

A Field Guide to

100

BIRDS

of Heron's Head

ISLAIS CREEK TO CANDLESTICK POINT • SAN FRANCISCO



BARTLEY • CHAMBERS • HOPKINS • WEEDEN • ZLATUNICH

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• SAN FRANCISCO •

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FOREWORD BY MALCOLM MARGOLIN
INTRODUCTION BY ARTHUR FEINSTEIN

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"At Heron's Head Park, located on the city's southern bay-shore, people can enjoy a vital part of our ecosystem minutes from the urban center. Walking on the trail out to the tip of Heron's Head for an undisturbed view of the bay or bicycling along the Blue Greenway, you really appreciate the importance of creating and maintaining a livable city. I encourage you to enjoy and support this valuable resource."

—Mayor Gavin Newsom

"I worked with the community to close PG&E's old and polluting Hunters Point Power Plant next to this park. The plant was decommissioned and the land is to be remediated. Now there's an opportunity for Bayview, Hunters Point and Potrero Hill residents as well as other San Franciscans to enjoy nature along the bay. Changes are ahead in terms of development planned in the area, and we need to work to retain the beneficial aspects of our neighborhoods. We need to continue to work to revitalize the community."

—Supervisor Sophie Maxwell



LEF Foundation

POTRERO NUEVO



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EDITOR'S PREFACE

This field guide to *100 Birds of Heron's Head* is an introduction to birding along San Francisco's southern bay waterfront, stretching from Islais Creek and India Basin down to Candlestick Point at the southeast tip of the city—and focused on a remarkable tract of wetlands known as Heron's Head Park (see map, back page). The guide is intended to spur interest in both birding and conservation among students and local residents and also to serve as a handy, manageable guide to birders of all ages.

Included within these pages are the 100 birds you are most likely to see in the area. Certainly other wayward stragglers will appear from time to time, and populations inevitably change somewhat over the years and decades, but the authors—Eddie Bartley, Alan Hopkins, Noreen Weeden and Matt Zlatunich—are confident that if you spot a bird at Pier 94 or Heron's Head or Hunters Point or Candlestick Point, you'll be able to track it down here and perhaps learn something about the bird you didn't know before. Of course it's not a bad idea to have a more comprehensive guide such as the *Sibley Guide to Birds* around (especially for birds with highly variable plumage), but just try sticking that brick in your back pocket.

You're probably better off anyway strolling out the main path toward the tip of Heron's Head unencumbered. When you get to the end, you feel like you've walked right out of the city and into the heart of the bay. Yes, there are factories to the left of you, the awakening ghost town of the Hunters Point Shipyard to the south, a bridge or two, cold hot glistening windows in the sprawling East Bay in the late afternoon, but the presence of these things is far away—muffled, half-asleep—and insignificant compared to the immediate pleasures of a crisp bay breeze, alternating whiffs of fennel and decaying seaweed, a crunchy path and a dazzling theater of flying creatures you come to know better, and appreciate more, each trip out.



© Charles C. Benton: main path, tip of Heron's Head Park, facing east, February 2006.

ACKNOWLEDGMENTS

Many people have contributed their time and expertise on this project. We'd first like to thank two longtime respected conservationists in the Bay Area, Arthur Feinstein and Malcolm Margolin, for their insights and written contributions. We also thank the following individuals for their additional research and kind oversight: from Golden Gate Audubon,

Elizabeth Murdock, executive director, and Judith Dunham, publications chairperson; from Golden Gate Raptor Observatory, Allen Fish, director, and Siobhan Ruck, volunteer; and from the Hungry Owl Project, Alex Godbe, program director. For their invaluable help on design and production we thank Laurie Anderson and Robin Bullard, as well as Steve Brooks and Cindy Peterson at marketing agency Eleven Inc., and we thank Ben Pease for permission to use his well-situated map.

PHOTOGRAPHERS. Eddie Bartley is principal photographer on this guide. Co-authors Alan Hopkins and Noreen Weeden have chipped in additional key images. And other talented photographers have made crucial contributions to fill in the gaps. We thank Cris Benton, David Jesus, Lee Karney, Bob Lewis, Glenn Nevill, Jeff Poklen and Mike Yip for their generosity. Individual photo credits for all photographers other than Eddie, along with contact information, are provided on page 69.

SPECIAL MENTION. We must also recognize three friends (among many others) who help the conservation community in so many ways: naturalist and educator Jack Laws from the California Academy of Sciences; professor Crima Pogge from the biology department at City College of San Francisco; and the Port of San Francisco's regulatory and environmental affairs manager, Carol Bach. They each have an impact on our community greater than they may know. And finally, we thank the Port, the LEF Foundation and the Potrero Nuevo Fund for their gracious and timely financial support for the printing of this guide.

—Mark Chambers, editor



© Charles C. Benton: marsh area of Heron's Head Park, facing Hunters Point Shipyard, February 2006.

FOREWORD

Each fall, hundreds of thousands of geese and ducks make their way south from Canada, Alaska, even Siberia, drawn by memory or instinct along the ancient routes of the Pacific Flyway. Honking, quacking, squawking, squalling, they settle into the marshes and mudflats of San Francisco Bay. Their presence on these shores long predates the arrival of humans. When the first Indians stepped into this land, they found it teeming with bird life, and they must have rejoiced in such blessed abundance.

The variety and number of birds astounded the first European explorers. Geese, according to an early Franciscan missionary, Father Juan Crespi, were “uncountable.” Their numbers, in the words of another visitor, “would hardly be credited by anyone who had not seen them covering whole acres of ground or rising in myriads with a clang that could be heard a considerable distance.” Flights of ducks and geese darkened the sky, and when alarmed they were said to rise up “in a dense cloud with a noise like that of a hurricane.” Great coveys of quail scurried through the brush, flickers looped between oaks, hawks hovered and swooped. The air was alive with flight, song and multiple forms of beauty.



Birds loomed large in the lives and imaginations of the Ohlone Indians who lived along these shores. Eagle and Hummingbird, along with Coyote, were ancient divinities who created the world as we know it. The Indians hunted birds for food, but also for feathers. In a landscape deficient in color, the glistening feathers of mallards and the red crests of woodpeckers dazzled the eye and decorated their baskets. Feathers of hawks, eagles and condors bestowed power to those who wove them into their dance regalia.

Human culture has changed in the past two centuries, and while the bird life of the area has been diminished, in some ways it is remarkably constant, still a vibrant part of our world, still capable of delighting the spirit and refreshing the souls of those who take the time to observe birds closely.

—Malcolm Margolin
Author, *The Ohlone Way*, and publisher, Heyday Books

INTRODUCTION

WELCOME TO HERON'S HEAD PARK

A dense flock of several hundred Western Sandpipers skims over the surface of India Basin, flows over a rock outcropping as if a liquid current and suddenly changes direction, turning a startling white (their bellies) and then brown (their backs) as the flock turns in a tighter formation than the Blue Angels.

Well, you don't need binoculars and a field guide to appreciate what you have just seen, but you might not even have seen this wonderful display if you weren't out at Heron's Head with your eyes wide open. And that's the wonder and benefit of birding.

It encourages you to look more intently at your surroundings, it makes you a little more aware of the natural environment and it rewards you with exquisite sights and experiences that other people in the same place might not notice.

Of course, as you bird and read your field guides, you learn more about the biology and identification of birds and about the habitats that sustain them. You come to understand more about migration and ecology. But especially you gain the opportunity for intimate experiences with nature that reassure you that there is a larger world out there that we humans are just a part of and get a glimpse of how complex and amazing that world is.

LOST WETLANDS. It's been estimated that since the 1850 California Gold Rush, over 85% of San Francisco Bay's historic wetlands and adjacent upland habitats has been developed for industry, farming, homes or recreational use. (Yes, if you think housing is tight for humans, it might be even worse for our feathered friends.) With a million shorebirds and over 500,000 waterfowl, not to mention waders such as egrets and herons and other diving birds such as grebes and loons, the bay can become pretty crowded for these migratory creatures. Migratory birds eat a lot, so every day they look for a nice mudflat filled with scrumptious invertebrates or shallow water where they dive for fish and clams. In between meals they search out quiet water in which to roost and relax or an isolated upland area undisturbed by people or dogs, cats or other land predators. For our year-round birds a secluded upland area adjacent to the bay for laying eggs and raising fledglings is essential.

In the late 1980s and early 1990s, the larger community began to understand just how detrimental the effects of the reduction in and degradation of wetlands were. Scientist Fred Nichols of the U.S. Geological Survey,



among others, acknowledged that San Francisco Bay had been altered more by mankind than any other estuary in the United States and that these changes were clearly unhealthy for fish, wildlife and human populations. How amazing that in the environmentally conscious Bay Area, in 1992, of the 150 or so species of fish and wildlife directly supported by the bay, 61 were designated by state or federal agencies as being in trouble, many listed as "threatened" or "endangered" under state and federal Endangered Species Act guidelines ("State of the Estuary," San Francisco Estuary Project).

RESTORING WETLANDS. When people finally began to recognize the sad state of the bay, state and federal agencies along with local conservation organizations such as the local Audubon Society chapters (eight around the Bay Area) and the Sierra Club began looking for answers. It became clear that one of the best ways to restore bay health was to bring back as many of the lost tidal wetlands (both mudflats and marshes) as possible. As mentioned, tidal mudflats are rich in worms, insects, crustaceans and other foodstuffs, and tidal marshes (wetlands covered by vegetation) provide the base of the aquatic food web. When marsh vegetation dies and decays, it provides food for the invertebrates and crustaceans that in turn are eaten by birds and fish, and the fish are then eaten by birds and other species—and presto! a food web. Tidal wetlands also remove contaminants from the water, help moderate the climate and aid in flood control. (Hurricane Katrina would have been a lot less devastating if the Gulf Coast wetlands had been preserved.) In sum, tidal wetlands are great things to have in an estuary like San Francisco Bay.

Wetlands are low-lying areas that are very flat, which means that they can easily be filled with dirt for the purpose of farming or development. They can also be surrounded with earthen dikes and dried up—the South Bay salt ponds were created in this manner. And because these areas are so easily exploited, they now require constant vigilance from people who care about their survival.



The Clean Water Act, passed in 1972, helped slow the loss of wetlands. As a result, while wetland destruction still takes place, it does so at a much slower rate. As we as a society have gained a greater appreciation of wetlands, we have begun the process of restoring or re-creating the wetlands we once destroyed.

Unfortunately, restoring wetlands is often expensive, requiring a lot of earth moving, since the restoration generally involves removing the dirt put on top of them so that they can be submerged by water once again. Often it requires the opening up of surrounding dikes so that the historic wetlands are once more connected to the bay. The recognition that wetlands are a critical part of our environment has helped convince our political and agency leaders that wetland restoration is a good thing, and the

public has validated this by passing several bond measures that have provided significant funds for wetland restoration. Private philanthropy has also played a large role in providing restoration funding. The Crissy Field Wetland and the South Bay Salt Pond Restoration Project are wonderful examples of public/private cooperative efforts.

PLANS FOR THE NEW CENTURY. In 2001 a document called the “Baylands Ecosystem Habitat Goals” was generated by 100 scientists under the auspices of state and federal resource agencies, creating a road map for restoring 100,000 acres of tidal wetlands around San Francisco Bay. This product of several years of study and detailed effort is guiding wetland restoration projects into the future. The San Francisco Bay Joint Venture, for example, a collaboration of government agencies, nonprofit organizations and businesses dedicated to restoring wetlands and migratory bird habitat, developed a detailed implementation plan for the estuary based on the “Goals” document, and today almost 60,000 acres of tidal marsh have either been restored or are in the process of being restored in San Francisco Bay.



In addition, in the South Bay, many thousands of salt pond acres have been opened to the bay for the first time in decades, and over 16,000 acres of salt ponds are slated to be restored to tidal marsh habitat over the next 50 years. In the North Bay, 20,000 to 25,000 acres of wetland restoration are currently in the planning stages.

At just 25 acres, Heron’s Head Park may seem insignificant compared to these massive projects, but it is not. Every wetland restoration project is significant, and in the Central Bay, where large undeveloped acres of shoreline simply don’t exist, any wetland restoration is hugely important. For in these areas shorebirds, ducks and waders move back and forth from one small wetland to another as part of their daily feeding and resting routine. Also, as each wetland has its own unique characteristics, a greater diversity of waterbird species is encouraged. For example, a wetland that includes a bit of rocky shoreline can provide a home for Black Oystercatchers—a relatively rare species of shorebird with a sturdy red bill designed to open oyster shells. An extensive mudflat will attract more shorebirds, and a deeper shoreline may attract diving ducks. Thus, each small wetland adds to the biodiversity of the San Francisco Bay, creating a healthier and, for us, more intriguing shoreline.

You can see all this for yourself as you view the shorebirds, waterfowl and other bird species in Heron’s Head Park and the surrounding area. Countless individuals and organizations are pulling together to bring life back to San Francisco Bay, and Heron’s Head Park and these people who care for it are all playing their part.

—Arthur Feinstein
Former Executive Director, Golden Gate Audubon

SPECIES IDENTIFICATION

HOW TO IDENTIFY A BIRD

BECOMING A BIRD DETECTIVE

Identifying birds is like being a detective: you need to make careful observations and apply all the facts gathered to make the correct deduction. To determine any bird's identity, you must look for clues, what birders call "field marks." Field marks are the parts of a bird's appearance that help separate it from similar species. If, say, the bird you are looking at is black and white and has very long reddish legs, you can deduce that the bird is a male Black-necked Stilt. Case solved—no other black-and-white bird has long reddish legs. Unfortunately, few birds are as easy to identify as the stilt. It frequently takes a combination of field marks to unlock a bird's identity.



PLUMAGE. The most obvious field marks of a bird involve its feathers. Knowing the names of the different feathers and understanding how they are arranged is of great importance in identifying a bird. Take a few moments to review

"Parts of a Passerine" on page 3 (passerines are perching birds). Note also that some species are *dimorphic*—the males look different from the females (e.g., for orioles, finches and especially ducks—for which we have included photos of both genders). Other species such as shorebirds, warblers and sparrows change their appearance seasonally through *molt*: many have a dull basic plumage and a more colorful breeding plumage. Just remember that some birds like the Spotted Sandpiper and Black-bellied Plover are named for their breeding plumage, but we rarely see them here in the plumage their name describes.

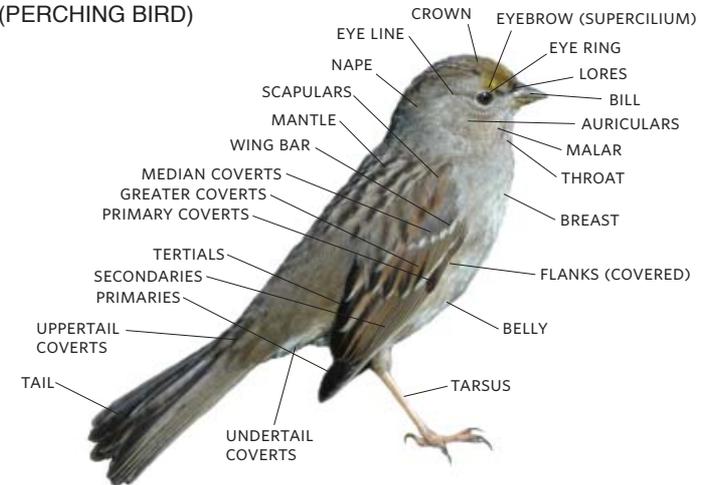
Many birds, just after they have fledged from the nest, have a distinctive juvenile plumage. Most juvenile birds molt into adult-looking plumage within a year, but for some, like gulls, it takes several years to develop complete adult plumage. Diet, age and feather wear can also change a bird's appearance. The photographs in this guide are of male birds in the plumage most commonly seen in San Francisco, unless noted otherwise.



SIZE AND SHAPE. A lot of birds have brown or gray or black feathers. A bird detective therefore also needs to ask: What shape is the bill? How long are the legs? Are the feet webbed? How long are the neck and tail? Once you have a good look at the bird's structure, you may be able to match it

to one of the silhouetted icons located at the lower-right corner of pages in the species identification section of this guide. Then you can begin your search in that bird group. Be aware that a bird's posture can change depending whether it is resting or alert. In addition, note that most birds are the size of adults by the time they leave the nest; birds that look similar but are of greatly differing size are probably different species.

PARTS OF A PASSERINE (PERCHING BIRD)



AURICULARS: feathers on the side of the head including ear openings; aka "ear coverts"

AXILLARIES (*not shown*): "wingpit" feathers

COVERTS: small feathers covering base of upper/lower tail and wing

CROWN: upper part of the head

EYE RING: several rows of tiny feathers encircling the eye in some species

EYEBROW: distinct feathers above eye in some species; aka "supercilium"

FLANK: side of body above belly and below wings

LORES: feathers between base of bill and eyes

MALAR: feathers between base of lower bill and breast, not including throat

MANTLE: feathers in center of back—on bird at rest, inner wing feathers

PRIMARIES: outer wing flight feathers

SCAPULARS: feathers between mantle and wing coverts

SECONDARIES: inner wing flight feathers

TARSUS: lower leg above toes

TERTIALS: flight feathers of wing attached to upper arm, closest to body

WING BAR: light-colored tips of upper wing coverts forming narrow bar on folded wing

For a full, detailed glossary of birding terms, see pages 76–77.

HABITAT. Birdwatchers can gain important information about a bird by considering the habitat in which it's located. Some species, like starlings, are generalists and can be found in a number of habitats. Others, like loons, are habitat *obligates*, which means that they can be found only in one kind of habitat; for loons it's water. At Heron's Head Park you might see a bird that is black with a white belly, a short black bill and dark legs. If the bird is walking along the water's edge, it's a Black Turnstone, but if it's perched on a tree stump, it's probably a Black Phoebe.

BEHAVIOR. You can gain clues to a bird's identity by watching its behavior. Our Black Turnstone walks along the water's edge picking food off the ground, while the Black Phoebe flies off its perch to catch flying insects.



Some species' behavior is so unique that they can be identified by behavior alone: no other shorebird flies with the shallow swift wingbeats of the Spotted Sandpiper, so when seen in flight it can be identified without visible field marks.

VOICE. Most bird species have their own unique call and song. Calls are given as a means to relay location, warning of a predator and other bits of information. Songs are groups of notes or phrases grouped together that follow the same pattern

whenever vocalized. The male uses songs for courtship and to establish territory. Birds we call songbirds are all passerines (see page 51), but not all songbirds have songs. Other birds' calls sometimes have the same function as songs—for example, the Common Loon's wailing *whe-oo quee* and the Mourning Dove's *ooAAH coo coo coo*.

ABUNDANCE AND SEASONAL STATUS. An abundance and seasonal status chart is included with each species description in this guide to help you determine your chances of seeing a particular species at a particular time. For example, if you have narrowed down your identification selection to either a Thayer's Gull or the very similar-looking Western Gull and it's July, you can see by the chart that Thayer's Gulls are not here in July—they're off breeding in the Canadian Arctic—and confidently go with the Western.

Now when you spot a bird you don't recognize, you know to study its plumage, structure, size, habitat, behavior, voice, abundance and seasonal status, all of which will give you clues for determining its ID. Next you need to know just how to read a species description in this guide, along with its photograph, to seal the case.



A NOTE ON TAXONOMY: THE ORDER OF SPECIES. In this guide we have generally adhered to the order promoted by the American Ornithological Union.

HOW TO READ A SPECIES DESCRIPTION

SEASON → RELATIVE ABUNDANCE

ENDANGERED STATUS → BREEDING SEASON SF BAY

LENGTH → L: 16" (W: 41")

WINGSPAN → WS: 41"

SEXUAL DIMORPHISM → Q > ♂

GENUS/SPECIES → PEREGRINE FALCON
Falco peregrinus

IDENTIFICATION (NONBREEDING) → ID: large, powerful, very fast; long pointed wings, slate-gray above, pale below, with finely barred belly; distinct, wide, dark mustachial stripe below eye, black cap; long, thin gray/white banded tail; northwest darker, Arctic pattern.

BREEDING PLUMAGE → BP: none. JUV: dark brown cap, mustache, upper parts; streaked underparts.

JUVENILE → HABITS: usually hunts mid-air, delivering a stunning blow with long toes and talons, often diving to snatch tumbling prey.

CALL/SONG → CALL: harsh kleh kleh kleh.

SIMILAR SPECIES → SIMILAR: Merlin falcon is much smaller.



© Glenn Nevill

***Note:** Standard identification description is for the adult male (♂). Unless a separate description is provided for the female (♀), identification (ID) is for adults of both genders in their nonbreeding plumage.

BREEDING PLUMAGE: indicated when significantly different from basic plumage

BREEDING SEASON SF BAY: indicated for species known to breed in SF Bay Area

CALL: sound emitted to relay information such as a predator warning

ENDANGERED STATUS: based on American Bird Conservancy Green List: **high concern / declining / small population**; pop. figures for N. America only

LENGTH: from tip of bill to tip of tail

GENUS: group of species more genetically related to one another than to any other group

JUVENILE: plumage characteristics of bird in first year

RELATIVE ABUNDANCE: brown area indicates relative local population by season, from rare (lowest) to abundant (highest), intended to indicate likelihood of spotting the species relative to other species (not total numbers)

SEXUAL DIMORPHISM: indicated if one gender is larger than the other; in this case, the female (♀) is larger (>) than the male (♂)

SIMILAR SPECIES: species most often mistaken for the subject species

SONG: group of notes or phrases following a distinct repeated pattern

This order is based on evolutionary development, from waterfowl to the more advanced passerines. However, new discoveries continually require reordering. Plus, not all birds have easy-to-recognize evolutionary relationships, and many species defy casual categorization. Superficial similarities such as the shape of the bill, wings or feet have often evolved due to environmental conditions rather than common ancestry. Just because a bird has long legs and wades in the water doesn't necessarily mean that it is closely related to another bird that has those same physical characteristics.

WATERFOWL

Commonly referred to as waterfowl, the diverse family Anatidae includes geese, swans, “dabbling” ducks, and “diving” ducks. All live in aquatic habitat and have completely webbed feet for swimming. Typically each has a large head with a large, flattened bill resting on a long neck, a heavy body with relatively long wings and a short tail. In a process known as *resource partitioning*, each of these closely related species has evolved to take advantage of niche food resources in many habitats—thereby minimizing competition between the species for food.

Throughout history, waterfowl have been used as a food source for humans more than any other group of birds. For this reason, as well as the reduction of quality wetlands, waterfowl populations have in general and sometimes dramatically declined over the years, and many species are now considered threatened or endangered. Others, such as Mallards and some subspecies of Canada Geese have benefited greatly from human-caused introductions and habitat changes.



GEESE. Typically large and long-necked, geese tend to graze or

tip up while feeding on vegetation. Legs positioned centrally under a horizontally held body facilitate running and walking, as geese often forage on dry land. The now familiar loud honking calls of resident Canada Geese were nearly silenced by overhunting in the late 19th and early 20th centuries. A government-led recovery effort brought the subspecies *maxima* back from the brink of extinction. However, due to the explosion of modern housing and commercial development that favors lawn and golf courses with water features, these birds are now considered overpopulated and a general nuisance in those same locations.

DABBLING DUCKS normally feed by tipping forward, or surface feed by “dabbling” their bill—straining food from shallow water. All have the ability to lift off in flight from the water without running to gain momentum. As members of the subfamily Anatinae, they are considered to be “true” ducks and are dominated by species that show conspicuous *sexual dichromatism* (plumage coloration differences between genders). Seasonally, males are often brightly colored, while females are mottled brown, perhaps to better camouflage them during the incubation period on the nest.



DIVING DUCKS primarily make their living by submerging for food such as mollusks, fish, aquatic insects and vegetation. Agile and graceful when swimming or diving underwater, these heavy-bodied, relatively smaller-winged ducks with large webbed feet and short legs located far back on the body may seem awkward when attempting take-off. To get airborne they must run along the water’s surface due to their high wing-load.



RAILS. What looks like a duck, swims like a duck, associates with other ducks, but is not a duck? That would be the American Coot. Due to its physical similarity with ducks, we have included it in this section for easy reference. Actually it is the only member of the rail family that currently populates this area, but hopefully the endangered California Clapper Rail and perhaps Virginia Rail and Sora will someday reinhabit this portion of San Francisco Bay.



L: 25–45" ws: 43–60" ♂>♀

CANADA GOOSE

Branta canadensis



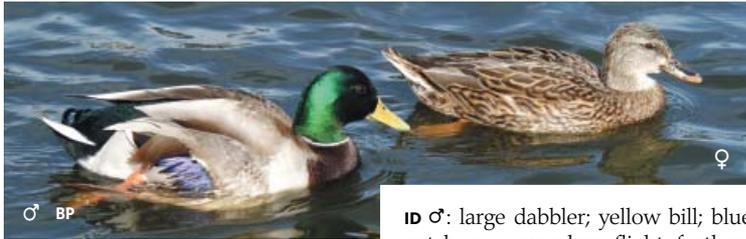
ID: large, long-necked goose; black head, neck, bill, eyes, legs; white “chinstrap” extends past cheek; light tan breast and belly; brown back, upper wings, flanks; white upper- and undertail coverts, black tail. In general, northern subspecies is smaller, western darker. **HABITS:** ♂ (gander) becomes aggressive if nesting territory threatened; migrating flock in classic V formation often heard before seen. **VOICE:** loud honking. **SIMILAR:** Cackling Goose is smaller, with shorter bill; Brant is smaller, lacks chinstrap.

Giant Canada Goose (*B. canadensis maxima*), nearly hunted to extinction in 1920s, has made full recovery. Eats grasses, grains, berries, some invertebrates. Builds vegetation mound nest. Breeds north to Alaska, east to Greenland, south to south-central U.S.; winters south to northern Mexico.





L: 23" ws: 35" ♂>♀

MALLARD*Anas platyrhynchos*

ID ♂: large dabbler; yellow bill; blue patch on secondary flight feathers and silvery wing linings; orange legs. ♀: mottled brown (like nonbreeding ♂), orange/black bill. **BP** ♂: iridescent green head; white neck ring; rusty chest, gray flanks, upper wing coverts. **JUV**: similar to adult ♀. **HABITS**: often in "bottoms up" posture foraging in shallow water. **VOICE**: traditional *quack*. **SIMILAR** (except for breeding ♂): Gadwall lacks blue patch, has gray bill and white belly patch.

Ancestor of almost all domestic ducks. Builds nest of matted grasses/rushes near water. Breeds locally at Pine Lake, Lake Merced and Golden Gate Park, north to Alaska, east to southern Greenland, south to southern U.S.; winters south to northern Mexico.

AMERICAN WIGEON*Anas americana*

L: 20" ws: 32" ♂>♀



ID: midsized dabbler; pale blue bill with black border; pointed tail, distinctive white wing coverts shown in flight. Nonbreeding ♂/♀: grayish head with dusky eye patch; mottled rusty back, orange flanks. **BP** ♂: buffy crown, green face patch, gray lower face and neck; pinkish brown back, orange breast and flanks, white patch at flank rear, black rear end. **HABITS**: may leave water to graze on field vegetation but rarely consumes grain. **VOICE**: ♂ whistles 2 notes. **SIMILAR**: Eurasian Wigeon, except adult ♂ in breeding plumage, which has dark rusty head and pale gray body (see p. 13).

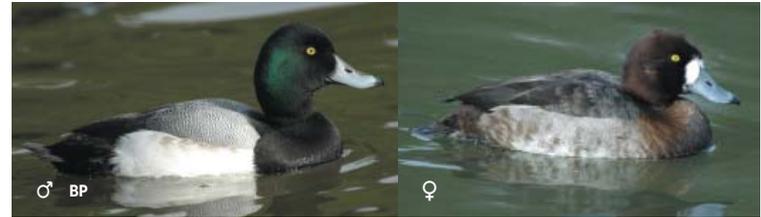
When young are disturbed, ♀ often feigns injury while they scatter and hide. Eats plant matter, some invertebrates. Builds nest of dry grasses, often far from water. Breeds north to Alaska, east to Quebec, south to northern California/Nevada; winters east to New England, north to BC, south to Mexico.

GREATER SCAUP*Aythya marila*

L: 18" ws: 28" ♂>♀



ID: midsized diver; rounded head, blue-gray bill with black tip, yellow eyes; white secondaries and inner primaries with dark tips seen in flight. ♀: dark brown body; white band at base of bill; brown-yellow eyes. **BP** ♂ (F–Su): dark, glossy green head; black chest and rear end, pale gray back, whitish flanks. **HABITS**: strong fast flyer travels in compact formations. **SIMILAR**: slightly smaller Lesser Scaup (see below) has slightly peaked crown; Ruddy Duck.



Aka Bluebill. ♀s often tend and defend broods cooperatively. ♀ builds nest in a depression lined with breast down, supported by dead marsh grass, usually near water. Range: circumpolar across Eurasia and N. America (Alaska/northern Canada); winters along W. Coast south to Baja, E. Coast to northern Florida, rarely inland.



L: 16.5" ws: 25" ♂>♀

LESSER SCAUP*Aythya affinis*

ID: Except for the wing marks, a shorter white wing stripe and a slight peak on the head, Lesser Scaup is nearly identical to Greater Scaup (above). **HABITS**: forms large flocks in winter, usually on fresh water; occasionally feeds at night.



Aka Bluebill. Confined to the Americas (unlike Greater Scaup), Lesser Scaup is an uncommon yet regular visitor to Hawaii. Both Lesser and Greater Scaup have shifted migration routes slightly in recent years to take advantage of non-native zebra mussels invading Great Lakes. Along with habitat degradation and hunting pressures, this may explain a dramatic decrease in their midwestern populations. Nearly complete habitat overlap with Greater Scaup but prefers fresh water. Breeds from Alaska to Colorado; winters along both Pacific and Atlantic coasts south to northern S. America.





L: 13.5" ws: 21" ♂>♀

BUFFLEHEAD*Bucephala albeola*

ID: small diver; dark round head with white side patch, small dark-gray bill, brown eyes. **BP** ♂: dark, glossy green-purple head (white patch extends to back), dark back, white body. ♀: dusky gray body, white wing patch, oval white patch behind eye.

HABITS: small flock dives for food in shallow water—one bird stays on top as lookout; swallows food underwater.

VOICE: usually silent. **SIMILAR:** ♂ Ruddy Duck has larger cheek patch. Larger Common and Barrow's Goldeneye ♂ has white patch in front of eye and ♀ has no white on face.



Eats aquatic invertebrates/mollusks, fish in winter. Unusually monogamous (for a duck). Nests in tree cavities; breeds in Alaska and Canada (east to Quebec), into northern U.S.; winters south to Central America.

COMMON GOLDENEYE*Bucephala clangula*

L: 18.5" ws: 26" ♂>♀



ID: cold-hardy diver; large, peaked dark head; small, gray-black bill, yellow eyes; white secondaries/secondary coverts seen in flight. **BP** ♂: dark, glossy green head, white neck, oval patch at base of bill; dark back, wings, tail; white breast, belly, flanks; black striping on white scapulars. ♀: chestnut brown head, yellow-tipped bill; gray body with two bars on white wing patch. **JUV:** brown eyes.

HABITS: one of last ducks to migrate south in winter. **VOICE:** ♀ *are, are*; ♂ whistle.

SIMILAR: Barrow's Goldeneye has steeper-sloping forehead and smaller bill.

Nicknamed "the whistler" for sound of rapid wing-beating in flight. Nests near water in



tree cavity; lays 30+ eggs. Breeds in boreal forest, Alaska to northern U.S.; winters in southern Canada, U.S., central Mexico.

SURF SCOTER*Melanitta perspicillata*

L: 20" ws: 30" ♂>♀



ID: midsized diver; large square head with white patches on forehead/back; triangular white bill with bright red-yellow pattern, black patch near base; velvety black plumage. ♀: dark cap, variable white patches in front of/behind eye, dark bill. **HABITS:** often scoots ("scotes") through breaking surf to feed; during spring migration often concentrates at herring spawning areas to feast on herring eggs. **VOICE:** mostly silent. **SIMILAR:** White-winged Scoter ♀ has more sloping head and white wing patch.

Declined 50% since 1950s due to heavy metal contamination of shellfish, extensive logging, oil spills.

Often uses concealed nest of other ducks. Breeds in Alaska/northern Canada; winters along W. Coast, Aleutians to Baja California, and E. Coast, Newfoundland to northern Florida; some overwinter in Great Lakes.

**WHITE-WINGED SCOTER***Melanitta fusca*

L: 21" ws: 34" ♂>♀



ID ♂: midsized diver; large sloping head, white "comma" around eye, black bill with orange tip; dark plumage, white secondaries often visible when swimming or at rest. ♀: variable white patches in front of and behind eye. **HABITS:** will dive 40+ feet in winter for food; must run across water to take flight. **VOICE:** mostly silent; occasional harsh *quack*. **SIMILAR:** Surf Scoter.

Often nests in association with gull colonies. Eats mollusks, aquatic invertebrates/plants, crustaceans. Latest to begin nesting, often in other duck species' nests. Breeds in Alaska/northwest Canada; winters along W. Coast south to Baja/California, and E. coast, south to northern Florida/Gulf Coast.



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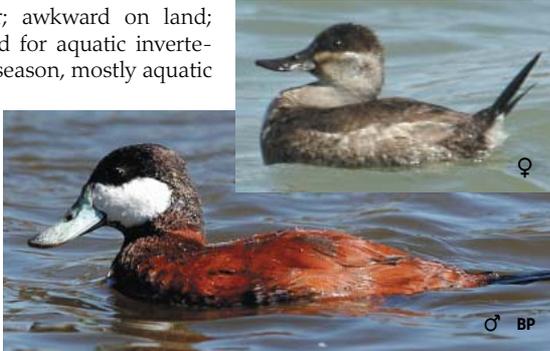


L: 15" ws: 18.5" ♂>♀

RUDDY DUCK*Oxyura jamaicensis*

ID ♂: small diving duck; large head, dark cap, white cheeks; long spiky tail, dark wings. **BP**: rust-red body, black cap, blue bill. ♀: brownish-gray; dark stripe on pale cheek. **HABITS**: runs across water to get airborne; dives into water to avoid predators. **CALL**: ♀ *rahn*; ♂ usually silent, repeated *jif-ji-ji* in display. **SIMILAR**: larger ♀ Black Scoter lacks cheek stripe.

Strong, rapid flyer; awkward on land; strains bottom mud for aquatic invertebrates in breeding season, mostly aquatic vegetation in winter. In late spring courtship display, ♂ fans stiff tail and beats breast with bill to create a popping sound; will often adopt abandoned nests. Breeds from NW Canada to Mexico; winters along W. Coast from British Columbia to Central America, E. Coast from New England to Cuba.

**AMERICAN COOT***Fulica americana*

L: 15.5" ws: 24" ♂>♀



ID: not a duck, but a rail with a duck-like appearance; slate gray/black; short, thick, whitish bill and frontal shield with a red tip on forehead; short wings and tail with white undertail coverts; lobe-webbed toes (unlike webbed duck feet). **JUV/♀**: no frontal shield. **CHICK**: red/black head and bill (no ring); orange down on head and neck. **HABITS**: great swimmer, despite a comic head bob, but has difficulty flying from water; migrates at night. **VOICE**: harsh clucks and cackles. **SIMILAR**: Common Moorhen has brownish back, white-streaked flank, red bill with yellow tip.



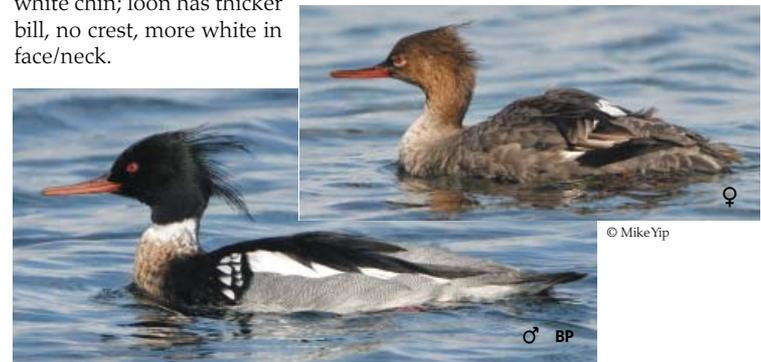
Eats aquatic vegetation. Builds nest on mound near marsh; lays 2–22 pink eggs with brown spots; can have several broods per year. Range: U.S., Canada, Caribbean, Central America; breeds locally in Golden Gate Park, Lake Merced and the Presidio.

RED-BREASTED MERGANSER*Mergus serrator*

L: 25" ws: 30" ♂>♀



ID: large, powerful diving duck; wispy double crest on back of head; long, thin orange bill with serrated edges for catching fish; reddish eyes; white secondary feathers seen in flight. **BP** ♂: patterned iridescent green head, white neck band above reddish-brown chest, black back, white/gray sides. ♀: reddish-brown head/neck; slate-gray body. **JUV**: white bar below eye. **HABITS**: small flocks may fish cooperatively, driving fish into shallow water. **CALL**: ♀ *prek prek* in flight; ♂ mostly silent. **SIMILAR**: Common Merganser has dark eyes; breeding ♂ lacks ragged crest, has white chest/sides; ♀ has shorter crest, white chin; loon has thicker bill, no crest, more white in face/neck.



Heavy wing load requires it to run along water to gain lift for take-off. Builds well-lined covered ground nest, usually on small inland islands. Breeds in Alaska, northern Canada, northeast U.S.; winters on both coasts south to Mexico; also inhabits Greenland, Iceland and northern Eurasia.

BONUS DUCKS! Increasing diversity of species is a sign of an environment getting healthier. These two handsome visitors, while too uncommon to have made our “100 Birds” list, have been spotted with some regularity at Heron’s Head over the past couple seasons. They may be “pioneering,” or expanding the margins of their normal range—or perhaps they’re just a little lost. Time will tell.

EURASIAN WIGEON*Anas penelope* L: 13.5" ws: 32"**HARLEQUIN DUCK**L: 12" ws: 26" *Histrionicus histrionicus*

DIVERS

Divers include loons (Gaviidae), grebes (Podicipedidae), cormorants (Phalacrocoracidae) and pelicans (Pelecanidae). Loons, grebes and cormorants have long bills, sleek necks and far-back webbed feet that enable them to quickly submerge from a floating position and swim down for fish. Loons and grebes molt, leaving them unable to fly for several weeks, and both sexes swim together in courtship displays and carry their chicks on their back. Unlike loons and grebes, cormorants and pelicans can be seen perched on rocks or logs drying their wings, and they build their nests in colonies.

LOONS. Fossils of loon-like birds go back 70 million years. Loons are stocky, with a thick neck and dagger-like bill, and have distinctive breeding plumages. The word *loon* (from the Shetland Islands) means “lame,” to describe how clumsy the birds are out of water. Loons are monogamous, and genders are similar in appearance. Although they are protected by law, development, disturbance, pollution and loss of breeding habitat on lakes in Canada and Alaska have led to a decline in their numbers.

GREBES. Though both genders look similar, grebes are far more variable than loons (e.g., the long-necked 25" Western and the short and stocky 13" Pied-billed). Their fossils have been found dating back 80 million years. They are poor flyers, but their lobed toes make them great swimmers and divers. All but the Western Grebe show distinctive breeding plumages. Grebes' diet includes fish, crustaceans and insects. Loss of nesting and feeding habitat—due to development, boating, changes to vegetation and water quality, fishing nets and the introduction of predatory fish that eat chicks—have proved detrimental.

CORMORANTS. Cormorants (from Latin/French, “sea crow”) have hook-tipped bills and bare facial skin, which in breeding season becomes more brightly colored. Adults are nearly all black. They primarily eat small fish, flipping them into the air and downing them head first, as well as marine invertebrates. Because their populations have increased and they've been designated a threat to commercial and sport fishing, they can be legally killed in many states.



© Lee Karney

PELICANS. Like cormorants, pelicans have a hook-tipped bill and bare facial skin, and a “gular pouch” for capturing fish, regulating body temperature and for display in breeding season. Brown Pelicans—flying in a straight line or V pattern—from up to 60' high plunge into the water to scoop up schools of small fish such as anchovy and herring just below the water's surface. Air sacs beneath their skin cushion these crashing dives. White Pelicans feed on the surface. Pelicans lay 2–3 eggs on islands, where they incubate the eggs using their feet. They may live up to 25 years.

COMMON LOON

Gavia immer

L: 32" ws: 46" ♂>♀



ID: brownish-gray head/back; pointed pale gray bill, red eyes; white chin, eye ring, belly; partial collar on throat; legs back on body. **JUV:** dark eyes. **BP:** dark head, black bill, black-and-white pattern on body. **HABITS:** can swim underwater up to 90' using large, webbed feet; “runs” on surface up to 1,400' for lift-off; threatens with upright “penguin dance.” **VOICE:** long, haunting call (“crazy as a loon”). **SIMILAR:** Red-throated Loon is smaller, with thin bill and white face and foreneck.



JUV



BP

Solid bones aid diving ability, but far-back feet make it awkward on land.

May die prematurely from eating lead fishing sinkers or from mercury poisoning. Both adults leave the water to nest and incubate eggs; in San Francisco might molt in midwinter but cannot fly while it replaces flight feathers. Breeds in wetlands mostly in Canada; range: Alaska to Baja, Mexico.



L: 13.5" ws: 18" ♂>♀

PIED-BILLED GREBE

Podilymbus podiceps

ID: small light brown/gray grebe; short, thick, horn-colored bill. **BP:** white bill with black band. **HABITS:** great swimmer and diver. ♂ **CALL:** usually silent, but during breeding: *cuck, cuck, cuck, cow, cow, cow*. **SIMILAR:** Eared Grebe and Horned Grebe have similar body shape but are much thinner with longer bill.



BP

Lays light blue eggs on floating nest anchored to plant in shallow water. Chicks can leave nest and swim an hour after hatching—or ride along on parent's back. Range: U.S., Canada, Caribbean, Central and S. America. Migrates from places where water freezes in winter.





L: 25" ws: 24"

WESTERN GREBE

Aechmophorus occidentalis

ID: long neck, black back and nape, with white chin, neck, and belly; red eyes surrounded by black feathers; long, dull green-yellow, dagger-shaped bill.

HABITS: eats own feathers to aid in digestion of fish with bones. **VOICE:** whistle-like. **SIMILAR:** Clark's Grebe.

Aka swan-necked grebe or swan grebe. Declining due to oil spills, pesticides and habitat loss—possibly lack of food in breeding

grounds in Canada and Alaska. Adults' mating ceremony includes rushing across water with weeds in their bill. Migratory; range: W. Coast, Canada to Mexico; breeds on large interior lakes.



CLARK'S GREBE

Aechmophorus clarkii

SMALL POPULATION

L: 25" ws: 24"



ID: long neck, yellow-orange bill; red eyes mostly surrounded by white feathers; black crown, nape and back; white belly feathers; lobed toes, not webbed feet. **BP:** more white feathers surrounding eye. **HABITS:** chicks ride and feed on parent's back. **CALL:** cree-eek. **SIMILAR:** Western Grebe.

Previously killed for feathers, declining now due to habitat loss, poor water quality in breeding areas and stocked, predatory fish that compete for food and eat chicks. Lays

3–4 eggs on floating nest in open water; one clutch per year. Breeds on lakes in U.S. West and Midwest; winters on Pacific Coast and Mexican Gulf Coast.



EARED GREBE

Podiceps nigricollis

L: 13" ws: 16"



ID: small grebe; dark gray neck, face, pointy head; dark bill; black below red eyes; fluffy rump; looks dirty. **BP:** feathers mostly black with golden plumes spreading out from behind eyes. **HABITS:** will double its weight to prepare for fall migration; migrates only at night; flightless for 9–10 months of the year; chicks ride and feed on parent's back. **CALL:** high, thin notes, sometimes in duet. **SIMILAR:** Horned Grebe.

Abundant in numbers now but once reduced due to their feathers' use in hats and clothing, eggs collected for food and habitat destruction in Salton Sea, a migration stop; up to 1 million fly to Mono Lake each year to eat and molt. Lays 3–5 eggs on floating nests in fresh water. Breeds and winters in SF Bay Area; range: Guatemala to Canada.



HORNED GREBE

Podiceps auritus

DECLINING

L: 14" ws: 18"



ID: small with stocky body; upper parts dark; short, thin black bill with white tip. **BP:** reddish and black with buffy tufts sweeping back behind eyes. **HABITS:** normally solitary but will flock while feeding. In spring courtship display in SF Bay, rises out of water and appears to run on the surface. **VOICE:** high, short whistle. **SIMILAR:** Eared Grebe.

Parents eat own feathers and feed them to chicks to protect their stomach from fish bones. Makes platform nest from mud and vegetation on fresh water; chicks can swim and dive soon after hatching but often ride on a parent's back. Range: both ocean coasts, Alaska and Canada to Mexico, except during breeding on lakes and ponds; migrates at night.





L: 51" ws: 79" ♂>♀

BROWN PELICAN

Pelecanus occidentalis

BP

ID: our largest regularly occurring bird; huge gray bill, fleshy *gular* pouch; white head and long neck; gray back/wings, black belly. **BP:** chestnut hindneck, gold-yellow face/base of foreneck; reddish patch on bill. **JUV:** gray head/bill, white belly.

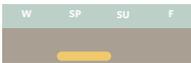
HABITS: dives for fish in twisting plunge from high above water, using pouch as trap; often flies close to surface in groups. **SIMILAR:** White Pelican is all-white except for black flight feathers and yellow-orange bill.

Due to eggshell thinning caused by DDT, nearly extinct in N. America until ban. Eats fish, esp. anchovies. Builds nest of debris/sticks on ground/cliff or in scrape or mangrove trees along Atlantic/Gulf/Pacific coasts; travels north as far as British Columbia.

DOUBLE-CRESTED CORMORANT

Phalacrocorax auritus

L: 33" ws: 52" ♂>♀



ID: entirely black plumage; orange to orange-yellow facial skin. **JUV:** pale gray or brownish throat/breast; facial skin more subdued orange.

BP: "Double-crested" refers to 2 plumes on side of head during breeding season. **HABITS:** frequently flies high, holding neck with a distinctive kink. **SIMILAR:**

Brandt's Cormorant has more slender bill, facial skin is more restricted and not orange; Pelagic Cormorant is smaller and more slender with a thin, straight bill.



Most common cormorant in SF Bay. Breeds from Alaska and central Canada along both coasts south to Mexico, including locally at Lake Merced.

WADERS

HERONS AND EGRETS. The small group of aquatic birds referred to as waders comprises four families whose members also include bitterns, ibises, flamingos, wood storks and others. Our local representatives of this group—three herons and two egrets—are in the Ardeidae family. The best way to identify them is by looking at their size and the color of their bill, legs and feet. They share similar behaviors, some similar body features and, unfortunately, some similar habitat issues.



FEEDING. Both herons and egrets have long legs with long toes, which allows them to stand and hunt in shallow water for food: fish, frogs, crabs and sometimes insects. Generally they simply wait for food to swim along. Sometimes they'll move their feet to stir up potential prey or engage in "wing flecking"—moving their wings rapidly—to startle it. Or they'll use their wings to create shade in the water beneath them to lure the prey into what appears to be a dark, secluded safe zone. Both herons and egrets rapidly extend their long, S-shaped neck to snare prey, stabbing and grasping it with their long, sharp bill. They typically hunt alone, but an exception is the Black-crowned Night Heron, which will hunt in a group. This clever bird may also use an insect or other

item as bait to lure a fish. In wet weather some herons will also eat small mammals—such as rodents and ground squirrels—taking advantage of the critters' fleeing their flooded ground holes.



BREEDING. During the breeding season, herons and egrets develop more color or flowing plumes to attract a

mate. They form nesting colonies called rookeries in trees near the water, where they can protect their eggs and young chicks from predators. Female egrets and herons build their nests from sticks provided by the male. Locally you'll find them nesting at Stow Lake in Golden Gate Park, Lake Merced and Audubon Canyon Ranch near Bolinas, from mid-March to mid-July. Young herons and egrets are *altricial*—born blind, without feathers and helpless.



PRESERVATION. In the past, especially in the late 1800s and early 1900s, herons and egrets were hunted for their plumes—resulting in a 95% reduction in their numbers. In the second half of the 20th century, they were gravely threatened by the use of DDT and other pesticides. But today they are threatened mostly by lack of habitat—wetlands increasingly being drained for development—and, in some locations, by mercury poisoning. Now protected by law, and due to the large U.S. range of egrets and herons, their populations are currently stable.



GREAT EGRET

Ardea alba

L: 39" ws: 51" ♂>♀



ID: white with long yellow bill; long black legs/feet. **JUV:** pink bill turns yellow; greenish legs/feet. **BP:** long plumes extend from back beyond tail. **HABITS:** moves slowly or stands still in shallow water waiting for fish, extends neck and uses pointed bill to stab food. **VOICE:** harsh croak when disturbed. **SIMILAR:** Cattle Egret and Snowy Egret are smaller.

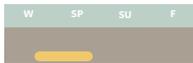
In early 1900s hunted for feathers for use in hats; became the symbol for National Audubon Society, which worked for its protection; pesticide use and human development are concerns today. Lays 3–5 blue-green eggs in colonial stick nest in trees once a year. Lives in many countries; breeds locally.



GREAT BLUE HERON

Ardea herodias

L: 46" ws: 72" ♂>♀



ID: blue-gray; white crown with black plume; long, thick gray/yellow bill; long legs and neck. **CHICK:** turns from downy to gray with dark crown. **HABITS:** often stands or flies with S-shaped curve in neck; watches and slowly walks for prey in shallow water, night and day. **VOICE:** repeats harsh squawk when startled.

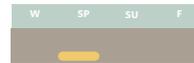
Inspiration for the name Heron's Head Park. The southeast U.S. Great White Heron is a morph. Lays 3–6 pale blue eggs once a year in stick nest communally; many chicks die in first year. Range: Canada to

Central America; east of Rockies, migrates south for winter; on W. Coast, may be year-round resident but moves to a local heron rookery for breeding.

SNOWY EGRET

Egretta thula

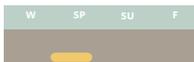
L: 24" ws: 41"



ID: small, energetic heron with pure white plumage, slender black bill, yellow lores and eyes, black legs, bright yellow feet; nonbreeding birds can show yellow on backs of legs. ♂ **BP:** graceful plumes on head, neck, back. **HABITS:** wades close to shore in lively pursuit of a meal, often stirring up food with a foot-shaking motion. **VOICE:** croak. **SIMILAR:** Great Egret is larger, has yellow bill with black legs; smaller Cattle Egret has shorter orange bill, shorter neck and orange-brown crown during breeding.

Population, decimated by plume hunters in 19th century, has benefited from protection; now widespread and common. Colonial nester, often in low trees; nest built of sticks; usually 3–5 eggs. Breeds locally; range: southern N. America to S. America.



**BLACK-CROWNED NIGHT HERON**

L: 25" ws: 44"

Nycticorax nycticorax

ID: stocky; red eyes, pointed black bill, black crown and back; white face, throat and belly; blue-gray wings; yellow legs.

BP: 2 long white plumes from head. **JUV:** yellow eyes and bill; brown head and neck; streaked buff and white chest; dark brown wings with white spots; 3 years to gain adult plumage. **HABITS:** noisy, mostly nocturnal; tucks in neck when flying. **VOICE:** squawk. **SIMILAR** (juvenile): American Bittern.

Strong digestive acids help in dissolving bones of food. Young will vomit when disturbed. Breeds on open water or wetlands; nests in groups during spring/summer in trees with ibises and herons; may brood others' chicks; lays 3–5 green eggs up to twice a year (Feb–Mar and June–July); breeds locally. Range: U.S. and Mexico.

**GREEN HERON***Butorides virescens*

L: 18" ws: 26"



ID: stocky; dark pointed bill, short (for a heron) reddish neck; dark greenish head/back; greenish wings with white outline; purple or chestnut chest with white stripe near bill and on throat; short yellow legs. **HABITS:** still, solitary hunter in marshes or in trees above water; reportedly uses stick or vegetation to attract fish to surface; when irritated will flick tail and raise crest, or call and fly away defecating. **VOICE:** frog-like croak. **SIMILAR** (juvenile): juvenile Black-

crowned Night Heron and American Bittern.

Formerly known as Little Green Heron or Green-backed Heron. ♂ establishes territory; attracts mate by hopping from foot to foot and calling, showing red inside bill; monogamous; builds stick nest in trees near wetland. Breeds along California coast; range: Canada to Central America primarily on coasts.

**RAPTORS**

Hawks, falcons, eagles and owls, collectively and commonly known as raptors (from the Latin *rapere*, meaning “to snatch”), are widely dispersed in varying habitats throughout the world. Symbolizing power, freedom and wisdom, raptors have captured the human imagination like no other group of birds.

HUNTING. Raptors feature a strong, hooked bill and powerful, razor-sharp talons for capturing a variety of prey—from large insects, reptiles and small birds to rodents and even larger mammals. Except for owls, raptors primarily hunt by day, using a variety of techniques including striking other birds in mid-flight from a stoop (e.g., many falcons) or soaring on updrafts and then pouncing from above (e.g., Red-tailed Hawk), hunting from a perch, plunging into water after fish or flying into shrubbery (e.g., Cooper's Hawk). Their eyes are so large, they cannot move them—they must turn their head to look around. Their eyesight is estimated to be four to eight times better than our own—combined with their incredible speed, raptors are the epitome of evolutionary adaptability. Included in this group is the astounding Peregrine Falcon, considered to be the world's fastest animal.



BREEDING. Raptors exhibit varying degrees of sexual dimorphism, but unlike with most birds, the females are larger than the males. Perhaps the females need to accumulate body reserves to sustain themselves during egg production and a relatively long incubation period.

Primarily monogamous, with some species pair bonding for life, raptors employ a wide variety of nest-building techniques. Small falcons, such as kestrels, and Barn Owls nest in suitable tree holes or other structures. Peregrine Falcons nest primarily on cliff sides or human structures such as bridges and downtown skyscrapers. Eagles and large hawks build huge stick

nests in trees or on cliffs that may be reused for many years, while Turkey Vultures construct flimsy nests or just use a scrape in secretive locations on the ground.* Raptor parents provide food and protection for their young until they leave the nest.



PRESERVATION. More so than any other group of birds, raptors are in danger of extinction—primarily due to human behaviors. As top predators, they are indicator species that help us to understand and determine requirements for the health of the earth's ecosystems, and how pesticides, chemicals and diseases move through the food chain. Once common, Peregrine Falcons were nearly wiped out in the U.S. by the use of the now banned pesticide DDT. Fortunately, researchers discovered in time the connection between the pesticide concentration in the food chain and the shell thinning that resulted in failed hatching.



**Note:* Turkey Vultures, because they are unable to kill and seize prey using talons, are not actual members of the raptor group—they are more closely related to storks. However, due to their strong resemblance to raptor families such as hawks, especially in flight, they are commonly studied and often identified with raptors, as they are here.



RED-TAILED HAWK

Buteo jamaicensis

L: 19" ws: 49" ♀>♂



ID: highly variable; typically brown upper parts, head and throat; pale chest, dark band across belly, red tail, broad wings; underwings show a dark diagnostic field mark (more reliable than red tail) on leading edge with light-colored flight feathers. **JUV:** more streaked with brown tail with dark bars. **HABITS:** scans for prey from high perch or soaring on air thermals high above ground. **CALL:** piercing *skee-ahhh* (often used in media to represent any species of raptor). **SIMILAR:** juvenile Red-shouldered, Broad-winged, and Swainson's Hawks.

Eats rodents, amphibians, reptiles, small birds, fish, insects. At least 13 subspecies in N. America. Known to breed in San Francisco.



RED-SHOULDERED HAWK

Buteo lineatus

L: 17" ws: 40" ♀>♂



ID: reddish shoulders, head, underbody; narrow white barring on belly and flanks; white checkering on black wings—pale crescent near wingtips in flight; contrasting white bands on black tail. **JUV:** generally brown where black on adult: brown head, streaked breast, barred belly and flanks. **HABITS:** hunts from high perches. **VOICE:** loud, sharp *kee-yair* or *kee-ahh* (perhaps our most vocal raptor). **SIMILAR** (juvenile): juvenile Red-tailed and Broad-winged Hawks.



Loss of wetlands/mature forests have contributed to pop. decline; making comeback in California due to better management practices. Builds nest in crotch of trees, often reused. 1 of 5 subspecies in California, *Buteo lineatus elegans* does not migrate, but is prone to "natal dispersion" during fall migration; also the most strikingly plumaged. range?



COOPER'S HAWK

Accipiter cooperii

L: 16.5" ws: 31" ♀>♂



ID: crow-sized; red-orange iris; slate gray above, white with reddish barring below; short rounded wings, long tail; long yellow legs. **JUV:** dark brown above, whitish with thin brown streaking below; yellow iris. **HABITS:** agile; uses long barred tail as rudder to maneuver through thick woods/brush after smaller birds; this risky hunting technique often results in bone fractures. **CALL:** nasal *kek*, often repeated when agitated. **SIMILAR:** smaller Sharp-shinned Hawk has smaller head and tail, more squared at tip.

Common at Hawk Hill in Marin Headlands during W. Coast fall migration. Eats mostly birds plus rodents, reptiles. Makes bowl-shaped nest of sticks often lined with bark/vegetation in live tree. Breeds in forests across southern Canada to central Mexico; overwinters throughout U.S. and Mexico.





POP: 100,000

L: 16" ws: 41" ♀>♂

PEREGRINE FALCON

Falco peregrinus

ID: large, powerful, very fast; long pointed wings, slate-gray above, pale below; finely barred belly; distinct wide, dark mustachial stripe below eye, black cap; long, thin gray/white banded tail; NW race darker, Arctic race paler. **JUV:** dark brown cap, mustache, upperparts; streaked underparts. **HABITS:** usually hunts mid-air, delivering a stunning blow with long toes and talons, often diving to snatch tumbling prey. **CALL:** harsh, repetitive *kleh, kleh, kleh*. **SIMILAR:** Merlin falcons are much smaller, have weak mustachial stripe and stronger barring on tail.



© Glenn Nevill

Peregrine is adapted from Latin word for “wanderer”—tundra-nesting bird migrates over 15,000 miles to S. America. Considered fastest animal on earth; dives exceed 220 mph. Population decimated by widespread use of DDT in the 1940s (banned in 1972), but now in recovery. Nest is a scrape, often lined with grass, on ledges 50–200' above ground. Range: all continents but Antarctica; winters north to BC, east to New England and south to northern S. America.

AMERICAN KESTREL

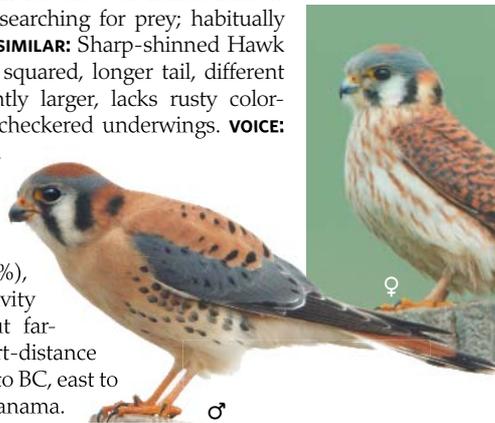
Falco sparverius

L: 9" ws: 22" ♀>♂



ID: small, long-tailed falcon; long, narrow pointed wings; gray crown, white cheeks, malar stripes and “sideburns”; short, dark, hooked bill. ♂: rusty crown, nape, back; blue-gray wing coverts with black spots; rusty tail with broad black subterminal band and narrow white terminal band. ♀: wing coverts barred heavily with black. **HABITS:** hovers over marsh/field or from conspicuous perch searching for prey; habitually bobs tail when perched. **SIMILAR:** Sharp-shinned Hawk has rounded wings with squared, longer tail, different plumage; Merlin is slightly larger, lacks rusty coloring, 1 mustachial stripe, checkered underwings. **VOICE:** loud, repetitive *kee kee kee*.

Population increasing due to deforestation trends across N. America. Eats small mammals (70%), small birds, insects. Cavity nester; breeds in all but far-north N. America. Short-distance migrant winters north to BC, east to New England, south to Panama.



♂

♀

MERLIN

Falco columbarius

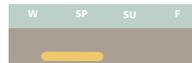
L: 10" ws: 24" ♀>♂

ID: small, compact, powerful, very fast; long pointed wings, dark on top, b/w check below; creamy breast, brown-streaked belly; weak mustachial stripe under brown eye-line; boldly banded tail. **HABITS:** preys on small birds in low vegetation or knocks prey out of air with open feet; kills by biting neck and severing spinal column with toothed bill; harasses larger raptors and attacks territory intruders. **VOICE:** rapid rising/falling *ti-ti-ti-ti-ti*. **SIMILAR:** American Kestrel is slightly smaller with 2 mustachial stripes and rusty plumage.

Eats birds, rodents, insects, small mammals. Nests in rock ledge, tree cavity; in N.A., breeds mainly in southern Canadian conifer forests. Range: N. hemisphere. In N. America winters mainly in southern U.S., north to British Columbia on W. Coast and southern New England on E. Coast, south to Central America.



© Bob Lewis



L: 16" ws: 42" ♀>♂

BARN OWL

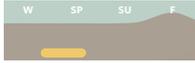
Tyto alba

ID: brown back, white or golden chest; white heart-shaped face; dark eyes face forward like those of other predators but cannot be rotated. **CHICK:** covered in down. **HABITS:** flies silently despite large wings; mostly nocturnal. **VOICE:** snake-like hissing or loud, piercing screech.

Eats small mammals, reptiles, insects. One family can eat over 2,000 rodents in a breeding cycle. Asymmetrical ears aid in locating prey at night; can hunt in complete darkness. Regurgitates gray pellets of prey bones and fur. Declining in some parts of the U.S. due to poisons

used to kill rodents, which it ingests. ♂ finds empty tree cavity or high spot in barn or tree to make a nest, calls to attract a ♀, which lays 2–11 eggs, 1 per day; both parents feed chicks. Range: throughout U.S.; declining in East and Midwest. Generally nonmigratory.





L: 26" ws: 67"

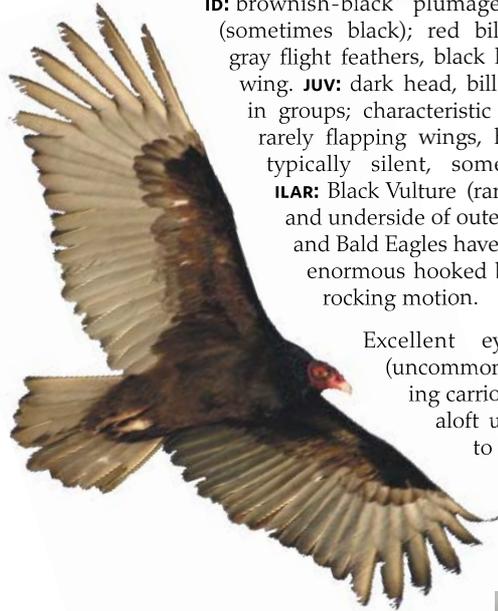
TURKEY VULTURE

Cathartes aura

ID: brownish-black plumage; red featherless head (sometimes black); red bill with white tip; silver-gray flight feathers, black lining plumage on underwing. **JUV:** dark head, bill. **HABITS:** soars and roosts in groups; characteristic rocking motion in flight, rarely flapping wings, held in shallow V. **VOICE:** typically silent, some hissing/clucking. **SIMILAR:** Black Vulture (rare locally) has black head, and underside of outer primaries is gray. Golden and Bald Eagles have large feathered heads and enormous hooked bills and do not fly with a rocking motion.

Excellent eyesight/sense of smell (uncommon in most birds) for locating carrion from afar; often remains aloft until sufficient birds arrive to dispose of it quickly. May urinate on own legs to cool itself off; strong uric acid also acts as a sanitizer.

Eats mostly carrion, as well as some plant matter. Breeds throughout N. America; lays up to 3 eggs in well-hidden cliff hollows, brush, logs, or rocks; no nest. Primarily a resident; some winter migration.



SHOREBIRDS

Of the world's 214 shorebird species, 38 have been sighted in San Francisco, of which 18 are seen frequently along the bay. They are in the large order Charadriiformes—along with gulls, terns, puffins, murres and other alcids—and vary greatly in size (from 6" Least Sandpipers to 23" Long-billed Curlews) as well as shape (from long-necked and long-legged to short and squat). Most show little *sexual dimorphism* but have distinct breeding, wintering and juvenile plumages.

FEEDING. Most often found feeding along the water's edge, some species also frequent fields, meadows and even deserts. Each species' bill is uniquely designed to exploit niche food resources—from the long and curved bill of tactile feeders that probe into mud or sand for aquatic insects to the short and stubby bills of plovers that hunt for food visually. Most shorebirds are rarely seen swimming.

BREEDING/MIGRATION. Only the Killdeer, Black Oystercatcher and American Avocet currently nest within the city limits. Many others nest above the Arctic Circle, and some fly as far south as Tierra del Fuego during our winter to take advantage of both hemispheres' abundant summer food. Most nest on the ground; chicks are born *precocial* and can run soon after hatching. Shorebirds generally flock together for protection from predators.

Migratory shorebirds are strong fliers—some fly non-stop from Alaska to Hawaii. Some species can be seen in California only during the few weeks they are migrating between the Americas. Spring migration is April–May, but the fall migration, July–October, is the best time to look for shorebirds. With so many species traveling such great distances, occasionally a bird will get far off course and you may see a very rare bird like a Bar-tailed Godwit, a Eurasian species, among a flock of similar but more common Marbled Godwits.

PRESERVATION. The Migratory Bird Treaty Act of 1918 currently protects all shorebird species. Unfortunately, with continued losses of vital habitat and lax enforcement of existing laws, many species are declining dramatically. The entire world population of Black Turnstones is down to 80,000; for Long-billed Curlews it's 20,000 and for our resident Black Oystercatchers it's only 8,850. The highly endangered Western Snowy Plover now numbers under 2,500 birds.



**BLACK-BELLIED PLOVER**

L: 11.5" ws: 29"

Pluvialis squatarola

ID: short bill, large eyes; gray-brown with lightly mottled back feathers, black *axillaries* (wingpits); pale rump/underparts. **BP:** black from belly to throat, white forehead. **JUV:** similar to non-breeding adult but more contrasting patterning. **HABITS:** walks in stops and starts, picks food from ground. **VOICE:** mourn-

ful whistle, *peeoEEE*. **SIMILAR:** Turnstones are smaller, lack black axillaries, and have white on back. Golden Plover has dark rump and white axillaries. Breeding Dunlin lacks black on throat and face and is smaller.

Breeds on tundra across high Arctic. Winters along Pacific Coast from British Columbia to Chile.

SEMIPALMATED PLOVER*Charadrius semipalmatus*

L: 7" ws: 19"



ID: short, orange/black bill; orange legs; single complete band across breast; black mask; uniform brown back with dark tail. **BP:** more distinct mask and crown; black tip on bill. **JUV:** pale edges on back feathers. **HABITS:** walks in stops and starts, picks food from ground. **VOICE:** whistled, up-slurred *chu-weet*.

SIMILAR: larger Killdeer has two bands across breast, dark bill, rust-colored tail; Snowy Plover has incomplete breast band with a black bill and feet.

Nests on sandy ground or tundra across northern Canada and Alaska. Winters along Pacific coast from central California south to Chile.

**KILLDEER***Charadrius vociferus*

L: 10" ws: 24" ♀>♂



ID: medium-sized plover; rusty tail/rump, 2 bands across breast; dull yellow legs; red orbital ring around eyes, short black bill. **JUV:** single breast band. **HABITS:** walks in stops and starts, picks food from ground; very vocal.

CALL: named for its shrill *kill dee kill dee*.

SIMILAR: Killdeer's double breast band is unique; Semipalmated Plover has single breast band.

Parent will feign an injured wing to lure predator away from nest. Nests across N. America, including at Heron's Head Park, to northern S.

America. Builds nest on ground; 4 buff-colored eggs with dark brown markings. Precocial chicks have single breast band. Winters along coastal U.S. and across south to NW S. America.



L: 7.5" ws: 15"

SPOTTED SANDPIPER*Actitis macularius*

ID: plain brown on top extending to sides of breast, white underparts; pale-based bill; yellow legs. **BP:** spotted breast and underparts, upperparts

barred, bronzy-gray tail tipped in white; bill orange at base.

HABITS: generally solitary; distinctive bobbing motion on ground, stiff-winged fluttery flight showing a white wing stripe. **VOICE:** high, piping whistle.

SIMILAR: Western/Least Sandpiper, Dunlin, Black-

bellied Plover. Will occasionally catch insects out of air. Breeds Apr-Aug; builds vegetation nests in high grass near fresh water; ♀ may mate with several different ♂s while ♂ incubates eggs and cares for chicks. Winters as far south as S. America.





L: 8" ws: 17"

WILLET*Tringa semipalmata*

ID: gray with pale underparts; shows black and white wing stripes in flight; long gray legs. **BP:** bold brown and black scales on back, breast, and wings. **JUV:** scaled on back and wings. **HABITS:** feeds in shallow water picking at the surface. **VOICE:** very vocal screeching; named for its repeated call, *will willet*.



SIMILAR: Lesser Yellowlegs, Spotted Sandpiper and Wandering Tattler have yellow legs and lack bold black and white wing stripes shown in flight.

Breeds near water across Great Basin and prairie states; nests made of elaborate, thick vegetation on ground; precocial chicks. Winters coastally from British Columbia south to northern S. America.

GREATER YELLOWLEGS*Tringa melanoleuca*

L: 14" ws: 28"

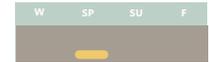


ID: long bright yellow legs; long, slightly upturned bill; finely patterned gray throat, back, wings; white belly/rump. **BP:** more boldly marked throat, breast, flanks, back, wings. **HABITS:** feeds in shallow water picking at surface. **VOICE:** loud whistle, descending series of *tew* notes.



SIMILAR: Lesser Yellowlegs is smaller and has a shorter bill and different call; Willet has gray legs and shows bold black-and-white wings in flight; Spotted Sandpiper is smaller, has shorter legs, lacks streaks on neck, and shows wing stripe in flight.

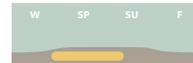
Nests in depression in moss near water, from SW Alaska across central Canada; chicks are precocial. Winters coastally from British Columbia south to Tierra del Fuego.

AMERICAN AVOCET*Recurvirostra americana*DECLINING
L: 18" ws: 31"

ID: long, slender, upturned bill; white head and neck, black-and-white wings; long slender gray legs. **BP:** head/neck turn golden ochre. ♀: shorter, slightly more upturned bill. **HABITS:** feeds in

shallow water, sweeping its bill back and forth at the surface. **CALL:** sharp *pleek*. **SIMILAR:** Black-necked Stilt has red legs, black on head and neck.

In decline. Will fly directly at people who approach a nest or chick too closely. Nests across western U.S., including at Heron's Head Park, on ground with gravel and vegetation; 2" eggs are olive-buff with dark blotches. Winters across western U.S. south to coastal central Mexico.



L: 14" ws: 29"

BLACK-NECKED STILT*Himantopus mexicanus*

ID: long, slender pink-red legs; uniform black back, wings, crown, and behind neck; slender, black bill; in flight, legs extend far beyond tail. ♀: dark brown back. **HABITS:** feeds in shallow water picking at the surface. **VOICE:** sharp

pleek and/or *kik*. **SIMILAR:** American Avocet has gray legs, wing stripes, no black on head.

Eats crustaceans and invertebrates. Nests on mounds occasionally encircled by water; lays buff-colored eggs with dark blotches; precocial chicks. Breeds across western N. America south to S. America; winters across western U.S. south to S. America.





POP: 20,000
L: 23" ws: 35" ♀>♂

LONG-BILLED CURLEW

Numenius americanus



ID: large cinnamon-buff wading shorebird; extremely long downcurved black bill, pale orange at base; faint eye-line, finely streaked crown; blue-gray legs; cinnamon underwings apparent in flight. **JUV:** shorter bill. **HABITS:** walks along mudflats probing for worms or picks

insects from surface. **CALL:** loud musical *cur-lee!* **SIMILAR:** Whimbrel has dark crown and eye stripes, grayer and smaller with shorter bill; Marbled Godwit has similar coloration but upturned bill.

Highly imperiled. Were hunted in the 1800s but current declines may be due to loss of nesting habitat to agriculture. Nests in prairies/grasslands from southern British Columbia to western Texas; precocial chicks. Winters from California south to Costa Rica.

WHIMBREL

Numenius phaeopus

DECLINING
L: 18" ws: 32" ♀>♂



ID: large shorebird; strongly downturned, black-tipped bill; distinct eye-line and stripes on crown; overall plumage mottled grayish brown; blue-gray legs. **HABITS:** picks food from surface or probes just below water's surface. **VOICE:** whistled *pip pip pip*. **SIMILAR:** larger Long-billed Curlew has longer bill and rusty plumage and lacks eye and crown stripes.

Population was seriously depleted by hunting in 19th century. Following protected status the species recovered somewhat but is now declining again due to loss of habitat. Eats crustaceans, invertebrates. Nests in high arctic tundra from Alaska to Hudson Bay. Winters along east and west N. American coasts south to Chile.



MARBLED GODWIT

Limosa fedoa

POP: 172,500
L: 18" ws: 30" ♀>♂



ID: cinnamon/buff wader; slightly darker cap; long pink-orange/black upturned bill; dark gray legs; cinnamon underwings shown in flight, no wing stripe. **BP:** black barring on breast. **HABITS:** probes deeply for worms/burrowing crustaceans, occasionally submerging head in process; also picks insects from the surface. **CALL:** loud *ka-rah!* and repeated *kawEEtoe*. **SIMILAR:** much smaller Short- and Long-billed Dowitchers have straight, all-black bills, shorter legs; Long-billed Curlew has downturned bill.

Species of high concern. Major threat is the degradation of native grassland breeding habitat. Many staging and wintering areas along W. Coast have been degraded or eliminated by development. Nests in N. Great Plains from Alberta to N. Dakota in prairie marsh; precocial chicks. Winters along central coasts of N. America south to southern Mexico.



POP: 8,850
L: 17.5" ws: 32" ♀>♂

BLACK OYSTERCATCHER

Haematopus bachmani

ID: all-black plumage with pale legs; long, straight, brilliant reddish-orange bill, matching eye ring; gold iris. **JUV:** similar plumage but duller, outer half of bill dark until second year.



HABITS: uses strong, chisel-shaped bill to remove mollusks from rocks and pry shells open. **VOICE:** high, trilling whistle.

Highly territorial during spring breeding season, with pairs circling territory loudly whistling and calling. Eats aquatic invertebrates, esp. mussels. Primarily monogamous; scrape nest made by ♂, location determined by ♀, typically on rocks offshore, possibly in this area. Range: mostly nonmigratory; SE Alaska to Mexico; expanded into SF Bay in past 20 years.





DECLINING

L: 8" WS: 17" ♀ > ♂

SANDERLING*Calidris alba*

ID: light gray back/wings, dark leading edge on wing; white throat/underparts; black eye stands out on pale face. **BP:** rust on breast, head, back, wings; white belly. **JUV:** contrasting b/w feathering on back and wings. **HABITS:** rapidly probes surface of shoreline. **CALL:** peeping *klit*. **SIMILAR:** nonbreeding Red Knot has light streaks on breast and flanks and lacks dark leading edge on wing; other *Calidris* species.



In decline. Common on ocean shore, but not in bay. Nests in NW high arctic tundra. Worldwide species; winters along coasts of N. America south to Tierra del Fuego.

DUNLIN*Calidris alpina*

DECLINING

L: 8.5" WS: 17"



ID: large sandpiper; brown face, downturned black bill; dull-brown back, well-defined brown wash across breast, white underparts; black legs. **BP:** black belly, reddish back, crown, face; black streaks on nape. **JUV:** streaking on breast/belly. **HABITS:** feeds along tidal areas by picking items from surface or rapidly probing in mud. **VOICE:** burry *treep*. **SIMILAR:** non-breeding—smaller Western Sandpiper lacks wash across breast and has smaller bill; breeding—larger Black-bellied Plover has short bill and black on neck and face.

Breeds on wet grass or tundra across coastal Alaska/northern Canada. Winters along central N. America coasts south to Baja California and Yucatan.

**WESTERN SANDPIPER***Calidris mauri*

DECLINING

L: 6.5 WS: 14" ♀ > ♂



ID: black legs/feet; black bill slightly drooped at tip; gray-brown back, crown, wings; white throat, breast, underparts. **BP:** black V-shaped spots on throat, breast, along flanks; rufous crown, auriculars, and scapular feathers. ♀: slightly longer bill. **JUV:** lacks black spotting on breast/flanks and bright rust on auriculars/crown. **HABITS:** probes surface of shoreline for food; prefers mud over rocks. **CALL:** high, harsh *cheet*. **SIMILAR:** smaller Least Sandpiper has smaller bill; Dunlin is larger.



Population appears stable but dependent on few critical stopping points during migration. Breeds on tundra in N. coastal Alaska and E. Siberia. Winters along N. American coasts south to northern S. America.

LEAST SANDPIPER*Calidris minutilla*

L: 6" WS: 13"



ID: our smallest and most common shorebird; slender fine-tipped black bill; yellow legs; brownish wash across breast with faint streaks; brownish back and face with white underparts. **BP:** boldly patterned black-rust-buff back and wings, distinctive V on back. **JUV:** similar to breeding adult but more rust on wings and

less boldly marked breast. **HABITS:** feeds in crouched position; easily overlooked in vegetation. **CALL:** high trilled *jeep*. **SIMILAR:** nonbreeding—Western Sandpiper has black legs, no wash across breast, heavier bill; Spotted Sandpiper is larger, wash does not extend across breast, constantly bobs tail; Dunlin is much larger, has black legs and larger bill.

Breeds on wet grass/tundra across Alaska and N. Canada. Winters along coastal N. America to central S. America.





POP: 80,000

L: 9" WS: 21" ♀>♂

BLACK TURNSTONE*Arenaria melanocephala*

ID: short, stocky; dark head, back, wings; white belly/undertail; dark bill; dark brown legs, long toes; long, tapered wings. **BP:** large white spot in front of eye, white line above; fine white spotting from nape across side of breast. **JUV:** browner.



HABITS: in flight, shows

white on back and dark terminal band on tail. **CALL:** rattling trill, *krkrkrkrkr*.

SIMILAR: Ruddy Turnstone is browner with pale area in dark chest bands, red legs, rust back feathers.

At risk due to oil spills off Alaska coast, where it breeds. Prince William Sound, site of *Exxon Valdez* oil spill, is major spring staging site; high concern also based on small breeding distribution. During courtship, ♂ flies in zigzag pattern and makes sound with wings; monogamous; nests on flattened grass near water, only in Alaska. Range: W. Coast of N. America; winters from southern Alaska to Baja California.

SHORT-BILLED DOWITCHER

POP: 320,000

L: 11" WS: 19" ♀>♂

*Limnodromus griseus*

ID: our smallest long-billed shorebird; varied plumage; pale wedge from black-and-white barred tail to back; short neck, gray back, throat, breast; pale belly; slight eye line, pale eye-brow; short gray-green legs. **BP:** rust and black on back, flanks and breast; belly usually white. **JUV:** rusty but lacks strong black

markings on throat and flanks; dark tertials with rufous bars. **HABITS:** feeds with deep sewing machine-like rapid probes; easily flushed from marsh when approached. **CALL:** rapid, fluid *tu tu tu!* **SIMILAR:** Long-billed Dowitcher nearly identical but prefers fresh water and call is *keek*.

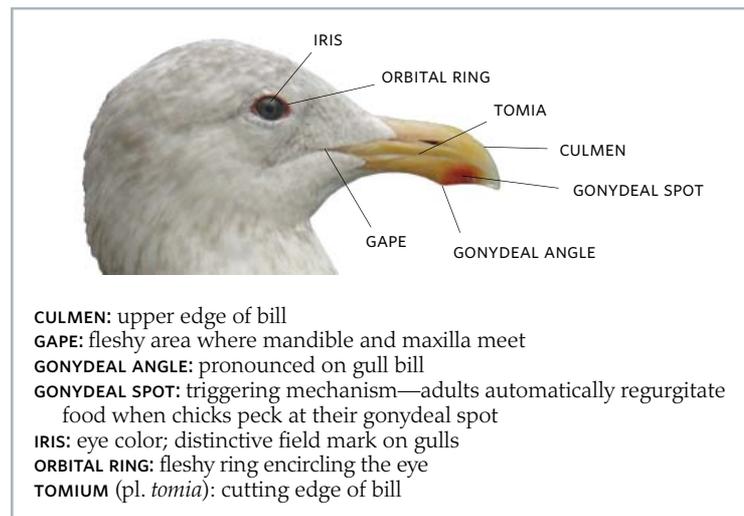
Species of high concern due to loss of wetland habitats used as migratory stopover locations across much of the U.S. Nests from southern Alaska to BC and Saskatchewan–Quebec; nest built of grass/moss near water. Winters along central coasts of N. America south to northern S. America.

GULLS / TERNS

Gulls and terns are a common sight along the bay shoreline. To the untrained eye, they all more or less simply look like “sea gulls.” They all stay close to water, they all have sturdy bills, they all have webbed feet. Plus, almost all our local gulls are members of one family, *Larus* (Sabine’s Gull and Kittiwakes, found offshore and sometimes elsewhere in the bay, are exceptions). And all our terns belong to the family *Sterna*. But there is nothing simple about *identifying* our gulls and terns!



GULLS. The *Larus* family is especially complex. For one thing, the different species often flock together. In a large flock it is possible to see as many as eight different species. And making identification most difficult is the fact that it takes some gulls up to four years to molt from their all-dark hatch-year plumage to their white-bodied adult plumage. In this guide we are limited to the identification of adult gulls. Fortunately, all of our species here (except for Heermann’s) have a white body and white tail, and all but one have black wingtips with white spots—if you see a gull lacking those marks, it is not an adult (you’ll need to turn to a more comprehensive book for them). Furthermore, most of our gulls show some dark feathering on the head during winter, some species hybridize, and the plumage of some individuals becomes so



worn that they bear little resemblance to their fellow gulls in fresh plumage. During the nesting season the bill, legs and orbital ring, or skin around the eye, become more intensely colored. You might be comforted to know that occasionally, with all these variations, even the best birdwatchers cannot identify some individuals. Gulls favor the shoreline, open fields and parking lots, and these scavengers will eat just about anything. Note that our gulls are more common in the winter and that only two species breed here: Western Gull and California Gull.



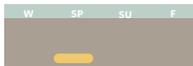
TERNs. Terns have sleeker bodies than gulls; they have long wings and forked tails for rapid aerial maneuvers. Unlike gulls, they rarely soar or rest on the water. And while gulls are omnivorous, terns specialize in fish. They hover above the water, head lowered, to spot their prey before diving in gracefully for the kill. Terns are most common in

the summer and fall and are frequently seen on the ground at Heron's Head. You'll often see them in a group on land, facing head-first into the wind. While most terns have slender bills, remember that the Caspian Tern, one of our most common, has a rather heavy bill. Our three regularly occurring terns—Caspian, Forster's and Elegant—nest in San Francisco, around the bay and in Mexico, respectively.

WESTERN GULL

Larus occidentalis

L: 25" ws: 58"



ID: dark back; yellow bill with red spot and bulbous tip; small, dark brown to gold eyes; pink legs, feet; black wingtips, dark gray undersides of secondary feathers in flight.

CHICK: downy, gray with dark spots. **BP:** pinkish eye ring. **SIMILAR:** California Gull is



smaller, black spot on the bill, yellow-gray legs. Herring Gull has pale back and large white eyes. Glaucous-winged Gull has a pale back and wingtips. Thayer's Gull is smaller with paler back, black upper side of wingtips, light gray undersides, small bill.

Only gull that regularly nests in our area. Builds nests of grass and other vegetation on rocks, ground, boats, metal roofs by Heron's Head Park, abandoned piers at Hunters Point Shipyard. Range: W. Coast from British Columbia to Baja California, rare inland.

GLAUCOUS-WINGED GULL

Larus glaucescens

L: 26" ws: 58" ♂>♀



ID: large, pale winter gull, plentiful when herring are spawning; pale gray back and wings, including tips; yellow bill with red spot, dark eye; pink legs. **BP:** white head, pinkish orbital ring. **SIMILAR:** all other large gulls in our area have black wingtips, though Western Gull with extremely worn feathers can appear similar; Western-Glaucous-winged hybrids are not uncommon—sometimes mistaken for Thayer's Gull; Glaucous Gull has lighter wingtips than its back and pale eyes.

Breeds along Pacific Coast from Washington to northern Alaska; sometimes builds grass nest on flat rooftops. Winters from Alaska south to Baja California, rare inland.



L: 21" ws: 54" ♂>♀



CALIFORNIA GULL

Larus californicus

ID: red and black spots near the tip of bill, dark eyes; legs yellow to gray-green. **BP:** red eye ring. **SIMILAR:** Ring-billed Gull lacks red spot on bill, has paler back and pale eyes; Herring, Thayer's, Western and Glaucous-winged Gulls all have pink legs and lack a black spot on bill.

Credited with saving Mormon settlers' crops from a grasshopper plague in 1848. In late 1900s water diversions to southern California threatened largest



nesting population at Mono Lake; environmentalists battled to save both the gulls and Mono Lake and won. Breeds in western states (now including San Francisco Bay) east to Manitoba and Colorado. Winters along Pacific Coast from British Columbia to Baja California.





L: 16" ws: 43" ♂>♀

**MEW GULL***Larus canus*

ID: slender, yellow bill (occasionally with faint dark ring); small dark eyes; round, brownish head/neck; gray back, long wings; yellow legs. **BP:** unmarked bill, red eye ring, dusky iris. **VOICE:** *mew* (hence the name).



SIMILAR: Ring-billed Gull is larger with white eyes and distinct ring on bill (subadult Mew can show a ring too); California Gull has black and red spots on bill and a darker back.

Called Common Gull in Europe; our smallest regularly occurring gull.

Usually nests in colonies in spruce trees or on the ground or cliff face, from British Columbia to northern Alaska. Winters south to Baja California.

THAYER'S GULL*Larus thayeri*

L: 23" ws: 55" ♂>♀



ID: intermediate size; small yellow bill with a red spot, large dark eyes, pink legs/feet, and pale back; upper surface of wingtips black but silver-gray under; rounded head. **BP:** purple-red eye ring. **SIMILAR:** Western-Glaucous-winged hybrids are larger with larger bill, flat head, and smaller eyes. Herring and Ring-billed Gulls have black on both sides of wingtip and stark-looking pale eyes.



© Jeff Poklen

Once thought to be a subspecies of Herring Gull, now placed with other Arctic-breeding gulls including Iceland and Kumlien's Gulls. Nests in colonies on cliffs facing maritime sounds in the Canadian Arctic. Winters from Alaska south to Baja California, rare inland.

HERRING GULL*Larus argentatus*

L: 25" ws: 58" ♂>♀



ID: large pale-backed gull with dark wingtips; yellow bill with a red spot, glaring whitish-yellow eyes, pink legs. **SIMILAR:** Ring-billed Gull is smaller with yellow legs; Thayer's Gull is smaller, has dark eyes and is gray on inside of wingtips; Glaucous-winged Gull has all-gray wingtips and dark eyes.



© Jeff Poklen

Due to its habit of nest-robbing, this gull's expanding numbers on E.

Coast has caused declines in species such as Atlantic Puffin and Roseate Tern; it has been removed from seabird breeding islands to help increase those populations. Range: northern N. America, Europe and Asia. On W. Coast, winters south to Baja California; frequently found farther inland than many other gulls; breeds in Alaska across Canada to E. Coast.



L: 17.5" ws: 48" ♂>♀

RING-BILLED GULL*Larus delawarensis*

ID: small gull with very pale back; striking pale eyes, yellow bill with a distinct black ring; yellow legs. **BP:** red eye ring. **SIMILAR:** California Gull is larger, has black and red spots on bill, dark eyes, yellow-green legs; Herring Gull is much larger, has red spot on bill and pink legs.



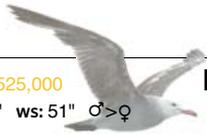
Increasing populations may have a negative impact on nesting of species such as the Common Tern. Breeds from eastern Oregon to Nova Scotia. Most widespread gull in N. America, especially inland, but never found in large numbers in our area. Winters along East, West and Gulf coasts as well as in many inland states and south into Mexico.





Pop: 525,000

L: 19" ws: 51" ♂>♀

**HEERMANN'S GULL***Larus heermanni*

ID: bright red bill with black tip; black legs, feet; wings dark with white trailing edge; black tail with pale terminal band; gray body (all other N. American adult gulls have white body). **BP:** head turns white. **HABITS:** bouyant in flight; bold and aggressive disposition.



SIMILAR: young Western Gull appears dark but lacks red bill. Terns have red bill but white body.

Breeding territory limited; vulnerable to disturbance: egg harvesting by fishermen, nest predation by introduced mammals, industrial development for guano extraction, tourism. Follows Brown Pelicans and other seabirds, pirating their catch.

Nests on islands off W. coast of Mexico, but may be expanding range as far as Alcatraz. Range: Pacific coast; migrates north after spring breeding season; common in N. California, but may wander as far north as British Colombia.

ELEGANT TERN*Sterna elegans*

Pop: 70,500

L: 17" ws: 34" ♂>♀



ID: medium-sized tern; long, slender orange-yellow bill, fluffy black crest on nape; forked tail (when standing does not extend beyond wings), legs black or yellow. **VOICE:** sharp *kree-rick!* **SIMILAR:** Forster's Tern is smaller with long tail and white nape in winter; Caspian Tern is larger with thicker red bill and black forehead.



© Jeff Poklen

Breeds in only 5 locations, 90%+ of population concentrated on Isla Rasa in Mexico during breeding season; threats include degradation of nesting sites, urban development; introduction of non-native mammalian predators, egg harvesting, guano mining, disruptive tourists. Breeding: Pacific coast of Americas; nests on ground near water from southern California to Chile. After breeding in south, migrates north to California (occasionally Washington) in late summer and early fall.

FORSTER'S TERN*Sterna forsteri*

L: 14" ws: 31"



ID: medium-sized tern; sleek, white body; pale gray wings, mantle and tail; black-tipped orange bill, black cap; orange legs; long forked tail (extends beyond wings while standing, usually visible in flight). **WINTER ADULT/JUV:** black mask, white crown/nape. **HABITS:** flies with strong, shallow wingbeats. **VOICE:** emphatic *kyarr!* **SIMILAR:** Caspian Tern is much larger with large thick red bill, shorter tail, black legs; Elegant Tern is larger with long slender bill, short tail.



© Jeff Poklen

Declining in Midwest due to loss of wetlands. Eats fish. Monogamous; nests on ground near fresh- and saltwater marshes across N. America. Range: N. and Central America; winters halfway up both N. American coasts south to Guatemala.



L: 21" ws: 50" ♂>♀

CASPIAN TERN*Sterna caspia*

ID: world's largest tern; large red bill, dark tip; black cap (reduced in winter), shallowly notched tail, black legs. In flight, upper wing surface gray with dark primaries on underwing. **JUV:** dark-edged back and wing feathers. **HABITS:** flies more like a gull; aggressive toward other terns. **VOICE:** harsh *kowk* or *ca-arr*; juveniles beg for food with squealing whistle. **SIMILAR:** Forster's Tern, Elegant Tern.

Vulnerable to disturbance at beach nesting sites. Breeds across N. America; nests in colonies (including in San Francisco) on ground among rocks and driftwood or on docks or other structures.



© Jeff Poklen

Aerial chases performed as part of pair bonding; chicks recognize parents by voice; extended parental nurturing. Winters from Baja California south to Colombia.



NON-PASSERINES

Six species of birds spanning four families simply don't belong in any of the other designated groupings we've devised for *100 Birds of Heron's Head*. While they behave in some ways like passerines, or perching birds, they have a different foot structure. That doesn't mean these birds are "misfits," only that our *taxonomy*, the orderly classification of species, has its limitations.



HUMMINGBIRDS. At under .33 ounce, with wings that beat faster than the human eye can see, these smallest of all birds, found only in the Americas, zing through the air with the greatest of ease. They have a long slender bill for feeding on flower nectar while hovering. Males make splashy territorial and courtship displays, hovering high in the air, then diving suddenly, or perching conspicuously flashing their bright, iridescent *gorget* (throat patch). They build a small cup-shaped nest from plant

fibers and lichens, often stitched together with spiderweb. Reduction of habitat, especially in Central America/Mexico, is a major threat to migratory hummingbirds.

PIGEONS/DOVES. These short-legged, medium-sized birds with a small, often bobbing head are typically found in open fields and grasslands as well as, of course, on the heads of public city statues. They feed primarily on the ground, picking up seeds, fruit, occasionally insects or whatever else they can scavenge. They have evolved a unique ability to suction water



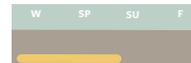
into their esophagus rather than raising their head to drink as other birds do. The Passenger Pigeon, once perhaps one of the most abundant birds on earth, was hunted to extinction by the early 1900s.

WOODPECKERS. These primarily forest-dwelling birds are known for pecking into trees with a strong, chisel-shaped bill to forage for insects and excavate nest cavities. They also feature a stiff tail used to aid in climbing, deeply contrasting plumage colors and an undulating flight pattern. Some species sport a barbed, sticky tongue that can extend as far as 5" in search of insects. Woodpeckers' feet generally have two toes forward and two back, with

the outer rear toe able to turn outward as the bird is climbing. Courtship displays may involve drumming on trees, waving of the bill and raising the crest. Most woodpecker species are habitat specialists and sensitive to change. The Ivory-billed Woodpecker is now likely extinct due to the loss of mature hardwood swamp forest trees in the southeastern U.S.



KINGFISHERS. Typically perched on tree limbs above water, these fishing experts feed almost exclusively by plunge-diving for fish, but they will occasionally take amphibians, reptiles, insects and even small birds and mammals. They are characterized by a large head, a strong bill and small, weak feet suitable only for perching. After a courtship of aerial pursuits and gifts of fish by the male, both sexes excavate a horizontal burrow in a clay or sandy bank lined with grass or leaves for nesting. Both parents teach young to fish by dropping food into the water for them.



L: 4" WS: 5.25"

ANNA'S HUMMINGBIRD

Calypte anna

ID: sturdy-looking; ♂: ruby-red iridescent feathering on throat and top of head; green back, green/black tail. ♀/**JUV:** less red on throat; white tips on tail. **HABITS:** actively guards nectar territory, which changes in size depending on amount of flowers available; frequently perches on exposed branches. **SIMILAR:** Allen's



Hummingbird, common Feb–Aug in moister parts of SE, has rusty flanks, tail, part of back; white breast. Uncommon ♂ Rufous Hummingbird has all or mostly rusty back.

Only hummingbird likely encountered on bay's edge. Feeds on nectar and insects.

Breeding ♂ performs elaborate diving display. ♀ builds nest of plant fiber and spiderwebs; sole provider for altricial young. Range: British Columbia south to northern Mexico.



W	SP	SU	F
■■■■			

L: 12" ws: 18" ♂>♀

MOURNING DOVE*Zenaidura macroura*

ID: overall buffy brown, underparts lighter with pinkish wash; long tail tapers to a point, outer tail feathers tipped with white; dark bill, pale blue eye ring, dark shiny patch below ear; orange feet. **HABITS:** wings produce a soft whistling sound while taking flight. **VOICE:** mournful cooing. **SIMILAR:** Rock Pigeon and Band-tailed Pigeon are larger, stockier, with dark gray plumage. Eurasian-collared Dove has black collar and lacks dark spots on wings.



© Lee Karney

One of the most common/widespread birds of North America; capable of producing up to 6 broods per year. Builds flimsy nest of twigs, usually in tree or other stable, elevated structure. Range: southern Canada to central Mexico.

ROCK PIGEON*Columba livia*

L: 12" ws: 28"

W	SP	SU	F
■■■■			



ID: variable species; typical form: pale gray with two black wing bars, darker head and neck; white *cere*, white rump, black band at end of tail, reddish legs and feet; underwing noticeably lighter in flight. **VOICE:** stuttered *coo*. **SIMILAR:** Band-tailed Pigeon is larger, lacks white rump and pale underwing.

Variable plumage as a result of captive bred varieties rejoining the wild populations. In cities may subsist on human food such as bread, popcorn, etc.; mostly

seeds in wild. Builds nest of twigs or grass on structures resembling sheltered cliff ledges, its natural breeding habitat; may mate for life. Originally from Europe to N. Africa, now associated with human habitation worldwide.

NORTHERN FLICKER*Colaptes auratus*

L: 12.5" ws: 20"

W	SP	SU	F
■■■■			



ID: gray head with brown forehead, whitish below with black spots; black crescent on breast, brown bars on back; red wing linings (in western N. America; yellow in eastern), white rump, black tail. ♂: red mustachial stripe starting at base of large, slightly decurved bill. **HABITS:** smashes ants and preens with remains. **CALL:** high, piercing *keew* or *kleeer* similar to Red-tailed Hawk. **SONG:** long low-pitched series of *kwik* notes.

Stiff tail feathers provide support when climbing or excavating a tree cavity for a nest; extended, its barbed, sticky tongue can reach 5". Eats insects, especially ants; spends more time on ground foraging for ants than other woodpeckers; eats fruit during nonbreeding season. Makes

aggressive courtship displays: drumming, bill waving, bobbing, flashing; both parents excavate nest cavity. Range: all of N. America below Arctic Circle.

W	SP	SU	F
■■■■			

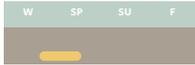
L: 6.75" ws: 12" ♂>♀

DOWNY WOODPECKER*Picoides pubescens*

ID: contrasting b/w overall; regional variations in size and plumage; white undersides, chin, throat; black upper tail with white spots, mostly white back; black forehead, mustachial stripe, crown offset by white lores, eyebrow and nape. ♂: red patch on nape. **HABITS:** sexes forage separately, ♂s territorially defend smaller branches, tops of trees. **VOICE:** similar to squeak toy. **SIMILAR:** Hairy Woodpecker is larger, bill at least as long as head, and has no spots on tail.

Smallest, most common N. American woodpecker; small bill allows foraging for insects in smaller crevices than larger-billed species can get to. Also eats fruit, seeds, sap. Both sexes annually excavate nest cavity in dead tree, sometimes a pole; breed across most of range. Range: most of contiguous U.S./Canada, except extreme north and southwest desert regions.





L: 13" ws: 20"

BELTED KINGFISHER*Ceryle alcyon*

ID: blue-gray back, wings, tail; white chin, neck, throat, belly; large head with shaggy crest; large, heavy bill; small feet. ♀: red chest band and flanks. **HABITS:** perches prominently near water, usually solitary; dives headfirst into water for fish; disgorges pellets of bones and shells; will use bill and feet to make a 1–8' tunnel in sandy bank near fishable water. **VOICE:** harsh rattle.



© Mike Yip

One of few birds where ♀ is more brightly colored than ♂; species is declining due to habitat loss. Eats fish, crustaceans, insects. Breeding pair defends a half-mile territory against other Belted Kingfishers; lays 5–8 white eggs in spring; 23–24 days to incubate while ♂ feeds ♀. Range: subarctic W. hemisphere.

PASSERINES

About 60% of all bird species are scientifically classified as passerines. Commonly referred to as perching birds, passerines have the distinguishing characteristic of four toes—three forward and one behind—all joining the foot at the same level. They are land birds of small to medium size, the largest being the Common Raven. All have *altricial* young—that is, they hatch naked and helpless and are reared in the nest. Passerines are the most highly evolved and diverse order of birds, and they are extremely successful in their way of life.



Most passerine species have well-developed vocal abilities and are capable of producing complex, musical songs that they use to defend territories, attract mates and reinforce pair bonds. Because songs are unique to the species of the singer, a practiced observer can use a bird's song to help with identification. Twelve families, represented by 32 species, are included here.

FLYCATCHERS. Flycatchers commonly hunt in open areas capturing insects on the wing and returning to a central perch. Of our two common flycatchers, the Black Phoebe can be found year-round, while Say's Phoebe is a winter resident only.

CROWS AND JAYS (CORVIDS). Known to be among the most intelligent of birds, members of the Corvid family are bold, aggressive and opportunistic. The four species included here are all year-round residents.



SWALLOWS. Acrobatic and agile flyers, these gregarious birds can be found anywhere there is a good source of insects, which they capture in flight. Long, pointed wings, slender bodies and small feet are characteristics of this family. Swallows live comfortably in close proximity to human settlements, often using artificial structures for nesting. All species are long-distance migrants traveling thousands of miles annually.

TINY INSECTIVORES. Though of different families, bushtits and kinglets share similar features and habits. The Bushtit can be found year-round in large flocks during the fall and winter and in smaller family groups during the spring and summer. The Ruby-crowned Kinglet is a winter resident.



Though seemingly nervous and constantly in motion, these species will offer excellent views to the patient observer.

THRUSHES, MIMIDS, STARLINGS. While the American Robin is known for its original song, the Northern Mockingbird and the European Starling are both accomplished at mimicking the songs of others. These three distinct species from three distinct families are very similar in size and shape, and all can be found in a variety of habitats year-round in our area.



WOOD WARBLERS. A family of small, energetic insectivores, warblers can be found in a variety of habitat niches. The Yellow-rumped Warbler, a common winter resident, can be found gleaning in flocks high in the branches of trees or tall shrubs. The Common Yellowthroat, more solitary and preferring low, dense marsh vegetation, is uncommon year-round.



NEW WORLD SPARROWS. Typically colored in shades of brown, sparrows are usually found on the ground or in low shrubs. While all of our species can be found foraging for seeds and insects in mixed winter flocks, only the White-crowned Sparrow and the California Towhee are permanent residents.

BLACKBIRDS. This family of sleek and slender omnivores, often colored in patterns of black, yellow, orange and red, is typically sociable. Most species can be found in flocks in open areas, some nesting colonially, others singly.

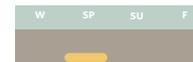
FINCHES/OLD WORLD SPARROWS. Small seed eaters with characteristic conical bills and short tails, finches are gregarious and often form active, vocal flocks. While the American and Lesser Goldfinches can mostly be found in trees and brush, the House Finch and House Sparrow have an affinity for human structures.



BLACK PHOEBE

Sayornis nigricans

L: 6.75" WS: 11"



ID: black flycatcher; white on belly and undertail coverts; black bill, eyes and feet—appears to be wearing a tuxedo. **JUV:** buffy wing bars. **HABITS:** often perches near water looking for insects—will fly off to get an insect and then return to the same perch and flick its tail; territorial. **SONG:** repeated high-pitched single note or 2-phrase *pa-tee, pa-tew*. **SIMILAR:** Say's Phoebe.

Eats insects, occasionally small fish; regurgitates indigestible parts in pellets. Lays 3–6 white eggs in cup-shaped mud nest (often reused) on rock or wood wall, Mar–Aug; both parents tend young. Range: Oregon coast south to Argentina; nonmigratory.



L: 7.5" WS: 13"

SAY'S PHOEBE

Sayornis saya

ID: gray or brown on back, breast and wings; pale orange belly and undertail; black eyes, bill, legs, feet; whisker-like feathers near base of bill act as net for catching insects. **JUV:** cinnamon wing bars. **HABITS:** in winter, wags tail while flycatching from prominent perch. **CALL:** plaintive whistle. **SONG:** 2 low-whistled phrases. **SIMILAR:** Black Phoebe is black above, white below.



Named for Thomas Say, an American naturalist. Decline probably due to habitat loss in breeding areas. Lays 3–7 white eggs (often with red spots) in soft, cup-shaped nest of hair, plant material, spiderwebs along wall or cave. Range: western N. America; breeds from Great Basin to Alaska, winters from California to Mexico.



W	SP	SU	F

POP: 180,000

YELLOW-BILLED MAGPIE

L: 15.5" ws: 24" ♂>♀

Pica nuttalli

ID: bright yellow bill, yellow under eye; black head, breast, back, rump, and legs; white belly and scapulars; iridescent wings; very long tail. **JUV:** yellow skin below eye. **HABITS:** usually lives communally and will mob prey and predators.

CALL: loud, repetitive *chaw*. **SIMILAR:** smaller Western Scrub Jay has black bill.

Declining due to loss of tall old oak tree habitat, poisons used to kill ground squirrels and being hunted as pests; one of only two endemic California bird species. Found in open savanna, often near water; eats insects, carrion, nuts, seeds, fruit. Somewhat colonial; builds 3'-wide nest of sticks, mud and grass in tall tree canopy. Range: central California; limited migrant.

WESTERN SCRUB JAY*Aphelocoma californica*

L: 11.5" ws: 15.5"

W	SP	SU	F

ID: blue wings, tail, head; gray mask, thick black bill; white throat; gray back, whitish underparts; black legs. **JUV:** duller. **HABITS:** does well in cities and suburban areas along with the traditional oak woodland habitat. **VOICE:** loud, noticeable shriek repeated 3 times. **SIMILAR:** Western Bluebird is smaller with chestnut breast, not as brilliant.



In 1930s–40s shot by farmers as a pest and by hunters for pleasure. Spreads oaks by burying acorns for later eating. Eats insects, nuts, seeds, fruit. Monogamous; both parents build open-cup nest of twigs, moss, roots, hair in shrubs or low in

trees, and feed young for about 18 days. Range: Pacific Coast oak habitat from Washington to Mexico, east to New Mexico; nonmigratory.

AMERICAN CROW*Corvus brachyrhynchos*

L: 17.5" ws: 39"

W	SP	SU	F

ID: medium-sized all-black bird; short, fan-shaped tail; broad wings. **JUV:** duller; pale gape. **HABITS:** often seen in flocks; usually forages on ground; rowing-style wing beats in flight, doesn't soar. **CALL:** *caw, caw, caw* (where *crow* comes from); sometimes a dry rattle sound.

SIMILAR: Common Raven is larger, has wedge-shaped tail, more massive bill and a larger vocalization range.

Lives in a family community until young find a mate. May migrate a short distance and roost with large groups of crows in winter. Eats small animals, insects, carrion, nuts, seeds, fruit. Juveniles help parents feed chicks. Common in urban/farming areas—treated as a pest because it eats corn. Although population is stable, affected by West Nile Virus. ♂ attracts ♀ by diving and flying after a mate; builds 2' stick nest in trees. Range: Canada to Mexico.



W	SP	SU	F

L: 24" ws: 53" ♂>♀

COMMON RAVEN*Corvus corax*

© Lee Karney

ID: large, glossy black; shaggy throat; long, thick black bill; long, wedge-shaped tail. **JUV:** duller. **HABITS:** bold/opportunistic; can perform rolls in mid-air. **VOICE:** range includes croaking sound. **SIMILAR:** American Crow is smaller, has thin neck and limited vocalization.

Does not rely solely on learned behavior from parents; in test, tried to stomp a more aggressive rival raven through faked behavior; lives about 25 years. Scavenger and predator: eats insects, nuts, seeds, fruit, other

birds' eggs, amphibians, carrion. While attempting to attract a mate may transfer an item to another and touch wingtips in flight; territories established on tall trees or edges of cliffs or buildings. Open nest of sticks, twigs. Range: N. hemisphere; nonmigratory; adaptable to variety of habitats.





L: 6.5" ws: 15"

BARN SWALLOW*Hirundo rustica*

ID: long forked tail with white band on terminal edge, upperparts dark and glossy; underparts buffy cinnamon; throat and forehead reddish-brown.



© Bob Lewis

♂: longer tail.

JUV: shorter tail, less glossy, paler.

HABITS: flocks and forages with other swallow species.

VOICE: twittering and squeaking like balloon being twisted. **SIMILAR:** Cliff Swallow has pale rump and squarish tail.

Most widely distributed swallow species in the world; has our only pronouncedly deep "swallowtail." Eats mostly insects. Parents build cup nest of mud and dried grass, usually in sheltered area, often on human structures. Summers in N. America, winters in Central and S. America; common also in Europe, Asia and Africa.

CLIFF SWALLOW*Petrochelidon pyrrhonota*

L: 5.5" ws: 13"



ID: pale rump, white belly; white forehead, dark throat; rufous auriculars, squarish tail, wings dark above, white below. **JUV:** duller and grayer than adult. **HABITS:** historically obligate to suitable cliff nesting sites, has developed a preference for nesting on human structures such as buildings, bridges, and culverts. **SIMILAR:** Barn Swallow has a dark rump and forked tail.



Eats mostly insects, some berries. Colonial nester; parents build gourd-shaped nest of dried mud lined with grass and feathers and incubate 4–5 eggs. Summers in N. America, winters in S. America.

TREE SWALLOW*Tachycineta bicolor*

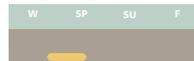
L: 5.5" ws: 14.5"



ID: glossy blue-green upper parts, white below. **JUV:** gray-brown upper parts, white below with faint gray breastband. **HABITS:** soars over fields or water foraging for insects; will perch in the open on bare branches, wires, etc. **SIMILAR:** Violet-green Swallow has bright green crown and back, white cheek extending over eye and white sides on rump.

Eats insects, berries. Breeds across N. America; one of

the first species to arrive on the northern breeding grounds; benefits from bluebird nest boxes, which offer optimal cavity size for this species, too; ♀ builds nest in cavity with other birds' feathers. Winters to Central America and the Caribbean.



L: 4.5" ws: 6"

BUSHTIT*Psaltriparus minimus*

ID: very small gray bird with long tail; brown crown, dark eyes, short bill; darker above, lighter below, some pink hue; rounded wings. ♀: pale iris. **HABITS:** flies rapidly within bushes, sometimes hangs upside down to catch insects and other food. **VOICE:** flocks produce constant twittering sound. **SIMILAR:** Chestnut-backed Chickadee has black cap/chin and chestnut back.

Lives in flocks except during breeding season; huddles together in bushes with others on cold nights in scrubby areas, gardens, parks. Eats insects, berries, seeds. Makes 7–12" gourd-shaped hanging nest from parts of plants, animal hair, and spiderwebs, with a hole in the top; will abandon nest if disturbed; both adults feed the young. Range: western U.S. and Mexico.





RUBY-CROWNED KINGLET

L: 4.25" ws: 7.5"

Regulus calendula

ID: small, drab olive bird, lighter underneath, with 2 white wing bars, dark bar at base of secondaries; thin, pointed bill; dark eye with pale eye ring;



somehow hidden red cap. **HABITS:** flies in flocks with other birds while feeding. **CALL:** *ge-dit*. **SONG:** complex with repeated 3–2–3 note phrasing. **SIMILAR:** Golden-crowned Kinglet has a gold crown lined in black, white eyebrow, black eye stripe.

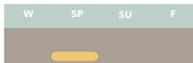
Fire, logging and severe winters negatively affect its breeding. Lives in shrubs and trees; eats insects, fruit, buds. Breeding ♂ raises red cap feathers as a warning display to other ♂s; despite small size, ♀ lays 8 eggs on average (largest clutch

size of all N. American songbirds) in hanging cup nest in conifers. Breeds in Alaska, Canada and western mountains; winters in lower elevations across southern U.S. to Central America.

AMERICAN ROBIN

Turdus migratorius

L: 10" ws: 17"



ID: largest U.S. thrush; dark head, dark eyes with broken white eye ring, thin yellowish bill, white-streaked throat; red breast and belly, slate gray back;



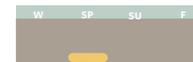
white under coverts; long tail, long dark legs. ♂: darker overall, brick red breast/belly. ♀: paler. **JUV:** spotted breast. **HABITS:** probes for worms in short grass. **SONG:** flutelike. **SIMILAR:** Varied Thrush has bold orange eye stripe, dark band across breast, intricate wing pattern.

Due to lawn foraging, vulnerable to pesticide poisoning. Eats mostly worms (breeding) and fruit (nonbreeding). Builds cup nest of twigs and grasses in trees, shrubs, buildings. Range: northern Canada to Guatemala.

EUROPEAN STARLING

Sturnus vulgaris

L: 8.5" ws: 16" ♂>♀



© Lee Karney

ID: glossy iridescent black head, back, breast; dark eye with black lores; straight, dark bill; triangular black wings, brown edges; intricately spotted feathers; short square tail, reddish-brown legs.

BP: yellow bill, dark breast feathers exposed. **JUV:** drab gray-brown. **HABITS:** highly social, flocks year-round—1 million+ not uncommon in fall/winter; opportunistic, omnivorous. **VOICE:** whistles and squeaks; mimics other species. **SIMILAR:** blackbirds

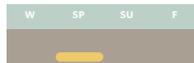
and Brown-headed Cowbird have shorter bills, longer tails, dark legs.

60 released in Central Park in 1890 by industrialist wanting to introduce all bird species mentioned by Shakespeare are ancestors of all 200 million starlings in N. America today. Builds nest in any handy tree cavity. Migration patterns vary; nonmigratory south of 40° latitude; resident from Canada to Mexico.

NORTHERN MOCKINGBIRD

Mimus polyglottos

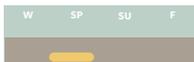
L: 10" ws: 14"



ID: gray head, thin dark eye-line, dark bill; gray back, whitish underparts; darker gray wings, 2 white wing bars; long dark tail, white outer feathers; dark legs. **JUV:** faint breast spots. **HABITS:** shows "wing flashes"—large white wing patches—in flight, possibly defensive or to flush prey; territorial—attacks intruders with swift dives/darts, calling loudly. **SONG:** loud, complex melodies including imitations of other bird species and beyond. *Mimus polyglottos* is Latin for "many-tongued mimic." **SIMILAR:** Loggerhead Shrike has black mask, shorter bill.

Mostly unmated ♂s will sing at night, esp. during full moon; adds songs throughout life. ♂ builds cup nest of twigs, lined with grass by ♀, in small tree/shrub. Range: Oregon to Newfoundland south to Mexico / W. Indies.



**COMMON YELLOWTHROAT**

L: 5" ws: 6.75"

Geothlypis trichas

ID: olive gray warbler; brown back; yellow throat; pink legs. ♂: black mask with white outline. ♀: buffy eye ring. ♂ **JUV:** dull brown; slight mask. **HABITS:** eats insects from low trees and bushes. **SONG:** *witchity, witchity, witchity, witch*, repeatedly; or a *jip* call. **SIMILAR:** MacGilvray's Warbler has gray hood with white eye arcs.



If it discovers Cowbird parasitizing nest, will build another nest on top of Cowbird eggs and lay second clutch. ♂s are monogamous; those with larger mask more successful in finding mate; singing ♂ flies up and then down to attract ♀; ♀ lays 3–6 eggs in cup-shaped nest built of leaves, grass and hair in marshes or low in trees or bushes; both parents feed young. Breeds across N. America; winters from southern U.S. to Central America and Caribbean.

YELLOW-RUMPED WARBLER*Dendroica coronata*

L: 5.5" ws: 9.25"



ID: small, active songbird; small, thin, dark bill; pale throat; variable plumage: gray above, white below, black streaking; yellow rump and sides, white wing bars. **HABITS:** sometimes flies over water eating insects; during migration, travels in flocks and chirps to keep group together. **VOICE:** repetitive warble. **SIMILAR:** Townsend's Warbler lacks yellow rump, has yellow face, black mask and throat, green back.



Slang name is "butter butt." Habitat includes forests, open woodlands, gardens; eats insects and berries. Breeding ♂ fluffs feathers and raises crown feathers while calling to attract ♀. Cup-shaped nest built in coniferous tree; young tended by both parents. Migratory; range from Canada to Central America and Caribbean. Most northerly warbler winter range: Seattle to Great Lakes.

CALIFORNIA TOWHEE*Pipilo crissalis*

L: 9" ws: 11.5"



ID: robin-sized; short pale bill, reddish eye; dull brown with cinnamon lores, throat streaks and undertail coverts; long tail; pinkish legs. **JUV:** streaked breast and cinnamon wing bars. **HABITS:** often seen on trails, under trees and bushes; moves both feet at once to scratch in leaf litter for food; drinks dew. **CALL:** loud, metallic *chenk*, often repeated 2–3 times. **SIMILAR:** ♀ Brown-headed Cowbird has dark eye, shorter tail, dark legs and lacks cinnamon tones.



Highly territorial.

Bulky nest 4–12' high in trees/dense bushes; ♂ feeds ♀ during incubation; Brown-headed Cowbirds will lay eggs in Towhee nests. Range: W. Coast of California to Baja California.



L: 5.5" ws: 7"

SAVANNAH SPARROW*Passerculus sandwichensis*

ID: small, short-tailed sparrow; small bill, yellow or pale eyebrow; crown with distinct median stripe; streaked breast and flanks. **HABITS:** forms small flocks; often perches low near cover. **VOICE:** weak chirps and buzzy trills. **SIMILAR:** Song Sparrow has longer tail, broad gray eyebrow, bolder streaking.

Highly variable species: 17 recognized subspecies. Lives in open fields of all types including grasslands, dunes, salt marsh.

Eats insects and seeds. ♀ builds well-concealed nest of grass on ground, usually for 4 eggs; both parents tend young. Migratory, some subspecies more than others; widespread throughout N. America; winters to Central America and Caribbean.





L: 7.5" ws: 11"

FOX SPARROW*Passerella iliaca*

ID: large, dark sparrow; uniformly brown across upper parts; dark triangular spots cover white breast and extend down flanks, often forming dark area in central breast; dark upper mandible, light lower. **HABITS:** "chicken scratches" in duff to expose food. **SONG:** bold and melodic.

SIMILAR: Song Sparrow is lighter in color with a more patterned head and back; Hermit Thrush is lighter, with fewer breast spots and thinner bill.

Several distinct North American populations, varies in plumage from brown to red. Local population breeds in western Canada and southwest Alaska; open-cup nest of grass and weeds usually built on ground under dense shrubs. Range: N. America.

LINCOLN'S SPARROW*Melospiza lincolni*

L: 5.75" ws: 7.5"

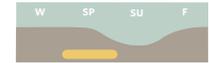


ID: small sparrow; short tail, slender pointed bill; buffy breast and sides with crisp black streaking and weak central spot sharply contrast with whitish belly; dark malar stripe; broad, gray eyebrow. **HABITS:** generally timid and solitary; forages low in thickets, often near water. **CALL:** sharp, light *tschup*. **SIMILAR:** Song Sparrow has heavier bill and heavier streaking on breast and sides and lacks buffy wash.

Found in dense, weedy shrubs; eats insects and seeds. Breeds in boreal and montane wetlands of N. America. Migratory; winters from southern U.S. and California coast to Central America; high dispersal rate of juveniles may contribute to homogeneity across range.

**WHITE-CROWNED SPARROW***Zonotrichia leucophrys*

L: 7" ws: 9.5"



ID: large, long-tailed sparrow; black-and-white striped crown; yellow-orange bill; whitish throat, clean gray-brown breast and belly; 2 white wing bars; back streaked with brown and black; gray rump. **JUV:** streaked breast; brown crown stripe. **HABITS:** forages on ground, never far from dense shrubs. **SONG:** clear whistles with an ascending introductory phrase and a series of repeated notes. **SIMILAR:** Golden-crowned Sparrow has gray bill; White-throated Sparrow (locally uncommon) has yellow lores and bright white throat.

Regional populations develop specific song dialects, with some intermediate populations achieving bilingual abilities. Found in low shrubs, open fields near thickets. ♀ builds nest of grass, twigs and other fibers in dense shrubs close to ground. Range: N. America; though migratory, some populations are more sedentary than others.



L: 7" ws: 9.5"

GOLDEN-CROWNED SPARROW*Zonotrichia atricapilla*

ID: large sparrow; yellow fore-crown tops black crown, less distinct in winter; dark gray upper mandible, pale lower; plain grayish-brown breast, sides, flanks; 2 white wing bars; brown back with darker streaks. **JUV:** streaked breast. **HABITS:** winter flocks foraging on ground often mix with other sparrow species. **SONG:** plaintive, minor-key melody *oh poor me* (commonly heard in spring before departure for northern breeding grounds). **SIMILAR:** White-crowned Sparrow lacks yellow crown and has solid yellow-orange bill.

Local winter residents arrive in mid-September, often in flocks foraging on the ground in parks and gardens. Breeds in boreal scrub and spruce forests of Alaska and Canada; builds nest of grass and leaves on ground under dense shrubs. Range: coastal states from Alaska to Baja California.



**DARK-EYED JUNCO**

L: 6.25" ws: 9.25"

Junco hyemalis

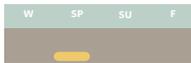
ID: dark gray/black head and neck contrast sharply with rufous-brown back and sides, white belly; pink bill; gray rump and tail dark with white outer tail feathers. ♀: paler. **HABITS:** small flocks forage on the ground or low in shrubs and trees; will scratch the ground to expose seeds and insects. **SONG:** single note repeated rapidly to form a trill. **SIMILAR:** Spotted Towhee is larger with dark bill, red eye, black back with white spots.



Prefers conifer forests and mixed woods for breeding; in winter can be found in more open brushy areas. ♀ builds open-cup nest of grass and leaves, usually well hidden on ground, for 3–5 eggs. About 6 distinct subspecies with varying ranges occur throughout N. America; some populations more migratory than others. Oregon subspecies (shown) appears locally.

RED-WINGED BLACKBIRD*Agelaius phoeniceus*

L: 8.75" ws: 13" ♂>♀



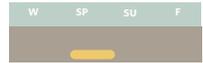
ID: medium-sized blackbird; straight, pointed bill. ♂: glossy black with bright red shoulder patches edged in yellow; variable size. ♀: dark brown above, streaked below, pale eyebrow. **HABITS:** gregarious and aggressive; forages on ground. ♂ uses red wing patches to define his status in the breeding territory. **SONG:** gurgly whistled trill *konk-laREEE*. **SIMILAR:** Tricolored Blackbird ♂ has red shoulder patches edged in white; ♀ is darker, both have thinner bill.



Estimated pop. 200 million, perhaps most abundant native N. American bird. ♀ builds open-cup nest of grass and leaves lashed to standing vegetation, incubates 3–4 bluish eggs; both parents tend to young. Range: widespread throughout N. and Central America.

BREWER'S BLACKBIRD*Euphagus cyanocephalus*

L: 9.5" ws: 15.5" ♂>♀



ID: slender, medium-sized blackbird. ♂: glossy black, iridescent green on body, purple on head; yellowish eye. ♀: dull sooty brown with dark eye. **HABITS:** bold and gregarious; forages for food walking on the ground. **SONG:** short, rising buzzy whistle. **CALL:** sharp *kek*. **SIMILAR:** ♂ Red-winged Blackbird has dark eye and red patch on wing; ♂ Brown-headed Cowbird has dark eye and dark brown head.



Somewhat colonial breeder; open-cup nest in various locations: ground, tree, crevice. Usually one brood per year. Seen seasonally throughout most of subarctic N. America. Though migratory throughout its range, occurs year-round in our area. May breed in Heron's Head Park and migrate to Central America.

**BROWN-HEADED COWBIRD**

L: 7.5" ws: 12" ♂>♀

Molothrus ater

ID: small, short-tailed, thick-billed, dark-eyed blackbird. ♂: glossy black with distinctly brown head. ♀: dull gray-brown with whitish throat. **HABITS:** in urban areas often forages with other blackbirds. **SONG:** rising series of gurgles and whistles. **CALL:** rapidly repeated single note. **SIMILAR:** Brewer's Blackbird ♀ has purplish head and yellow eye; ♀ has longer tail and thinner, pointed bill.



© Mike Yip

Lays egg in nest of other species for surrogate brooding; spread has led to the decline of some other species, especially warblers. Widespread throughout subarctic N. America; year-round resident.





WESTERN MEADOWLARK

L: 9" ws: 15.5" ♂>♀

Sturnella neglecta



ID: Robin-sized bird with sharply pointed bill and short tail; head striped black and white; back and wings mottled brown; tail brown with white outer feathers; throat and belly yellow with black V on breast. **BP:** bolder markings. **HABITS:** solitary during breeding season but can form sizable flocks in winter; forages walking on the ground for insects and seeds. **CALL:** flute-like. **SIMILAR:** Eastern Meadowlark almost identical but with significant range difference.

Prefers open grassland. ♂

Western Meadowlark often has two mates at the same time; while ♂ defends territory, ♀ incubates eggs and feeds young. ♀ builds domed nest structure of interwoven grass built on ground; two broods per year. Range: western 2/3 of U.S., southern Canada to Mexico; retreats from northern range during winter.

HOODED ORIOLE

Icterus cucullatus

L: 8" ws: 10.5"



ID: small, slender oriole; pointed, slightly decurved bill; yellow-orange with black bib, back, wings, tail; 2 white wing bars. ♀: yellow with darker wings/tail.

HABITS: usually perches high. **CALL:** bold, rising *mwheel*. **SONG:** rapid variety of slurred whistles. **SIMILAR:** Bullock's Oriole has straight, pointed bill; ♂ has black crown, back, eye stripe with white wing patch; ♀ has white underparts with yellow head and breast.

Range has extended northward in California perhaps due to planting of palms/flowering ornamentals. Lives in open woods, palms; eats insects, berries, nectar. Prefers to build hanging basket nest in palm tree; 2 broods per year. Neotropical migrant; range: SW N. America to Central America.



AMERICAN GOLDFINCH

Carduelis tristis

L: 5" ws: 9"



ID: bright yellow with black cap, wings and tail; white wing bars, white undertail coverts; pale bill; drabber in winter. ♀: lacks black cap, duller overall with olive upper parts. **JUV:** more drab. **HABITS:** often seen in small flocks actively and acrobatically feeding on seeds. **SONG:** variety of chirps and twitters. **SIMILAR:** Lesser Goldfinch has yellow undertail coverts and dark bill.

Favors weedy open areas, woodland edges; eats mostly seeds. ♀ builds cup nest in shrub or tree; young tended to by both parents; after producing her first brood, ♀ sometimes leaves ♂ to raise young while she produces a second brood with a different mate. Range: southern Canada to Central America; irregular migrant. Breeds in southern Canada; winters in southern U.S. and Mexico.

LESSER GOLDFINCH

Carduelis psaltria

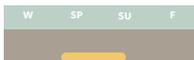
L: 4.5" ws: 8"



ID: our smallest finch; yellow lower parts, greenish upper parts; black cap; dark bill, wings and tail; white wing bars. ♀: lacks black cap, duller overall. **HABITS:** actively feeds in small flocks, often hanging upside down to reach seeds. **CALL:** plaintive, descending *peewew*. **SIMILAR:** American Goldfinch has pale bill and white undertail coverts.

Prefers open brush and eats mostly seeds. ♀ builds tightly woven cup nest in shrub or tree and incubates 4–5 eggs, 2–3 broods per year; young tended by both parents; susceptible to brood parasitism by Brown-headed Cowbird. Range: southwest N. America to northern S. America; limited migrant.





L: 6" ws: 9.5"

HOUSE FINCH*Carpodacus mexicanus*

ID: red forehead, eyebrow, throat and breast; brown cap; streaked belly, flanks and undertail coverts; may vary from dark red to yellow per diet.

♀: brown-streaked overall with plain brown head and face. **HABITS:** often found in groups; will perch in high, prominent places: fences, wires, treetops, rooflines. **SONG:** varied, chattering warble. **SIMILAR:** ♂ Purple Finch has rosy wash across nape, back and wings and lacks gray streaks on flanks; ♀ has white eyebrow and distinct gray cheek patch.

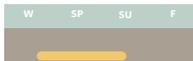


Originally a southwestern species, introduced in the east about 1940—now common throughout U.S. Eats mostly seeds and berries. Brightest ♂ most successful

breeder. ♀ builds open-cup nest in variety of locations including human structures; up to 3 broods per year; young tended by both parents. Range: N. America; some northerly populations winter in southern U.S.

HOUSE SPARROW*Passer domesticus*

L: 6.25" ws: 9.5"



ID: gray crown, chestnut nape; black bill, chin and breast; nonbreeding (fall) plumage less bold. ♀: very plain with pale, buffy eye stripe and unmarked breast. **HABITS:** aggressive and adaptable, quite comfortable foraging on city sidewalks. **VOICE:** bright and bold series of *cheeps*. **SIMILAR:** ♀ Purple Finch has streaked underparts; immature White-crowned Sparrow is larger with darker crown.

This common city dweller, introduced to North America in the 1850s, lives comfortably around human structures; known to displace some native songbirds. Eats mostly seeds, some insects. Builds nest of grass and feathers in natural or man-made cavities. Native to Eurasia and northern Africa, now common in urban and farm areas worldwide; nonmigratory.

**PHOTO CREDITS / CONTACT INFO**

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APPENDIX

PROTECTING A BIRD REFUGE

HUMANS, PETS AND OTHER THREATS

Many of the birds you'll see at Heron's Head Park are stopping off during either their northern or southern migration; they need to eat and especially to rest. When birds are disturbed by whatever potential threat in a sparse habitat such as Heron's Head that offers little natural protection, they are forced to spend much of their limited energy just trying to survive. Disturbances are particularly troublesome for birds that are here to breed. Detrimental factors for both migrating and resident species are human activities and the predation of off-leash dogs and feral cats.

HUMANS. People who venture off the designated trails and into the marsh habitat represent the largest creatures seen by the birds there and force them to fly away. If you have ever seen a Great Blue Heron take off, you realize what an extraordinary effort that can involve. Also, no matter how stealthily you might try to enter the marsh area, you may be stepping on eggs without even noticing. Many shorebirds, such as Killdeer and American Avocet, lay their eggs directly on the ground, often in rocks or gravel that perfectly camouflages them.



Another threat to birds in the area is trash. In addition to the well-known culprits such as plastic six-pack holders and Mylar

or other balloons, fishing tackle is a particular problem at Heron's Head. Birds can easily become snarled in discarded fishing line; ducks can mistake lead weights for food and eat them. Fishermen are encouraged to pick up after themselves and to stay in designated fishing areas. The Port of San Francisco has provided trash and recycling receptacles within the park. Then there is the blatant disregard for the refuge shown by people around the Fourth of July setting off illegal fireworks right in the park, a practice that must end.

One threat, however, that has successfully been overcome is the Hunters Point PG&E power plant. After many years of community and political pressure, in May 2006 PG&E decommissioned the plant, putting a stop to the emission of particulates and other substances into the air and water, as well as the noise pollution and the elimination of heated waste water released into India Basin. If you would like to see a timeline of the plant's demolition and site clean-up, including updates, visit <http://pops.trcsolutions.com/hunterspt/> or call 415.626.3055. Now the question is, What will replace the former power plant? The birds that depend on Heron's Head Park will surely be affected by future development in this and the surrounding areas.

DOGS AND CATS. Dogs in Heron's Head Park are required to be kept on leash. Like their human owners, off-leash dogs sometimes venture into marsh areas and disrupt both migrating and resident birds, as well as destroy eggs in breeding season. While leash laws are controversial, it must be remembered that within the San Francisco city limits there are many off-leash dog parks but exactly zero official sanctuaries for birds.



If you are a dog owner, please note that bags are provided near the entrance for picking up dog feces and receptacles for safe disposal—help prevent coliform bacteria from washing into the marsh and on into the bay.

Meanwhile, feral cats kill, and destroy the eggs of, an estimated 10 million birds annually in the U.S. For more information, please visit www.abcbirds.org/cats/index.htm. Never release an unwanted pet into a park or leave it behind when you move; instead, contact the Society for the Prevention of Cruelty to Animals (SPCA) at 415-554-3000 or www.sfspca.org for options.

MANAGING THE NATIVE PLANT HABITAT. The Port of San Francisco, local bird watchers and Literacy for Environmental Justice (LEJ) have worked together to minimize the negative impact on nesting birds caused



by grass mowing. Instead, they've implemented a plan to employ a herd of goats to selectively eat non-native grasses. Goat access to areas containing nests is blocked off using a movable, temporary fence. Native grasses tend to grow in bunches and be coarser and less tasty to the goats, so the goats avoid them and instead eat the non-native grasses and weeds such as fennel.

Increasing the number of native trees and plants along the bay shoreline and in nearby neighborhoods will provide more areas for native birds to go for food, shelter and nesting. For more information on native plants, contact LEJ, which holds work parties to remove non-native plants and runs a nursery to grow and plant native plant species at Heron's Head Park. You can also find information on the park flora in *A Field Guide to Plants at Heron's Head Park* (2007).

WHEN TO GO BIRDING AT HHP

During any type of weather, at any time of year, at any time of day, Heron's Head Park can be a great place for a quiet, contemplative walk. But the weather, the seasons and the tides all have a bearing on which birds you might see there—and *how many* birds you might see.

WEATHER. During heavy rain and wind, many birds take refuge where they can: out of sight in trees, under bushes, in coves. Once the rain stops and the wind subsides, they come out to dry off and/or seek food. Typically late fall to early spring is the rainy season in San Francisco, but the park can be windy at any time of year. Fortunately, the southern bay waterfront is one of the last areas of the city to get fog from the ocean. Birds don't seem to mind it, but heavy fog makes it difficult for birders to see them.

SEASONS. Resident birds—like the Western Gull, Mourning Dove and Western Scrub Jay—can, of course, be seen year around. Many migrating birds come through the area in the spring (migrating north to breed) and fall (migrating south for the winter). Some birds, including Black-bellied Plovers, Horned Grebes, Red-breasted Mergansers, Say's Phoebes and many others, come down from Canada and Alaska in the winter to eat the aquatic plants, fish and shellfish of San Francisco Bay.

At Heron's Head, we see shorebirds primarily in their winter, or basic, plumage. Spring is usually when birds change into their breeding plumage—at their most colorful or distinguished—to attract a mate. A local example is the Dunlin. During the winter it features gray and brownish plumage with a black bill and black legs. In late spring these birds fly north to breed in the Alaskan tundra. But for just a brief period in early spring or late summer, we might see the Dunlin in breeding plumage: a rufous back with a black patch on the belly.



TIDES. Tides affect the movements of birds that feed along Heron's Head's shoreline. During high tide, shorebirds and waders will gather together and rest in high-tide roosts such as the high rock piles along India Basin while they wait for the tide to go out. Once the tide starts to recede, the shorebirds will follow it, feeding on the freshly revealed mussels, clams and crustaceans from the mud along the water's edge. This means that they tend to move farther away from the park's main trail along the park, and can be more difficult to see. Then binoculars or a spotting scope can make a big difference in viewing the details. Just after high tide may be your best opportunity to see shorebirds up close, while they feed on the shoreline as the tide retreats.

For daily tidal data, see the Weather section in the *San Francisco Chronicle* or visit sfgate.com > Weather > Marine Forecast > Hunters Point/San Francisco Bay.

GENESIS OF HERON'S HEAD PARK

Heron's Head Park, one of the few wetland areas protected on the City of San Francisco's bay shoreline, was born in the early 1970s, when the Port of San Francisco brought landfill to India Basin to create what was to be Pier 98, a shipping terminal. But the project never materialized, and the newly created peninsula went untouched. Over time, the fill settled and eroded into the bay, leaving portions of the intended pier slightly below sea level. Aquatic plants began to take root, trapping silt and nutrients from the bay's tidal flows. Eventually a salt marsh emerged on the site. Soon shorebirds and aquatic wildlife were attracted to the area, transforming the accidental marsh into a valuable natural habitat.



© Courtesy Port of San Francisco

As the marsh became established over the years, Golden Gate Audubon recognized the potential habitat value. In 1993 it petitioned the San Francisco Bay Conservation and Development Commission and the Port to work together to plan and fund the development of the wetland. In 1998, with funding from the San Francisco Public Utilities Commission, the California Coastal Conservancy and the San Francisco Bay Trail Project, the Port removed over 5,000 tons of excess concrete and other landfill to create additional marshland and added a tidal channel to increase water circulation. A fishing pier, a bird-watching station, walking paths and a picnic area were constructed. Under contract to the Port, SLUG, in collaboration with the California Native Plant Society, then undertook revegetation of native species in the upland and high marsh zones.

In October 1999 the former pier officially became Heron's Head Park, named for the peninsula's resemblance, when viewed from the sky, to the graceful head of one of its residents—the Great Blue Heron. Since then, the Port has operated the park and offered free education and public participation programs to engage the diverse community it serves. Today, the park is enjoyed by bird-watchers, fishermen and a full range of visitors from all over, and provides a site for ecology education of students of all ages.

GLOSSARY OF BIRDING TERMS

ALTRICIAL: born with little or no down, eyes closed, confined to nest.

See *precocial*.

AURICULARS: tract of feathers covering side of head, including ear openings; aka “ear coverts”

AXILLARIES: “wingpit” feathers

BACK: mantle and scapular feather tracts included together

BARRED: plumage having alternating horizontal dark and light stripes (e.g., barred tail of Cooper’s Hawk)

BELLY: abdomen region; unfeathered part of body undersurface; covered by long feathers growing inward from flanks

BILL: bony modification of skull serving as teeth and lips; often used for preening and picking up nesting material and even tools; aka “beak”

BOREAL: zone of plants and animals in the northern coniferous forests of Canada and the U.S. below the tundra zone

BREEDING PLUMAGE: on birds that molt biannually, feather plumage from molt in winter or spring prior to breeding period; abbreviated “BP” in species descriptions

CERE: fleshy area enclosing the nostrils at base of upper *maxilla* in some species (esp. raptors) composed of keratin (same substance as our fingernails)

CLUTCH: one set of eggs in nest

COVERTS: small feathers covering base of upper and lower tail as well as flight (wing) feathers

CREST: elongated feathers atop head (e.g., on Belted Kingfisher); often held erect by tiny muscles at base of feather shaft

CROWN: upper feathered area of head between forehead and nape

DABBLE: to dip the bill into shallow water to forage for food without leaving water surface; common feeding behavior of “dabbling” ducks

DECURVED: downward curving of bill (e.g., Whimbrel or Long-billed Curlew)

DICHROMATISM: species exhibiting one of two varieties of plumage coloration independent of gender or age

DIMORPHISM: distinct gender differences within the same species in color, size or other characteristics

DIURNAL: occurring or active during day. See *nocturnal*.

EXTINCTION: death of all members of a species

EXTIRPATION: death of all members of a species from a local population or region

EYEBROW: distinct tract of feathers above eye in some species; aka “supercilium”

EYE RING: several rows of tiny feathers encircling the eye in some species. See *orbital ring*.

EYE STRIPE: colored tract of feathers running in a line from in front of eye to behind eye in some species; aka “eye line”

FLANK: side of body above belly and below wings

FLEDGE: to grow feathers necessary for leaving nest and flight

FLIGHT FEATHERS: long feathers on wings and tail necessary for flight

GAPE: fleshy area where *mandible* and *maxilla* meet; aka “rictus”

GORGET: iridescent throat patch on hummingbird

GULAR POUCH: bare skin on throat that can expand to hold food or water

JUVENILE: immature bird that has not developed its first winter or basic plumage but is independent of its parents

LORES: tract of feathers between base of bill and eyes

MALAR: tract of feathers between base of lower bill to breast, excluding throat

MANDIBLE: lower portion of bill; aka “lower mandible”

MANTLE: tract of feathers in center of back—on bird at rest, inner wing feathers; also, particularly in raptors, to cover captured prey with outstretched wings

MAXILLA: upper portion of bill; aka “upper mandible”

MIGRATION: seasonal movement of species between breeding grounds and wintering regions

MOLT: periodic and typically orderly replacement of feathers, usually twice per year in most species (for detailed explanation, see Resources: Sibley 2001)

MONOGAMY: exclusive pair bonding relationship between male and female during at least one reproductive cycle

MUSTACHIAL STRIPE: colorful feather tract running back from base of bill and below eye in some species (esp. falcons); aka “mustache”

NAPE: feathered region behind neck, below back of head

NOCTURNAL: active at night. See *diurnal*.

OBLIGATE: biologically restricted to particular condition; essential for survival

ORBITAL RING: fleshy ring encircling the eye in some species. See *eye ring*.

PRECOCIAL: born covered with down, eyes open, able to leave nest soon after hatching. See *altricial*.

PREENING: using bill to clean, adjust and care for feathers

PRIMARY FEATHERS: tract of 9–11 outermost flight feathers attached to the “hand”; aka “primaries”

RECTRIX (pl. *retrices*): tail flight feather

RECURVED: upward curving of bill tip (e.g., American Avocet)

RIPARIAN: water habitat associated with streams, rivers and swamps

ROOKERY: nesting colony or breeding place

ROOST: a place for taking refuge for rest or sleep, oftentimes in groups

RUFIOUS: brownish red or rust colored

RUMP: region above upper tail

SCRAPE: a nest in the form of a simple depression, usually unlined, often with a rim to keep eggs from rolling away

SECONDARY FEATHERS: tract of wing flight feathers attached along ulna in inner wing; aka “secondaries.” See *primary feathers*.

SCAPULARS: tract of feathers between mantle and wing coverts

SPECULUM: distinctive patch of brightly colored secondary wing feathers, found in many dabbling ducks

SUPERCILIUM: see *eyebrow*

TARSUS: lower leg immediately above toes

TERTIAL FEATHERS: tract of wing flight feathers attached to upper arm (humerus) and positioned closest to body; aka “tertials”

UNDERPARTS: undersurface of body from base of bill to base of vent, not including wings or tail

UPPERPARTS: upper surface of body of a bird from base of bill to end of rump, not including wings or tail

UROPYGIAL GLAND: in most species on lower back; secretes oily substance bird uses to protect and waterproof feathers; applied with bill during preening

VAGRANT: individual that strays outside its species’ normal range

VENT: excretory opening

WING BAR: light-colored tips of upper wing coverts forming narrow bar on folded wing (esp. on passerines)

ZYGODACTYL: arrangement of toes of woodpeckers, cuckoos and parrots in which two toes point forward and two backward

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SF BAY AREA CHECKLIST

This four-page checklist includes the 300 most common bird species in the San Francisco Bay Area. Birds you are likely to see in the vicinity of Heron's Head Park—that is, from Islais Creek down to Candlestick Point and included in this guide—are shown in bold type. You are encouraged to photocopy this checklist for repeated use in the future.

DUCKS, GEESE AND SWANS

- Tundra Swan
- Greater White-fronted Goose
- Snow Goose
- Ross's Goose
- Cackling Goose
- Canada Goose**
- Brant
- Wood Duck
- Gadwall
- Eurasian Wigeon**
- American Wigeon**
- Mallard**
- Blue-winged Teal
- Cinnamon Teal
- Northern Shoveler
- Northern Pintail
- Green-winged Teal
- Canvasback
- Redhead
- Ring-necked Duck
- Tufted Duck
- Greater Scaup**
- Lesser Scaup**
- Harlequin Duck**
- Surf Scoter**
- White-winged Scoter**
- Black Scoter
- Long-tailed Duck
- Bufflehead**
- Common Goldeneye**
- Barrow's Goldeneye
- Hooded Merganser
- Common Merganser
- Red-breasted Merganser**
- Ruddy Duck

PARTRIDGES

- Ring-necked Pheasant
- Wild Turkey

NEW WORLD QUAIL

- California Quail

LOONS

- Red-throated Loon
- Pacific Loon
- Common Loon**

GREBES

- Pied-billed Grebe**
- Horned Grebe**
- Eared Grebe**
- Red-necked Grebe
- Western Grebe**
- Clark's Grebe**

SHEARWATERS AND PETRELS

- Northern Fulmar
- Pink-footed Shearwater
- Sooty Shearwater
- Black-vented Shearwater

PELICANS

- American White Pelican
- Brown Pelican**

CORMORANTS

- Brandt's Cormorant
- Double-crested Cormorant**
- Pelagic Cormorant

BITTERNS, HERONS AND EGRETS

- American Bittern
- Great Blue Heron**
- Great Egret**
- Snowy Egret**
- Cattle Egret
- Green Heron**
- Black-crowned Night Heron**

NEW WORLD VULTURES

- Turkey Vulture

HAWKS, KITES AND EAGLES

- Osprey
- White-tailed Kite
- Bald Eagle
- Northern Harrier

- Sharp-shinned Hawk
- Cooper's Hawk**
- Red-shouldered Hawk**
- Broad-winged Hawk
- Swainson's Hawk
- Red-tailed Hawk**
- Ferruginous Hawk
- Rough-legged Hawk
- Golden Eagle

FALCONS

- American Kestrel**
- Merlin**
- Peregrine Falcon**
- Prairie Falcon

RAILS, GALLINULES, AND COOTS

- Black Rail
- Clapper Rail
- Virginia Rail
- Sora
- Common Moorhen
- American Coot**

LAPWINGS AND PLOVERS

- Black-bellied Plover**
- Pacific Golden Plover
- Snowy Plover
- Semipalmated Plover**
- Killdeer**

OYSTERCATCHERS

- Black Oystercatcher**

STILTS AND AVOCETS

- Black-necked Stilt**
- American Avocet**

SANDPIPERS, PHALAROPES AND ALLIES

- Greater Yellowlegs**
- Lesser Yellowlegs
- Solitary Sandpiper
- Willet**
- Wandering Tattler
- Spotted Sandpiper**
- Whimbrel**
- Long-billed Curlew**
- Marbled Godwit**
- Ruddy Turnstone
- Black Turnstone**
- Surfbird
- Red Knot
- Sanderling**
- Semipalmated Sandpiper
- Western Sandpiper**

- Least Sandpiper**
- Baird's Sandpiper
- Pectoral Sandpiper
- Dunlin**
- Ruff
- Short-billed Dowitcher**
- Long-billed Dowitcher
- Wilson's Snipe
- Wilson's Phalarope
- Red-necked Phalarope
- Red Phalarope

SKUAS, GULLS, TERNS AND SKIMMERS

- South Polar Skua
- Pomarine Jaeger
- Parasitic Jaeger
- Long-tailed Jaeger
- Bonaparte's Gull
- Heermann's Gull**
- Mew Gull**
- Ring-billed Gull**
- California Gull**
- Herring Gull**
- Thayer's Gull**
- Western Gull**
- Glaucous-winged Gull**
- Glaucous Gull
- Sabine's Gull
- Black-legged Kittiwake
- Caspian Tern**
- Elegant Tern**
- Common Tern
- Arctic Tern
- Forster's Tern**
- Least Tern
- Black Tern
- Black Skimmer

MURRES, AUKLETS AND PUFFINS

- Common Murre
- Pigeon Guillemot
- Marbled Murrelet
- Ancient Murrelet
- Cassin's Auklet
- Rhinoceros Auklet
- Tufted Puffin

PIGEONS AND DOVES

- Rock Pigeon**
- Band-tailed Pigeon
- Eurasian Collared-Dove
- Mourning Dove**

OWLS

- Barn Owl
- Western Screech-Owl
- Great Horned Owl
- Burrowing Owl
- Spotted Owl
- Barred Owl
- Northern Saw-whet Owl

NIGHTHAWKS AND NIGHTJARS

- Lesser Nighthawk
- Common Nighthawk
- Common Poorwill

SWIFTS

- Vaux's Swift
- White-throated Swift

HUMMINGBIRDS

- Anna's Hummingbird
- Rufous Hummingbird
- Allen's Hummingbird

KINGFISHERS

- Belted Kingfisher

WOODPECKERS, SAPSUCKERS, FLICKERS

- Lewis's Woodpecker
- Acorn Woodpecker
- Red-naped Sapsucker
- Red-breasted Sapsucker
- Nuttall's Woodpecker
- Downy Woodpecker
- Hairy Woodpecker
- Northern Flicker
- Pileated Woodpecker

FLYCATCHERS

- Olive-sided Flycatcher
- Western Wood-Pewee
- Willow Flycatcher
- Hammond's Flycatcher
- Pacific-slope Flycatcher
- Black Phoebe
- Say's Phoebe
- Ash-throated Flycatcher
- Western Kingbird

SHRIKES

- Loggerhead Shrike

VIREOS

- Bell's Vireo
- Cassin's Vireo
- Hutton's Vireo
- Warbling Vireo

JAYS, CROWS, MAGPIES AND RAVENS

- Steller's Jay
- Western Scrub Jay
- Yellow-billed Magpie
- American Crow
- Common Raven

LARKS

- Horned Lark

SWALLOWS AND MARTINS

- Purple Martin
- Tree Swallow
- Violet-green Swallow
- Northern Rough-winged Swallow
- Bank Swallow
- Cliff Swallow
- Barn Swallow

CHICKADEES AND TITMICE

- Chestnut-backed Chickadee
- Oak Titmouse

LONG-TAILED TITS (BUSHTITS)

- Bushtit

NUTHATCHES

- Red-breasted Nuthatch
- White-breasted Nuthatch
- Pygmy Nuthatch

TREECREEPERS

- Brown Creeper

WRENS

- Rock Wren
- Bewick's Wren
- House Wren
- Winter Wren
- Marsh Wren

KINGLETS

- Golden-crowned Kinglet
- Ruby-crowned Kinglet

OLD WORLD WARBLERS, GNATCATCHERS

- Blue-gray Gnatcatcher

THRUSHES

- Western Bluebird
- Swainson's Thrush
- Hermit Thrush
- American Robin
- Varied Thrush

BABBLERS

- Wrentit

MOCKINGBIRDS AND THRASHERS

- Northern Mockingbird
- California Thrasher

STARLINGS AND MYNAS

- European Starling

WAGTAILS AND PIPITS

- American Pipit

WAXWINGS

- Cedar Waxwing

SILKY-FLYCATCHERS

- Phainopepla

WOOD-WARBLERS

- Tennessee Warbler
- Orange-crowned Warbler
- Nashville Warbler
- Northern Parula
- Yellow Warbler
- Chestnut-sided Warbler
- Magnolia Warbler
- Yellow-rumped Warbler
- Black-throated Gray Warbler
- Townsend's Warbler
- Hermit Warbler
- Prairie Warbler
- Palm Warbler
- Black-and-white Warbler
- American Redstart
- Northern Waterthrush
- MacGillivray's Warbler
- Common Yellowthroat
- Hooded Warbler
- Wilson's Warbler
- Yellow-breasted Chat

TANAGERS

- Summer Tanager
- Western Tanager

NEW WORLD SPARROWS

- Spotted Towhee
- California Towhee
- Rufous-crowned Sparrow
- Chipping Sparrow
- Clay-colored Sparrow
- Lark Sparrow
- Lark Bunting
- Savannah Sparrow
- Grasshopper Sparrow
- Fox Sparrow
- Song Sparrow

- Lincoln's Sparrow
- Swamp Sparrow
- White-throated Sparrow
- Harris's Sparrow
- White-crowned Sparrow
- Golden-crowned Sparrow
- Dark-eyed Junco
- Lapland Longspur

GROSBEAKS AND ALLIES

- Rose-breasted Grosbeak
- Black-headed Grosbeak
- Blue Grosbeak
- Lazuli Bunting

BLACKBIRDS, ORIOLES AND ALLIES

- Red-winged Blackbird
- Tricolored Blackbird
- Western Meadowlark
- Yellow-headed Blackbird
- Brewer's Blackbird
- Great-tailed Grackle
- Brown-headed Cowbird
- Hooded Oriole
- Bullock's Oriole

FINCHES AND ALLIES

- Purple Finch
- House Finch
- Red Crossbill
- Pine Siskin
- Lesser Goldfinch
- Lawrence's Goldfinch
- American Goldfinch
- Evening Grosbeak

OLD WORLD SPARROWS

- House Sparrow



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ABOUT GOLDEN GATE AUDUBON

The mission of Golden Gate Audubon is to protect Bay Area birds and other wildlife, as well as conserve and restore native wildlife habitat. It serves to connect people of all ages and backgrounds with the natural world, and educates and engages Bay Area residents in the protection of our shared local environment. One of the oldest wildlife conservation



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organizations on the West Coast (founded 1917), Golden Gate Audubon has played a leading role in many of the Bay Area's most important conservation initiatives, including the creation of Heron's Head Park. Golden Gate Audubon is an independent, nonprofit organization and a chapter of the National Audubon Society.

FIELD TRIPS. Golden Gate Audubon offers over 100 field trips per year for birders of all levels, led by experienced birders who are passionate about sharing their knowledge of birds and their habitats. They explore local areas from Golden Gate Park to the East

Bay shoreline and hills, as well as wildlife-rich destinations including California's Central Valley and the Sierra Nevada. Local trips are free, except for any park entrance or transportation fees. Advance reservations are occasionally necessary. Announcements of upcoming trips and recent field trip reports are posted on the Golden Gate Audubon website, www.goldengateaudubon.org.

GET INVOLVED. Golden Gate Audubon offers many opportunities for you to get involved in protecting and enjoying our Bay Area environment. Our dedicated volunteers work in important local habitats such as Heron's Head Park, Lake Merced, Pier 94, the Presidio and Golden Gate Park. Visit the Golden Gate Audubon website for a full list of volunteer activities including restoring habitats, monitoring birds, leading field trips and providing office support. You can join the San Francisco Conservation Committee in restoring habitats, working with city agencies, and advocating for wildlife protections in San Francisco. You can also become a Golden Gate Audubon member and join our efforts to protect Bay Area birds, other wildlife and their habitats. For more information, contact Golden Gate Audubon.

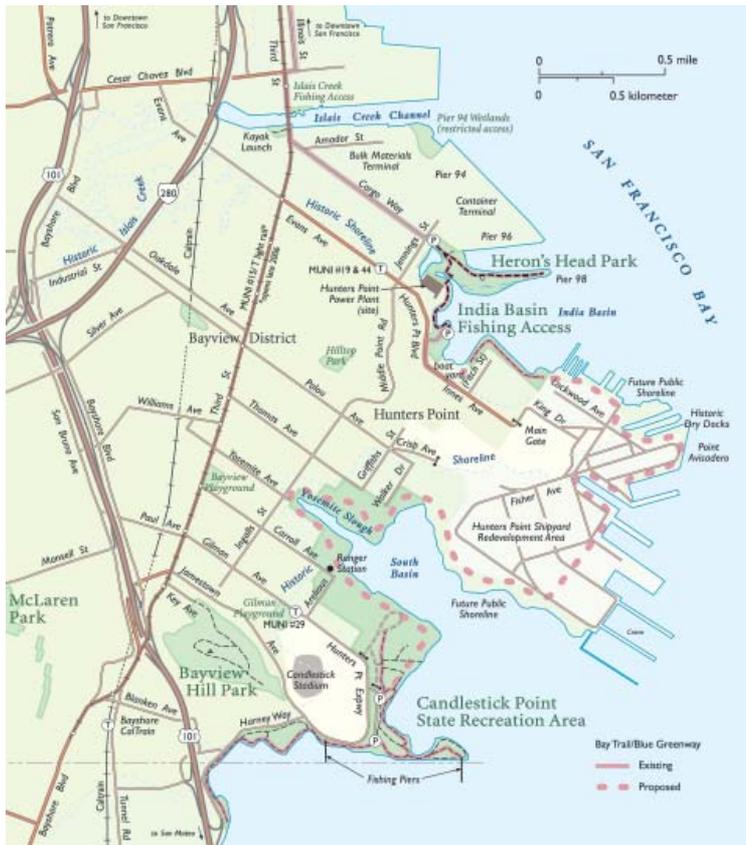
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MAP / DIRECTIONS

This field guide covers the southeast region of San Francisco, especially the shoreline from Islais Creek to Candlestick Point. Its focal point is Heron's Head Park, a 25-acre constructed peninsula located southeast of Islais Creek and north and to the east of the Hunters Point and Bayview neighborhoods. The parking lot and entrance to the park are at the foot of Cargo Way.

Main thoroughfares heading toward the park include US 101, US 280, Third Street, Cesar Chavez Boulevard and Evans Avenue.



Map courtesy of Ben Pease (www.peasepress.com), created for Bay Nature (www.baynature.com)