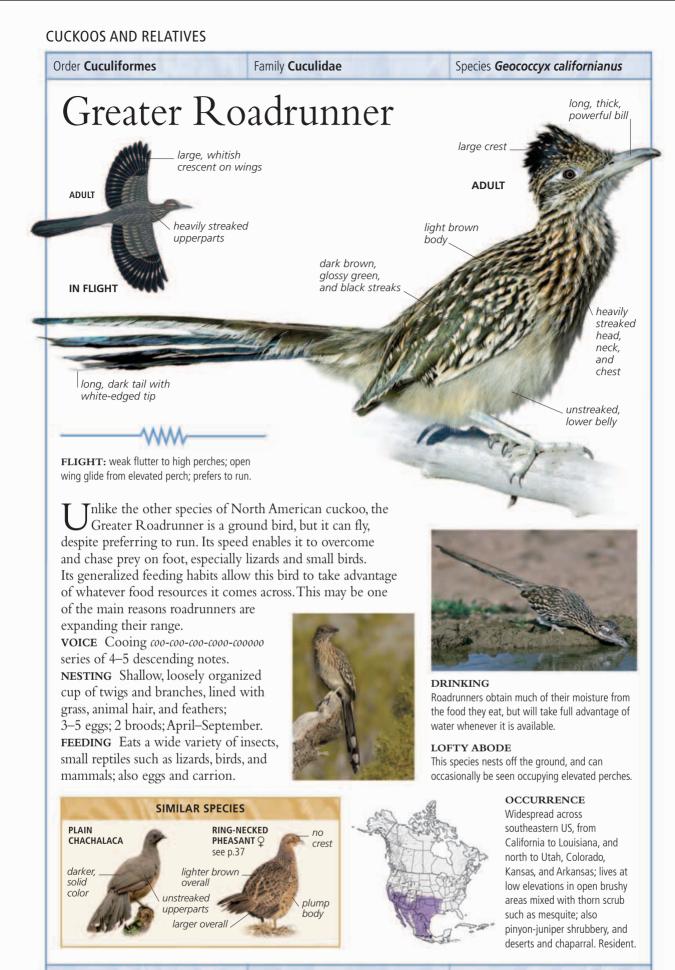




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	Social Solitary/Pairs	Lifespan Up to 6 years	Status Secure	
ı	Length 21in (53cm)	Wingspan 23in (58cm)	Weight 11oz (300g)	

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OWLS

WLS HAVE FASCINATED humans throughout history, partly because of their nocturnal habits and eerie cries. They are placed in the order Strigiformes, and two families are represented in North America: the Barn Owl is classified in Tytonidae, other North American owl species are in the Strigidae. Most owls are active primarily at night and have developed adaptations for living in low-light environments. Their large eyes are

sensitive enough to see in the dark, and face forward to maximize binocular vision. Since the eyes are fixed in their sockets, a flexible neck helps owls turn

OWL AT TWILIGHT

The best time to see the nocturnal Barn Owl is often at dawn or dusk.



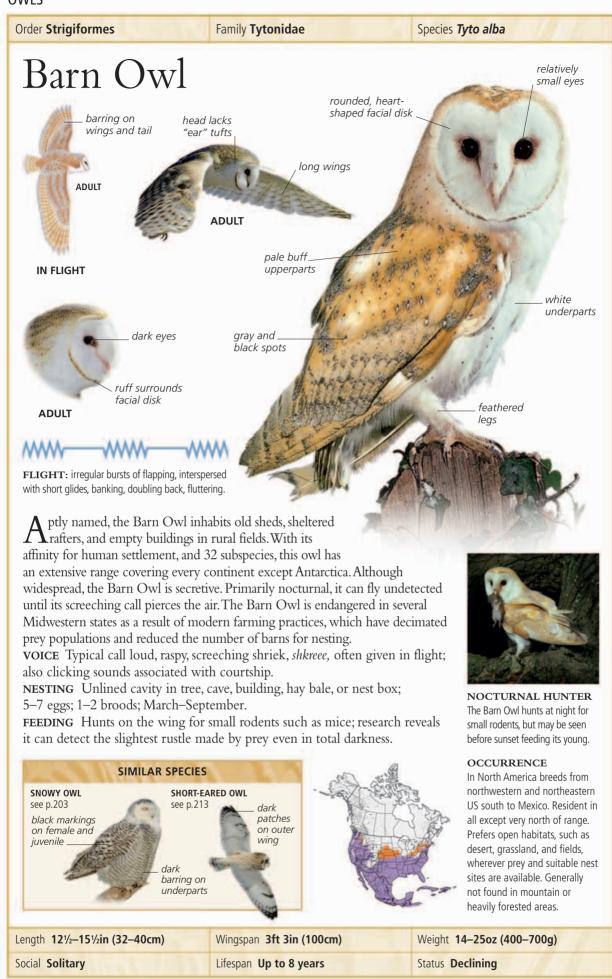
their heads almost 180° toward a direction of interest. Ears are offset on each side of the head to help identify the source of a sound; "ear tufts" on some species, however, are for visual effect and unrelated to hearing. Many owls have serrations on the forward edges of their flight feathers to cushion airflow, so their



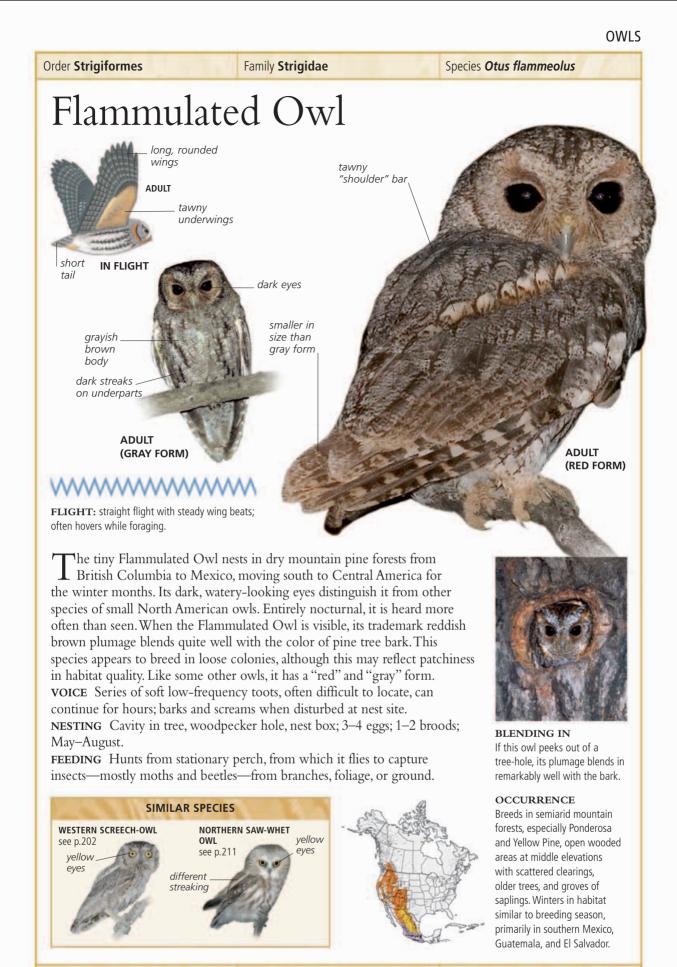
BIG HORNS
The "ear" tufts of the Great
Horned Owl are taller than
those of other "tufted" owls.

flight is silent while stalking prey. All North American owls are predatory to some degree and they inhabit most areas of the continent. The Burrowing Owl is unique in that it hunts during the day and nests underground.





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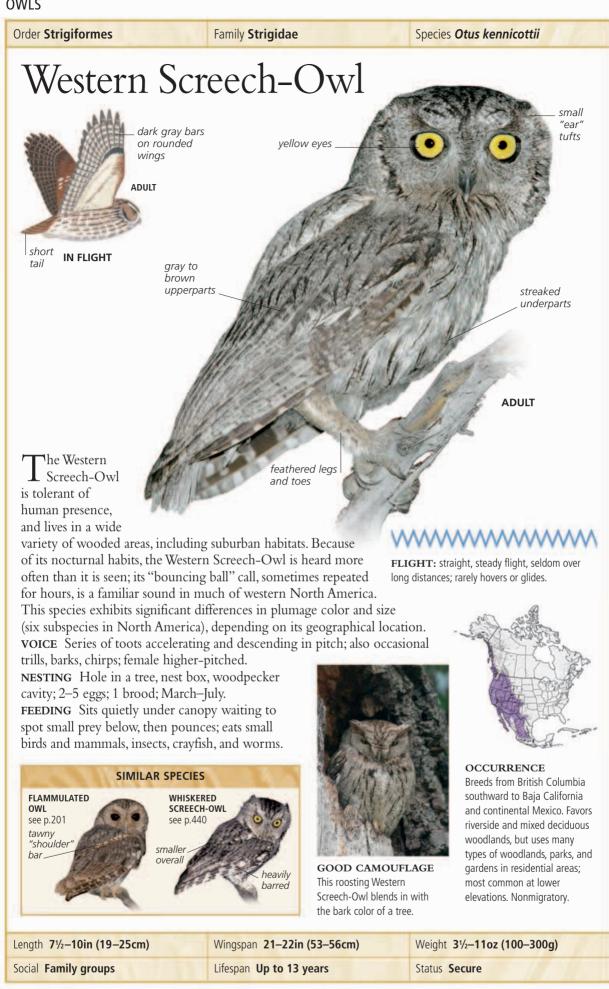


Length 6 674m (15	17 cm,	wingspan roll (41cm)		Weight 1710 27402 (45 059)
Social Solitary		Lifespan Up to 8 years		Status Secure
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Wingspan 16in (41cm)

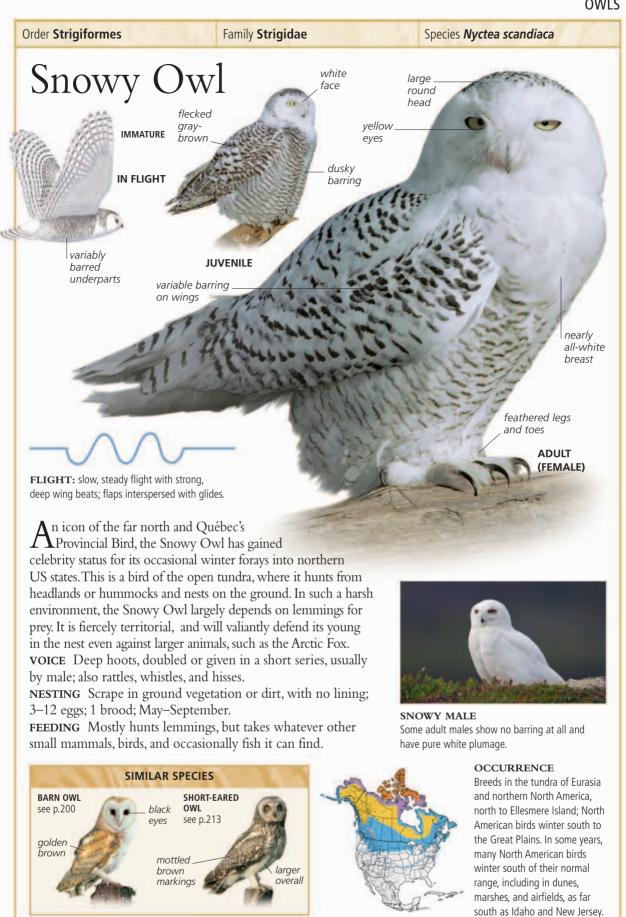
Length 6-63/in (15-17cm)

Weight 19/16-21/107 (45-65g)



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Wingspan 41/4-51/4ft 1.3-1.6m)

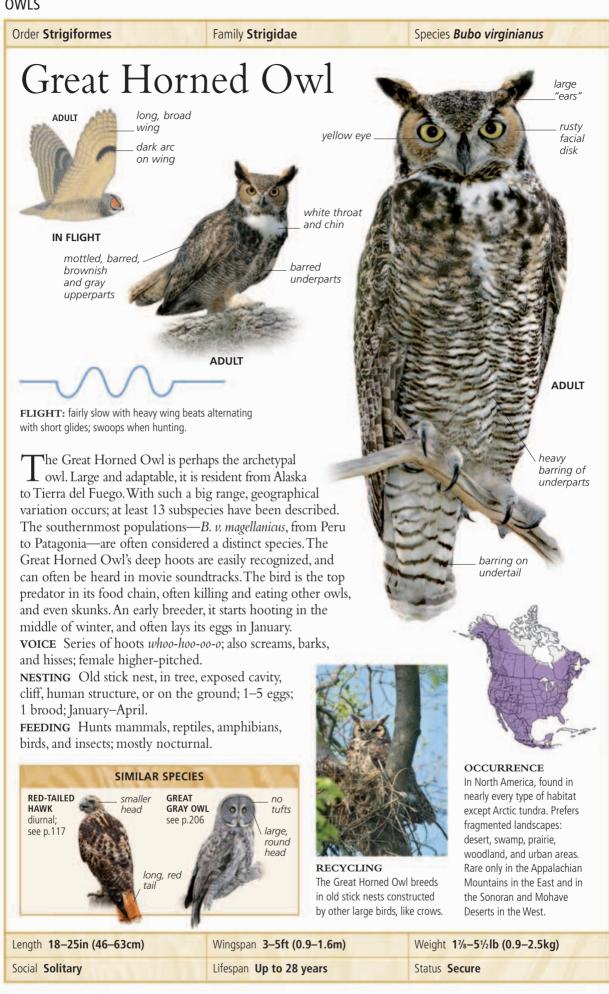
Lifespan Up to 9 years

Length 20-27in (51-68cm)

Social Solitary

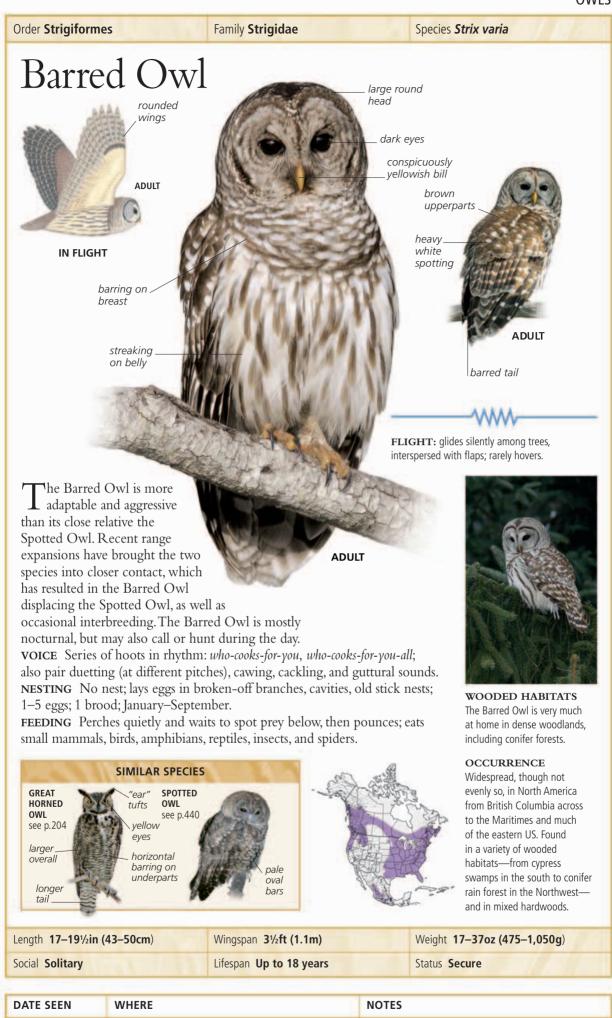
Weight 31/2-61/2lb (1.6-2.9kg)

Status Vulnerable

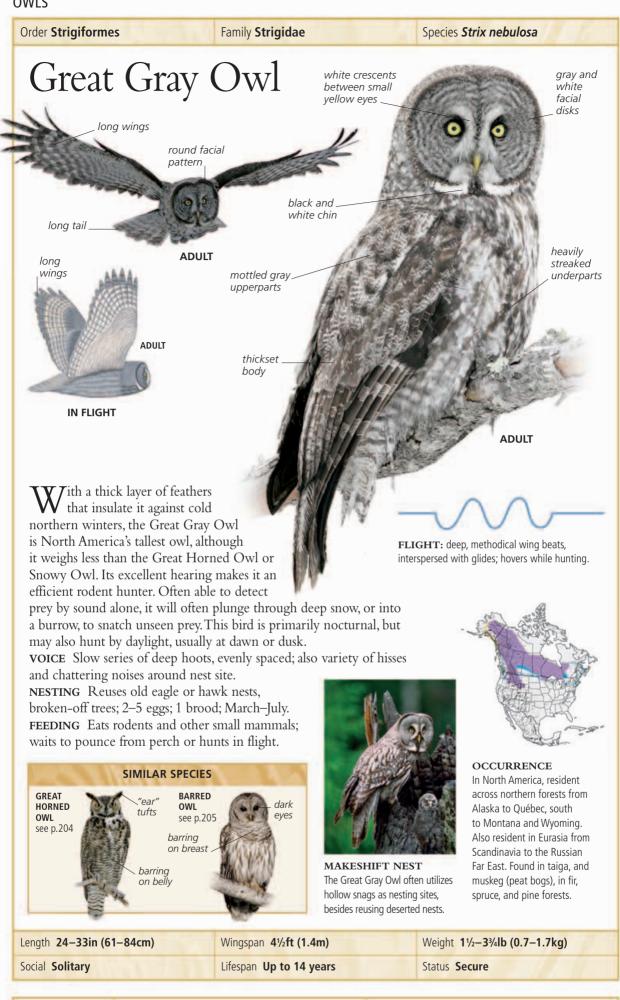


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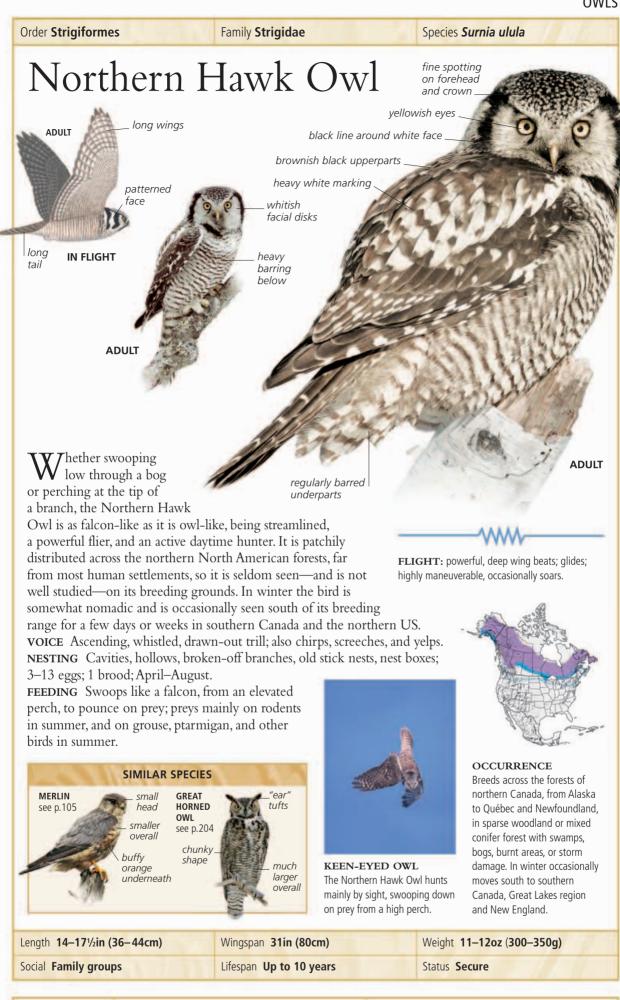
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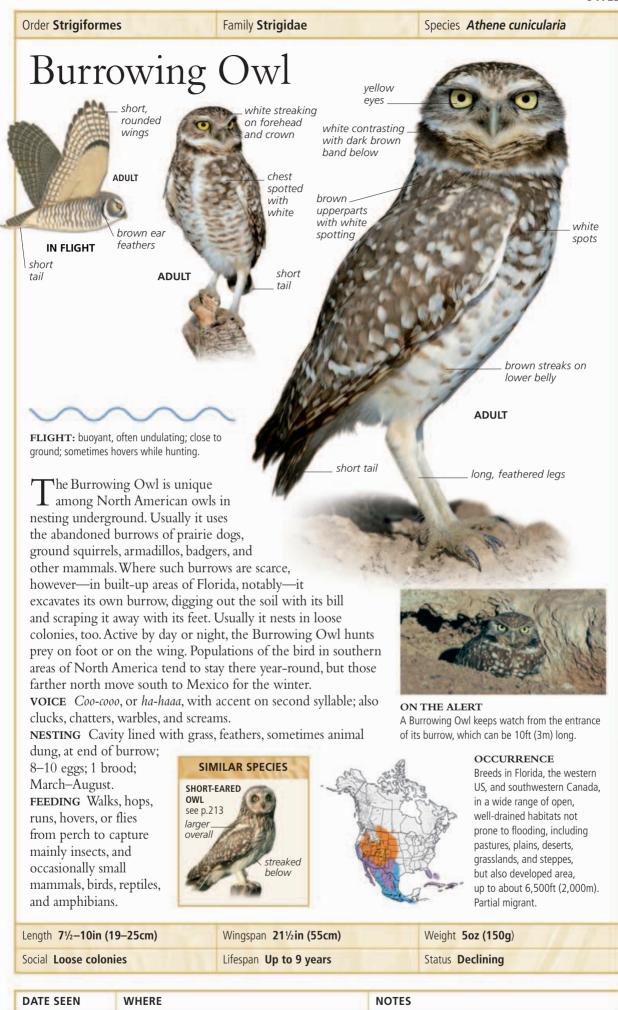


DAYTIME HUNTER Unlike most other species of owl, the Northern Pygmy-Owl is often active during the day.

Arizona, and New Mexico, and from Mexico to Honduras: can be found in mixed spruce, fir, pine, hemlock, cedar, and oak woodlands; nests at higher elevations, and often winters lower down.

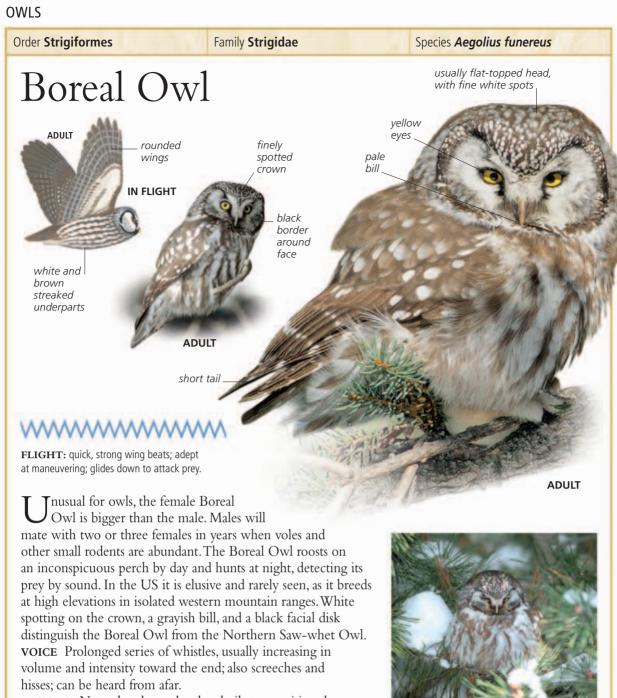
Length 6½-7in (16-18cm)	Wingspan 15in (38cm)	Weight 2 1/ ₈ –2 1/ ₂ oz (60–70g)
Social Family groups	Lifespan Unknown	Status Secure

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NESTING Natural and woodpecker-built tree cavities, also nest boxes; 3-6 eggs; 1 brood; March-July.

FEEDING Mainly eats small mammals, occasionally birds and insects; pounces from elevated perch; sometimes stores prey.



DAYTIME ROOSTING The Boreal Owl roosts in dense vegetation by day, even when the branches are laden with snow.

SIMILAR SPECIES NORTHERN NORTHERN PYGMY-SAW-WHET OWI owi see p.211 see p.208 dark lacks dark frame to facial disk hlack streaks on belly longer tail



OCCURRENCE Breeds in northern forests

from Alaska to Newfoundland and Québec, south into the Rockies to Colorado and New Mexico. Largely sedentary, but irregular movements take place south of the breeding range, southward to New England and New York. In the Old World it is called Tengmalm's Owl.

Length 8½-11in (21-28cm)	Wingspan 21 ½ –24in (54–62cm)	Weight 3 % –8oz (90–225g)
Social Solitary	Lifespan Up to 11 years	Status Secure

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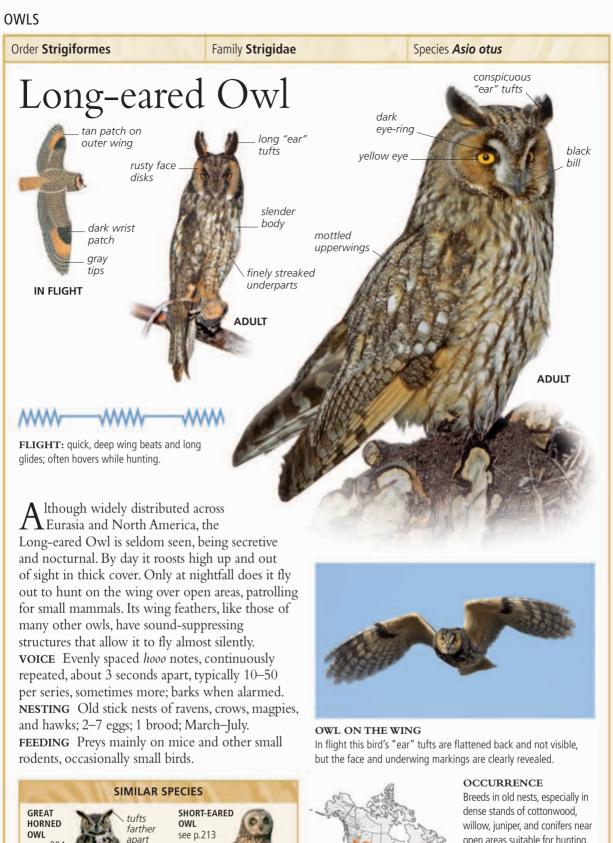
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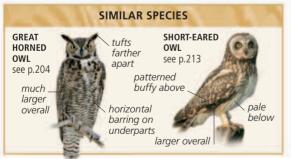
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Status Secure

Lifespan Up to 10 years

Social Solitary





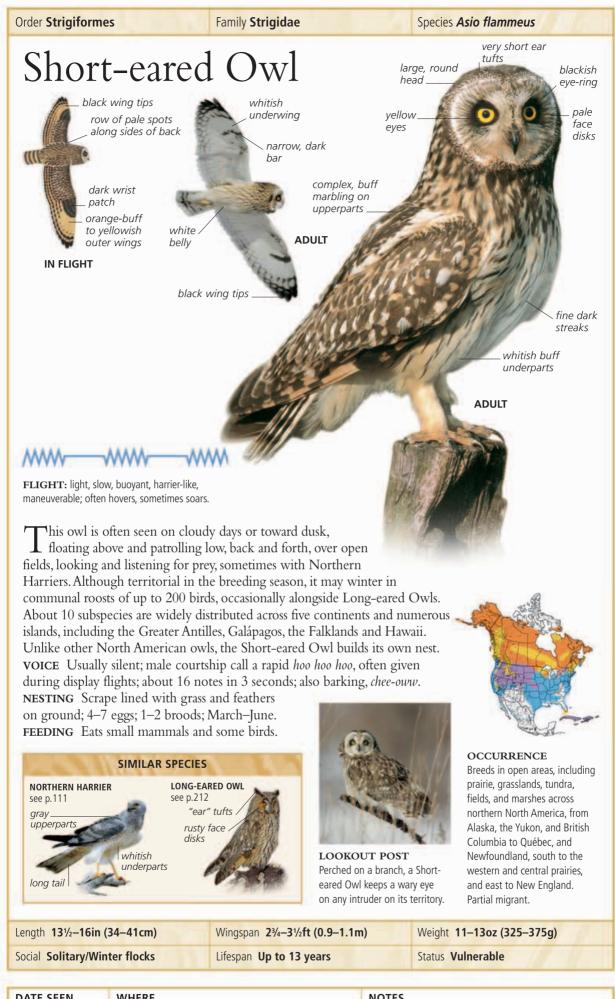


open areas suitable for hunting. Occasionally uses old nests in tree holes, cliffs, or on ground in dense vegetation; in winter, up to 100 birds in roosts. Northern birds move south for winter: some western birds resident.

Length 14–15½ in (35–40cm)	Wingspan 34–39in (86–98cm)	Weight 8–15oz (225–425g)
Social Solitary/Winter flocks	Lifespan Up to 27 years	Status Secure

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NIGHTJARS & NIGHTHAWKS

LTHOUGH WIDESPREAD and common Athroughout North America, species of the family Caprimulgidae are heard more often than they are seen. The exceptions to this rule are the two species of Common Nighthawks that regularly forage for insects at dawn and dusk. All nighthawks are medium-sized birds that use their long wings and wide tails to make rapid and graceful turns to capture their insect prey in the air. They feed predominantly on large flying insects such as moths. Their wide, gaping mouths are surrounded by bristles that aid foraging efforts, and they have very small legs and toes. Both nightjars and nighthawks are similar in coloration and pattern, with a mottled mixture of various browns, grays, and blacks that provides impeccable camouflage when they hide during daylight hours. This ability to hide in plain sight is useful during the nesting season, when all nightjars lay their patterned eggs directly on the ground, without

any nest material. The nature of the camouflage pattern of their feathers makes it difficult to distinguish between species when they rest in trees or on the ground. The most reliable means of telling species apart is their voice. If seen, the placement and nature of white markings,



PART OF THE LITTER

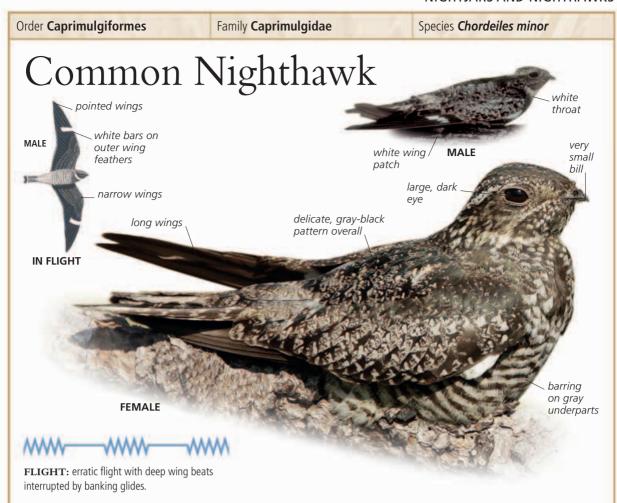
Not many bird species match
the leaf litter of the forest floor
as well as nightjars, as this
Chuck-will's-widow shows.

combined with the style of flight, are the best means of identification. Most members of the family migrate and move southward as insects become dormant in the North. Nightjars are also known as "Goatsuckers" because in ancient Greece it was believed that they sucked blood from goats.



ELEGANT HUNTER

This Lesser Nighthawk male soars through the air, hunting for insects, which it catches on the wing.



Common Nighthawks are easy to spot as they swoop over parking lots, city streets, and athletics fields during the warm summer months. They are more active at dawn and dusk than at night, pursuing insect prey up to 250ft (80m) in the air. The species once took the name Booming Nighthawk, a reference to the remarkable flight display of the male birds, during which they dive rapidly towards the ground, causing their feathers to vibrate and produce a characteristic "booming" sound. **VOICE** Nasal *peeent*; also soft clucking noises from both sexes.

NESTING Nests on ground on rocks, wood, leaves, or sand, also on gravel-covered rooftops in urban areas; 2 eggs; 1 brood; May–July.

FEEDING Catches airborne insects, especially moths, mayflies, and beetles, also ants; predominantly active at dusk and dawn.



A RARE SIGHTCommon Nighthawks are seen in flight more often than other caprimulgids, but it is a rare treat to see one resting on a perch.



OCCURRENCE

Wide variety of open habitats, such as cleared forests, fields, grassland, beaches, and sand dunes; also common in urban areas, including cities. The most common and widespread North American nighthawk, this species also occurs in Central and South America.

Length 9–10in (23–26cm)	Wingspan 22–24in (56–61cm)	Weight 2 1/8 0z (80g)
Social Solitary/Flocks	Lifespan Up to 9 years	Status Declining

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white-tipped

outer tail feathers

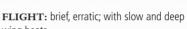


This nocturnal bird is the smallest North American nightjar, with much shorter wings than its relatives, and a stubbier tail, but a comparatively large head. In 1946, scientists discovered that it was able to go into a state of torpor, similar to mammalian hibernation. During "hibernation" its body temperature is about 64°F (18°C) instead of the usual 106°F (41°C), and it may remain in this state for several weeks during cold weather when food is unavailable. This may account for its colloquial name, "sleeping one," among the Hopi of the Southwest. Males and females are similar in appearance, but the male has whitish corners to its tail, while the female's are more buffy.

VOICE Call low purr-WHEEOO or pooor-WEELLUP, whistled at night when perched in the open.

NESTING Eggs laid on the ground among rocks, sometimes under shrubs; 2 eggs; 2 broods; May-August.

FEEDING Jumps up from the ground and flies briefly to capture night-flying insects, such as moths and beetles.



tiny, dark legs

and toes

wing beats.



GRAVEL ROADS

The Common Poorwill uses gravel roads as a convenient place from which to jump at flying insects.





OCCURRENCE

Breeds from the western US southward into Mexico, in arid habitats with much bare ground and sparse vegetation, such as grasses, shrubs, and cacti. Winters in northern Mexico.

Length 7 ½– 8 ½ in (19–21cm)	Wingspan 15½–19in (40–48cm)	Weight 11/4–2oz (35–55g)
Social Solitary	Lifespan Up to 3 years	Status Secure

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SWIFTS

Swell as many night hours plying the skies. The most aerial birds in North America—if not the world—swifts eat, drink, court, mate, and even sleep on the wing. Unsurprisingly, swifts are some of the fastest and most acrobatic flyers of the bird world. Several species have been clocked at over 100mph (160kph). They feed on insects caught in zooming, zigzagging, and dashing pursuits. The family name, based on the Greek *apous*, which means "without feet," originates from the ancient belief that swifts had no feet and lived their entire lives in the air.



Family Trochilidae

HUMMINGBIRDS

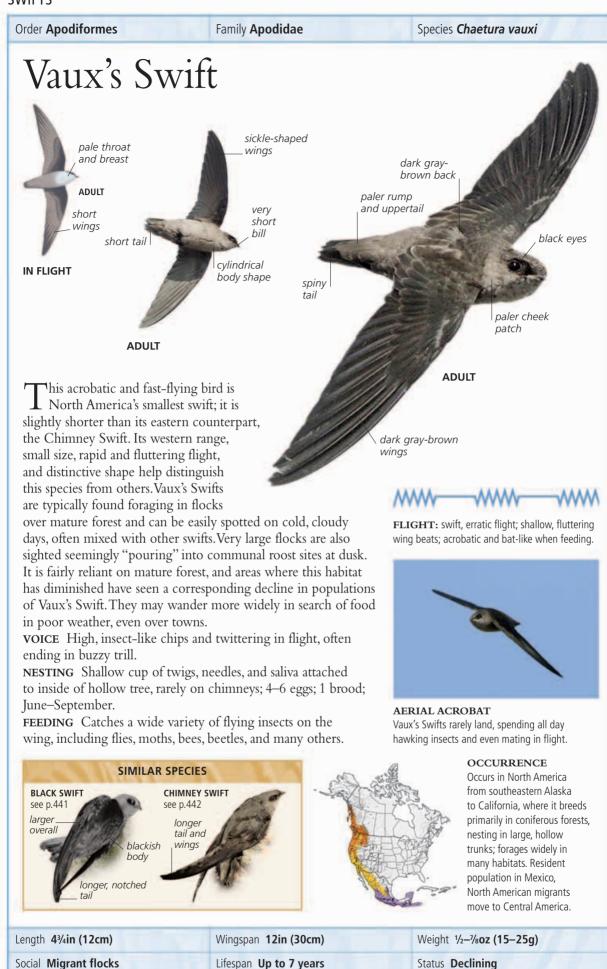
POUND ONLY IN the Americas, hummingbirds are sometimes referred to as the crown jewels of the bird world. The first sight of a glittering hummingbird can be a life-changing experience. The amount of iridescence in their plumage



AGGRESSIVE MALES This male Ruby-throated Hummingbird defends his territory from a perch. This species is rare in the West.

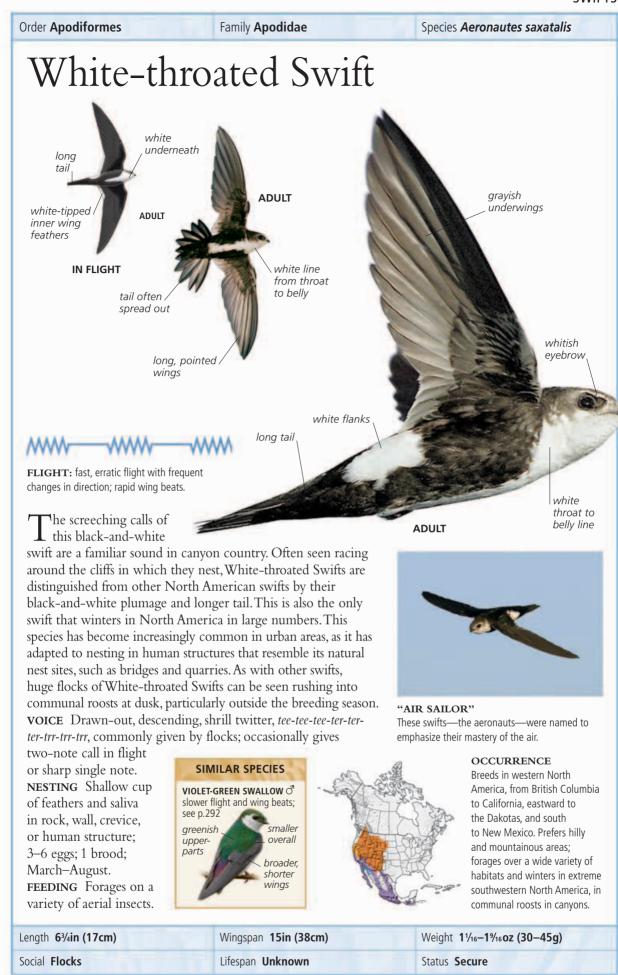
varies from almost none to what seems like every feather. Most North American male hummingbirds have a colorful throat patch called a gorget, but females tend to lack this shiny attribute. Because iridescent colors are structural and not pigment-based, a gorget can often appear blackish until seen at the correct angle toward the light. Hummingbirds are the only birds that can fly backward, an adaptation that allows them to move easily among and between flowers. Flying sideways, up, down, and hovering are also within hummingbirds' abilities, and all are achieved by their unique figure-eight, rapid wing strokes and reduced wing bone structure. Their long, thin bills give them access to nectar in tubular flowers. Of the 14 species of hummingbirds in the West, about six are restricted to southwestern states. A couple of western species are restricted to California's coastal habitats, and one, the Rufous Hummingbird, breeds all the way north to Alaska.





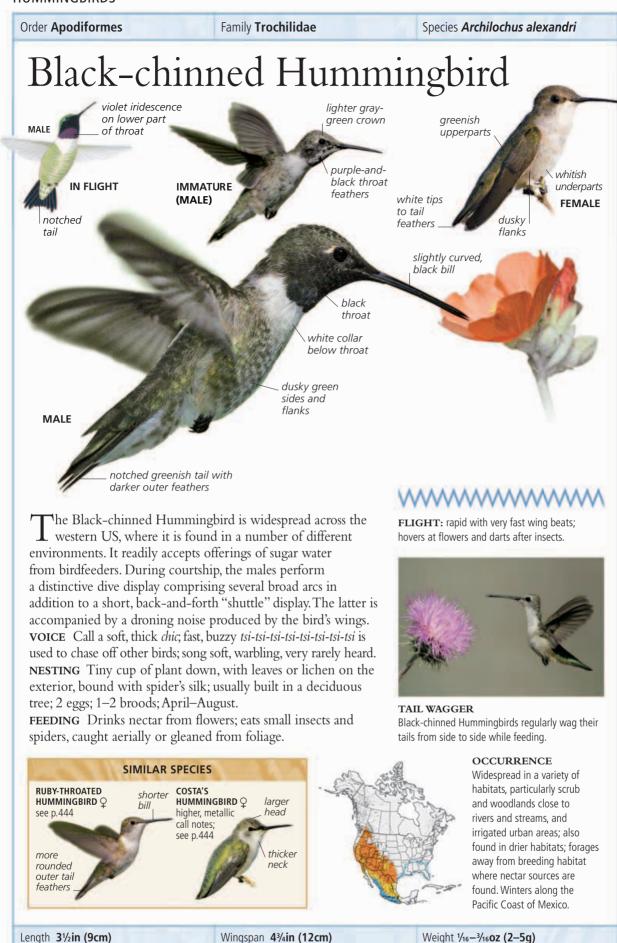
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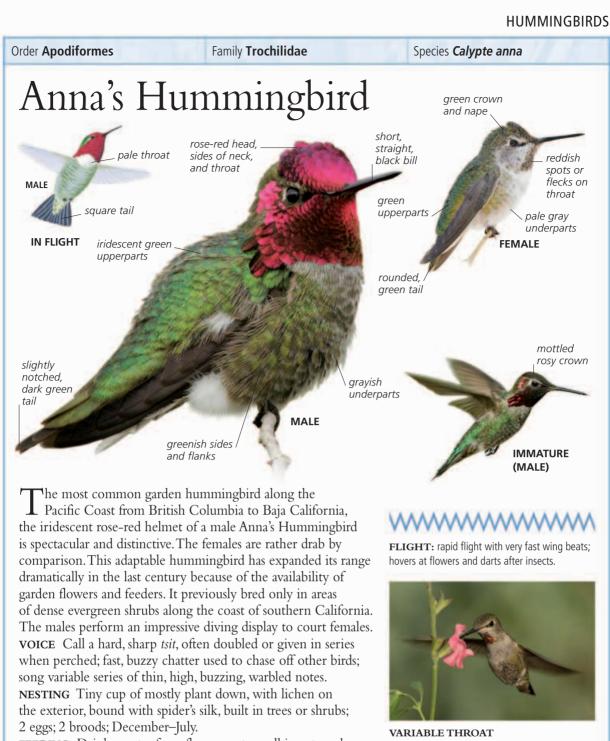
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Lifespan Up to 8 years

Status Secure

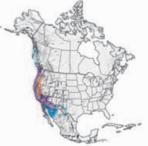
Social Solitary



FEEDING Drinks nectar from flowers; eats small insects and spiders, caught aerially or gleaned from foliage.



SIMILAR SPECIES BLACK-CHINNED COSTA'S HUMMINGBIRD ♀ HUMMINGBIRD ♀ see p.444 see p.220 thinne neck smaller overall whiter oaler. underparts underparts



Primary breeding habitat is dense coastal shrubbery and open woodland; also human areas. Habitat during migration and in winter largely dependent on available nectar sources; range expands northward and eastward during this time. Some birds winter in northwestern Mexico; vagrant in the East.

Length 4in (10cm)	Wingspan 5in (13cm)	Weight ³ / ₃₂ – ⁷ / ₃₂ oz (3–6g)
Social Solitary	Lifespan Up to 8 years	Status Secure

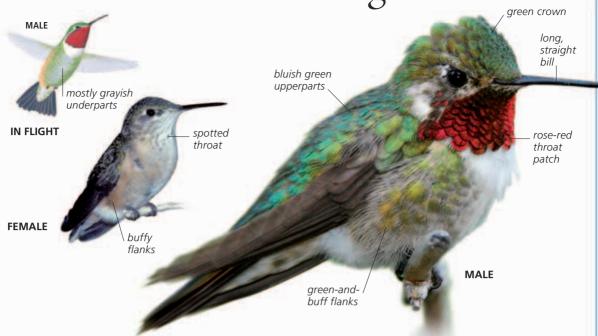
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Order Apodiformes

Family Trochilidae

Species **Selasphorus platycercus**

Broad-tailed Hummingbird



The trilling sound generated by the male Broad-tailed Hummingbird's wings in flight is commonly heard in the alpine meadows of the Rocky Mountains and is likely a substitute for song during displays. Birds may arrive on their breeding grounds before the snow melts or flowers bloom, and they survive on insects and tree sap. During courtship, males perform spectacular dives, with their wings trilling loudly during the descent. They also have a buzzing display, bobbing back and forth in front of females.

VOICE Call a sharp *chik*; also short, buzzy warning call, *tssrr*; chase call variable, squeaky twittering.

NESTING Tiny cup of plant down, with lichen and leaves on exterior, bound with spider's silk, and built in trees; 1–2 eggs; 1–2 broods; April–August. FEEDING Sucks nectar from flowers; insects and arthropods caught in air or on foliage.



FLIGHT: rapid flight with extremely fast wing beats; hovers at flowers; darts after insects.

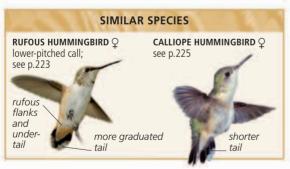


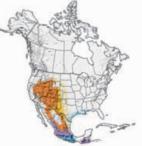
LOUD APPROACH

Whirring and trilling wings often announce the presence of a male Broad-tailed Hummingbird.

RESTING AFTER FEEDING

This male, perched on a twig, rests after an energy-draining bout of feeding.



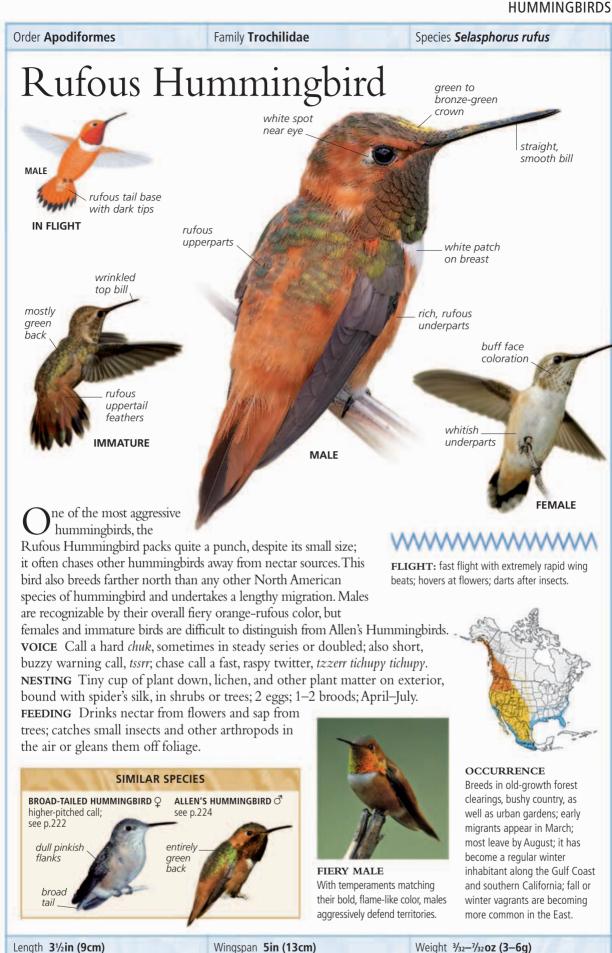


OCCURRENCE

Inhabits a variety of mid- to high-elevation forest types; early migrants arrive in March in southern states and most leave by September; some individuals winter along the Gulf Coast. Winters mostly in fairly arid habitats in northeastern Mexico. Also breeds in northern Mexico.

Length 4in (10cm)	Wingspan 5in (13cm)	Weight ³ / ₃₂ – ⁵ / ₃₂ oz (3–4g)
Social Solitary	Lifespan Up to 12 years	Status Secure

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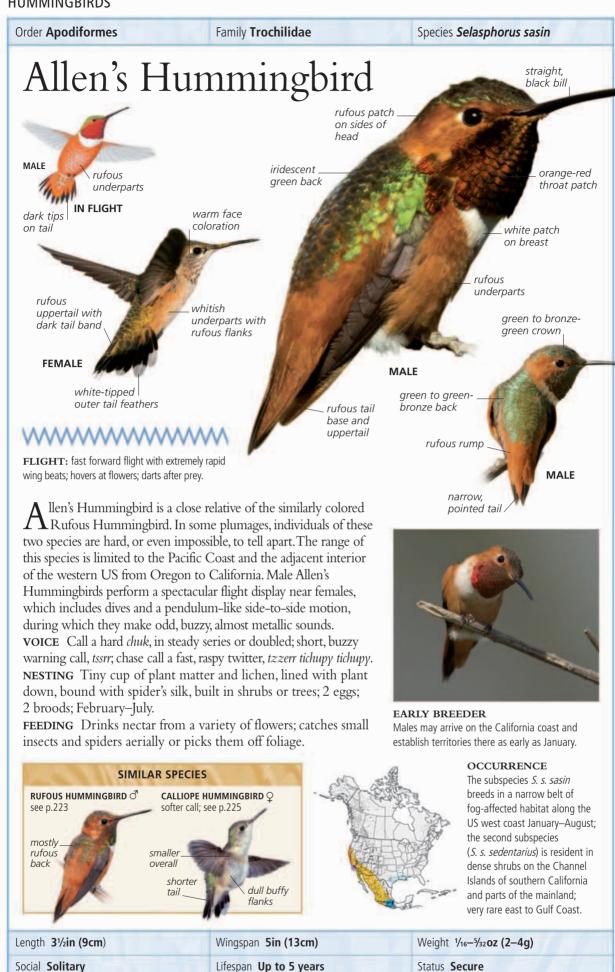
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Status Secure

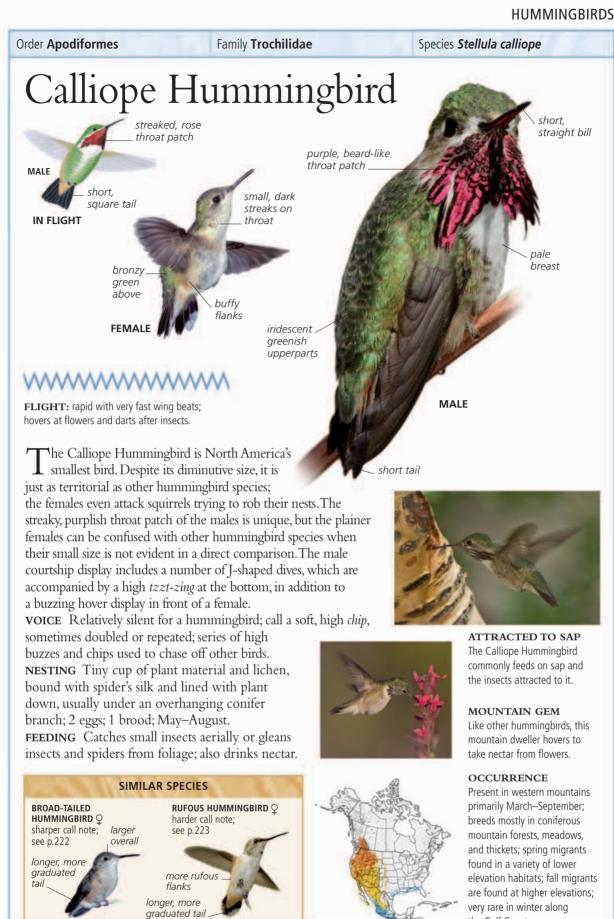
Lifespan Up to 12 years

Social Solitary



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Wingspan 41/4in (10.5cm)

Lifespan Up to 12 years

Length 31/4in (8cm)

Social Solitary

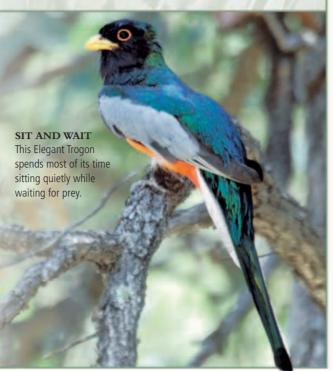
the Gulf Coast.

Weight 1/16-5/32 oz (2-4g)

Status Secure

TROGONS

ROGONS ARE WIDESPREAD birds of the tropical and subtropical forests of the world, but only one, the Elegant Trogon, regularly occurs north of Mexico. Like woodpeckers, parrots, and some other arboreal birds, they have four toes arranged in opposing pairs for grasping branches. Uniquely in trogons, the inner toe is reversed, instead of the outer toe as in other birds. Most species have long, square tails with distinctive black-and-white bands on the underside. Trogons have a slow, undulating flight pattern similar to that of woodpeckers, although they can easily outpace a predator if necessary. Trogons are also famously thin-skinned—to such an extent that their feathers are poorly anchored and easily fall out when they fly.



Family Alcedinidae

KINGFISHERS

Kingfishers are a primarily tropical family that apparently originated in Australasia. Three species are found in the US and Canada, but only one, the Belted Kingfisher, is widespread. Like most species of kingfishers, these birds are large-headed and large-billed but have comparatively short legs and toes. Although North American kingfishers lack the array of bright blues, greens, and reds associated with their

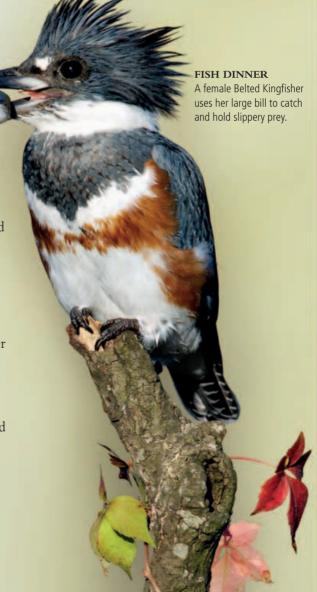
tropical and European counterparts, they are striking birds, distinguished

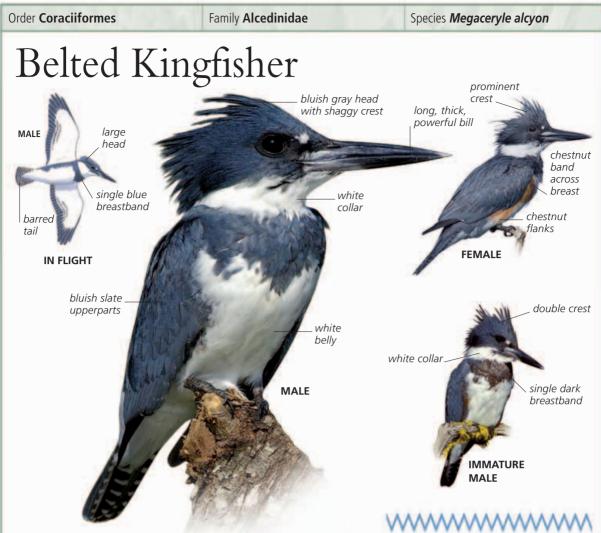


DAZZLING GEMThe tropical Green Kingfisher, which is only found in Texas, is a small and striking species.

by chestnut-colored chest bands and white underparts. North American kingfisher species are primarily fish-eaters but also eat frogs and crayfish. After catching a fish, they routinely stun their prey by beating it against a perch, before turning the fish around so that it can be eaten

head first. Smaller species such as the Green Kingfisher are shy and not often seen. North American and South American kingfishers are almost always found near water, including lakes, estuaries, rivers, and brooks. In other parts of the world, however, such as Australia, several species are terrestrial, and live in a variety of habitats ranging from savanna to woodland, often far from water.





Its stocky body, double-pointed crest, large head, and contrasting white collar distinguish the Belted Kingfisher from other species in its range. This kingfisher's loud and far-carrying rattles are heard more often than the bird is seen. Interestingly, it is one of the few birds in North America in which the female is more colorful than the

male. The Belted Kingfisher can be found in a large variety of aquatic habitats, both coastal and inland, vigorously defending its territory, all year round.

VOICE Harsh mechanical rattle given in flight or from a perch; sometimes emits screams or trill-like warble during breeding.

NESTING Unlined chamber in subterranean burrow 3–6ft (1–2m) deep, excavated in earthen bank usually over water, but sometimes in ditches, sand, or gravel

pits; 6–7 eggs; 1 brood; March–July.

FEEDING Plunge-dives from branches or wires to catch a wide variety of fish near the surface, including sticklebacks and trout; also takes crustaceans, such as crayfish.





CATCH OF THE DAY
The female's chestnut belly band
and flanks are clearly visible here
as she perches with her catch.

FLIGHT: strongly flaps its wings and then glides after two or three beats; frequently hovers.



Breeds and winters around clear, open waters of streams, rivers, lakes, estuaries, and protected marine shorelines, where perches are available and prey is visible. Avoids water with emergent vegetation.

Northern populations migrate south to Mexico, Central

America, and the West Indies.

Length 11–14in (28–35cm)	Wingspan 19–23in (48–58cm)	Weight 5–6oz (150–175g)
Social Solitary	Lifespan Unknown	Status Secure

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WOODPECKERS

THE THREE GROUPS of closely related species that constitute the family Picidae are found throughout North America. They are a physically striking group adapted to living on tree trunks.

WOODPECKERS

Typical North American woodpecker species share a distinct set of characteristics and behaviors. They use pecking and drumming to construct nests and communicate. This is made possible by a very thick skull, adapted to withstand the shock of continually pecking wood. Woodpeckers nest in cavities in dead trees, and are vulnerable to the loss of their specialized habitats due to forest clearing.

SAPSUCKERS

Sapsuckers feed on tree sap as a primary source of nourishment for both adults and their young. They have tongues tipped with stiff hairs to allow

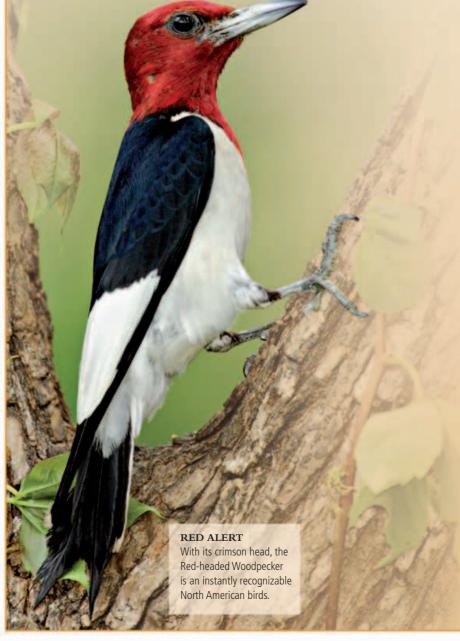
sap to stick to them. The holes sapsuckers create in order to extract sap from trees attract insects, which make up the main protein source in the sapsucker diet. Because sapsuckers damage living trees, some orchard growers consider them to be pests.



BALANCING ACT
The Yellow-bellied Sapsucker rests its stiff tail against a tree to maintain its balance.

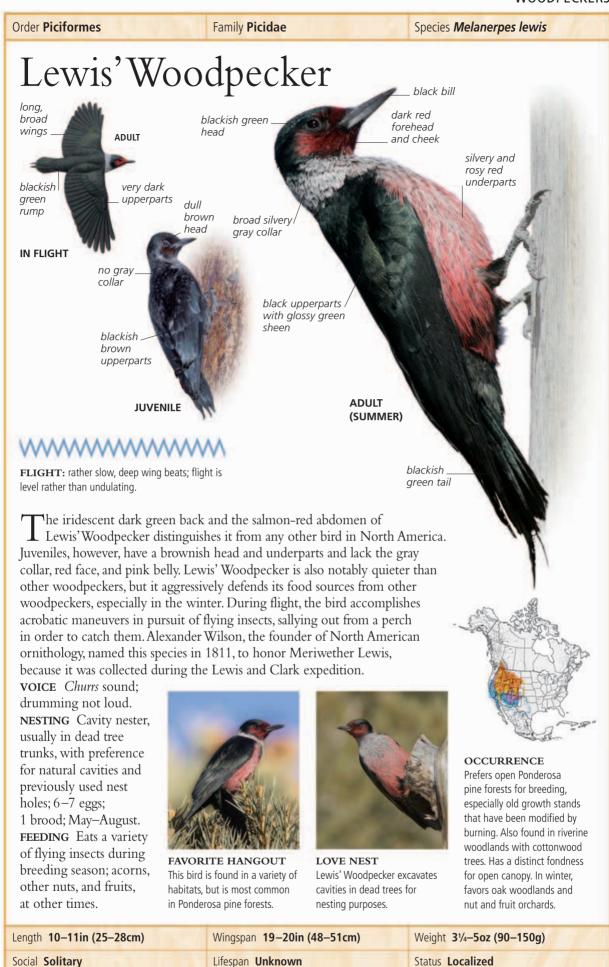
FLICKERS

Flickers are relatively large members of the family Picidae and spend more time feeding on the ground than other woodpeckers, consuming ants and other insects. They often forage in open areas around human habitation. Flickers are notable for their colorful underwing feathers and their distinctive white rumps.





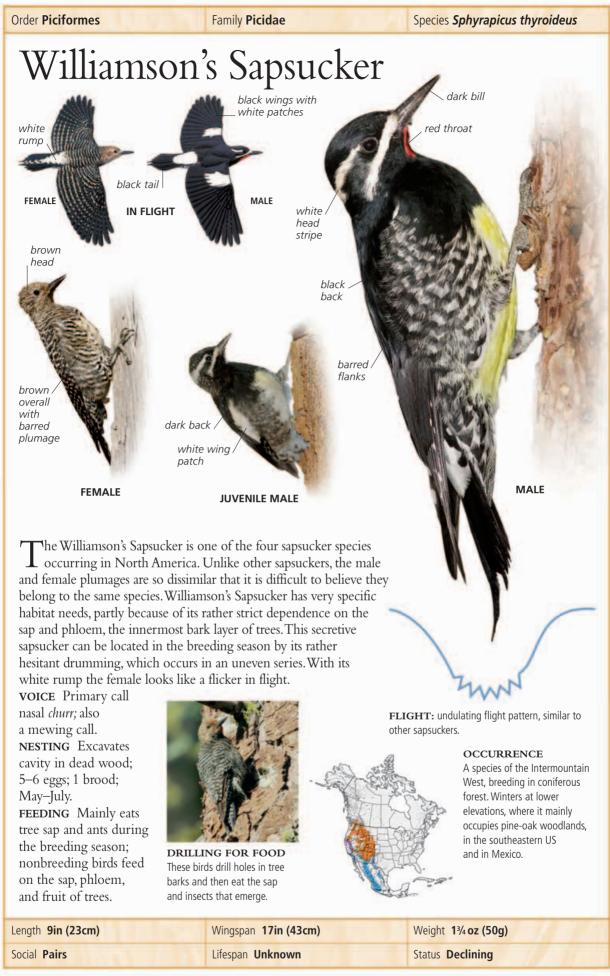
COMMON FLICKER
The Northern Flicker can
be found across the entire
North American continent.
This male belongs to the
western red-shafted form.



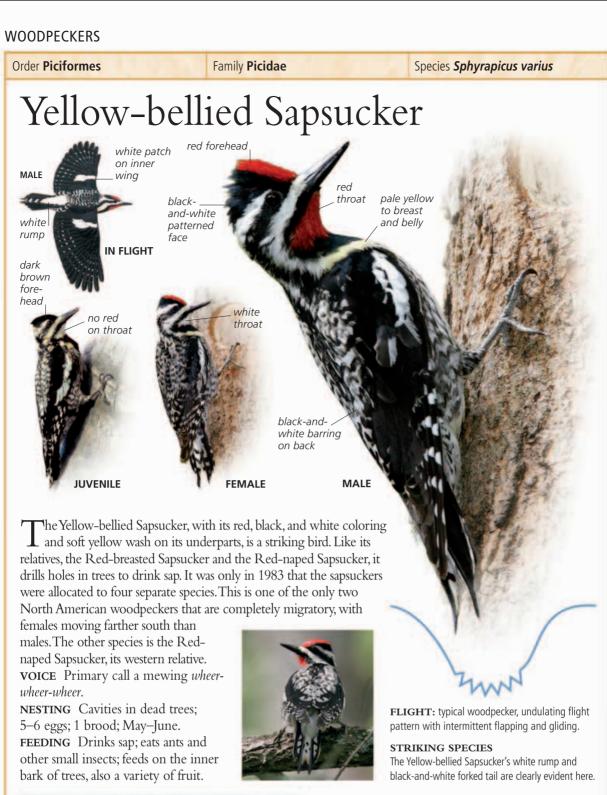
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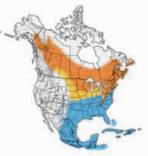
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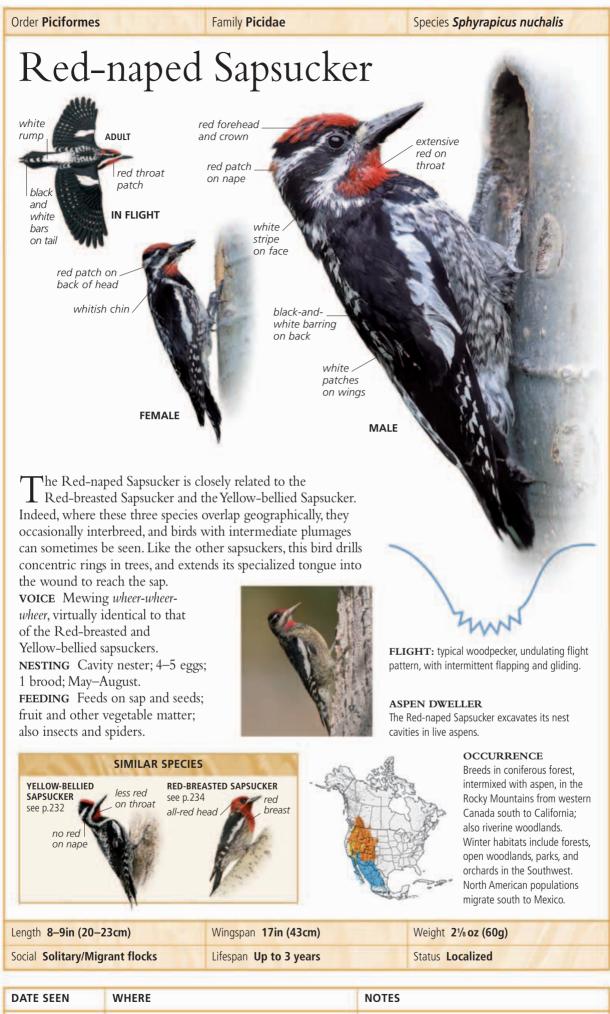


OCCURRENCEBreeds in eastern Alaska,

Breeds in eastern Alaska, Canada, and south to the Appalachians. Prefers either deciduous forests or mixed deciduous-coniferous forests; preferably young forests. In winter, it is found in open wooded areas in southeastern states, Caribbean islands, and Central America.

Length 8–9in (20–23cm)	Wingspan 16–18in (41–46cm)	Weight 13/4 oz (50g)
Social Solitary/Pairs	Lifespan Up to 7 years	Status Secure

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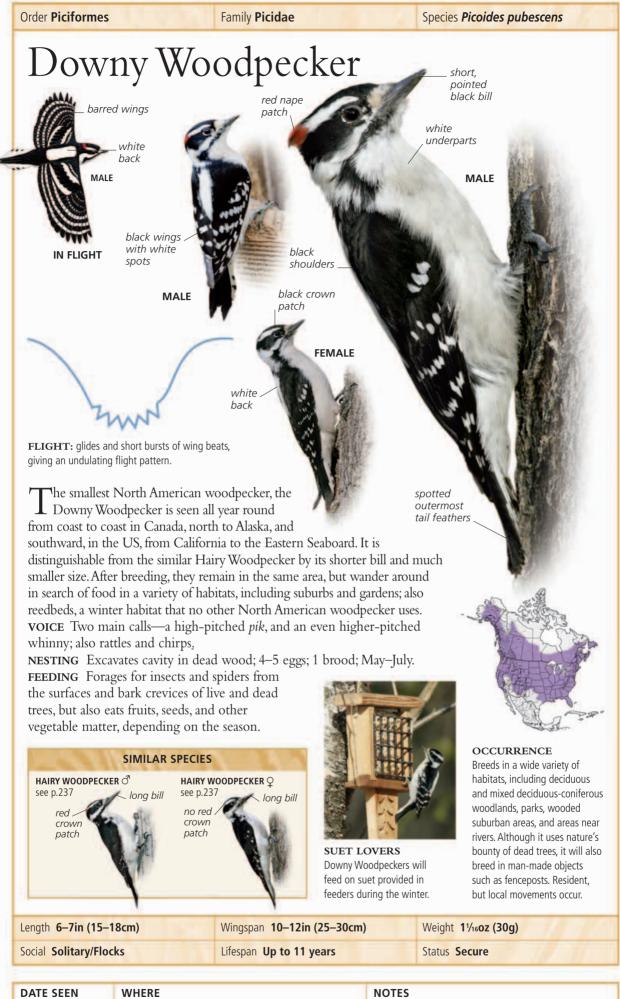
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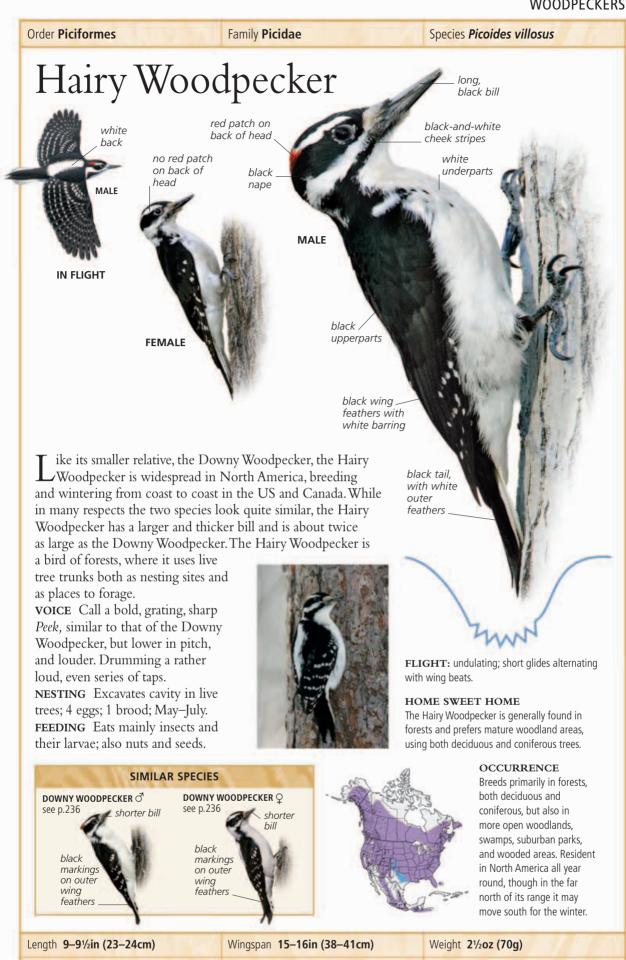
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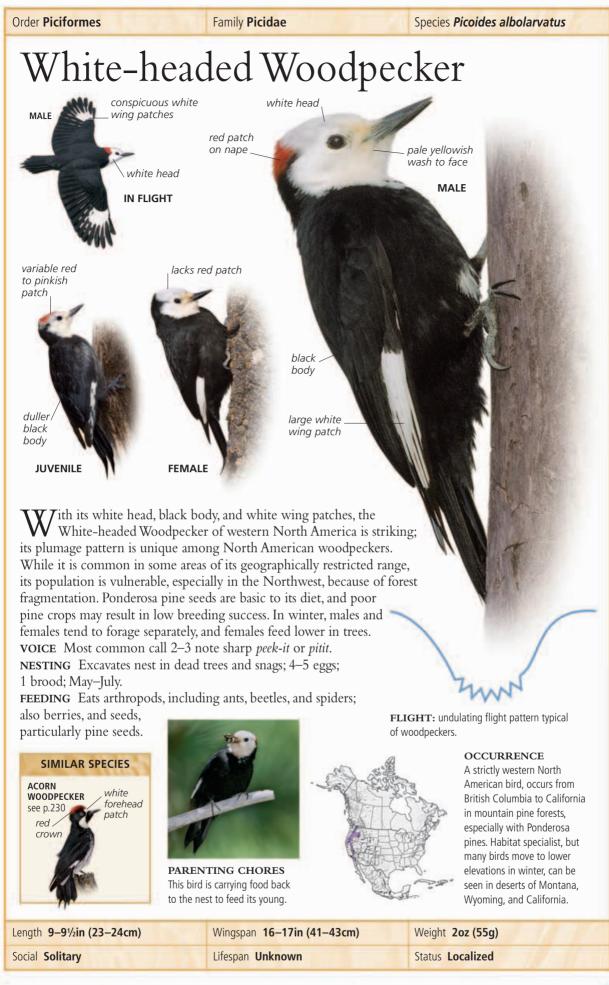
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Status Secure

Lifespan At least 16 years

Social Solitary/Winter flocks



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American Three-toed Woodpecker



This subspecies, formerly a separate species, breeds farther north than any other North American woodpecker, including its close relative, the Black-backed Woodpecker.

FEMALE

It resembles the Black-backed Woodpecker in terms of size and head markings, and because they are the only two North American woodpeckers with three toes on each foot. The population of this woodpecker is decreasing as a result of habitat loss. This bird and its relative require mature forests with old or dead trees.

VOICE Call notes queep, quip, or pik; generally quiet, likened to the Yellow-bellied Sapsucker.

NESTING Excavates cavity mainly in dead or dying wood, sometimes in live wood; 4 eggs; 1 brood; May-July.

FEEDING Flakes off bark and eats insects underneath, mainly the larvae of Bark Beetles.

Length 8-9in (20-23cm)

Social Solitary/Pairs



SIMILAR SPECIES

BLACK-BACKED WOODPECKER

Lifespan Unknown

FLIGHT: undulating flight with rapid wing beats typical of other woodpeckers.

COLOR VARIATION

Status Vulnerable

slightly

forked tail

The streaks on this species' back are highly variable; some populations have nearly all-white backs.



OCCURRENCE

black tail, with

white outer tail

feathers

Breeds in mature northern coniferous forests across Canada and through the ockies. Since it is largely onmigratory, this is also ne winter habitat for most opulations, although it is ound in more open areas winter.

solid black back		Rockies. Since it is la nonmigratory, this is the winter habitat fo populations, althoug found in more open in winter.
Wingspan 15in (38cm)	Weight	2 ¹ / ₄ -2 ¹ / ₂ oz (65-70g)

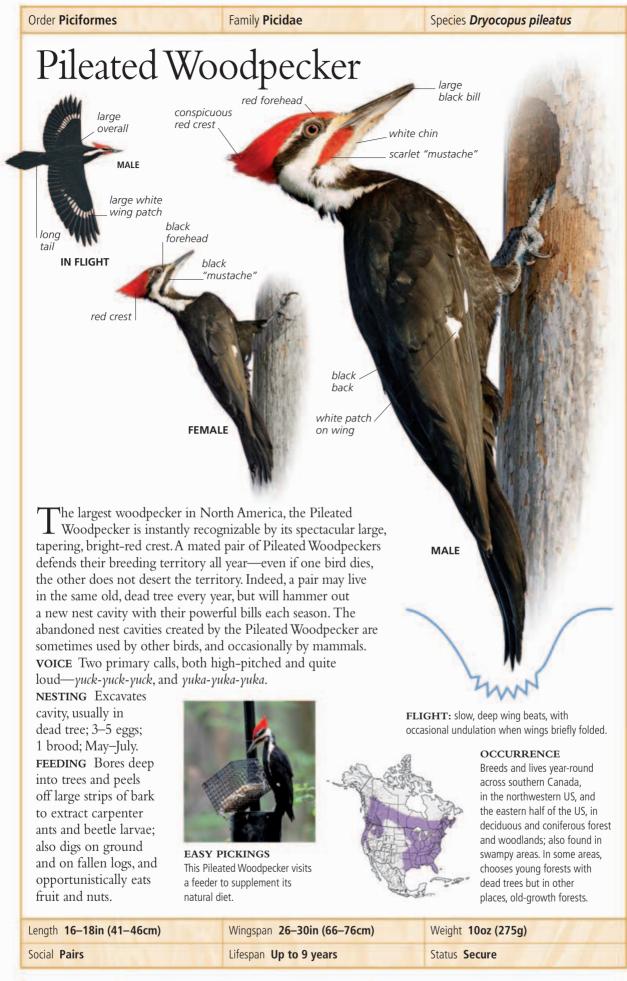
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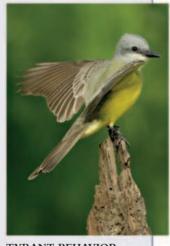
FLYCATCHERS

BIRDS POPULARLY KNOWN as "flycatchers" occur in many parts of the world, but songbirds in several different families have this name. With the exception of some Old World flycatchers that stray into Alaska, the North American species are members of a single family—the Tyrant Flycatchers (Tyrannidae). With about 400 species, this is the largest bird family in the New World. These birds are uniform in appearance, with only a hint of the diversity in the family that is found in Central and South America. Most are drab-colored, olive-green or

gray birds, sometimes with yellow underparts. The Vermilion Flycatcher is a striking exception, as is the gray and salmon-pink

ERECT STANCE

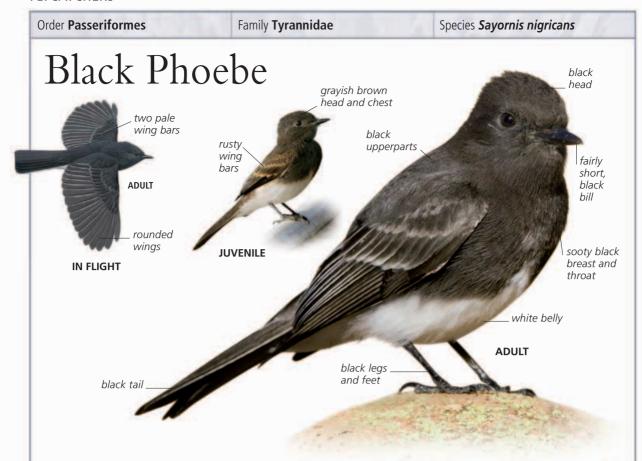
A large headed look and erect posture are typical of this Eastern Phoebe. This species is rare in the West. Scissor-tailed Flycatcher, which also has elongated outer tail feathers. Members of the genus Empidonax include some of the most difficult birds to identify in North America; they are best distinguished by their songs. Typical flycatcher feeding behavior is to sit on a branch or exposed perch, then sally to catch flying insects. Tyrannid flycatchers are found across North America, except in Arctic regions. Many live



TYRANT BEHAVIORSuch aggressive display by
Couch's Kingbird reflects its
English and generic names.

in wooded habitats, though others prefer woodland edges and deserts. Nearly all flycatchers are long-distance migrants and spend the northern winter in Central and South America.





North America's only black-and-white flycatcher, the distinctive Black Phoebe is found in the southwestern part of the continent, where it is a year-round resident. This area is the northernmost part of the bird's range, which extends southward to Argentina. This species is commonly found close to water, where it conducts most of its foraging. It has even been known to dive into ponds to capture minnows—an unusual foraging method for a flycatcher. In the breeding season the male shows his mate potential nest sites by hovering in front of a likely spot, with the female deciding where the nest will eventually be.

VOICE Simple *tsip* call; also *tweedle-deedle-eek* during courting or when chasing rivals; song a *tee-hee*, *tee-hoo* or *sisee*, *sitsew*. **NESTING** Open cup of mud mixed with grass, cemented to wall, or under bridge, cliff, or eave; 2–5 eggs; 2–3 broods; March–June. **FEEDING** Mainly catches flying insects, but will also pick insects from ground; occasionally dives for small fish; also eats berries.



FLIGHT: direct with steady wing beats; hovers while foraging; vertical zig-zag courting display.



PERCHED AND ALERTThe Black Phoebe perches in an upright position, with its tail dipping and fanning.

SAY'S PHOEBE See p.245 See p.259 paler upperparts Cinnamon belly White breast and throat



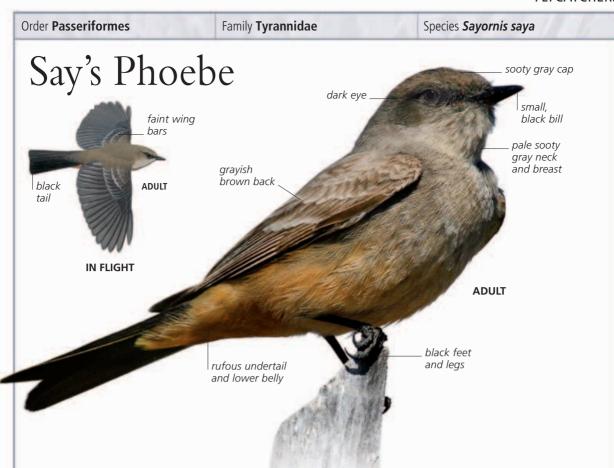
OCCURRENCE

In the US, breeds and winters in Oregon, California, Nevada, Utah, Arizona, New Mexico, and Texas, in areas close to water, such as coastal cliffs, banks of rivers, streams, lakes, and ponds. Also seen at fountains and cattle troughs. Forages in open areas over water or grassland.

Length 6in (15.5cm)	Wingspan 11in (28cm)	Weight 1/2—11/16 oz (15—20g)
Social Solitary	Lifespan Up to 8 years	Status Secure

DATE SEEN	WHERE	NOTES

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Say's Phoebe breeds farther north than any other flycatcher in its family. Although it is a bird of open country, it is not particularly shy around people, and from early spring to late fall is a common sight on ranches and farms. Its contrasting dark cap is conspicuous even at a distance as it perches on bushes, boulders, or power lines, often wagging its tail. Shortly after a pair is formed on the breeding grounds, the male will hover in front of potential nest sites, in a manner similar to the Black Phoebe. The pair bond among Say's Phoebes is relatively weak, though, and does not last through the summer. **VOICE** Call a pee-ee or pee-ur, also a whistled churr-eep, which may be integrated with a chatter; primary song a pit-see-eur and pit-eet. NESTING Shallow cup of twigs, moss, or stems on ledge or in rocky crevice; 3-7 eggs; 1-2 broods; April-July.

FEEDING Catches insects in flight, such as beetles, wasps, grasshoppers, and crickets; also eats berries.



chases may be erratic; hovers while foraging.



HOVERING MALE Say's Phoebes characteristically hover in the breeding season.

SIMILAR SPECIES VERMILLION CASSIN'S KINGBIRD see p.257 see p.448 arav-olive pale upperparts eyebrow white throat faintly streaked vellow belly breast

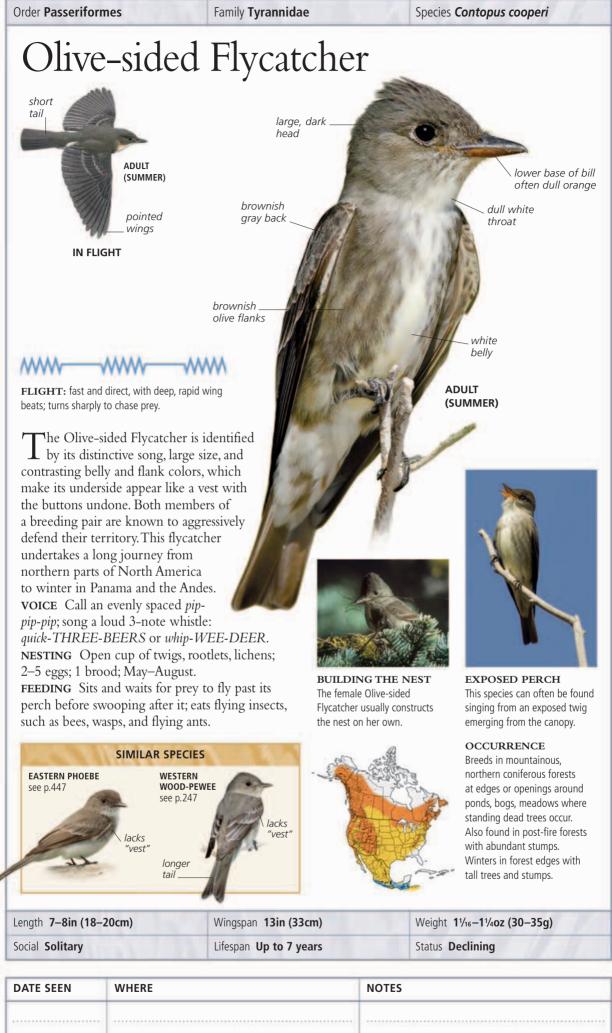


OCCURRENCE

Breeds in dry, open, or semi-open country, such as desert canyons, sagebrush ranch, and agricultural areas; generally avoids watercourses. Birds in the southwestern US are resident year-round, but those breeding farther north fly south for the winter.

Length 7in (17.5cm)	Wingspan 13in (33cm)	Weight 11/16 0z (20g)
Social Solitary	Lifespan At least 3–4 years	Status Secure

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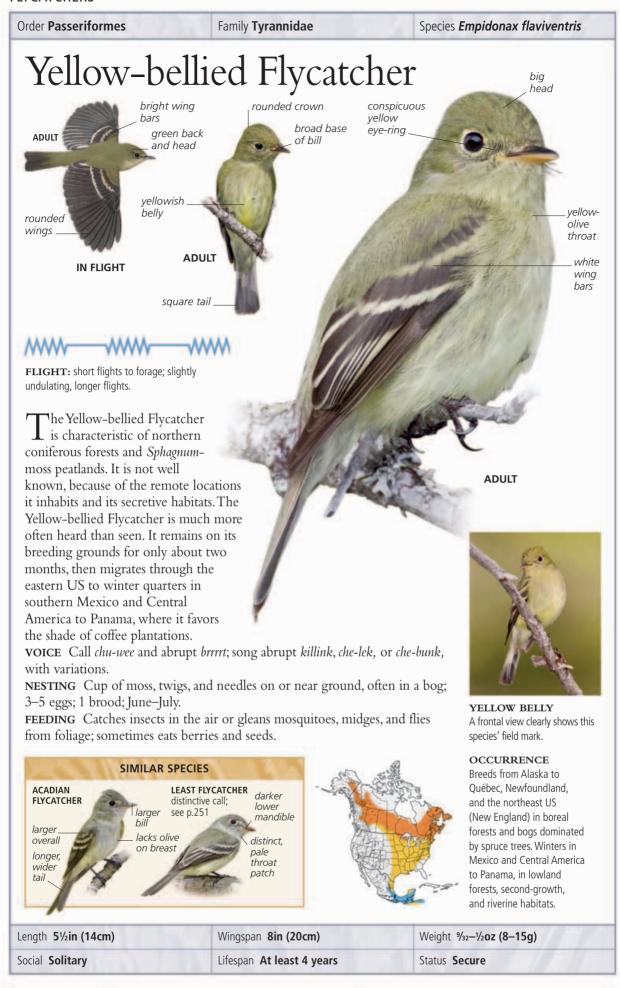


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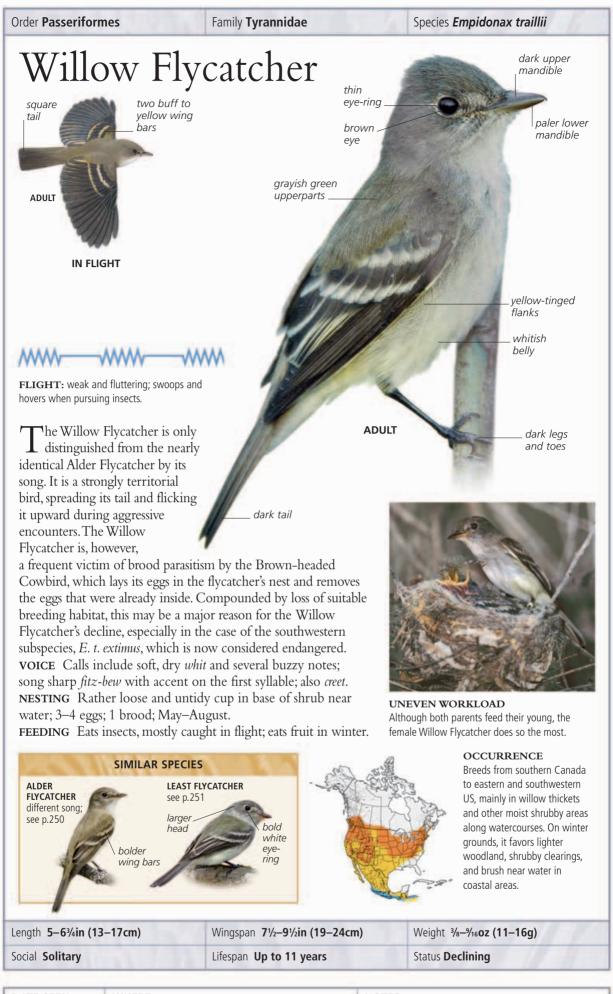
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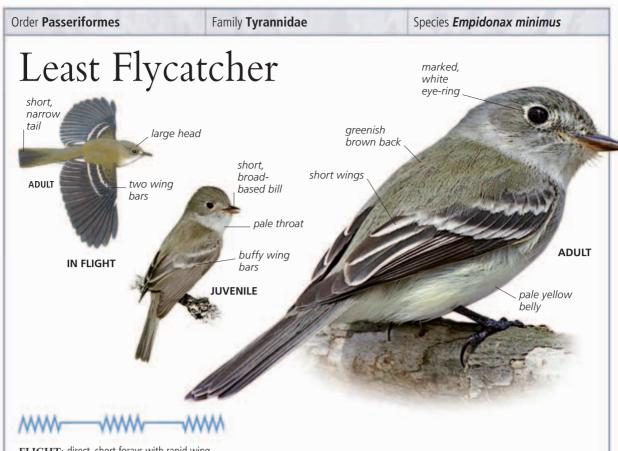
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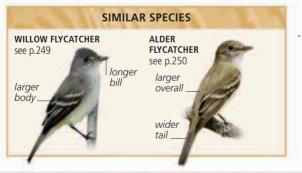


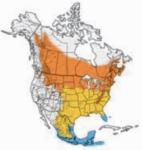
FLIGHT: direct, short forays with rapid wing beats to catch prey; sometimes hovers briefly.

The smallest eastern member of the *Empidonax* genus is a solitary bird and is very aggressive towards intruders encroaching upon its breeding territory, including other species of flycatcher. This combative behavior reduces the likelihood of acting as unwitting host parents to eggs laid by the Brown-headed Cowbird. The Least Flycatcher is very active, and frequently flicks its wings and tail upward. Common in the eastern US in mixed and deciduous woodland, especially at the edges, it spends a short time—up to only two months—on its northern breeding grounds before migrating south. Adults molt in winter, while young molt before and during fall migration. **VOICE** Call soft, short *whit*; song frequent, persistent, characteristic *tchebeck*, sings during spring migration and breeding season.

NESTING Compact cup of tightly woven bark strips and plant fibers in fork of deciduous tree; 3–5 eggs; 1 brood; May–July.

FEEDING Feeds principally on insects, such as flies, midges, beetles, ants, butterflies, and larvae; occasionally eats berries and seeds.







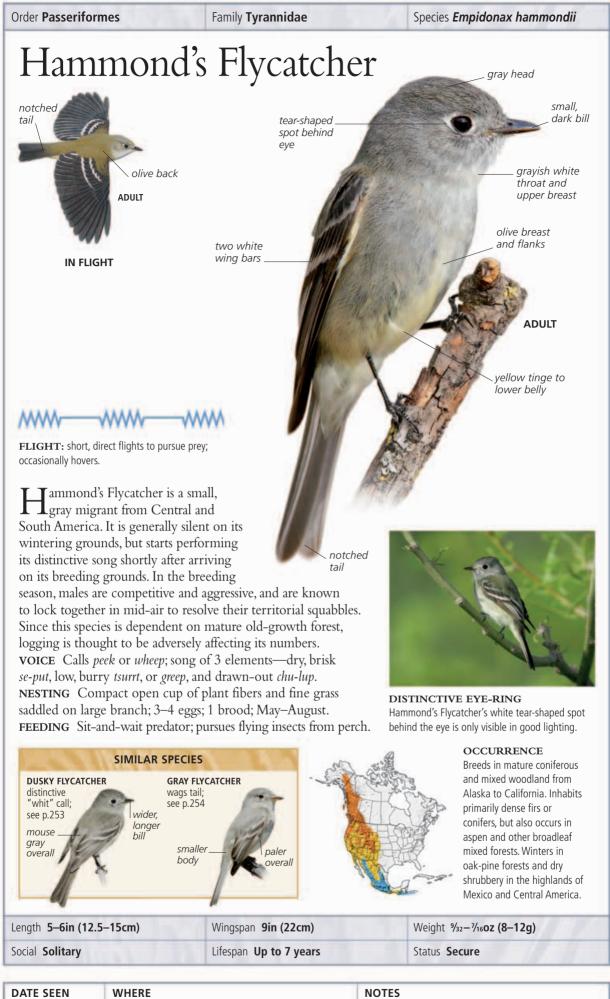
YELLOW TINGE
The subtle yellow tinge to its underparts and white undertail feathers are evident here.

OCCURRENCE

Breeds in coniferous and mixed deciduous forests across North America, east of Rockies to East Coast; occasionally in conifer groves or wooded wetlands, often near openings or edges. Winters in Central America in varied habitat from second-growth evergreen woodland to arid scrub.

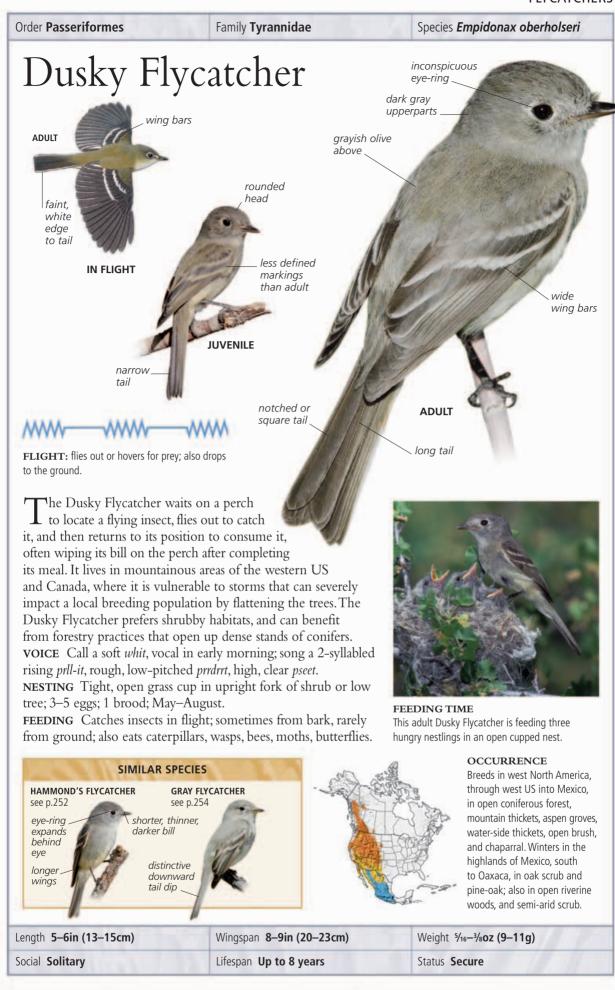
Length 5 1/4in (13.5cm)	Wingspan 7¾in (19.5cm)	Weight 3/32-7/16 0z (8-13g)
Social Solitary	Lifespan Up to 6 years	Status Secure

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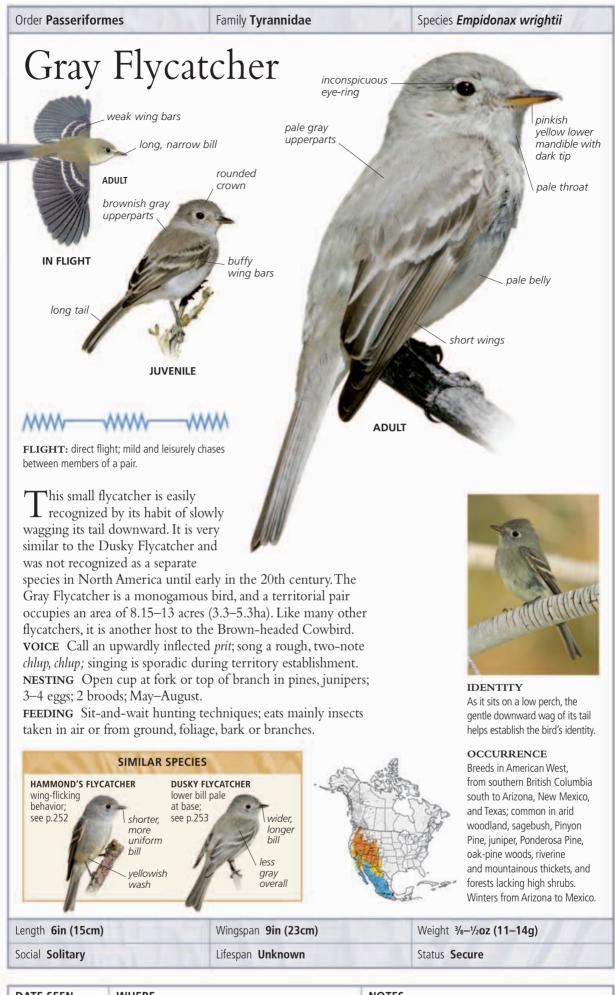
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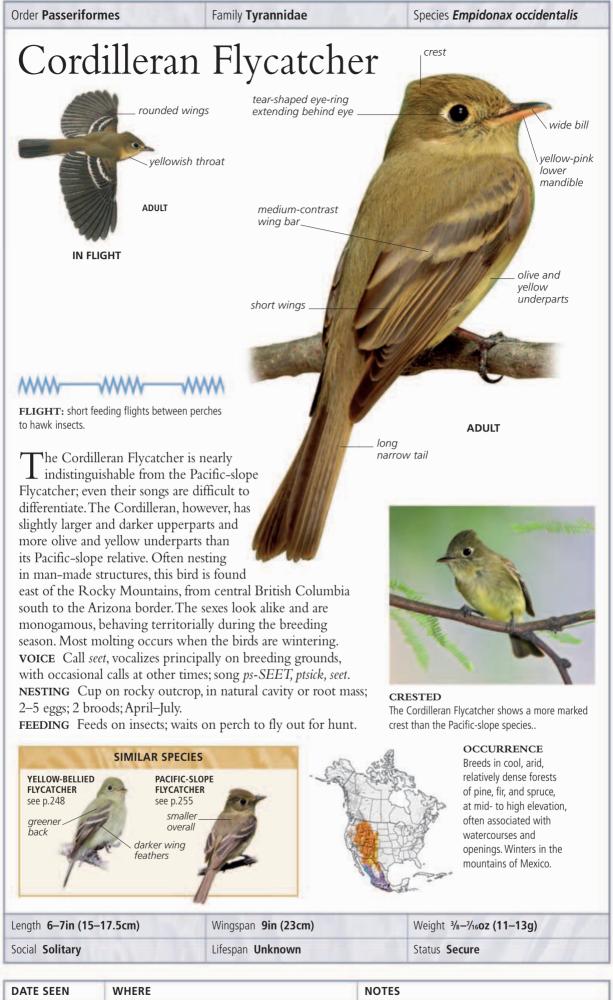


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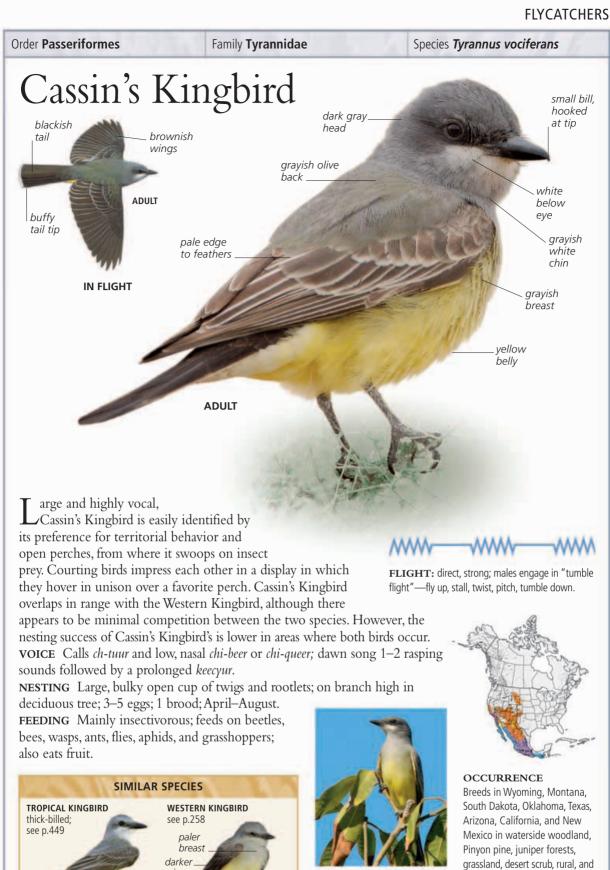
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Length 8–9in (20–23cm)	Wingspan 16in (41cm)	Weight 1%60z (45g)
Social Solitary	Lifespan Unknown	Status Secure

HIGH ALERT

This gray-breasted Cassin's

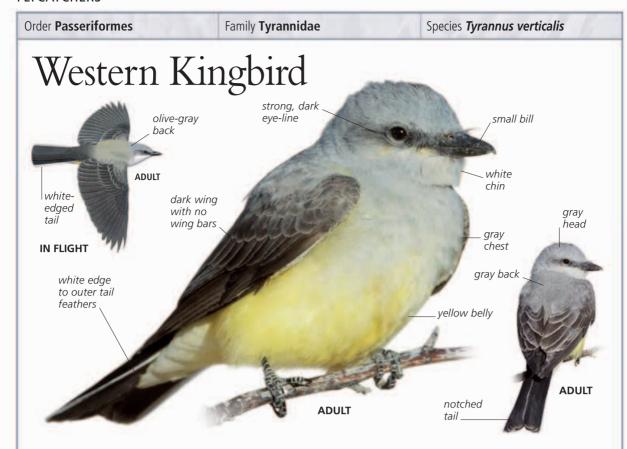
Kingbird is perched and alert in mature riverine woodland.

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suburban habitats. US population

winters south to Mexico and Guatemala, overlapping with

resident population.



A conspicuous summer breeder in the US, the Western Kingbird occurs in open habitats in much of western North America. The white outer edges on its outer tail feathers distinguish it from other kingbirds. Its population has expanded eastward

over the last 100 years. A large, loosely defined territory is defended against other kingbirds when breeding begins in spring; a smaller core area is defended as the season progresses.

VOICE Calls include *whit*, *pwee-t*, and chatter; song, regularly repeated sharp *kip* notes and high-pitched notes.

NESTING Open, bulky cup of grass, rootlets, and twigs in tree, shrub, utility pole; 2–7 eggs; 1 brood; April–July. **FEEDING** Feeds on a wide variety of insects; also berries and fruit.



FENCE POSTA favorite place for the Western Kingbird to perch, and look around, is on fenceposts.

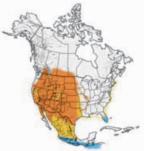


FLIGHT: agile, fast, direct, flapping flight; flies to catch insects; hovers to pick bugs on vegetation.



QUENCHING THIRSTA juvenile Western Kingbird drinks at the edge of a shallow pools of water.





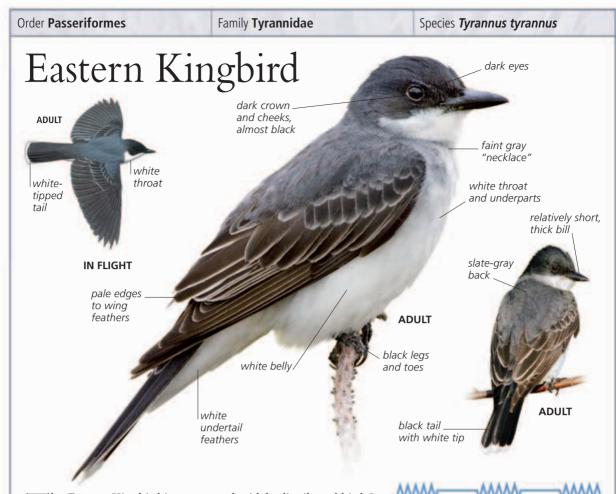
OCCURRENCE

Widespread in southern Canada and the western US, in open habitats, such as grasslands, savannah, desert shrub, pastures, and cropland, near elevated perches; particularly near water. Winters in similar habitats and in tropical forest and shrubbery from Mexico to Costa Rica.

Length 8–9in (20–23cm)	Wingspan 15–16in (38–41cm)	Weight 11/4-19/16 oz (35-45g)
Social Solitary	Lifespan Up to 6 years	Status Secure

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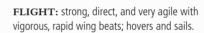


The Eastern Kingbird is a tame and widely distributed bird. It is a highly territorial species and is known for its aggressive behavior toward potential predators, particularly crows and hawks, which it pursues relentlessly. It is able to identify and remove the eggs of the Brown-headed Cowbird when they are laid in its nest. The Eastern Kingbird is generally monogamous and pairs will return to the same territory in subsequent years. This species winters in tropical South America, where it forages for fruit in the treetops of evergreen forests.

VOICE Principal call is loud, metallic *chatter-zeer*; song rapid, electric *kdik-kdik-kdik-pika-pika-pika-kzeeeer*.

NESTING Open cup of twigs, roots, stems in hawthorn, elm, stump, fence, or post; 2–5 eggs; 1 brood; May–August.

FEEDING Catches flying insects from elevated perch or gleans insects from foliage; eats berries and fruit, except in spring.





WHITE-TIPPED

The white-tipped tails of these two Eastern Kingbirds are conspicuous as they sit on a budding twig.



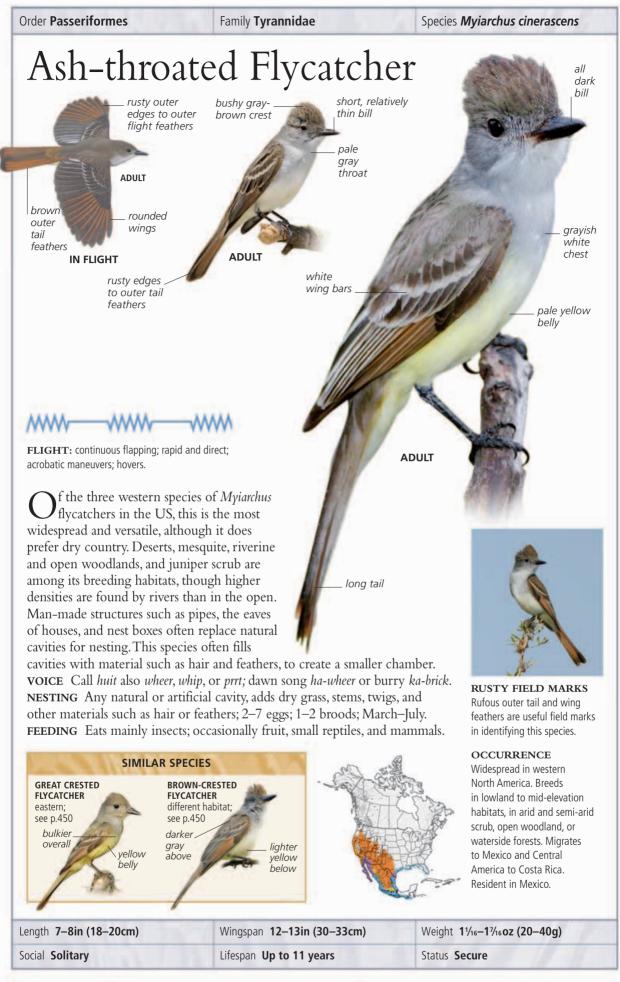


OCCURRENCE

Breeds across much of North America in a variety of open habitats, including urban areas, parks, golf courses, fields with scattered shrubs, beaver ponds, and along forest edges. Long distance migrant; winters in South America, south to Argentina.

Length 7–9in (18–23cm)	Wingspan 13–15in (33–38cm)	Weight 11/16–2oz (30–55g)
Social Solitary/Pairs	Lifespan Up to 7 years	Status Secure

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SHRIKES & VIREOS

SHRIKES

Two of the thirty species of shrikes (Laniidae) occur in Canada and the United States. The Loggerhead Shrike is truly North American, but the other North American species, the Northern (or Gray) Shrike, is also widespread in Europe and western Asia. Shrikes have a strongly hooked bill, almost like a bird of prey. In fact, shrikes capture not only insects, but also birds, rodents, and lizards, which they impale on a thorn in a shrub (a larder). Shrikes pounce down on their prey from high perches in trees or on fenceposts, catching it on or near the ground. Many shrike species are declining.



VIREOS

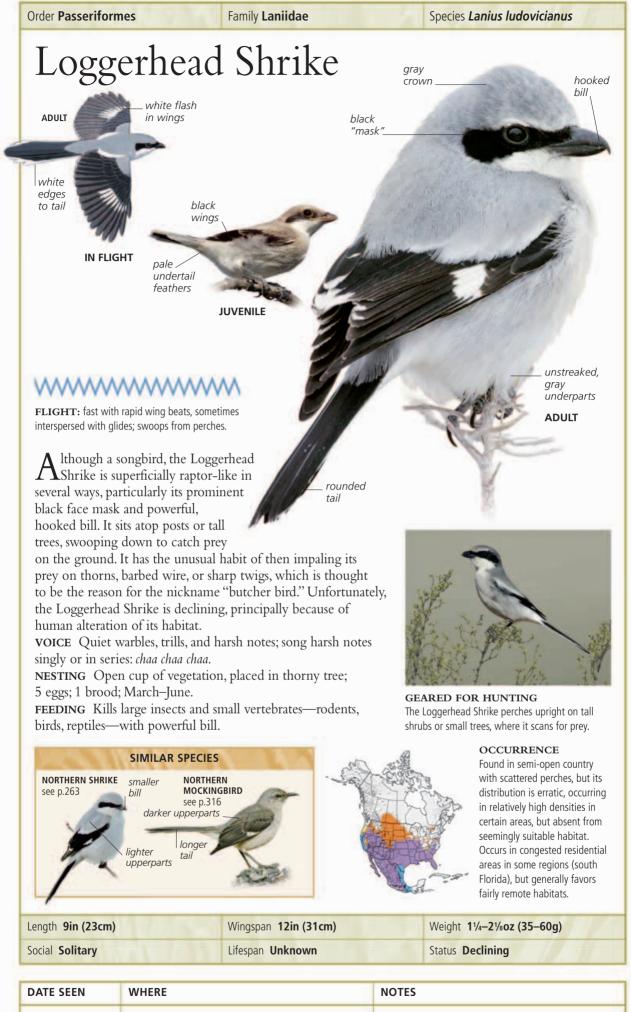
Vireos are a family of songbirds restricted to the New World, with about 15 species occurring in the United States and Canada. Their classification has long been problematic—traditionally they were associated with warblers, but recent

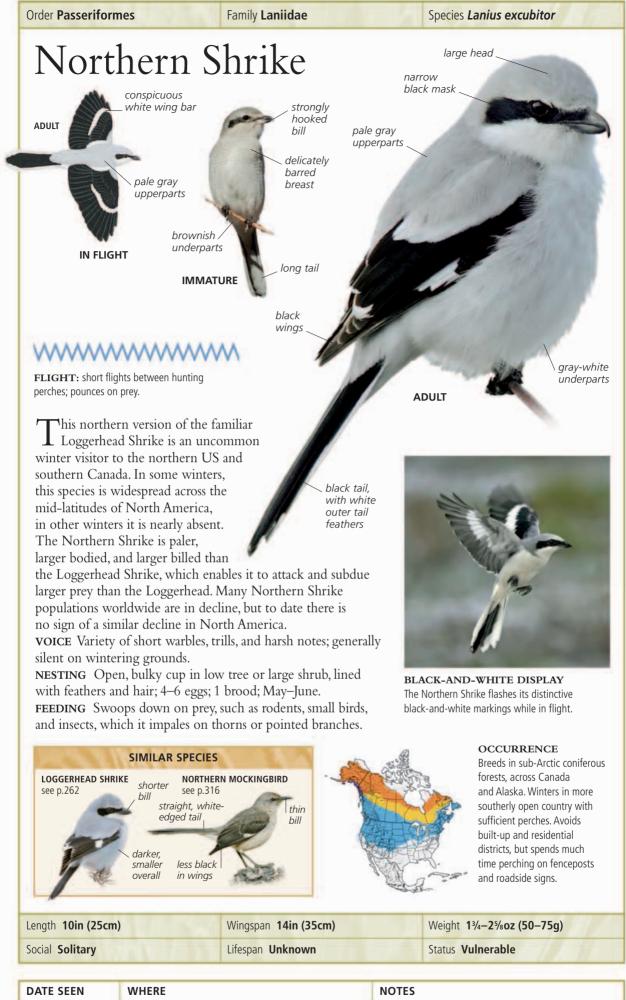


KEEN SONGSTERThe White-eyed Vireo sings almost continuously, even on the hottest of summer days.

molecular studies suggest that they are actually related to crow-like birds. Vireo plumage is drab, often predominantly greenish or grayish above and whitish below, augmented by eye-rings, ("spectacles,") eyestripes, and wing bars. Most vireos have a preference for broadleaved habitats, where they move about deliberately, hopping and climbing as they slowly forage for their prey. They are mainly insect-eaters. Most species are mid- to long-distance migrants, retreating to warmer climes in winter, when insects are dormant. Vireos are most often detected by the male's loud and clear territorial song, which is repetitive and persistent.

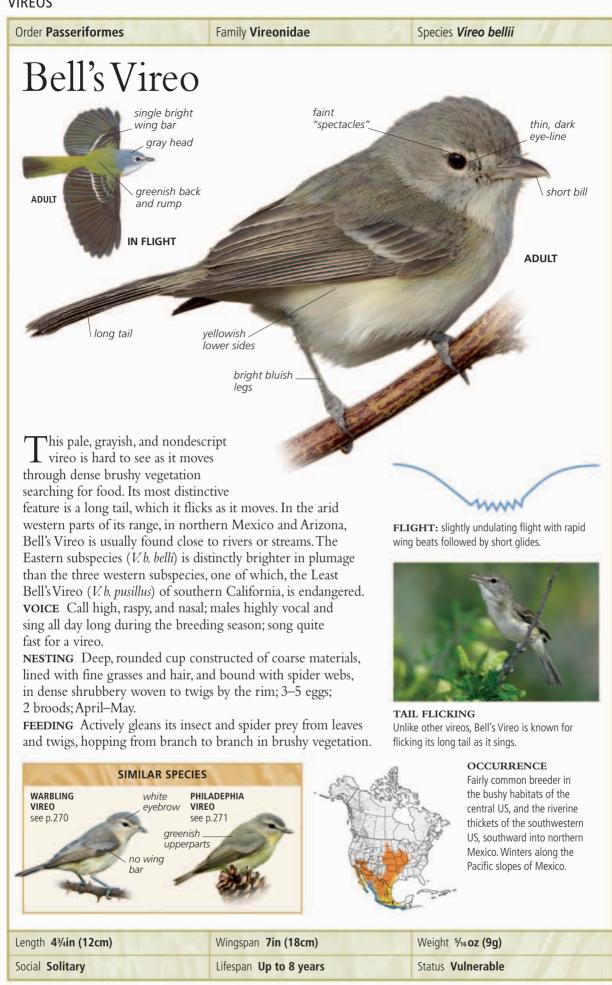
Family Corvidae JAYS & CROWS A LTHOUGH JAYS AND CROWS belong to a highly diverse family, the Corvidae, BLACK AND BLUE Many corvids (especially jays most members share some important such as this Steller's Jay) have characteristics. They are remarkably social, plumage in shades of black, some species even breeding blue, and gray. cooperatively, but at the same time they can be quiet and stealthy. Always opportunistic, corvids use strong bills and toes to obtain a varied, omnivorous diet. Ornithologists have shown that ravens, magpies, and crows are among the most intelligent birds. They exhibit self-awareness when looking into mirrors, can make tools, and successfully tackle difficult counting and problemsolving. As a rule, most corvid plumage comes in shades of blue, black, and white. The plumage of adult corvids does not vary by season. Corvidae are part of an ancient bird lineage (Corvoidea) that originated in Australasia. Crows and jays were among the birds most affected by the spread of West Nile virus in the early 2000s, but most populations seem to have recovered quickly.





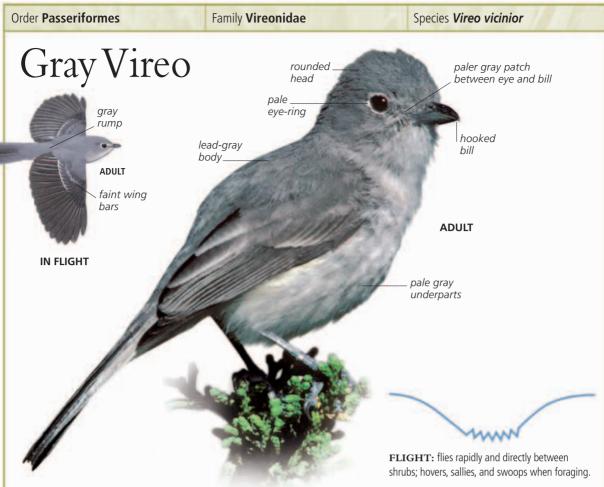
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Adrab, inconspicuous vireo of the hot and arid southwestern US, the Gray Vireo is reminiscent of a miniature shrike in terms of posture and shape. Found mainly in dense, shrubby vegetation such as pinyon and juniper, it is most often detected by its distinctive voice. In its restricted habitat, it can be confused with other small, gray birds such as gnatcatchers, titmice, and the Bushtit.

VOICE Varied calls, include trills and chatters; song given by male, harsh three- to four-note phrase.

NESTING Cup of dry plant materials and spider webs, suspended from twigs by rim, fairly low in

shrub or tree, lined with fine fibers; 3–4 eggs; 1 brood; April–May. **FEEDING** Gleans insects and spiders from leaves, twigs, and branches; also catches flies in flight; in winter, primarily eats fruit.



PERCHED SINGERFrom the top of a shrub, a male sings to declare his ownership of the surrounding territory.



UNCOMMON BIRDThe Gray Vireo is an uncommon little bird and can be difficult to spot in its scrubby habitat.

GRAY FLYCATCHER see p.254 See p.254 See p.288 See p.



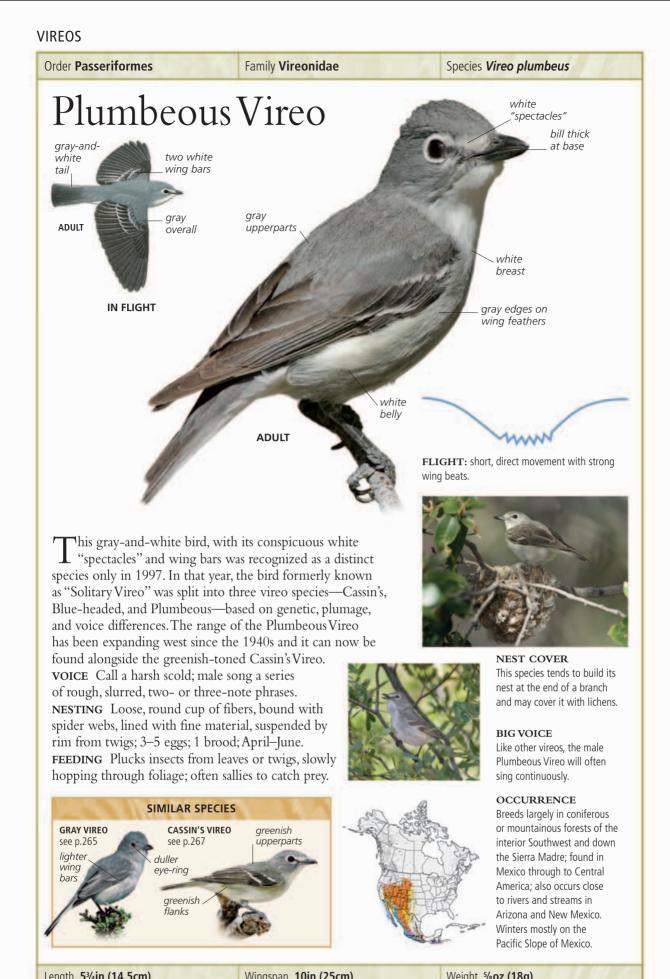
OCCURRENCE Breeds in the hot and arid, shrubby scrublands of the southwestern US, in parts of Nevada, Colorado, Utah, Arizona, New Mexico, and Texas; short-distance migrant. Winters largely in Mexico,

in similarly arid areas.

Length 5½in (14cm)	Wingspan 8in (20cm)	Weight 1/16 0z (13g)
Social Solitary/Pairs	Lifespan Up to 5 years	Status Localized

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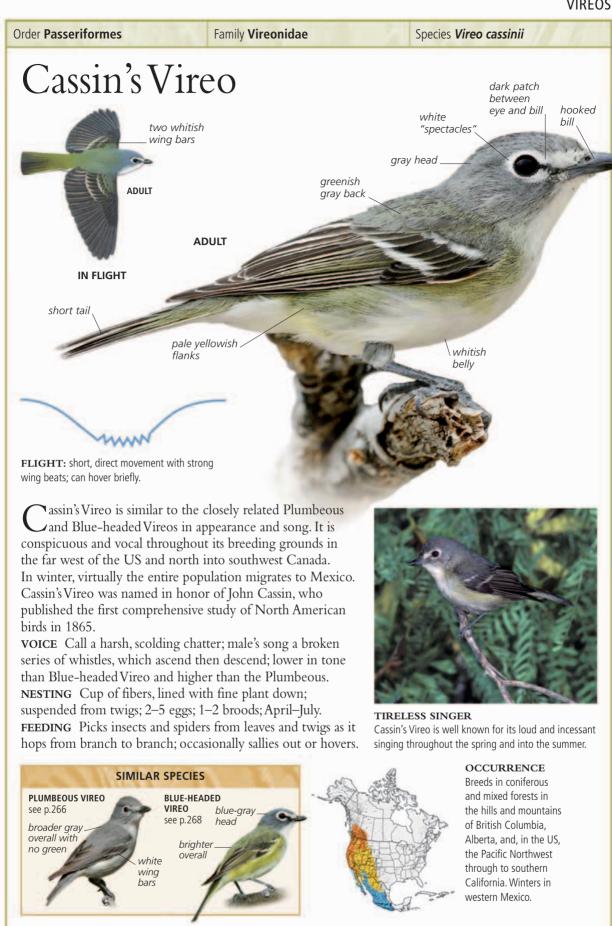
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Social Solitary	ciny	Lifespan Unknown		Status Secure
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Weight %160z (16g)

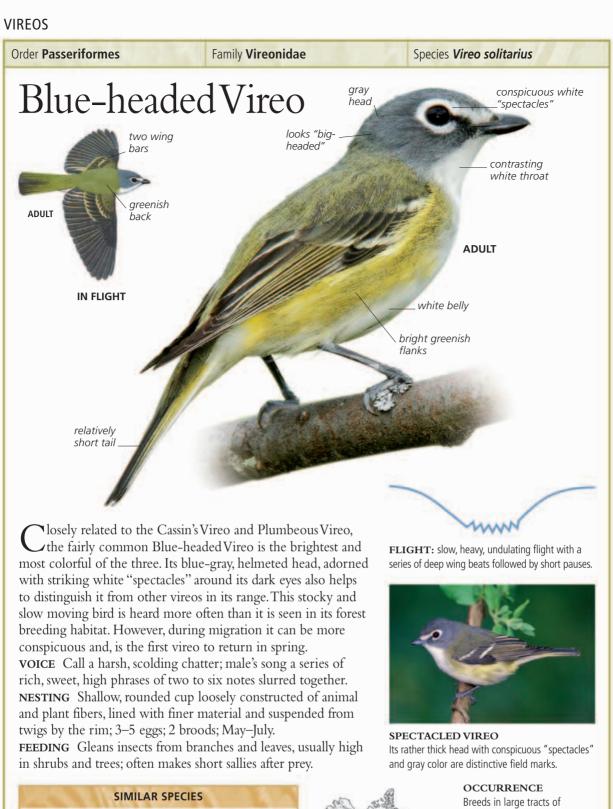
Status Secure

Wingspan 91/2 in (24cm)

Lifespan Unknown

Length 5½ in (14cm)

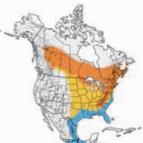
Social Solitary/Pairs



SIMILAR SPECIES

BLACK-CAPPED VIREO © CASSIN'S VIREO See p.450 See p.267

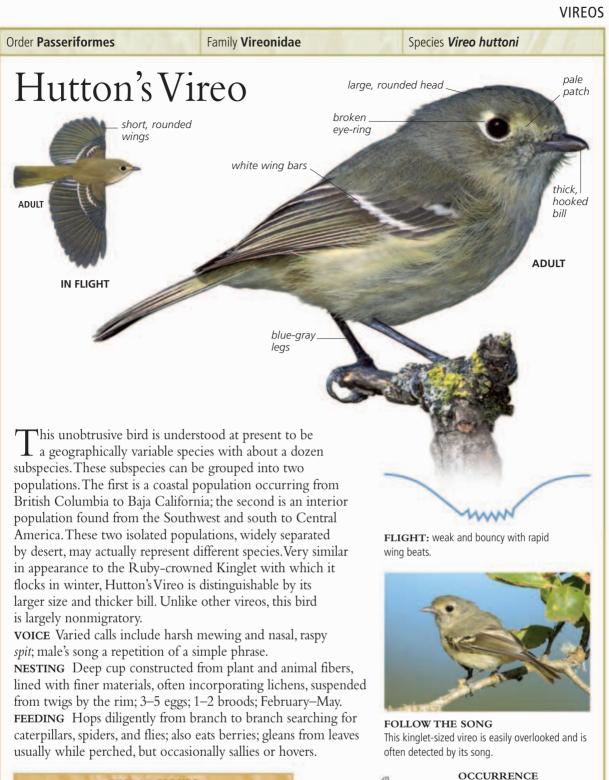
smaller overall thin bill duller overall



Breeds in large tracts of undisturbed coniferous and mixed forests with a rich understory, largely across eastern North America. It winters in woodlands across the southeastern US from Virginia to Texas, as well as in Mexico and northern Central America to Costa Rica.

Length 5½in (14in)	Wingspan 9½in (24cm)	Weight %6 oz (16g)
Social Solitary/Pairs	Lifespan Up to 7 years	Status Secure

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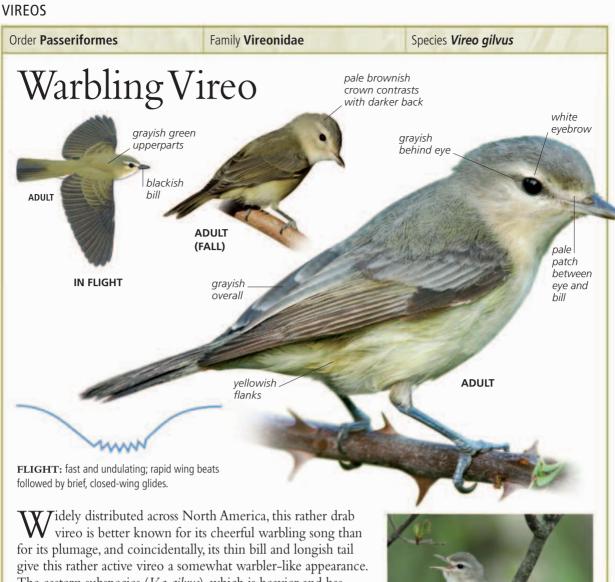




Year-round resident in mixed evergreen forests; particularly common in live oak woods. Breeds in mixed oak-pine woodlands along the Pacific coast from British Columbia southward to northern Baia California, and from southwest California and New Mexico to Mexico and Guatemala.

Length 5in (13cm)	Wingspan 8in (20cm)	Weight 3%oz (11g)
Social Solitary/Pairs	Lifespan Up to 13 years	Status Secure

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Vireo is better known for its cheerful warbling song than for its plumage, and coincidentally, its thin bill and longish tail give this rather active vireo a somewhat warbler-like appearance. The eastern subspecies (*V.g. gilvus*), which is heavier and has a larger bill, and the western subspecies (*V.g. swainsonii*) are quite different and may in fact be separate species. Out of all the vireos, the Warbling Vireo is most likely to breed in human developments, such as city parks, suburbs, and orchards.

VOICE Harsh, raspy scold call; male's persistent song a high, rapid, and highly variable warble.

NESTING Rough cup placed high in a deciduous tree, hung from the rim between forked twigs; 3–5 eggs; 2 broods; March–July. **FEEDING** Gleans a variety of insects, including grasshoppers, aphids, and beetles from leaves; eats fruit in winter.



PLAIN-LOOKING SONGSTER
The Warbling Vireo makes up for its plain appearance by its colorful voice, full of rounded notes and melodious warbles.

SIMILAR SPECIES BELL'S VIREO PHILADELPHIA dark line extends see p.264 see p.271 to bill faint wing bar shorter bill longei tail ellow on breast and throat

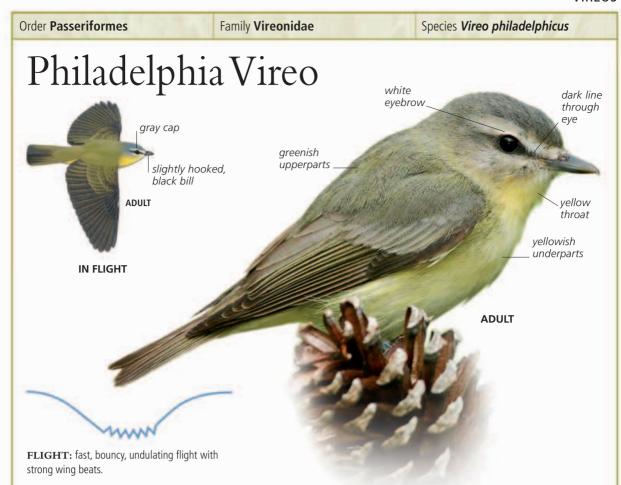


OCCURRENCE

Extensive distribution across most of temperate North America, from Alaska, around the northern limit of the northerly zone, and through western, central, and eastern North America. Breeds in deciduous and mixed forests, particularly near water. Winters in southern Mexico and Central America.

Length 5½in (14cm)	Wingspan 8½in (21cm)	Weight 1/16 0z (12g)
Social Solitary/Pairs	Lifespan Up to 13 years	Status Secure

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espite being widespread, the Philadelphia Vireo remains rather poorly studied. It shares its breeding habitat with the similar looking, but larger and more numerous, Red-eyed Vireo, and, interestingly, it modifies its behavior to avoid competition. It is the most northerly breeding vireo, with its southernmost breeding range barely reaching the US. Its scientific and English names derive from the fact that the bird was first discovered near Philadelphia in the mid-19th century.

VOICE Song a series of two and four note phrases, remarkably similar to the song of the Red-eyed Vireo.

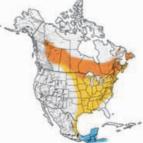
NESTING Rounded cup of plant fibers bound by spider webs, hanging between forked twigs that narrows at the rim; 3-5 eggs; 1–2 broods; June–August.

FEEDING Gleans caterpillars, bees, flies, and bugs from leaves; usually forages high in trees, moving with short hops and flights.



DISTINGUISHED APPEARANCE The Philadelphia Vireo's gentle expression and pudgy appearance help separate it from its neighbor, the Red-eyed Vireo.





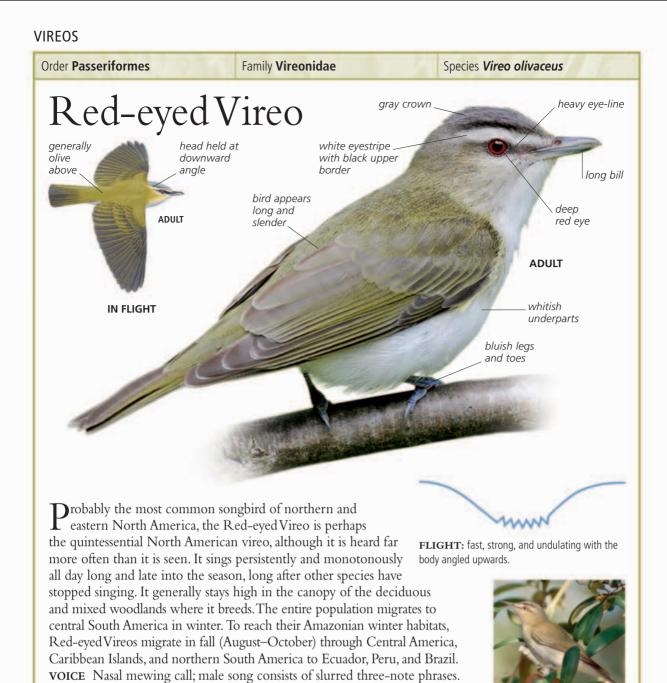
Breeds in deciduous

OCCURRENCE

woodlands, mixed woodlands, and woodland edges, in a wide belt across Canada, reaching the Great Lakes and northern New England. The Philadelphia Vireo winters from Mexico to Panama and northern Colombia.

Length 51/4in (13.5cm)	Wingspan 8in (20cm)	Weight 1/16 0z (12g)
Social Solitary/Pairs	Lifespan Up to 8 years	Status Secure

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with lichen; 3–5 eggs; 1 brood; May–July.

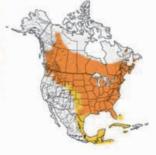
FEEDING Gleans insects from leaves, hopping methodically in the canopy and sub-canopy of deciduous trees; during fall and winter, primarily feeds on fruit.

NESTING Open cup nest hanging on horizontal fork of tree branch; built with plant fibers bound with spider's web; exterior is sometimes decorated





BROWN EYESImmature Red-eyed Vireos have brown eyes, but those of the adult birds are red.





at ground level and in trees.

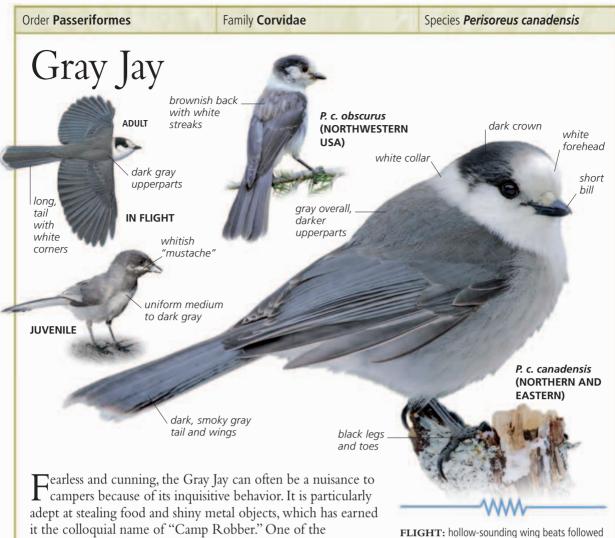
OCCURRENCE Breeds across North America from the Yukon and British Columbia east to the Canadian maritimes, southward from Washington to south central Texas, and west to Canada in central and northern states. Inhabits the canopy of deciduous forests and pine

hardwood forests.

Length 6in (15cm)	Wingspan 10in (25cm)	Weight %oz (17g)
Social Solitary/Pairs	Lifespan Up to 10 years	Status Secure

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Pearless and cunning, the Gray Jay can often be a nuisance to campers because of its inquisitive behavior. It is particularly adept at stealing food and shiny metal objects, which has earned it the colloquial name of "Camp Robber." One of the interesting aspects of its behavior is the way it stores food for later use, by sticking it to trees with its viscous saliva. This is thought to be one of the reasons that enable it to survive the long northern winters. Gray Jays can often gather in noisy groups of three to six birds in order to investigate intruders encroaching upon their territory.

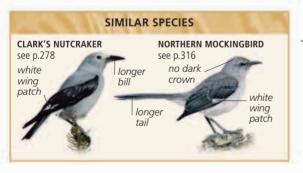
VOICE Mostly silent, but also produces variety of odd clucks and screeches; sometimes Blue Jay-like *jay!* and eerie whistles, including bisyllabic *whee-oo* or *ew*.

NESTING Bulky platform of sticks with cocoons on south side of coniferous tree; 2–5 eggs; 1 brood; February–May. **FEEDING** Forages for insects and berries; also raids birds' nests.

A CHEST COLLEGE

BUILT FOR COLDThe Gray Jay's short extremities and dense, fluffy plumage are perfect for long, harsh winters.

by slow, seemingly awkward, rocking glides.



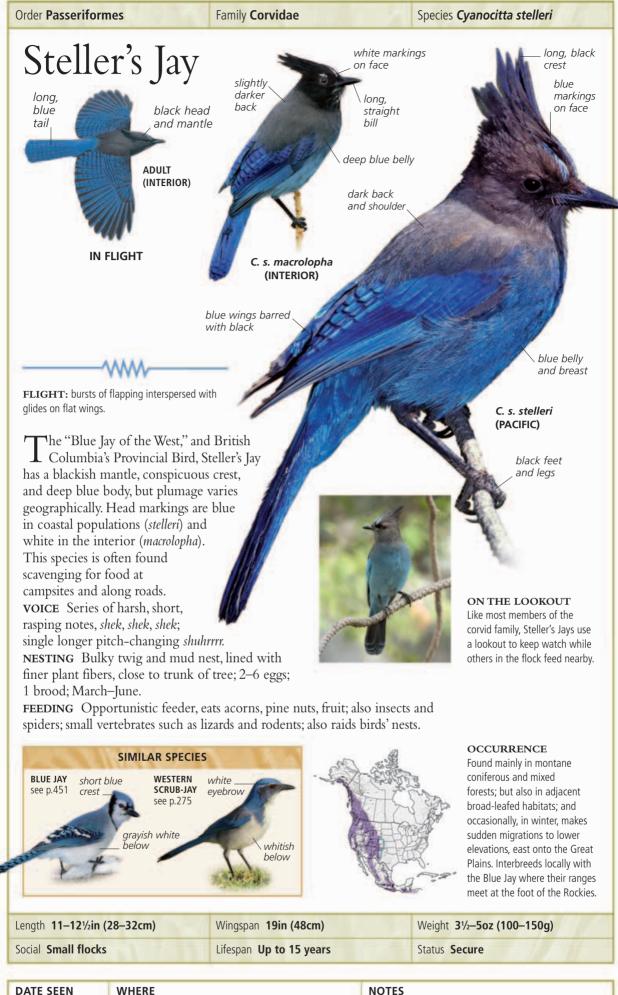


OCCURRENCE

Northern forests, especially lichen-festooned areas with firs and spruce. Found in coniferous forests across northern North America from Alaska to Newfoundland, the Maritimes, and northern New York and New England; south to western mountains; an isolated population in the Black Hills.

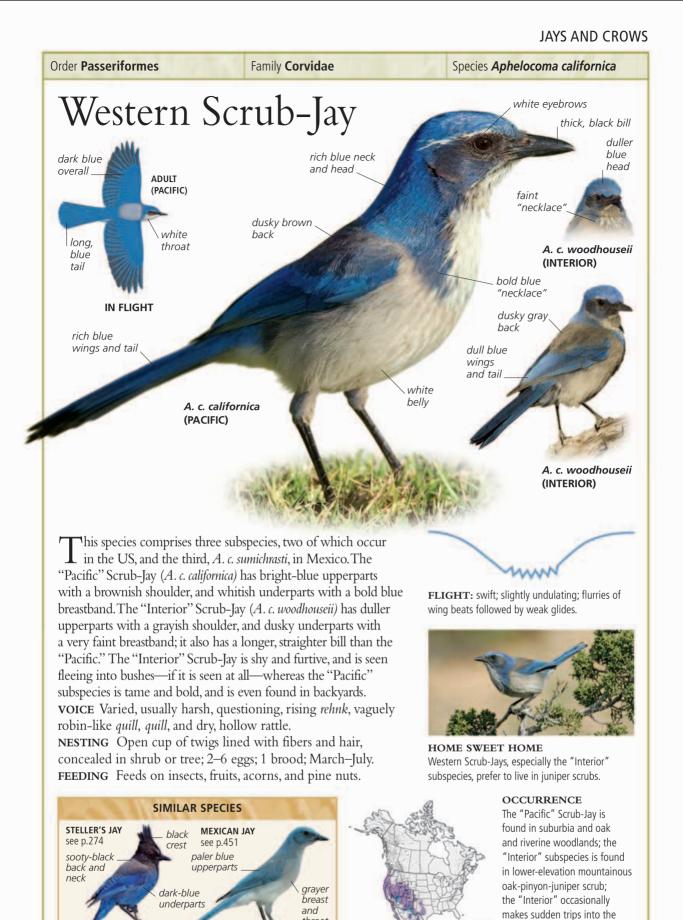
Length 10–111½in (25–29cm)	Wingspan 18in (46cm)	Weight 21/8-27/8 oz (60-80g)
Social Family groups	Lifespan Up to 10 years	Status Secure

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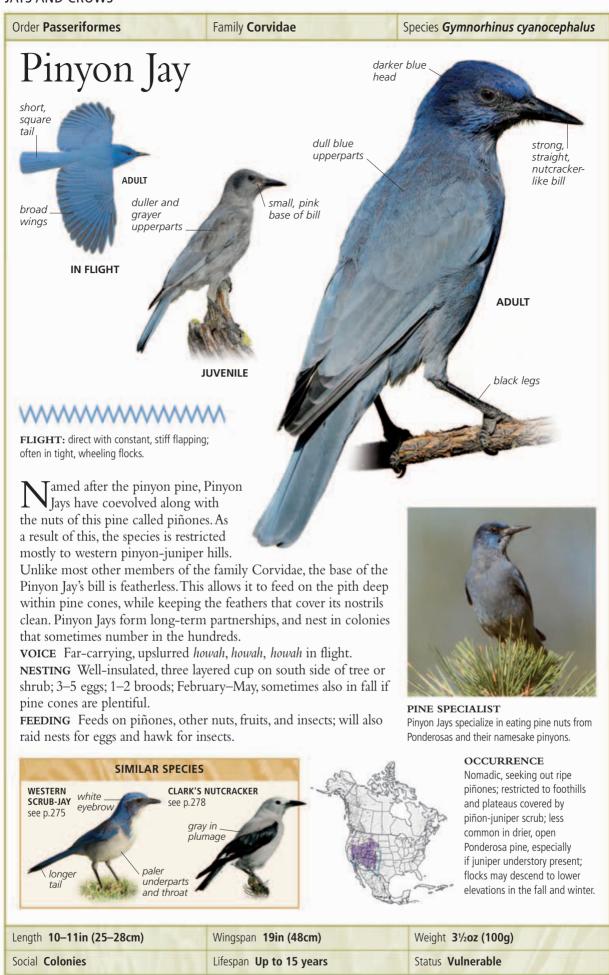
Length 10–12in (26–31cm)	Wingspan 15½in (40cm)	Weight 21/8-31/2 oz (80-100g)
Social Small flocks	Lifespan Up to 15 years	Status Secure

throat

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lowlands in winter, east into

the Great Plains.



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oud, flashy, and conspicuous, the Black-billed Magpie is abundant in the northwestern quarter of the continent, from Alaska to interior US. It has adapted to suburbia, confidently strutting across front lawns locally. Until recently, it was considered the same species as the Eurasian Magpie (P. pica), and even though they look nearly identical, scientific evidence points instead to a close relationship with the other North American magpie, the Yellow-billed Magpie. Its long tail enables it to make rapid changes in direction in flight. The male uses his tail to display while courting a female. Why the Black-billed Magpie does not occur widely in eastern North America is a biological mystery.

VOICE Common call a questioning, nasal ehnk; also raspy shenk, shenk, shenk, usually in series.

often made of thorny sticks; 5-8 eggs; 1 brood; March-June. FEEDING Omnivorous; forages on ground, mainly for insects, worms, seeds, and

carrion; even picks

ticks from mammals.





FLIGHT: direct, with slow, steady, and often shallow wing beats; occasional shallow glides.



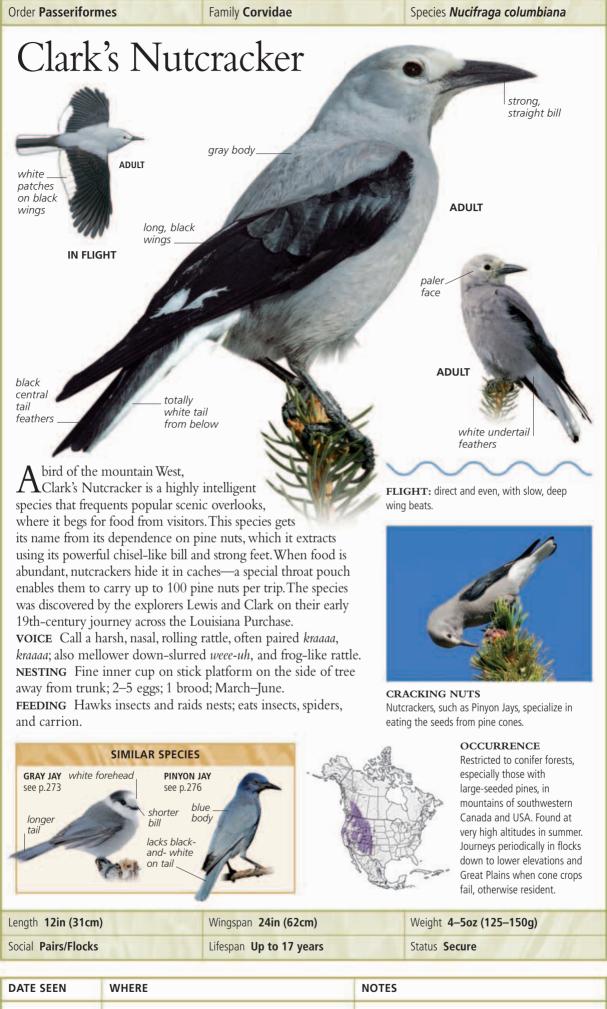
In bright sunlight, beautiful iridescent blues, greens, golds, and purples appear on the wings and tail.

OCCURRENCE Found in open habitats, foothills, and plains of the western US and Canada; nests in streamside vegetation; persecution has made it wary and restricted to wilderness in some areas, but in others it has adapted to suburbs of towns and cities.

Length 17–19 ½ in (43–50cm)	Wingspan 25in (63cm)	Weight 6–7oz (175–200g)
Social Small flocks	Lifespan Up to 15 years	Status Secure

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Wingspan 3ft (1m)

Lifespan Up to 15 years

Length 151/2-191/2 in (39-49cm)

Social Social

migratory than others.

Weight 15-22oz (425-625g)

Status Secure



The Common Raven, twice the size of the American Crow, is a bird of Viking legend, literature, scientific wonder, and the Yukon Official Bird. Its Latin name, *Corvus corax*, means "crow of crows." Ravens are perhaps the most brilliant of all birds: they learn quickly, adapt to new circumstances with remarkable mental agility, and communicate with each other through an array of vocal and motional behaviors. They are master problem solvers and deceivers, tricking each other with ingenious methods.

VOICE Varied and numerous vocalizations, including hoarse, rolling *krruuk*, twangy peals, guttural clicks, resonant *bonks*.

NESTING Platform of sticks with fine inner material on trees, cliffs, or man-made structure; 4–5 eggs; 1 brood; March–June.

FEEDING Feeds omnivorously on carrion, small crustaceans, fish, rodents, fruit, grain, and garbage; also raids nests.

FLIGHT: slow, steady, powerful, direct; can also be quite acrobatic; commonly soars.



SHARING INFORMATIONRavens in flocks can communicate information about food sources.

SIMILAR SPECIES AMERICAN CROW lacks shaggy throat feathers; see p.279 I lacks wedge-shaped tail SIMILAR SPECIES CHIHUAHUAN RAVEN see p.452 bill much smaller overall slightly smaller overall



OCCURRENCE

Found in almost every kind of habitat, including tundra, mountains, northern forest, woodlands, prairies, arid regions, coasts, and around human settlements; has recently recolonized areas at southern edge of range, from which it was once expelled by humans.

Length 231/2-27in (60-69cm)	Wingspan 4½ft (1.4m)	Weight 2 ½ –3 ¼ lb (1–1.5kg)
Social Solitary/Pairs/Small flocks	Lifespan Up to 15 years	Status Secure

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WAXWINGS

AXWINGS HAVE A crest, a black mask, silky smooth rosy-brown plumage, secondary wing feathers with waxy red tips, and bright yellow tail bands. Of the three species of waxwing one (the Cedar Waxwing) breeds only in North America. Waxwings are fond of fruit, including mistletoe berries, of which they help to spread the seeds. Waxwings are nomadic, and emigrate after years of food abundance, nesting in areas distant from their regular breeding ranges. Bohemian Waxwings are

notorious wanderers, and in "irruption" years many thousands can be seen far away from their normal Alaskan and north Canadian breeding areas.

CEDAR WAXWING

The Cedar Waxwing breeds across North America, from coast to coast.



Families Paridae, Remizidae

CHICKADEES & TITMICE

CHICKADEES

Chickadees are among the best-known and most widespread birds in North America. The name "chickadee" is derived from the calls of several species. These birds form flocks in winter. Some species can lower their body temperature in extreme cold.

TITMICE & VERDIN

Distinguished from chickadees by their crests and lack of black throats (except the Bridled Titmouse from the Southwest), titmice species usually have more restricted North American distributions than chickadees. A denizen of southwestern deserts and shrublands, the Verdin is chickadee-like in behavior but belongs to the Remizidae, an Old World Family.

TAME BIRDS
Black-capped Chickadees
have distinctive black-andwhite markings and are
often very tame.

Families Hirundinidae, Aegithalidae, Alaudidae, Reguliidae

SWALLOWS, LARKS, & KINGLETS

SWALLOWS

Ornithologists usually call the short-tailed species in this group "martins," and the longer-tailed species "swallows." This nomenclature also has a geographic component. For example, one species is called Bank Swallow in America, but Sand Martin in the United Kingdom. As a family, swallows are cosmopolitan. North American species are migratory, and winter in Central and South America. Barn Swallows have been

observed migrating over the Atacama Desert, and as far south as the Diego Ramírez Islands, not far from the Antarctic Peninsula.

SURFACE SKIMMER

This Tree Swallow flies low over fresh water to catch insects .

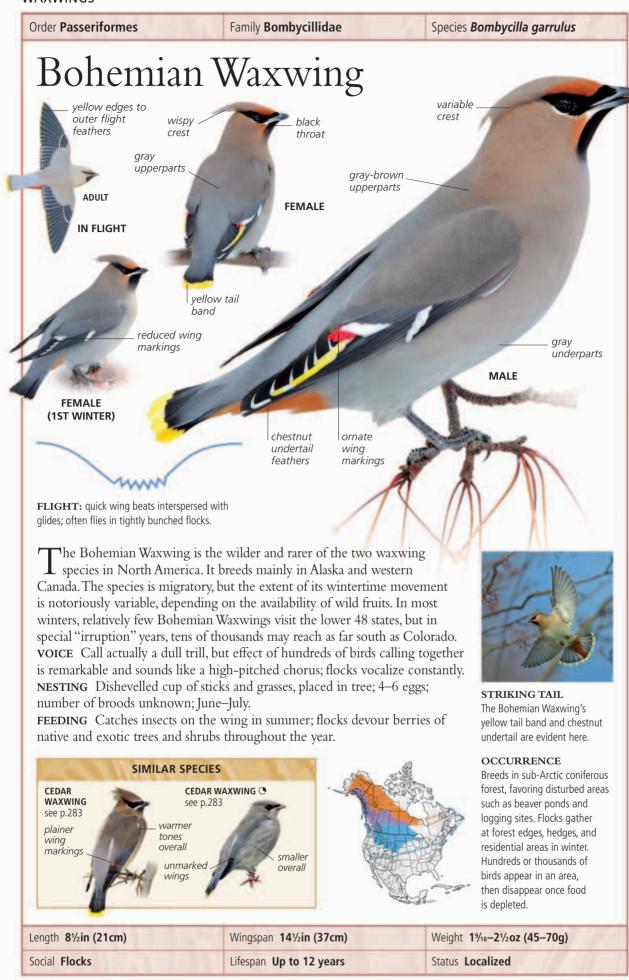
LARKS

The only widespread North American species of lark, the Horned Lark, also occurs in the Old World, where it is named the Shore Lark. Larks are brownish birds, usually streaked, and live in open habitats, where they live on the ground. Display flights take the birds high up in the air, and are accompanied with musical songs.

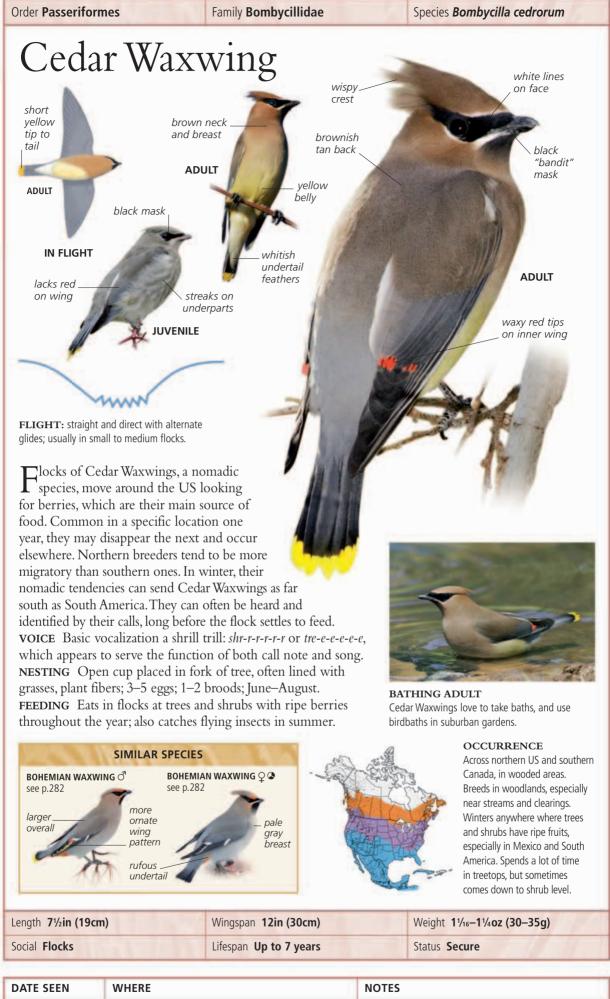
KINGLETS

The five species of kinglets belong to one genus, *Regulus*. They are small, greenish birds, and males have a conspicuous crest of a different color. Two species are widespread in North American coniferous forests. Energetic and

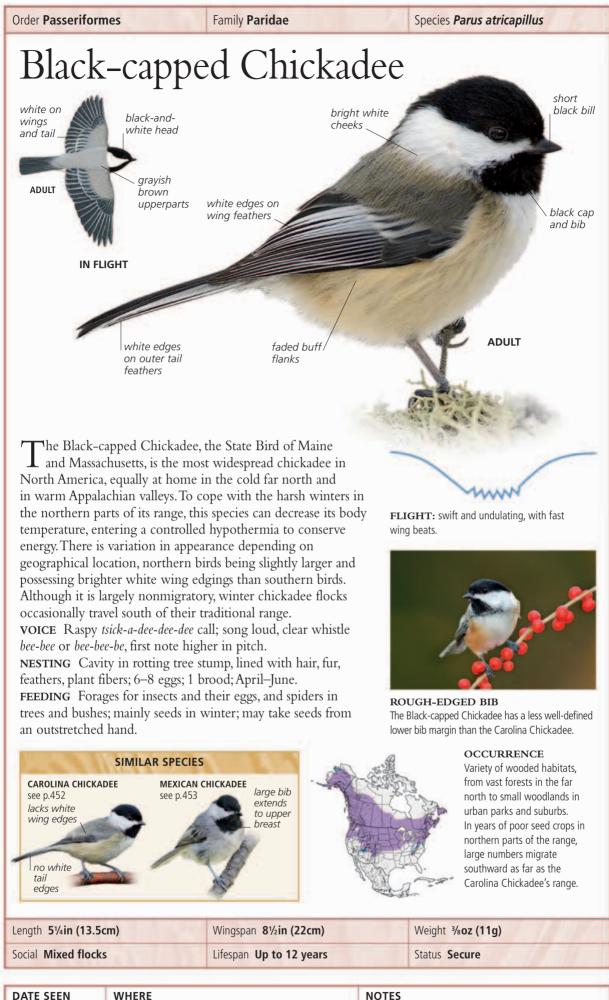
hardy, kinglets lay large clutches, eat insects and can survive harsh winters. The Ruby-crowned Kinglet has a very loud and ringing song for a bird weighing only 3/16 to 3/8 of an ounce (5-10 grams).



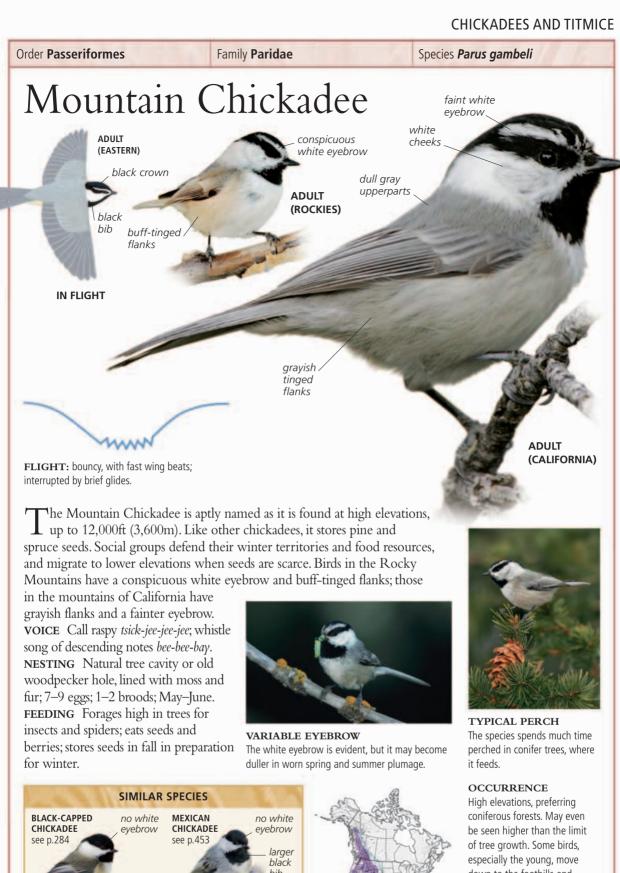
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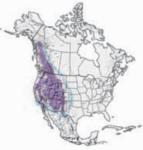
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-	SIMILAR	SPECIES	
BLACK-CAPPED CHICKADEE see p.284	no white eyebrow	MEXICAN CHICKADEE see p.453	no white eyebrow — larger black bib



down to the foothills and valleys in winter and may visit feeders. Some also wander away from the mountains and

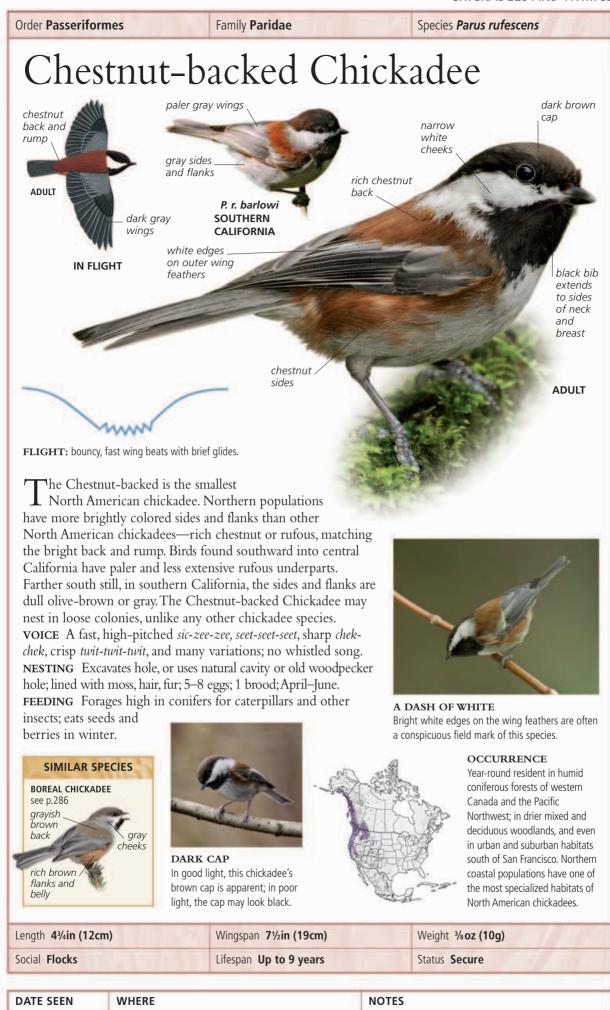
out onto the Great Plains.

Length 51/4in (13.5cm)	Wingspan 8½ in (22cm)	Weight ³/₃ oz (11g)
Social Winter flocks	Lifespan Up to 10 years	Status Secure

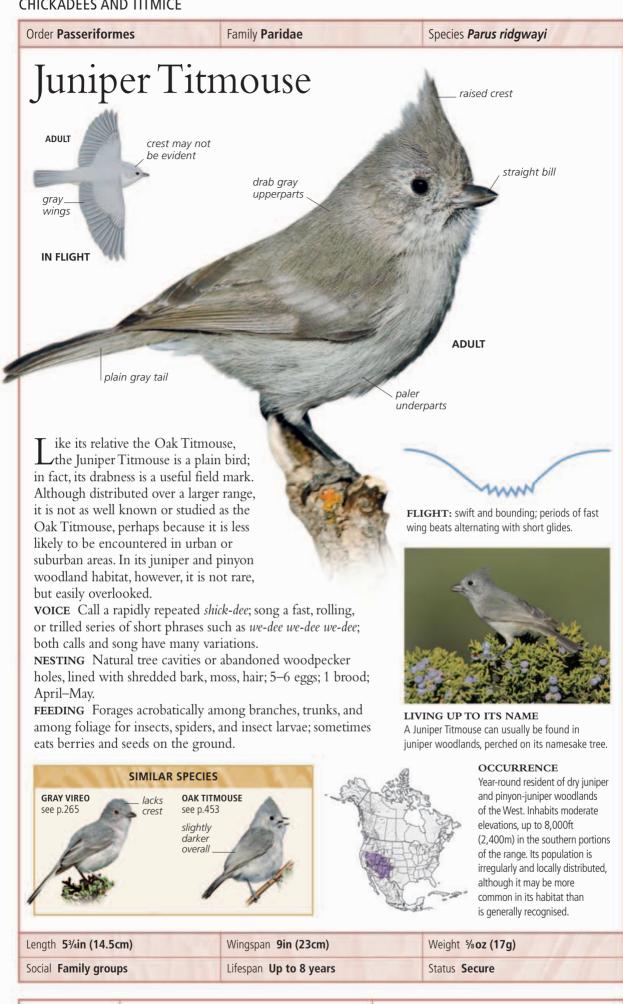
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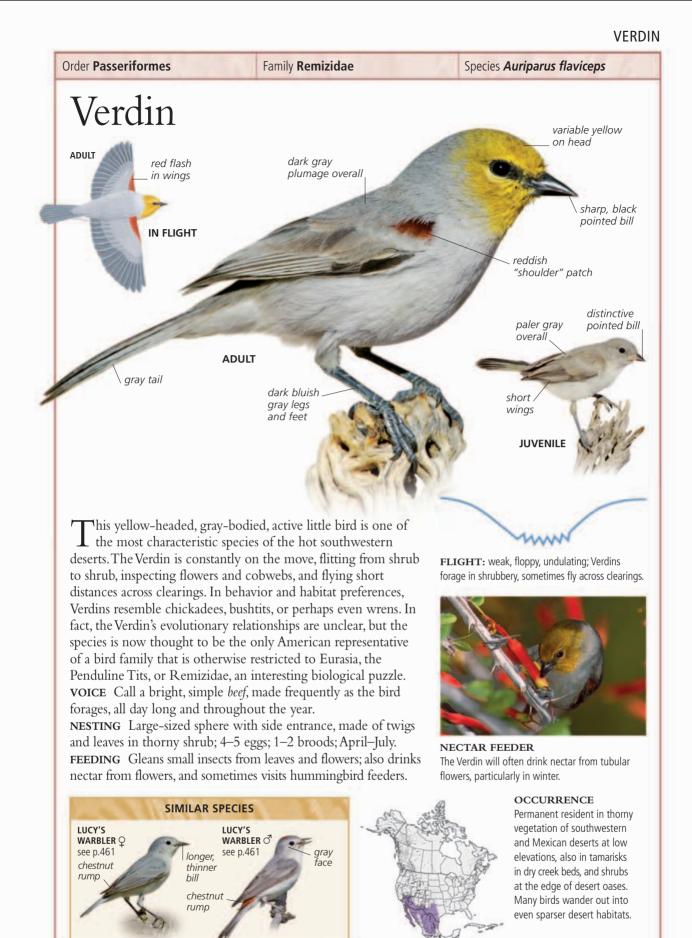
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Wingspan 6½ in (16cm)

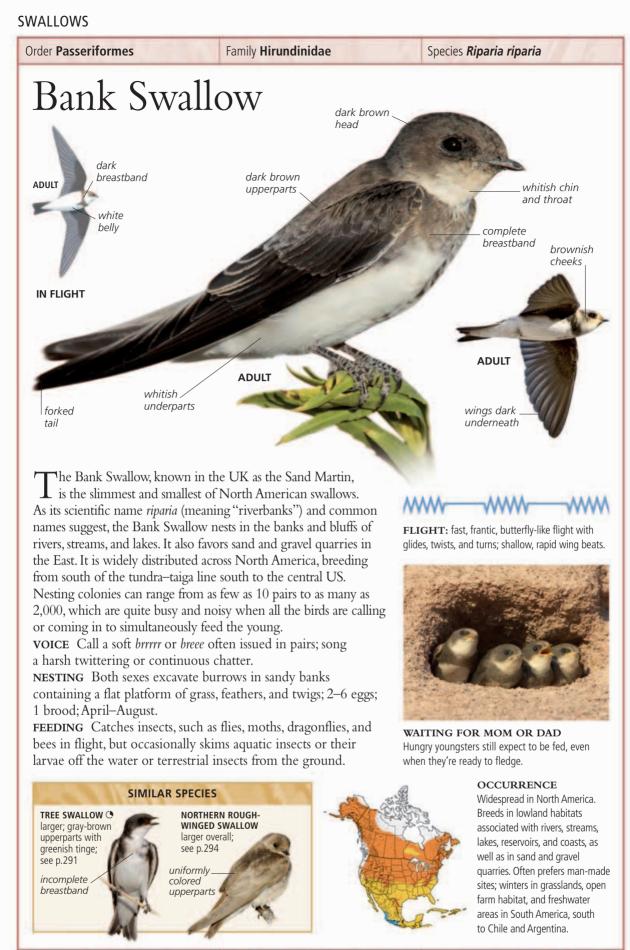
Lifespan Up to 5 years

Length 4½ in (11.5cm)

Social Solitary

Weight $\frac{3}{16} - \frac{1}{4}$ oz (5–7g)

Status Secure



Length 4 ¾ –5 ½ in (12–14cm)	Wingspan 10–11in (25–28cm)	Weight 3/8-11/16 0z (10-19g)
Social Colonies	Lifespan Up to 9 years	Status Secure

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Wingspan 12-14in (30-35cm)

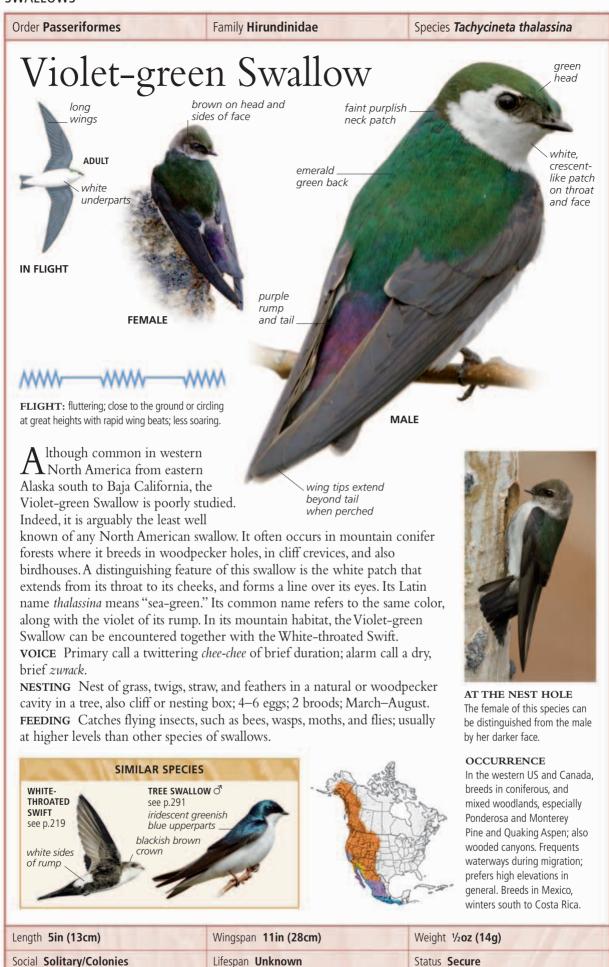
Lifespan Up to 11 years

Length 5-6in (13-15cm)

Social Large flocks

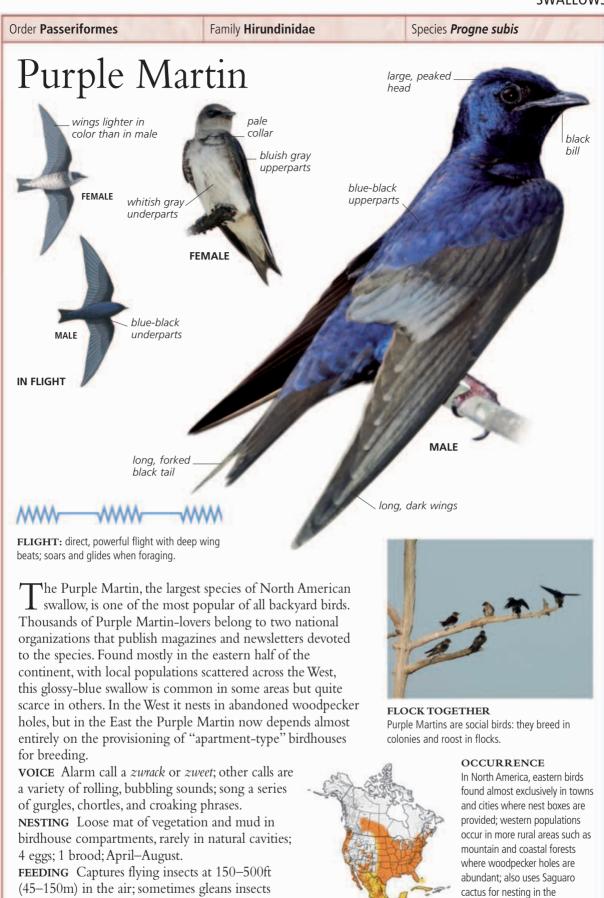
Weight 5/8-7/80z (17-25g)

Status Secure



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Length 7–8in (18–20cm)	Wingspan 15–16in (38–41cm)	Weight 17/16–21/8 oz (40–60g)
Social Large flocks/Colonies	Lifespan Up to 13 years	Status Secure

from foliage or the ground.

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Southwest. Winters in Brazil.

Northern Rough-winged Swallow



otherwise somewhat drab in color and aspect. The Northern Rough-winged Swallow has a broad distribution in North America, across southern Canada and throughout the US. Often overlooked by birdwatchers, this brown-backed, dusky-throated swallow can be spotted hunting insects over water. In size and habit, the Northern Rough-winged Swallow shares many similarities with the Bank Swallow, including breeding habits and color, but the latter's notched tail and smaller size help tell them apart.

wing feathers, this species is

VOICE Steady repetition of short, rapid *brrrt* notes inflected upward; sometimes a buzzy *jee-jee-jee* or high-pitched *brzzzzzt*.

NESTING Loose cup of twigs and straw in a cavity or burrow in a bank, such as road cuts; 4–7 eggs; 1 brood; May–July.

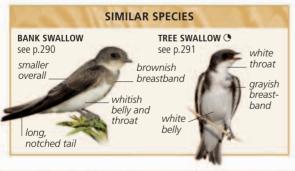
FEEDING Captures flying insects, including flies, wasps, bees, damselflies, and beetles in the air; more likely to feed over water

FLIGHT: slow, deliberate wing beats; short to long glides; long, straight flight, ends in steep climb.



BROWN BIRD

This swallow is brownish above, pale grayish below, with a brown smudge on the sides of its neck.



and at lower altitudes than other swallows.



OCCURRENCE

In North America widespread from coast to coast. Nests at a wide variety of altitudes, prefers exposed banks of clay, sand, or gravel such as gorges, shale banks, and gravel pits. Forages along watercourses where aerial insects are plentiful. Breeds south to Costa Rica. Winters in Central America.

Length 4 3/4 –6in (12–15cm)	Wingspan 11–12in (28–30cm)	Weight 3/8–5/8 oz (10–18g)
Social Solitary	Lifespan Unknown	Status Secure

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The most widely distributed and abundant swallow in the world, the Barn Swallow is found just about everywhere in North America south of the Arctic timberline. Originally a cave-nester before Europeans settlers came to the New World, the Barn Swallow readily adapted to nesting under the eaves of houses, under bridges, and inside buildings such as barns. It is now rare to find this elegant swallow breeding in a natural site. Steely blue upperparts, reddish underparts, and a deeply forked tail identify the Barn Swallow. North American breeders have deep, reddish orange underparts, but birds from Eurasia are white-bellied. VOICE High-pitched, squeaky *chee-chee* call; song a long series of chatty, pleasant churrs, squeaks, chitterings, and buzzes. NESTING Deep cup of mud and grass-stems attached to

vertical surfaces or on ledges; 4–6 eggs; 1–2 broods;

FEEDING Snatches flying insects, such as flies, mosquitoes, wasps, and beetles in the air at lower altitudes than other swallows; sometimes eats wild berries

and seeds.

May-September.



FLIGHT: bursts of straight flight; close to the ground; weaves left and right, with sharp turns.



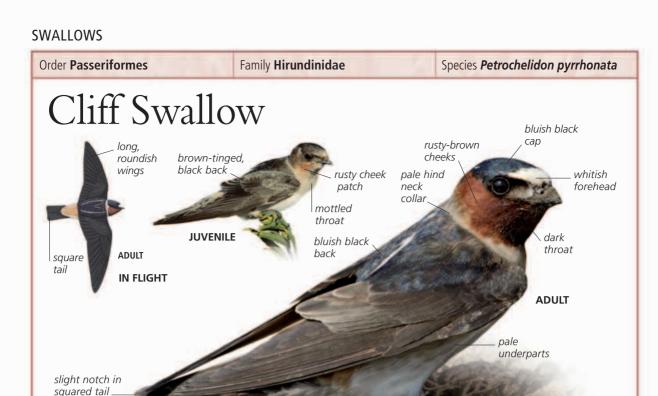
WELL PROTECTEDWhether in a barn or other structure, this swallow's nest is totally protected from wind and rain.

OCCURRENCE

Breeds across North America; south to central Mexico.
Prefers agricultural regions and towns. Winters near sugarcane fields, grain fields, and marshes, south in South America as far as Patagonia. Hundreds of thousands winter in marshes of northern Argentina.

Length 6–7 ½ in (15–19cm)	Wingspan 11½–13in (29–33cm)	Weight 5/8-11/16 0z (17-20g)
Social Small colonies/Flocks	Lifespan Up to 8 years	Status Secure

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The Cliff Swallow is one of North America's most social land birds, sometimes nesting in colonies of over 3,500 pairs, especially in the western US. It is more locally distributed in the East. It can be distinguished from other North American swallows by its square tail and orange rump, but it resembles its close relative, the Cave Swallow, in color, pattern, and in affixing its mud nests to the sides of highway culverts, bridges, and buildings. The considerable increase in such structures has allowed the species to expand its range from the west to breed almost everywhere on the continent south of the tundra. VOICE Gives purr and churr calls when alarmed; song a low, squeaky, 6-second twitter given in flight and near nests. **NESTING** Domed nests of mud pellets on cave walls, buildings, culverts, bridges, and dams; 3-5 eggs; 1-2 broods; April-August. FEEDING Catches flying insects (often swarming varieties) while on the wing; sometimes forages on the ground; ingests grit to aid digestion.



FLIGHT: strong, fast wing beats; glides more often but less acrobatically than other swallows.



GATHERING MUD

The Cliff Swallow gathers wet mud from puddles, pond edges, and streamsides to build its nest.





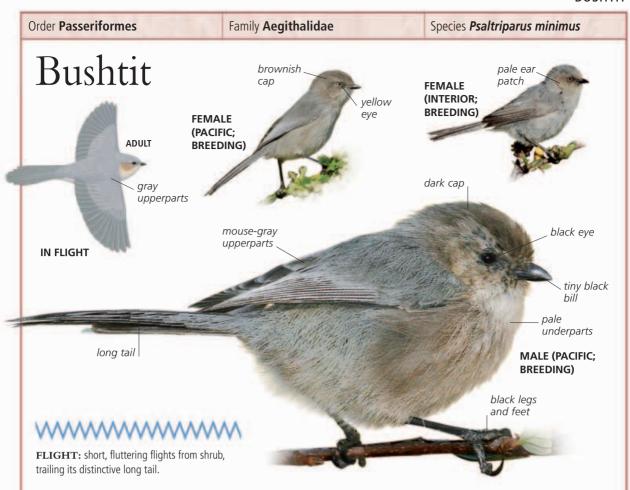
INDIVIDUAL HOMES
In a Cliff Swallow colony, each
nest has a single opening.

OCCURRENCE

Breeds in North America from Alaska to Mexico. Prefers walls, culverts, buildings, cliffs, and undersides of piers on which to affix mud nests. Migrates to South America, where hundreds of thousands winter in the marshes of northern Argentina.

Length 5in (13cm)	Wingspan 11–12in (28–30cm)	Weight 11/16–11/4oz (20–35g)
Social Colonies	Lifespan Up to 11 years	Status Secure

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For much of the year, the Bushtit roams the foothills and valleys of the western US, in flocks that usually number just a handful, but occasionally total many hundreds. This little bird is constantly on the move, foraging busily in the foliage of shrubs and small trees. One moment a flock is there; the next, it has moved on. Even during the breeding season, when most other perching birds become territorial, the Bushtit retains something of its social nature—raising the young is often a communal affair, with both siblings and single adults helping in the rearing of a pair's chicks. **VOICE** Basic call a 2–3-part soft lisp, *ps psss pit*, interspersed with hard *spit* and *spick* notes, like little sparks.

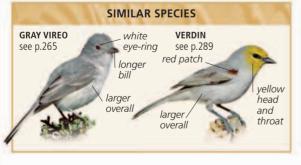
NESTING Enormous pendant structure of cobwebs and leaves, hung from branch; 4–10 eggs; 2 broods; April–July.

FEEDING Gleans spiders and insects from vegetation; acrobatic while feeding, often hangs upside-down.



FORAGING

Constantly aflutter, the Bushtit flits through foliage, looking for insects and other small arthropods.



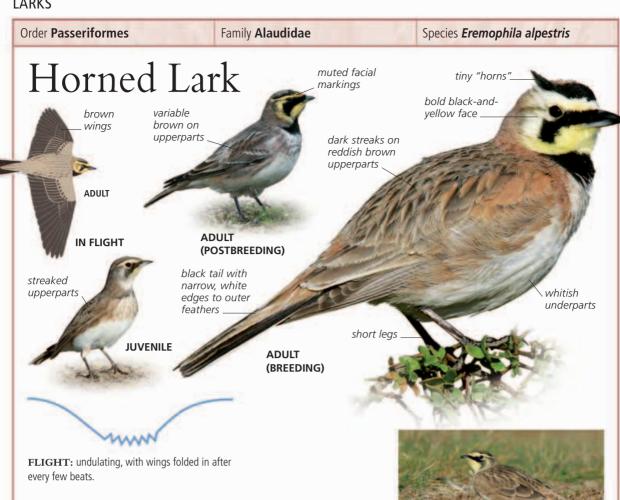


OCCURRENCE

Away from the coast, common in open woodlands and areas of shrubs, mainly on hillsides in summer, some birds move down to low-elevation valleys in the fall. Coastal populations commonly seen in cities and gardens as well as on hillsides, occur in native and non-native plant communities.

Length 4 1/2 in (11.5cm)	Wingspan 6in (15.5cm)	Weight ³ /16– ⁷ / ₃₂ oz (4.5–6g)
Social Flocks	Lifespan Up to 8 years	Status Secure

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The Horned Lark is a bird of open country, especially places with extensive bare ground. The species is characteristic of arid, alpine, and Arctic regions; in these areas, it flourishes in the bleakest of habitats imaginable, from sun-scorched, arid lakeshores in the Great Basin, to windswept tundra north of the timberline. In some places, the only breeding bird species are the Horned Lark and the equally resilient Common Raven. In Europe and Asia, this species is known as the Shorelark.

VOICE Flight call a sharp *sweet* or *soo-weet*; song, either in flight or from the ground, pleasant, musical tinkling series, followed by sweet... swit... sweet... s'sweea'weea'witta'swit.

NESTING In depression in bare ground, somewhat sheltered by grass or low shrubs, lined with plant matter; 2-5 eggs; 1-3 broods; March-July.

FEEDING Survives exclusively on seeds of grasses and sedges in winter; eats mostly insects in summer.



VERY VOCAL The Horned Lark is a highly vocal bird, singing from the air, the ground, or low shrubs.

looks for insects and seeds.

With its short legs bent under its body, an adult

GROUND FORAGER

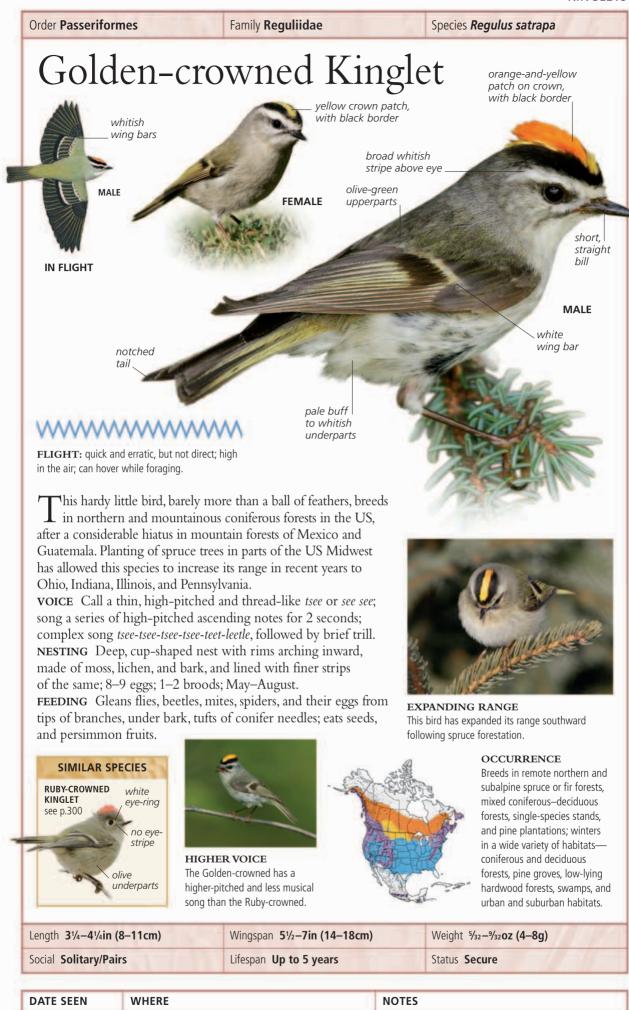
Breeds widely, in any sort of open, even barren habitat with extensive bare ground, especially shortgrass prairies and deserts. Winters wherever there are snow-free openings, including along beaches and roads. Winters from southern Canada southward

to Florida and Mexico.

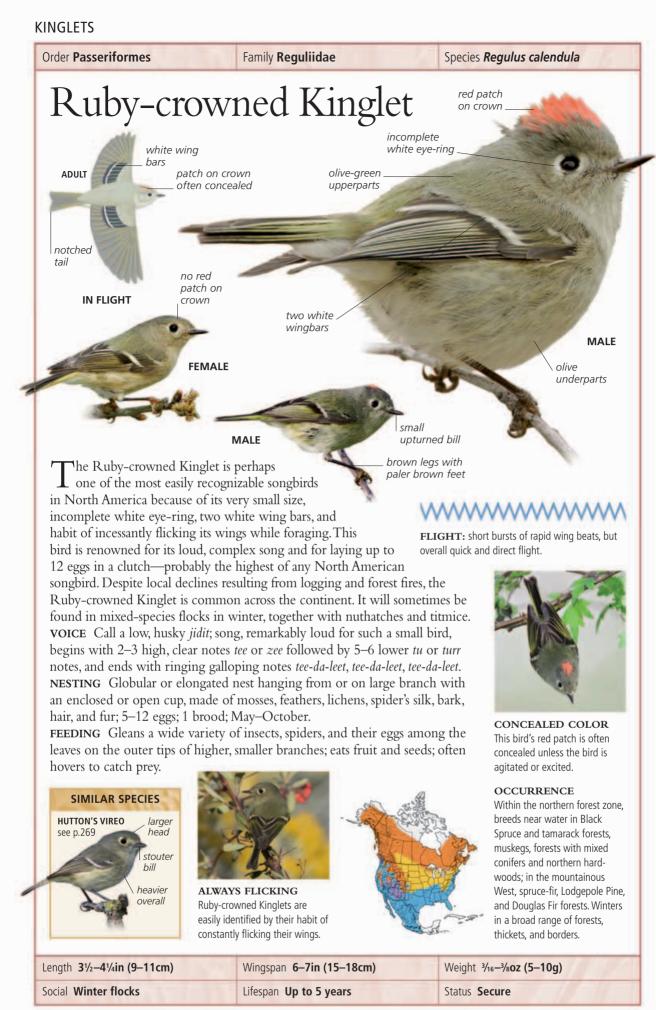
OCCURRENCE

Length 7in (18cm)	Wingspan 12in (30cm)	Weight 11/16 0z (30g)
Social Winter flocks	Lifespan Up to 8 years	Status Secure

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Families Troglodytidae, Polioptilidae

WRENS & GNATCATCHERS

WITH ONE EXCEPTION, the Eurasian Winter Wren, wrens are all small American songbirds. Most are brown with light and dark streaking. The scientific family name, Troglodytidae, which derives from a Greek word meaning "cave-dweller," seems apt in light of the furtive habits of wrens, which are heard more often than they are seen. Wrens are renowned for their remarkable songs, and, in some species, for their precisely synchronized duets. Of the 13 species of gnatcatchers, small songbirds with subdued COCKED TAIL plumage and discreet

As they sing, Winter Wrens often hold their tails upward in a near-vertical position.



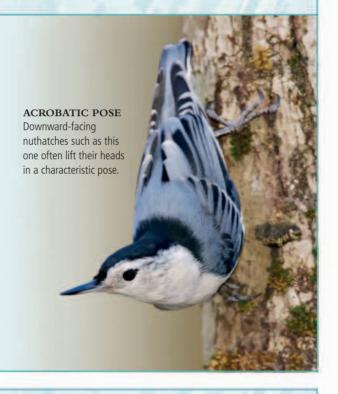
Families Sittidae, Certhiidae

habits, three occur in

Canada and the USA.

NUTHATCHES & TREECREEPER

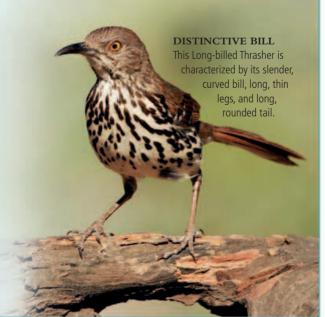
E ASILY RECOGNIZED BY their distinctive shape and feeding technique, nuthatches are common North American woodland birds. They are plumpbodied and short-tailed, with blue-gray backs, and often have a contrasting darker crown. These birds use their bills to probe for insects in the crevices of tree trunks and branches. Strong feet and long claws allow them to move along the underside of branches. This contrasts with many other birds, which only move upward on a tree trunk. This characteristic movement is one of the easiest ways to identify nuthatches. Only one species of treecreeper is found in North America. Often overlooked, treecreepers forage by searching methodically in bark crevices.

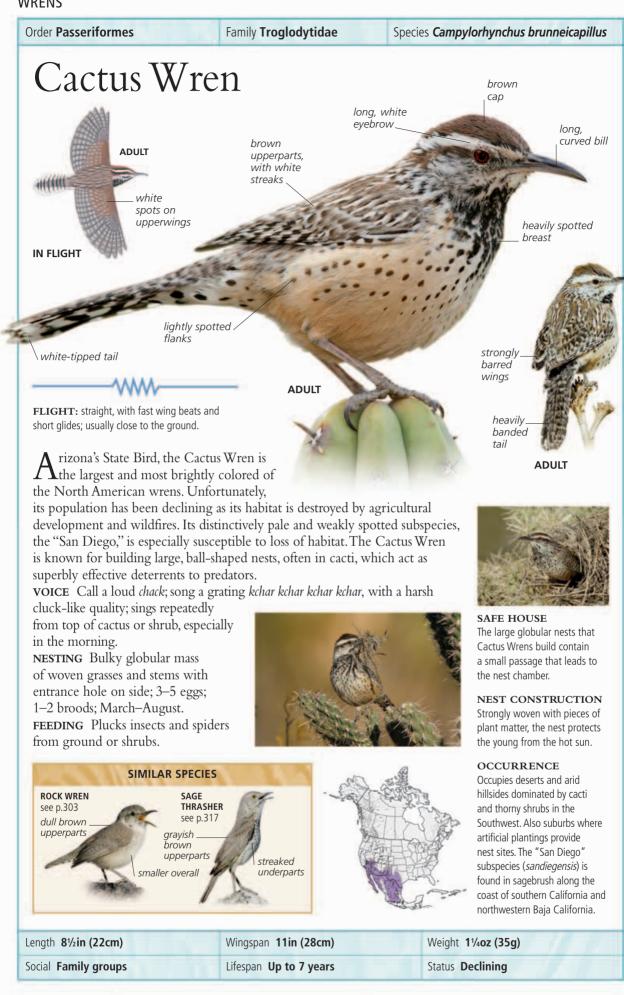


Family Mimidae

THRASHERS & RELATIVES

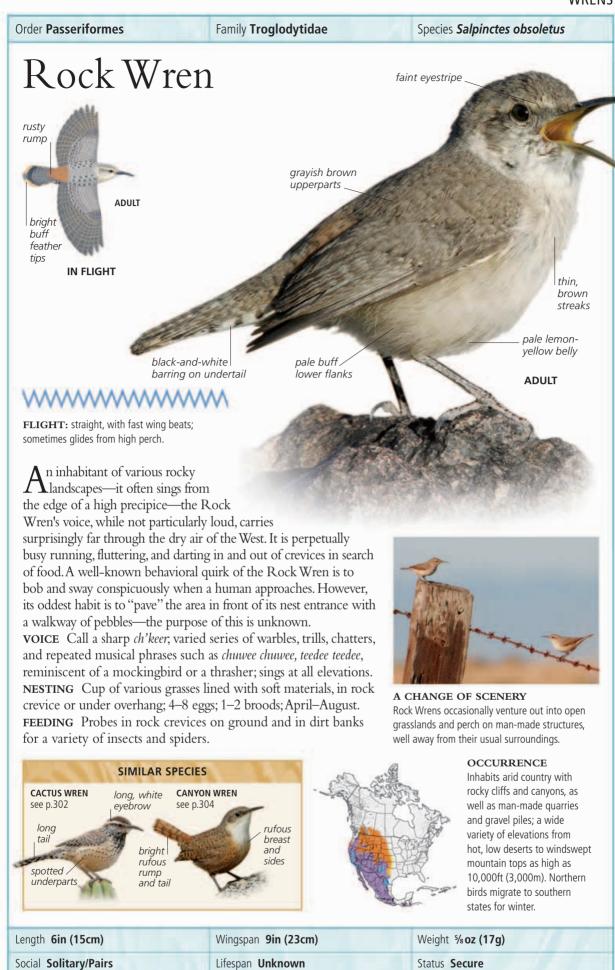
THE FAMILY NAME for catbirds, mockingbirds, and thrashers is from the Latin for "to imitate," and no other word better defines the ten species of these birds that are found in North America. The Northern Mockingbird is especially well known for its ability to incorporate the songs of other species into its own song. Members of the Mimidae have long, curved bills and reclusive habits. Some members of this group are able to recognize and remove the eggs of brood parasites such as the Brownheaded Cowbird. The Gray Catbird is recognized by its cat-like meeow calls and its overall gray plumage.



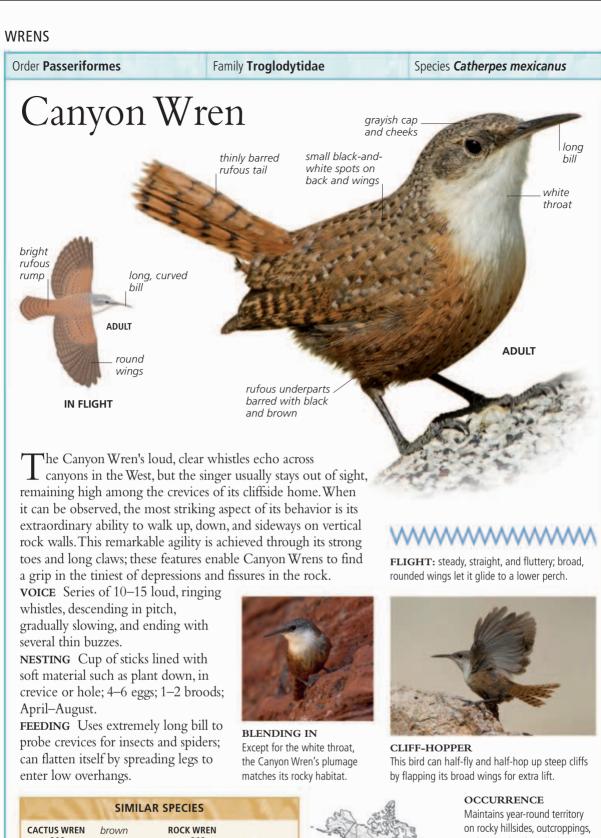


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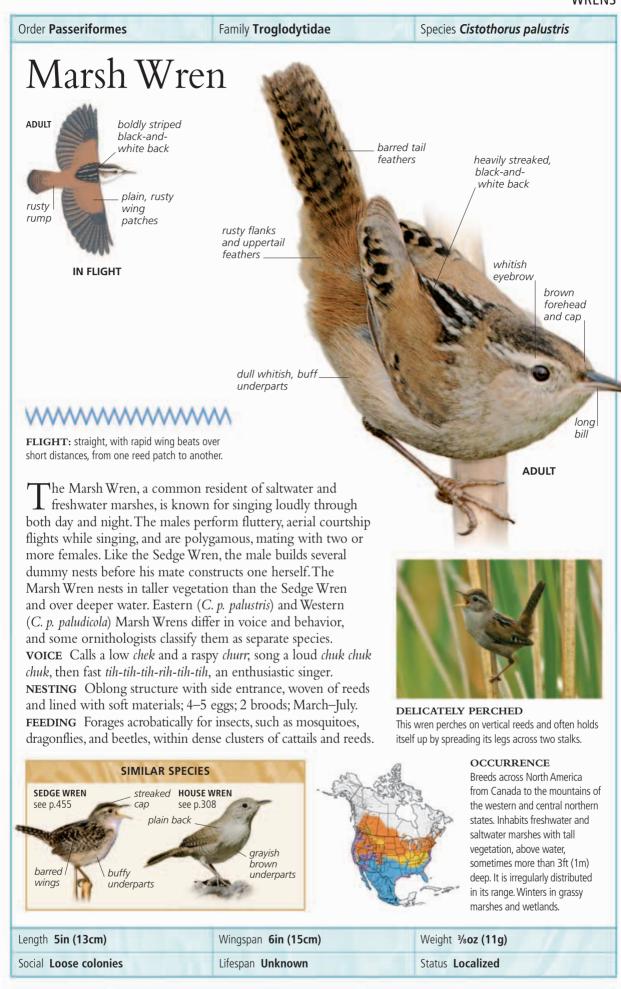




Maintains year-round territory on rocky hillsides, outcroppings, and vertical rock-walled canyons through much of the west of the continent and southward to Mexico. Sometimes nests in holes in stone buildings, old sheds, and other structures, apparently unconcerned by nearby human activity.

Length 5 % in (14.5cm)	Wingspan 7½in (19cm)	Weight % oz (11g)
Social Solitary/Pairs	Lifespan Unknown	Status Secure

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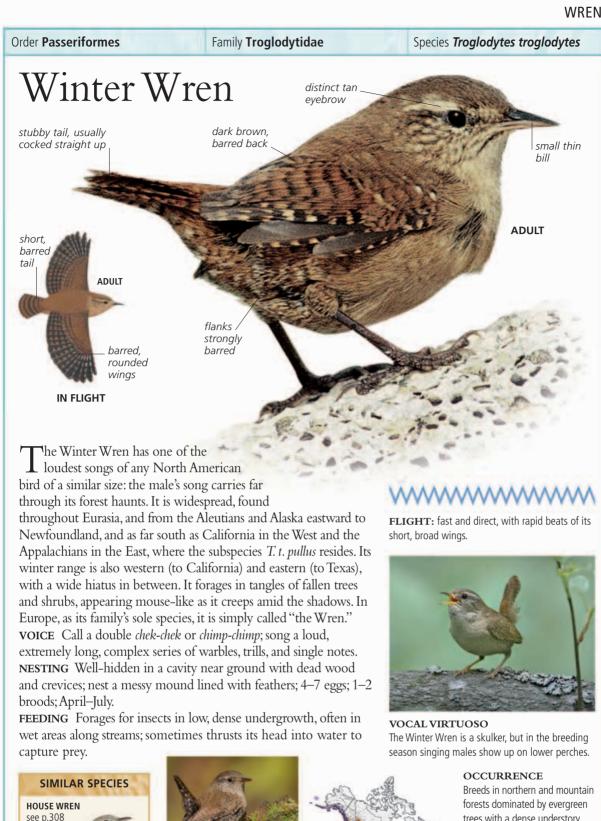
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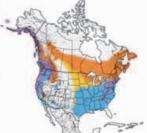




flanks

NERVOUS REACTION When alarmed, this wren cocks its tail almost vertically, before

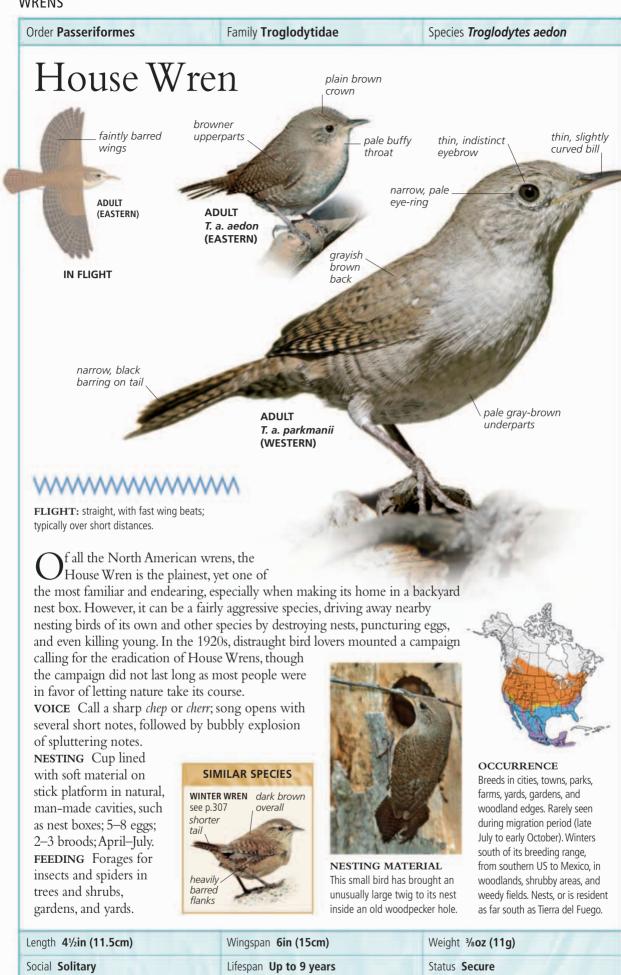
escaping into a mossy thicket.



trees with a dense understory, fallen trees, and banks of streams. In the Appalachians, breeds in treeless areas with grass near cliffs. Northernmost birds migrate south to winter in woodlands, brush piles, tangles, and secluded spots.

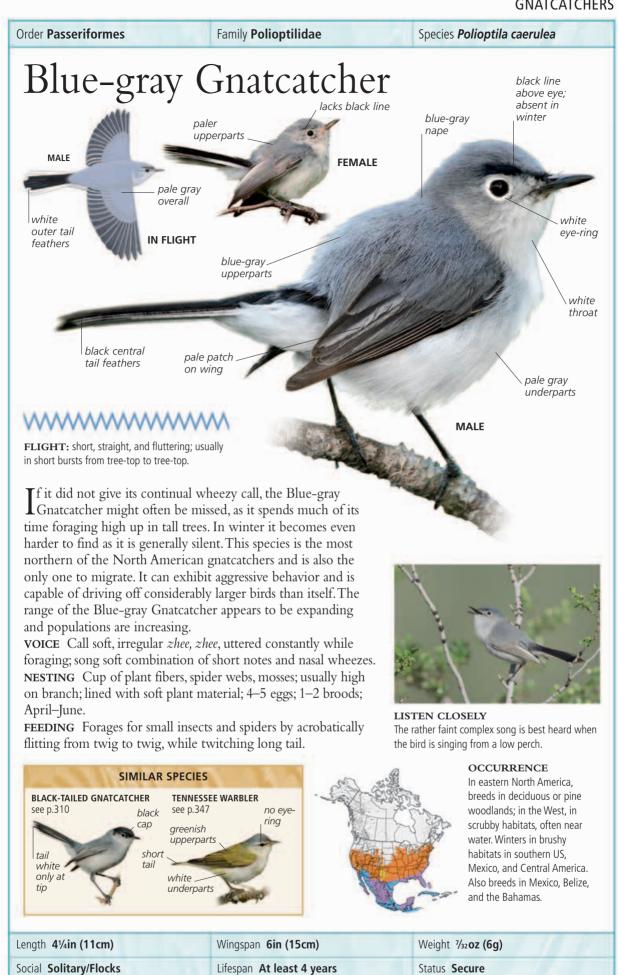
Length 4in (10cm)	Wingspan 5½in (14cm)	Weight ⁵/16 0z (9g)
Social Solitary/Family groups	Lifespan At least 4 years	Status Secure

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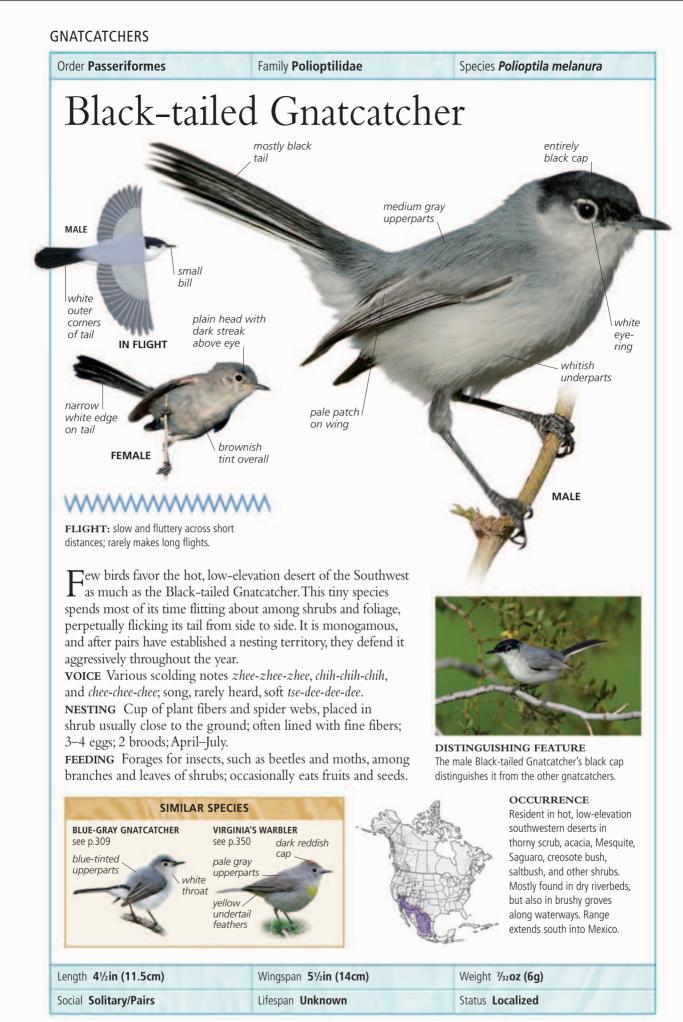
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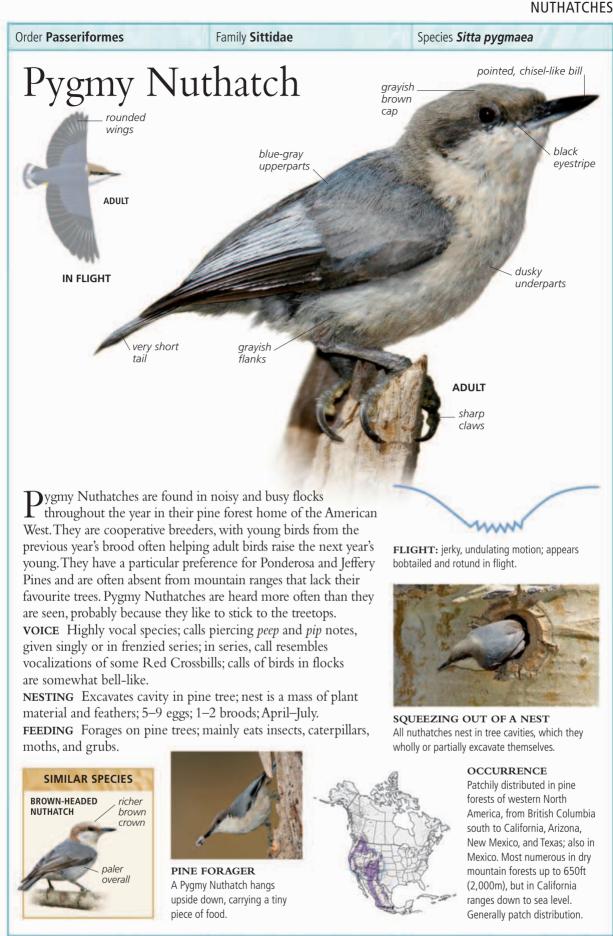
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Weight 3/8 oz (11g)

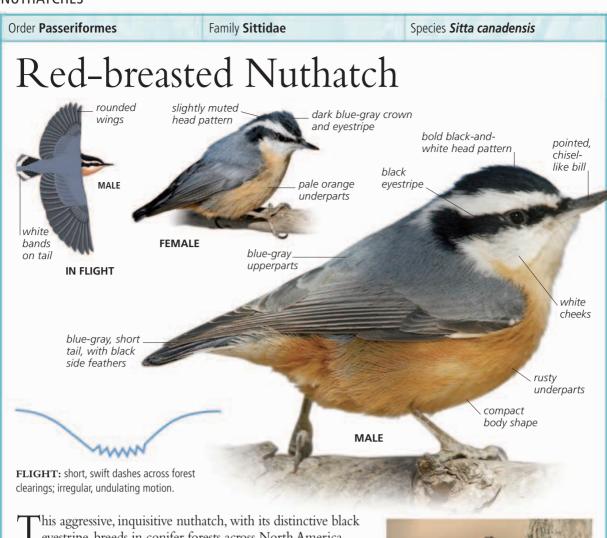
Status Secure

Wingspan 8in (20cm)

Lifespan Up to 2 years

Length 41/4in (11cm)

Social Small flocks



eyestripe, breeds in conifer forests across North America. The bird inhabits mountains in the West; in the East, it is found in lowlands and hills. However, sometimes it breeds in conifer groves away from its core range. Each fall, birds move from their main breeding grounds, but the extent of this exodus varies from year to year, depending on population cycles and food availability. VOICE Call a one-note tooting sound, often repeated, with strong nasal yet musical quality: aaank, enk, ink, rather like a horn.

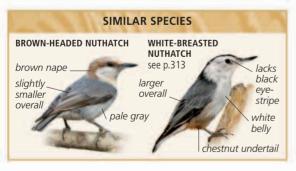
NESTING Excavates cavity in pine tree; nest of grass lined with feathers, with sticky pine resin applied to entrance; 5-7 eggs, 1 brood; May–July.

FEEDING Probes bark for beetle grubs; also eats insect larvae found on conifer needles; seeds in winter.



TASTY GRUB

This nuthatch has just extracted its dinner from the bark of a tree, a favorite foraging habitat.

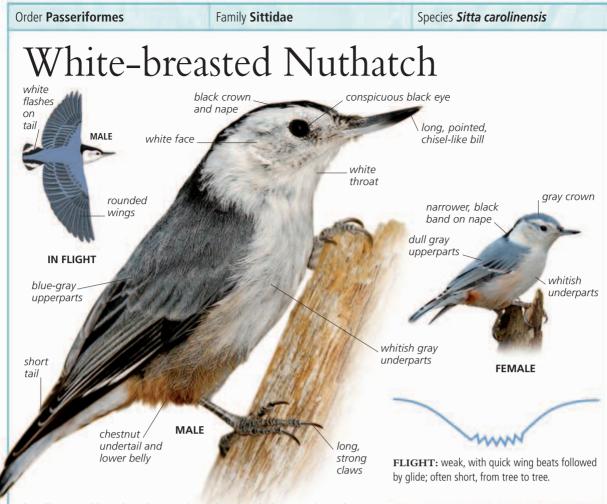




OCCURRENCE

Found year-round in coniferous and mixed hardwood forests. During breeding season, absent from southeastern pine forests, except in the Appalachians. In the west. shares its habitat with Pygmy Nuthatch, but ranges to higher elevations.

Length 41/4in (11cm)	Wingspan 8½in (22cm)	Weight 3/8-7/16 0z (10-13g)
Social Solitary/Pairs	Lifespan Up to 7 years	Status Secure



The amiable White-breasted Nuthatch inhabits residential neighborhoods across the US and southern Canada, and often visits birdfeeders in winter. The largest of our nuthatches, it spends more time probing furrows and crevices on trunks and boughs than other nuthatches do. It walks irregularly on trees: forward, backward, upside-down, or horizontally. Of the 11 subspecies in its Canada-to-Mexico range, five occur in Canada and in the US. They differ in call notes and, to a lesser extent, in plumage.

VOICE Calls vary geographically: eastern birds nasal yank yank; interior birds stuttering st't't't'; Pacific slope birds tremulous yiiiirk; song of all populations a mellow tu tu tu tu, like a flicker, but softer.

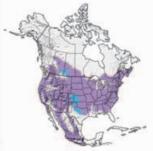
NESTING Tree cavity, once used by woodpeckers, lined with grass and hair, adds mud to cavity opening; 5–9 eggs, 1 brood; April–June.

FEEDING Scours bark methodically for insects such as beetle larvae.



UNUSUAL DESCENTNuthatches are unusual in that they routinely descend branches and trunks head-first.

SIMILAR SPECIES BROWN-HEADED RED-BREASTED black NUTHATCH eye-stripe see p.312 brown crown smaller overall smaller overall underparts

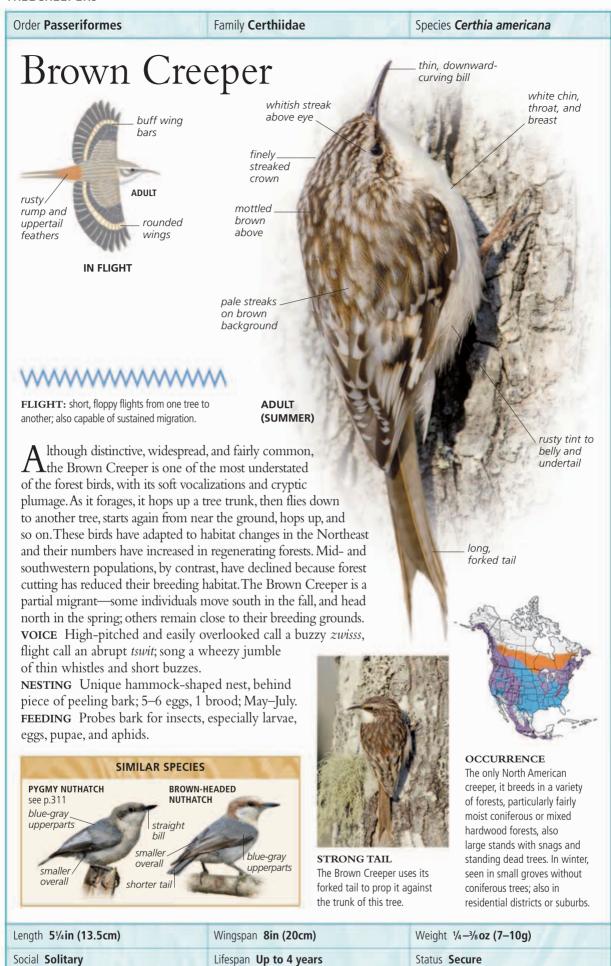


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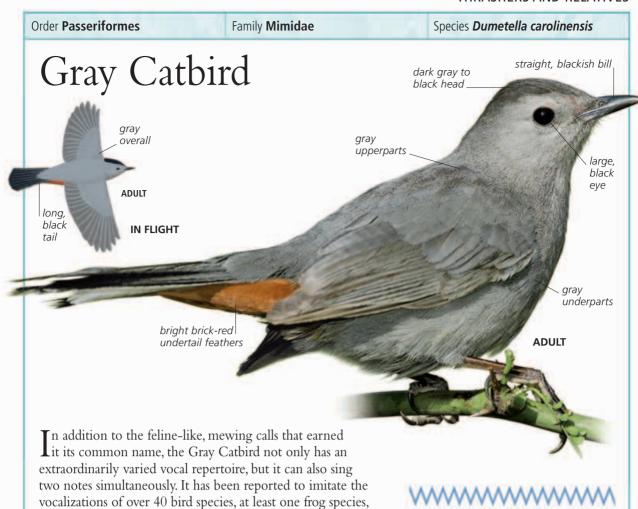
More liberal than other nuthatches in use of forest types; overlaps with the smaller species in coniferous forest ranges, but also common in broadleaf deciduous or mixed forests; weakly migratory: little movement in most falls, but moderate departures from breeding grounds in some years.

Length 5 % in (14.5cm)	Wingspan 11in (28cm)	Weight 11/16–7/8 oz (19–25g)
Social Solitary/Pairs	Lifespan Up to 9 years	Status Secure

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Despite their shy, retiring nature, Gray Catbirds tolerate human presence and will rest in shrubs in suburban and urban lots. Another fascinating skill is the Gray Catbird's ability to recognize and remove eggs of the brood parasite, the Brown-headed Cowbird.

VOICE Mew call, like a young kitten; song a long, complex series of unhurried, often grouped notes, sometimes interspersed with whistles and squeaks.

NESTING Large, untidy cup of woven twigs, grass, and hair lined with finer material; 3–4 eggs;

and several sounds produced by machines and electronic devices.

1–2 broods; May–August. **FEEDING** Feeds on a wide variety of berries and insects, usually whatever is most abundant in season.



ANGLED ATTITUDEBetween bouts of feeding, a Gray
Catbird often rests with its body
and tail at a 50-degree angle.

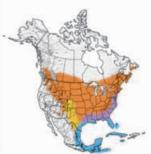


FLIGHT: short flights between habitat patches

with constant, medium-speed wing beats.

LARGE BLACK EYESPeering from the foliage,
a Gray Catbird investigates
its surroundings.

SIMILAR SPECIES NORTHERN MOCKINGBIRD See p.316 See p.456 Curved bill brown-gray overall longer tail edged in white

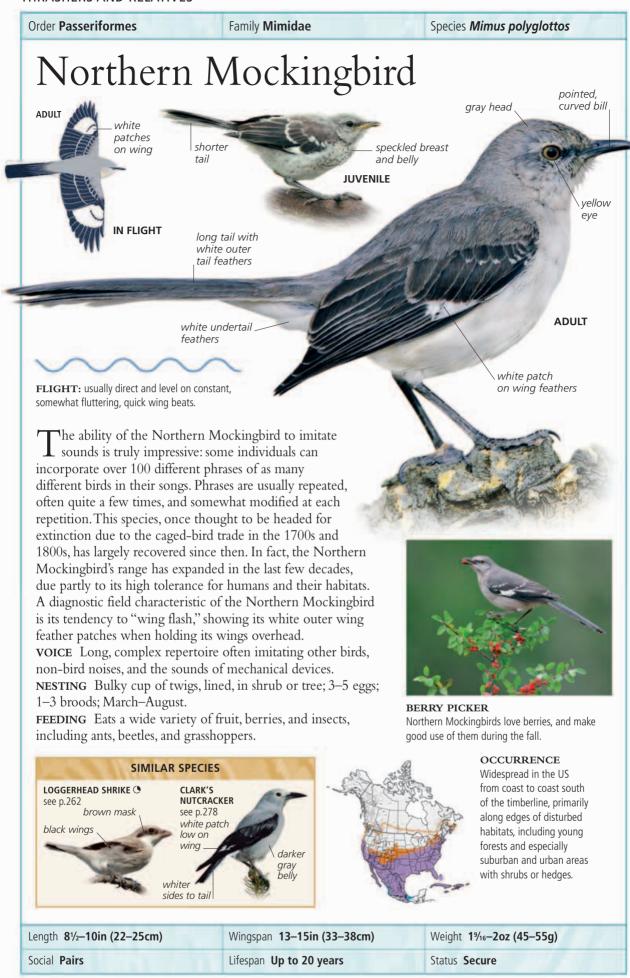


OCCURRENCE

Breeds in mixed young to mid-aged forests with abundant undergrowth, from British Columbia east to Maritimes and Newfoundland, and in the US diagonally west-east from Washington State to New Mexico, east to the Gulf Coast, north to New England. Northern population migratory.

Length 8–9 1/2 in (20–24cm)	Wingspan 10–12in (25–30cm)	Weight 11/4–21/80z (35–60g)
Social Solitary/Pairs	Lifespan Up to 11 years	Status Secure

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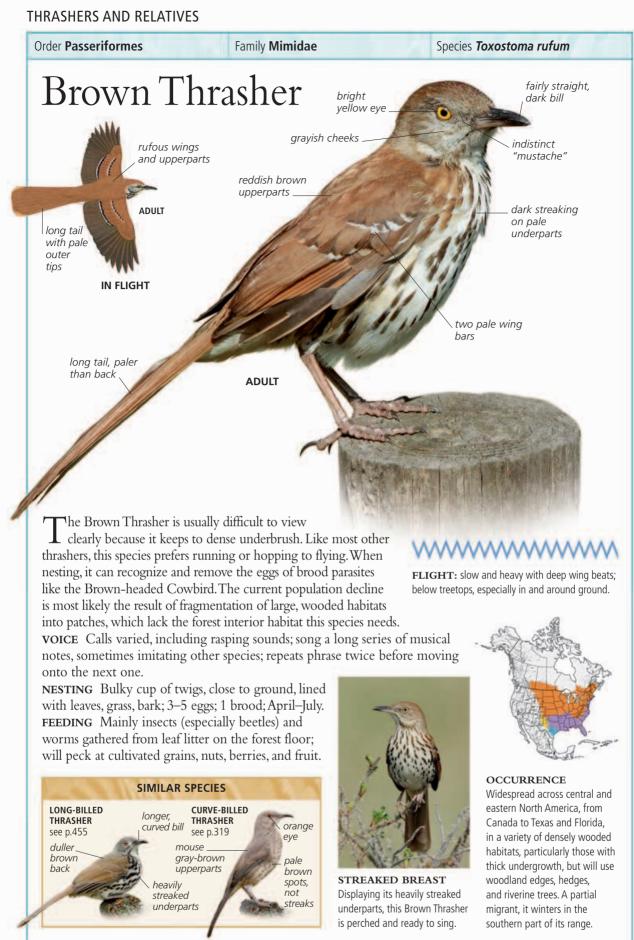


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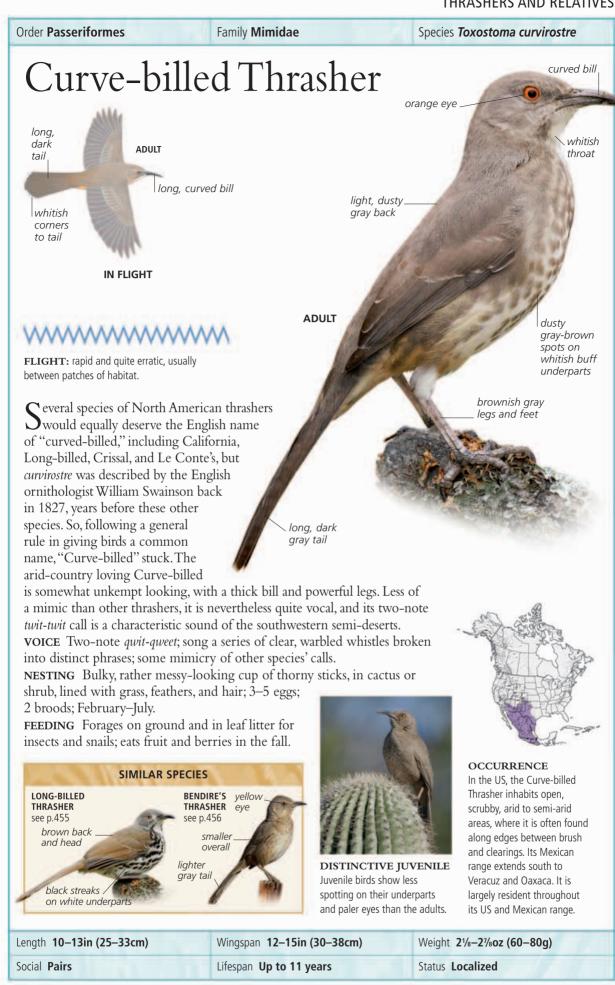
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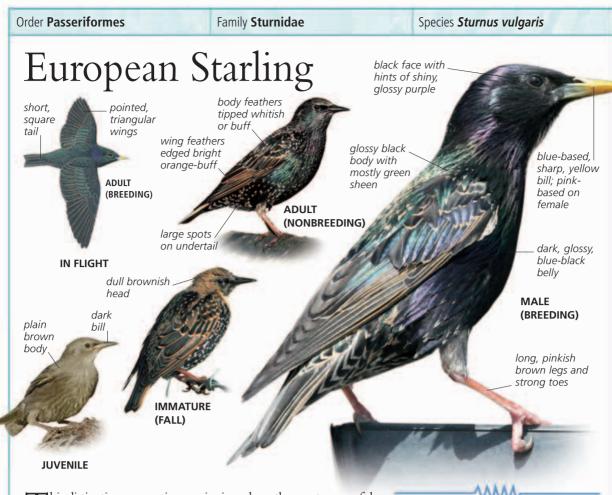


Length 10–12in (25–30cm)	Wingspan 11–14in (28–36cm)	Weight 21/8-27/8 oz (60-80g)
Social Solitary/Flocks	Lifespan Up to 13 years	Status Declining



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This distinctive non-native species is perhaps the most successful bird in North America—and probably the most maligned. In the 1890s, 100 European Starlings were released in New York City's Central Park; these were the ancestors of the many millions of birds that now live all across the US. This adaptable and aggressive bird competes with native species for nest sites, and the starling usually wins—even against larger species such as the Northern Flicker.

VOICE Highly varied; gives whooshing sssssheer, often in flight; also whistled wheeeooo; song an elaborate pulsing series with slurred whistles and clicking notes; imitates other species' vocalizations.

NESTING Natural or artificial cavity of any sort; 4–6 eggs; 1–2 broods; March–July.

FEEDING Omnivorous; picks at anything that might be edible; insects and berries are common food items; also visits birdfeeders and trash cans; often feeds on grubs in lawns.

FLIGHT: individuals fly in direct, buzzy manner; flocks bunch up tightly in flight.



INSECT EATERDespite its parents' omnivorous diet, the nestlings are fed almost exclusively on insects and larvae.



OCCURRENCE

In North America from southern Canada to the US—Mexico border; also Puerto Rico and other Caribbean islands. Common to abundant in cities, towns, and farmlands; also occurs in relatively "wild" settings far from human habitation. Forms flocks at all times, huge in winter.

Length 8½in (21cm)	Wingspan 16in (41cm)	Weight 2%- 3%oz (75-95g)
Social Colonies	Lifespan Up to 17 years	Status Secure

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THRUSHES

OST THRUSHES ARE medium-sized brownor olive-brown-backed birds with varying amounts of spotting underneath. Although undistinguished in color, they more than make up for their drab plumage with beautiful flutelike songs. Characteristically, thrushes and their relatives

> have a juvenile plumage with marked spotting

Varied Thrush is the sole member of the genus Ixoreus, and differs dramatically from other thrushes, with a bold black-and-rust pattern. It is one of the most distinctive birds in North America. Other birds that stand out from amongst other thrushes are the brightly colored bluebirds, which have been the target of successful conservation efforts, and the



Families Motacillidae, Cinclidae

WAGTAILS, PIPITS, & DIPPERS

¬ ROUND-DWELLING SONGBIRDS are Jrepresented by more than 50 species worldwide. Only two of these species are regularly found in North America.

WAGTAILS

Wagtails are named for their habit of constantly bobbing their long, slender tails up and down. Their plumage contrasts bright colors with black. Although primarily a European genus, two wagtail species are considered regular North American breeders, and two others are routinely sighted along the Bering Sea coast and Aleutian Islands.

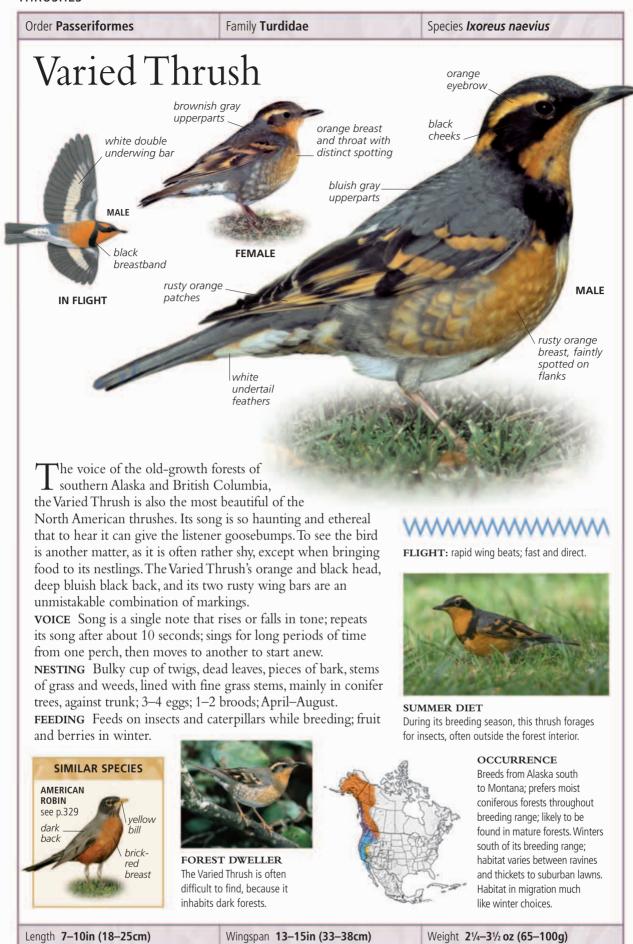
Unlike wagtails, the two species of pipit that breed in North America also winter there. Very much birds of open, treeless country, both pipit species are more likely to be seen on their widespread wintering grounds than in their breeding range.

DIPPERS

The only North American species of dipper is exclusively western, and occurs from Alaska south to Mexico and Panama. It is the only songbird that feeds underwater.

COUNTRY-LOVERS

Pipits, such as this female American Pipit, live in open countryside.

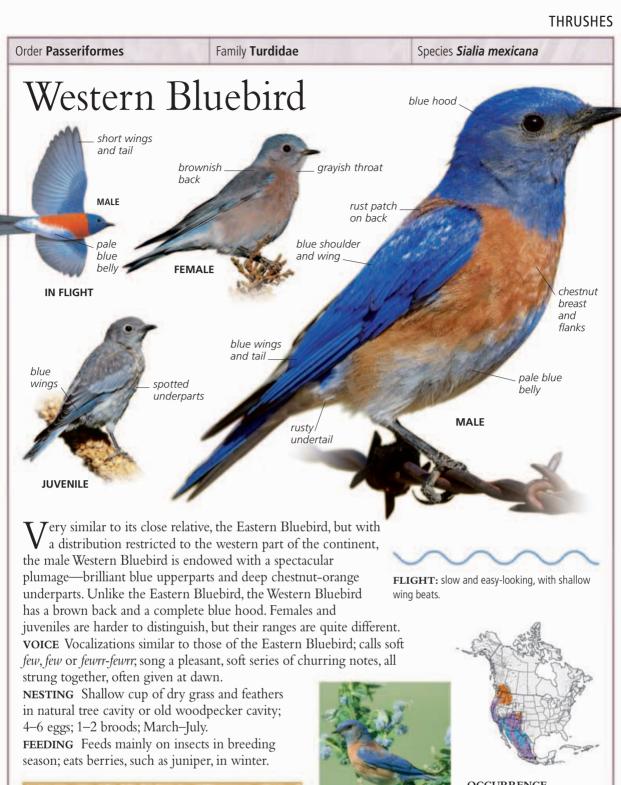


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Status **Declining**

Lifespan At least 5 years

Social Solitary/Flocks





PERCHED MALE
The Western Bluebird hunts from low perches, from which it takes

insects from the ground or air.

OCCURRENCE
During breeding season, open woodlands (coniferous and deciduous) and forest edges.
In winter, moves to lower elevations and occupies open and semi-open areas, such as pinyon-juniper forests

and deserts. Partial migrant;

where southern breeders reside.

northern birds move south

Length 6–7in (15–18cm)	Wingspan 11½–13in (29–33cm)	Weight 1/16 oz (25–30g)
Social Winter flocks	Lifespan Up to 7 years	Status Secure

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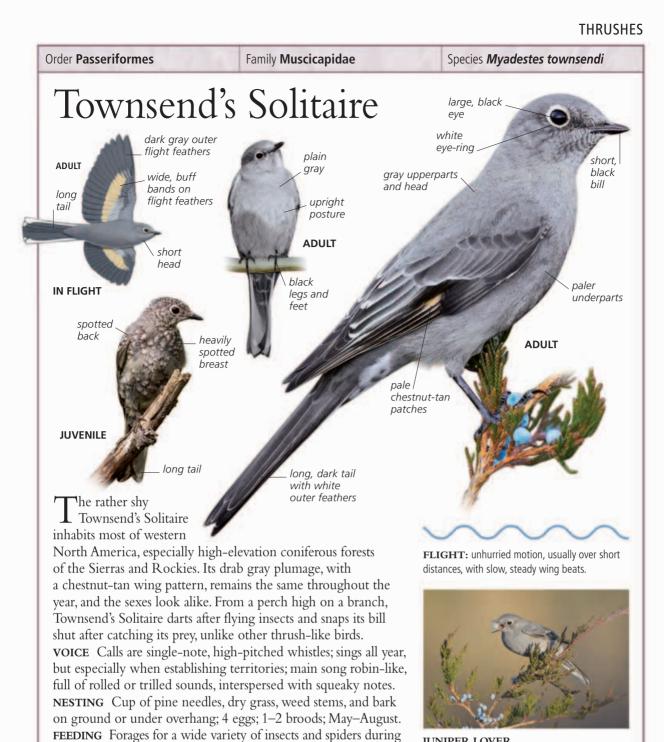


DATE SEEN	WHERE	NOTES

Lifespan At least 5 years

Status Secure

Social Flocks



JUNIPER LOVERSolitaires love the berry-like cones of junipers, which they eat to supplement their winter diet.



particularly junipers.



breeding season; feeds on fruits and berries after breeding,

GRAY PLUMAGE
Townsend's Solitaire is a drab
gray overall, but has a
conspicuous white eye-ring.

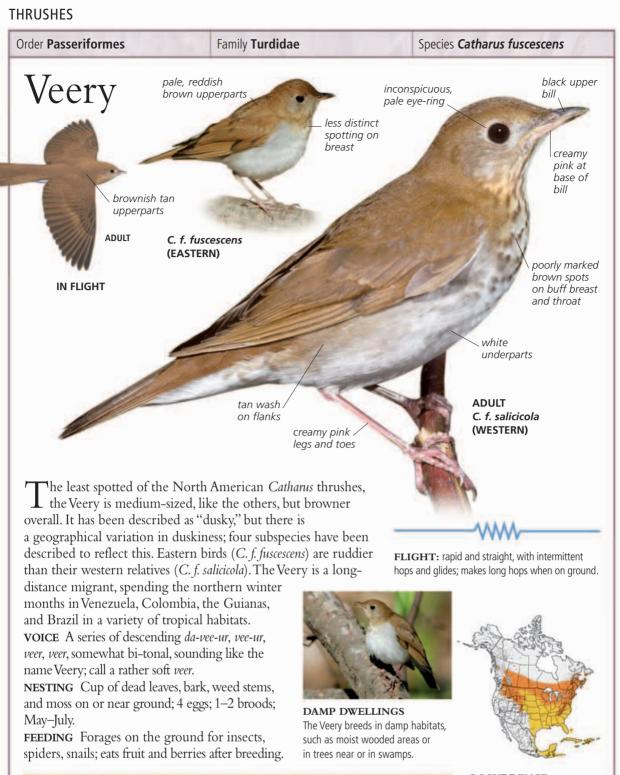


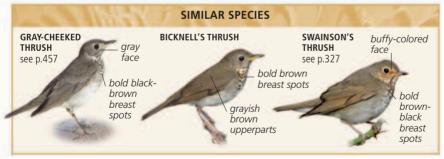
OCCURRENCE

During breeding season, found in open conifer forests along steep slopes or areas with landslides; during winter, at lower elevations, in open woodlands where junipers are abundant. Partial-migrant northern populations move south in winter, as far as central Mexico.

Length 8–8½in (20–22cm)	Wingspan 13–14½in (33–37cm)	Weight 11/16-11/4oz (30-35g)
Social Solitary	Lifespan Up to 5 years	Status Secure

DATE SEEN	WHERE	NOTES



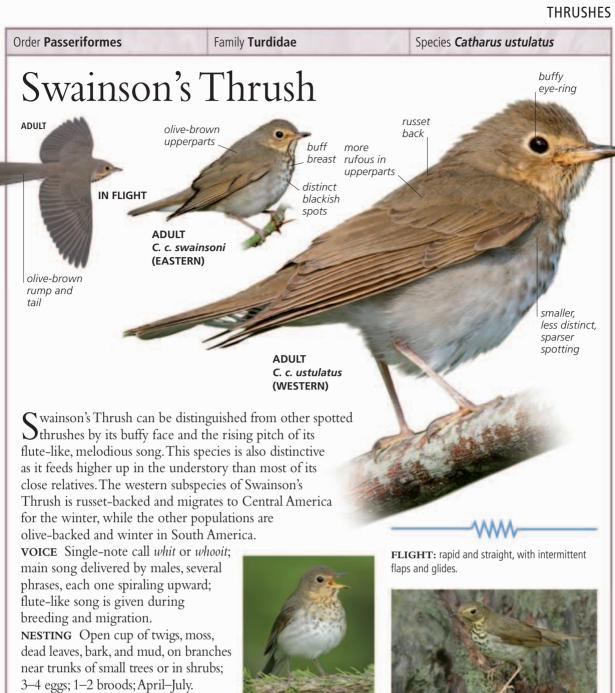


OCCURRENCE

In summer, mainly found in damp deciduous forests, but in some places habitat near rivers preferred. In winter, choice of habitat flexible; found in tropical broadleaf evergreen forest, on forest edges, in open woodlands, and in second-growth areas regenerating after fires or clearing.

Length 7in (18cm)	Wingspan 11–11½in (28–29cm)	Weight 11/16–2oz (28–54g)
Social Pairs	Lifespan Up to 10 years	Status Declining

DATE SEEN	WHERE	NOTES
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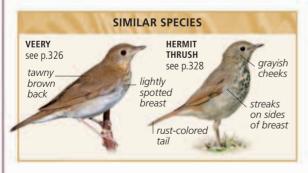


DISTINCTIVE SONG This bird's song distinguishes it from other thrushes.



TREE DWELLER Shy and retiring, Swainson's Thrush feeds higher in trees more other Catharus thrushes.

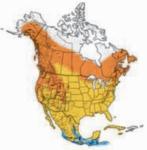
OCCURRENCE



FEEDING Forages in the air, using fly-catching methods to capture a wide

range of insects during breeding season;

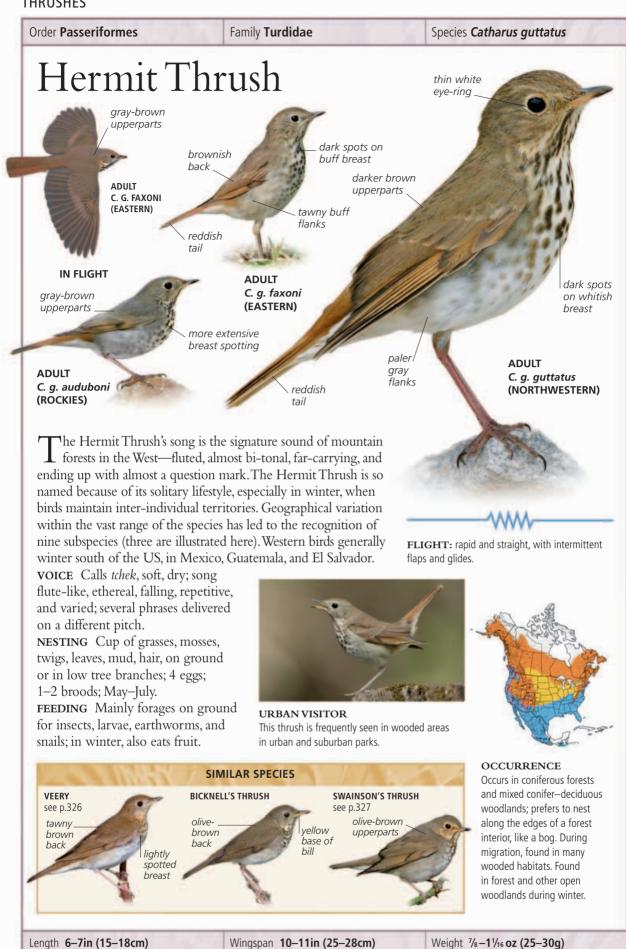
berries during migration and in winter.



Breeds mainly in coniferous forests, especially spruce and fir, except in California, where it prefers deciduous riverine woodlands and damp meadows with shrubbery. During spring and fall migrations, dense understory preferred. Winter habitat is mainly old growth forest.

Length 6½–7½in (16–19cm)	Wingspan 11½–12in (29–31cm)	Weight ⁷ / ₈ –1 ⁹ / ₁₆ oz (25–45g)
Social Pairs/Flocks	Lifespan Up to 11 years	Status Declining

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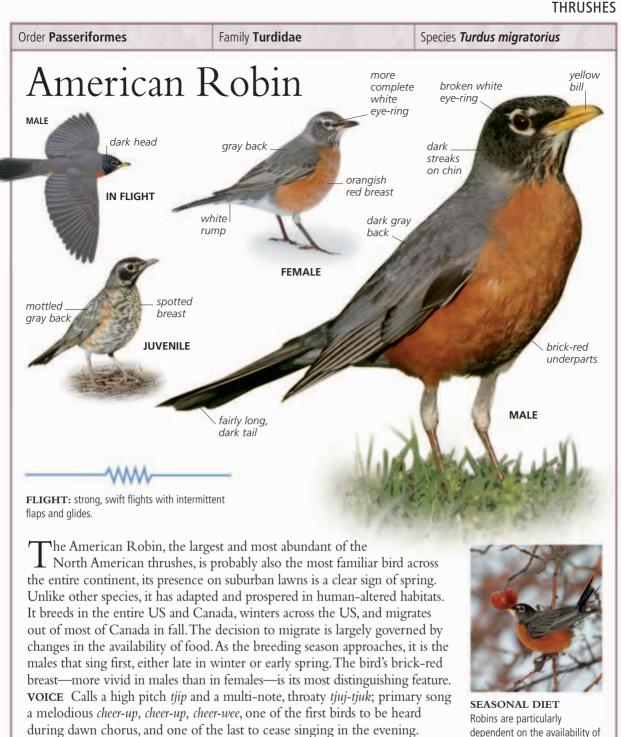


DATE SEEN	WHERE	NOTES

Lifespan Up to 9 years

Status Secure

Social Solitary



in trees or shrub, in fork tree, or on branch on tree; 4 eggs; 2–3 broods; April–July. FEEDING Forages in leaf litter, mainly for earthworms and small insects; mostly consumes fruit in

the winter season.





Robins are particularly dependent on the availability of fruit during the winter months.

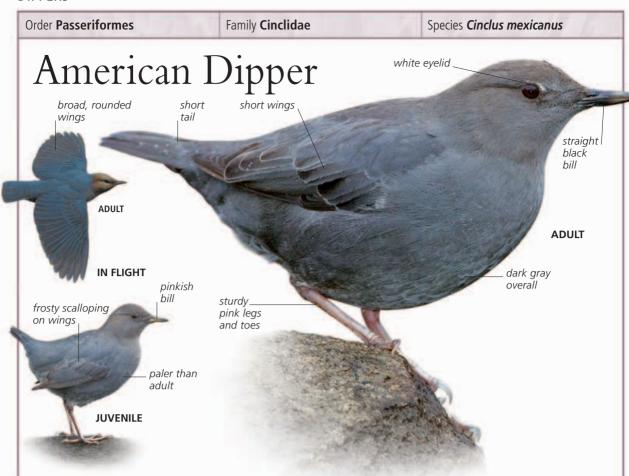
OCCURRENCE

Breeding habitat a mix of forest, woodland, suburban gardens, lawns, municipal parks, and farms. A partial migrant; found in woodlands with berry-bearing trees. Nonmigrating populations' winter habitat is similar to breeding habitat. Reaches Guatemala in winter.

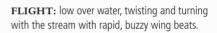
Length 8–11in (20–28cm)	Wingspan 12–16in (30–41cm)	Weight 2 % oz (75g)
Social Flocks	Lifespan Up to 13 years	Status Secure

DATE SEEN	WHERE	NOTES

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The most aquatic North American songbird, the American L Dipper is at home in the cold, rushing streams of the American West. It is known for its feeding technique of plunging into streams for insect larvae under stones or in the streambed. When not foraging, it watches from a rock or log, bobbing up and down, constantly flashing its nictitating membrane (the transparent third eyelid that protects the eye when the bird is underwater). Susceptible to changes in water chemistry and turbulence, which alter the abundance of its main food, caddisfly larvae, this bird has been proposed as an indicator for stream quality. **VOICE** Call a harsh *bzzt*, given singly or in rapid series; song a loud, disorganized series of pleasing warbles, whistles, and trills. NESTING Domed nest with side entrance, placed underneath bridge or behind waterfall; 4-5 eggs; 1-2 broods; March-August. FEEDING Forages for insects and insect larvae, especially caddisflies; sometimes eats small fish and fish eggs.





BOBBING MOTIONThe American Dipper often pauses on rocks in streams, where it bobs up and down.

SIMILAR SPECIES RUSTY BLACKBIRD See p.377 See p.377 See p.378 See p.378 See p.378 See p.378 More Selender body Ionger tail Iong tail



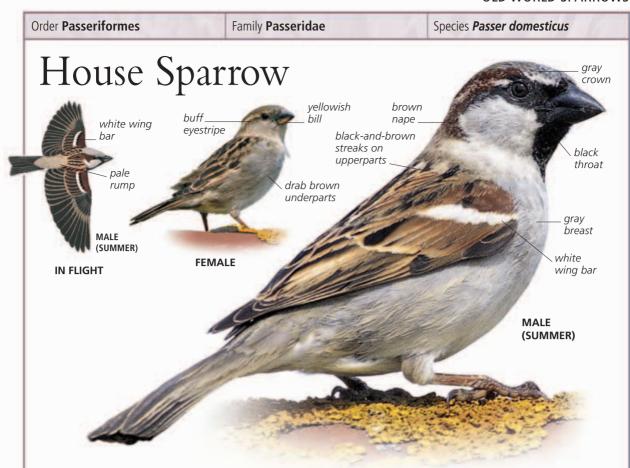
Found from Alaska, the Yukon, and British Columbia, south to California, Arizona, New Mexico, Mexico, and Panama. On Pacific slope,

OCCURRENCE

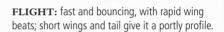
New Mexico, Mexico, and Panama. On Pacific slope, breeds down to sea level; in interior West, breeds mainly in mountains and foothills; retreats to lower elevations in winter.

Length 7½in (19cm)	Wingspan 11in (28cm)	Weight 1¾–2¼oz (50–65g)
Social Solitary	Lifespan Up to 7 years	Status Secure

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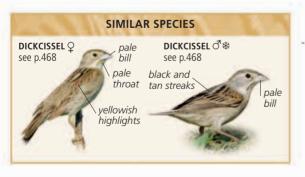
This is the familiar "sparrow" of towns, cities, suburbs, and farms. The House Sparrow is not actually a sparrow as understood in North America, but rather a member of a Eurasian family called the weaver-finches. It was first introduced in Brooklyn, New York, in 1850. From this modest beginning, and with the help of several other introductions up until the late 1860s, this hardy and aggressive bird eventually spread right through the North American continent. In a little more than 150 years, the House Sparrow has evolved and shows the same sort of geographic variation as some widespread native birds. It is pale in the arid Southwest, and darker in wetter regions. VOICE Variety of calls, including a cheery chirp, a dull jurv and a rough jigga; song consists of chirp notes repeated endlessly. NESTING Untidy mass of dried vegetable material in either natural or artificial cavities; 3-5 eggs; 2-3 broods; April-August. FEEDING Mostly seeds; sometimes gleans insects and fruits.





APTLY NAMED

This sparrow is seen near human structures—roofs, outbuildings, loading docks, curbs, and streetlights.



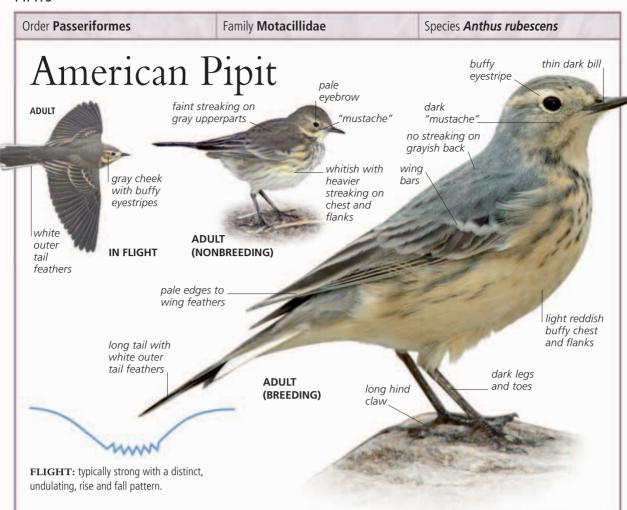


OCCURRENCE

Flourishes in the downtown sections of cities and anywhere near human habitations, including agricultural outbuildings in remote areas of the continent. Found in Mexico, Central and South America, and the West Indies. Widespread also in Eurasia, SE Asia, North Africa, and Arabia.

Length 6in (15.5cm)	Wingspan 9½in (24cm)	Weight ⅓–1 1/16 oz (18–30g)
Social Flocks	Lifespan Up to 7 years	Status Declining

DATE SEEN	WHERE	NOTES



The American Pipit is divided into four subspecies, three of which breed in North America, and the fourth in Siberia. In nonbreeding plumage, the American Pipit is a drab-looking, brownish gray bird that forages for insects along waterways and lakeshores, or in cultivated fields with short stems. In the breeding season, molting transforms it into a beauty—with gray upperparts and reddish underparts. American Pipits are known for pumping their tails up and down. When breeding, males display by rising into the air, then flying down with wings open and singing. Its migration takes the American Pipit as far south as Guatemala.

VOICE Alarm call a tzeeep; song repeated tzwee-tzooo from the air.

NESTING Cup in shallow depression on ground, outer frame of grass, lined with fine grass and hair; 4–6 eggs; 1 brood; June–July.

FEEDING Picks insects; also eats seeds during migration.



WINTER DRABForaging in short vegetation, this bird is almost the same color as its surroundings.

OCCURRENCE

SIMILAR SPECIES HORNED LARK SPRAGUE'S PIPIT see p.459 see p.298 heavy streaking less white . cheeks on back on tail and throat ess streaking edge on throat and chest ale legs



Breeds in Arctic tundra in the north, and alpine tundra in the Rockies; also breeds on treeless mountaintops in Maine and New Hampshire. Winters in open coastal areas

and harvested agricultural fields across the US. Some North American migrants fly to Asia for the winter.

Length 6–8in (15–20cm)	Wingspan 10–11in (25–28cm)	Weight 11/16 0z (20g)
Social Flocks	Lifespan Up to 6 years	Status Secure

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FINCHES

THE NAME "FINCHES" applies to the Fringillidae, a family of seed-eating songbirds that includes 16 species in North America. They vary in size and shape from the small and fragile-looking redpolls to the robust and chunky Evening Grosbeak. Finch colors range from whitish with some pink (redpolls) to gold (American Goldfinch), bright red (crossbills), and yellow, white, and black (Evening Grosbeak). However, irrespective of body shape, size, and color, all have

CROSSBILL

Perched on a pine tree branch, a female Red Crossbill grinds a seed in her bill to break open the hull and reach the fat-rich kernel inside.

conical bills with razorsharp edges. Finches do not crush seeds. Instead, they cut open the hard hull, then seize the seed inside with their tongue and swallow it. The bills of conifer-loving crossbills are crossed at the tip, a unique arrangement that permits them to open tough-hulled pine cones. Roughly 50 percent of crossbills are "left-billed" and 50 percent "right-billed"lefties are right-footed, and vice versa. Most finches are social. Although they breed in pairs, after nesting finches form flocks, some of which are huge. Most finch populations fluctuate in size, synchronized with seed production and abundance. All finches are vocal, calling

NOT REALLY PURPLE

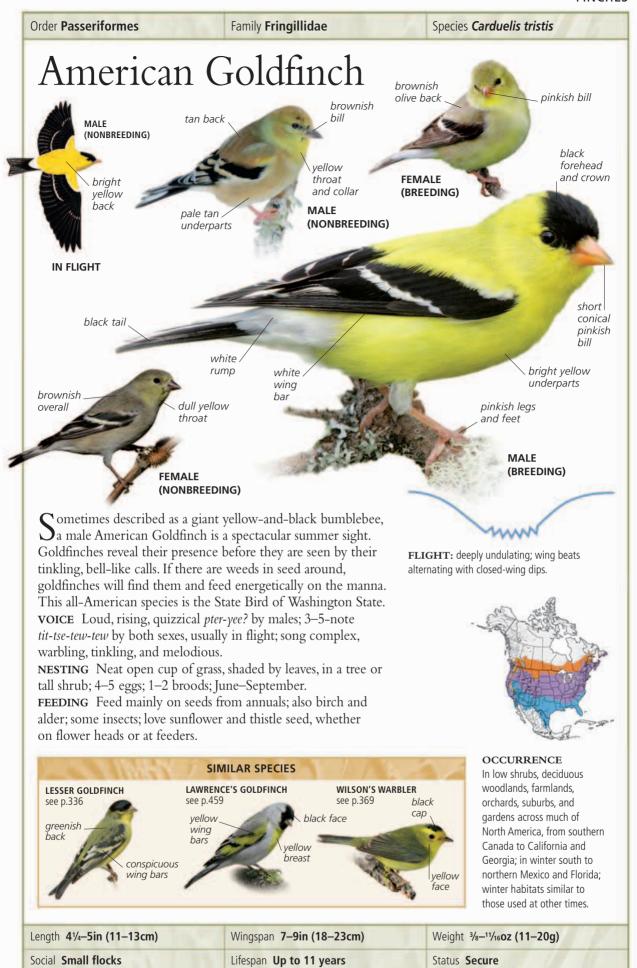
The inaccurately named Purple Finch actually has a lovely wine-red color.

constantly while flying, and singing in the spring. Calls are usually sharp, somewhat metallic sounds, although the American Goldfinch's tinkling calls are sweeter. Songs can be quite musical, clear-sounding melodies, like that of the Cassin's Finch. Finches make open cup-shaped nests of grasses and lichens, in trees or shrubs, and are remarkably adept at hiding them.



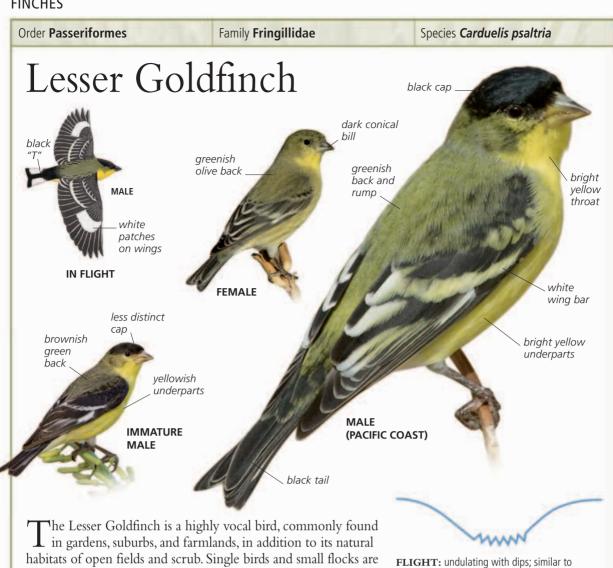


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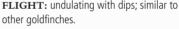


often seen zooming around and flying overhead, calling noisily or singing in flight. The male has a brighter yellow breast and belly than the female. It also has a black cap, unlike the female, and its nape and back color varies from black in Texas and Mexico, to green along the Pacific coast.

VOICE Call descending *peeyee* and 2-note *tee-eee*, with second note higher; also rapid dididit; song warbles and trills.

NESTING Well-concealed cup, 10-30ft (3-9m) up in densely foliaged trees; 4 eggs; 1 brood; April-September.

FEEDING Eats a range of weed seeds; also eats insects, especially aphids, when available.





GREENISH BACK

A western version of the American Goldfinch, the male Lesser Goldfinch is also greenish above.





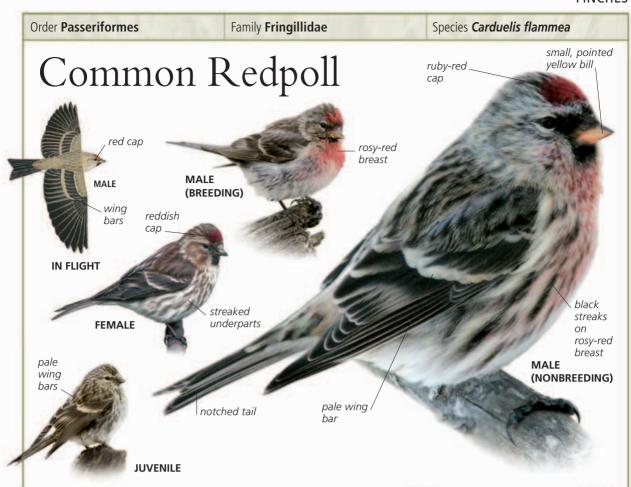
OCCURRENCE

This western species is not picky in its choice of habitat, which includes deciduous and coniferous woodlands, thickets, desert oases, parks and gardens; occurs from California to Texas in the breeding season and south to Mexico in winter.

Length 31/2-41/4in (9-11cm)	Wingspan 6–6¾in (15–17cm)	Weight %oz (10g)
Social Flocks	Lifespan Up to 6 years	Status Secure

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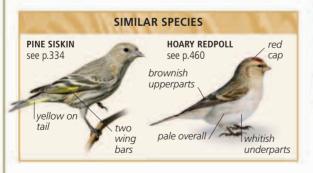
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E very other year, spruce, birch, and other trees in the northern forest zone fail to produce a good crop of seeds, forcing the Common Redpoll to look for food farther south than usual—as far south as the northern US states. The Common Redpoll is oddly tame around people and is easily attracted to winter feeders. The degree of whiteness in its plumage varies greatly among individuals, related to sex and age. The taxonomy of the Common Redpoll includes four subspecies around the world, and there are suggestions that some may be distinct species.

VOICE Flight call dry zit-zit-zit and rattling chirr, also high

too-ee call while perched; song series of rapid trills. **NESTING** Cup of small twigs in spruces, larches, willows, alders; 4–6 eggs; 1–2 broods; May–June. **FEEDING** Feeds on small seeds from conifers, sedge, birch, willow, alder; also insects and spiders.



FLIGHT: deeply undulating, with dips between bouts of wing beats.



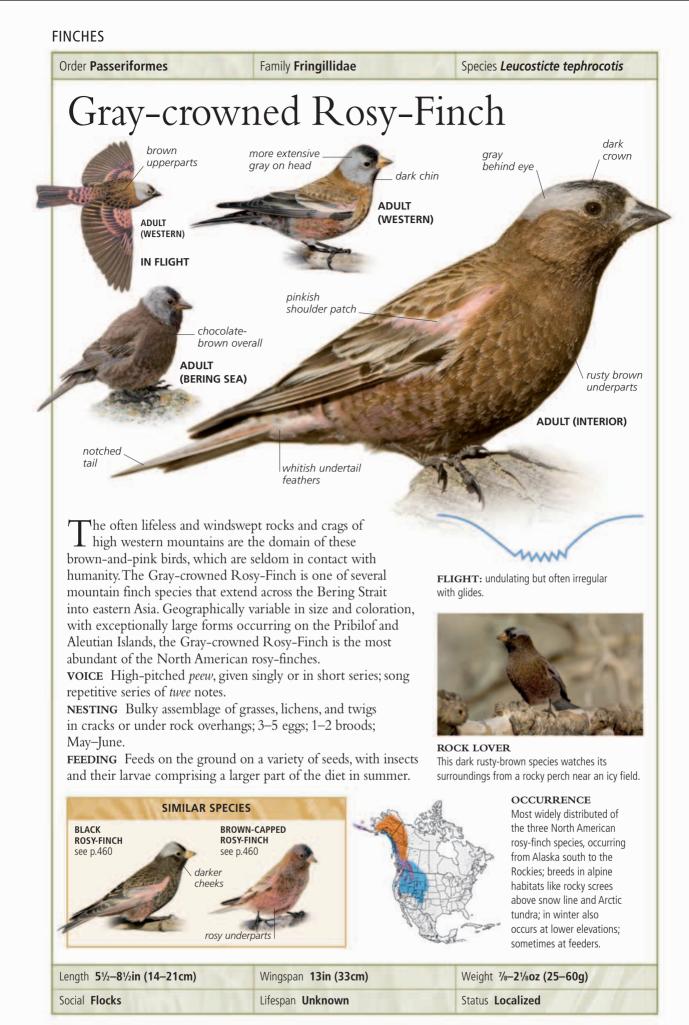
FRIENDLY FLOCKCommon Redpolls are only weakly territorial, sometimes even nesting close together.

OCCURRENCE

Mainly in extreme northern North America from Alaska to Québec and Labrador, in low forest, sub-Arctic, and shrubby tundra habitats. More southern winter appearances typically occur every other year, rarely south of northern US states, from the Dakotas east to New York and New England.

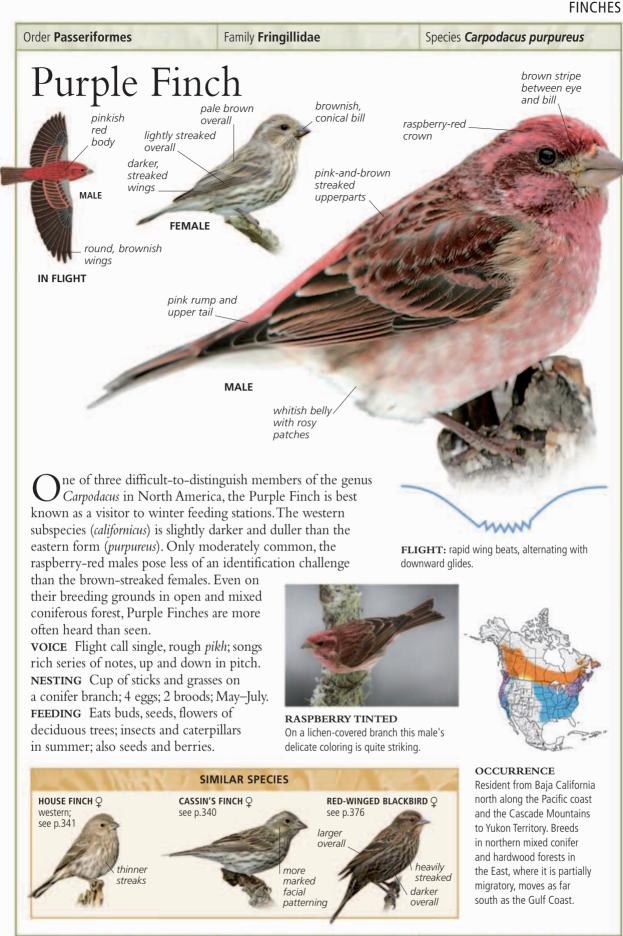
Length 4 ¾ –5 ½ in (12–14cm)	Wingspan 6½-6¾in (16-17cm)	Weight 3/8-11/16 0z (11-19g)
Social Flocks	Lifespan Up to 10 years	Status Secure

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Wingspan 8½-10in (22-26cm)

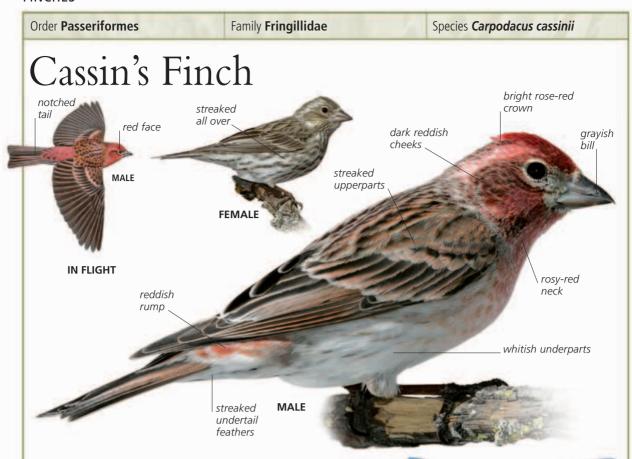
Lifespan Unknown

Length 43/4-6in (12-15cm)

Social Flocks

Weight 11/16-11/16 oz (20-30g)

Status **Declining**



Named after the 19th-century ornithologist John Cassin, this finch has a rich, melodious song that incorporates phrases from the songs of several different Rocky Mountain species. From below, the male Cassin's Finch resembles a sparrow, but when it alights on a tree stump, its full, purple-red plumage is immediately evident. This species closely resembles the other two species in the genus *Carpodacus*, the Purple and House finches, whose ranges it overlaps, so it may take time and practice to be certain of this species' identity in the field. The female Cassin's Finch is not distinctive—it resembles a generic fledgling or a sparrow.

VOICE Call *tee-uhh* or *piddlit*; song rich and warbling; may include high-frequency whistles and imitations of other species. **NESTING** Open cup on lateral branch of conifer, also in aspen or sagebrush; 4–5 eggs; 1 brood; May–July.

FEEDING Eats berries, pine seeds, aspen buds, insects, larvae; feeds mainly on ground but frequents feeding stations in winter.

FLIGHT: rapid wing beats, then a glide, in a regular sequence.



ARBOREAL FINCHCassin's Finch likes to perch on an elevated twig or branch, often in coniferous forests.

PURPLE FINCH see p.339 shorter, less pointed bill orange bib and head neck reddish orange

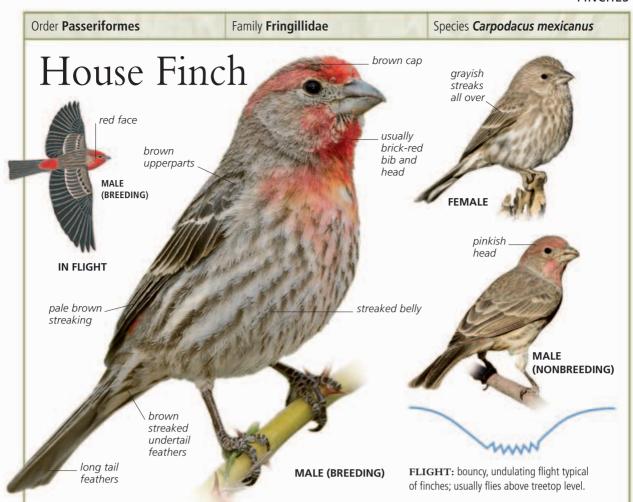


OCCURRENCE

Found in coniferous forests in mountains of western US; may occur in sagebrush—juniper plains or open areas with Ponderosa or Lodgepole pine. Migratory both toward lower elevations and southward. Winters throughout its breeding range.

Length 5 ½ –6 ½ in (14–16cm)	Wingspan 10–10½in (25–27cm)	Weight 1/8-11/4oz (25-35g)
Social Flocks	Lifespan Up to 10 years	Status Secure

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H istorically, the House Finch was a western bird, and was first reported in the eastern side of the US on Long Island, New York in 1941. These birds are said to have originated from the illegal bird trade. The population of the eastern birds started expanding in the 1960s, so much so that by the late 1990s, their population had expanded westward to link up with the original western population. The male House Finch is distinguished from the Purple and Cassin's finches by its brown streaked underparts, while the females have plainer faces and generally blurrier streaking.

VOICE Call note *queet*; varied jumble of notes, often starting with husky notes to whistled and burry notes, and ending with a long *wheeerr*. **NESTING** Females build nests from grass stems, thin twigs, and thin weeds

in trees and on man-made structures; 1–6 eggs; 2–3 broods; March–August. **FEEDING** Eats, almost exclusively, vegetable matter, such as buds, fruits, and seeds; readily comes to feeders.

CASSIN'S FINCH

see p.340

SIMILAR SPECIES

ninkish

PURPLE FINCH

see p.339





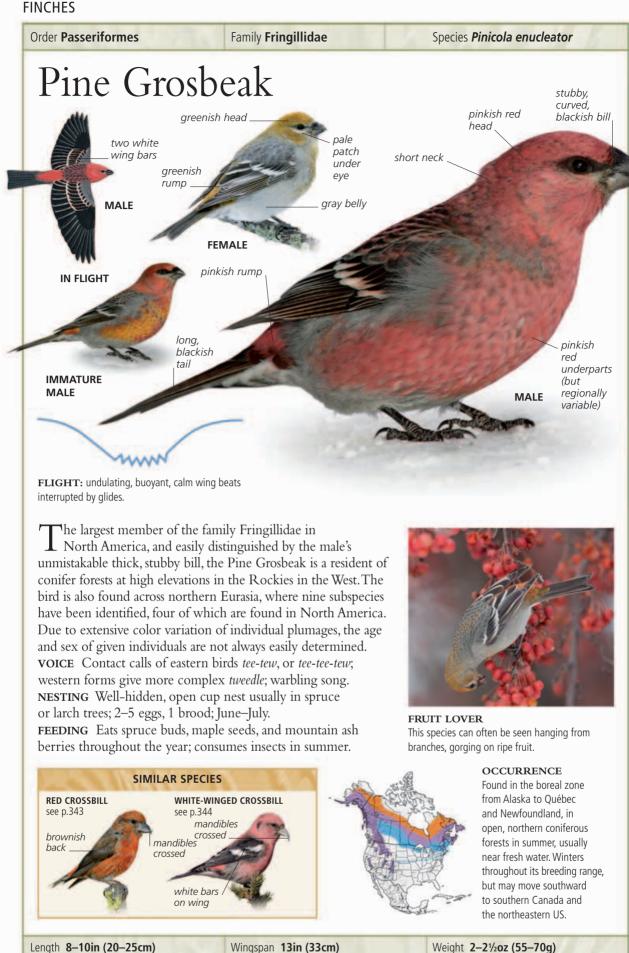
RED IN THE FACEThe breeding male House-Finch can be identified by its stunning brick-red plumage.

OCCURRENCE

Found in urban, suburban, and settled areas; in the West also in wilder areas, such as savannas, desert grasslands, and chaparral, particularly near people; in the East almost exclusively in settled areas, including the centers of large cities. Resident, some birds move after breeding.

underparts	pures	birds move after breeding.
Length 5–6in (12.5–15cm)	Wingspan 8–10in (20–25cm)	Weight %-1oz (16–27g)
Social Flocks	Lifespan Up to 12 years	Status Secure

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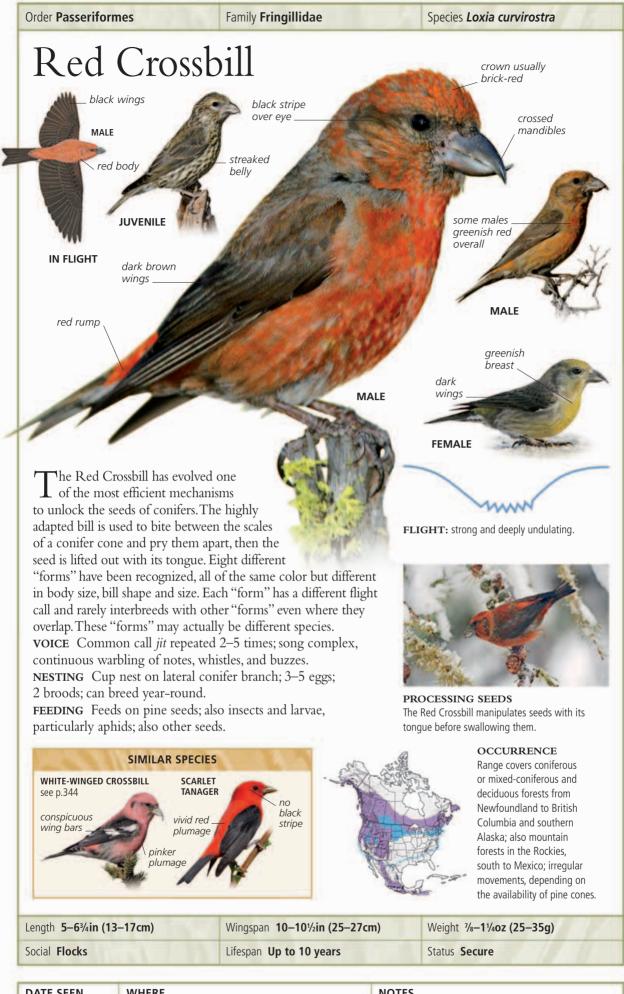


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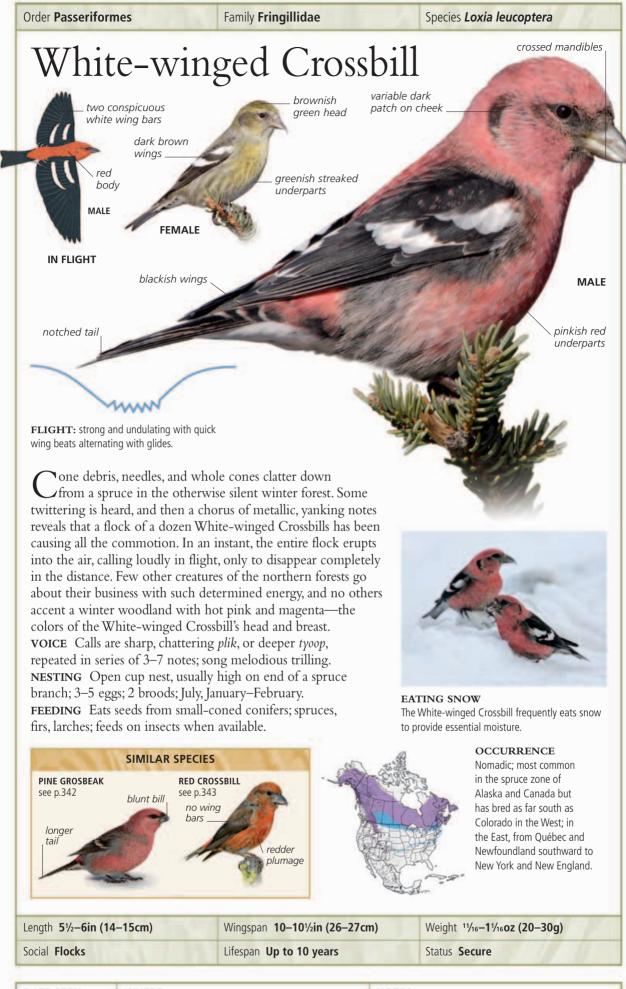
Lifespan Up to 10 years

Status Secure

Social Flocks

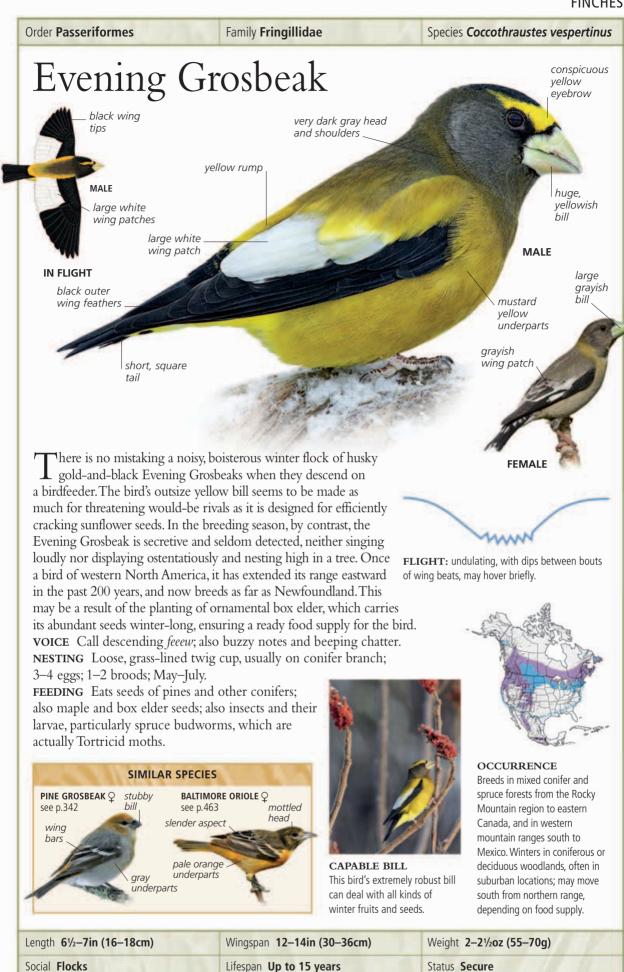


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WOOD-WARBLERS

These are among the most colorful of North American birds. The family is also remarkable for its diversity in plumage color, song, feeding behavior, breeding biology (ground nesting or tree nesting), sexual dimorphism, and habitat choice. However, wood-warblers generally share a similar shape: they are small, slender birds with thin, pointed bills, which they mostly use for catching insect prey. The thicker-billed Yellow-breasted



FEEDING STRATEGIESSome warblers, such as this
Black-and-white, probe the
cracks in tree trunks for food.

Chat is an exception to the usual warbler body shape. In addition, the Chat's song is quite unlike other warblers'. Molecular data suggest what some birders have suspected—that it is not a warbler—but the evidence is still inconclusive. Most species of

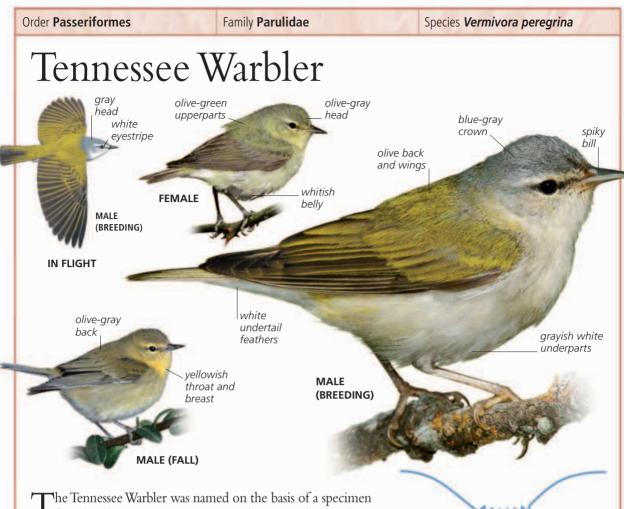
North American wood-warblers are found in the East, especially in forests. Some western warbler species occur in dense, moist habitats, including the rainforests of British Colombia, Washington, and Oregon. By contrast, other western species live in arid habitats, such as the mesquite woodlands of the



PLASTIC PLUMAGE
Many male *Dendroica* warblers
(like this Blackburnian) are only
brightly colored when breeding.
This species is rare in the West.

Southwest. Migration routes vary between eastern and western warbler species. Most western warblers have short migration routes southward to winter ranges in Mexico. Most eastern species are long-distance migrants that fly in southerly directions toward either Florida and the Caribbean or toward Mexico and Central America. Some species even travel as far as South America.





The Tennessee Warbler was named on the basis of a specimen found in that state on migration, as this species breeds almost entirely in Canada and winters in Central America. These warblers inhabit fairly remote areas and their nests are difficult to find. It is one of a number of species that takes advantage of outbreaks of spruce budworms (actually Tortricid moths); their populations tend to increase in years when budworms themselves increase.

VOICE Call a sharp tzit; flight call a thin slightly rolling seet; song usually three-part staccato series, chip-chip-chip, each series increasing in pitch and usually in tempo.

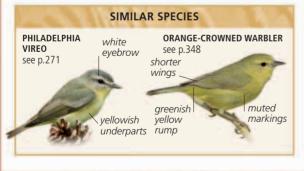
NESTING Nest woven of fine plant matter, in ground depression, concealed from above by shrubbery; 4–7 eggs; 1 brood; June. **FEEDING** Searches outer branches of trees for caterpillars, bees, wasps, beetles, and spiders; also eats fruits in winter and drinks nectar by piercing base of flowers.

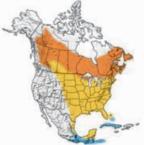
FLIGHT: fast, slightly undulating, and direct with rapid wing beats.



UNIQUE UNDERPARTS

The breeding male is the only North American woodwarbler with unmarked grayish white underparts.



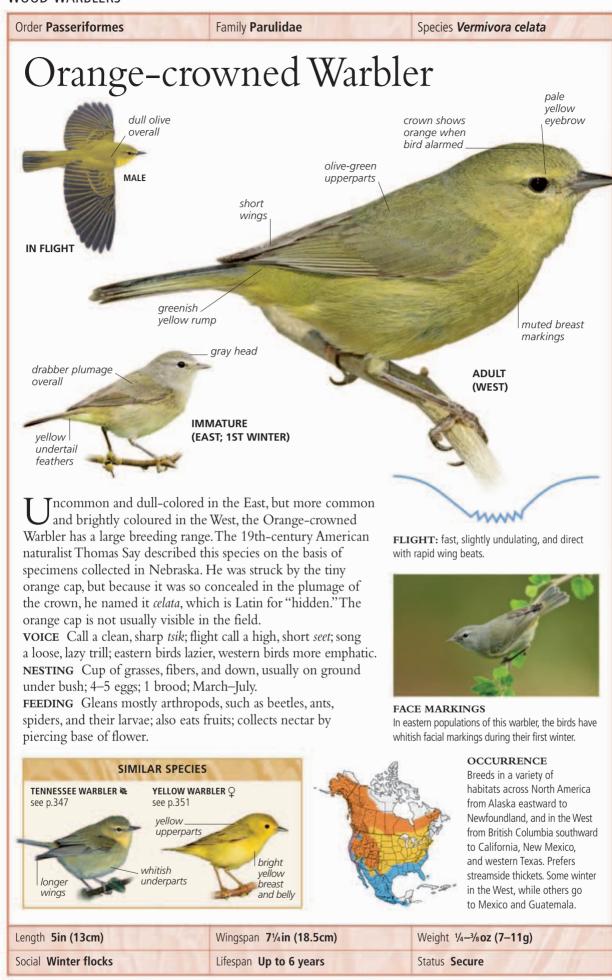


OCCURRENCE

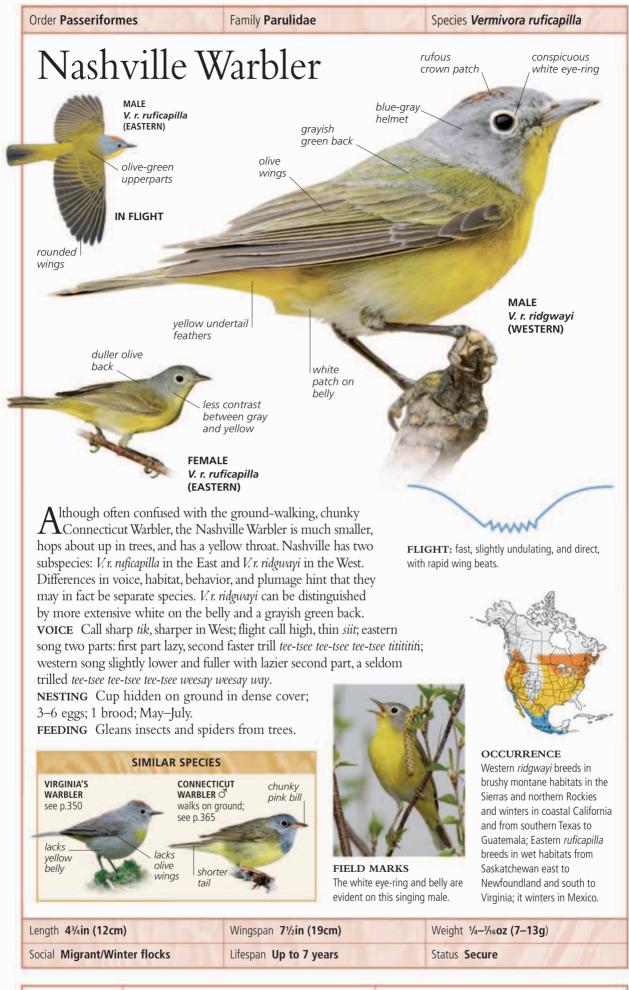
Breeds in a variety of habitats, especially woodlands with dense understory and thickets of willows and alders. Very common in suburban parks and gardens during migration, particularly in the Midwest. Winters from southern Mexico to northern Ecuador and northern Venezuela; also Cuba.

Length 4¾in (12cm)	Wingspan 7 3/4 in (19.5cm)	Weight 1/32–5/8 oz (8–17g)
Social Flocks	Lifespan Up to 6 years	Status Secure

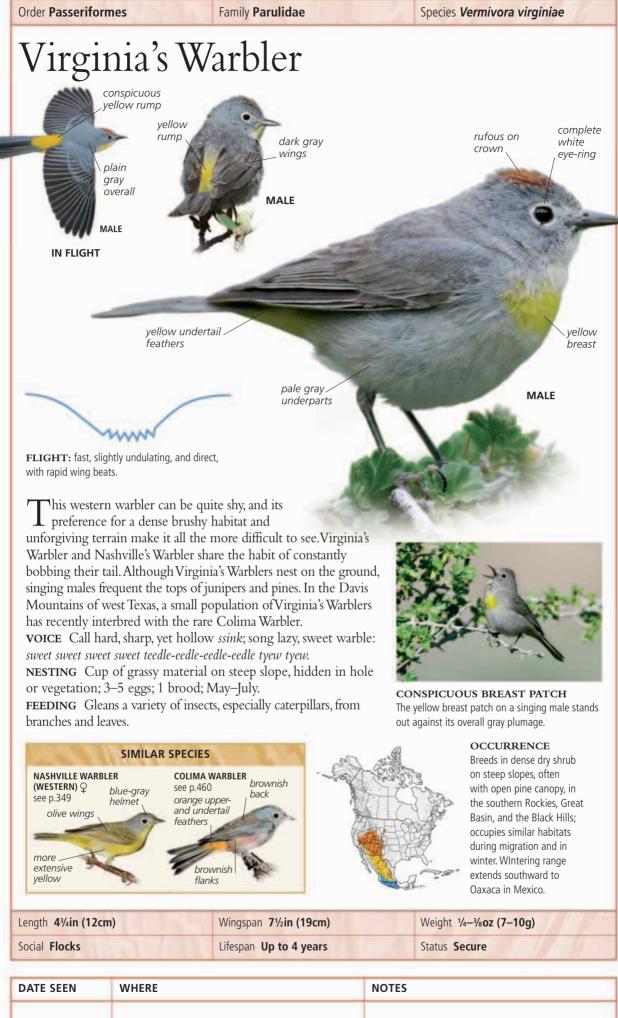
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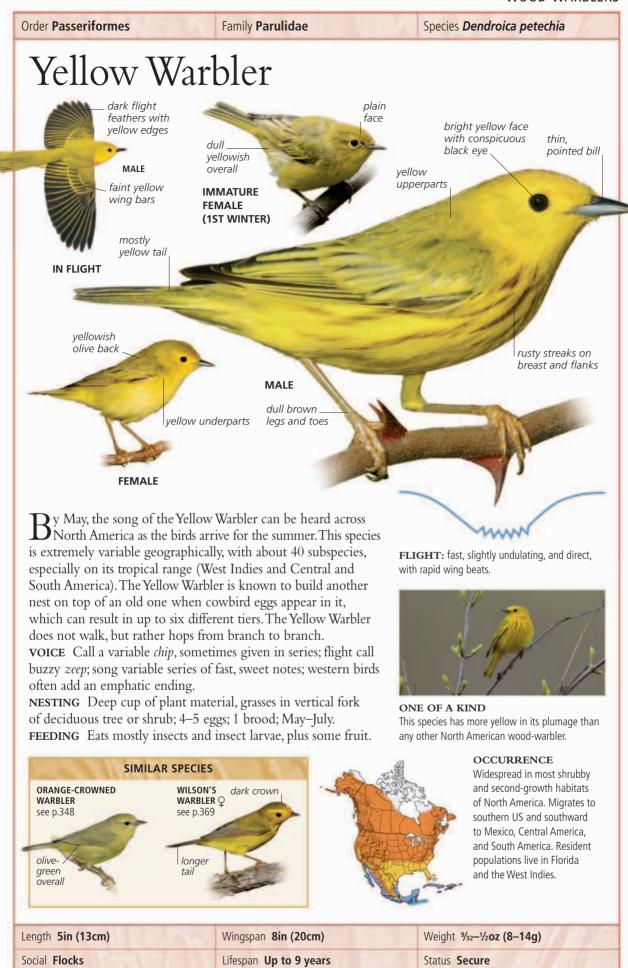


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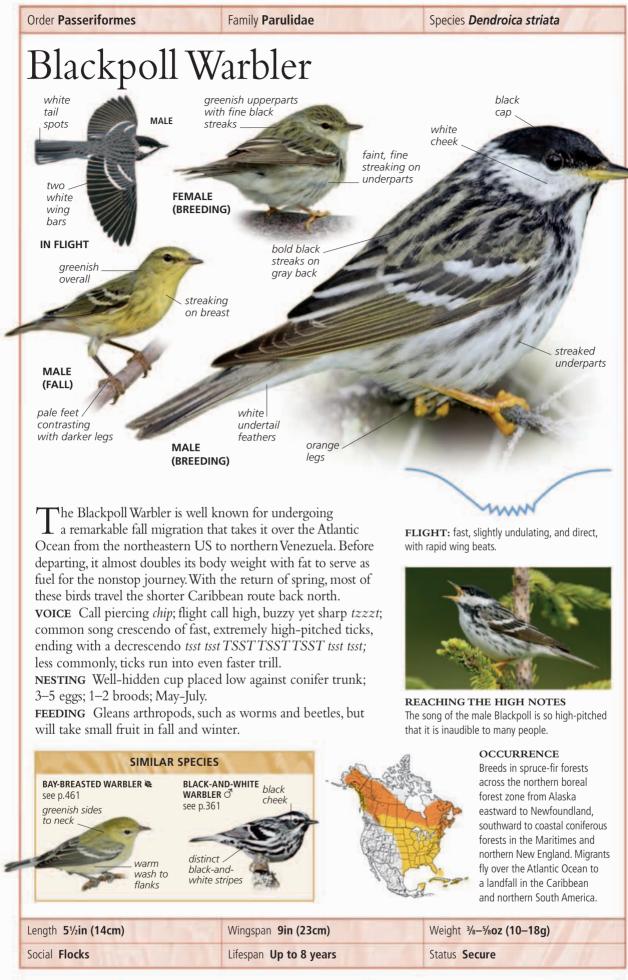
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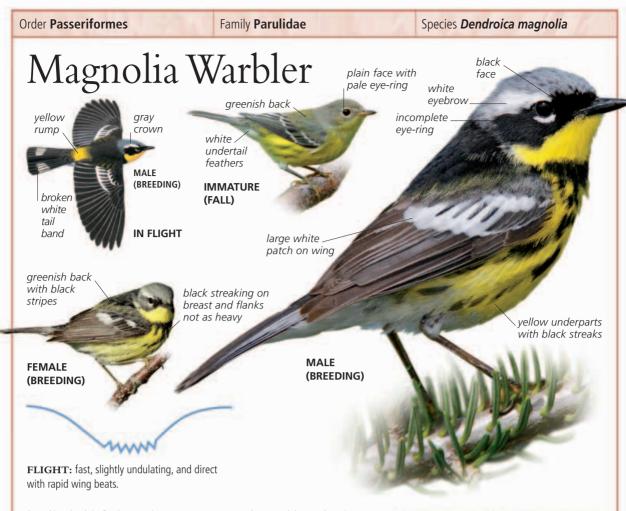
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The bold, flashy, and common Magnolia Warbler is hard to miss as it flits around at eye level, fanning its uniquely marked tail. This species nests in young forests and winters in almost any habitat, so its numbers have not suffered in recent decades, unlike some of its relatives. Although it really has no preference for its namesake plant, the 19th-century ornithologist Alexander Wilson discovered a Magnolia Warbler feeding in a magnolia tree during migration, which is how it got its name. **VOICE** Call a tinny *jeinf*, not particularly warbler-like; also short, simple whistled series wee'-sa wee'-sa WEET-a-chew; short, distinctive, flight call a high, trilled zeep.

NESTING Flimsy cup of black rootlets placed low in dense conifer against trunk; 3-5 eggs; 1 brood; June-August. FEEDING Gleans mostly caterpillars, beetles, and spiders.



SPRUCE WARBLER

The conspicuous male Magnolia Warbler can be found singing its distinctive, loud song, often throughout the day, in a spruce tree.



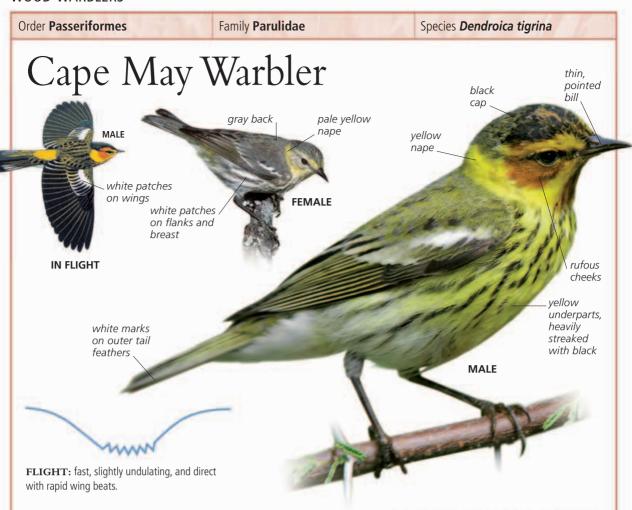


OCCURRENCE

Breeds in dense, young mixed and coniferous forests from Yukon east to Newfoundland and south into Appalachians of Tennessee; migrates across the Gulf and Caribbean; winters in varied habitats in Caribbean and from southeast Mexico to Panama: rare vagrant in the West.

Length 5in (13cm)	Wingspan 7½ in (19cm)	Weight 1/32–1/16 oz (6–12g)
Social Migrant/Winter flocks	Lifespan Up to 6 years	Status Secure

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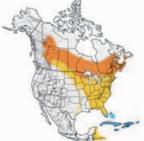
The Cape May Warbler is a spruce budworm (a moth actually, not a worm) specialist, and its populations increase during outbreaks of this pest. Cape May Warblers chase other birds aggressively from flowering trees, where they use their semitubular tongue to suck the nectar from blossoms. In its summer spruce forest habitat, the Cape May Warbler plucks insects from clumps of needles. The "Cape May" Warbler was named this way because the first specimen was collected here, but it doesn't breed at Cape May! VOICE Song a high, even-pitched series of whistles see see see. NESTING Cup placed near trunk, high in spruce or fir near top; 4–9 eggs; 1 brood; June–July.

FEEDING Gleans arthropods, especially spruce budworms, and also flies, adult moths, and beetles from mid-high levels in canopy; also fruit and nectar during the nonbreeding season.



SPRING FLASHMagnificently colored, a male shows its chestnut cheek, yellow "necklace," and yellow rump.

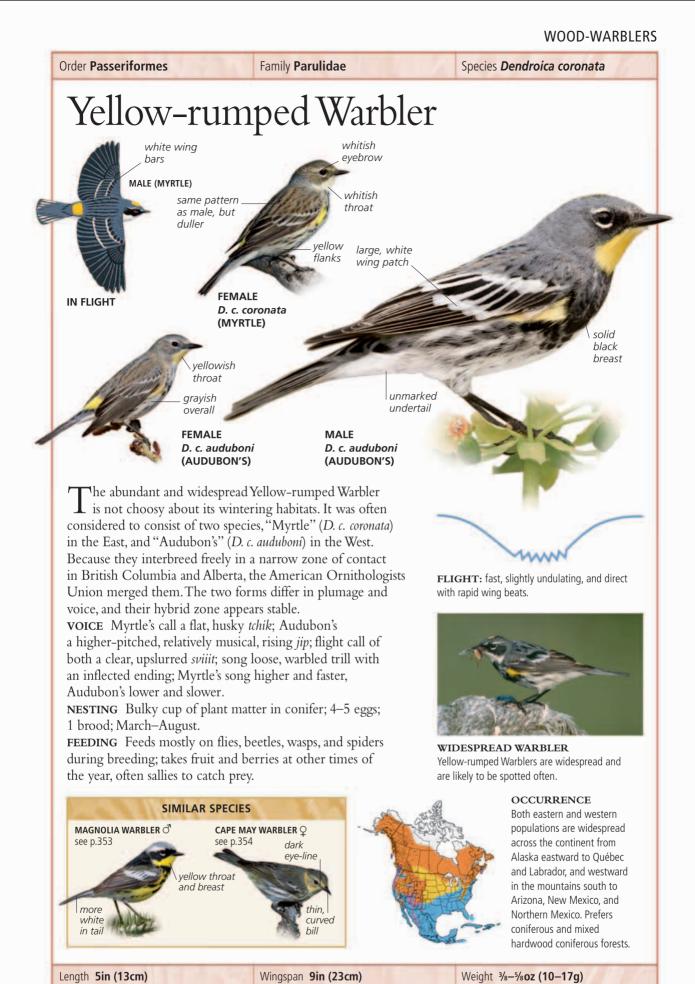




OCCURRENCE
Breeds from the Yukon
and British Columbia to
the Great Lakes, the
Maritimes, and New England
in mature spruce—fir forests.
Migrants occur in a variety
of habitats. Winters especially
in gardens in Central America,
as far south as Honduras.

Length 5in (13cm)	Wingspan 8in (20cm)	Weight ⁵/16– ⁷ /16 oz (9–13g)
Social Migrant flocks	Lifespan Up to 4 years	Status Secure

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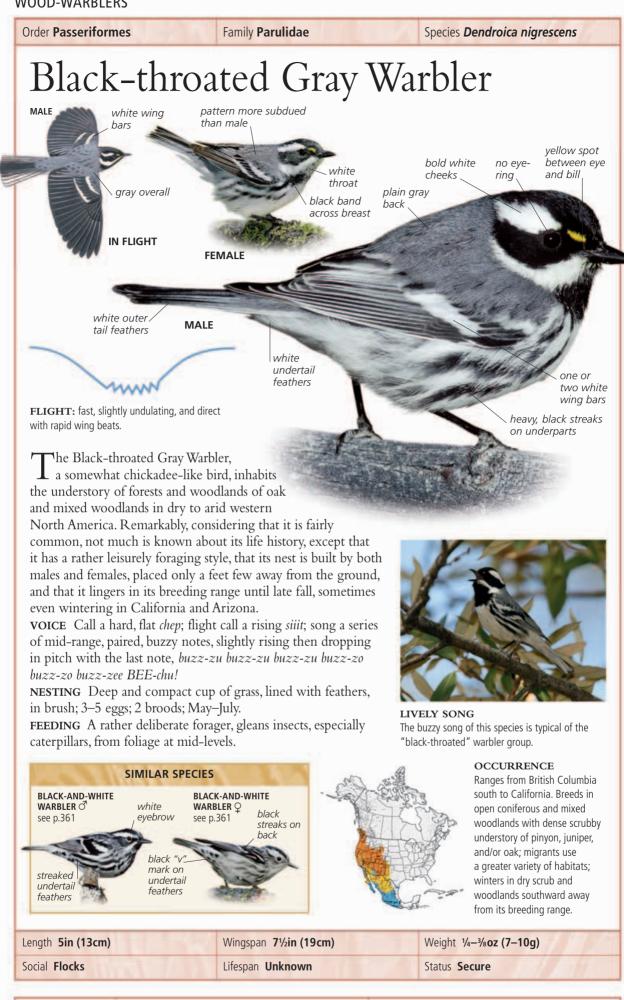


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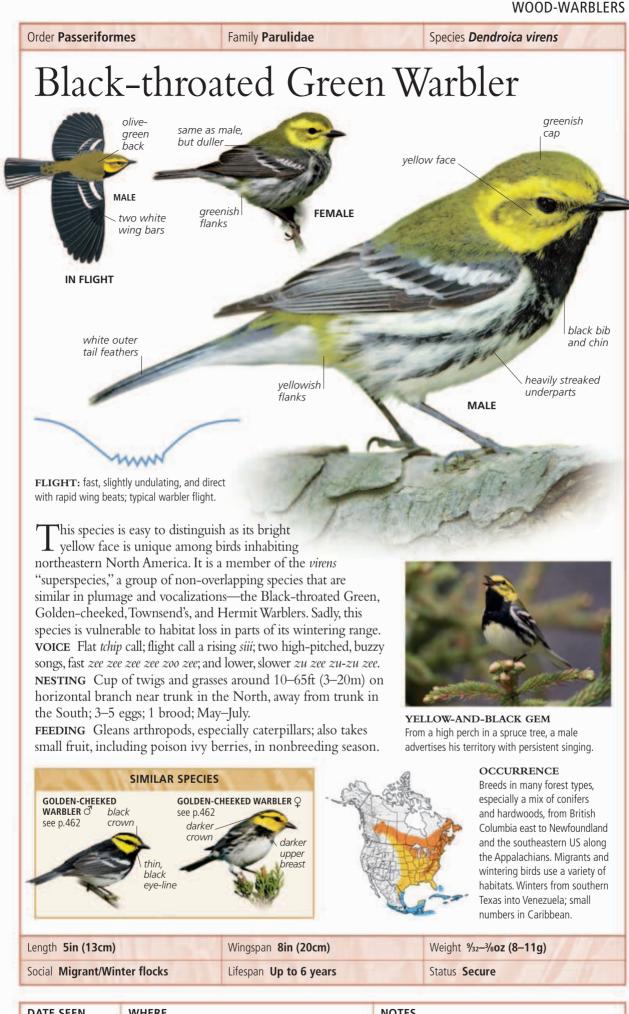
Lifespan Up to 7 years

Social Flocks



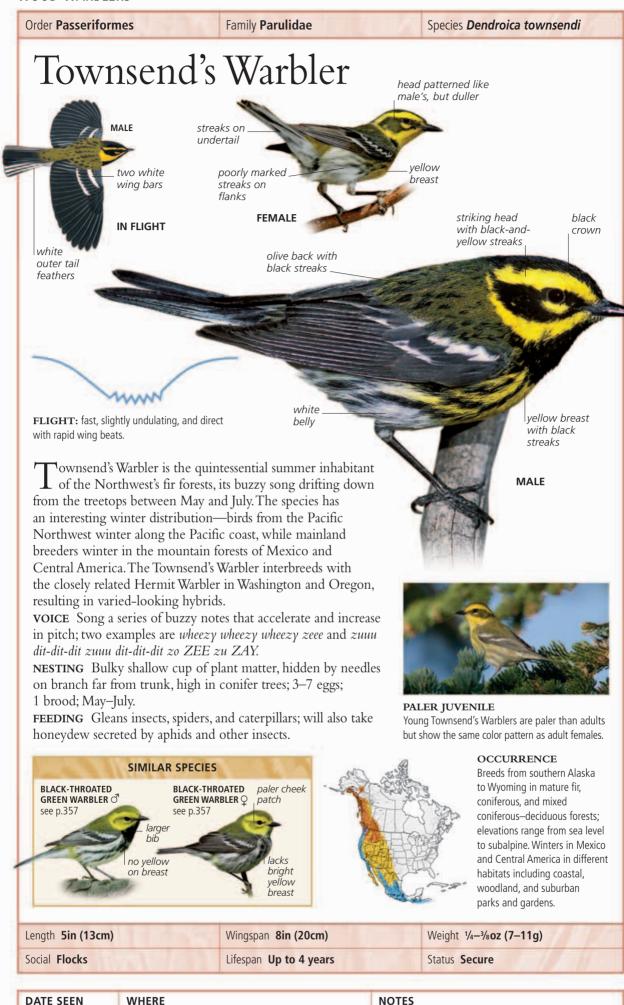
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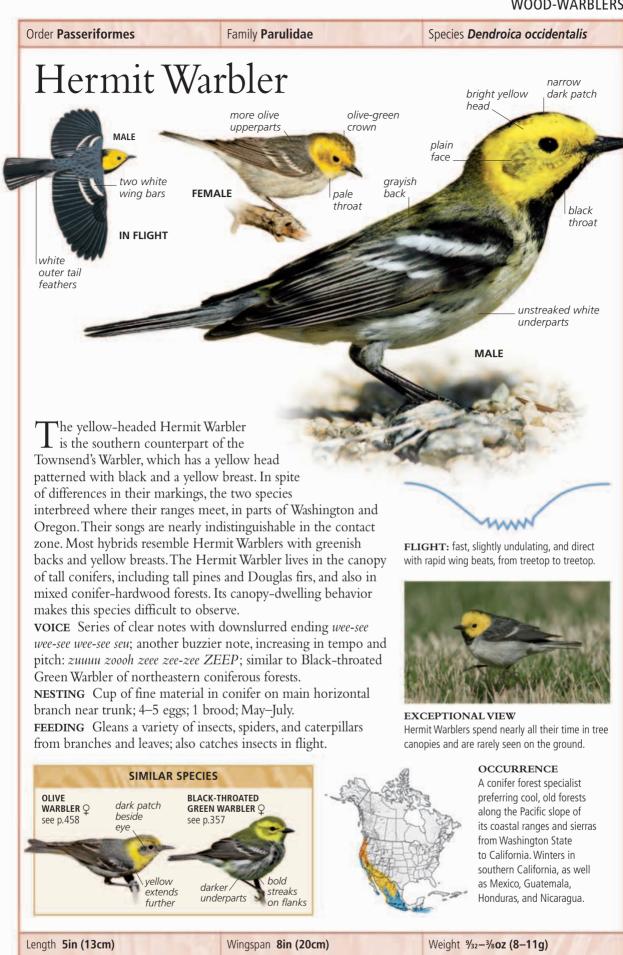


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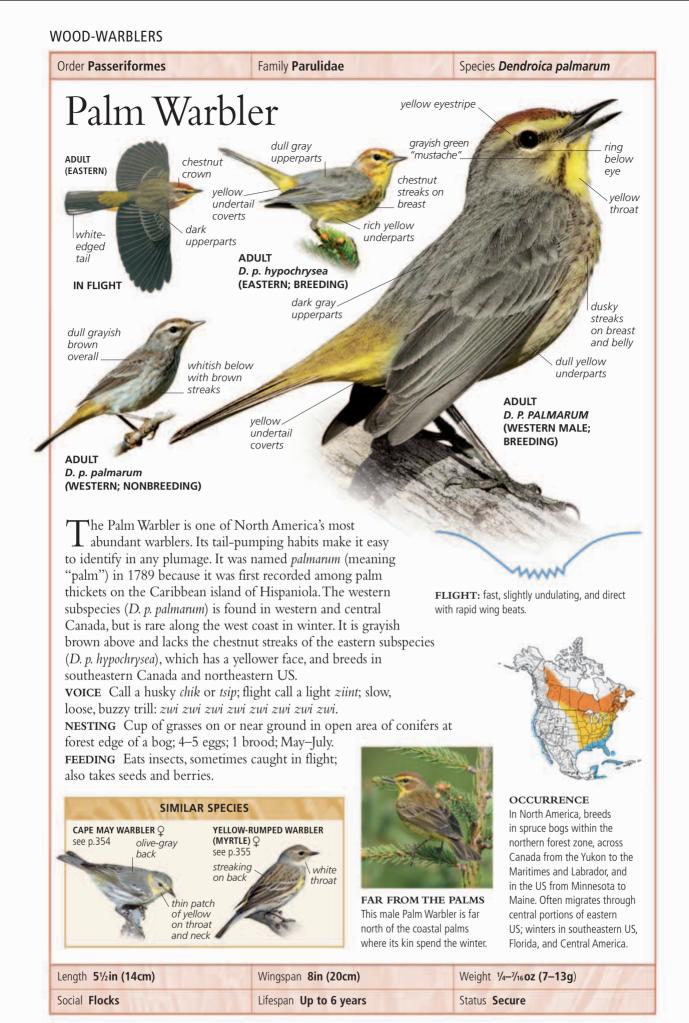
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Lifespan Up to 4 years

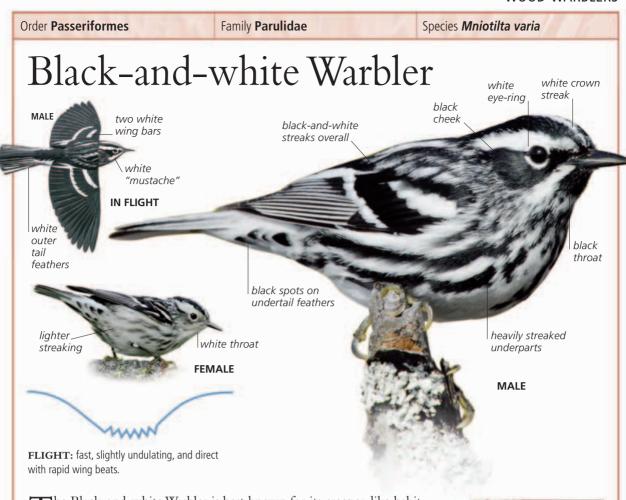
Status Secure (p)

Social Flocks



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The Black-and-white Warbler is best known for its creeper-like habit of feeding in vertical and upside-down positions as it pries into bark crevices, where its relatively long, curved bill allows it to reach tiny nooks

and crannies. These habits, combined with streaked plumage, make this bird one of the most distinctive warblers in North America. It is a long-distance migrant, with some birds wintering in parts of northern South America.

VOICE Sharp stik call; flight call a very high, thin ssiit, often doubled; song a thin, high-pitched, wheezy series wheesy wheesy wheesy wheesy wheesy wheesy.

NESTING Cup on ground against stump, fallen logs, or roots; 4–6 eggs; 1 brood; April–August.

FEEDING Creeps along branches and trunks, probing into bark for insects and insect larvae.

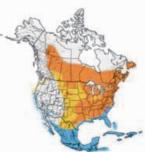


SQUEAKY WHEELThe high-pitched, wheezy song of this warbler is said to be reminiscent of a squeaky wheel.



UPSIDE-DOWNBlack-and-white Warblers often creep head-first along trunks and branches of trees.





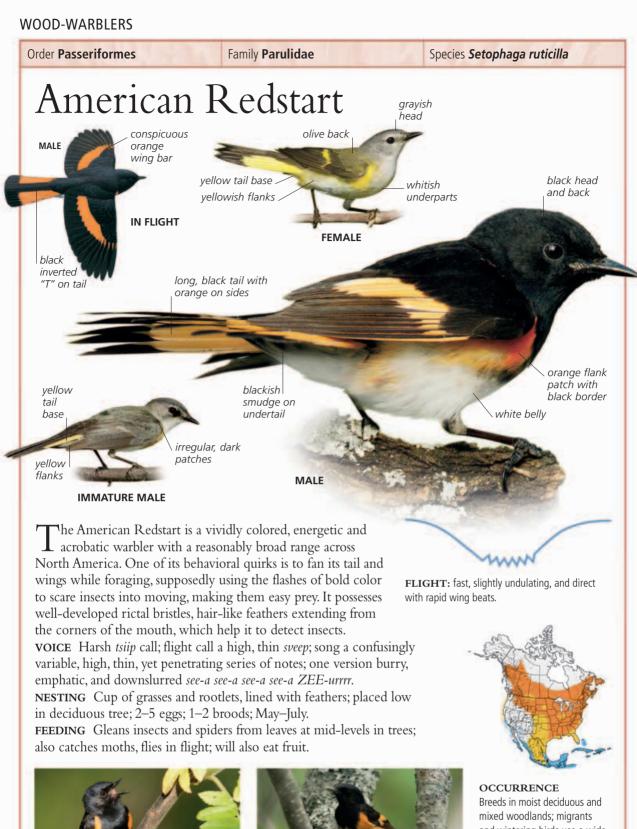
OCCURRENCE
Breeds in deciduous
and mixed mature and
second-growth woodlands;
migrants occur on a greater
variety of habitats; winters
in a wide range of wooded
habitats in southern US,
Mexico and into Central
and South America. Rare

along West Coast in winter.

Length 5in (13cm)	Wingspan 8in (20cm)	Weight 5/16–1/2 0z (9–14g)
Social Migrant/Winter flocks	Lifespan Up to 11 years	Status Secure

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COMMON SONG

This bird's short, ringing song is a common sound in the moist deciduous woods of the East and North.



MALE CAREGIVER

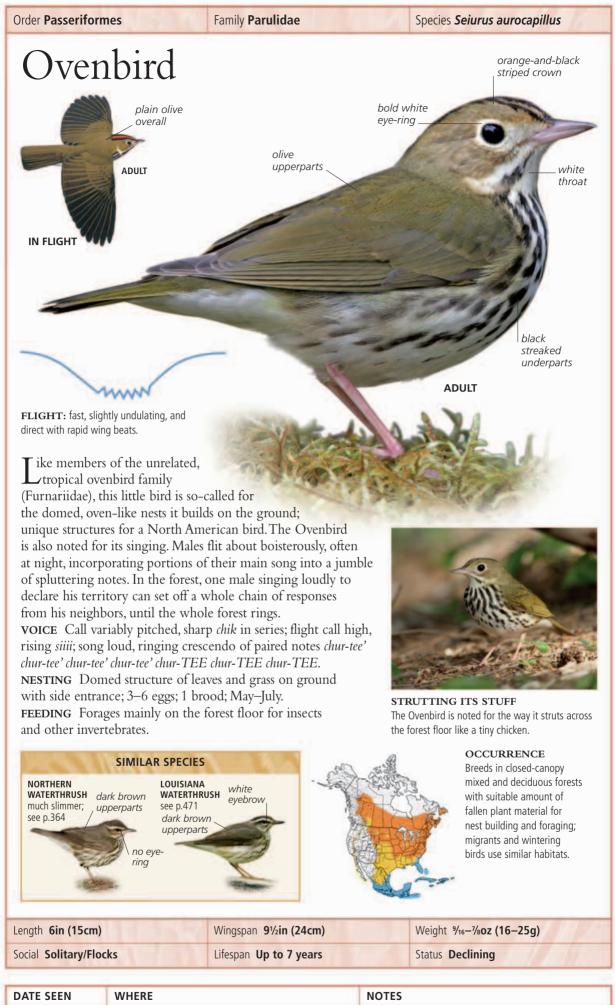
As with most warblers, male Redstarts help raise the young, though they may be polygamous.

and wintering birds use a wide range of habitats. Winters from Baja California and south Florida through Middle America and the Caribbean to northern South America. Rare along coast of Southern California. and Baja California in winter.

Length 5in (13cm)	Wingspan 8in (20cm)	Weight ⁷ / ₃₂ – ³ / ₈ oz (6–11g)
Social Flocks	Lifespan Up to 10 years	Status Secure

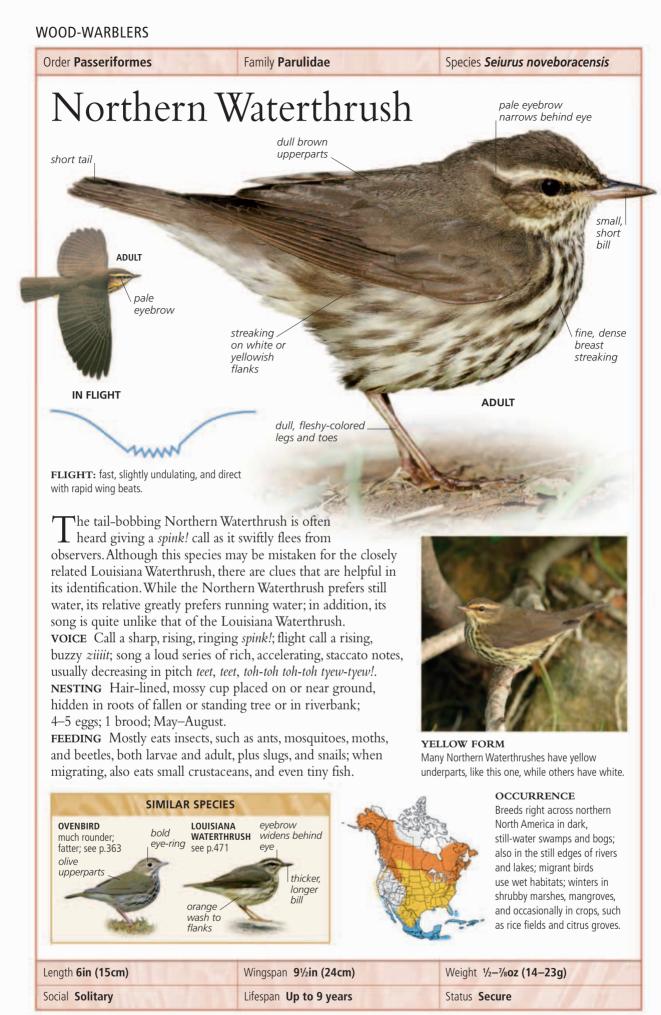
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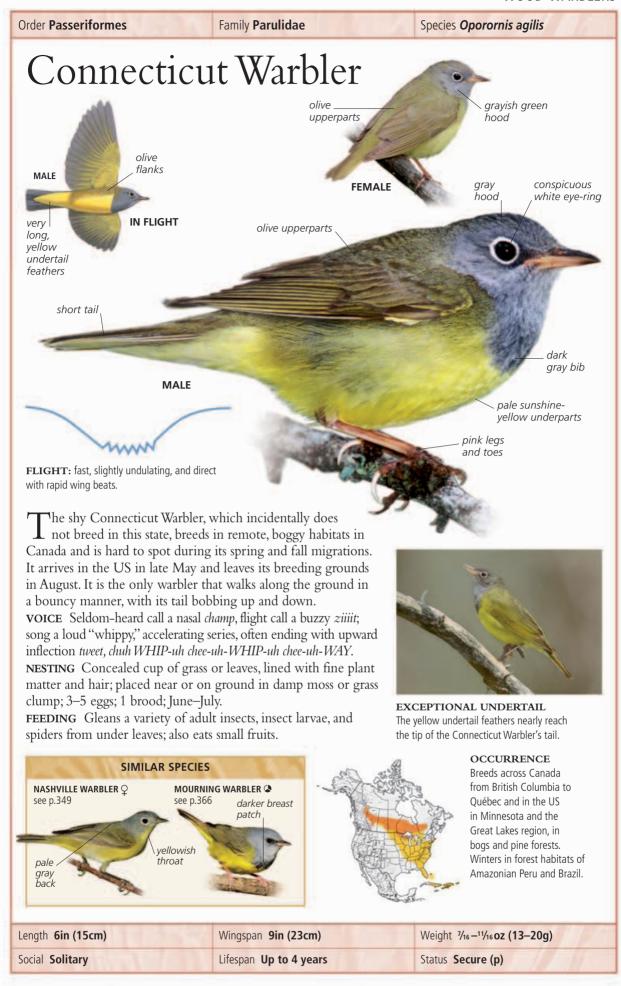


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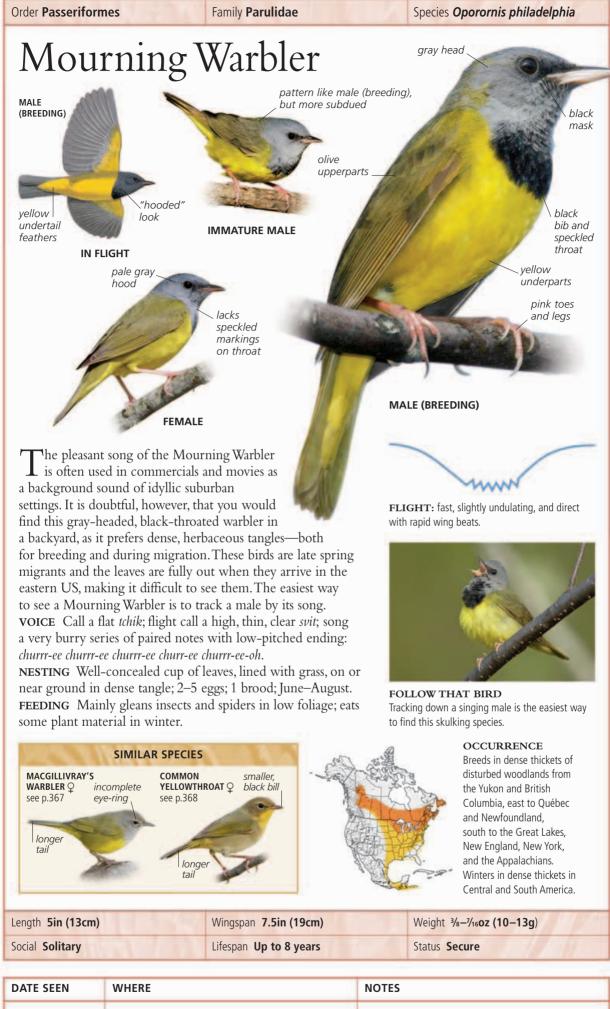
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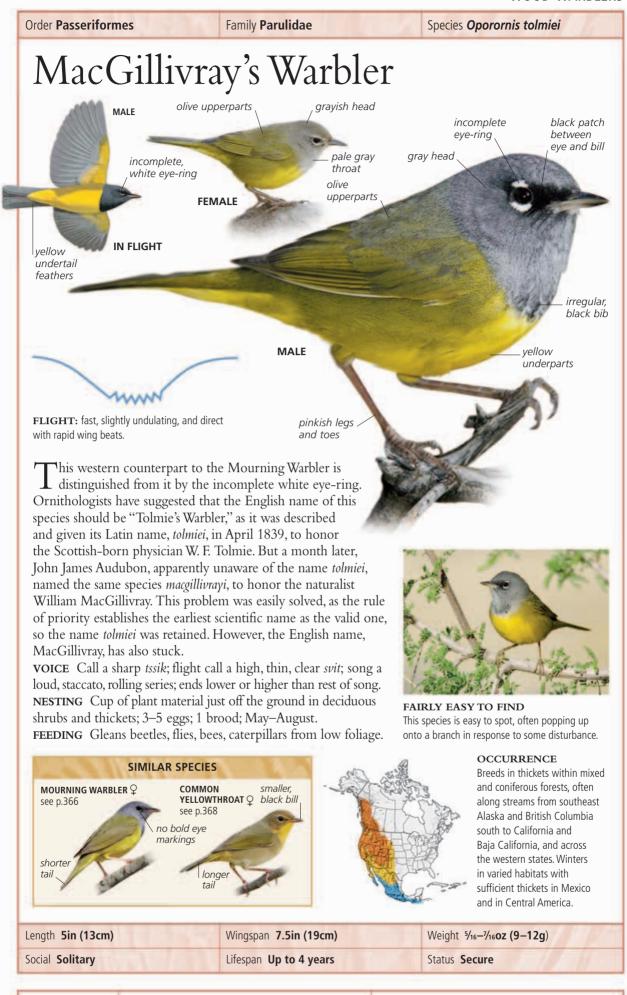
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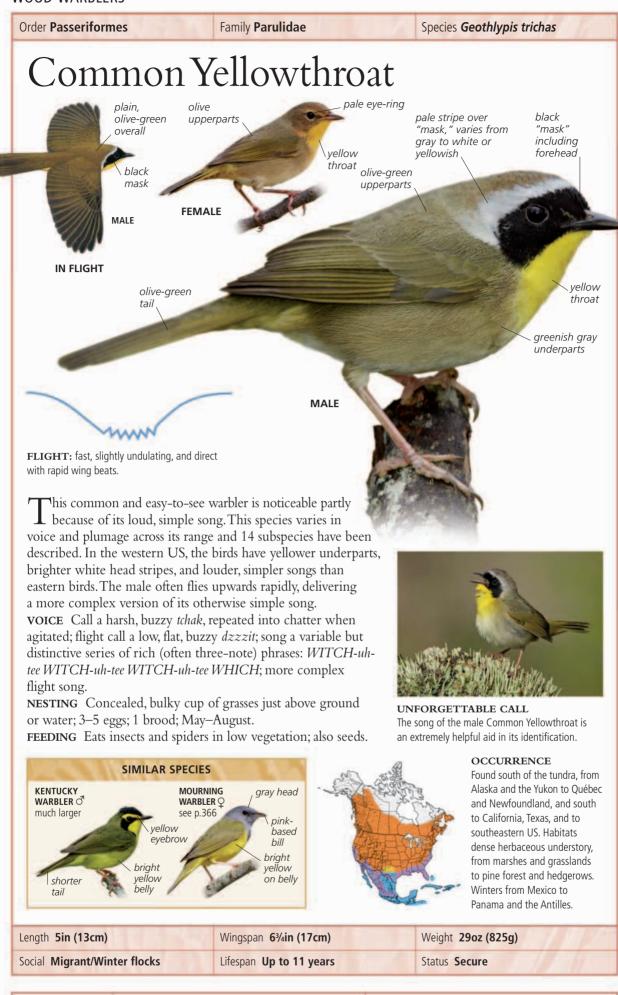


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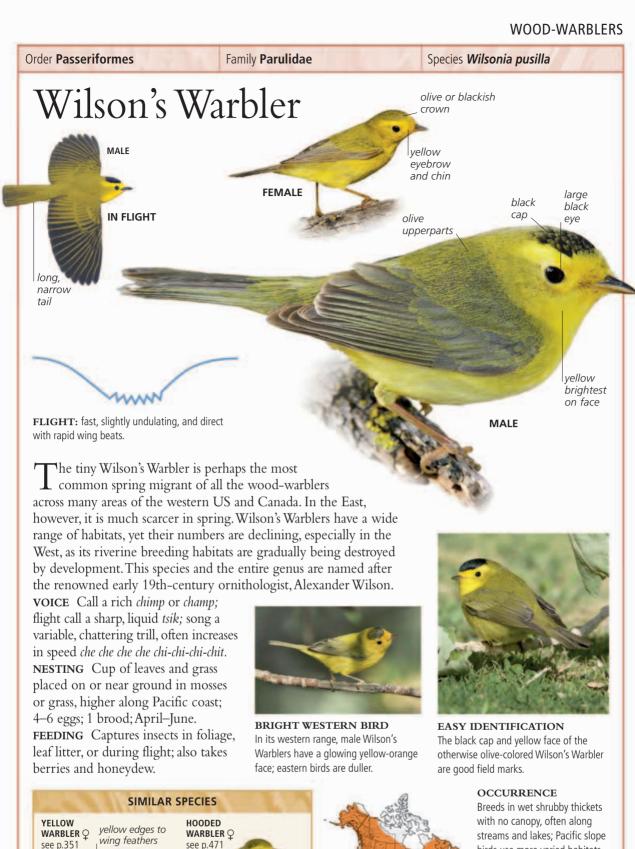
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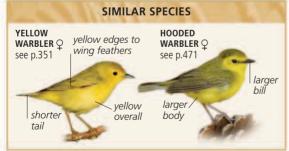
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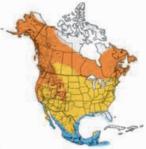


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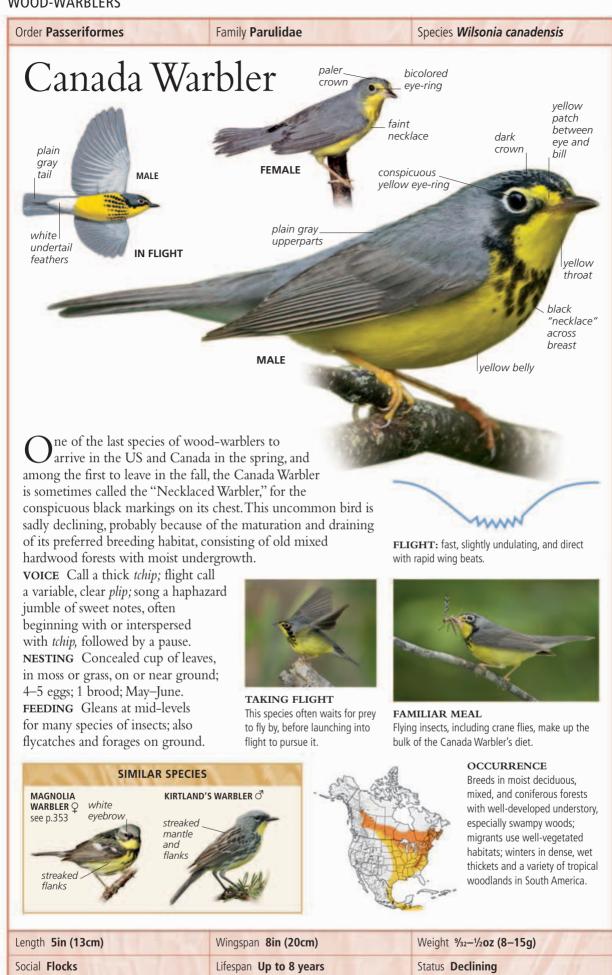
Breeds in wet shrubby thickets with no canopy, often along streams and lakes; Pacific slope birds use more varied habitats, including moist forests.

Widespread in forests south of tundra, from Newfoundland, the Great Lakes, and northern New England: British Columbia

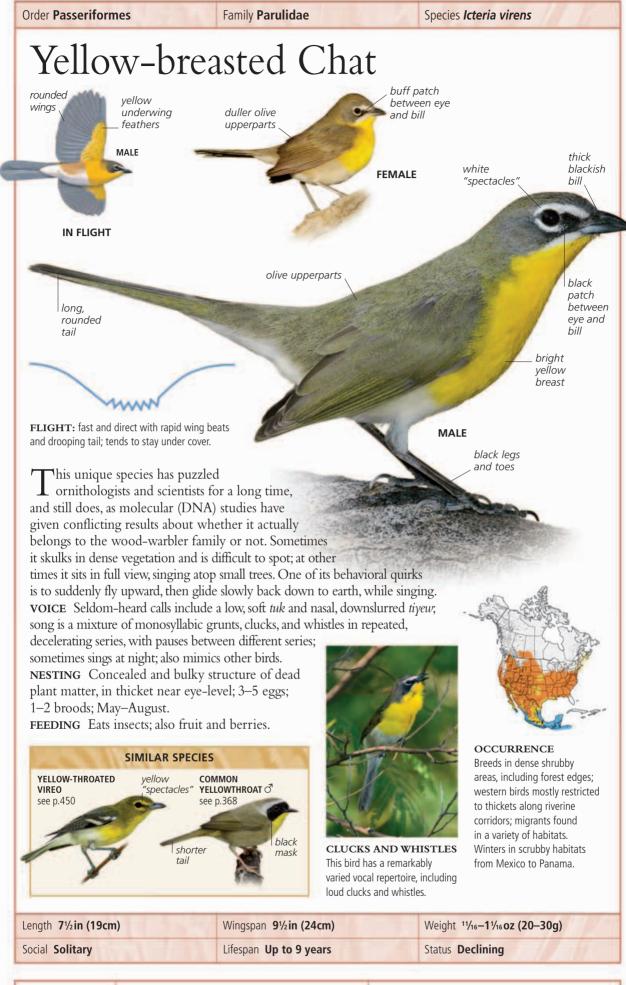
to California and New Mexico.

Length 4¾in (12cm)	Wingspan 7in (17.5cm)	Weight 3/32—5/16 0z (6—9g)
Social Flocks	Lifespan Up to 6 years	Status Declining

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ORIOLES & BLACKBIRDS

THE ICTERIDS EXEMPLIFY the wonderful diversity that exists among birds. Most icterids are common and widespread, occurring from coast to coast. They are present in nearly every habitat in North America, from the arid Southwest and Florida to the boreal forest zone in the north, though not in the tundra. The species reveal a tremendous variety in color, nesting, and social behaviorfrom solitary orioles to vast colonies of comparatively drab blackbirds. One group of icterids, the cowbirds, are obligatory brood parasites. They make no nest, but lay their eggs in the nests of other birds, mostly small songbirds.

ORIOLES

Orioles are common seasonal migrants to North America. They are generally recognized by their contrasting black and orange plumage, although some species tend more toward yellow or chestnut shades. Orioles construct intricate hanging nests which display an impressive combination of engineering and weaving. Most oriole species have a loud and melodious song and show tolerance of humans, a combination that makes them popular throughout their range. Bullock's Oriole is the only oriole species that is widespread and common in the West; other western species are restricted to the Southwest or southern Texas. The migratory habits of orioles are mixed: Bullock's Oriole migrates south in the fall, while Audubon's and Altamira's Orioles are sedentary in southern Texas.

COWBIRDS

Cowbirds are strictly parasitic birds, and have been known to lay their eggs in the nests of nearly

300 different bird species in North and South America. The males of all three North American cowbird species are readily identified by their thick bills and dark, iridescent plumage. The females and immatures are drab by comparison.



SUBTLE BRILLIANCE Although its plumage is dark, the Common Grackle displays a beautiful iridescence.

BLACKBIRDS & GRACKLES

This group of birds is largely covered with dark feathers, and their long, pointed bills and tails give them a streamlined appearance. Not as brilliantly colored as some of the other icterids, these are among the most numerous birds on the continent. After the breeding season they gather in huge flocks, and form an impressive sight.

MEADOWLARKS

Meadowlarks occur in both South and North America. The North American species have yellow breasts, but the South American species sport bright red breasts. Only the Western Meadowlark breeds commonly in the West. It is difficult to tell apart from its eastern

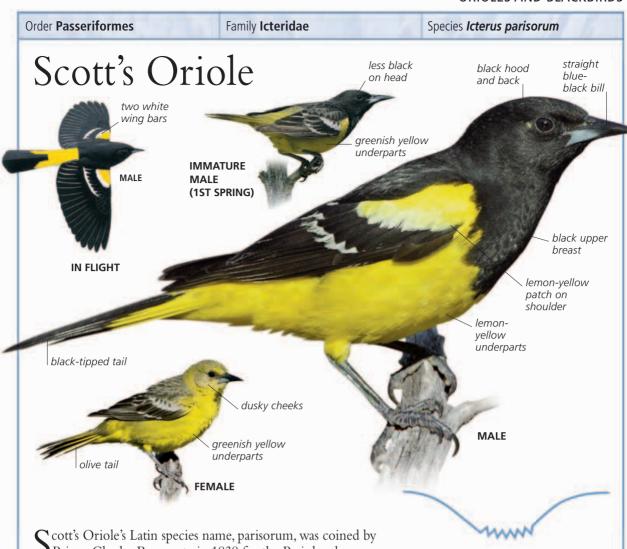


BIG VOICE A Meadowlark's melodious voice is a defining feature in many rural landscapes.

counterpart, except by its song, yellow chest with a black bib, and a sweet singing voice.

NECTAR LOVER





Scott's Oriole's Latin species name, parisorum, was coined by Prince Charles Bonaparte in 1838 for the Paris brothers, two French natural history specimen dealers. The bird's English name honors General Winfield Scott, commander-in-chief of

FLIGHT: quick wing beats; more bouncing between flapping than other orioles.

the American troops in the Mexican War. This Oriole's bright yellow plumage is unusual among North American orioles, most of which are varying degrees of orange. It lives in semi-arid and rocky slopes, a fact that is largely responsible for its colloquial names of "Desert" or "Mountain" Oriole.

VOICE Call a sharp chek; song a musical series of loud whistles tew-tew-treew.

NESTING Shallow cup woven from thin plant strips, often yucca, hung from leaves or branches; 3–5 eggs; 1–2 broods; March–July.

FEEDING Eats insects, adults and larvae, such as flies, wasps, and beetles; feeds on nectar and fruit where available; visits feeders.





YUCCA LOVER
Found in all kinds of arid
scrubland—yuccas are
a favorite of Scott's Orioles.

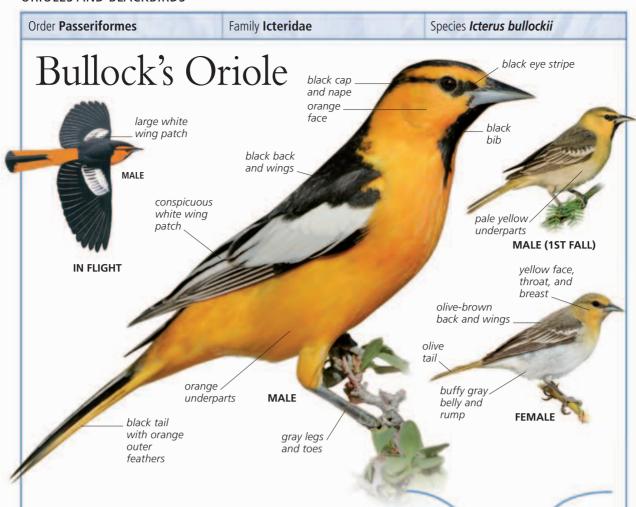
OCCURRENCE

Breeds in mid-elevation, semi-arid open scrub on level ground or slopes with oak scrub, pinyon pine, and yucca. Winters in pine-oak scrub valleys of central Mexico. Individuals wander widely and have been reported as far away from their usual habitat as New York City.

Length 8–9in (20–23cm)	Wingspan 11–13in (28–33cm)	Weight 17/16 oz (40g)
Social Pairs/Family groups	Lifespan Up to 6 years	Status Secure

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Bullock's Oriole is the western counterpart of the Baltimore in both behavior and habitat. The two were considered to belong to a single species, the Northern Oriole (*I. galbula*), because they interbreed where they overlap in the Great Plains. Recent studies, however, suggest that they are separate species. Unlike many other orioles, Bullock's is more resistant to brood parasites and removes cowbird eggs from its nest.

VOICE Varied string of one- and two-part notes often mumbled or slurred at the end; similar to, but less melodious, than the Baltimore Oriole's song.

NESTING Hanging basket of woven plant strips located at the tips of

branches; 4–5 eggs; 1 brood; March–June.

FEEDING Forages for insects, in particular grasshoppers and caterpillars, but also ants, beetles, and spiders; nectar and fruit when available.





OBLIVIOUS TO THORNSThis male Bullock's Oriole
perches on a branch with long
thorns, but it is not perturbed.

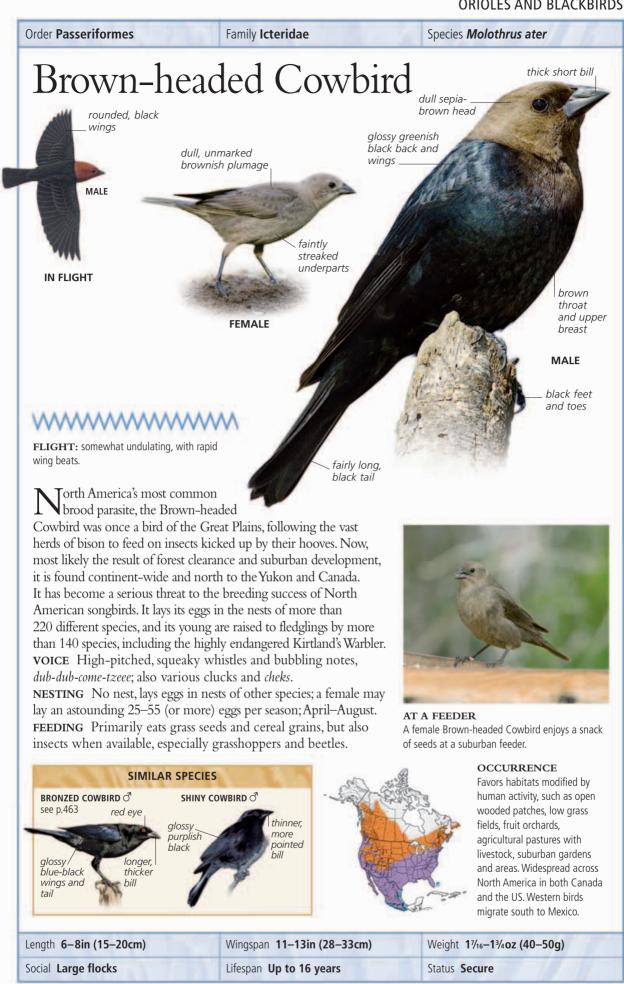
FLIGHT: full, powerful wing beats, resulting in a "heavier" flight aspect than similar species.



Breeds commonly in riverine woodlands with willows and cottonwoods; also mixed hardwood forests, mesquite woodland, and groves of fruit trees. After breeding, Bullock's Orioles migrate southward and spend the winter from Mexico to Nicaraqua.

Length 6½–7½in (16–19cm)	Wingspan 10–12in (25–30cm)	Weight 11/16-11/16 oz (30-45g)
Social Pairs/Flocks	Lifespan Up to 8 years	Status Secure

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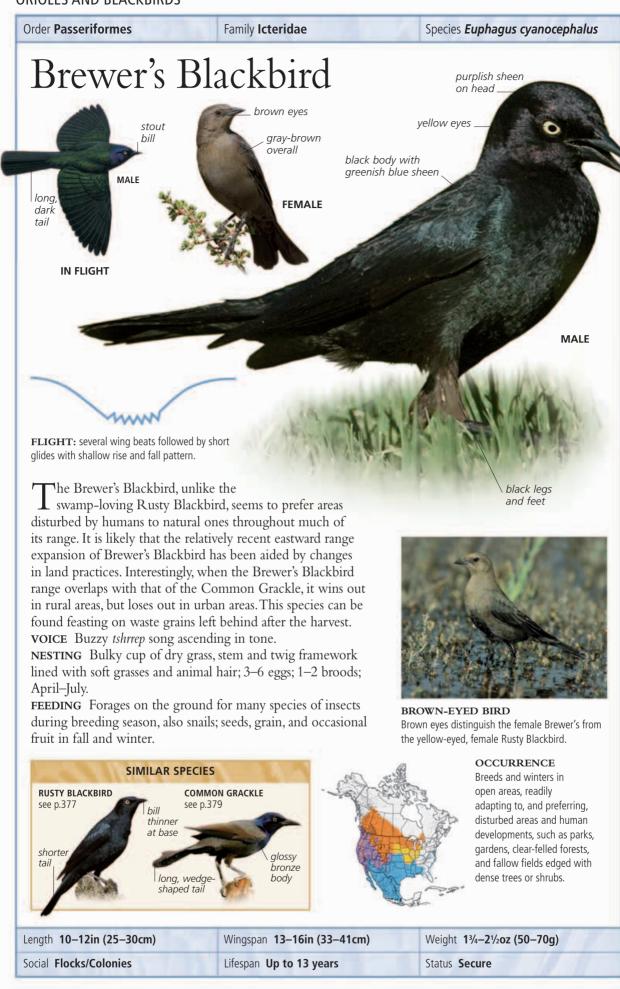


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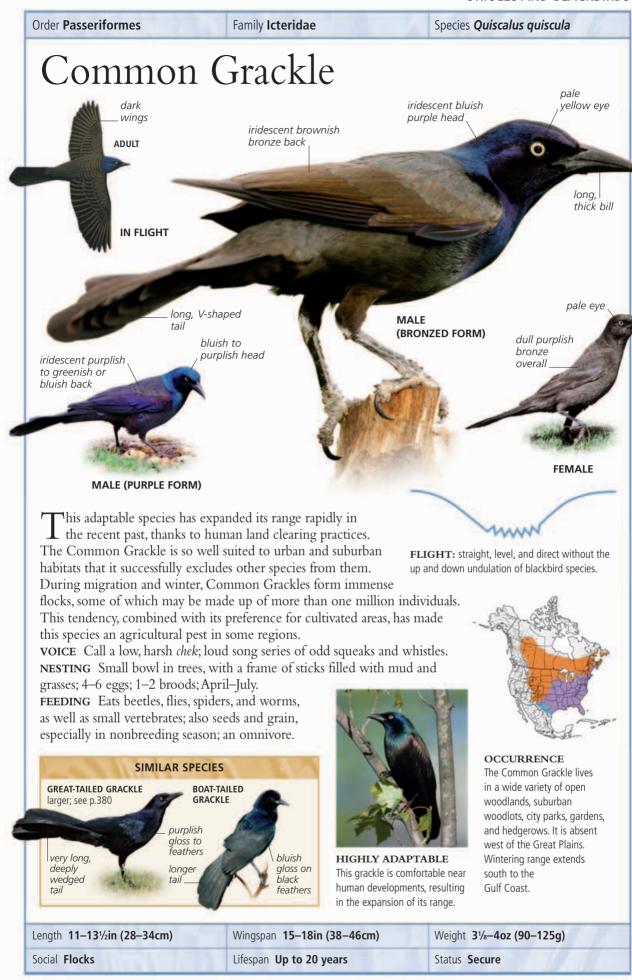
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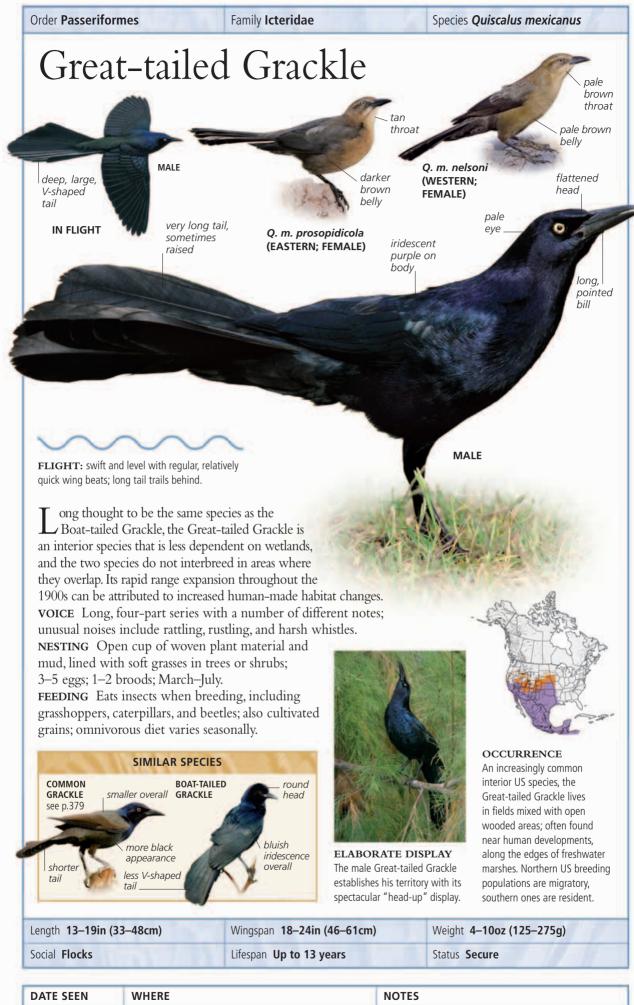


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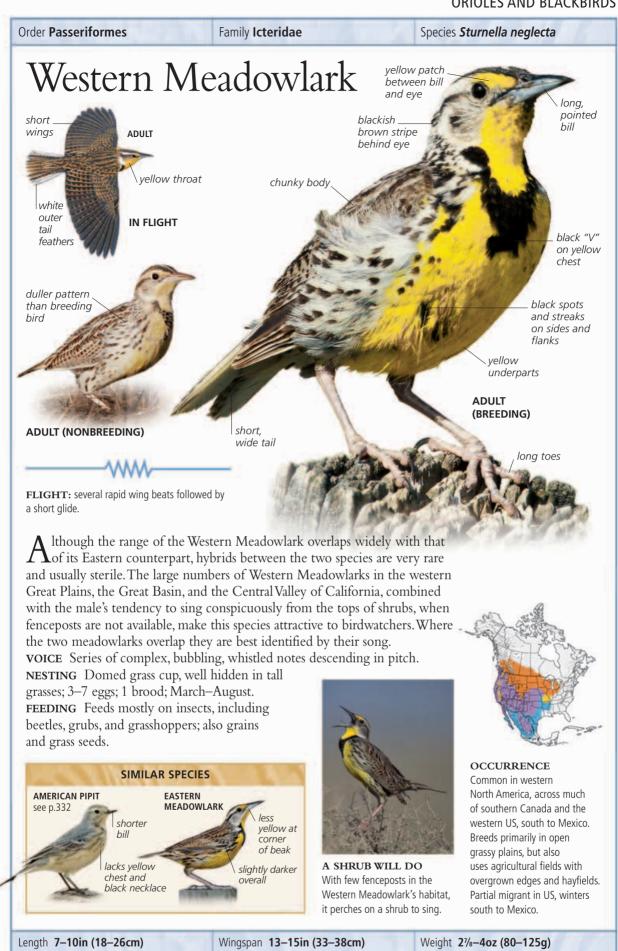


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Status Secure

Lifespan Up to 10 years

Social Pairs/Winter flocks



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LONGSPURS & AMERICAN SPARROWS

THE EMBERIZIDAE IS A FAMILY of finch-like THE EMBERIZIDATE IS A TRANSPORT OF THE birds that includes longspurs, buntings, and American sparrows. These birds occur everywhere in the world except for Australia and Antarctica. Emberizid finches are a diverse group, with over 300 species worldwide, including about 50 in North America. Although the scientific names of these birds are straightforward, their common names are not, and it is easy to become confused. Early settlers in North America thought these birds resembled European sparrows, and most North American emberizids are named "sparrows," despite having no close relationship with the European



species Passer domesticus, which was deliberately introduced to the US. Distinguishing between different North American sparrows can be a daunting job. Many are small, brownish birds, with streaking in their plumage. They usually remain hidden in dense vegetation, and are not easy to see. Clues such as voice, habitat, behavior, and body shape are essential in



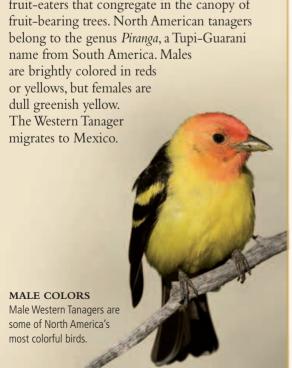
BEST VIEW Singing males like this Chestnut-collared Longspur are easily seen in summer.

their identification. Emberizids tend to forage for seeds on or near the ground, using their stout, conical bills to crush the seeds. Some North American sparrow species are year-round residents, but most are either migrants or partial migrants, and some have both resident and migrant populations. Fox Sparrows and Song Sparrows provide superb examples of species in the making, with numerous subspecies and overlapping ranges: because of geographical and ecological diversification, we are able to observe evolution in action.

Family Thraupidae

TANAGERS

THE TANAGERS COMPRISE a large, diverse family of over 200 songbird species, found only in the Americas. Some tropical species are dull-colored, and feed on insects from the forest floor, while others are rainbow-colored fruit-eaters that congregate in the canopy of fruit-bearing trees. North American tanagers belong to the genus Piranga, a Tupi-Guarani name from South America. Males are brightly colored in reds or yellows, but females are dull greenish yellow. The Western Tanager



Family Cardinalidae

CARDINALS

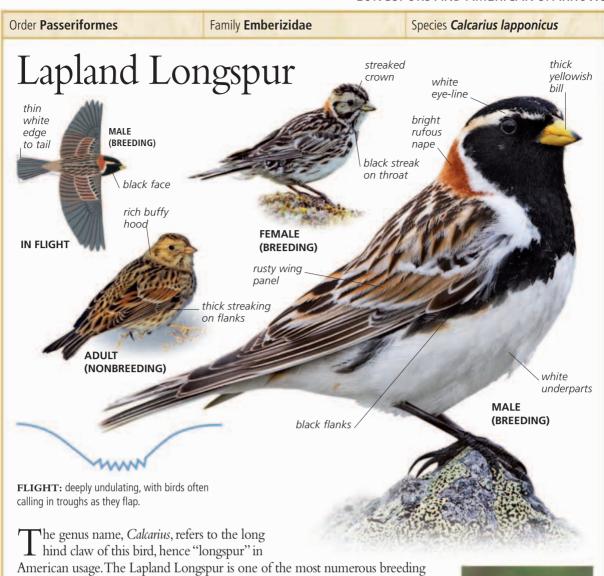
THE FAMILY CARDINALIDAE includes the well-known Northern Cardinal, but also the Dickcissel, several grosbeaks, and "buntings." These buntings have the same common name as some emberizid finches, but are unrelated to them. All cardinalids are vocal, and some are spectacularly colored, especially the electric-blue

Indigo Bunting and the multicolored Painted Bunting. The Pyrrhuloxia, with a parrot-like bill, is a close relative of the Northern Cardinal.



STRONG BILLS

Male Pyrrhuloxias have impressive bills, perfect for cutting open seed hulls and nuts, and opening large fruits.



American usage. The Lapland Longspur is one of the most numerous breeding birds in the Arctic tundra, from Labrador west to Alaska, and across northern Eurasia. In winter, they form huge flocks in open habitats of southern Canada and the US and are found on gravel roads and barren countryside immediately after heavy snowfall. DNA data suggest that the longspurs and *Plectrophenax* buntings may not belong to the family Emberizidae, but where remains an open question. **VOICE** Flight call a dry rattle, *tyew*, unlike other longspurs; song a series of thin tinklings and whistles, melodious, often in flight.

NESTING Cup of grass and sedges placed in depression on ground next to a clump of vegetation; 4–6 eggs; 1 brood; May–July.

CHESTNUT-COLLARED LONGSPUR ♀ **

FEEDING Eats insects during breeding season; seeds in winter.

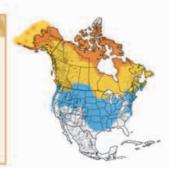
SIMILAR SPECIES

thin

SMITH'S LONGSPUR Q

see p.464

white bars





CONSPICUOUS SPECIESThis longspur is one of the most conspicuous breeding birds of the Arctic tundra.

OCCURRENCE Breeds in tundra right across the high Arctic of North America and Eurasia. Winters in open grasslands and barren fields, and on beaches across the northern and central US and parts of south-central and northeastern Canada.

Length 6½in (16cm)	Wingspan 10½–11½in (27–29cm)	Weight %-11/16 oz (25-30g)
Social Large flocks	Lifespan Up to 5 years	Status Secure

patch



4			
	Length 61/2-7in (16-18cm)	Wingspan 12 ½ –14in (32–35cm)	Weight 11/4–2oz (35–55g)
ı	Social Large flocks	Lifespan Unknown	Status Secure

southern and western coastal

areas of Alaska.

winas

and other insects, and

buds on migration.

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The stocky Lark Bunting is perhaps the most frequently seen bird on the North American High Plains. Unlike the Chestnut-collared Longspur, which lives alongside it, it coped with the changes wrought on its habitat by humans, and occurs in extraordinarily high density throughout its range. Nomadic flocks of thousands of birds scour the high deserts, open grasslands, and sage brushlands for seeds. Breeding-plumage males are unmistakable: black with large white wing patches. Females and immature birds are duller, with more subdued wing patches.

VOICE Call a low, soft, whistled hwoik; song partly melodious, partly "scratchy," with repetitions of phrases, then whistles.

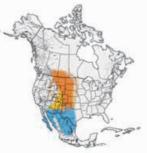
NESTING Open cup of grass, lined with fine plant material, in depression in ground; 4–5 eggs; 1 brood; May–August.

FEEDING Mainly seeds in winter, a variety of insects in summer.



CAUGHT BY ANY MEANSLark Buntings hawk, glean, and forage insect prey throughout the breeding season.

SIMILAR SPECIES PURPLE FINCH ♀ See p.403 no white wing patches no white in notched tail SIMILAR SPECIES VESPER SPARROW See p.403 no white wing patches longer, squarer tail

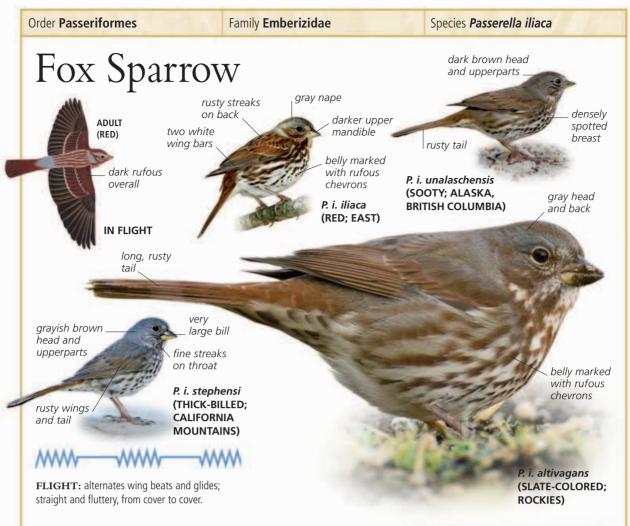


OCCURRENCE

Breeds in grasslands and sage flats on High Plains from Alberta south to the Texas panhandle. Winters in similar habitats—and also in deserts, cultivated plains, and open shrubsteppes—across interior southwestern US and northern Mexico. Migrants use similar open-country habitats.

Length 7in (18cm)	Wingspan 10½–11in (27–28cm)	Weight 11/16–13/4 oz (30–50g)
Social Large flocks	Lifespan Unknown	Status Secure

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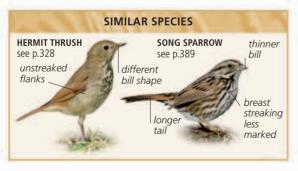


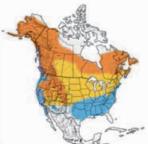
Larger, more robust, and more colorful than its close relatives, the Fox Sparrow is a beautiful species. When it appears in backyards, its presence can be detected by its foraging habits; it crouches low in leaf litter, and hops back and forth, noisily, to disturb leaves, under which it finds seeds or insects. It varies considerably over its huge western range, from thick-billed birds in the Sierras to sooty ones in the Northwest, and slate-colored birds in the Rockies.

VOICE Call is sharp, dry *tshak* or *tshuk*; flight call a high-pitched *tzeep!*; song is complex and musical with trills and whistles. **NESTING** Dense cup of grasses or moss lined with fine material; usually placed low in shrub; 2–5 eggs; 1 brood; April–July. **FEEDING** Forages for insects, seeds, and fruit.



FOXY REDThe Fox Sparrow gets its name from the rusty coloration of the eastern "Red" birds.



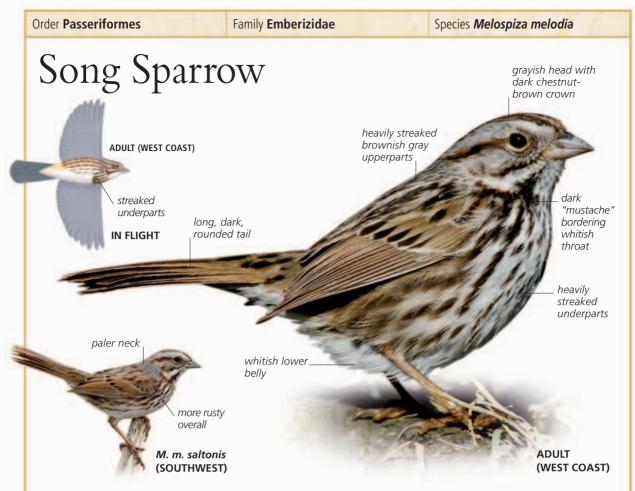


OCCURRENCE

Encompasses the entire boreal forest zone, from Alaska in the West to Québec, Labrador, and Newfoundland in the East. In the West, it occurs in coastal and near-coast thickets within coniferous or mixed woodlands. Winters in the Pacific West, south to Baja California; also from Texas to Massachusetts.

Length 6–7½in (15–19cm)	Wingspan 10½–11½in (27–29cm)	Weight 1%–1%60z (25–45g)
Social Solitary/Small flocks	Lifespan Up to 9 years	Status Secure

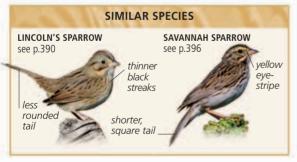
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The familiar song of this species can be heard in backyards across the continent, including in winter, although it varies both individually and geographically. In the southeastern US, where it does not breed, migrant birds start singing in early spring before departing for northern areas. The Song Sparrow

may be the North American champion of geographical variation—about 40 subspecies have been described. These vary from the large, dark birds of the Aleutian Islands (*M. m. maxima*) to the smaller, paler birds of southern Arizona (*M. m. saltonis*). Eastern birds, such as *M. m. melodia*, fall between the two in size. **VOICE** A dry *tchip* call; flight call a clear *siiiti*; song a jumble of variable whistles and trills, *deeep deep deep-deep chrrr tiiiiiiiiiiii tyeeur* most common.

NESTING Bulky cup on or near ground, in brush or marsh vegetation; 3–5 eggs; 1–3 broods; March–August. FEEDING In summer, feeds mainly on insects; in winter, eats mainly seeds, but also fruit.





BREAST SPOT
The Song Sparrow often sings
from exposed perches, showing
off its characteristic breast spot.

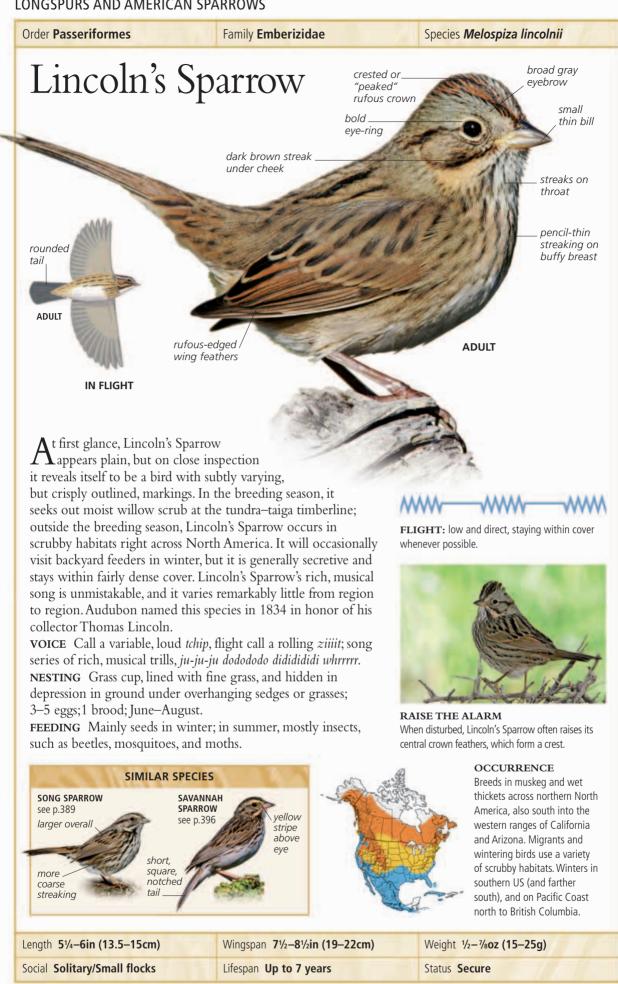
FLIGHT: low and direct, staying within cover

whenever possible.

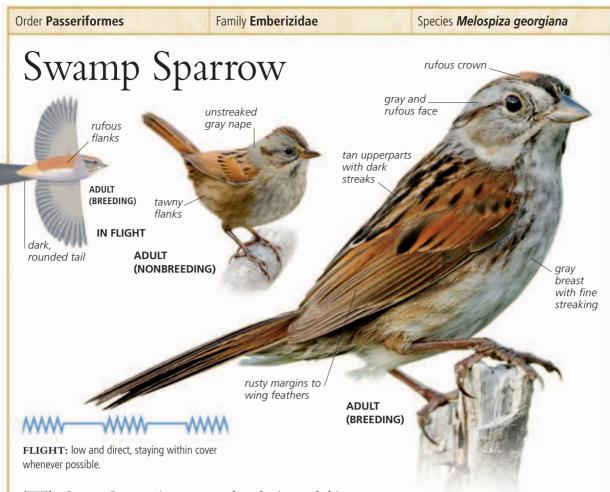
OCCURRENCE
Widespread in a range
of habitats (although not
in dense forests) across
Canada and the US, from
the Atlantic to the Pacific
Coasts and north to Alaska.
Some populations move
south of their breeding
range in winter.

Length 5-71/2 in (13-19cm)	Wingspan 8½–12in (21–31cm)	Weight 1/16-13/4oz (13-50g)
Social Solitary/Flocks	Lifespan Up to 9 years	Status Secure

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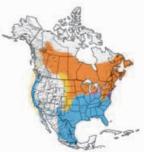


The Swamp Sparrow is a common breeder in wet habitats across eastern North America and Canada west to the southern Yukon and eastern British Columbia. It is abundant in its preferred habitat of tall reed and cattail marshes. A somewhat skittish bird, the Swamp Sparrow is often seen darting rapidly into cover, but usually repays the patient observer with a reappearance, giving its characteristic chimp call. Though often confused with both the Song Sparrow and Lincoln's Sparrow, the Swamp Sparrow never shows more than a very faint, blurry streaking on its gray breast, and sports conspicuous rusty-edged wing feathers. Its song is also quite different. VOICE Call a slightly nasal, forceful chimp, flight call a high, buzzy ziiiiii; song a slow, monotonous, loose trill of chirps.

NESTING Bulky cup of dry plants placed 1-4ft (30-120cm) above water in marsh vegetation; 3-5 eggs; 1-2 broods; May-July.

FEEDING Mostly insects in the breeding season, especially grasshoppers; seeds in winter; occasionally fruit.







HIGH PERCH This male Swamp Sparrow is checking his territory from atop a seeding cattail flower.

Breeds in marshes, cedar bogs, damp meadows, and

OCCURRENCE

wet hayfields, from the Yukon east to Newfoundland and south to Nebraska and the Delmarva Peninsula; winters in marshes in eastern US and south through Mexico: rare but regular along Pacific coast.

Length 5–6in (12.5–15cm)	Wingspan 7–7½in (18–19cm)	Weight ½– ½oz (15–25g)
Social Solitary/Small flocks	Lifespan Up to 6 years	Status Secure

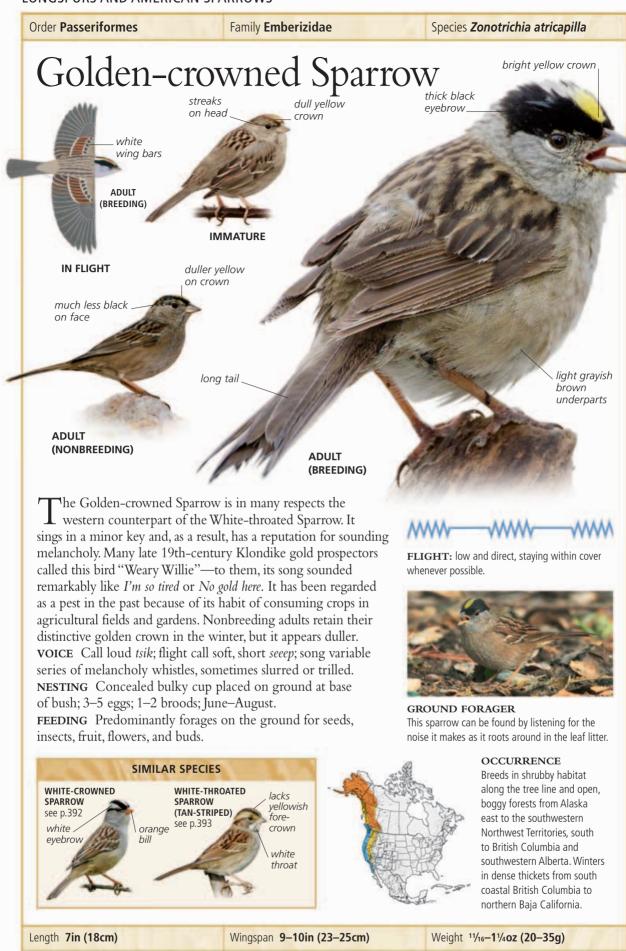
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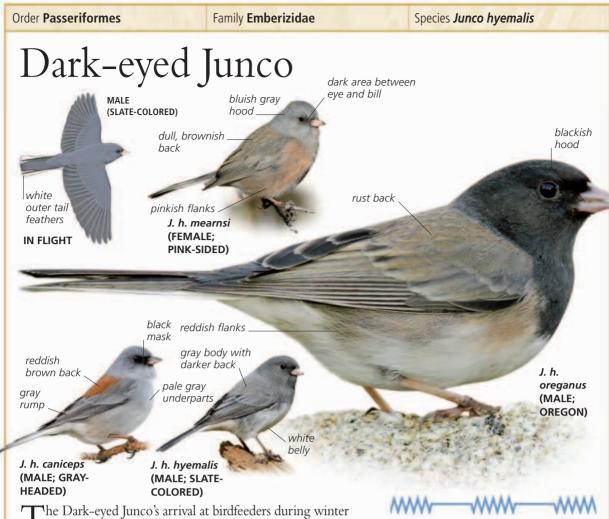
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Status Secure

Lifespan Up to 10 years

Social Flocks



The Dark-eyed Junco's arrival at birdfeeders during winter snowstorms has earned it the colloquial name of "snowbird." The name "Dark-eyed Junco" is actually used to describe a group of birds that vary geographically in a such a strikingly diverse way that 16 subspecies have been described. "Slate-colored" populations are widespread across Canada and the northeastern US. "White-winged" birds nest in the Black Hills; "Pink-sided" ones breed in Idaho, Montana, and Wyoming; and "Oregon" birds breed in the West, from Alaska to British Columbia and the mountains of the western US in the Sierras south to Mexico. "Red-backed" populations (not illustrated) reside in the mountains of Arizona and New Mexico, and "Gray-headed" birds range between the "Red-backed" and "Pink-sided" populations.

VOICE Loud, smacking *tick* and soft *dyew* calls; flight call a rapid,

twittering, and buzzy *zzeet*; song a simple, liquid, 1-pitch trill. **NESTING** Cup placed on ground hidden under vegetation or next to rocks; 3–5 eggs; 1–2 broods; May–August. **FEEDING** Eats insects and seeds; also berries.





FLIGHT: low and direct, staying within cover whenever possible.



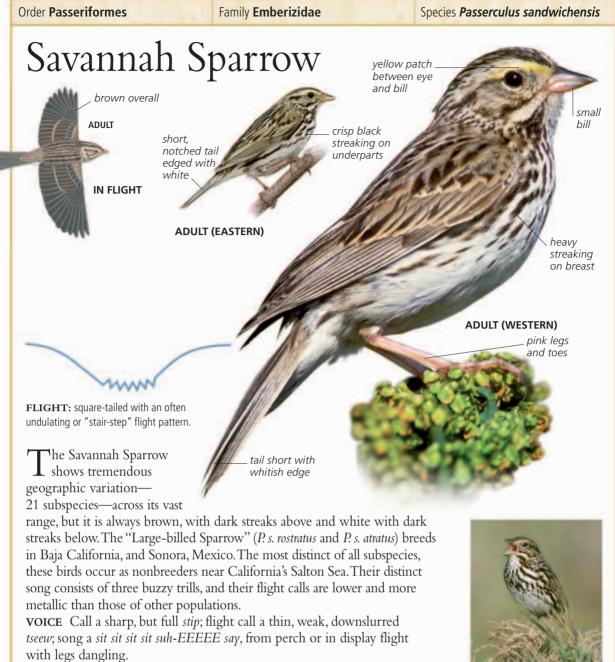
OCCURRENCE

Breeds in coniferous and mixed forests in Canada, northwestern and northeastern US, south in the east along the Appalachians to Georgia; in the west, in mountains from Alaska and British Columbia to New Mexico and northern Baja California. Winters from southern Canada to northern Mexico except Florida.

Length 6–6 ¾ in (15–17cm)	Wingspan 8–10in (20–26cm)	Weight %-11/16 oz (18-30g)
Social Flocks	Lifespan Up to 11 years	Status Secure

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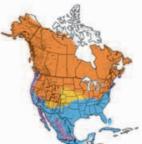
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NESTING Concealed cup of grass placed in depression on ground, protected by overhanging grass or sedges; 2–6 eggs; 1–2 broods; June–August.

FEEDING Forages on the ground, mostly for insects; in summer also eats seeds; in winter, berries and fruit when available; also small snails and crustaceans.







This darker, more heavily streaked subspecies inhabits coastal saltmarshes in southern California.

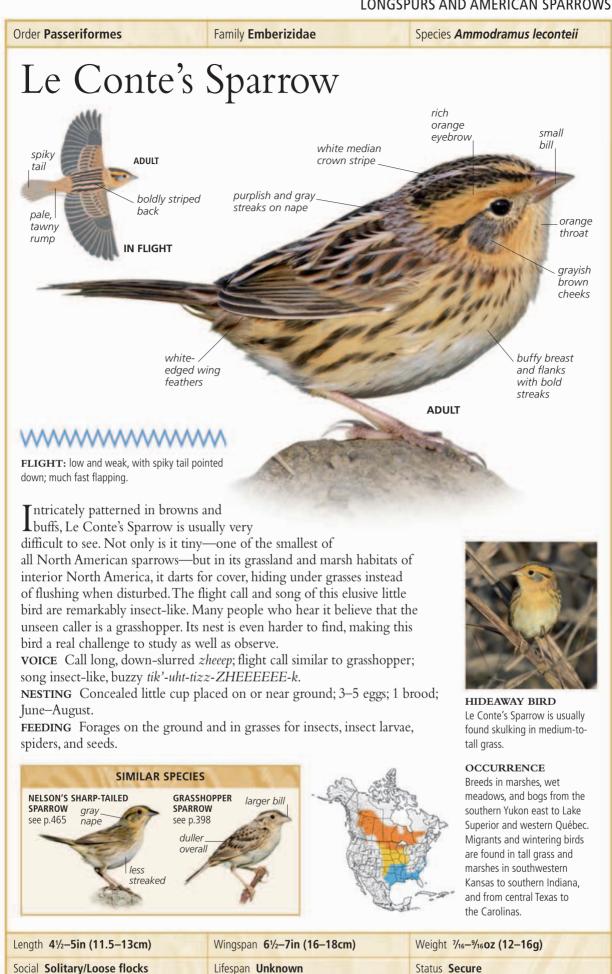
OCCURRENCE

Breeds in meadows, grasslands, pastures, bushy tundra, and some cultivated land across northern North America. Also along Pacific Coast and in Mexican interior. Nonbreeders use varied open habitats. Winters across southern US to Honduras, also Cuba, the Bahamas, and Cayman Islands.

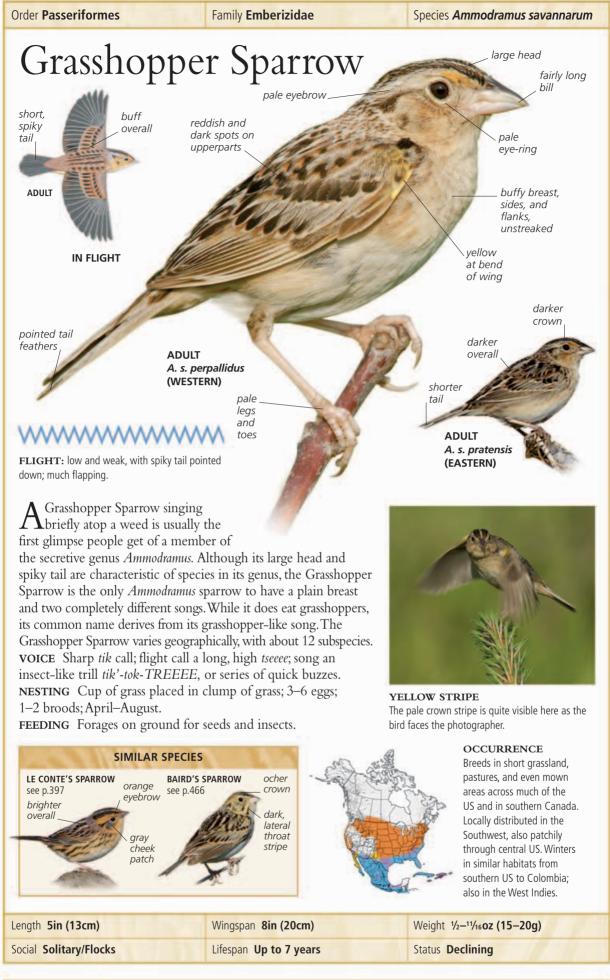
Length 5 ½ –6in (14–15cm)	Wingspan 6¾in (17cm)	Weight 1/2-11/16 oz (15-30g)
Social Solitary/Loose flocks	Lifespan Unknown	Status Secure

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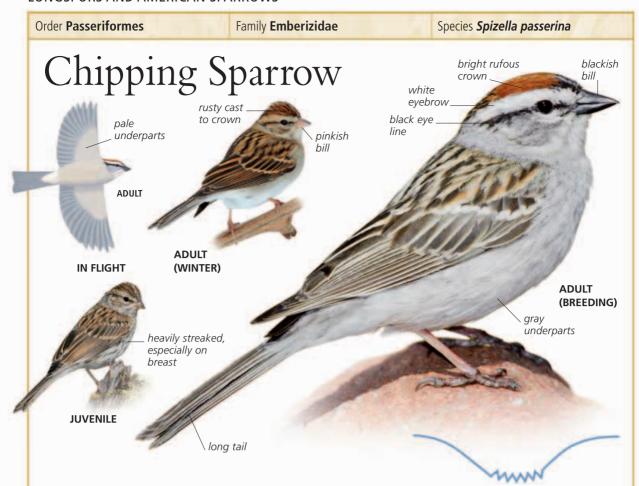


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The Chipping Sparrow is a common and trusting bird, which breeds in backyards across most of North America. While they are easily identifiable in the summer, "Chippers" molt into a drab, nonbreeding plumage during fall, at which point they are easily confused with the Clay-colored and Brewer's Sparrows they flock with. Most winter reports of this species in the north are actually of the larger American Tree Sparrow. In winter, Chipping Sparrows lack their bright, rusty crown and are restricted to the southern states.

VOICE Call a sharp *tsip*; flight call a sharp, thin *tsiiit*; song an insect-like trill of chip notes, variable in duration and intensity. **NESTING** Neat cup usually placed well off the ground in tree or shrub; 3–5 eggs; 1–2 broods; April–August.

FEEDING Eats seeds of grasses and annuals, plus some fruits; when breeding, also eats insects and other invertebrates.

FLIGHT: lightly undulating, often to open perch when flushed.



BACKYARD BIRDChipping Sparrows are common in gardens and backyards all across the continent.

CLAY-COLORED BREWER'S streaked SPARROW SPARROW see p.401 see p.402 partial heavy rnecklace" pale underparts



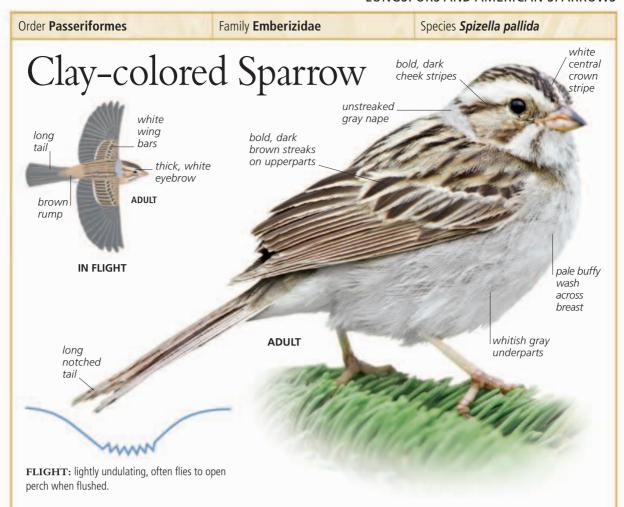
OCCURRENCE Found in a wide variety

of habitats: open forest, woodlands, grassy park-like areas, seashores, and backyards. Breeds in North America south of the Arctic timberline southward to Mexico, and in Central America as far south as Nicaragua. Winters from southern states to Nicaragua.

Length 5½in (14cm)	Wingspan 8½in (21cm)	Weight 3/8–1/2 oz (10–15g)
Social Large flocks	Lifespan Up to 9 years	Status Secure

DATE SEEN	WHERE	NOTES

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The small Clay-colored Sparrow is best known for its mechanical, buzzy song. This bird spends much of its foraging time away from its breeding habitat; consequently, males' territories are very small, allowing for dense breeding populations. Clay-colored Sparrows have shifted their breeding range eastward and northward over the last century, most likely because of changes in land practices. During the nonbreeding season, they form large flocks in open country, associating with other *Spizella* sparrows, especially Chippings and Brewer's.

VOICE Call a sharp *tsip*; flight call a short, rising *sip*; song a series of 2–7 mechanical buzzes on one pitch.

NESTING Cup of grass placed just off the ground in shrub or small tree; 3–5 eggs; 1–2 broods; May–August.

FEEDING Forages on or near the ground for seeds and insects.



CHRISTMAS PRESENTThe Clay-colored Sparrow is fond of low conifers for breeding, so Christmas tree farms form a perfect habitat.



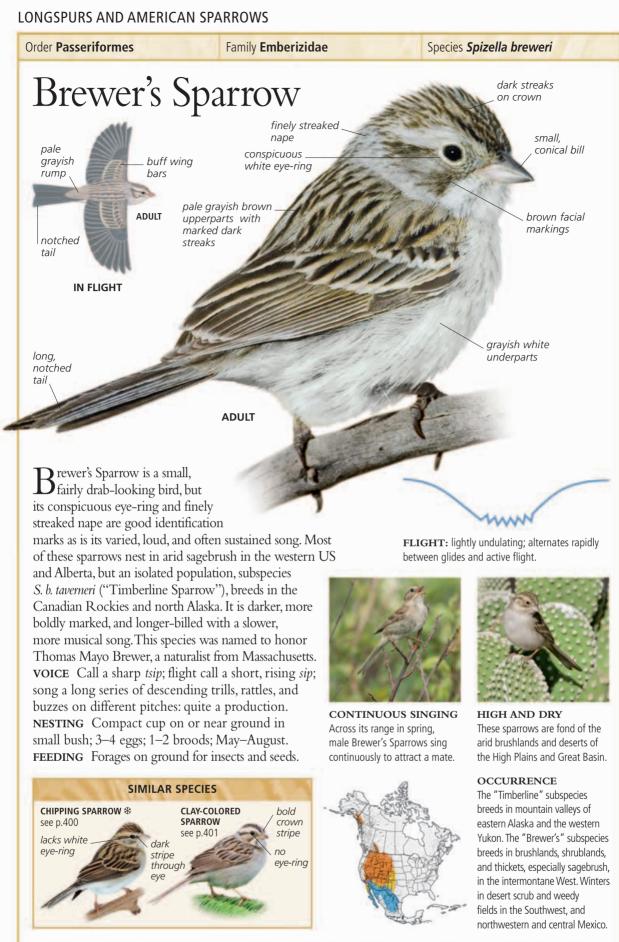


OCCURRENCE

Breeds in open habitats: prairies, shrubland, forest edges, and Christmas tree farms along the US/Canadian border and northward to the southern Northwest Territory. Winters in a large variety of brushy and weedy areas from south Texas to Mexico. Migration takes it to the Great Plains.

Length 5½in (14cm)	Wingspan 7½in (19cm)	Weight 3/8–1/2 oz (10–15g)
Social Large flocks	Lifespan Up to 5 years	Status Secure

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Length 5½in (14cm)	Wingspan 7½in (19cm)	Weight 5/16–1/2 0z (9–14g)
Social Solitary/Flocks	Lifespan Unknown	Status Declining

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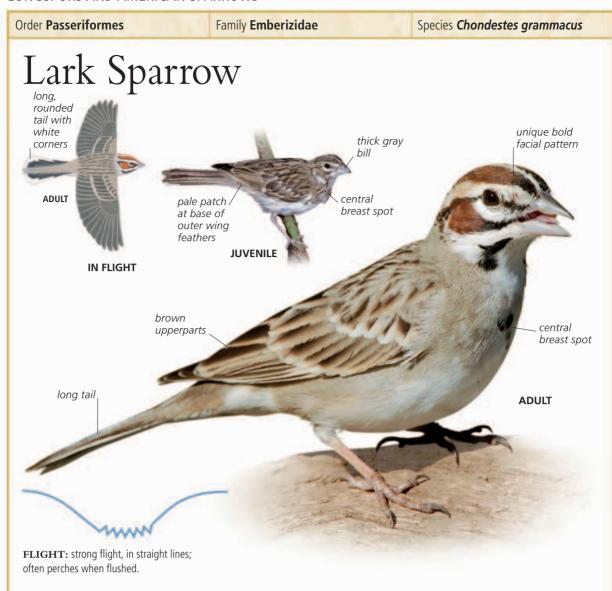


GIFTED SONGSTER The sweet song of the Vesper Sparrow is a characteristic sound of northern open areas.

from the Maritimes westward to the Northwest Territories and southward to California and Arizona. Winters in sparsely vegetated, open habitats from southern US to southwest Mexico.

Length 61/4in (16cm)	Wingspan 10in (25cm)	Weight 11/16-11/160z (20-30g)
Social Flocks	Lifespan Up to 7 years	Status Declining

NOTES



The bold harlequin facial pattern, single central breast spot, and long, rounded, black tail with white outer corners make the Lark Sparrow one of the most easily identifiable of North American sparrows. It is commonly found singing from the top of a fencepost or small tree in the western US. Conversely, Lark Sparrow numbers have

declined precipitously in the East, where the species is mostly associated with western-like sandy soils. It is likely, however, that its presence in the East was only possible because of the clearing of forests, so the species may in fact simply be retreating to its natural range. Males are strongly territorial at their nesting sites.

VOICE Thin, up-slurred *tseep* call, flight call sharp *tink*; song series of trills, whistles, and rattles on varying pitches.

NESTING Cup usually placed on ground at base of plant, or off-ground in tree or bush; 3–5 eggs; 1–2 broods; April–August.

FEEDING Eats seeds and insects.



ON THE FENCE
The Lark Sparrow is a common roadside bird, often found perching on barbed wire fences.

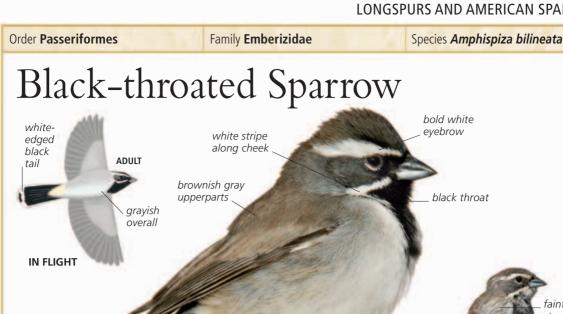
OCCURRENCE

In the West, breeds in a variety of open habitats, such as sagebrush flats and grasslands from British Columbia and Saskatchewan to Baja California and central Mexico. Localized breeder in the East, associated with well-drained soils, east to Ohio. Winters from southern US to southwestern and central Mexico.

Length 6–6 ¾ in (15–17cm)	Wingspan 11in (28cm)	Weight 11/16–11/16 0z (20–30g)
Social Large flocks	Lifespan Up to 8 years	Status Secure

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Because of perceived similarities in their songs, the Black-throated Sparrow has been called "the Song Sparrow of the desert." They are easily identified as they possess a bold white eyebrow in all plumages, which prevents confusion with other species. It is possible, however, for first-time observers to misidentify juvenile Black-throated Sparrows for Sage Sparrows. The Blackthroated Sparrow is exclusively western. It lives in a variety of arid habitats, especially on hillsides covered with cactus, creosote, and

VOICE Weak tink call; song consists of a few short, clear notes, followed by a high trill: tink tink-tink treeeeee, also ti-ti-tink churrrrrrrrr.

NESTING Loose cup placed on or near ground in bush or grass; 3-4 eggs; 1-2 broods; March-September.

ocotillo, but also in sagebrush and open pine woodlands.

ADULT

FEEDING Eats seeds, insects, and cactus fruit.





SPRING SINGER In spring the male declares his territory by singing from the top of a yucca or other high perch.

FLIGHT: direct with rapid wing beats, flies low between shrubs and trees.

faint streaking on breast



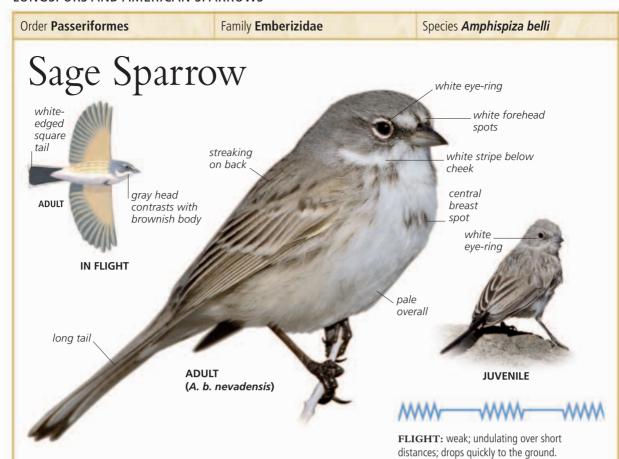
CLEAR PLUMAGE No other sparrow comes close to equaling this species' bold head and throat patterning.

OCCURRENCE

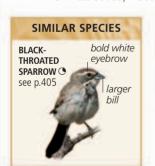
Found in desert scrub, from the Great Basin east and south to Texas, south to Baja California and central Mexico. Breeds sporadically in eastern Washington state. Withdraws from the Great Basin and much of the arid Southwest in winter. Resident in Mexico. Casual to the Pacific coast and the East.

Length 5½in (14cm)	Wingspan 7¾in (19.5cm)	Weight 3/8-9/16 0z (10-16g)
Social Solitary	Lifespan Up to 6 years	Status Secure

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7 ith its tail cocked and held high above its back, the Sage Sparrow can be seen darting on the ground from bush to bush in sagebrush flats and dense shrub growth. There are five subspecies, which can be grouped into two main populations that vary in habitat, plumage, migratory habits, and song, and were once considered to be separate species. "Bell's Sparrow" (A. b. belli) from California, has much darker upperparts with an unstreaked upper shoulder, a thick, lateral throat stripe, and a plain, dark tail. The "Sage Sparrow" (A. b. nevadensis) from much of the West, has pale upperparts with dark uppershoulder streaking, a thin, lateral throat stripe, and a white-edged tail. All five subspecies are declining, mainly because of habitat loss. One—A. b. clementeae, found only on San Clemente Island, off California—is listed as threatened. **VOICE** Call sharp, short *tink*; Bell's song consists of jumbled squeaky notes; True Sage's song low-pitched free FROOH dudu, free FROOH dudu. **NESTING** Cup placed just off ground in shrub or on the ground (never in case of Bell's Sparrow); 1-5 eggs; 1-3 broods; March-July. FEEDING Eats seeds, insects, and fruit.





BELL'S SPARROW
"Bell's Sparrow" is much darker
than the "Sage Sparrow," and
has a completely black tail.





SAGE FLAT SPECIALISTThe Sage Sparrow requires a habitat with extensive expanses of sagebrush.

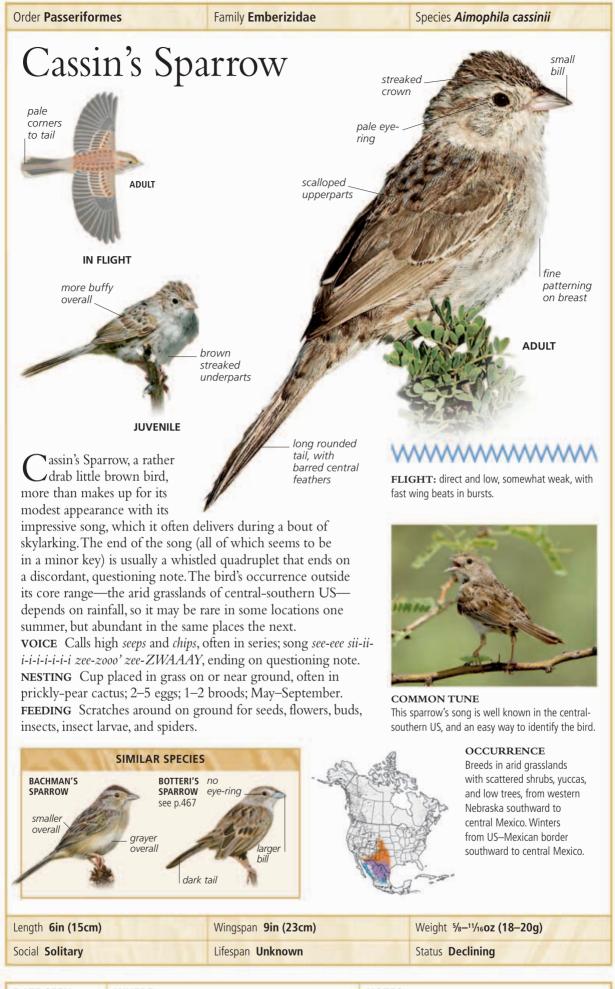
OCCURRENCE

"Bell's Sparrow" is a resident of steep hillsides with dense shrub growth, from northern California south to central Baja California. The "Sage Sparrow" breeds in Great Basin sagebrush flats, and winters in the interior Southwest. Casual in the Great Plains, accidental in the East.

Length 6-61/2in (15-16cm)	Wingspan 8½in (21cm)	Weight 7/16-11/16 oz (13-19g)
Social Solitary	Lifespan Up to 7 years	Status Declining

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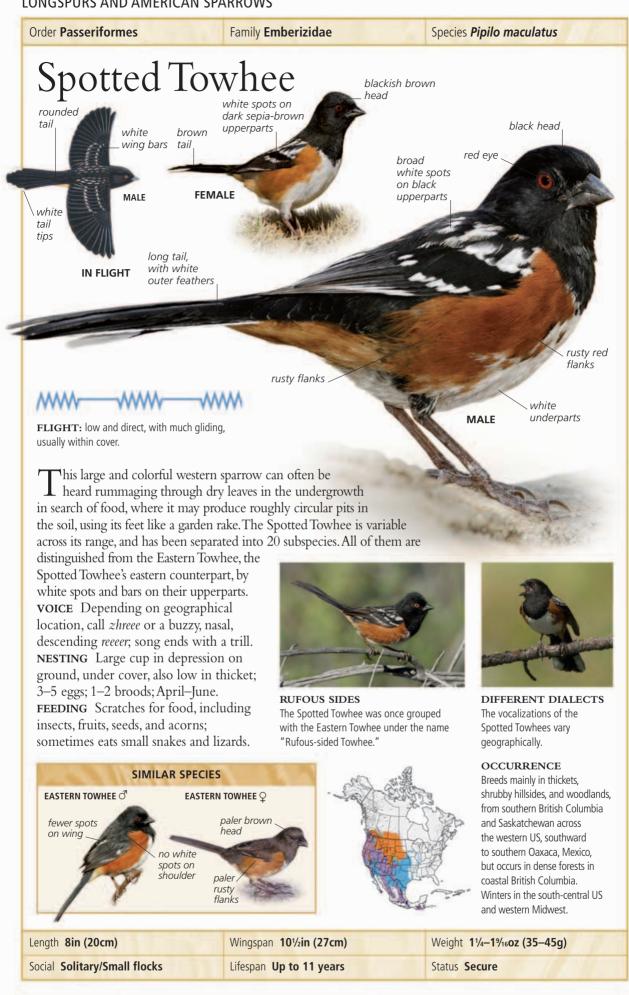


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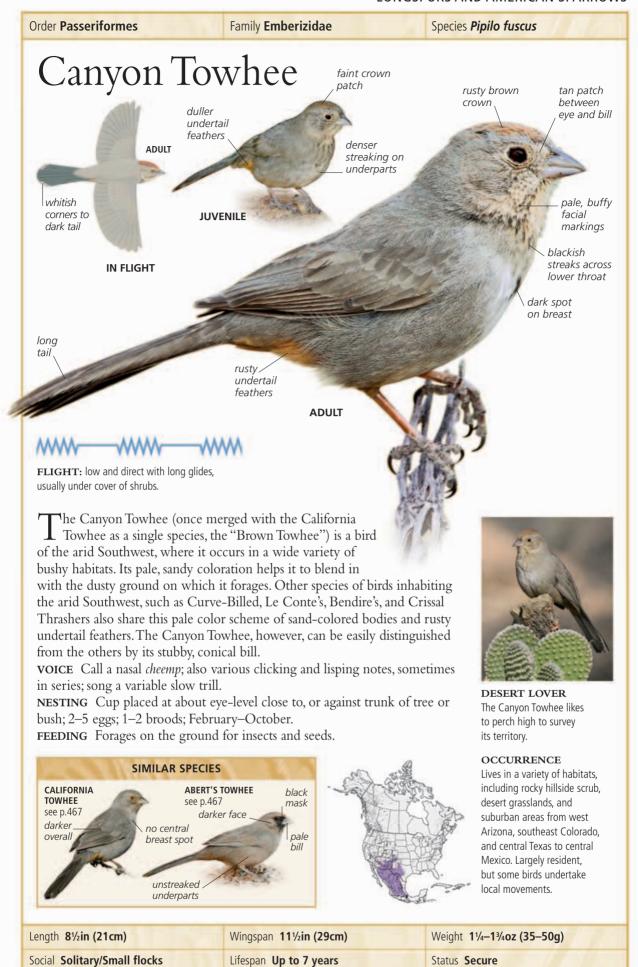
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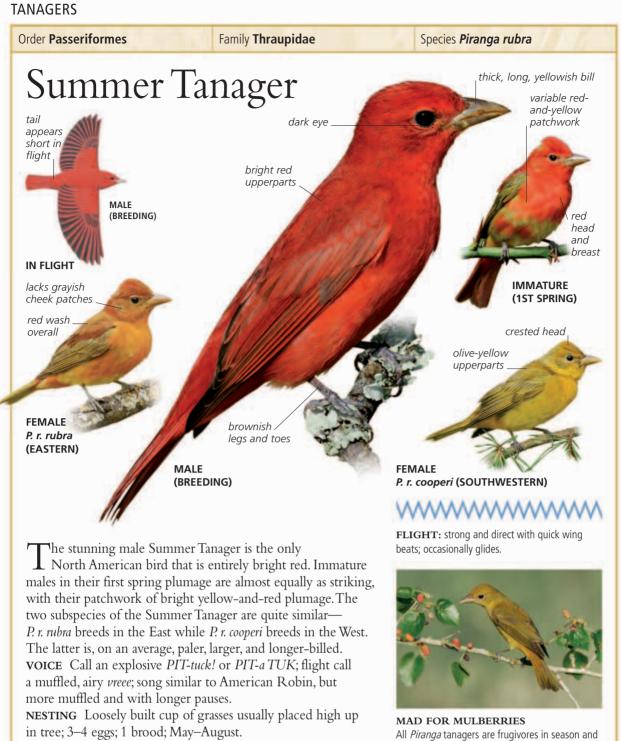


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FEEDING Eats bees, wasps, and other insects; also consumes fruit. SIMILAR SPECIES HEPATIC TANAGER ♀ SCARLET TANAGER ♀

greenish

overall

reddish brown



OCCURRENCE

and the West Indies.

mulberries are one of their favorites.

P. r. rubra breeds in deciduous and mixed woodlands from New Jersey and Nebraska south to Texas; P. r. cooperi in cottonwoodwillow habitats near streams and rivers from California and Utah to Texas and Mexico. Both winter from southern Texas and Mexico to Bolivia and Brazil.

Length 8in (20cm)	Wingspan 12in (31cm)	Weight 1/8-17/16 oz (25-40g)
Social Solitary	Lifespan Unknown	Status Secure

smaller

grayish bill

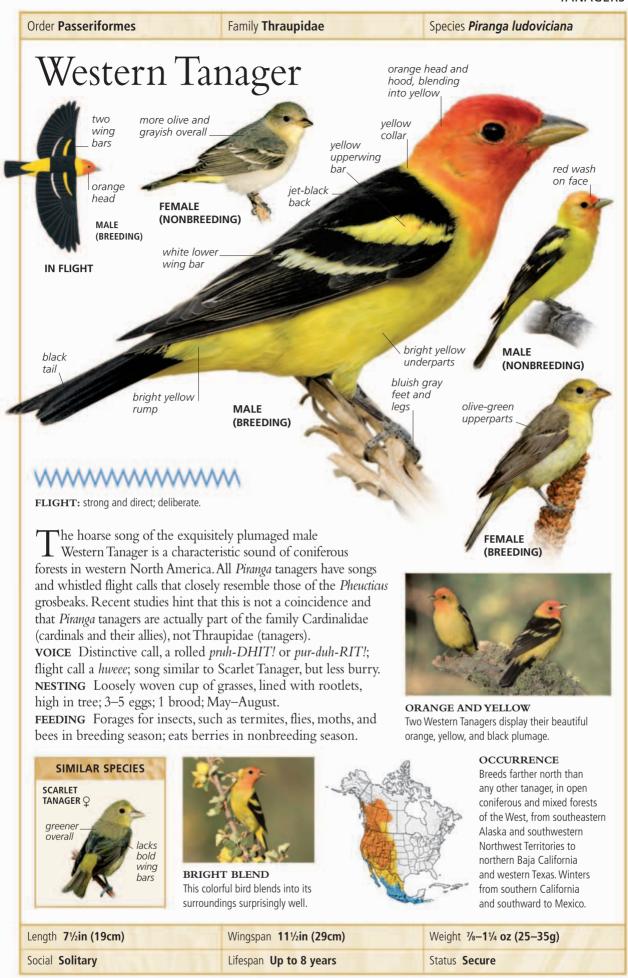
wings and tail

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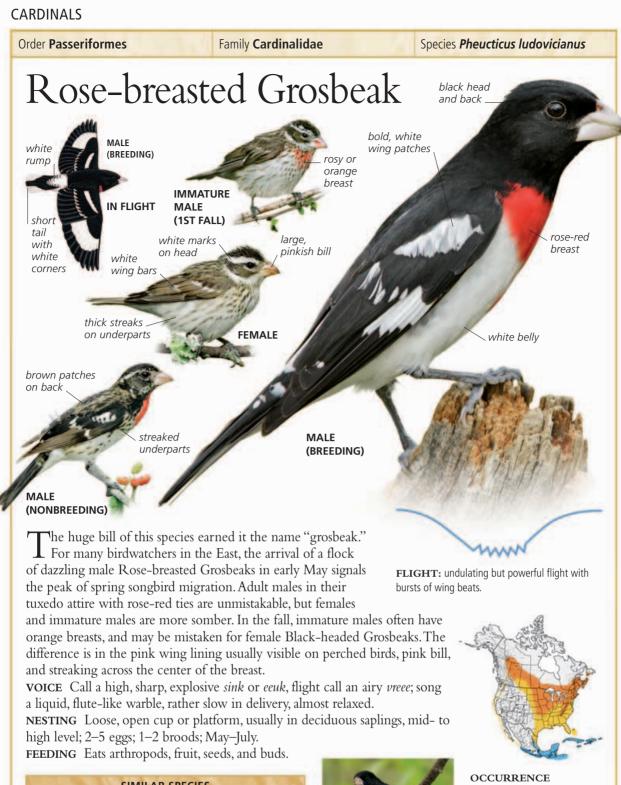
see p.468

yellowish

upperparts



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SIMILAR SPECIES

PURPLE FINCH ♀ smaller, dark bill see p.339

much ____ smaller

thick, lateral throat stripe

thick, lateral throat stripe

pencil-thin streaks on



STUNNING MALE
A striking male Rose-breasted
Grosbeak in springtime is quite
unmistakable on a tree.

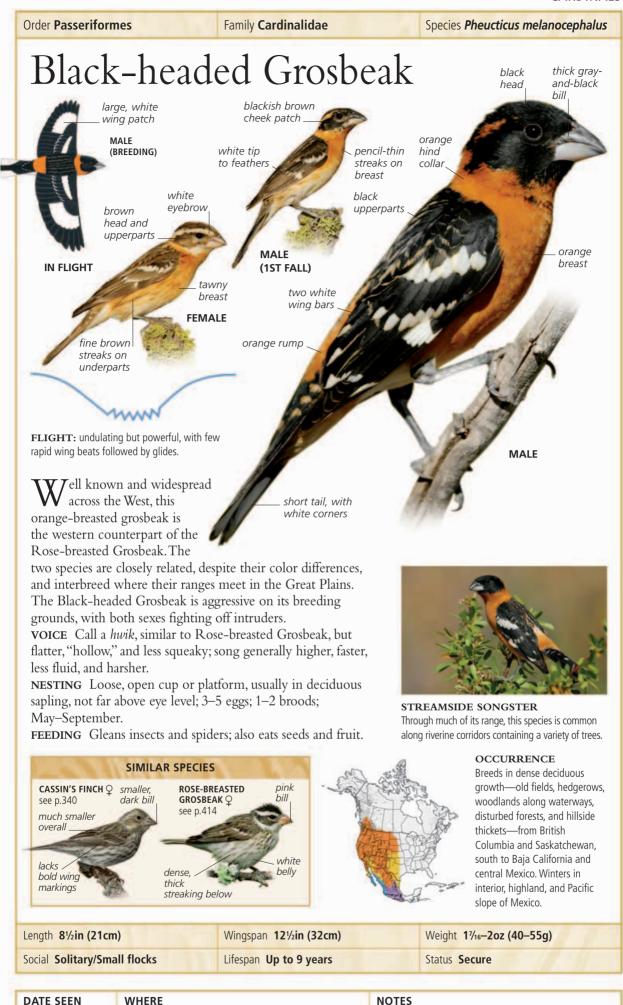
Uncommon in the western US; breeds in western Canada in deciduous and mixed woods, parks, and orchards. Found across the northeastern US, and across Canada westward from Newfoundland through Ontario to southeastern Yukon. Winters from Mexico and the Caribbean, south to Guyana and Peru.

Length 8in (20cm)	Wingspan 12½in (32cm)	Weight 11/4–2oz (35–55g)
Social Solitary/Small flocks	Lifespan Up to 13 years	Status Secure

underparts

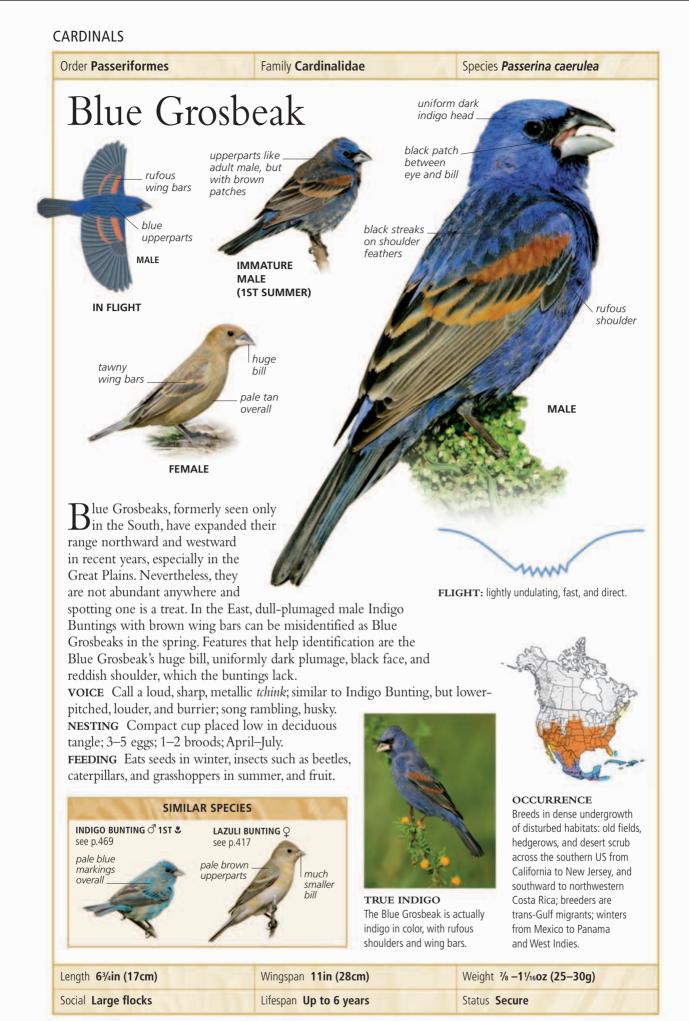
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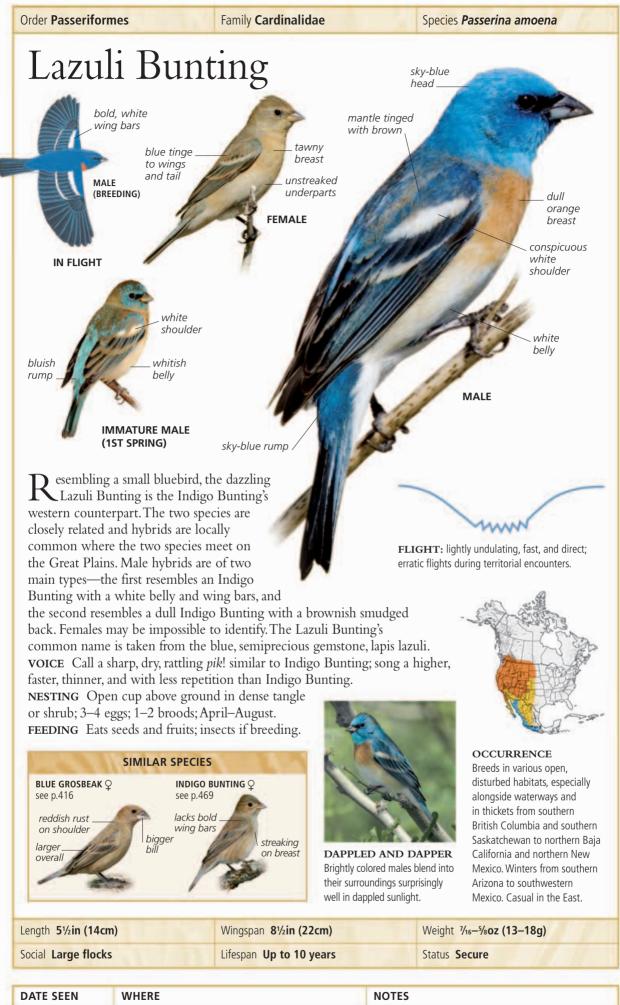
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RARE SPECIES



Family **Odontophoridae** Species **Oreortyx pictus**

Mountain Quail

The most diagnostic field marks of this quail are its deep-gray body offset by a chestnut-colored throat and "zebra-striped" flanks edged in black and buff, and its thin, usually vertical head plumes. The largest quail found in the US, it is an adept runner, even uphill, and often prefers running to flying. OCCURRENCE Resident in Washington, Oregon,

California, Idaho, and Nevada; in mixed evergreen and oak forests at midplumes to high elevations. chestnut **VOICE** Males emit throat crowing qu-ook to attract mates; scattered coveys reunite using whistled kow, kow. striped flanks ADILIT

Length 9-11in (23-28cm)

Wingspan 14-16in (35-41cm)

Family **Odontophoridae** Species **Callipepla squamata**

Scaled Quail

Named for the scale-like appearance of its chest, neck, and belly feathers, this quail is also called the "Blue Quail," because of its bluish sheen in some lights, or "Cottontop," because of the fluffy white tip to its crest. Its population periodically experiences a "boom and bust" cycle that may be tied to rainfall and subsequent food shortages or abundance, but is also influenced by grazing practices.



Length 10-12in (25-30cm)

Wingspan 13-15in (33-38cm)

Family Odontophoridae Species Cyrtonyx montezumae

Montezuma Quail

When seen, the male Montezuma Quail is unmistakable with its "clown-like" black-andwhite face and white-spotted underparts, but its secretive nature makes this species difficult to spot. When threatened, it prefers to crouch, walk, and then run away, but it may also crouch and freeze in place, then suddenly burst into flight.

OCCURRENCE Habitat is a mixture of grassy and open pine-oak woodlands at 4,000-6,000ft (1,200–1,800m); also found in arid scrubland. Predominantly a Mexican species.

VOICE Males produce a loud, descending buzzy whistle wheeerrr, sometimes compared to the sound of a bomb falling; female emits low descending hoots.



Length 81/2-9in (21-23cm)

Wingspan 11-12in (28-30cm)

Northern Bobwhite

Family **Odontophoridae** Species **Colinus virginianus**

This small, plump, chicken-like bird is loved by hunters. When flushed it erupts in "coveys" of 10 to 20 individuals, bursting from groundcover and dispersing in many directions. Large numbers are raised in captivity and released to supplement wild populations for hunting.

OCCURRENCE Widely distributed in much of the eastern US, and in Mexico, southward to



Length 8-10in (20-25cm)

Wingspan 11-14in (28-35cm)

Family **Phasianidae**

Species Centrocercus urophasianus

Greater Sage Grouse

The Greater Sage Grouse is the largest native North American grouse. Each spring, males gather on communal sites, known as "leks", where they compete for females with spectacular courtship displays. As many as 40 males may gather at a lek for these events. Once numerous, Greater Sage Grouse populations have declined, as human encroachment on sagebrush habitats has increased. OCCURRENCE Present distribution in North America is a fraction of its formerly large range in the vast sagebrush plains of the West. Breeds in a variety of habitats, the ideal being composed of several sagebrush species of varying heights.

VOICE Clucks repeatedly when flushed; male makes odd popping sounds with throat



Length 191/2-30in (50-76cm)

Wingspan 32-39in (81-99cm)

Family **Phasianidae**

Species Centrocercus minimus

Gunnison Sage Grouse

In the 1990s, ornithologists discovered differences between the populations of the Gunnison Basin, Colorado, and other Sage Grouse populations. This led to the description of a new species, minimus, in 2001. Fewer than 10 breeding populations of minimus occur within this restricted area. Continuing loss of its habitat due to cultivation and development puts this species at risk of extinction. OCCURRENCE Prefers areas of mixed, tall sagebrush with significant overhead cover and ground-based succulent plant foliage, especially in areas along river corridors. Also found where there is deciduous scrub and fruit-bearing trees.

VOICE Clucks repeatedly when flushed; male makes about nine booming sounds when displaying.



Length 21-23in (53-58cm)

Wingspan 33-36in (83-91cm)

Family Phasianidae

Species Tympanuchus pallidicinctus

Lesser Prairie Chicken

Destruction of its native shortgrass prairie and oak scrub habitat has drastically reduced the range and numbers of the Lesser Prairie Chicken. The species is sensitive to fences, buildings, and power line towers, and females do not nest near such structures, further reducing its already restricted habitat.

OCCURRENCE Primarily native shortgrass prairie mixed with shrub woodlands; fallow fields;

occasional agricultural properties.

VOICE Males "boom" or gobble in series of high, hooting notes during courtship display; females occasionally "boom" on lek



Length 15-17in (38-43cm)

Wingspan 23-26in (58-66cm)

Family **Phasianidae**

Species Tympanuchus cupido

Greater Prairie Chicken

Once common in prairie and woodland areas across central North America, numbers of Greater Prairie Chickens have been greatly reduced as their native habitats have given way to agriculture. During the breeding season, males aggressively defend communal areas called "leks" and perform dramatic displays to entice females to mate with them.

OCCURRENCE Breeds in openings mixed with oak-forested river corridors with areas of native tallgrass prairie; resident year-round. Local in the west-central states.

VOICE During courtship, males emit "booming" sounds like a three-part low hoot; also cackling calls.



Length 151/2-171/2in (40-45cm)

Wingspan 26-29in (66-74cm)

Family **Phasianidae**

Species Tetraogallus himalayensis

Himalayan Snowcock

Introduced from Asia in the 1960s to overcome Nevada's lack of upland gamebirds, it took the Himalayan Snowcock nearly 20 years to become successfully established. This large, wary species with its whitish head and brownish body appears gray when viewed from a distance. The very restricted range and high elevation habitat make this bird unlikely to be mistaken for anything else. OCCURRENCE At high elevations near the snow line in the Ruby Mountains of

northwestern Nevada.

VOICE Variety of low and high whistles; clucks, cackles, and chuckles to signal food, alarm, or mating. gray background brown with mottled stripes brown-and on each gray streaks side of neck ADULT

Length 231/2-29in (60-74cm)

Wingspan 28-31in (71-79cm)

Family Anatidae

Species **Dendrocygna autumnalis**

Black-bellied Whistling-Duck

With its distinctive red bill, black belly, and long, pink legs, this Whistling-Duck is unmistakable. Unlike most other waterfowl, it has an upright posture when perched. Whistling-ducks are also known as "tree-ducks" because they perch on trees when roosting, and build their nests in tree holes. **OCCURRENCE** Prefers shallow, freshwater habitats: rice fields are a common foraging habitat; also occurs along shorelines and mud bars.



Length 181/2-20in (47-51cm)

Wingspan 34-36in (86-91cm)

Family Anatidae

Species Dendrocygna bicolor

Fulvous Whistling-Duck

Although sometimes thought of as dabbling ducks, whistling-ducks behave more like swans, as they form long-term pairs, but without elaborate courtship displays, and the males help to raise the brood. The Fulvous Whistling-Duck is widespread in tropical regions, but in the US it is found in coastal Texas, where it is associated with rice fields. The Fulvous Whistling-Duck is rare in California.

OCCURRENCE Permanent resident in southern Texas and Florida; range expands in summer to coastal Texas and Louisiana. Casual vagrant as far west as British Columbia and east as Nova Scotia. VOICE High-pitched squeaky pi-teeeew; often calls in flight.



Length 161/2-20in (42-51cm)

Wingspan 33-37in (85-93cm)

Family Anatidae

Species Anser canagicus

Emperor Goose

With its white head, black throat, and scalloped silvery-gray body and wings, the Emperor Goose is a distinctive bird. During migration, they congregate to feed in large estuaries along the Alaska Peninsula. The Alaskan population of Emperor Geese declined drastically during the 1960s-80s, but has remained stable since then. **OCCURRENCE** Breeds in Arctic and subarctic coastal salt marsh habitats in Alaska and eastern Russia. Majority winter along the Alaska Peninsula and on ice-free beaches in the Aleutian Islands.



Length 26in (66cm)

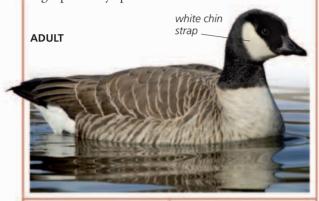
Wingspan 4ft (1.2m)

Family Anatidae

Species Branta hutchinsii

Cackling Goose

Arctic populations of the Canada Goose, long considered a subspecies, Branta canadensis hutchinsii, are now believed by many ornithologists to be a distinct but closely related species, Branta hutchinsii, the Cackling Goose. The populations breeding in the Aleutian Islands winter in California; those from the Canadian Arctic winter in the Great Plain and the Gulf Coast, Cackling Geese are smaller and thicker-necked than Canada Geese. **OCCURRENCE** Breeds in rocky tundra from the Aleutians east to Baffin Island and Hudson Bay. Winters in pastures and agricultural fields; in the West, from British Columbia to California. **VOICE** Male call a honk or bark: females have higher pitched hrink; also high-pitched yelps.



Length 211/2-30in (55-75cm)

) Wingspan 41/4–5ft (1.3–1.5m)

Family **Anatidae**

Species Cygnus buccinator

Trumpeter Swan

North America's quintessential swan and heaviest waterfowl, the magnificent Trumpeter Swan has made a remarkable comeback after its numbers were severely reduced by hunting in the 1800s. By the mid-1930s, fewer than a hundred birds were known to exist. Successful reintroduction efforts were made in the upper Midwest and Ontario to re-establish the species to its former breeding range. Its typical far-reaching call is usually the best way to identify it.

OCCURRENCE Alaskan and northern Canadian breeders go south in winter; others remain year round at places such as Yellowstone National Park. Found on freshwater lakes and marshes with plenty of vegetation and on estuaries in winter.

VOICE Call nasal, resonant *oh-OH* reminiscent of French horn.



Length 41/4-5ft (1.3-1.5m)

Wingspan 6½ft (2m)

Family Anatidae

Species Aythya marila

Greater Scaup

A great swimmer and diver, the Greater Scaup is the only diving duck of the genus *Aythya* that breeds both in North America and Eurasia. More restricted to coastal breeding and wintering habitats, it is less numerous in North America than its close relative, the Lesser Scaup. Greater Scaups can form large, often sexually segregated flocks outside the breeding season.

OCCURRENCE Most birds breed in western coastal Alaska on tundra wetlands; also in lower densities in northwestern and eastern Canada. Almost all birds winter offshore, along the Atlantic and Pacific coasts, or on the Great Lakes.

VOICE During courtship, male call a soft, fast, wheezy *week week wheew*; female gives a series of growled monotone *arrrr* notes.



Length 15-22in (38-56cm)

Wingspan 28-31in (72-79cm)

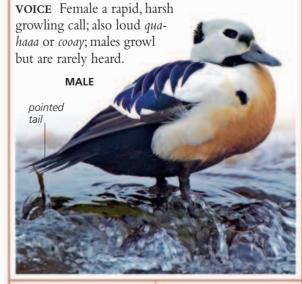
Family **Anatidae**

Species Polysticta stelleri

Steller's Eider

With its steep forehead, flat crown, and the way it floats high on the water, Steller's Eider resembles a dabbling duck. Steller's Eiders are the synchronized swimmers of the duck clan. The Arctic and Pacific populations of this species have recently declined in numbers, and are classified as vulnerable.

OCCURRENCE Pacific population breeds mainly in Russia's far northeast; small numbers breed in Alaska. About half the Russian population molts and winters in large groups along the Alaska Peninsula and in the Aleutian Islands.



Length 17-18in (43-46cm)

Wingspan 28-30in (70-76cm)

Family **Anatidae**

Species Somateria fischeri

Spectacled Eider

In order to see the striking Spectacled Eider one needs to travel to remote tundra in the far north of Alaska. Much of their life is spent offshore, with males spending up to 11 months of the year at sea. In flight, male Spectacled Eiders reveal more black extending up the breast than the other eiders, and the females have gray, rather than white, underwings. **OCCURRENCE** Arctic coastal breeding sites are remote and isolated; most birds breed in northern Russia, few in Alaska. They winter in dense flocks in small ice-free areas in the Bering Sea. VOICE Males a faint ho HOOO during display, otherwise silent; females a rapid clucking call buckbuck buckbuck with emphasis on second



syllable; also guttural rolled gow gow gow.

Length 201/2–221/2 in (52–57cm) Wingspan 33in (83cm)

Family **Anatidae**

Species Somateria spectabilis

King Eider

The scientific name of the King Eider, spectabilis, means "remarkable," and its gaudy marking and coloring around the head and bill make it hard to misidentify. Female King Eiders, however, can be hard to distinguish from female Common Eiders. King Eiders can dive down to 180ft (55m) when foraging for mollusks.

OCCURRENCE Nests along coasts and inland in the high Arctic, in a variety of habitats; prefers welldrained areas. During winter, found mostly in coastal waters along the southern edge of the ice pack. **VOICE** Courting males give a repeated series of low, rolled dove-like arrrrooooo calls, each rising, then



Length 181/2-25in (47-64cm)

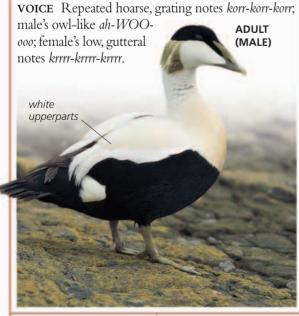
Wingspan 37in (94cm)

Family Anatidae

Species Somateria mollissima

Common Eider

The Common Eider is the most numerous and widespread of the eiders. Males show considerable seasonal plumage changes, and do not acquire their striking adult plumage until their third year. **OCCURRENCE** Arctic breeder on coastal islands and peninsulas. One population stays in the Hudson and James Bays region. Others winter in the Bering Sea, Hudson Bay, northern British Columbia, Gulf of St. Lawrence, and along the Atlantic Coast.



Length 191/2-28in (50-71cm)

Wingspan 31-42in (80-108cm)

Family **Diomedeidae** Species **Phoebastria nigripes**

Black-footed Albatross

The most frequently seen albatross in North American waters, this distinctive all-dark bird breeds mainly on the Hawaiian Islands, and regularly visits the Pacific Coast during the nonbreeding season. Unfortunately, a tendency to scavenge around fishing boats can cause them to drown when they are accidentally hooked on long lines or tangled in drift nets. This is a major conservation concern for this species. OCCURRENCE Breeds on sandy beaches, almost exclusively on remote, uninhabited

islands in Hawaii. **VOICE** Generally silent outside the breeding season, but utters weak squeals long, slender while scavenging; makes wings a variety of noises during courtship. white undertail feathers ADUIT

Length 25-29in (64-74cm)

Wingspan 61/4-71/4ft (1.9-2.2m)

Family **Procellariidae**

Species **Puffinus opisthomelas**

Black-vented Shearwater

An inshore feeder, the Black-vented Shearwater is one of the few species of tubenoses that can be seen easily from land. Flocks of hundreds can be observed from various points along the coast of California. Black-vented Shearwaters vary in color from ghostly pale beige to very dark.

OCCURRENCE Breeds on islands off Baja California, Mexico; spends August–January off the Pacific coast from southern California south to Mexico (as far as Oaxaca). Northernmost and southernmost extent of post-breeding range not well known.

VOICE Silent at sea; breeding ground



Length 14in (36cm)

Wingspan 34in (86cm)

Family **Hydrobatidae** Species Oceanodroma microsoma Least Storm-Petrel The smallest storm-petrel in North American waters, the all-dark Least Storm-Petrel is numerous in flocks of tubenoses off the southern California coast in fall. These petrels are very susceptible to predation by introduced cats and rats on their Pacific nesting islands. The Least Storm-Petrel is dark and similar in appearance to the Black Storm-Petrel, but the latter flies with slower wing beats interrupted by glides. OCCURRENCE Breeds on a small number of islands along the Pacific and Gulf coasts of Baja California, Mexico. After the breeding season, many birds disperse north to waters off southern California. **VOICE** Silent at sea: whirring

voice Silent at sea; whirring and purring at breeding sites.

ADULT

of flight feathers

Length 5½in (14cm)

Family Hydrobatidae

Wingspan 13in (33cm)

Species Oceanodroma homochroa

underwing coverts

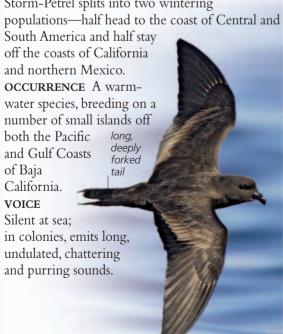
all-dark body

Family **Hydrobatidae**

Species Oceanodroma melania

Black Storm-Petrel

The Black Storm-Petrel, the largest storm-petrel occurring off the coast of southern California, breeds on islands free from predators such as rats, along the coasts of Baja California. After the breeding season, the population of the Black Storm-Petrel splits into two wintering populations—half head to the coast of Central an



ADULT
Length 9in (23cm)

Wingspan 19-21in (48-53cm)

Ashy Storm-Petrel

The Ashy Storm-Petrel is one of four species of all-dark storm petrels that breed on islands in the waters of California and Baja California. In California, these islands include Farallon, San Miguel, Santa Barbara, Santa Clara, and Santa Cruz. Ashy Storm-Petrels molt during the breeding season, a double expenditure of energy. In flight, this species looks noticeably long-tailed. OCCURRENCE Breeds on islands off the coast of California and northern Baja California. Post-breeding dispersal takes some birds north to waters off Humboldt County, others south to waters off central Baja California.

VOICE Usually silent at sea; coos and makes other calls at colonies.



Length 71/2in (19cm)

Wingspan 16-18in (41-46cm)

Family Ardeidae

Species Ixobrychus exilis

Least Bittern

The smallest species of heron in North America, the Least Bittern is also one of the most colorful, but its secretive nature makes it easy to overlook in its habitat of reeds and cattails. Widely distributed in the East, the Least Bittern is local in several western states, including Oregon, California, and Nevada.

OCCURRENCE Breeds in lowland freshwater marshes, occasionally brackish marshes. In winter in tropical American also found in saltwater marshes. Its breeding distribution ranges from eastern Canada through Central and South America, south to Argentina.

VOICE During courtship displays, a soft series of ku, ku, ku, ku, ku notes; calls are harsh and loud, kak, kak, kak.



Length 11-14in (28-36cm)

Family Fregatidae

Species Fregata magnificens

Magnificent Frigatebird

One of North America's most-skilled aerialists, the Magnificent Frigatebird is not seen perched, except when nesting in mangroves or roosting on buoys. It is usually seen flying gracefully above bays, lagoons, or open ocean. This species is well known for its piratical behavior—it pursues birds such as boobies, making them disgorge their food. OCCURRENCE Usually seen flying high in the sky over open water. In the West, rare along the coast of Southern California.

VOICE Male call consists of whirring, rattling, and drumming sounds, only at breeding sites.



Length 3ft 3in (100cm)

Wingspan 4½ft (1.4m)

Family Phalacrocoracidae Species Phalacrocorax brasilianus

Neotropic Cormorant

The slender Neotropic Cormorant ranges widely in the Western Hemisphere. In the US, it breeds and winters along the Gulf Coast and in the lower Rio Grande Valley. In the west, it breeds locally in Arizona and New Mexico, and is a rare visitor to California.

OCCURRENCE Breeds in coastal marshes, swamps, and inland reservoirs from southeastern Texas and western Louisiana to the far south of South America; winters close inshore in protected bays, inlets, estuaries, and lagoons.



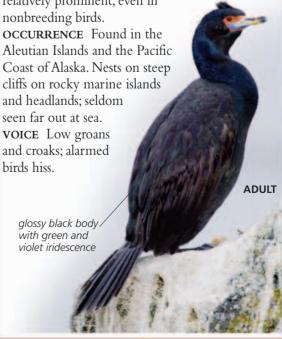
Length 24in (61cm)

Wingspan 31/4ft (1m)

Red-faced Cormorant

Family Phalacrocoracidae Species Phalacrocorax urile

The Red-faced Cormorant's breeding distribution stretches from the Aleutian Islands southward to British Columbia. Within this range, it occurs in small and isolated colonies on rocky outcrops and cliffs, usually in remote locations. The Red-faced Cormorant's bare facial skin varies from yellow to orange, and to red. Its crest is relatively prominent, even in



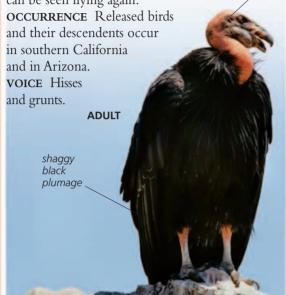
Length 30in-3ft 3in (75-100cm) Wingspan 31/2ft (1.1m)

Family Cathartidae

Species **Gymnogyps californianus**

California Condor

About 20,000 years ago, this vulture was widespread across the southern US. In the 20th century, shooting, low birthrate, and other factors, such as death from poisoned baits, all contributed to a steep reduction in the numbers of California Condors, and the species almost became extinct. However, recent breed-and-release programs in California and Arizona have succeeded and these magnificent birds orange skin



Length 31/2-41/4ft (1.1-1.3m)

Wingspan 81/4ft (2.5m)

Family Cathartidae Species Coragyps atratus Black Vulture Common in southern and eastern states but rare in the West, the Black Vulture can be seen in large communal roosts in the evening. Maintaining long pair-bonds, these vultures remain together year-round. According to one study, parents will continue to feed their young for as long as eight months after fledging. When not feeding on roadkills along highways, they spend time soaring above the landscape, in grayish search of carrion. skin OCCURRENCE Breeds in dense woodlands, caves, old buildings; forages in open habitats, near roads and highways; found year-round throughout its range. **VOICE** Usually silent; hisses and barks occasionally. short tail ADULT

Family Falconidae

Species Caracara cheriway

Crested Caracara

In North America, the hawk-like Crested Caracara is only found in Texas, southern Arizona, and central Florida. Crested Caracara pairs are monogamous and highly territorial. Known locally as the "Mexican Buzzard," the Crested Caracara is actually a member of the falcon family, not the hawk family.

OCCURRENCE Ranges widely in Central and South America. Breeds and winters in open areas ranging from desert to grasslands with scattered tall trees. Has been recorded in California.

VOICE Adults disturbed at nest emit cackles, hollow rattles, and high-pitched screams; nestlings



Length 24-27in (61-68cm)

Wingspan 4½-5ft (1.4-1.5m)

Family **Falconidae**

Species Falco rusticolus

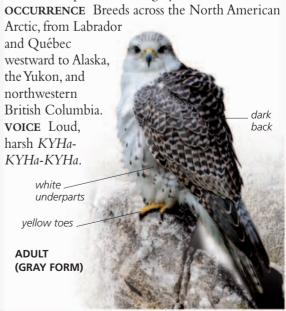
Wingspan 4½-5ft (1.4-1.5m)

Gyrfalcon

Length 24-27in (61-68cm)

The majestic Gyrfalcon breeds in the Arctic and the Subarctic in Eurasia and North America, and rarely occurs south of its breeding range, except during years with peaks in population numbers. For centuries, the Gyrfalcon has been sought by falconers for its power and gentle nature, and is the mascot of the US Air Force Academy. Variable in color, Gyrfalcons range from almost pure white to gray and dark forms.

OCCURRENCE, Breeds across the North American



Length 22in (56cm)

Wingspan 4ft (1.2m)

Family Accipitridae

Species Ictinia mississippiensis

Mississippi Kite

The locally abundant Mississippi Kite nests in colonies in the central and southern Great Plains. Foraging flocks of 25 or more birds are common, and groups of ten or more roost near nests. In the West, the species nests in urban habitats, including city parks and golf courses, westward to New Mexico, and, locally, in Arizona and Colorado. This graceful bird pursues and eats its insect prey in flight. Mississippi Kites are long-distance migrants, wintering orange-red eye in South America.

in South America.

OCCURRENCE Western birds use both rural woodland and suburban or urban habitat.

VOICE High-pitched phee-phew; also multisyllabled phee-ti-ti.

long wings

SUBADULT

Length 13-15in (33-38cm)

Wingspan 35in (89cm)

Family Accipitridae Species Parabuteo unicinctus

Harris's Hawk

Named by the renowned ornithologist John James Audubon in honor of his friend and patron, Edward Harris, Harris's Hawks nest in social units, unlike other North American birds of prey. These groups engage in cooperative hunting: members take turns leading the chase to wear down their prey and share in the kill. This species has become popular with falconers all over the world.

OCCURRENCE Forages and breeds year-round in semi-open desert scrub, savanna, grassland, and wetlands containing scattered larger trees and cacti. Occasionally appears in suburban areas. Essentially a Central and South American species, with



Length 18-23in (46-59cm)

Wingspan 31/2-4ft (1.1-1.2m)

Family **Accipitridae**

Species **Buteogallus anthracinus**

Common Black-hawk

Although it is found in several US States (southwestern Utah, Arizona, New Mexico, and Texas), the Common Black-hawk is actually relatively uncommon north of Mexico. This long-legged, short-tailed, and broad-winged hawk is all black except for a broad white band across its tail. Almost always found near water, the Common Black-hawk is fond of frogs and fishes.

OCCURRENCE Mature woodlands of cottonwoods and willow along streams that offer hunting perches; US populations are migratory; resident in Central America and northern South America, and Cuba. VOICE Complex, shrill calls when excited or alarmed. series of 8-14 piercing, whistlesounding notes, increasing in speed. long ADULT short tail

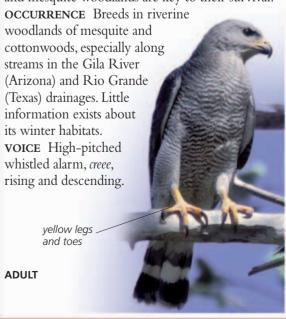
Length 20-24in (50-60cm)

Wingspan 41/4-5ft (1.3-1.7m)

Family **Accipitridae** Species **Asturina nitida**

Gray Hawk

The elegant Gray Hawk is found from Mexico south to Argentina, but in North America is only seen in southwestern Texas and southeastern Arizona. The Gray Hawk's breeding system can include trios, one female and two males, all of whom cooperate with chick rearing. While only about 100 pairs breed in the US, their numbers are stable and possibly even increasing. Cottonwood and mesquite woodlands are key to their survival.



Length 16-17in (41-43cm)

Wingspan 35in (89cm)

Family Accipitridae

Species Buteo platypterus

Broad-winged Hawk

A common species in the eastern US and Canada, the Broad-winged Hawk reaches British Columbia in the northwest, but otherwise is rare in the western US, usually in the fall. Broad-winged Hawks are a spectacular sight during fall migration at some eastern hawk-watching localities, when hundreds, and sometimes even thousands, of birds soar and glide in rising thermals. Most of these birds average 70 miles (110km) a day, and, after more than 4,000 miles (6,500km), reach their wintering quarters in Bolivia and Brazil.

OCCURRENCE Breeds across
Canada (west to British

broad, white

black trailing wing edge

Canada (west to British Columbia) and the eastern US, in forested areas with clearings and water.

VOICE High-pitched

peeoweee call, first note shorter and higher-pitched.

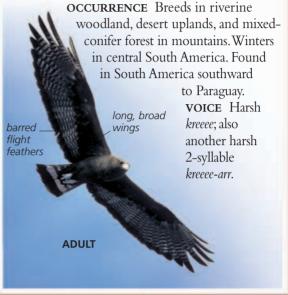
Length 13–17in (33–43cm)

Wingspan 32-39in (81-100cm)

ADUIT

Zone-tailed Hawk
Widely distributed in Central and South America, the Zone-tailed Hawk is more localized in the US, where it breeds in Arizona, New Mexico, and Texas, sharing its riverine woodland habitat with the Common Black-hawk. It has been suggested that the Zone-tailed Hawk "mimics" the Turkey Vulture. The hawk, like the vulture, has a long tail, and flies with its wings held up at an angle, called a dihedral. The hawk uses the vulture's ability to spot prey on the ground, but, unlike the vulture, it catches live prey.

OCCURRENCE Breeds in riverine woodland, desert uplands, and mixed-conifer forest in mountains. Winters



Length 171/2-22in (45-56cm)

Wingspan **4–4**½**ft (1.2–1.4m)**

Family Rallidae

Species Laterallus jamaicensis

Black Rail

This tiny, mouse-sized rail is very secretive, with the result that its life history is still poorly known. Its presence is confirmed when it gives its territorial call during the breeding season, from the dense cover of its marshy habitat. Its distribution in the US is very local, except along the Eastern Seaboard. In the West, the Black Rail breeds in isolated populations in California, Arizona, Colorado, and Kansas.

OCCURRENCE Patchy distribution across the US

OCCURRENCE Patchy distribution across the US in freshwater and brackish marshes or wet meadows; occurs locally in the West Indies, Central and South America.

VOICE Distinctive, 3-note *kik-kee-do* given by male, mostly at night, during breeding season; makes low growl when agitated.

Small,



Length 6in (15cm)

Wingspan 9in (23cm)

Family Rallidae

Species Rallus longirostris

Clapper Rail

The Clapper Rail is common in tidal marshes along the entire seaboard of the Atlantic and Gulf coasts. In the West its distribution is more localized; it is found in coastal marshes of California and in freshwater marshes, inland, in Arizona. The Clapper Rail's loud, endlessly repeated "song" consists of sharp *kek*, *kek*, *kek*... notes that indicate its presence in dense marshes. It is rarely seen running across patches of marsh grass at low tide.

OCCURRENCE Breeds in saltwater and brackish marshes along the Atlantic Seaboard. Isolated populations are found in coastal California and inland in Arizona, along the lower Colorado River. Winters south of its breeding range.

VOICE Grunting calls; repeated loud *kek* notes.



Length 141/2 in (37cm)

Wingspan 19in (48cm)

Family Rallidae

Species Rallus elegans

King Rail

This chicken-sized marsh bird is the freshwater counterpart of the saltmarsh-dwelling Clapper Rail. The King Rail depends on freshwater marshes with tall, emergent reeds and cattails. Its distribution is centered on the eastern and southeastern US; in the West, local populations can be found in Kansas, Oklahoma, and Texas, but it is rare farther west. Like the Clapper Rail, the King is rarely seen and is most often detected by its loud calls.

OCCURRENCE Mostly freshwater marshes in the eastern US and in southern Ontario. Also found throughout the year along the southern coast of the US, including Florida, and in central Mexico and Cuba. Rare in the West.



Length 15in (38cm)

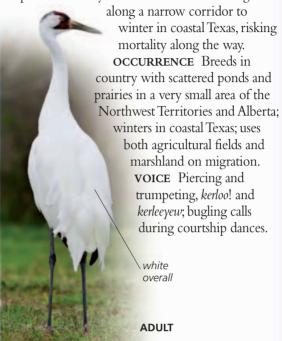
Wingspan 20in (51cm)

Family **Gruidae**

Species **Grus americana**

Whooping Crane

The majestic Whooping Crane is one of the most compelling success stories that resulted from passing the US Endangered Species Act. The species has rebounded from just a few dozen birds in the mid-20th to hundreds of individuals in the early 21st century. It still remains endangered, however, because it reproduces slowly in a restricted area and migrates



Length 4-41/2ft (1.2-1.4m)

Wingspan 71/4ft (2.2m)

Family Haematopodidae Species Haematopus palliatus

American Oystercatcher

This large, noisy, and conspicuous shorebird breeds along beaches and coastal dunes of the Atlantic and Gulf coasts. In the West, it is restricted to coastal southern California, and is replaced along the Pacific coast by the Black Oystercatcher. American Oystercatchers are social birds that can be observed in flocks, from a few birds to several hundred, especially in winter, at preferred feeding and roosting locations.

OCCURRENCE Saltwater coastal habitats, along the Atlantic Seaboard from Massachusetts to Argentina, and along the Pacific Seaboard from Baja California to Chile.

VOICE Whistled, loud, clear descending wheeu call; alarm call sharp wheep; flight display call several sharp whistles accelerating into



Length 15½–17½in (40–44cm)

Wingspan 29-32in (73-81cm)

Family Charadriidae

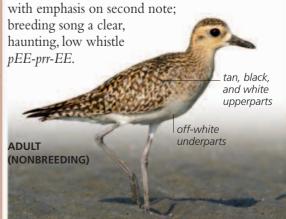
Species Pluvialis fulva

Pacific Golden Plover

The Pacific Golden Plover and American Golden Plover were formerly considered to belong to the same species. The Pacific Golden Plover breeds in western Alaska and migrates over the ocean to wintering grounds on remote South Pacific Islands. Its nest is a shallow depression lined with lichens in the tundra.

OCCURRENCE Nests primarily in Arctic tundra; during migration and in winter, found in a variety of habitats, including prairies, pastures, mudflats, shorelines, mangroves, parks, lawns and gardens in urban areas, and roadsides. About 12 percent of the world's population nests in Alaska.

VOICE Flight call a clearly 2-syllabled *chu-EEt*,



Length 9-101/2 in (23-27cm)

Wingspan 21-24in (53-61cm)

Family Charadriidae

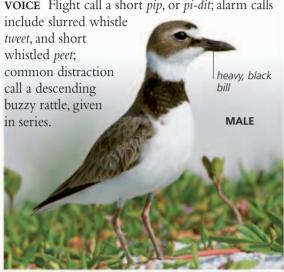
Species Charadrius wilsonia

Wilson's Plover

Slightly smaller than the well known Killdeer, Wilson's Plover is a coastal species, common in the East, but rare in the West. It has a relatively "heavy-looking" belly, which gives it a characteristic upright posture when it pauses after a run. This plover's populations may be declining; it was called a species of "high concern" in 2000.

OCCURRENCE Beaches, sand dunes, coastal lagoons, and saltwater flats along the Atlantic coast, south to Mexico, and in the West Indies; along the Pacific coast from Baja California southward to Peru.

VOICE Flight call a short *pip*, or *pi-dit*; alarm calls



Length 61/2-8in (16-20cm)

Wingspan 151/2-191/2 in (39-49cm)

Family **Charadriidae**

Species Charadrius montanus

Mountain Plover

Unlike most other North American shorebirds, this rather plain-looking plover is rarely found near water. Unusually wary by nature, the Mountain Plover often faces away from danger and squats motionless on the ground, virtually disappearing into the landscape and earning its nickname "Prairie Ghost." It is declining, and endangered because of habitat loss from overgrazing and pesticides. OCCURRENCE Localized in west-central North America in dry, flat, short grass prairies and semi-desert areas with sparse vegetation;



Length 81/2-91/2 in (21-24cm)

Wingspan 211/2-231/2in (54-60cm)

Family Scolopacidae

Species Limosa haemastica

Hudsonian Godwit

This large sandpiper undertakes a remarkable annual migration from its tundra breeding grounds in Alaska and Canada all the way to extreme southern South America, a distance of at least 10,000 miles (16,000km) in one direction, with few stopovers. The number of breeding birds is unknown, but 30,000 to 40,000 birds have been counted in Tierra del Fuego. Hudsonian Godwits spend six months wintering, two breeding, and four flying between the two locations. **OCCURRENCE** Breeds in the high Arctic in sedge meadows and bogs in tundra; locally found in flooded rice fields, pastures, and reservoirs in spring. Winters in extreme southern Chile and Argentina.



Length 14-16in (35-41cm)

Wingspan 27-31in (68-78cm)

Family Scolopacidae

Species Limosa lapponica

Bar-tailed Godwit

Primarily a Eurasian species, the Bar-tailed Godwit is a summer visitor to western Alaska. After breeding, it migrates a distance of over 7,000 miles (11,250km) to Australia and New Zealand, a non-stop overwater flight. Before this amazing journey, the Bar-tailed Godwit doubles its body weight with fat that will be used as fuel, and shrinks its digestive tract as a weight-saving measure. Almost 100,000 birds make this journey in September and early October. **OCCURRENCE** Breeds in lowland tundra, coastal wetlands, foothills, and uplands of Arctic and sub-Arctic. Only Alaska in North America. **VOICE** Flight call a slightly nasal kirruc, head and kurruc or kirrik; display song breast



Length 14½–15½in (37–39cm) Wingspan 28–32in (72–81cm)

Family Scolopacidae

Species Numenius tahitiensis

Bristle-thighed Curlew

This rare and localized curlew is one of the world's most unusual shorebirds. It winters on oceanic islands, becomes flightless during its molting period on its wintering grounds, and uses "tools" when foraging, such as rocks to break open eggs. Nesting in only two areas of western Alaska, it migrates about 4,000 miles (6,500km) over the Pacific Ocean to reach its wintering grounds on South Pacific islands. The world population of Bristle-thighed Curlews may number as few as 3,000 pairs.

OCCURRENCE Breeds in hilly tundra with scattered vegetation in western Alaska; winters on remote South Pacific islands; occasional in California.

VOICE Flight call a clear whistle *ee-o-weet*; flight song a whistled phrase,



Length 16-171/2 in (41-45cm)

Wingspan **30–35in (75–90cm)**

Family Scolopacidae

Species Bartramia longicauda

Upland Sandpiper

Unlike other sandpipers, this graceful bird spends most of its life away from water. Its brownish coloration is a good camouflage in grasslands, especially when nesting. It is known for landing on fence posts and raising its wings while giving its tremulous, whistling call. Because of the disappearance of its grassland habitat the species has suffered substantial population losses, and is currently listed as endangered.

OCCURRENCE Breeds in tallgrass or mixed-grass

prairies. During migration found in grazed pastures, turf farms, and cultivated fields. Uncommon along the west coast and inland in the Southwest. Winters in South America, south to Argentina.

VOICE Flight call a low *qui-pi-pi-pi*; song consists



Length 11-12½in (28-32cm)

Wingspan 25–27in (64–68cm)

Family Scolopacidae

Species Heteroscelus incanus

Wandering Tattler

While "Wandering" refers to this species' remarkable migration, "tattler" highlights the loud songs it makes in its breeding haunts in Alaska and western Canada. The Wandering Tattler also breeds in eastern Siberia. The total population size of this species is small, of only about 10,000 to 25,000 birds. After long overwater flights, Wandering Tattlers spend the winter on Pacific islands, including the Galápagos and New Zealand. OCCURRENCE Breeds in shrubby mountain tundra near water bodies. During migration and winter, uses rocky coastlines; also reefs, jetties, and piers along the California coast in fall and winter. VOICE Flight call a ringing, trilled



Length 10½-12in (27-30cm)

Wingspan 20–22in (51–56cm)

Family **Scolopacidae**

Species Calidris ptilocnemis

Rock Sandpiper

Breeding in Siberia and western Alaska, and wintering along the Pacific coast south to California, the Rock Sandpiper is the western counterpart of the Purple Sandpiper. Both species are closely related to each other. In the winter, look for Rock Sandpipers along rocky shores, which they share with Surfbirds and Black Turnstones.

OCCURRENCE Breeds in Arctic coastal tundra and mountain tundra. During migration and in winter is common along rocky shores from Alaska south to southern California.

VOICE Call short squeaking *chreet*, *cheet*, or *cheerrt*; song *di-jerr*, *di-jerr*, *di-jerr* and more melodic *quida-se-quida-we-quida*.



Length 71/4-91/2in (18.5-24cm)

Wingspan 13-18½ in (33-47cm)

Family Scolopacidae

Species Tryngites subruficollis

Buff-breasted Sandpiper

This sandpiper has a remarkable mating system. On the breeding grounds in the Arctic, each male flashes his white underwings to attract females for mating. After mating, the female leaves and performs all nest duties alone, while the male continues to display and mate with other females. Once nesting is over, the Buff-breasted Sandpiper leaves the Arctic and covers an astonishing 16,000 miles (26,000km) to winter in temperate South America.

OCCURRENCE Breeds in moist to wet, grassy, or sedge coastal tundra; during migration favors pastures, sod farms, meadows, rice fields, or farm lands. Winters in the pampas



Length 71/4-8in (18.5-20cm)

Wingspan 17–18½in (43–47cm)

Family Scolopacidae

Species **Phalaropus fulicarius**

Red Phalarope

The Red Phalarope spends about ten months each year over deep ocean waters. Many Red Phalaropes winter in cold oceanic areas, with large concentrations in the Humboldt Current off Peru and Chile, and in the Benguela Current off southwestern Africa. During migration in Alaskan waters, flocks of Red Phalaropes feed on crustaceans in the mud plumes created by Gray and Bowhead Whales that forage on the ocean floor.

OCCURRENCE Breeds in coastal Arctic tundra in Canada and Alaska; small numbers are seen in coastal California in fall and winter. It is rare inland. VOICE Flight call a sharp *psip* or *pseet*, often in rapid succession; alarm call a drawn-out, 2-syllabled *sweet*.



Length 8-81/2in (20-22cm)

Wingspan 16–17½in (41–44cm)

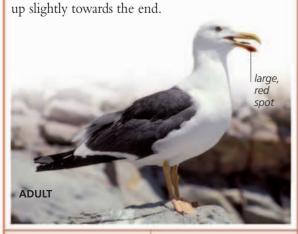
Family Laridae

Species Larus livens

Yellow-footed Gull

First described as a species in 1919, the Yellow-footed Gull was long considered to be a subspecies of the Western Gull. It is now thought to be related to the Kelp Gull of South America. It has yellow legs, but if its leg color is not visible, it is hard to distinguish from the Western Gull. The best place outside of the Sea of Cortez, Mexico, to see the Yellow-footed Gull is the Salton Sea in southern California.

OCCURRENCE Breeds in the Sea of Cortez, Mexico, on offshore islands and rocks; in the US, nonbreeders found at Salton Sea, June—September; occasional in Utah, Arizona, coastal California. VOICE Call a *keow*, repeated in series, speeding



Length 211/2-28in (55-72cm)

Wingspan 5ft (1.5m)

Family Laridae

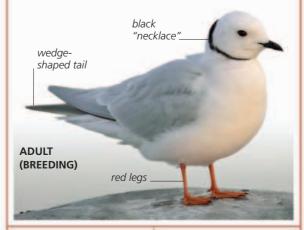
Species Rhodostethia rosea

Ross's Gull

Named for the great British Polar explorer, James Clark Ross, this small, delicate gull is unmistakable in adult breeding plumage. Dove-gray upperparts, pale-pink underparts, red legs, and a black collar contribute to make it elegant and beautiful. In winter it lacks the distinctive black neck ring and the delicate pink blush on the underside.

OCCURRENCE Siberian breeder found along Alaskan north coast in fall; expanded recently as a breeding bird to Arctic Canada; winter strays found across Canada, northeastern and northwestern US.

VOICE Rarely heard in winter; tern-like *kik-kik-kik* on the breeding grounds.



Length 11½-12in (29-31cm)

Wingspan 35-39in (90-100cm)

Family Laridae

Species Xema sabini

Sabine's Gull

This striking looking gull has a distinctive black, white, and gray wing pattern and a notched tail, which make it unmistakable in all plumages—only juvenile kittiwakes are superficially similar. Previously thought to be related to the larger, but similarly patterned, Swallow-tailed Gull of the Galápagos, recent research indicates that Sabine's Gull is more closely related to the all-white Ivory Gull.

OCCURRENCE In the summer, breeds near the Arctic coast and on wet tundra in Arctic Canada and Alaska. Winters offshore in tropical and subtropical waters; widespread in Pacific tipped and Atlantic oceans during migration

VOICE Raucous, harsh kyeer, kyeer, kyeer; tern-like.



Length 13-14in (33-36 cm)

Wingspan 35-39in (90-100cm)

Family Laridae

Species Rissa brevirostris

Red-legged Kittiwake

Over 75 per cent of the world's Red-legged Kittiwake population nests on St. George Island, in the Pribilofs. Research has indicated that this species was once more widespread in the Aleutians than it is today. It is found accidentally south to Oregon. The Red-legged Kittiwake, when outside its normal range, can be mistaken for the Black-legged Kittiwake since the latter may also, occasionally, have red legs.

OCCURRENCE Spends life out at sea, mostly over deep waters. Restricted almost totally to the Bering Sea and vicinity.

VOICE Calls similar to Black-legged Kittiwake, but higher pitched; vocal at breeding colony, generally silent elsewhere.



Length 14-151/2 in (35-39cm)

Wingspan 33-36in (84-92cm)

Species Sterna elegans

Family Laridae

Species Sterna nilotica

Gull-billed Tern

With its relatively heavy build, thick bill, and broad wings, the Gull-billed Tern is indeed more gull-like than other North American terns. Also, unlike many other terns, its diet is not restricted to fish, but also includes insects and lizards. It often nests in colonies with other tern species and with skimmers, and will occasionally hunt their chicks and steal their prev. During the 19th century, Gull-billed Terns were hunted ruthlessly for their eggs and feathers. Their numbers have now partially recovered.

OCCURRENCE Breeds on sandy beaches and barrier islands. Common along the East Coast; rare in California and Arizona. Worldwide in distribution. **VOICE** Short, 2-note, nasal yapping,



Length 13-15in (33-38cm)

Wingspan 31/4-4ft (1-1.2m)

Elegant Tern

Family Laridae

The Elegant Tern is not a geographically widespread species. By the mid-20th century its population had declined due to the demand for its eggs and the introduction of predators; at one point it was confined to only five nesting colonies. This bird nests in tight groups within colonies of Heermann's Gulls and Caspian Terns, taking advantage of the other birds' aggressive behavior toward predators. Elegant Terns nest in remarkable synchrony, most birds in a colony laving eggs within 24 hours of each other. OCCURRENCE Southern California and Baja California; over 90 percent of world's

population nest on one island, Isla Raza in the Gulf of California. After breeding, many fly to the coast of central California. **VOICE** Nasal karrreeek, karrreek; very vocal at nesting colonies. ADULT (BREEDING)

Length 15½–16½in (39–42cm) Wingspan 30–32in (76–81cm)

Family Laridae

Species Sterna maxima

Royal Tern

Royal Terns have a full black cap for only a very short time at the beginning of the breeding season; for most of the year, they have white foreheads. The color of a Royal Tern's bill is quite variable, ranging from yellowish orange to red. Some possess a reddish bill similar to that of the Caspian Tern, but the latter does not have a pure white forehead and its bill is thicker. Perhaps it was these red-billed Royal Terns that caused the renowned ornithologist, John James Audubon, to confuse the two species. OCCURRENCE Breeds in dense colonies, often on barrier islands. Widespread along the Atlantic coast; in the West, southern California; occasional elsewhere.

VOICE Call keer-reet, usually during hlack courtship; higher pitched and less forehead raspy than Caspian Tern; and crown more vocal around colonies. ADULT (BREEDING)

Length 17½-19½in (45-50cm) Wingspan 4-4¼ft (1.2-1.3m)

Family Laridae Species Sterna antillarum

Least Tern

The Least Tern, the smallest of the North American terms, is, in addition, distinguished from them by its black cap, white forehead, and short yellow legs. In the 19th century the species suffered a dramatic decline, as its feathers were prized fashion accessories. Protected by the Migratory Bird Treaty of 1916, Least Tern numbers have increased, but continued protection is needed because of the loss of its breeding habitat due to development in coastal areas, especially sand dunes.

OCCURRENCE Breeds along beaches, in sand dunes and sandbars along sea coasts, rivers, lakes, reservoirs, and wetlands. Winters from Mexico to South America.

VOICE Extremely vocal during breeding; a high-pitched ki-deek, ki-deek; also a rapid, almost non-stop chatter.

(BREEDING)

Length 81/2-9in (21-23cm)

Wingspan 19-21in (48-53cm)

yellow

Family Laridae

Species Sterna paradisaea

Arctic Tern

The majority of these remarkable migrants breed in the Arctic and subarctic, then migrate to the Antarctic pack-ice for the Southern Hemisphere summer before returning north. On this round-trip, Arctic Terns travel at least 25,000 miles (40,000km). Apart from migration periods, it spends its life in areas of near continuous daylight and rarely comes to land, except to nest. It looks similar to the Common Tern, but the Arctic has a comparatively smaller bill, shorter legs, and a shorter neck. OCCURRENCE Breeds across North America in unforested areas near water and along coasts; generally migrates far offshore. Winters on edge of pack ice in Antarctica. Also breeds across northern Eurasia.

VOICE Descending call; nearly all calls similar to Common Tern, but higher-pitched and harsher.



Length 11-151/2 in (28-39cm)

Wingspan 26-30in (65-75cm)

Family Laridae

Species Sterna aleutica

Aleutian Tern

The Aleutian Tern was the last North American tern to be described. Discovered on Kodiak Island in 1868, it was not found nesting there again until 1944. This tern received its scientific and English names from the assumption that it must nest somewhere in the Aleutian islands, although it was not actually found nesting there until the mid-20th century.

OCCURRENCE Breeds in coastal Alaska, in areas with low vegetation, marshes, meadows, sandy spits, lagoons, and tundra. Winter range is mostly unknown, but suspected to be in the southwestern Pacific. Migrants reported from Hong Kong and Indonesia. Also breeds in Siberia.

VOICE Vocal around colonies: no information elsewhere; shorebird-like 3-note whistle, unlike other tern species.



Length 121/2-15in (32-38cm)

Wingspan 30-31in (75-80cm)

Family Laridae

Species Rynchops niger

Black Skimmer

With its very long, orange-red and black bill, the Black Skimmer is unmistakable. Compressed laterally into a knife-like shape, the lower mandible is about 1in (2.5cm) longer than the upper mandible. This extraordinary bill allows Black Skimmers to "cut" the waters—they fly with the lower mandible in the water, then snap the bill shut when prey is caught.

OCCURRENCE East Coast from Massachusetts to Mexico: West Coast in southern California. Rarely found far from saltwater. Winters in Central America. Resident populations breed in South America.

VOICE Calls given by both sexes, more often at night; distinctive sound like the yapping of a small dog.



Length 15½-19½in (40-50cm) Wingspan 3½-4¼ft (1.1-1.3m)

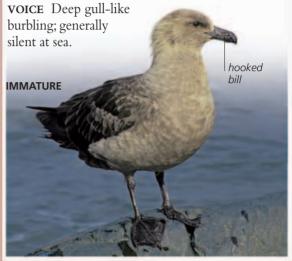
Family Stercorariidae

Species Stercorarius maccormicki

South Polar Skua

A regular visitor to US waters, the Antarcticbreeding South Polar Skua is a large relative of the jaegers. It is a perpetual threat to penguins on their breeding grounds, patrolling around their colonies and waiting to pinch an egg or snatch a chick. Outside the breeding season, South Polar Skuas roam both the Atlantic and Pacific Oceans, reaching high latitudes in each.

OCCURRENCE Spends southern winters (northern summer) offshore in the North Atlantic and Pacific; breeds in the South Shetland Islands and along the coast and islands of the Antarctic.



Length 21in (53cm)

Family Alcidae

Wingspan 41/4ft (1.3m)

Species Uria lomvia

Family Alcidae

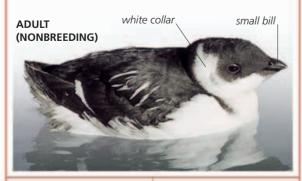
Species Alle alle

Dovekie

Also known as the Little Auk, the stocky and diminutive Dovekie is a bird of the high Arctic. Most Dovekies breed in Greenland in large, noisy, crowded colonies (some contain 15-20 million birds), others breed in northeastern Canada, and smaller numbers on a few islands in the Bering Sea off Alaska. On their breeding grounds in Greenland, both adult and immature Dovekies are hunted by Glaucous Gulls and Arctic Foxes.

OCCURRENCE Breeds on islands inside the Arctic Circle. Many birds remain south of the Arctic pack ice in the winter; others fly farther south to winter off the northeastern seaboard of North America. The wintering grounds of the Bering Sea population are still unknown.

VOICE Variety of calls at breeding colony, including high-pitched trilling that rises and falls; silent at sea.



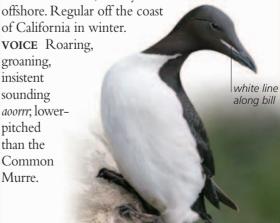
Length 81/2 in (21cm)

Wingspan 15in (38cm)

Thick-billed Murre

A large and robust auk, the Thick-billed Murre is one of the most abundant seabirds at high latitudes in Eurasia and North America. Some cliff colonies can number upwards of a million birds, breeding side by side on narrow ledges. Chicks leave the colony when their weight is only 25 per cent that of the adults, and they mature at sea, fed by the male parent. Thick-billed Murres can dive for fish and squid down to a depth of 600ft (180m). **OCCURRENCE** Away from high Arctic colonies,

Thick-billed Murres remain at sea off the Atlantic and Pacific coasts, usually far



ADUIT (BREEDING)

Length 18in (46cm)

Wingspan 28in (70cm)

Family Alcidae

Species Cepphus grylle

Black Guillemot

The Black Guillemot, which is primarily a North Atlantic seabird found in both the Old and New Worlds, is largely replaced along the Pacific coast, from Alaska southward to California, by its close relative, and almost look-alike, the Pigeon Guillemot. Black Guillemots breed along the northern coast of Alaska, and occur in the Bering Sea during the winter. A Guillemot seen along the Pacific coast of North America is sure to be a Pigeon Guillemot.

OCCURRENCE Breeds in deep crevices on remote rocky islands. When foraging for food, prefers shallow waters close to shore.

VOICE Very high-pitched whistles and squeaks on land and water near nesting habitat



Length 13in (33cm)

Wingspan 21in (53cm)

Family **Alcidae**

Species Brachyramphus brevirostris

Kittlitz's Murrelet

This small, North Pacific-breeding auk was described by Vigors as *brevirostris* ("short-billed") in 1828, and later by Brandt as kittlitzii. Because of the rules of scientific names, the latter name was not retained, but Kittlitz's name remained in the vernacular. Little is known about it, other than that it does not breed in colonies, and lavs its single egg hidden under a slab of rock, at inland locations high above the sea and far away from seashores. **OCCURRENCE** Occurs where glaciers calve into the sea. When breeding feeds at sea around icebergs or close to coast; after breeding moves out to sea; winter location unknown. Breeds in the Bering Sea and along the Aleutian Island chain. **VOICE** Quiet, low, groaning urrrn call; also short quacking.



Length 91/2in (24cm)

Wingspan 17in (43cm)

Family Alcidae

Species Synthliboramphus hypoleucus

Xantus's Murrelet

The English name of this small seabird honors a colorful, Hungarian-born ornithologist, John Xantus. Among the world's most threatened seabird species, Xantus's Murrelets breed on islands in southern California and Baja California, but are rarely seen from shore. Two days after fledging, chicks leap into the water from cliffs as high as 200ft (60m). Parents then rear their young (usually only one per pair) in family groups offshore.

OCCURRENCE Nests in sheltered areas on California's and Baja California's islands, then, after breeding, disperses along the Pacific coast, offshore, northward as far as Washington State and, rarely, British Columbia.

VOICE Series of several high pitched *seeep* notes by southern Californian birds; slender, black bill a rattling call.



Length 10in (25cm)

Wingspan 15in (38cm)

Family **Alcidae**

Species Synthliboramphus craveri

Craveri's Murrelet

It was the German zoologist Johann Friedrich von Brandt (1802–1879) who gave such long scientific names to the tiny murrelets. The genus name, *Synthliboramphus*, actually simply means "compressed bill." Craveri's Murrelet breeds on a number of islands in the Gulf of California, Mexico, and wanders as far north as San Francisco afterwards. After breeding it forages offshore and is not normally seen from shorepoints. Craveri's Murrelet was named after Frederico Craveri, who discovered the bird.

OCCURRENCE Warm waters of the Gulf of California and the Pacific coast of Baja California during breeding season. Rare visitor, mostly from fall through spring, to pelagic waters off the coast of California.

VOICE Adult at sea gives high rattling or trilling *sreeeer*. Other calls unknown.



Length 91/2in (24cm)

Wingspan 15in (38cm)

Family **Alcidae**

Species Aethia psittacula

Parakeet Auklet

This robust, pot-bellied auklet has a bright orange, conical bill—a unique feature among alcids. Its range spans the North Pacific, the widest of any auklet species, but breeding is concentrated at colonies in the Bering Sea and the Aleutians. Like other auklets, Parakeet Auklets are monogamous, and pairs perform conspicuous vocal and visual courtship displays when breeding.

OCCURRENCE Breeds in rocky habitats on islands of the northern Gulf of Alaska and the Bering Sea. **VOICE** Whinnying by males to attract a mate, followed by duet-whinnying by a mated pair



Length 10in (25cm)

Family Alcidae

Species Aethia pygmaea

Wingspan 18in (46cm)

Whiskered Auklet

This compact, dark-plumaged auklet lives along the outer islands of the Aleutian chain and in eastern Russia. Compared with other North Pacific auks, it is relatively scarce and lives in smaller colonies. During the nesting season, the birds become nocturnal, and huge numbers congregate after dark. The long head plumes help the birds feel their way to their underground nests. This nocturnal arrival keeps them safe from predatory birds such as large gulls and falcons, and crevice-nesting protects the eggs and chicks against predation in daylight hours. OCCURRENCE Occurs locally in Alaska's Aleutian Islands. Forages in shallow waters off rocky coasts, especially in areas of rapid tidal currents.

VOICE Kitten-like *meew* and rapid, harp *beedeer*, *beedeer*, *beedeer* call; silent at sea.



Length 8in (20cm)

Wingspan 14in (36cm)

Family **Alcidae**

Species Aethia pusilla

Least Auklet

The smallest of the auklets, Least Auklets often form huge flocks, roosting on boulders along the edge of nesting islands. In the air, these flocks swirl around with great coordination. The Least Auklet's underparts vary individually from white to spotted or even solid gray—a possible status signal during the breeding season. The Least Auklet has a low survival rate compared to other auks. It is vulnerable to rats and foxes and sensitive to human disturbance. OCCURRENCE Bering Sea islands and Aleutians; forages in areas with turbulent waters and concentrated food



Length 61/2 in (16.5cm)

Family Alcidae

Wingspan 12in (31cm)

Species Aethia cristatella

Crested Auklet

Male and female Crested Auklets have a forward-curling tuft of feathers on the forehead that varies in size among individuals. Both sexes prefer mates with large tufts. Pairs are typically monogamous and compete intensely for nest sites. Crested Auklets fly in large, tight flocks and are usually active only at night at the colonies. Like their close relative, the Whiskered Auklet, their plumage has a distinctive citrus-like odor.

OCCURRENCE Forages in turbulent waters around remote islands in the Bering Sea



Length 10½in (27cm)

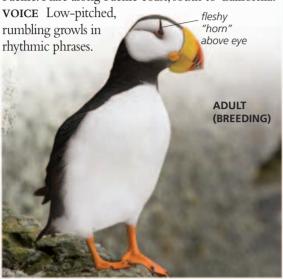
Wingspan 17in (43cm)

Family Alcidae

Species Fratercula corniculata

Horned Puffin

Similar to, but larger than, its close relative the Atlantic Puffin, the Horned Puffin lives in the North Pacific Ocean and Bering Sea, where it breeds on remote, rocky, offshore islands. Outside the breeding season, Horned Puffins spend much time far out at sea, hundreds of miles from the nearest land. Remarkably, when birds return to their breeding grounds, they go directly to the very same rock crevice they used the previous year. OCCURRENCE Winters far from land in the North Pacific. Rare along Pacific coast, south to California.



Length 15in (38cm)

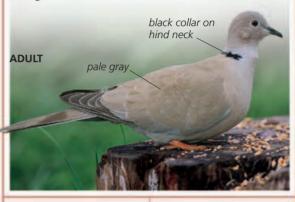
Wingspan 23in (59cm)

Family Columbidae

Species Streptopelia decaocto

Eurasian Collared-Dove

A stocky bird, the Eurasian Collared-Dove can be identified by the black collar on the back of its neck and its pale body color. First released in the Bahamas in the mid-1970s, this species is now spreading rapidly across the mainland. Very tolerant of humans, it regularly nests and feeds in urban and suburban areas. Eurasian Collared-Doves have a high reproductive rate, as they raise several broods a year from March to November. OCCURRENCE In North America south of the northern forest zone in suburban and urban areas; agricultural areas. In the West, less widespread, mostly in the Southwest and California. **VOICE** Repeated 4-note coo-hoo-HOO-cook that is quick and low-pitched; also harsh, nasal krreeew in flight.



Length 11½-12in (29-30cm)

Wingspan 14in (35cm)

Family Columbidae

Species Columbina inca

Inca Dove

A small, brownish gray dove that forages on the ground, the Inca Dove can be identified by the scaly pattern of its plumage. It has expanded its distribution northward to the US in the last 100 years, from its Central American and Mexican range. It now breeds in the Southwest from California, Nevada, and Arizona, eastward all the way to the Mississippi River. It is secretive, yet tame, and is often found in human settlements. Inca Doves commonly flush from almost underfoot, revealing the chestnut color of their wings. OCCURRENCE Resident in cities, towns, and farms. Forages on lawns and in barnyards; occasionally near rivers and streams but favors drier areas in the south of its range.

VOICE Repeated 2-note chant, *pol-pah*, which can sound like the words "no hope;" sometimes low, trilling *coo*.



Length 7-9in (18-23cm)

Wingspan 11in (28cm)

Family Columbidae

Species Streptopelia chinensis

Spotted-necked Dove

Originally from southern and eastern Asia, the Spotted-necked Dove was introduced to urban areas of California over a century ago. More chunky and with broader wings and tail than the Mourning Dove, this medium-sized species has grayish brown upperparts and pinkish brown underparts. A characteristic feature is a broad, black neck patch with white spots. The Spotted-necked Dove lives in parks, gardens, and suburbs.

OCCURRENCE Found in southern California from Santa Barbara and Bakersfield south to Baja California, uncommon.

VOICE Hoarse *coo-coo-croooo* call with emphasis on the middle and last notes.



Length 12in (30cm)

Wingspan 191/2in (50cm)

Species Columbina talpacoti

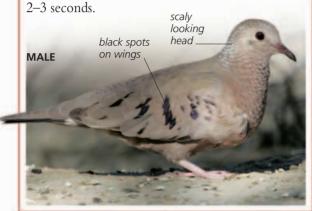
Family Columbidae

Species Columbina passerina

Common Ground-Dove

The Common Ground-Dove, the smallest of the North American doves, is only slightly larger than a sparrow. It retains its pair-bond throughout the year and tends not to form flocks: birds in a pair usually remain within a few yards of each other. Besides its diminutive size, the Common Ground-Dove is recognizable by prominent black spots on its reddish-looking wings, scaly underparts (seen when perched), and its square, blackish tail while in flight. OCCURRENCE In the US, has a disjointed population in the Southwest, Texas, and Florida. Lives in dry, sandy areas with open vegetation and also shrubby habitats.

VOICE Simple, repeated, ascending double-note wah-up given every



Length 6-7in (15-18cm)

Wingspan 11in (28cm)

Ruddy Ground-Dove

Family Columbidae

The female Ruddy Ground-Dove is similar to the Common Ground-Dove with its black wing spots. It lacks the scaly neck pattern, however. Male Ruddy Ground-Doves are more colorful, with an overall rusty-red color and contrasting pale gray head. Common in tropical America north to Mexico, the Ruddy Ground-Dove is mostly a winter visitor to the US Southwest (Arizona) and southern California, but it occasionally breeds there. OCCURRENCE Localized in California, Arizona, New Mexico, and Texas; occurs in woodlands, gardens, fields, forest edges, and shrubbery. **VOICE** Monotonous, endlessly repeated 2-syllable ca-whoop given every second or so.



Length 63/4in (17cm)

Wingspan 11in (28cm)

Species Otus asio

Family Cuculidae

Species Crotophaga sulcirostris

Groove-billed Ani

Anis, members of the cuckoo family, have black plumage, long tails, and high, narrow, blackish bills. They always appear dishevelled—as if their feathers were about to fall off. Two of their toes point forward and two backward. These social birds exhibit an unusual communal nesting behaviorseveral females lav eggs in the same nest, and both males and females share incubation duties. **OCCURRENCE** Breeds along the Rio Grande Valley, but leaves the area in the winter. Widely distributed, and resident, from



Length 131/2in (34cm)

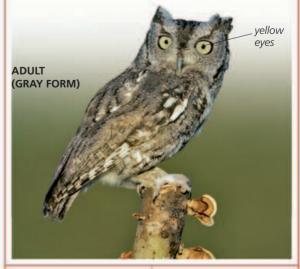
Wingspan 17in (43cm)

Family Strigidae

Eastern Screech-Owl

This widespread little owl has adapted well to suburban areas, and its "rolled" trill is a familiar sound across the eastern US. In the West, it is replaced by the Western Screech-Owl, which has a different call, a series of hoots accelerating and descending in pitch.

OCCURRENCE Distribution reaches westward to Idaho in the North and western Texas in the South. **VOICE** Most familiar call a descending whinny; also an even trill; occasional barks and screeches; female higher-pitched than male.



Length 61/2-10in (16-25cm)

Wingspan 19-24in (48-61cm)

Family Strigidae

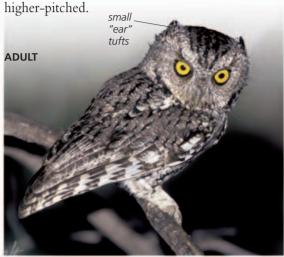
Species Otus trichopsis

Whiskered Screech-Owl

The Whiskered Screech-Owl is more often heard than seen, and has a distinctive voice of hoots and trills. It can be heard on still nights in mountain canyons of southeastern Arizona and southwestern New Mexico. This small owl feeds largely on insects and insect larvae.

OCCURRENCE Resident at about 8,000ft (2,400m) in oak-pine woodlands in canyons, along rivers, deciduous woodlands. Ranges southward through Mexico to Nicaragua.

VOICE Series of toots and trills; also single hoots, barks, screeches; pairs may sing duets; female higher pitched



Length 6-71/2 in (15-19cm)

Wingspan 17½in (44cm)

Family **Strigidae**

Species Strix occidentalis

Spotted Owl

In the Pacific Northwest, the Spotted Owl is threatened by competition from the Barred Owl and by habitat loss from clear cutting. Spotted Owls breed in old-growth forests, which the forestry industry covets, while conservationists argue that old-growth forests are not a renewable resource. These conflicting views have led to hot debates. OCCURRENCE British Columbia, the US Pacific Northwest, California; Rocky Mountains south to Mexico. Breeds in forested areas.

VOICE Typical call of four notes, *whoo hoo-hoo hooo*, emphasis on the last syllable. Also whistles and barks.



Length 18-19in (46-48cm)

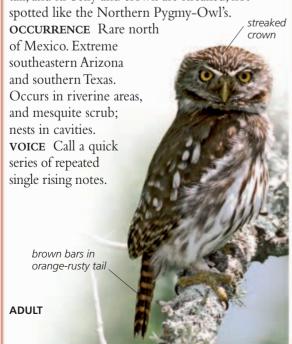
Wingspan 31/2ft (1.1m)

Family Strigidae

Species Glaucidium brasilianum

Ferruginous Pygmy-Owl

Quite widespread in the tropics, from Mexico to Argentina, this owl reaches the US only in Arizona and Texas, where it can be found close to rivers and in desert areas at lower elevations than the similar-looking Northern Pygmy-Owl. The Ferruginous species has an orange, not brown, tail, and its belly and crown are streaked, not spotted like the Northern Pygmy-Owl's.



Length 51/2-7in (14-18cm)

Wingspan 15in (38cm)

Family **Strigidae**

Species Micrathene whitneyi

Elf Owl

One of the smallest owls in the world, the Elf Owl is probably the commonest bird of prey in the deserts of the Southwest. Being strictly nocturnal, however, it is more often heard than seen, and its distinctive voice is easy to recognize once heard. Elf Owls defend their nests aggressively, and several can get together to mob an intruder.

OCCURRENCE Breeds in southern Nevada, Arizona, California, New Mexico, and Texas, and adjacent areas of Mexico. Occurs in thorn-scrub, woodlands along rivers, and suburban areas.

VOICE Call a loud chatter of 5–6 notes; also trills and barks.



Length 43/4-51/2 in (12-14cm)

Wingspan 15in (38cm)

Family Caprimulgidae

Species Chordeiles acutipennis

Lesser Nighthawk

The Lesser Nighthawk is a wide-ranging airborne forager, and is well camouflaged while resting on the ground in daytime. Most active at dawn and dusk, it swoops low over water, bush, and desert in pursuit of insect prey, which it tracks with agile and abrupt changes in direction. This species was formerly known as the Trilling Nighthawk because of its distinctive call, which distinguishes it from the similar looking Common Nighthawk where the two species occur together.

OCCURRENCE Breeds in desert and open scrub and along watercourses. Occurs from



Length 8-9in (20-23cm)

Wingspan 21–23in (53–58cm)

Family Caprimulgidae

Species Caprimulgus carolinensis

Chuck-will's-widow

The Chuck-will's-widow is the larger of the two species of North American nightjar. It is tolerant of human development and often nests in suburban and even urban areas. It captures its insect prey in flight, and has occasionally been observed chasing down and swallowing bats and small birds whole. Chuck-will's-widows hunt mostly at dawn and dusk, as well as being active during a full moon.

OCCURRENCE Breeds in forests composed of a mixture of deciduous and evergreen trees, and in open fields. Winters in Mexico and northern Central America.

VOICE Whistled *chuck-will's-wid-ow*; beginning softly, then increasing in volume, with emphasis on the two middle syllables.



Length 11-121/2 in (28-32cm)

Wingspan **25–28in (63–70cm)**

Family Caprimulgidae

Species Caprimulgus vociferus

Whip-poor-will

More often heard than seen, the Whip-poor-will's camouflage makes it extremely difficult to spot on the forest floor. It flies away only when an intruder is just a few feet away. This species has an unusual breeding pattern—the male feeds the first brood until fledging, while the female lays eggs for a second brood. Eggs from each brood may hatch simultaneously during a full moon, when there is most light at night, perhaps allowing the parents more time to forage for food.

OCCURRENCE Mixed mature forests with oaks and pines on dry upland sites. Breeds north to southern Canada and south to El Salvador. Eastern and southwestern populations are widely separated.

VOICE Loud, 3-syllable whistle



Length 9-10in (23-26cm)

Wingspan 17–20in (43–51cm)

Family Apodidae

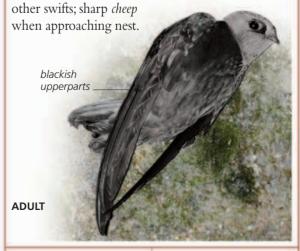
Species Cypseloides niger

Black Swift

The Black Swift is the largest of the North American swifts, and also the most enigmatic. It forages at high altitudes and nests on sea cliffs or behind waterfalls in mountains, meaning it can be difficult to observe. On cold and cloudy days, when aerial insect prey occurs closer to the ground, Black Swifts forage lower, and are easier to see.

OCCURRENCE Breeds from British Columbia in

Canada south to Mexico, Costa Rica, and the West Indies. Found in mountains from May or June to early October. Wintering areas still largely unknown. **VOICE** Generally silent, but gives twittering chips, sometimes in fast series, during interactions with



Length 7in (18cm)

Wingspan 18in (46cm)

Family Apodidae

Species Chaetura pelagica

Chimney Swift

A familiar sight and sound during the summer months, Chimney Swifts race through the skies over town and country, their rolling twitters often very loud. These birds feed, drink, and bathe on the wing. Chimney Swifts used not to nest in tree holes, but have taken to many kinds of human structures. Although some populations have declined, they remain common in many places. **OCCURRENCE** Widespread over many habitats; regular in summer in southern California. Winters in Amazonian South America.

VOICE High, rapid chips and twittering; notes from individuals in a flock run together into



Length 5in (13cm)

Wingspan 14in (36cm)

Family Trochilidae Species Amazilia violiceps

Its white underparts, red bill, and violet-blue crown make the Violet-crowned Hummingbird the most distinctive hummingbird in North America. In the US, it is restricted to riverine sycamore woodlands in Arizona and New Mexico, which it leaves in winter. It is resident in its Mexican range.

Violet-crowned Hummingbird

OCCURRENCE Localized breeder in Arizona and New Mexico, vagrant in California and Texas. Resident breeder in Mexico.

VOICE Call a hard, dry tek, often in short series;



Length 41/4in (11cm)

Wingspan 6in (15cm)

Family **Trochilidae**

Species Cynanthus latirostris

Broad-billed Hummingbird

The iridescent blue of an adult male Broad-billed Hummingbird qualifies it as one of North America's most beautiful birds. During courtship, males perform a pendulum-like display, accompanied by zinging wing beats and chattering calls. The bird's bill is broader at the base than that of many other hummingbird species.

OCCURRENCE Lives in dry shrubby washes and riverine areas. Winters in Mexico.

VOICE Common call dry tch-chk, sometimes with



Length 4in (10cm)

Family Trochilidae

Species Amazilia beryllina

Berylline Hummingbird

Named after the glittering green gemstone, this hummingbird lives up to its name, with extra colors added by its rufous wing patch and buff belly. This species is easy to identify in its limited North American range.

OCCURRENCE Rare in southeastern Arizona in summer; nests in very small numbers in high-elevation canyons and pine-oak woodlands; very rare in the mountains of western Texas. Its main range is in central Mexico.

VOICE Call rough, buzzy *tzrrr*; song a series of high-pitched, squeaky chips and twitters.



Length 4in (10cm

Wingspan 5½in (14cm)

Family Trochilidae

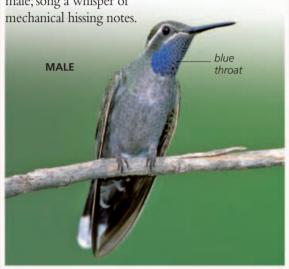
Species Lampornis clemenciae

Blue-throated Hummingbird

The largest hummingbird in North America, the Blue-throated strikes an imposing figure when seen near one of its smaller relatives. Its large size and a two-striped facial pattern distinguish it from other hummingbirds in its range. It is a specialist of the isolated "sky island" mountaintops of the Southwest.

OCCURRENCE Breeds locally in Arizona, New Mexico, and Texas; winters in Mexico. Sometimes winters at feeding stations in the Southwest.

VOICE Call a loud, high squeak, *seep*; common song a steady, slow series of *seep* notes given by perched male; song a whisper of



Length 5in (13cm)

Wingspan 8in (20cm)

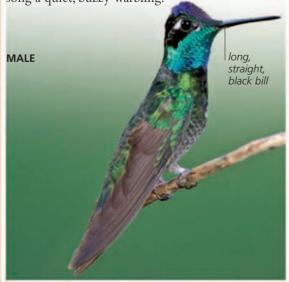
Family **Trochilidae** Species **Eugenes fulgens**

Magnificent Hummingbird

Although smaller than the showy Blue-throated Hummingbird, this species is more spectacular. Living in the "sky islands" of Arizona and New Mexico, it is less territorial and aggressive than other hummingbirds, often utilizing more nectar sites.

OCCURRENCE Breeds at mid altitudes in woodlands of the Southwest; forages and migrates in drier habitats away from breeding areas.

VOICE Call a loud, sharp *chip*; chase call an accelerating series of squeaky *dee* or *dik* notes; song a quiet, buzzy warbling.



Length 5in (13cm)

Wingspan 7½in (19cm)

Family Trochilidae

Species Hylocharis leucotis

White-eared Hummingbird

The bold black-and-white facial pattern of this species distinguishes it from other hummingbirds in its limited US range. A resident of Mexico, it did not establish itself in the US until 1989. It is aggressive even for a hummingbird defending its nectar sources and chasing away larger species. Males are very vocal during the breeding season. OCCURRENCE Breeds in mountain forests of southeastern Arizona and southwestern New Mexico. VOICE Call a metallic *tchink*, often doubled; chase call a rapid series of high chip notes; song a fast series of chips with upslurred rattles.



Length 3¾in (9.5cm)

Family Trochilidae

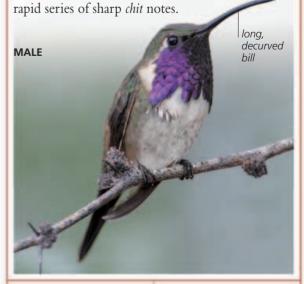
Wingspan 5½in (14cm)

Species Calothorax lucifer

Lucifer Hummingbird

A specialist of the Chihuahuan desert, the Lucifer Hummingbird can be recognized by its long, curved bill. Males perform an impressive display in front of females at the nest, diving repeatedly and producing a vibrating sound with their wings. OCCURRENCE Breeding range barely reaches Arizona, New Mexico, and Texas. Resident in Mexico.

VOICE A dry, hard *chit*, often doubled or rolled into series when agitated; a sweeter *chi-chip* in territorial interactions; chase call a



Length 3½in (9cm)

Wingspan 4in (10cm)

Family Trochilidae

Species Archilochus colubris

Ruby-throated Hummingbird

The only hummingbird breeding east of the Mississippi River, this species can only be confused with other species during migration, when other species are present in its range. Before migration, these birds add about 1/160z (2g) of fat to their weight; this provides enough fuel for their nonstop 800-mile (1,300km) flight across the Gulf of Mexico.

OCCURRENCE Occurs in a variety of woodlands and gardens; leaves breeding range by November, returns as early as February. The bulk of the population migrates to Central America.

VOICE A soft, thick *chic*, sometimes doubled;



Length 31/2in (9cm)

Wingspan 4¼in (11cm)

Costa's Hummingbird Costa's Hummingbird lives in the Sonoran and Mojave deserts, where it is common locally. The male Costa's Hummingbird performs an acrobatic dive display, which includes up to 40 narrow vertical loops, a whistled song, followed by a backand-forth shuttle display in front of the female. **OCCURRENCE** Found in desert scrub, sage scrub, and dense shrubs in southern California and adjacent areas of the Southwest. Most birds migrate to Mexico for the winter. **VOICE** Call a soft, metallic *tik*; chase call rapid series of tik, often mixed with high, buzzy tssrr notes; song a thin, high-pitched, straight, buzzing whistle black tseee-seeeeeew. MALE Length 31/4in (8.5cm) Wingspan 4¾in (12cm)

Species Calypte costae

Family Trogonidae

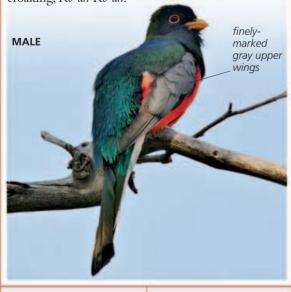
Species Trogon elegans

Elegant Trogon

Although widely distributed in Mexico and Central America, the well-named Elegant Trogon reaches the US only in the Southwest, where it occurs in wooded canyons. Rather sluggish, Elegant Trogons can remain perched for long periods.

OCCURRENCE Breeds in wooded canyons with pine-oak or oak-juniper; widely distributed in Mexico and Central America.

VOICE Alarm call a rapid, hoarse *bekekekekek*; varying croaking or *churr* notes; song a series of deep, croaking, *Ko-ah Ko-ah*.



Length 111/2in (29cm)

Wingspan 16in (41cm)

Family **Alcedinidae**

Family Trochilidae

Species Chloroceryle americana

Green Kingfisher

The Green Kingfisher is identified by its small size, proportionately large bill, conspicuous white collar, and green underparts. This species is the smallest of the three North American kingfishers. It is found in small numbers in southern Arizona and southern Texas, but its range is vast, and reaches as far south as Chile and Argentina.

OCCURRENCE Breeds and winters near wooded shorelines of lakes, ponds, and streams; in southern Texas and Arizona in US, and from Mexico all the way to southern South America (Chile and Argentina).

VOICE Staccato "ticking" call; also a harsh, buzzy scold; quieter than other two North American kingfishers.



Length 81/2in (22cm)

Wingspan 11in (28cm)

hluish

Family Alcedinidae

Species Megaceryle torquata

Ringed Kingfisher

The largest of the three species of North American kingfishers, the Ringed Kingfisher is easily identified by its size and color. Although it is brightly colored, and perches conspicuously on trees and branches over the water, its shy nature makes it difficult to spot. It flies off at the least suspicion of intrusion, with a loud rattle signalling where it was. Like other kingfishers it nests in a burrow, which it digs in a muddy or sandy riverbank.

OCCURRENCE Ranges from southern Texas to southern South America. At northernmost part of range, in Texas, occurs along the Rio Grande Valley. VOICE Loud rattle; also loud, double-syllabled



Length 16in (41cm)

Wingspan 25in (63cm)

Family Picidae Species Melanerpes uropygialis

Gila Woodpecker

The Gila Woodpecker has characteristic heavily barred upperparts, with a tan head and underparts—only the male has a red crown patch. It is a common inhabitant of southern Arizona's desert and semi-desert areas, which are covered sparsely with a variety of cactus species. Both male and female excavate a nest hole in a live cactus, but they may not use that hole until its walls have hardened.

OCCURRENCE From the southwestern US to central Mexico, this species is attracted to cacti and dead trees in riverine woodlands; it is also found in suburban areas. VOICE Noisy, loud churr-churr and a series of pip-pip or yip-yip notes; drumming is prolonged.

MALE

Length 8-10in (20-25cm)

Wingspan 16-17in (41-43cm)

tan-rust

neck and

underparts

Family **Picidae**

Species Melanerpes erythrocephalus

Red-headed Woodpecker

Widespread in the East, but rare west of the Great Plains, the Red-headed Woodpecker is the only member of its family, and its completely red head makes it easy to identify. It stores its food—insects and nuts—to eat at a later time. A truly North American species, the Red-headed Woodpecker does not occur south of the Rio Grande. OCCURRENCE Occurs in deciduous

woodlands, orchards, municipal parks, agricultural areas, forest edges, and forests affected by fire. VOICE Primary call an extremely harsh

and loud churr, also produces breeding call and alarm; no song; active drummer.

Length 81/2-91/2 in (22-24cm)

ADULT

Wingspan 16-18in (41-46cm)

Family Picidae Species Melanerpes aurifrons

Golden-fronted Woodpecker

The yellow forehead, red crown, and bright orange nape give the male Golden-fronted Woodpecker a tricolored head pattern, while the female has only two color patches. This Mexican species reaches Texas and Oklahoma in the US, where it lives in a variety of open woodlands, including mesquite, riverine thickets, and subtropical scrub.

in US, Mexico, and Central America, south to Nicaragua. VOICE Call a noisy, basic churr closely resembling that of other Melanerpes woodpeckers, especially the Red-bellied, but harsher; a rather short "drum."

MALE

Length 10-12in (25-30cm)

Wingspan 17in (43cm)



Family Picidae

Species Melanerpes carolinus

Red-bellied Woodpecker

A quintessentially eastern species, the Red-bellied Woodpecker is common from the Mississippi Valley eastward to the Atlantic Seaboard, north to Minnesota and New York, and south to eastern Texas and Florida. It has recently expanded its range both northward into Canada and westward towards the Rockies. Its English name, "Red-bellied Woodpecker" is misleading, as its belly is pale buff, not red. Its presence is often given away by its rolling

call, which red forehead is similar to that of the Grav Tree Frog. OCCURRENCE Eastern and southeastern US: forests, swamps, suburbs, and gardens. **VOICE** Rather soft, clearly rolling, slightly quivering krrurrr call.

Length 9-101/2 in (23-27cm)

Wingspan 16in (41cm)

short, thin,

pointed bill

Family **Picidae** Species Picoides nuttallii Nuttall's Woodpecker Named for the famous British naturalist Thomas Nuttall, Nuttall's Woodpecker is resident in California. It resembles the Ladder-backed Woodpecker, with black-and-white barring on the back, and the male's red crown. Interestingly, although Nuttall's Woodpecker prefers oak woodlands, acorns are not part of its diet. It excavates a new nest cavity each year and it is likely that earlier nest sites are used by other species. OCCURRENCE with dark Mainly oak woodlands. but also pine-oak and

woodlands near rivers; also willows, sycamores, maple, and pine trees; occasionally found in Oregon. **VOICE** Two calls; single note contact call pweek and 2-note call pir-it-pir-it-pir-it.

MAIF

Length 7-71/2in (18-19cm)

Family Picidae

Wingspan 16in (41cm)

Species Colaptes chrysoides

Family Picidae

MAIF

Species Picoides arizonae

Arizona Woodpecker

A resident of southeastern Arizona and southwestern New Mexico, the Arizona Woodpecker is the only brown-backed woodpecker species in North America. In addition, it has a conspicuous white neck patch, and brown-and-white spots and bars on its underparts. It inhabits inaccessible areas, is well camouflaged, and is remarkably secretive during the nesting period, which makes it difficult

to observe. It uses quite a range of calls, except when nesting. OCCURRENCE Oak and pineoak woodlands, from 4,000-7,000ft (1,200-2,150m). Winters at lower elevations if food is scarce. VOICE Main call long peep; also lengthy, loud, and harsh rattling call;

MΔIF

Length 7-8in (18-20cm)

also a kweek call.

Wingspan 14in (36cm)

Gilded Flicker

The Gilded Flicker used to be considered a subspecies of the Northern Flicker. Where the ranges of these two species overlap, in parts of the Southwest, there is interbreeding between them. Gilded Flickers have golden undertail coverts, yellow underwing coverts, and a white rump. They

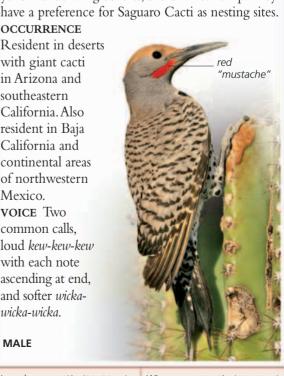
OCCURRENCE

Resident in deserts with giant cacti in Arizona and southeastern California, Also resident in Baja California and continental areas of northwestern Mexico VOICE Two common calls. loud kew-kew-kew with each note ascending at end, and softer wickawicka-wicka.

MΔIF

Length 11-111/2in (28-29cm)

Wingspan 18-19in (46-48cm)



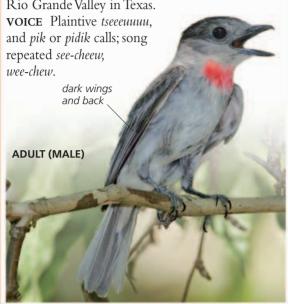
Family Cotingidae

Species Pachyramphus aglaiae

Rose-throated Becard

The Rose-throated Becard is a grayish or brownish bird with a large head. The male's pink throat and the female's charcoal cap and brown body are distinctive. Its roundish, foot-long nest hangs from a high tree limb, and is a reliable cue to its presence. It forages mainly on fruit and insects, sallying short distances from a perch.

OCCURRENCE This Central American species reaches southeastern Arizona and the lower Rio Grande Valley in Texas.



Length 71/4in (18.5cm)

Wingspan 12in (30cm)

Family **Tyrannidae**

Species Camptostoma imberbe

Northern Beardless-Tyrannulet

This tiny flycatcher is uncommon along streams in southeastern Arizona, southeastern New Mexico. and southern Texas. Its whistled calls often reveal its presence before it is seen. "Beardless" referes to the lack of bristles at the base of its bill, and "tyrannulet" to its diminutive size for a flycatcher. **OCCURRENCE** Found especially in riverine vegetation, including sycamores and cottonwoods; local in Arizona, New Mexico, and Texas; more common from Mexico to Costa Rica. **VOICE** Calls include clear, piping stubby



Length 4½–5½in (11.5–14cm) Wingspan 7in (18cm)

Family Tyrannidae

Species Sayornis phoebe

Eastern Phoebe

An early spring migrant, the Eastern Phoebe often nests under bridges and culverts, as well as on buildings. Not shy, it is also familiar because of its fee-bee vocalization and constant tail wagging. Ornithologist John James Audubon tied threads on several birds' legs and established that individuals return from the south to a previously used nest site. **OCCURRENCE** Occurs in open woodlands, forest edges, and parks, often near water. Breeds across Canada and in the eastern half of the US. Winters in the southeastern US and Mexico.

VOICE Common call a clear, weak *chip*; song an emphatic fee-bee or fee-b-be-bee.



Length 51/2-7in (14-17cm)

Wingspan 10½in (27cm)

Family Tyrannidae

Species Contopus pertinax

Greater Pewee

First identified by its whistled song, the Greater Pewee, when seen, looks like a plain grayish flycatcher with a tufted crest. Primarily a Mexican and Central American species, it reaches Arizona and New Mexico across the US border. Greater Pewees vigorously defend their nests against potential predators like jays and squirrels. US breeders move south after breeding. OCCURRENCE Breeds in open pine tufted crest

woodland with oak understory at elevations of 7,000–10,000ft (2,100-3,000m) along steep-sided canvons. VOICE A repeated pip, peep, or beep-beep; male territorial song a plaintive ho-say ma-ree-ah. ADULT

Length 7in (18cm)

Wingspan 13in (33cm)

Family Tyrannidae

Species Contopus virens

Eastern Wood-pewee

The Eastern Wood-pewee, common in woodlands in the eastern US and southern Canada, is replaced in the West by the very similar Western Wood-pewee. Their ranges overlap slightly at the margins of their respective distributions. The Eastern Wood-pewee looks somewhat like the Eastern Phoebe, but does not flick its tail. OCCURRENCE Woodlands in the eastern US and southern and eastern Canada; also along rivers in the Midwest. Winters in shrubby, second-growth forests of South America.



Family **Tyrannidae**

Species **Empidonax fulvifrons**

Buff-breasted Flycatcher

The smallest of the genus *Empidonax*, the Buff-breasted Flycatcher has a rusty or buffy wash on its breast. The other *Empidonax* species are grayish or yellow below. A resident in Mexico and Central America, the Buff-breasted Flycatcher reaches the US locally in Arizona and Texas, where it lives at high elevations in pine-oak woodlands. OCCURRENCE Southern Arizona and New Mexico to Mexico, and south to Honduras. US populations migratory, resident in Mexico and Central America. VOICE Call *pit*, and alarm call *quit-quit-quit-qui-r-r*; song on breeding grounds *chee-lick* or *chee-lick-chou* by



Length 5in (13cm)

Wingspan 8½in (22cm)

Family Tyrannidae

Length 6in (15cm)

Species Pyrocephalus rubinus

Wingspan 9-10in (23-26cm)

Vermilion Flycatcher

Contrasting with all other North American species of flycatcher, the Vermilion Flycatcher well deserves its English name. Beware, however, that only the male is red; the female, brownish above and streaked below, is drab by comparison. Males advertise their territories during spectacular flight displays accompanied by loud vocalizations.

OCCURRENCE Breeds mostly along rivers, in woodlands with cottonwoods, willows, and sycamores. In the US, found only in the South; south of the border, occurs south to Argentina.

VOICE Contact call peeent; male



Length 5-6in (13-15cm)

Wingspan 10in (25cm)

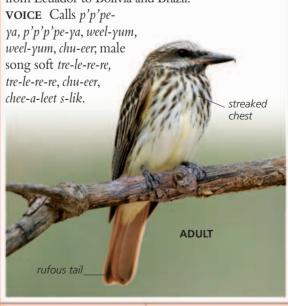
Family **Tyrannidae**

Species Myiodynastes luteiventris

Sulphur-bellied Flycatcher

In North America, this large and boldly marked flycatcher breeds in the mountain canyons of southeastern Arizona. It is heavily streaked on both back and belly, its tail is rufous, and its loud squeaky calls are distinctive. Sulphur-bellied Flycatchers are cavity nesters, using holes in trees, or, occasionally, nest boxes.

OCCURRENCE Southeastern Arizona; widely distributed from Mexico to Costa Rica. Winters from Ecuador to Bolivia and Brazil.



Length 8-9in (20-23cm)

Wingspan 141/2in (37cm)

Family Tyrannidae

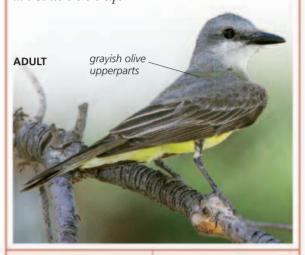
Species Tyrannus melancholicus

Tropical Kingbird

The Tropical Kingbird is another of the widespread tropical American species of flycatchers that barely reach the US as a breeder. It nests in open areas of southeastern Arizona, but can be seen as far north as British Columbia in the fall.

OCCURRENCE In the US, regularly found in residential areas, such as golf courses, farmland, and gardens. In the tropics breeds in a wide variety of habitats, including evergreen forest edges and mangroves.

VOICE Twittering calls given throughout the day and all year long; song tremulous *tere-ee-ee-tril-il-iil-l* or *tre-e-e-e-ee-eip*.



Length 7-9in (18-23cm)

Wingspan 14½in (37cm)

Family **Tyrannidae**

Species Tyrannus crassirostris

Thick-billed Kingbird

Though it is similar in size and color to other kingbirds of the western region, the Thick-billed Kingbird has a noticeably thicker bill, and a darker head, both of which give it a somewhat "beefy" look. In North America, Thick-billed Kingbirds breed locally in southern Arizona and New Mexico, mostly in sycamore groves along streams.

OCCURRENCE Prefers cottonwoods and sycamores in wooded canyons, close to water. Reported from California and Texas.

VOICE Harsh and raspy *tch tchee* and *tch-uhreeeE* calls; vocal through the day while breeding; dawn song consists of two phrases *T-t-t-t*, *t-T-tt-rwheeuh -t-t-t*, or a loud whistled *pwaareeet*.



Length 9-91/2in (23-24cm)

Wingspan 16in (41cm)

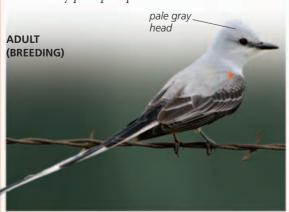
Family Tyrannidae

Species Tyrannus forficatus

Scissor-tailed Flycatcher

The long tail streamers of the Scissor-tailed Flycatcher are seen in all their glory when males display in flight over their breeding territory. Scissor-tailed Flycatchers often incorporate manmade debris into their nests, including pieces of string, cloth, or bits of wrapping. This flycatcher forms large pre-migratory roosts in late summer, often of more than 100, and even up to 1000 birds. OCCURRENCE Breeds in open areas in southcentral US states and adjacent Mexico. Reported widely in western North America. Winters from Mexico to Costa Rica.

VOICE Males vocalize in breeding territories and communal roosts; song a variable number of *pups* followed by *perleep* or *peroo*.



Length 9-15in (23-38cm)

Wingspan 15in (38cm)

Family Tyrannidae

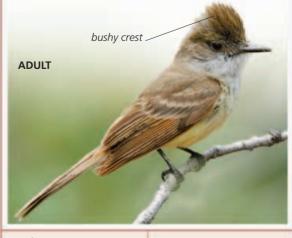
Species Myiarchus tuberculifer

Dusky-capped Flycatcher

One of four species of flycatchers of the genus *Myiarchus* found in North America, the Duskycapped breeds in Arizona and New Mexico. It inhabits dense woodlands, where it forages for insects in the foliage below the canopy. As in other *Myiarchus* species, the sexes are similar, and juveniles are slightly darker than adults. The species is mainly silent, except when it sings at dawn.

OCCURRENCE Southeastern Arizona and southwestern New Mexico. Migrates to Mexico. Resident populations occur all the way south to South America.

VOICE Dawn song a *whit, peeur,* or *wheeeeu* alternated with *huit* notes.



Length 71/4in (18.5cm)

Wingspan 10in (25cm)

Family Tyrannidae

Species Myiarchus crinitus

Great Crested Flycatcher

The only species of Myiarchus flycatchers breeding in the eastern region, the Great Crested Flycatcher occurs in the west only in Canada, where it reaches Alberta However it is sometimes seen farther west and north in the fall, when it can be identified by the pale base of its bill and the sharp definition between its gray breast and yellow belly. OCCURRENCE From Alberta eastward to the Maritimes in Canada, southward to Texas and Florida. Migrates to Mexico, Central America, and northern South America. Breeds in woodlands.



Family Vireonidae

Length 7-8in (18-20cm)

Species Vireo flavifrons

Wingspan 13in (33cm)

Yellow-throated Vireo

This large and robust vireo of eastern US woodlands is usually found foraging and singing high in the canopy. It is distinctly patterned, with a bright yellow throat, breast, and "spectacles," and a white belly and flanks. The fragmentation of forests, spraying of insecticides, and cowbird parasitism have led to regional declines in its populations, but the bird's range, as a whole, has actually expanded. OCCURRENCE Breeds in deciduous and mixed woodlands in the eastern half of the US, and extreme southern Canada. Winter range from wooded areas of southern Mexico to northern South America. **VOICE** Scolding, hoarse, rapid calls; male song a slow, repetitive, 2- or 3-note phrase, separated by long pauses.



Length 51/2in (14cm)

Wingspan 91/2in (24cm)

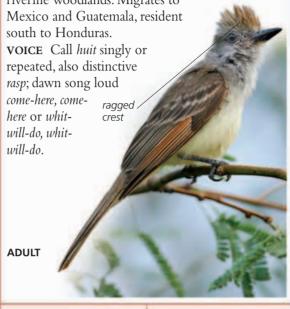
Family **Tyrannidae**

Species Myiarchus tyrannulus

Brown-crested Flycatcher

This is the largest of the three western Myiarchus species. It is a slender-looking, long-tailed flycatcher, with a thick bill and a ragged-looking, tan-brown crest. In flight, the rufous outer tail feathers are quite noticeable. Although mostly an insect catcher, it will sometimes pluck a hummingbird from a perch.

OCCURRENCE Found only in the southwestern US, north to Nevada and east to Texas; breeds in riverine woodlands. Migrates to



Length 81/2in (22cm)

Wingspan 13in (33cm)

Family Vireonidae Species Vireo atricapilla

Black-capped Vireo

whistles, chips, and squeaks, with

The only vireo to show a sexually dimorphic (different) plumage, the Black-capped Vireo is restricted to central and southern Texas and Mexico. Despite its broad, white "spectacles" and a red eye, it is not easy to spot as it forages in dense shrubby vegetation. It sings persistently from near the top of bushes, often long into the day. Habitat changes and Brown-headed Cowbird parasitism have caused declines in the bird's population. **OCCURRENCE** Breeds only in the hill country of central southern Texas and adjacent Mexico, casually in Oklahoma. Winters in the foothill country of western Mexico. **VOICE** Calls are variable scolds; song an extensive repertoire of trills,



Length 41/2in (11.5cm)

Wingspan 7½in (19cm)

red eve

Family Corvidae

Species Cyanocitta cristata

Blue Jay

One of the best-known birds in North America because of its abundance and beautiful plumage, the Blue Jay is largely an eastern species, although in Canada it occurs westward to Alberta and British Columbia. In the west, it is replaced by the equally spectacular Steller's Jay.

OCCURRENCE In the west, breeds in British Columbia, Alberta, Saskatchewan, and Montana. Rare elsewhere (California, Oregon, Washington) in winter. Found in a variety of woodlands, suburban areas, and gardens.

VOICE Harsh, screaming *jay! jay!*; other common call an odd ethereal, chortling *queedle-ee-dee*; soft clucks when feeding.



Length 91/2-12in (24-30cm)

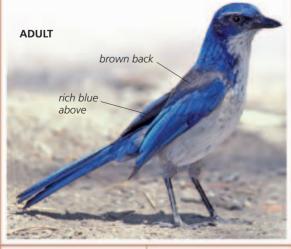
Family Corvidae

Species **Aphelocoma insularis**

Wingspan 16in (41cm)

Island Scrub-Jay

The Island Scrub-Jay, a close relative of the mainland's Western Scrub-Jay, is restricted to Santa Cruz Island off the coast of southern California. It has a thicker bill than the Western Scrub-Jay, and sports deep blue undertail feathers. OCCURRENCE The only scrub-jay on Santa Cruz Island, one of southern California's Channel Islands, where its preferred habitat is oak thickets. VOICE Wide range of calls, similar to those of the Western Scrub-Jay but louder, including harsh *shek-shek-shek* and various "rattles."



Length 12in (31cm)

Wingspan 17in (43cm)

Family Corvidae

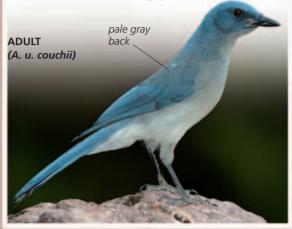
Species Aphelocoma ultramarina

Mexican Jay

The bell-like calls from a flock of Mexican Jays can be heard in the pine-oak canyons of Mexico and adjacent Arizona, New Mexico, and Texas. These birds have a fascinating social system. Instead of territorial pairs, they form territorial flocks, within which females mate with several males. Nestlings are not fed only by their parents, but also by other members of the flock, including those that have failed to breed.

OCCURRENCE Occurs in mountains with rugged slopes, covered with oaks and pines.

VOICE Rapid-fire, ringing *wink*, *wink*; harsher and less bell-like in Texas population, which also gives rattle call similar to scrub-jays.



Length 11-121/2 in (28-32cm)

Wingspan 19½in (50cm)

Family Corvidae

Species Pica nuttalli

Yellow-billed Magpie

Found only in California, where it is common locally, the Yellow-billed Magpie is very similar to the more widely distributed Black-billed Magpie. Its yellow bill, small bare yellow patch underneath the eye, and slightly different calls all help to distinguish it from the Black-billed Magpie. The Yellow-billed Magpie occasionally nests in loose colonies, but never with more than one pair to a tree.

OCCURRENCE Oak savannah, orchards, and other open habitats with widely spaced trees; also areas near rivers and streams.

VOICE Whining *mag* call; also a series of *kwah-kwah-kwah*; similar to Black-billed Magpie, but higher-pitched and less harsh.



Length 15-171/2in (38-45cm)

Wingspan 24in (61cm)

Family Corvidae

Species Corvus caurinus

Northwestern Crow

Very similar to the widespread American Crow, the Northwestern Crow's range is restricted to a coastal strip from Alaska to Washington State, where the American Crow does not appear to occur. Northwestern Crows often congregate in large flocks in tidal areas, where they dig for clams, pry open barnacles, chase crabs, and catch small fish in tidal pools, at low tide.

OCCURRENCE Coastal areas from Alaska to Washington state; avoids dense forests; along rivers at higher elevation inland.

VOICE Varied, but most common call a loud, familiar *caw!* lower, raspier, and more rapid than most American Crows.



Length 13-16in (33-41cm)

Wingspan 34in (86cm)

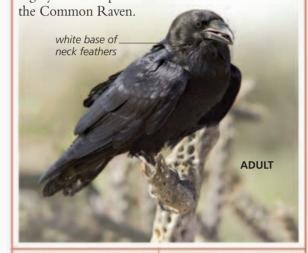
Smaller than the Common Raven but larger than the American Crow, the Chihuahuan Raven was previously called the White-necked Raven. This name alludes to its concealed white neck feathers, which may come into view in the bird's windswept habitat. A gregarious and vocal species, the Chihuahuan Raven may be seen wheeling about in flocks of hundreds of birds.

Chihuahuan Raven

Species Corvus cryptoleucus

Family Corvidae

OCCURRENCE Breeds in south-central and southwestern US and in Mexico, in grasslands, scrub, and deserts. Northern populations winter in Mexico. VOICE High-pitched croaks, less varied than the highly diverse repertoire of



Length 171/2-20in (44-51cm)

Wingspan 3½ft (1.1m)

Family Ptilogonatidae

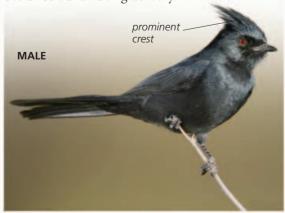
Species Phainopepla nitens

Phainopepla

The name Phainopepla, Greek for "shiny robe," refers to the species' glossy plumage. Phainopeplas like to perch high up in trees and shrubs, from which they sally to catch flying insects. When in flight, the conspicuous white wing patches contrast with the black of body and tail. The somewhat similar Northern Mockingbird also has white wing patches, but also has white in its tail, and is gray, not black.

OCCURRENCE Inhabits the southwestern US and adjacent Mexico, in a variety of dry to arid habitats, including oak scrub, open mesquite woodlands, and patches of juniper on rocky slopes.

VOICE Call a mellow wurp, with upward inflection; song a long series of short phrases, overall soft and halting delivery.



Length 7¾in (19.5cm)

Wingspan 11in (28cm)

Family **Paridae**

Species Parus carolinensis

Carolina Chickadee

This eastern and southeastern species is very similar to the Black-capped Chickadee, which is widespread in the West. In parts of the central and eastern US, both species have adjacent ranges and hybridize locally. The western range of the Carolina Chickadee is limited to parts of Kansas, Oklahoma, and Texas, where the Black-capped does not normally occur. The Carolina's characteristic call is the easiest way to distinguish it from the Black-capped.

OCCURRENCE Mixed woodlands, orchards, gardens; often at feeders.

VOICE Fast *dee-dee-dee* call; song clear, whistled, 4-note sequence *wee-bee wee-bay*, second note lower in pitch.



Length 43/4in (12cm)

Wingspan 7½in (19cm)

Family Paridae

Species Parus sclateri

Mexican Chickadee

Although widespread in the mountains of Mexico, the Mexican Chickadee's range in the US is restricted to mountaintops in southern Arizona and New Mexico, known as "sky islands." These high elevation habitats include forests of conifers separated from one another by valleys.

OCCURRENCE High-elevation coniferous forests of southeastern Arizona, and southwestern New Mexico; mountains of Mexico; occurs as high as 12,800ft (3,900m). Some move lower down in winter

VOICE Variety of rapid warbles, including *tse-tse tse-tse tse-tse*; also harsh *churr-churr* notes.



Length 5in (13cm)

Wingspan 8in (20cm)

Family Paridae Species Parus inornatus

Oak Titmouse

The Oak Titmouse and its look-alike relative, the Juniper Titmouse, are the least colorful species of titmice. The two species were previously united in a single species, the Plain Titmouse. The Oak Titmouse, as its English name suggests, favors a habitat where oaks are present, especially the Coast Live Oaks of California.

OCCURRENCE Year-round resident in oak or oakpine woodlands on dry foothills of the Pacific slope. VOICE Rough see-see-see-chrr or tsicka-tsicka jeerjeer call; song a series of clear, whistled double notes, peedle peedle peedle or pe-er



Length 5¾ in (14.5cm)

Wingspan 9in (23cm)

Family Paridae

Species **Parus wollweberi**

Bridled Titmouse

This species, the smallest of the North American titmice, is especially agile, capable of acrobatics and of hanging upside down to catch insects. Its striking black-and-white facial marks and tall, dark crest distinguish it from other titmice. Its voice is also softer and more chickadee-like than those of other titmice. It forms flocks in fall and winter that include chickadees, nuthatches, and kinglets.



Family **Paridae**

Length 51/4 in (13.5cm)

Species Parus atricristatus

Wingspan 8in (20cm)

Black-crested Titmouse

Only found in Texas and southwestern Oklahoma in the US, where it is resident, the Black-crested Titmouse much resembles the Tufted Titmouse, except for its noticeably taller, black crest. Because of this striking difference, the two were once considered separate species, but as the two interbreed in a wide area of Texas, ornithologists merged them into a single species in 1983. Still later studies in 2002 suggested, once again, that they should be considered distinct.

OCCURRENCE Scrubby oak woodlands; frequents feeders in winter. Occurs as high as 6,000ft (2,000m) in the mountain forests of Mexico.

VOICE Call a rasping, scolding *jhree*



Length 6½ in (16.5cm)

Wingspan 10in (25cm)

tall.

black

Family **Hirundinidae**

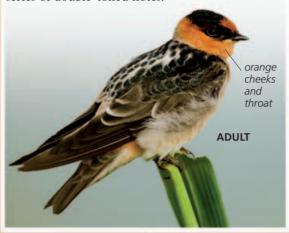
Species Petrochelidon fulva

Cave Swallow

Its orange throat and rufous forehead distinguish the Cave Swallow from its close relative, the Cliff Swallow. This species breeds locally in parts of Arizona, New Mexico, Texas, and southern Florida. Cave Swallows cement their cup nests to the walls of caves, bridges, culverts, and buildings. This adaptation, of building nests on man-made structures, has led to the species' geographical and numerical expansion.

OCCURRENCE Breeds in arid areas, preferably near water. Also breeds in Mexico and the Greater Antilles.

VOICE Call a low *wheet*; song a series of bubbly sounds blending into warbling trill, ending in series of double-toned notes.



Length 51/2in (14cm)

Wingspan 13in (33cm)

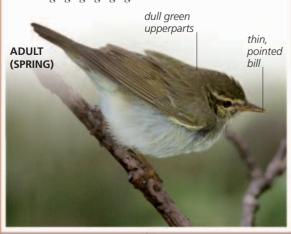
Family **Sylviidae** Species **Phylloscopus borealis**

Arctic Warbler

The Arctic Warbler is a small, slender, olive-colored bird with a prominent buffy yellow eyestripe and a faint, single wing bar. Predominantly Eurasian, it occurs in North America in willow thickets in Alaska, where it breeds. Its biology in Alaska is not as well known as its habits are in Eurasia. Vagrant birds occur as far south as California.

OCCURRENCE Breeds in stands of dwarf willow, often along streams. Winters in open rainforests, grasslands, gardens, and mangroves in the Philippines and in Indonesia.

VOICE Alarm call a short hard metallic dzik; male's song a loud, vigorous, monotonous slow trill *chinginginginginging*.



Length 41/4-5in (11-13cm)

Wingspan 8in (20cm)

Family Alaudidae

Species Alauda arvensis

Eurasian Sky Lark

The Eurasian Sky Lark was introduced to Vancouver Island, British Columbia in the 1900s, and still breeds there in small numbers. Wild individuals of an Asian subspecies are occasional visitors to islands in the Bering Sea Region of Alaska; and vagrants occur south to California. Eurasian Sky Larks are similar to pipits and American sparrows, but have a short crest, white outer tail feathers, and different calls.

OCCURRENCE Likes windswept, hilly, and grassy areas near the ocean; stays close to the ground and is hard to see unless flushed; fluttery flight.

VOICE Flight call a sudden *jeerup*; aerial song consists of endless trills and buzzes, heard only on the breeding grounds.



Length 71/4in (18.5cm)

Wingspan 12–14in (30–36cm)

Family **Timaliidae** Species **Chamaea fasciata**

Wrentit

Much easier to hear than to see, the Wrentit is neither a wren nor a chickadee. It is the sole New World representative of the large and diverse Old World babbler family. Wrentits are not especially sociable; pairs are rather aloof, guarding their territories, and rarely foraging with other birds. Affected by the destruction of coastal brushwood, their numbers have nevertheless increased locally where logging has opened up new habitats.

OCCURRENCE Pacific Coast and dense foothill shrubs with Chamise, Manzanita, Sagebrush, and Poison oak. Nonmigratory; generally stay close to their breeding areas.

VOICE Calls varied, agitated-sounding *jrrr*, *krrrrt*; sings a loud accelerating series all year long: *pip... pip... pip... pip'pi'pi'pi'pi'pi'pi'pi*.



Length 61/2in (16cm)

Wingspan 7in (17.5cm)

Family Troglodytidae

Species Cistothorus platensis

Sedge Wren

A shy bird, the Sedge Wren is difficult to see except when singing atop a sedge stalk or a shrub. If spotted, it flies a short distance away, drops down, and runs off through the vegetation. In the west, it reaches Alberta in western Canada, and northeastern Montana in the US. The male, like other species of wrens, builds up to 8–10 unlined "dummy" nests before the female builds the real, better-concealed, nest.

OCCURRENCE In North America, breeds in wet meadows and sedge marshes. Winters in drier habitats. Occurs south to South America.

VOICE Call a loud *chap*; song a dry, staccato two-part chatter: *cha cha cha cha*



Length 41/2in (11.5cm)

Wingspan **5**½**–6in (14–15.5cm)**

Family Troglodytidae

Species Thryothorus Iudovicianus

Carolina Wren

The Carolina Wren is a popular and common suburban and backyard bird in much of its range. It is rarely still, often flicking its tail and looking around nervously. Harsh winters at the edge of its range in New England can cause a decline in numbers, as food resources dwindle. At such times, food and shelter from humans may aid survival. OCCURRENCE Breeds in woodlands; parks and yards, from northeastern Mexico to the Great Lakes, northeastward to New England. A separate population is found from Mexico to Nicaragua. VOICE Calls variable; often a sharp *chlip* or long, harsh chatter; song a loud, long, fast *whee'dle-dee whee'dle-dee whee'dle-dee*.



Length **5**1/4 in (13.5cm)

Wingspan 7½ in (19cm)

Family Polioptilidae

Species Polioptila californica

California Gnatcatcher

Scarce and threatened in its patchy, localized habitat in southern California, this species is highly sought-after by birders. To spot it, listen for its odd "mewing" call and then wait patiently for it to fly between patches of sage scrub. Formerly classified together with the more widespread Black-tailed Gnatcatcher, the two were separated in 1989, on the basis of plumage, vocal, and molecular differences.

OCCURRENCE Year-round resident in Baja California, Mexico, and scattered breeding localities in coastal sage scrub in southern California. In Baja California, breeds in desert scrub and thorn thickets.

VOICE Characteristic call an odd "mewing" sound wee-eeew; no black cap the check when disturbed on head



Length 41/4in (11cm)

Wingspan 5½in (14cm)

Family Mimidae

Species Toxostoma longirostre

Long-billed Thrasher

In the US, this Mexican species is found only in southern Texas, where its habitat of semi-arid thickets and riverine woodlands has been much altered or destroyed by mechanized land-clearing practices. This habitat loss may be offset by the increase in area of invasive scrubby vegetation in other parts of its range.

OCCURRENCE Sedentary in scrubby vegetation in the lowlands along the Gulf of Mexico, along woodlands near the Rio Grande, and on the slopes of western mountains at up to 3,300ft (1,100m). **VOICE** Call a harsh *tchek*; song a loud, harsh series of notes, usually repeated 2–4 times in succession.



Length 10-11in (25-28cm)

Wingspan 12-13in (30-33cm)

Family Mimidae

Species Toxostoma bendirei

Bendire's Thrasher

This small and rather nondescript thrasher of southwestern US deserts was named in 1873 in honor of Charles Bendire, the US army officer who discovered it. In spite of its early discovery, much remains to be learned about this species, including the number of broods it can raise per season, and whether it winters in Baja California.

OCCURRENCE In the US, breeds in dry areas and sparse cover of cactus, thorn-scrub, and Joshua trees. Winters in Mexico; Mexican populations resident.



Family **Mimidae**

Species Toxostoma redivivum

California Thrasher

This thrasher's Latin name, *redivivum*, means "resurrected." It was already known in the 16th century, but "rediscovered" in 1845. This is the largest of the North American thrashers, and a real Californian native. It likes the dense undergrowth of arid or semi-arid vegetation along the slopes of canyons, a habitat that is unfortunately used for suburban development, posing a threat to its survival. OCCURRENCE Prefers arid to semi-arid, brushy canyons; also suburban parks and gardens; needs dense undergrowth vegetation.

VOICE Call a dry *tchek*; song a loud,



Length 11-13in (28-33cm)

Wingspan 15-17in (38-43cm)

Family Mimidae

Length 8-10in (20-25cm)

Species Toxostoma crissale

Wingspan 11-13in (28-33cm)

Crissal Thrasher

Although locally common, little is known about the life history of this secretive bird, which lives in dense mesquite thickets and shrubland. Its distinctive melodious songs set it apart from other, similar-looking southwestern thrashers. Its Latin name refers to the color of its undertail feathers in an otherwise pretty uniformly gray plumage. Although loss of habitat at lower elevations may restrict its numbers, its preference for high-elevation habitats insulate the species from much human encroachment.

OCCURRENCE Breeds in the arid southwestern US and Mexico, especially in dense shrubbery at midelevations, but can occur up to 6,500ft (2,000m).

VOICE Call a soft *Krrrt*; song a strong numerical note, or group of notes, with double



Length 10-13in (25-33cm)

Wingspan 13-16in (33-41cm)

Family **Mimidae**

Species Toxostoma lecontei

Le Conte's Thrasher

This species is the real desert thrasher, in terms of its habitat preference and sandy color, which is rather similar to its surroundings. Le Conte's Thrasher prefers a more open and sparsely vegetated habitat than any other member of its genus. This hardy and adaptable species regularly endures temperature extremes ranging from –4 to +133°F (-20 to +56°C). Increased irrigation of desert areas has caused loss of its habitat.

OCCURRENCE Resident in the southwestern US and Mexico, in sheltered areas along desert washes, with clumps of grass.



Length 10-12in (25-30cm)

Wingspan 12-14in (30-36cm)

Family **Turdidae**

Species Sialia sialis

Eastern Bluebird

The blue and chestnut Eastern Bluebird has made a remarkable comeback in the past 30 years. After much of the bird's habitat was eliminated by agriculture in the mid-1900s, nest boxes were readily accepted as alternatives to their tree cavities. The Eastern Bluebird's complex mating system involves multiple partners.

OCCURRENCE Found in clearings and woodland edges; occupies open habitats in rural, urban, and suburban areas; orchards, parks, and spacious lawns; westward to the 100th meridian.

VOICE Main song a melodious series of soft, whistled notes: *churr-wi* or *churr-li*.



Family Turdidae

Length 6-8in (15-20cm)

Species **Hylocichla mustelina**

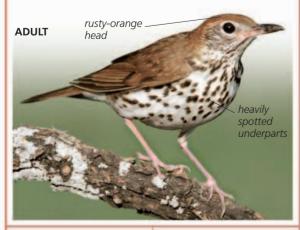
Wingspan 10-13in (25-33cm)

Wood Thrush

The Wood Thrush, an eastern breeder, has seen its populations decrease markedly over the past 30 years, largely due to forest destruction and fragmentation. Its susceptibility to parasitism by the Brown-headed Cowbird has also affected its numbers.

OCCURRENCE Hardwood forests in the East, from Texas and Florida to Minnesota and the Canadian Maritimes. Breeds in deciduous and mixed forests. Winters south through Central America to Panama. Rare in the West.

VOICE Rapid *pip-pippipip* or *rhuu-rhuu*; a three-part flute-like song—first part indistinct, second part loudest, third part trilled.



Length 71/2-81/2in (19-21cm)

Wingspan 12-131/2 in (30-34cm)

Family Turdidae

Species Catharus minimus

Gray-cheeked Thrush

The Gray-cheeked Thrush breeds in remote areas of Canada, westward all the way to Alaska. During migration, this bird is more likely to be heard in flight at night than seen on the ground by birdwatchers.

OCCURRENCE Breeds in densely vegetated areas with small shrubs; prefers spruce forests in northern and western Canada and Alaska. Winters in northern South America.

VOICE Call a thin *kweer*, sometimes doubled; song flute-like, somewhat nasal, several notes ending on a lower pitch.



Length 61/2-7in (16-18cm)

Wingspan 11½–13½in (29–34cm)

Family **Turdidae**

Species Turdus rufopalliatus

Rufous-backed Robin

This secretive Mexican species is rare to uncommon in the southwestern US, especially in the winter. More colorful than the American Robin, it has a gray head, wings, and tail, reddish back and flanks, white abdomen, and long and thin dark streaks on its throat extending all the way to the breast.

OCCURRENCE Occurs in a variety of scrubby or woodland habitats in southern California, southern Arizona, southwest New Mexico, and western Texas.

VOICE Repeated warbling of cheery phrases; call is a *tche-tche-che*.



Length 81/2-91/2 in (21-24cm)

Wingspan 15in (38cm)

Family Turdidae

Species Luscinia svecica

Bluethroat

Widespread in Eurasia, the Bluethroat is found in North America only in Alaska and the Yukon. The male's iridescent blue throat adorned with a rufous spot is rarely seen because it spends most of its time in thick vegetation, except during its flight songs.

OCCURRENCE Breeds in willow thickets in the tundra of northern Alaska and the western Yukon.

VOICE Calls are sharp, dry krak, often repeated; also a soft whooit. Song is melodious, lengthy, and may include the calls of other bird species, as the Bluethroat is a gifted mimic.



Family Muscicapidae Species Oenanthe oenanthe Northern Wheatear The largely Eurasian Northern Wheatear visits North America during a brief breeding season, and nests in the tundra of Alaska and northeastern Canada. The two subspecies breeding in North America, O. o. leucorhoa in the Northeast and O. o. oenanthe in the Northwest both migrate to wintering grounds in sub-Saharan Africa, but use different routes; oenanthe across Asia, and leucorhoa across the Atlantic. **OCCURRENCE** Breeds in the Yukon (O. o. oenanthe) and the Arctic archipelago (O. o. leucorhoa). **VOICE** Multiple calls, a sharp *tuc* or *tek* common; three types of songs—territorial, conversational, and perched—mixtures of sweet and harsh notes; imitates other species. black (BREEDING)

Family **Peucedramidae**

Species Peucedramus taeniatus

Olive Warbler

Although its appearance and behavior are warbler-like, this orange-headed and black-masked species differs from warblers in the family Parulidae in its song, breeding habits, and genetic make-up. It is placed in its own family, the Peucedramidae, and lives at high elevations in coniferous forests.

OCCURRENCE Found in pine-oak woodlands, and forests with Ponderosa Pines and Douglas Firs. US birds winter in Mexico; Central American birds are resident.

VOICE Calls include a smack-like *bit* and a softer, bluebird-like *view*; song is a loud and repeated series of *peetar-peetar-peetar*, somewhat similar to the Tufted Titmouse.



Length 51/4in (13.5cm)

Wingspan 9in (23cm)

Family **Motacillidae**

Length 51/2-6in (14-15cm)

Species Motacilla flava

Wingspan 10¾in (27cm)

Yellow Wagtail

Like its relative the White Wagtail, the Yellow Wagtail is widely distributed in Eurasia, with a nesting foothold in Alaska and the Yukon. An extremely variable species geographically, it has about 17 subspecies. The Alaskan-Canadian population belongs to the subspecies *tschutschensis*, which was described as long ago as 1789, and also breeds in eastern Siberia.

OCCURRENCE In Western Alaska and extreme western Yukon found in tundra with scattered shrub, especially along watercourses. Winters in eastern Asia, south to Indonesia.

VOICE Call a short, "outgoing" *tzeep!*; song a thin, musical, *tzee-ouee-sir*, often in flight.



Length 5-7in (13-18cm)

Wingspan 7-9in (18-23cm)

Family Motacillidae

Species Motacilla alba

White Wagtail

Only one (*M. a. ocularis*) of the 11 subspecies of the wide-ranging Eurasian White Wagtail breeds in North America, in a very small geographical area of northwestern Alaska and on St. Lawrence Island. It arrives in Alaska in late May or early June, and leaves after only about two months, in August, migrating to wintering areas in tropical southeast Asia.

OCCURRENCE Found near water, either coastal

OCCURRENCE Found near water, either coastal areas or along rivers; also commonly associated with human structures.

VOICE Call a single, sharp *tzzip* or double *tzzizzip*; song is an extension of its call, the notes blending into a worble



Length 6-8in (15-20cm)

Wingspan **9–10in (23–25cm)**

Family Motacillidae

Species Anthus spragueii

Sprague's Pipit

Sprague's is the only wholly North American pipit. Males perform an extraordinary fluttering display flight, circling high above the earth while singing an unending series of high-pitched calls, for periods up to an hour. The current decline in its population is quite likely the result of the conversion of tall-grass native prairie to extensive farmland.

OCCURRENCE Breeds along and across the US-Canada border, in dry, open, tall-grass habitat, especially native prairies in the northern part of the Great Plains; most birds winter in Mexico.



Length 4-6in (10-15cm)

Wingspan 6-8in (15-20cm)

Family Motacilladae

Species Anthus cervinus

Red-throated Pipit

The heavily streaked upperparts, and pale legs of this rare Alaskan breeder help to distinguish it from the American Pipit. The extent of the red on the throat varies among individual birds from rusty brick red to tan. Nonbreeding birds are usually heavily streaked on the breast.

OCCURRENCE Tundra and low scrub along the coasts of northern and western Alaska. Occasionally along the coast of California in winter. Widespread in northern Eurasia, it winters in Africa and southeast Asia.

VOICE Two-syllable *tzee-zeep*, somewhat like White or Yellow Wagtails. Song is varied, musical, often in flight.



Length 5-7in (12-17cm)

Wingspan 7-8in (20-23cm)

Family Fringillidae

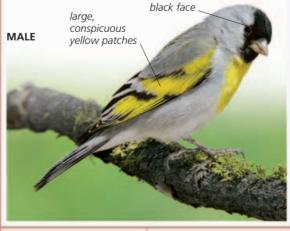
Species Carduelis lawrencei

Lawrence's Goldfinch

John Cassin of Philadelphia's Academy of Natural Sciences described this species in 1850, to honor G.N. Lawrence, who worked on birds collected during the Pacific Railroad Surveys. The large yellow patches on the wings are characteristic of this species, which breeds in dry habitats like chaparral, grassy slopes, and open ranchland.

OCCURRENCE Breeds in open foothills and valleys of California at elevations up to 9,000ft (2,750m). Most migration is east and west rather than north and south.

VOICE Single, bell-like call notes and harsh *kee-urr*; song canary-like; may imitate other species.



Length 4-43/4in (10-12cm)

Wingspan 6-61/2in (15-16cm)

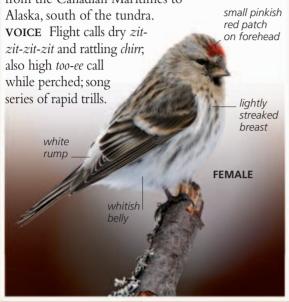
Family Fringillidae

Species Carduelis hornemanni

Hoary Redpoll

Closely related to the Common Redpoll, the Hoary Redpoll is more conspicuously white, has a stubbier bill, and looks more fluffy. These two species often breed in the same areas, but do not interbreed. The Hoary Redpoll is a bird of the high Arctic, breeding in extreme northern Canada westward to Alaska.

OCCURRENCE Breeds in low, scrubby trees of the open tundra, and winters in the boreal forest belt from the Canadian Maritimes to



Black Rosy-Finch

Family Fringillidae

Actually deep-brown in color, this bird appears black when seen against its snowy background. Black Rosy-Finches, the darkest of the North American rosy-finch species, are nevertheless similar in appearance to the much more widely

Species Leucosticte atrata

OCCURRENCE Found in Rocky Mountain and Great Basin mountaintop habitats above timberline. Breeds from central Idaho and southwestern Montana, south through northwestern Nevada and most of Utah. Winters at lower elevations.

distributed Gray-crowned Rosy-Finch.

VOICE Call a low, raspy *brrrt* and descending *peew*; song a long series of *peew* notes of variable composition and pitch.



Length 51/2-61/2in (14-16cm)

Wingspan 13in (33cm)

Family Fringillidae

Length 5-51/2in (12.5-14cm)

Species Leucosticte australis

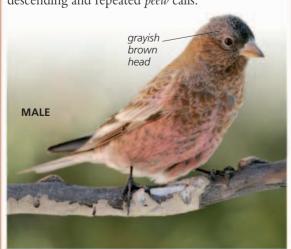
Wingspan 81/2-91/4in (21-23.5cm)

Brown-capped Rosy-Finch

This southernmost member of the rosy-finch genus *Leucosticte* is more pink and less gray than the other two North American species. Despite its name, the "cap" of this species is almost black, similar to those of the other rosy-finches, and contrasts with the brown of the rest of the head and upper back.

OCCURRENCE Restricted to high elevations in the Medicine Bow range of Wyoming and the high mountains of Colorado and northern New Mexico. Lower down in winter.

VOICE High-pitched *peee*, raspy *brrt*, and descending and repeated *peew* calls.



Length 51/2-63/4in (14-17cm)

Wingspan 13in (33cm)

Family **Parulidae**

Species Vermivora crissalis

Colima Warbler

Big Bend National Park in Texas is home to the only breeding population of Colima Warblers in the US—up to 300 pairs may breed there. The scientific name, *crissalis*, refers to this bird's bright orange undertail coverts, or "crissum." The English name, Colima, indicates the area of Mexico where this warbler spends the winter.

OCCURRENCE Breeds in the Chisos Mountains and Mexico, in canyons with pine-oak woodland with brushy understory, normally above about 4,900ft (1,500m). Almost never detected on migration. Winters in similar but more humid habitats of southwestern Mexico.

VOICE Song a rapid trill, descending in pitch and ending with one or two emphatic motives *tititititututu eet-choo eet-choo*.



Length 6in (15cm)

Wingspan 8in (20cm)

Family Parulidae

Species Vermivora luciae

Lucy's Warbler

Named for Lucy Baird, daughter of the eminent ornithologist Spencer Fullerton Baird, this species, small and unassuming, lacks any yellow coloration and could be mistaken for a gnatcatcher, an immature Verdin, or a Bell's Vireo. It is locally common in mesquite woodlands near watercourses. **OCCURRENCE** Breeds in riverine woodlands of the southwestern US and adjacent northern Mexico. Winters along the western seaboard

of Mexico south to Oaxaca. VOICE A sharp, metallic vink; flight



Length 41/4in (11cm)

Family Parulidae

Wingspan 7in (18cm)

Species Dendroica castanea

Bay-breasted Warbler

A male Bay-breasted Warbler in breeding plumage is a striking sight. By contrast, fall females look very different with their dull greenish color. The Bay-breasted Warbler depends largely on outbreaks of spruce budworms (a moth larva) and its population fluctuations are related to those of this food source. Overall, Bay-breasted Warbler numbers have decreased in the last decade or so. **OCCURRENCE** Breeds in mature spruce-fir-balsam forests from the Yukon east to the Maritimes, south to the Great Lakes and northern New England. Winters in wet forests in central America. **VOICE** Call a somewhat upslurred *tsip*; flight call a high, buzzy, short, and sharp tzzzt; song of very



Length 51/2 in (14cm)

Wingspan 9in (23cm)

Family Parulidae

Species **Dendroica pensylvanica**

Chestnut-sided Warbler

One of the few wood-warbler species that has benefited from deforestation, the Chestnut-sided Warbler depends on second-growth and forest edges for breeding. In all plumages, two conspicuous wing bars and a whitish belly are distinguishing characteristics. Its pleasant song has long been transcribed as pleased pleased to MEET'cha. OCCURRENCE Breeds in successional deciduous woodlands, from Alberta to the Great Lakes, New England, and the Appalachians. Winters in the West Indies, Mexico, and Central America.

VOICE Call a sweet *chip*; flight call a low, burry brrrt; song a series of fast, sweet notes, usually ending with an emphatic WEET-chew.



Length 5in (13cm)

Family Parulidae Species **Dendroica fusca**

Blackburnian Warbler

Its brilliant orange throat makes this species one of the most beautiful members of the North American warblers. Blackburnian Warblers co-exist with other Dendroica warblers in the coniferous and mixed woodlands of the north and east, but exploit a slightly different niche for foraging—the treetops. They also seek the highest trees for nesting.

OCCURRENCE Breeds in coniferous and mixed forests of the eastern US and Canada, west to Alberta. Winters in wet forests in Costa Rica and Panama, and southward as far as Peru. **VOICE** Call a slightly husky *chik*; flight-call a high, thin zzee; song variable, but always high-pitched; swirling series of lisps, black-and-orange spiraling upward to end facial pattern



Length 5in (13cm)

Wingspan 81/2 in (21cm)

Family Parulidae

Species **Dendroica chrysoparia**

Golden-cheeked Warbler

The male of this beautiful species often sings throughout the day from conspicuous perches. It breeds in a restricted area of Texas, near, and on, the Edwards Plateau in woodlands where junipers are common. Habitat loss has made this scarce species even scarcer. It has been on the Endangered Species list since 1990.

OCCURRENCE. Breeds in oak-juniper woodlands.

OCCURRENCE Breeds in oak-juniper woodlands mixed with hardwood species like maple and ash. Winters in high-elevation pine-oak woodlands from Mexico to Nicaragua.

VOICE Dry *tsk* call; song a variable series of relatively low, buzzy notes, often ending on a high, clear note *zo zu zu zo zu zhray ZHEE*; another



Family Parulidae

Species **Dendroica graciae**

Grace's Warbler

Named for Grace Coues, sister of the well-known ornithologist Elliott Coues, this warbler is the western counterpart of the Yellow-throated Warbler. It lives in the tops of tall pines, and tends to have large territories, making it a difficult bird to spot and study. Its range has been expanding northward in recent years.

OCCURRENCE Breeds in mature, open pine and pine-oak mountain forests of the southwestern US and Mexico.

VOICE Call soft *chip*; flight call very high, thin *ssss*; song loose trill, louder toward the end and at times ending with a change in pitch: *chew chew chew chew CHEW CHEW CHEE-DEED-DEED-DEED-DEED-DEED-*



Length 5in (13cm)

Wingspan 8in (20cm)

Family Parulidae

Length 5in (13cm)

Species Cardellina rubrifrons

Wingspan 8in (20cm)

Red-faced Warbler

A dazzling-looking bird, with its red-and-black face and white nape, the Red-faced Warbler is a favorite of birdwatchers visiting mountains in the southwestern US. Because its closest relatives are uncertain at present, the Red-faced Warbler is placed by ornithologists in a separate genus, *Cardellina*.

OCCURRENCE Breeds in Arizona, New Mexico, and Mexico, in high-elevation fir, pine, and pine-oak forests. Winters in mountain pine-oak and pine forests from Mexico southward to Central America (Honduras).

VOICE Call a sharp *chik*; song a variable, sweet warble; often has emphatic ending: *swee-wee-wee tuh-wee-wee-wee WEE-chee-chew*.



Length 5½ in (14cm) Wingspan 8½ in (21cm)

Family Parulidae

Species Myioborus pictus

Painted Redstart

White, red, and black, the Painted Redstart (pictus means "painted" in Latin) is fairly common locally in the wooded canyons of Arizona, New Mexico, and western Texas. It flicks open its wings and tail, showing off white wing patches and undertail feathers, which has been interpreted as a behavior meant to flush out insect prey. Ten other species of Myioborus live from Mexico to South America.

OCCURRENCE Breeds at high elevations in oak and pine-oak forests in canyons of the southwestern US. Winters south of its breeding range in Mexico.

VOICE Call a distinctive, downslurred, bisyllabic TSHEE-ew; song a rich, whistled



Length 5¾in (14.5cm)

Wingspan 8½ in (22cm)

Family Icteridae

Species Icterus spurius

Orchard Oriole

The way Orchard Orioles flit among leaves when foraging for insects recalls the behavior of wood-warblers. In addition, and unlike other orioles, it flutters its tail. A late arrival in spring, it is also an early species to leave in the fall. The foothills of the Rocky Mountains correspond approximately to its range border in the West.

OCCURRENCE Breeds in open forest and woodland edges with a mixture of evergreen and deciduous trees; also found in parks and gardens. Winters in Mexico, Central America, and South America.

VOICE Fast, not very melodious, series of high warbling notes mixed with occasional shorter notes ending in slurred *shheere*.



Family Icteridae

Species Icterus cucullatus

Hooded Oriole

Tall palm trees in suburban gardens and urban parks, especially in California, have become popular nesting sites for the Hooded Oriole. Increasing numbers of palm trees, combined with the offerings of nectar intended for hummingbirds have contributed to the expansion of its range from California to the Southwest. By contrast, its numbers in Texas have been shrinking, in part because of its susceptibility to brood parasitism by Brown-headed and Bronzed Cowbirds.

OCCURRENCE Breeds in open woodlands along water courses, especially those containing palm trees. Winters in Mexico.

VOICE A harsh weeek call; song a weakly whined and rapid series of whistles where notes often run together; long, curved imitates other birds.



Length **7–8in (18–20cm)**

Wingspan 9-11in (23-28cm)

Family Icteridae

Length 7-8in (18-20cm)

Species Icterus galbula

Wingspan 9in (23cm)

Baltimore Oriole

The brilliantly colored Baltimore Oriole, the eastern counterpart of the Bullock's Oriole, ranges westward in Canada to Alberta and, locally, eastern British Colombia. At the edge of their respective distributions, in the Great Plains, Baltimore and Bullock's Orioles interbreed. Ornithologists have, at times, considered them to be a single species. OCCURRENCE A variety of woodlands, also parks and gardens. Most winter in Mexico, Colombia, and Venezuela.

VOICE Loud, clear, melodious song comprising several short notes in series, often of varying lengths.

**straight*,



Length 8-10in (20-26cm)

Wingspan 10–12in (26–30cm)

Family Icteridae

Species Molothrus aeneus

Bronzed Cowbird

The range of this species has been expanding in the US ever since it was first recorded in the early 1900s. This could be the result of human clearing of native habitats and replacing them with agricultural crops. A brood parasite, it has been recorded to lay its eggs in the nests of more than 80 bird species, and their young have fledged from over 30 of these. The females may work cooperatively to identify and parasitize the nests of other birds.

OCCURRENCE Inhabits open fields, pastures, scattered scrub, and suburban parks. In the US occurs from California to Texas, from Mexico to Panama and Colombia.

VOICE High and metallic with short notes, can be described as *gug-gub-bub-tzee-pss-tzee*.

bright red



Length 8in (20cm)

Wingspan 13-14in (33-36cm)

Family Icteridae

Species Agelaius tricolor

Tricolored Blackbird

A close relative of the widespread Red-winged Blackbird, the Tricolored occurs primarily in California, where it breeds in marshes in large colonies, sometimes containing more than 100,000 pairs. After breeding, flocks of Tricolored Blackbirds move to agricultural areas. OCCURRENCE Found in cattail marshes, also in a variety of human altered upland and wetland habitats; found in western California, northward to Washington State and southward to Baja California.

VOICE Both sexes call a *chip*, *chuk*, and *chu-aah* when alarmed; male song a grave, nasal *kera-oooow* or *kerrrraaaa*.



Length 7-91/2in (18-24cm)

Wingspan 10-13in (26-33cm)

Family **Emberizidae**

Species Calcarius mccownii

McCown's Longspur

Named for Confederate Major-General John Porter McCown, this longspur inhabits native shortgrass prairies from Alberta and Saskatchewan southward to Nebraska and Colorado. In this windswept habitat males perform flight displays, hovering and floating, wings held in a "V" position, looking surprisingly dark against the pale sky.

OCCURRENCE Breeds in shortgrass prairies of the High Plains. Winters in grasslands from southeastern Colorado southward to Texas and westward to southeastern Arizona.

VOICE Flight call a short, liquid rit-up; also an abrupt poink



Length 6in (15cm)

Wingspan 10-11in (25-28cm)

Family Emberizidae

Species Calcarius pictus

Smith's Longspur

With its pumpkin colored breast and black-and-white "helmet," Smith's Longspur in its breeding colors contrasts strongly with its drab winter plumage. On its Arctic breeding grounds and shortgrass prairie range in winter, this longspur remains hidden on the ground, and is hard to spot. Smith's Longspurs breeds communaly: males mate with several females; they, in turn, mate with several males.

OCCURRENCE Breeds along the tundra-taiga timberline from northern Alaska south and east to northern Ontario. Winters in open



Length 6-61/2 in (15-16cm)

Wingspan 10–11½in (25–29cm)

Family **Emberizidae**

Species Calcarius ornatus

Chestnut-collared Longspur

Once quite common and widespread, the Chestnut-collared Longspur bred where huge herds of bison disturbed its prairie habitat. After the elimination of bison and the "farming" of the prairies, such areas were hard to find, and the longspur declined. A distinguishing feature of this species is the large amount of white on its outer tail feathers.

OCCURRENCE Breeds in shortgrass prairie in south-

central Canada and central US. Winters in grasslands and other barren areas in the southern Great Plains. **VOICE** Flight call a chortling *KTI-uhl-uh*, often in series; also a soft rattle and short *buzz*; song a sweet, rich, whistled series, in



Length 51/2-6in (14-15cm)

Wingspan 10–10½in (25–27cm)

Family Emberizidae

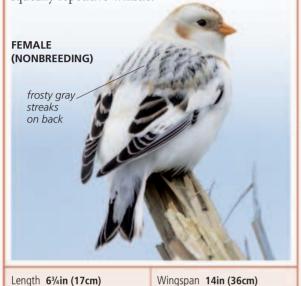
Species Plectrophenax hyperboreus

McKay's Bunting

A close relative of the widespread and similar-looking Snow Bunting, with which it occasionally interbreeds, McKay's Bunting numbers fewer than 6,000 individuals, which breed on two isolated islands in the Bering Sea.

OCCURRENCE Breeds in rocky areas on Hall Island and St. Matthew Island in the Bering Sea. Occasional visitor to St. Lawrence Island and the Pribilof Islands.

VOICE Like Snow Bunting, flight call musical, liquid rattle; also *tyew* notes and short *buzz*; song squeaky repetitive whistle.



Family Emberizidae

Species Junco phaeonotus

Yellow-eyed Junco

This common and confident bird, the Mexican representative of the Dark-eyed Junco, lives at high elevations in pine and oak-pine forests from Arizona and New Mexico to south-central Mexico. Its "glaring" yellow eyes set off by a black mask are distinguishing characters. Yellow-eyed Juncos often forage for food under picnic tables.

OCCURRENCE Southeastern Arizona and southwestern New Mexico, and more widely in Mexico.

VOICE Loud *dip*, soft *dyew*; flight call a twittering, buzzy *zzeet*; song 2–3 whistles followed by various trills and buzzes.



Length 61/2in (16cm)

Wingspan 91/2-10in (24-25cm)

Family **Emberizidae**

Species Zonotrichia querula

Harris's Sparrow

The only North American species to breed only in Canada, Harris's Sparrow migrates southward and winters in the US Great Plains. Its scientific name, *querula*, was given because of the plaintive quality of its whistled song. Its nest was first discovered in 1907 in the Northwest Territories.

OCCURRENCE Breeds in scrub-tundra along the taiga—tundra timberline. Winters in the Great Plains from South Dakota and Iowa south to northern Texas. Nonbreeders are found in thickets and hedges. Casual to rare in East and West.

VOICE Call a sharp weeek; song a melancholy series of 2–4 whistles on the same pitch.



Length 63/4-71/2in (17-19cm)

Wingspan 10½–11in (27–28cm)

Family Emberizidae

Species Ammodramus nelsoni

Nelson's Sharp-tailed Sparrow

This shy species was recently split from the Saltmarsh Sharp-tailed Sparrow. It includes three subspecies that differ in plumage, breeding habitat, and range. The brightly colored *A. n. nelsoni* is found from the Northwest Territories south to Wisconsin. The duller *A. n. subvirgatus* breeds in coastal Maine, the Maritimes, and along the St. Lawrence River. The intermediate *A. n. alterus* breeds along the southern and western coasts of Hudson Bay.

OCCURRENCE Breeds in a variety of marsh habitats across Canada and extreme north central North America.



Length 43/4 in (12cm)

Wingspan 7in (17.5cm)

Family **Emberizidae**

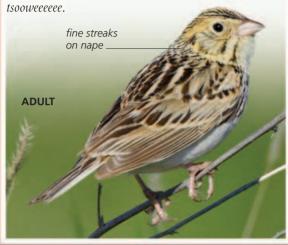
Species Ammodramus bairdii

Baird's Sparrow

The sweet, tinkling song of Baird's Sparrow is a sure sign of high-quality mixed-grass prairie in the Northern Plains. Its musical song and square, pale-edged tail are unique in its genus. Like other species that depend on native grasslands, it has not coped well with the intensive agriculture that has swept across the Northern Plains during the last century.

OCCURRENCE Breeds in light mixed-grass prairie of central US and adjacent Canada. Migrates through the High Plains. Winters in grasslands in Mexico.

VOICE Call soft, metallic *tsink*; flight call insect-like *tisk*; song *tsk tsk tsuck*



Length 5½in (14cm)
Family Emberizidae

Species **Spizella atrogularis**

Wingspan 81/2-83/4in (21-22.5cm)

Black-chinned Sparrow

This gray, yet elegant, bird is a locally common but secretive inhabitant of dense shrubbery on steep hillsides of the southwestern US and California. In the breeding season the loudly-singing and brightly-plumaged males are easy to spot, but in the winter their plumage is quite drab and they are not easy to see. The plumage pattern and pink bill of the Black-chinned Sparrow are reminiscent of those of juncos, but they are not closely related.

OCCURRENCE Breeds in California, southwestern Utah, and northeastern New Mexico southward to central Mexico.

VOICE Call a high *tsip*; song an accelerating, bouncy trill climaxing in a rapid,



Length **5**%in (14.5cm)

Wingspan **7**³/₄in (19.5cm)

Family **Emberizidae**

Species Spizella pusilla

Field Sparrow

The distinctive, accelerating trilled song of the Field Sparrow is a characteristic sound in shrubby fields and scrub of the eastern US and adjacent Canada. Westward, this species reaches Montana, the Dakotas, and Nebraska. The Field Sparrow's pink bill, rusty cheek patch, and pale eye-ring are good field marks. Western-most birds are paler than eastern ones. OCCURRENCE Breeds in overgrown fields, woodland edges, roadsides. Casual in Atlantic Canada and along the Pacific Coast.

VOICE Call a sharp tsik; flight call a strongly descending tsiiiu; song a series of sweet down-slurred



Length 5½in (14cm)

Wingspan 8in (20cm)

Family **Emberizidae**

Species Aimophila carpalis

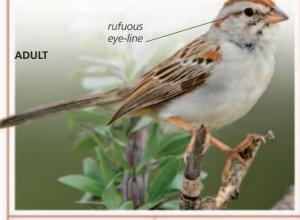
Rufous-winged Sparrow

This sparrow is very localized within its restricted US range, as it lives in grassland with thorn bushes, a habitat that has largely been lost to grazing. Rufous-winged Sparrows depend on the greening of their habitat that follows irregular rains. Male sparrows "respond" to this uncertainty by maintaining their territory all year-round, and are thus ready to breed as soon as the rains begin.

OCCURRENCE Resident in Sonoran Desert scrub and bunch grass from south-central Arizona southward to central Sinaloa, Mexico.

VOICE Call high, strident tseeep!; song a couple of chivs or whistles followed by long, loose trill.

of *chips* or whistles followed by long, loose trill, or accelerating series of *chips*.



Length 5¾in (14.5cm)

Wingspan 7½in (19cm)

Family **Emberizidae**

Species Aimophila botterii

Botteri's Sparrow

Essentially a bird of Mexican grasslands, Botteri's Sparrow reaches the US in two areas, coastal southern Texas and the Southwest. In Texas, its habitat includes gulf cordgrass, whereas in the Southwest it lives in grasslands and open mesquite woodlands with a grass understory. When alarmed, Botteri's Sparrows run rather than fly.

OCCURRENCE Breeds in grasslands of southeastern Arizona and southwestern New Mexico, and in coastal prairies of southern Texas. Winters in Mexico. **VOICE** Call a *chip* or double *tsip*;

song starts with stuttering, mechanical bill thick chips and ends in an accelerating trill.



Length 18-20in (46-51cm)

Wingspan 27-38in (68-96cm)

Family **Emberizidae**

Species Aimophila quinquestriata

Five-striped Sparrow

The Five-striped Sparrow is one of the rarest of the breeding sparrows of North America, with perhaps as few as 100 pairs which are found only in southern Arizona. The Five-striped Sparrow is a large, handsome sparrow with gray underparts, olive-brown upperparts, a blackish head with the stripes for which it is named and eye crescents, a black central breast spot, and a long, thick bill. OCCURRENCE Breeds on steep, arid mountain slopes, up to about 6,500ft (2,000m); locally in southern Arizona, and more commonly in Mexico, southward to Chihuahua and Sonora. **VOICE** Call a low *turp*; song a series of musical

chirps, tinklings, and trills interspersed with second-long pauses.



Length 6in (15cm)

Family **Emberizidae**

Wingspan 8in (20cm)

Species Pipilo aberti

Family **Emberizidae**

Species Pipilo crissalis

California Towhee

This fairly large and grayish-colored towhee is common around human settlements, including suburban gardens, parks, and riverine woodlands, from northern California to Baja California. Once considered, together with the Canyon Towhee of the Southwest, to form a single species (the "Brown Towhee"), they are now split into separate species because of morphological and molecular differences. OCCURRENCE Along California's Pacific Coast in a variety of bushy habitats with open areas for



Length 9in (23cm)

Wingspan 111/2in (29cm)

Abert's Towhee

Restricted to the southwestern US and adjacent Mexico, Abert's Towhee, named after Major James W. Abert, was originally found in the dense undergrowth of cottonwood-willow stands along the Colorado River and its tributaries. It has declined since its description in 1852, due to habitat destruction, overgrazing, and invasive plant species. **OCCURRENCE** Resident in dense brush, remnant patches of mesquite woodland close to rivers and streams, and desert scrub; also suburban areas. Prefers the proximity of water, even small streams. Occurs up to about 3,280ft (1,000m). **VOICE** Sharp *peek* call; song short, accelerating peeks followed by harsh, grayish blue bill



Length 91/2 in (24cm)

Wingspan 11in (28cm)

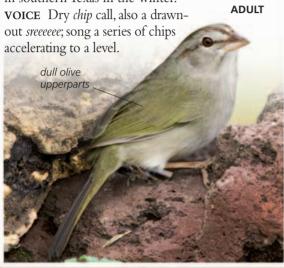
Family **Emberizidae**

Species Arremonops rufivirgatus

Olive Sparrow

The rather drab and shy Olive Sparrow spends much of its time hopping in and out of the undergrowth of dense, tropical woodlands and thorn scrub. In the Lower Rio Grande Valley in winter, this tough-to-spot species does not sing at this time of the year, but its lisping calls will often lead to a birdfeeder, where tamer individuals may be observed at leisure.

OCCURRENCE From southern Texas and northwestern Mexico south to northwestern Costa Rica. Often found at backyard feeders in southern Texas in the winter.



Length 6½in (16cm)

Family Cardinalidae

Species Spiza americana

Wingspan 8in (20cm)

Dickcissel

A tallgrass prairie resident, the Dickcissel seldom breeds outside this core range. Known for its spectacular seasonal movements, this bird winters in Venezuela, with flocks of tens of thousands ravaging rice fields and damaging seed crops, making it a notorious pest.

OCCURRENCE Breeds in tallgrass prairie, grasslands, hayfields, unmown roadsides, and untilled cropfields across the eastern central US. Casual in the West.

VOICE A flat *chik*; flight call a low, electric buzz *frrrrrrt*; song a short series of sharp, insect-like stutters followed by few longer



Length 61/2in (16cm)

Wingspan 91/2in (24cm)

Family Thraupidae Species Piranga flava Hepatic Tanager This species ranges widely in the Americas, from California (very locally) and Colorado south to Mexico, central America, and South America (to Argentina). In the US, the Hepatic Tanager is the western counterpart of the Summer Tanager, which it replaces at higher elevations in oak-pine woodlands. It is slightly more orange-colored than the Summer Tanager. **OCCURRENCE** Found in southwestern US in mountain woodlands of pine and pine-oak. Winters away from US, except in extreme southeastern Arizona. **VOICE** Single chuk or chup crown call; flight call an upslurred, slightly burry veet; song less burry than other tanagers,



Length 8in (20cm)

Family Cardinalidae

Species **Cardinalis cardinalis**

Wingspan 121/2in (32cm)

Northern Cardinal

The state bird of seven different states in the US. the Northern Cardinal, or "redbird," is a familiar sight across the eastern US. In the west, it is restricted to Arizona, New Mexico, and Colorado. **OCCURRENCE** Resident in thickets of various relatively moist habitats, such as deciduous woodland, scrub, desert washes, and backyards. Range spans across the thick, eastern US, southernmost Canada, orangered bill the extreme Southwest, and south into Mexico, northern Guatemala, and northern Belize. **VOICE** Sharp, metallic *tik* call, also bubbly chatters; song a loud, variable, sweet, slurred whistle, tseeew-tsee-ew-whoitwhoit-whoitwhoit-whoit. MALE

Length 8½in (22cm)

Wingspan 12in (30cm)

Family Cardinalidae

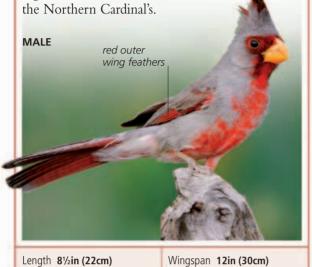
Species Cardinalis sinuatus

Pyrrhuloxia

The "Pyro" is considered to be the Southwest's equivalent of the Northern Cardinal and was once known as the "Arizona Cardinal." Their ranges do overlap, and, although the two birds share very similar habits and vocalizations, they seem to tolerate each other's presence well.

OCCURRENCE Desert scrub of southwest US and Mexico. Where they occur together, prefers drier, more upland habitats than the Northern Cardinal, at elevations up to 6,500ft (2000m).

VOICE Call a distinctive dry, low *chik*, often accelerating into chatter; song generally higher, thinner, and less musical than



Family **Cardinalidae**

Species **Passerina versicolor**

Varied Bunting

It is the only purple-and-red songbird in North America. When seen in good light, males are a rich plum color with ruby-red napes and sparkling, sapphire-blue foreheads and rumps. The female, by contrast, is the dullest member of the Cardinalidae group. A Mexican species with a small US range, it is localized and hard to find. OCCURRENCE Breeds in dense desert scrub in canyons and washes and in thorn forests of southwest US. In winter, most



Length 5½in (14cm)

Wingspan 71/2-8in (19-20cm)

Family Cardinalidae

Species Passerina cyanea

Indigo Bunting

Brilliantly colored, this bird however is not really indigo but rather a vibrant, almost cyan-blue. Only a part of the male's head is colored indigo. Dependent on tree-falls within forests and the grassland-forest edge, they are specialists of disturbed habitats. Human activity has greatly benefited them with a radical increase in suitable habitats for their breeding. OCCURRENCE Breeds in moist disturbed habitats, such as weedy fields, forest edges, and areas of heavy cultivation. Winters in small numbers along the Gulf Coast and in Florida.

VOICE Call a sharp, dry, rattling pik!; flight call a long buzz; song a series of high-pitched "fire!-fire!, where?-where?, there!- indigo there!, put-it-out!"

MALE (BREEDING)

Length 5½in (14cm)

Wingspan 8in (20cm)

Family **Cardinalidae**

Species Passerina ciris

Painted Bunting

With its violet-blue head, red underparts, and vibrant lime-green back, the adult male Painted Bunting is the most brightly-colored bunting in North America. The female is dull yet distinctive as one of the few truly green songbirds of the region. There are two populations that differ in molt pattern. Western birds molt after leaving the breeding grounds, while eastern molt before they depart for the winter.

OCCURRENCE Breeds in dense thickets, and other disturbed areas, across south central US and northern Mexico and along the East Coast. Western birds winter from tropical Mexico to western Panama. VOICE A soft, ringing, upward slurred *pwip!*; flight call slurred, softer, and flatter than Indigo Bunting; song a sweet, relatively clear warble.



Length 5½in (14cm)

Wingspan 8½in (22cm)

COMMON NAME

VAGRANTS & ACCIDENTALS

The LIST THAT FOLLOWS INCLUDES species that occur rarely in western North America (defined in this book as Canada and the continental United States west of the 100th Meridian). These species can reach North America from Eurasia, Central or South America, Africa, and even Oceania, and Antarctica. The US and Canada can receive birds that drift off course, during migration, from eastern Asia across the Pacific Ocean, or from Europe across the Atlantic. Western Alaska has a high concentration of "vagrants" because the southwesternmost tip of the state forms a series of islands, the Aleutians, that

SCIENTIFIC NAME

reach almost all the way across the Bering Sea to the Russian Far East.

The occurrence of "vagrant" species is classified by the American Birding Association, depending on their relative frequency, and this terminology is followed in the "status" column for each species. **Rare** species are reported every year in small numbers. **Casual** visitors have been reported at least a dozen times. **Accidental** species have been recorded no more than five times. However, because of climatological, biological, and other factors, the status of "vagrant" species is constantly changing.

COMMON NAME	SCIENTIFIC NAME	FAMILY NAME	SIAIUS
Waterfowl			
Eurasian Wigeon	Anas penelope	Anatidae	Rare visitor from Eurasia to West Coast
Garganey	Anas querquedula	Anatidae	Rare visitor from Eurasia to the Pribilofs; casual in California
Whooper Swan	Cygnus cygnus	Anatidae	Rare visitor from Eurasia to Aleutians, south to California
Tufted Duck	Aythya fuligula	Anatidae	Rare visitor from Eurasia to Alaska; casual along the West Coast
Smew	Mergellus albellus	Anatidae	Rare visitor from Eurasia to Alaska; casual to California
American Black Duck	Anas rubripes	Anatidae	Introduced to British Columbia and Washington state
Petrels, Shearwaters, and	d Storm-Petrels		
Cook's Petrel	Pterodroma cookii	Procellariidae	Regular visitor from New Zealand off the coast of California
Flesh-footed Shearwater	Puffinus carneipes	Procellariidae	Rare visitor from New Zealand and Australia to California
Wedge-rumped Storm-Petrel	Oceonodroma tethys	Hydrobatidae	Rare visitor to California coast; breeds on Galapagos and islands off Peru
lbises and Herons			
Wood Stork	Mycteria americana	Ciconiidae	Accidental visitor from Mexico to California
Glossy Ibis	Plegadis falcinellus	Threskiornithidae	Casual visitor from the East or Central America to California
Yellow-crowned Night Heron	Nyctanassa violacea	Ardeidae	Casual visitor from Mexico to California
Reddish Egret	Egretta rufescens	Ardeidae	Rare visitor from Mexico to California
Tricolored Heron	Egretta tricolor	Ardeidae	Rare visitor from Mexico to southern California
Little Blue Heron	Egretta caerulea	Ardeidae	Rare visitor from Mexico to West Coast from California to British Columbia
Pelicans and Relatives			
Brown Booby	Sula leucogaster	Sulidae	Rare visitor to southern California
Eagles			
Steller's Sea Eagle	Haliaeetus pelagicus	Accipitridae	Casual visitor from eastern Asia to Alaska
Plovers and Sandpipers			
Common Ringed Plover	Charadrius hiaticula	Charadriidae	Casual visitor from Eurasia to the Aleutian and Pribilof Islands
Lesser Sand Plover/ Mongolian Plover	Charadrius mongolus	Charadriidae	Rare visitor from Asia to West Alaska and Pacific Coast
Wood Sandpiper	Tringa glareola	Scolopacidae	Rare visitor from Eurasia to Alaska and south to California
American Woodcock	Scolopax minor	Scolopacidae	Casual from the East to the West and Southwest
Black-tailed Godwit	Limosa limosa	Scolopacidae	Casual visitor from Eurasia to the Aleutian and Pribilof Islands
Common Sandpiper	Actitis hypoleucos	Scolopacidae	Casual visitor from Eurasia to western Alaska and the Aleutian Islands
Gray-tailed Tattler	Heteroscelus brevipes	Scolopacidae	Rare visitor from Asia to Alaska, southward to California

FAMILY NAME STATUS

COMMON NAME	SCIENTIFIC NAME	FAMILY NAME	STATUS
Red-necked Stint	Calidris ruficollis	Scolopacidae	Rare visitor from Siberia to both coasts in summer and fall
Temminck's Stint	Calidris temminckii	Scolopacidae	Casual visitor from Eurasia to Alaska and Pacific Northwest
Long-toed Stint	Calidris subminuta	Scolopacidae	Rare visitor from Asia to Aleutians, Pribilofs, Pacific Coast to California
Sharp-tailed Sandpiper	Calidris acuminuta	Scolopacidae	Rare visitor from eastern Asia to Alaska and Pacific Coast to California
Curlew Sandpiper	Calidris ferruginea	Scolopacidae	Rare visitor from Eurasia in Alaska and Pacific Coast
Ruff	Philomachus pugnax	Scolopacidae	Rare visitor from Eurasia to Alaska and Pacific Coast
Gulls			
Great Black-backed Gull	Larus marinus	Laridae	Casual visitor from the East to several western states
Laughing Gull	Larus atricilla	Laridae	Rare from Mexico to SouthCalifornia; casual from the East to Colorado and West Texas
Slaty-backed Gull	Larus schistisagus	Laridae	Casual visitor from Asia to Alaska and West Coast
Ivory Gull	Pagophila eburnea	Laridae	Casual visitor from the Arctic to Colorado, California, and British Columbia
Cuckoos			
Common Cuckoo	Cuculus canorus	Cuculidae	Casual from Eurasia to islands off Alaska
Oriental Cuckoo	Cuculus saturatus	Cuculidae	Casual visitor from Asia to Aleutian and Pribilof Islands
Hummingbirds			
Xantus's Hummingbird	Hylocharis xantusii	Trochilidae	Accidental from Baja California to S California and British Columbia
Trogons			
Eared Quetzal	Euptilotis neoxenus	Trogonidae	Casual from Mexico to Southeast Arizona; may be resident
Chickadees			
Gray-headed Chickadee	Poecile cincta	Paridae	Eurasian species resident from northern Alaska to Northwest Yukon
Old World Warblers			
Willow Warbler	Phylloscopus trochilus	Sylviidae	Casual visitor from Eurasia to Alaska
Wrens			
Sinaloa Wren	Thryothorus sinaloa	Troglodytidae	Accidental from Mexico to Arizona
Mockingbirds and Thra	shers		
Blue Mockingbird	Melanotis caerulescens	Mimidae	Casual visitor from Mexico to southeastern Arizona
Pipits			
Olive-backed Pipit	Anthus hodgsoni	Motacillidae	Rare visitor from eastern Asia to Alaska (Aleutians); accidental to California
Finches			
Brambling	Fringilla montifringilla	Fringillidae	Regular visitor to Alaska (Aleutians); casual in West Canada, south to California
Wood-warblers			
Golden-winged Warbler	Vermivora chrysoptera	Parulidae	Casual visitors from the East to many western states
Northern Parula	Parula americana	Parulidae	Rare from the East to the western states to California
Yellow-throated Warbler	Dendoica dominica	Parulidae	Casual visitor from the East to many western states
Prairie Warbler	Dendroica discolor	Parulidae	Casual to rare visitor from the East to California, also other western states
Pine Warbler	Dendroica pinus	Parulidae	Casual visitor from the East to California, also other western states
Louisiana Waterthrush	Seirurus motacilla	Parulidae	Casual to rare visitor from the East to Arizona and California
Hooded Warbler	Wilsonia citrina	Parulidae	Casual to rare visitor from the East to California and southwestern states
Rufous-capped Warbler	Basileuterus rufifrons	Parulidae	Casual visitor from Mexicoto Texas and Arizona
Slate-throated Redstart	Myioborus miniatus	Parulidae	Casual visitor from Mexico to the Southwest

GLOSSARY

Many terms defined here are illustrated in the general introduction (pp.10-21).

adult A fully developed, sexually mature bird. It is in its final plumage, which no longer changes pattern with age and remains the same after yearly molt, although it may change with season. See also immature, juvenile.

aerie The nest of birds of prey, like eagles or peregrine falcons, usually on a cliff, and often used by the same pair of adult birds in

successive years.

alarm call A call made by a bird to signal danger. Alarm calls are often short and urgent in tone, and a few species use different calls to signify the precise nature of the threat. e also call.

allopreening Mutual preening between two birds, the main purpose of which is to reduce the instinctive aggression when birds come into close contact. In the breeding season, allopreening helps to strengthen the pair bond between the male and female. See also preening.

altitudinal migrant see vertical migrant alula A small group of two to six feathers projecting from a bird's "thumb," at the bend of its wing that reduces turbulence when raised.

Audubon, John James (1785–1851) American naturalist and wildlife illustrator, whose best known work was his remarkable collection of prints, Birds of North America.

axillary A term describing feathers at the base of the underwing. Axillary feathers often form small patches, with coloration differing from the rest of the underwing.

barred With marks crossing the body, wing, or tail; the opposite of streaked. *See also* **streaks**.

bastard wing see alula

beak see bill

bill A bird's jaws. A bill is made of bone, with a hornlike outer covering of keratin. **bird of prey** Any of the predatory birds in the

orders Falconiformes (eagles, hawks, falcons, kites, buzzards, ospreys, and vultures) and Strigiformes (owls). They are characterized by their acute eyesight, powerful legs, strongly hooked bill, and sharp talons. These birds, particularly the Falconiformes, are also known as raptors. *See also* **talon, raptor.**

body feather see contour feather

 $\boldsymbol{\mathsf{booming}}\ A$ sound produced by bitterns and some species of grouse. The booming of male bitterns is a deep, resonant, hollow sound that can carry for several miles. The booming of male grouse is produced by wind from air pouches in the sides of the bird's neck.

brackish Containing a mixture of salt-water and freshwater.

breeding plumage A general term for the plumage worn by adult birds when they display and form breeding pairs. It is usually (but not always) worn in the spring and summer. See also nonbreeding plumage

brood (noun) The young birds produced from a single clutch of eggs and incubated together.

See also clutch. (verb) In birds, to sit on nestlings to keep them warm. Brooding is usually carried out by the adult female. See also incubate. **brood parasite** A bird that lays its eggs in the

nest of other birds. Some brood parasites always breed this way, while others do so only occasionally.

brood patch An area of bare skin on the belly of a parent bird, usually the female, that is richly supplied with blood vessels and thus helps keep the eggs warm during incubation. This area loses its feathers in readiness for the breeding season and is fully feathered at other times. **caged-bird** A species of bird commonly kept

call A sound produced by the vocal apparatus of a bird to communicate a variety of messages to other birds. Calls are often highly characteristic of individual species and can help to locate and identify birds in the field. Most bird calls are shorter and simpler than songs. See also alarm call, booming, contact call, song.

casque A bony extension on a bird's head. **cere** A leathery patch of skin that covers the base of a bird's bill. It is found only in a few groups, including birds of prey, pigeons, and parrots.

claw In birds, the nail that prolongs their toes cloaca An opening toward the rear of a bird's belly. It is present in both sexes and is used in reproduction and excretion.

clutch The group of eggs in a single nest,

usually laid by one female and incubated together.

cock A term sometimes used to describe the adult male in gamebirds and songbirds. See also hen.

collar The area around a bird's neck, which in some species is a prominent feature of its plumage pattern and can be used for identification.

color form. One of two or more clearly defined plumage variations found in the same species Also known as a color morph or phase, a color form may be restricted to part of a species's range or occur side by side with other color forms over the entire range. Adults of different color forms are able to interbreed, and these mixed pairings can produce young of either form.

comb A fleshy growth of bare skin usually

above the eye

contact call A call made by a bird to give its location as a means of staying in touch others of the same species. Contact calls are used by birds in flocks and by breeding pairs Contact calls are crucial for nocturnal migrants See also call.

contour feather A general term for any feather that covers the outer surface of a bird, including its wings and tail. Contour feathers are also known as body feathers, and help streamline the bird.

cooperative breeding A breeding system in which a pair of parent birds are helped in raising their young by several other birds, which are often related to them and may be young birds from previous broods.

courtship display Ritualized, showy behavior used in courtship by the male, and sometimes by the female, involving plumage, sound (vocal

and non-vocal), and movements. **covert** A small feather covering the base of a bird's flight feather. Together, coverts form a well-defined feather tract on the wing or at the base of the tail. See also feather tract.

creche A group of young birds of about the same age, produced by different parents but tightly packed together. One or more adults guards the entire creche.

crepuscular Relating to the period just before dawn, when many birds are active, especially during courtship. When used in connection with birds, the term is often used to refer to both dawn and twilight.

crest A group of elongated feathers on top of a bird's head, which may be raised during courtship or to indicate alarm.

crown The area on top of a bird's head. It is often a prominent plumage feature, with a different color from the feathers on the rest of the head.

dabble To feed in shallow water by sieving water and obtain food through comblike filters in the bill; used mostly for ducks (dabbling ducks or dabblers).

decurved A term describing a bird's bill that curves downward from the forehead toward

dimorphism see sexual dimorphism display see courtship display, distraction display, threat display
distraction display A display in which a bird

deliberately attempts to attract a predator's attention in order to lure it away from its nest or nestlings

diurnal Active during the day.
down feather A soft, fluffy feather, lacking the system of barbs of contour or flight feather that provides good insulation. Young birds are covered by down feathers until they molt into their first juvenile plumage. Adult birds have a layer of down feathers under their contour feathers. See also contour feather, juvenile.

drake An adult male duck. The adult female is known as the duck.

drift The diversion of migrating birds from their normal migration route by strong winds.

dynamic soaring see soaring
ear tuft A distinct tuft of feathers on each side of a bird's forehead, with no connection to the true ears, which can be raised as a visual signal. Many owls have ear tufts.

echolocation A method of sensing nearby objects using pulses of high-frequency sound. Echoes bounce back from obstacles, enabling the sender to build up a "picture" of its surroundings.

eclipse plumage A female-like plumage worn in some birds, especially waterfowl, by adult males for a short period after the breeding

season is over. The eclipse plumage helps camouflage them during their molt, when they are flightless.

elevational migrant see vertical migrant endemic A species (or subspecies) native to a particular geographic area—such as an island, a forest patch, a mountain, or state, or country and found nowhere else.

escape An individual bird that has escaped from a zoo or other collection to live in the wild. See also exotic

eye-ring A ring of color, usually narrow and well defined, around the eye of a bird. **eyestripe** A stripe of color running as a line through the eye of a bird.

eyrie see aerie

exotic A bird found in a region from which it is not native. Some of these are escapees, or were originally, but now live as wild birds.

feather tract A well-defined area on a bird's

skin where feathers grow, leaving patches of bare skin inbetween

fledge In young birds, to leave the nest or acquire the first complete set of flight feathers. Known as fledglings, these birds may still remain dependent on their parents for some time. See also flight feather.

fledging period The average time taken by the young of a species to fledge, timed from the moment they hatch. Fledging periods in birds range from 11 days in some small songbirds to as long as 280 days in the Wandering Albatross.

fledgling see fledge **flight feather** A collective term for a bird's wing and tail feathers, used in flight. More specifically, it refers to the largest feathers on the outer part of the wing, the primaries and secondaries.

forewing The front section of a bird's wing, including the primary coverts and secondary coverts. See also **hindwing**.

gamebird Generally, any bird that is legally hunted, including some doves and waterfowl This name is generally used for members of the order Galliformes.

gular sac Also known as a gular pouch, it is a large, fleshy, extendable sac just below the bill of some birds, especially fish-eaters such as

pelicans. It forms part of the throat. **habitat** The geographical and ecological area where a particular organism usually lives. hen A term sometimes used to describe the adult female in gamebirds, especially grouse and songbirds. See also cock.

hindwing The rear section of a bird's spread

wing, including the secondary feathers especially when it has a distinctive color or pattern. See also forewing.

hybrid The offspring produced when two species, sometimes from different genera, interbreed. Hybrids are usually rare in the wild. Among birds, they are most frequent in gamebirds and waterfowl, especially ducks Hybrid progeny may or may not be fertile.

immature In birds, an individual that is not

yet sexually mature or able to breed. Some birds pass through a series of immature plumages over several years before adopting their first adult plumage and sexual maturity. See also adult, juvenile.

incubate In birds, to sit on eggs to keep them warm, allowing the embryo inside to grow. Incubation is often carried out by the female See also brood.

incubation period In birds, the period when a parent incubates its eggs. It may not start until the clutch is completed.

injury feigning see distraction display.

Inner wing The inner part of the wing,
comprising the secondaries and rows of coverts (typically marginal, lesser, median, and greater coverts).

introduced species A species that humans have accidentally or deliberately brought into an area where it does not normally occur.

iridescent plumage Plumage that shows brilliant, luminous colors, which seem to sparkle and change color when seen from

different angles.

irruption A sporadic mass movement of animals outside their normal range. Irruptions are usually short-lived and occur in response to food shortage. Also called irruptive migration. **juvenile** A term referring to the plumage worn by a young bird at the time it makes its first flight and until it begins its first molt. See also adult, immature

keratin A tough but lightweight protein. In

birds, keratin is found in the claws, feathers, and

outer part of the bill. **kleptoparasite** A bird that gets much of its food by stealing it from other birds, usually by following them in flight and forcing them to disgorge their food.

lamellae Delicate, comblike structures on the sides of the bill of some birds used for filtering tiny food particles out of water.

leap-frog migration A pattern of migration in which some populations of a species travel much further than the other populations, by "leap-frogging" over the area where these sedentary (nonmigratory) birds are found. See also migration.

lek An area, often small, used by males as a communal display arena, where they show off special plumage features accompanied by vocal and non-vocal sounds, to attract females Females wait along the lek and select the male or males that they will mate with.

lobed feet Feet with loose, fleshy lobes on the toes, adapted for swimming.

lore A small area between a bird's eye and the

base of its upper bill.

mandible The upper or lower part of a bird's bill, known as the upper or lower mandible respectively.

mantle The loose term used to define the back of a bird, between its neck and rump. migrant A species that regularly moves between geographical areas. Most migrants move on an annual basis between a breeding area and a wintering area. See also partial migrant, sedentary migration A journey to a different region,

following a well-defined route. See also leap-frog

migration, partial migrant, reverse migration, sedentary, vertical migrant.

mobbing A type of defensive behavior in which a group of birds gang up to harass a predator, such as a bird of prey or an owl,

swooping repeatedly to drive it away.

molt In birds, to shed old feathers so that they can be replaced. Molting enables birds to keep their plumage in good condition, change their level of insulation, and change their coloration or markings so that they are ready to breed or display.

monogamous Mating with a single partner, either in a single breeding season or for life. *See* also polygamous.

morph see color form

nape The back of the neck

nestling A young bird still in the nest.

New World The Americas, from Alaska to Cape Horn, including the Caribbean and offshore islands in the Pacific and Atlantic oceans. See also Old World.

nictitating membrane A transparent or semiopaque "third eyelid," which moves sideways across the eye. Waterbirds often use the membrane as an aid to vision when swimming underwater.

nocturnal Active at night.

nomadic Being almost constantly on the move. Birds of deserts, grasslands, and the coniferous forests of the far north are commonly nomadic. nonbreeding plumage The plumage worn by adult birds outside the breeding season. In many species, particularly in temperate regions, it is also known as winter plumage. See also

breeding plumage. nonmigrant see sedentary

nonpasserine Any bird that is not a member of the order Passeriformes (or passerines). *See* also passerine.

oil gland Also called the preen gland, a gland at the base of a bird's tail that secretes oils that are spread over the feathers for waterproofing them during preening.

Old World Europe, Asia, Africa, and Australasia. See also New World.

orbital ring A thin, bare, fleshy ring around the eye, sometimes with a distinctive color. See also eye-ring.

outer wing The outer half of the wing, comprising the primaries, their coverts, and the alula (the "thumb").

partial migrant A species in which some populations migrate while others are sedentary. This situation is common in broadly distributed species that experience a wide range of climatic conditions. See also migration, sedentary.

passerine A bird belonging to the vast order Passeriformes (the passerines). This group contains more species than all other orders of birds combined. Passerines are also called songbirds or perching birds.

See also nonpasserine.

pelagic Relating to the open ocean. Pelagic birds spend most of their life at sea and only come to land to nest.

phase see color form

polygamous Mating with two or more partners during the course of a single breeding season. See also monogamous.

population A group of individual birds of the same species living in a geographically and ecologically circumscribed area.

preening Routine behavior by which birds keep their feathers in good condition. A bird grasps a feather at its base and then "nibbles" upward toward the tip, and repeats the process with different feathers. This helps smooth and clean the plumage. Birds often also smear oil from their preen gland onto their feathers at the same time. See also allopreening.

primary feather One of the large outer wing

"hand." See also secondary feathers.
race see subspecies

range A term to indicate the geographical distribution of a species or population raptor A general name for birds belonging to the order Falconiformes, often used interchangeablely with bird of prey.

See also bird of prey.

ratite A member of an ancient group of flightless birds that includes the ostrich. cassowaries, emus, rheas, and kiwis. In the past, the group was larger and more diverse.

resident see sedentary reverse migration A phenomenon that occurs when birds from a migratory species mistakenly travel in the opposite direction from normal, causing birds to turn up in places far outside

their normal range. See also migration.

roost A place where birds sleep, either at night

rump The area between a bird's back and the base of its upper tail coverts. In many species, the rump is a different color from the rest of the plumage and can be a useful diagnostic character for identification.

sally A feeding technique (sallying), used especially by tyrant flycatchers, in which a bird makes a short flight from a perch to catch an insect, often in midair, followed by a return to a perch, often the same one.

salt gland A gland located in a depression of the skull, just above the eye of some birds, particularly seabirds. This enables them to extract the fluids they need from saltwater and then expel the excess salts through the nostrils. scapular Any one of a group of feathers on the "shoulder," forming a more or less oval patch on each side of the back, at the base of the wing.

scrape A simple nest that consists of a shallow depression in the ground, which may be unlined or lined with material such as feathers,

bits of grass, or pebbles. **secondary feather** One of the row of long, stiff feathers along the rear edge of a bird's wing, between the body and the primary feathers at the wingtip. See also primary feather.

sedentary Having a settled lifestyle that involves little or no geographic movement. Sedentary birds are also said to be resident or

nonmigratory. See also migration.

semipalmated The condition in which two or more of the toes are partially joined by an

incomplete membrane at their base.

sexual dimorphism The occurrence of physical differences between males and females. In birds, the most common differences are in size and

shorebird Also known as a wader, any member of several families in the order Charadriiformes, including plovers, sandpipers, godwits, snipe avocets, stilts, oystercatchers, and curlews. Not all species actually wade in water and some live in dry habitats.

soaring In birds, flight without flapping of the wings. A soaring bird stays at the same height or gains height. Updraft soaring is a type of soaring in which a bird benefits from rising currents that form at cliffs or along mountain ridges. Seabirds are expert at dynamic soaring, repeatedly diving into the troughs between waves and then using the rising air deflected off the waves to wheel back up into the air.

song A vocal performance by a bird, usually the adult male, to attract and impress a potential mate, advertise ownership of a territory, or drive away rival birds. Songs are often highly characteristic of individual species and can be a major aid in locating and identifying birds in the field. See also call.

songbird A general term used to describe a member of the suborder Passeri (or oscines), a subdivision of the largest order of birds, the

Passeriformes (passerines).

species A group of similar organisms that are capable of breeding among themselves in the wild and producing fertile offspring that resemble themselves, but that do not interbreed in the wild with individuals of another similar group, are called a species. See also subspecies superspecies.

speculum A colorful patch on the wing of a duck, formed by the secondary feathers. See also secondary feather.

spur A sharply pointed, clawlike structure at the back of the leg of some birds, like the Wild Turkey.

staging ground A stopover area where migrant birds regularly pause while on migration, to rest and feed.

stoop A near-vertical and often very fast dive made by falcons and some other birds of prey when chasing prey in the air or on the ground. **streaks** Marks that run lengthwise on feathers;

opposite of bars. **subspecies** When species show geographical variation in color, voice, or other characters, these differentiated populations are recognized by ornithologists as subspecies (formerly also

called races). See also species.
superspecies Closely related species that have different geographical ranges. See also species syrinx A modified section of a bird's trachea (windpipe), equivalent to the voicebox in humans, that enables birds to call and sing. **talon** One of the sharp, hooked claws of a

bird of prey.

territory An area that is defended by an animal, or a group of animals, against other members of the same species. Territories often include useful resources, such as good breeding sites or feeding

areas, which help a male attract a mate.

tertial Any one of a small group of feathers sometimes long and obvious, at the base of the

wing adjacent to the inner secondaries. **thermal** A rising bubble or column of warm air over land that soaring birds can use to gain height with little effort. See also soaring.

threat display A form of defense in which a bird adopts certain postures, sometimes accompanied by loud calls, to drive away a rival or a potential predator.

trachea The breathing tube in animals, also known as the windpipe.

tubenose A general term used to describe members of the order Procellariiformes, including albatrosses, petrels, and shearwaters; their nostrils form two tubes on the upper mandible.

underwing The underside of a bird's wing usually visible only in flight or when a bird is

preening, displaying, or swimming. **upperwing** The upper surface of a bird's wing clearly exposed in flight but often mostly

hidden when the bird is perched.

vagrant A bird that has strayed far from its normal range. Usually, vagrants are long-distance migrants that have been blown off course by storms, have overshot their intended destination due to strong winds, or have become disoriented.

vent Also called the crissum, the undertail feathers between the lower belly feathers and tail feathers, which in some species are differently colored from either belly or tail feathers. Can be helpful in identification.

vertical migrant A species that migrates up and down mountains, usually in response to changes in the weather or food supply. See also migration. wader see shorebird.

waterfowl A collective term for members of the family Anatidae, including ducks, geese, and swans

wattle A bare, fleshy growth that hangs loosely below the bill in some birds. It is often brightly colored, and may play a part in courtship. wildfowl see waterfowl

Wilson, Alexander (1766-1813) A

contemporary of J.J. Audubon, Wilson's seminal American Ornithology marks the start of scientific ornithology in the US.

wingbar A line or bar of color across the upper surface of a bird's wing. Wingbars can often be seen when a bird is on the ground or perched and its wings are in the closed position, but they are normally much more obvious in flight. Wingbars may be single or in groups of two or more wingspan The distance across a bird's outstretched wings and back, from one wingtip

to the other.

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