

SALISH SEA

BIRD IDENTIFICATION GUIDE



The Salish Sea
SCHOOL

Adventure | Research | Action

TheSalishSeaSchool.org

April 2020

April 15, 2020

Dear Explorers,

I am so excited to introduce you to our Salish Sea Bird Identification Guide. We hope this guide encourages every student (and every person!) to get outside and create a defining moment. Defining moments are meaningful experiences that shape our lives as they stand out in our memories.

When that moment happens outdoors, it will bring a big smile, a feeling of empowerment, and a lifelong connection to the natural world. The ability to name the wildlife around you will forever enrich your time outdoors. When we name something, we can communicate about it in deeper ways, ultimately providing an invitation to care for and protect it.

Admittedly, my love for the sea began with whales. I am now equally in awe of my feathered friends due to all of my encounters and observations. It wasn't until I was able to experience, name, and learn about each seemingly irrelevant "black dot" bobbing up and down on the water that I found out these birds were so much more. For instance, they know how (and when!) to change their plumage into a magical celebration of shapes and colors. They can dance way better than me, fly mere centimeters from wave crests without crashing, and dive deep to catch prey underwater! Our Bird ID Guide includes many fascinating facts about each bird, like the famous eagle's nest that was over 4,000 pounds!

This Guide will also teach you that many Salish Sea birds are in decline and need our help. Part of our mission at The Salish Sea School is to empower students as citizen scientists to engage in the monitoring of our marine ecosystem's health. Our Bird Survey (Step 2) provides a way for students to do this and help monitor our local birds!

Additionally, you will find many fun ways to earn special Salish Sea School Rewards (Step 3)!

It always amazes me how much more I notice in the natural world after I am able to name it. Prepare to be amazed! If your excitement level hasn't yet peaked, just wait until you identify your first bird in the wild. It's more exciting than the biggest roller coaster ride...well, at least I think so!

We believe the desire to save our natural world begins when you experience these amazing creatures first-hand, and we couldn't be more excited to get you out there!

Here's to a healthier Salish Sea and to student Guardians of the Sea leading the charge.

Stay curious!



Amy Eberling
Executive Director
The Salish Sea School
Anacortes, WA



How To Use This Guide

Recommended Tools & Documents:

- Binoculars
- Writing utensil
- Clip-board (or any hard surface to write on)
- Tide app with lunar phases (i.e. "Tide Charts" App)
- Map app for GPS coordinates
- Printed or downloaded BIRD ID GUIDE
- Printed BIRD SURVEYS (optional)
- Camera (optional)
- Colored pencils or markers (optional)
- Merlin Bird ID App (optional)
- eBird App and Account (optional)

STEP 1 - PRACTICE IDENTIFYING BIRDS

1. Download this "BIRD ID GUIDE" on a device you will have with you in the field or print at home. If you don't have access to a printer, please get in touch with us and we will mail you a paper copy (info@thesalishseaschool.org).
2. Head to a local park near the water, a local marina, or... your backyard! The background scene of most bird pictures is a clue to the habitat in which you will most likely find them.
3. If you feel comfortable, begin with the calming "Breathe and Stretch" (pg. 4) in the outdoors.
4. Choose a comfortable place to sit quietly for 15-30 minutes. Use this Guide to name all of the birds you see. If you don't see many birds, try a different area in the park or return at a different time of day/tide.
5. Be sure to share this Guide with family and friends! Repeat #2-4 as often as you'd like.

STEP 2 - BEGIN THE BIRD SURVEY

1. When you feel comfortable identifying your local birds, begin the BIRD SURVEY.
We ask that you simply do the best you can; just be sure to have fun!
2. Make sure you have the recommended tools and documents listed above.
3. Choose a place to complete the survey (both pages) for 15-30 minutes.
4. Send us your survey via mail or e-mail or log your sightings on the eBird App!

Fun Activities for All!

Earn a fun Salish Sea School reward for **each** of the following activities completed. Be sure to e-mail or mail your activities to us. All ages welcome!

(A) Complete 6 or more BIRD SURVEYS and mail or e-mail us your copies

(B) Choose a bird and write a one page report or make a video report, include a drawing or personal photo.

(C) Choose your favorite bird and draw/color/paint it! Send us a picture of your artwork.

(D) Write a fictional story about a bird, include your own illustrations!

(E) Choose an endangered or threatened bird in our area and find out its biggest threats, learn more about the Endangered Species, Act of 1973, and write about any other interesting facts. Include notes on how you, friends, or family members can help the species.

(F) Send us a video of someone else playing 10 bird calls for you on allaboutbirds.org. Correctly name each one while your eyes are closed!

(G) E-mail us a video and a picture of you or your kids using the BIRD ID GUIDE or BIRD SURVEY. Optional: Share on your social media using #thesalishseaschool #guardiansofthesea and tag us @TheSalishSeaSchool.

(H) Create your own observational field study by creating a hypothesis and testing it! Example hypothesis: "There will be more birds at Green Point Beach at 10 a.m. than at 5 p.m." Or "There will be more birds at Green Point at high tide than at low tide." Note the time and the listed tide level. Record any changes over a period of at least 10 days. We would be thrilled to help you create this study, please e-mail us if interested!

(I) Plant a native plant garden or sign a family commitment to reduce at home lawn chemicals and send us a picture!

E-mail: info@thesalishseaschool.org

Mail: P.O. Box 1901, Anacortes, WA 98221

The following Next Generation Science Standards are met through activities A-I: 2-LS4-1 Biological Evolution: Unity and Diversity, 3-LS2 Ecosystems: Interactions, Energy, and Dynamics, 4-ESS3 Earth and Human Activity, 5-ESS3-1 Earth and Human Activity, MS-LS2-1, MS-LS2-2, MS-LS2-4, Ecosystems: Interactions, Energy, and Dynamics, MS-ESS3-3 Earth and Human Activity, HS-LS2-2, HS-LS2-6, HS-LS2-7, Ecosystems: Interactions, Energy, and Dynamics, HS-LS4-5 Biological Evolution: Unity and Diversity, HS-ETS1-2 Engineering Design.

Breathe & Stretch

This simple Breathe and Stretch activity was designed by Mindfulness Instructor and Registered Yoga Teacher, Cathy Norman. She is also a Master Naturalist and elevates the clinical importance of moving the body with awareness in the natural world.

Part 1. Three-Part Breath

Activate the calming response (parasympathetic nervous system) through this very deep and continuous three-part breath activity. You will take in as much as 7 times the amount of oxygen as you would in a normal breath!



INHALE

Keeping the body relaxed begin to inhale very slowly through the nose.

Feel the breath move from the belly to the top of the chest and witness your collar bones rising.



EXHALE

Very slowly exhale.

Notice the collar bones lower, the rib cage, and finally the belly pulls slightly in at the bottom of the breath.



REPEAT

Do 3 more sets of the deep breathing. Return the breath to normal for 1 minute.

Repeat this until you recognize the calming response in your body.

Part 2. Breathe & Stretch

Combine the deep breathing with a gentle standing stretch.



Interlock your thumbs and inhale slowly while you bring arms up alongside the ears.

Move the pelvis slightly forward and gently bend back just below the shoulder blades.



Slowly exhale and begin bending forward.

Keep the back straight and the arms alongside the ears. Feel the release.



Inhale slowly, straightening the back and bringing your hand to your shins.

Slowly exhale releasing the head, neck and shoulders while lengthening the spine.



Slowly rise, keeping the back straight and the arms beside the ears. Move the pelvis slightly forward.

Return the palms together to heart center.



Let's Begin Birding!

Our area is home to at least 172 local and migratory seabirds. Unfortunately, we could not include all of our incredible local and migratory birds in this guide. Additionally, many males and females have different plumage (feathers), making it even trickier to include everything! We recommend the "Merin Bird ID" app for additional help while you are birding. We love pictures, so please snap a picture and e-mail us to show you bird watching or for bird ID help. Most importantly, have fun!

Conservation Status Assessment Colored Borders: As our state's human population continues to grow, more wildlife species have been put at risk by loss and fragmentation of critical habitat, disturbance and introduction of non-native species. Many bird species in our area are in decline. The conservation status refers to the bird populations in our region. Many of these species have little information available because of their remote breeding habitats. Learn more: allaboutbirds.org, wdfw.wa.gov/species-habitats/at-risk/listed or vitalsigns.pugetsoundinfo.wa.gov/

Low concern - Green Border **Watch List (declining) - Yellow Border** **Threatened/Endangered - Red Border**

Frequency Key (blue): This includes western birds that have annually been reported in WA and have bred here in the last decade.

PR - permanent resident (breeds unless otherwise indicated)
SR - summer resident (breeds)
SV - summer visitor (does not breed)
WV - winter visitor

M - migrant (spring & fall)
Abund. - abundant (dependably seen in large numbers)
Com. - common (dependably seen in moderate numbers)
Uncom. - uncommon (often but not always seen in small numbers)
Rare - present every year but seldom seen

Frequency key and information by Dennis Paulson, University of Puget Sound

 <p>CASPIAN TERN Locally Com. Breeds to northeast in boreal forest</p> <p>ID Tip: Massive bright red bill. Breeding adults have black cap.</p> <p>Fun Fact: The largest tern in the world, it will aggressively defend its breeding colony.</p>	 <p>HEERMANN'S GULL Com. SV and fall M Breeds in Gulf of California</p> <p>ID Tip: Nonbreeding (pictured) - gray overall with red bill. Breeding - dark gray body, white head, brilliant red bill with black tip.</p> <p>Fun Fact: There's no such thing as a "seagull." The correct term is simply "gull" as they don't live exclusively near the sea!</p>	 <p>MEW GULL Com. WV on coast, much less so inland Breeds in boreal forest</p> <p>ID Tip: "First Winter" plumage pictured. Breeding - similar to a Western Gull (but more petite head and bill).</p> <p>Fun Fact: Gulls take 2-5 years to reach maturity/ full breeding plumage. During these juvenile years, they have streaked brown plumage making it very difficult to ID gulls!</p>
 <p>GLAUCOUS-WINGED x WESTERN GULL HYBRID Hybrid- Com.PR; Individual species - Rare Colonial breeder</p> <p>ID Tip: Black on wing tips, dark gray back, and adults have pink legs.</p> <p>Fun Fact: These two species are usually only seen as a hybridize version in our area. Hybrid: The offspring of two different species.</p>	 <p>RING-BILLED GULL Com. SR at Grays Harbor and on lakes east, much less so on salt water Breeds in north central North America</p> <p>ID Tip: Smaller size, paler eye, & breeding adults have black band around bill.</p> <p>Fun Fact: Many, if not most, return to breed at the colony where they hatched. They nest within a few meters of last year's site.</p>	 <p>CALIFORNIA GULL Abund. Fall M Colonial breeder, breeds in north central North America</p> <p>ID Tip: Breeding adults have yellow legs, dark eye, red spot on bill.</p> <p>Fun Fact: Both parents incubate the eggs, taking turns throughout the day at about 3-4 hr intervals.</p>



HARLEQUIN DUCK

Com. WV (some in summer)
Breeds in northwest North America

ID Tip: Male (pictured) Female - mostly brown with same white spot behind eye.

Fun Fact: Harlequin refers to the theatrical nature of the male's plumage. They make unducklike squeaks (nicknamed "sea mouse") and break more bones than any other species.



COMMON GOLDENEYE

Com. WV on salt and fresh water
Breeds in the boreal forest

ID Tip: Male (pictured) - round circle behind bill, mostly white body. Female - black bill with yellow tip, brown head, gray body.

Fun Fact: Dubbed the "whistler" for the distinctive whistling sound of its wings in flight.



BARROW'S GOLDENEYE

Locally com. WV on salt water
Breeds in boreal and montane forests

ID Tip: Male (left) - Crescent shaped white spot behind the bill, black spur on the side. Female (right) - brown head, gray body, yellow bill.

Fun Fact: Once ducklings leave the nest, several different broods are taken care of by a single female.



COMMON MERGANSER

Com. WV on lakes, locally on salt water
Breeds in central Canada/Alaska

ID Tip: Females/immature males (pictured forward) - neat cinnamon border between throat & chest. Males (pictured aft) - mostly white, green head, red-orange bill.

Fun Fact: Often the last waterfowl migrant to move south in the fall and the first to return north in the spring.



HOODED MERGANSER

Uncom., PR on fresh water,
some move to salt water in winter
Breeds on wooded lakes

ID Tip: Male (pictured forward) - slender bill, large hood/crest (hoods can be raised or lowered). Female (pictured aft) - brownish body, cinnamon crest.

Fun Fact: Similar to other cavity nesting ducks, females often lay their eggs in other females' nests.



BUFFLEHEAD

Abund. WV on salt and fresh water
Breeds in Canada and Alaska

ID Tip: Male (pictured) - Large head, short bill, large white patch on head, white chest and flanks. Female - brown, white cheek patch.

Fun Fact: Unlike most ducks, it is mostly monogamous.



RED-BREASTED MERGANSER

Com. WV on salt water
Breeds in boreal forest and Arctic

ID Tip: Males (right) - dark green shaggy head, red eye, cinnamon breast and grayish sides. Females/immature male (left) - brownish gray.

Fun Fact: Also known as the "sawbill"; named for its thin bill with tiny serrations on it that it uses to keep hold of slippery fish.



NORTHERN PINTAIL

Com. WV
Breeds in Alaska, Canada, central N.A.

ID Tip: Male (two in middle in breeding plumage) - long tail, white breast, and white neck stripe. Females/immature male (on the outside) - plain tan heads and speckled white and brown bodies.

Fun Fact: One of the first ducks to migrate south to wintering grounds in the southern half of the U.S., Mexico, and Central America.

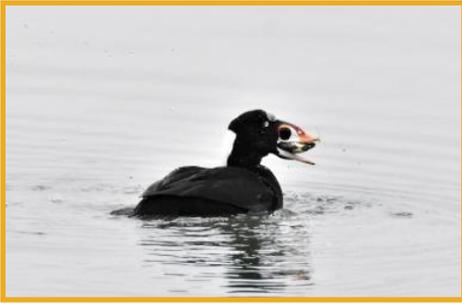


LONG-TAILED DUCK

Com. WV on salt water
Breeds in Arctic

ID Tip: Nonbreeding (pictured) - white head, dark face and neck, white plumes cover brown back. Both genders have 2 different plumages, lots of white is a big indicator for both.

Fun Fact: Can dive as deep as 200 feet to forage.



SURF SCOTER

WV on salt water
Breeds in Boreal Forest

ID Tip: Males (pictured) - white patch on back of neck, orange bill. Females - brown with two white facial patches.

Fun Fact: They briefly become flightless when molting. Their nickname is "old skunkhead."



WHITE-WINGED SCOTER

WV on salt water
Breeds in Boreal Forest

ID Tip: Obvious white wing in flight. Male (right) - smaller bill than Surf Scoters and no head patch. Comma-shaped eye patch. Immature male (left). Female (not pictured) - two white facial patches.

(not so) Fun Fact: Salish Sea Scoter species density has declined by 2.8% per year from 2000 - 2016.



WESTERN GREBE

Com. WV on large lakes and salt water
Breeds in mountain west N. America

ID Tip: Thin, long yellowish-green bill, dark cap extends below the eye.

(not so) Fun Fact: A State Candidate which means it is being reviewed to become a WA State Endangered, Threatened, or Sensitive species. Their hides were once used to make garments that cost as much as luxury items from mammal pelts.



BRANT

Locally abund. WV;
Widely Com. Spring M on salt water
Breeds in Arctic

ID Tip: Smaller than the Canada Goose, black chest, white bum, white patch on neck.

Fun Fact: A saltwater goose!
Not much is known about them.



CANADA GOOSE

Com. PR

ID Tip: White strap on high cheek, long black neck, brown body color.

Fun Fact: In general, these geese get smaller as you move northward, and darker as you go



COMMON LOON

Com. WV on salt water
Breeds inland in NW WA and Canada

ID Tip: Heftier bill. Breeding plumage (pictured) - black and white striped collar, checkerboard back. Nonbreeding - top feathers gray, spur of white on neck.

Fun Fact: Loons have solid bones to make them less buoyant & better at diving. They have an eerie call.



PACIFIC LOON

Com. WV on salt water
Breeds in Arctic

ID Tip: Bill is less heavy than common Loon and is typically held horizontally, dusky chin-strap, shorter neck than other loons.

Fun Fact: This is the most abundant of North America's five loon species, and in winter they gather in large numbers in coastal waters, bays, and estuaries.



MARBLED MURRELET

Uncom. and declining PR on coast
Breeds in old-growth conifer forest

ID Tip: Nonbreeding (pictured) - white color, white patch behind bill, solid black cap. Breeding - marbled brown.

(not so) Fun Fact: The Puget Sound population, has declined by nearly 5% per year over the past 18 years. They are endangered in WA and Federally listed as a Threatened species.



COMMON MURRE

Com. WV on coast
Colonial Breeder in low arctic and U.S. west coast

ID Tip: Nonbreeding (pictured) - white cheek, chin and throat that wraps behind the eye. Breeding - entirely black head and throat.

Fun Fact: Their eggs are so pointed at one end that when placed on a flat surface it rolls in a circle. This is helpful for cliff nesting.



RED-NECKED GREBE

Com. WV on salt water
Breeds in Canadian inland and Alaska

ID Tip: Nonbreeding (pictured) - long neck, black cap ends abruptly, eye is not red, often holds bill downward.

Fun Fact: Like other grebes, they ingest large quantities of their own feathers. The stomach retains two distinct masses (balls) of feathers with an unknown function.



PIED-BILLED GREBE

Com. PR on lakes and ponds;
Uncom. WV on salt water
Breeds in midwest U.S. & inland Canada

ID Tip: Nonbreeding (pictured) - short, thick bill, almost no tail. Breeding birds - black band "pied" on beak.

Fun Fact: "Grebe" means "feet at the buttocks." This helps diving birds propel through the water. Migrate south as far as northern Central America.



HORNED GREBE

Com. WV on salt water and lakes
Breeds in inland Canada and Alaska

ID Tip: Nonbreeding (pictured) - short bill, white cheek, white-tipped bill.

Fun Fact: Like most grebes, the small chicks ride between the wings on the backs of their swimming parents.



BRANDT'S CORMORANT

Com. WV, Immatures stay through summer
Colonial Breeder on rocks in Pacific County

ID Tip: Pale feathering on the throats, bulbous head compared to neck diameter. Breeding - blue skin patch on chin called the gular pouch.

Fun Fact: The least vocal of the North American cormorants at the nest. It makes sounds that are audible only from a few feet away.



PELAGIC CORMORANT

Com. PR
Colonial Breeder

ID Tip: Smaller, thin necks, shorter and more slender bill than other two. Breeding- white hip patches. When perched, has a peak/slight crest on the forecrown.

Fun Fact: "Pelagic" (open ocean) is not a good description for this species because they are rarely seen more than a few miles from land.



DOUBLE-CRESTED CORMORANT

Com. PR on salt water/large interior lakes
Colonial Breeder

ID Tip: Thicker neck and blockier bill compared to other cormorants. Orange-yellow skin around base of bill.

Fun Fact: Have striking aquamarine eyes that sparkle like jewels, and a mouth that is bright blue on the inside.

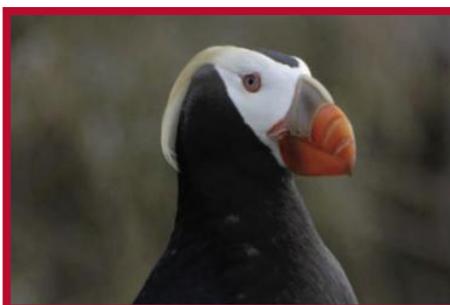


PIGEON GUILLEMOT

Com. PR

ID Tip: Breeding (pictured) - Black with white wing patches. Nonbreeding - smudgy black and white.

Fun Fact: One of the few members of the auk and puffin family to lay two eggs. Nearly all others lay only one egg.



TUFTED PUFFIN

Com. SR on coast, winters offshore
Colonial Breeder, Smith/Protection Island

ID Tip: Only seen in our waters in brilliant breeding plumage (pictured). Nonbreeding - dark gray face, commonly confused with Rhinoceros Auklets.

Fun Fact: Historically prevalent in our waters, now only seen in the middle of the Salish Sea, near Smith or Protection Island.



RHINOCEROS AUKLET

Abund. SR
Colonial Breeder on outer WA, Canadian, and Alaskan Coast

ID Tip: Breeding (pictured) - horn and two white plumes. Nonbreeding - mostly black, reduced plumes.

Fun Fact: Both male and female Rhinoceros Auklets bear a "horn" on the base of the bill. The function of this feature is not known.



DUNLIN

Abund. WV and M on coast
Breeds in Arctic

ID Tip: Nonbreeding (pictured) - grayish brown hood and back, long drooping bill. Beginnings of breeding plumage seen above with black belly.

Fun Fact: Named for its nonbreeding plumage, a mousy gray-brown or "dun" color.



BLACK TURNSTONE

Com. WV on rocky coast
Breeds in Alaskan Arctic

ID Tip: Slightly upturned bill, white spot behind bill, brownish black, white in wings.

Fun Fact: As their name suggests, turnstones often forage by using their short, chisel-like bill to turn over stones and other objects.



SANDERLING

Com. M and WV on coast
Breeds in Arctic

ID Tip: Nonbreeding (pictured) - most white of all our shorebirds. Stout black bill, pale gray above, white below with no markings, black legs.

Fun Fact: They love running in waves on the beach.



KILLDEER

Com. PR west

ID Tip: Brownish-tan on top and white below, two black breast bands, and the brown face is marked with black and white patches.

Fun Fact: Named after their shrill, wailing "kill-deer" call. They also had names such as the Chattering Plover and the Noisy Plover.



BLACK OYSTERCATCHER

Uncom. PR on rocky coasts

ID Tip: All black, long red bill and yellow eye.

Fun Fact: The genus name Haematopus derives from the Greek for "blood-footed," a reference to its pinkish feet.

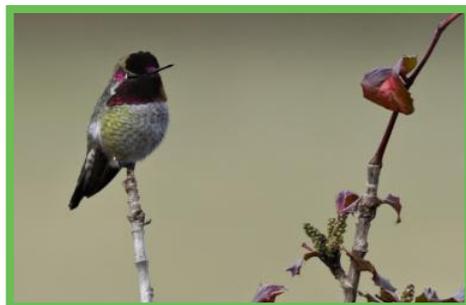


BLACK-BELLIED PLOVER

Com. WV and M on coast
Breeds in Arctic

ID Tip: Nonbreeding (pictured) - short, thick neck, stubby bill, smudgy face/breast. Breeding plumage: black belly.

Fun Fact: Our largest plover. It breeds farther north than other species, at the very top of the world and is found on six continents.



ANNA'S HUMMINGBIRD

Locally com. PR west of Cascades

ID Tip: Males have red crown, "cape" is called a gorget.

Fun Fact: Our only year round hummer. On rare occasions, bees/wasps may become impaled on their bill causing the bird to starve to death. Average resting heart beat is 480 bpm.



GOLDEN-CROWNED KINGLET

Com. PR in conifer forest

ID Tip: Adult males have black-and-white striped face and golden crown patch (not always visible).

Fun Fact: Hardier than it looks, routinely wintering in areas where nighttime temperatures can fall below -40° Fahrenheit.



BEWICK'S WREN

Com. PR

ID Tip: White eyebrow, dark tail barring.

Fun Fact: Severe declines in the eastern U.S. coincided with range expansion by the House Wren. It is suspected they were responsible for the decline by removing Bewick's eggs from nests.



AMERICAN ROBIN

Com. SR

Breeds in inland Canada and Alaska

ID Tip: Dark head, yellow bill, red chest. Females - similar color patterns but are much paler.

Fun Fact: Can produce three successful broods in one year. Only 25% of those fledged survive.



SPOTTED TOWHEE

Com. PR

ID Tip: Smaller bill, black hood extends to breast, white chest, rufous sides, black wings spotted white, dark bill.

Fun Fact: They do a two-footed, backwards-scratching hop to uncover seeds and small invertebrates to eat.



HOUSE FINCH

Com. PR

ID Tip: Males are rosy red. Females - brown overall with blurry streaks down belly.

Fun Fact: Originally a west coast bird, a small number of finches were turned loose in N.Y. after failed attempts to sell them as cage birds. They quickly spread.



WHITE-CROWNED SPARROW

Com. SR

Breeds in inland Canada and Alaska

ID Tip: White stripes on cap, orange beak.

Fun Fact: Young males learn the basics of their adult song during the first 2-3 months of its life. One was once tracked moving 300 miles in one night.



GOLDEN-CROWNED SPARROW

Com. M and locally com. WV
Breeds in northwest Canada/Alaska

ID Tip: Small grayish bill, yellow crown.

Fun Fact: The entire population migrates in flocks from its northern breeding grounds, down the West Coast to the wintering grounds, and back up the same route in the spring.



SONG SPARROW

Com. PR

ID Tip: Face is grayish with russet stripes on crown and through the eye. Heavy streaks on breast.

Fun Fact: Males use song to attract mates as well as defend territories. The female is attracted to the song, and how well it reflects the ability of the male to learn.



DARK-EYED JUNCO

Com. PR in conifer forest

ID Tip: Dark brown head, brown back, white belly. Prominent white outer tail feathers (best seen in flight).

Fun Fact: One of the most common birds in N. America, can be found across the continent. A recent estimate of the population is 630 million.



BROWN CREEPER

Com. PR in conifer forest

ID Tip: Tiny, long tail, and slender curved bill, love to climb trees.

Fun Fact: Tiny woodland birds that love to find the biggest trees. Their piercing calls can make it much easier to find this hard-to-see but common species.



BLACK-CAPPED CHICKADEE

Com. PR, scarce on Olympic Pen.

ID Tip: Black cap and bib, white cheeks, gray back and wings, light buffy underparts.

Fun Fact: They can remember thousands of hiding places they use to store food. The more dee notes in a chickadee-dee-dee call, the higher the threat level.



GREAT BLUE HERON

Com. PR on fresh and salt water

ID Tip: Immature (pictured) - blue overall, large bill. Mature -black crown, head plumes, yellow bill.

Fun Fact: They are a large bird, yet only weigh 5 to 6 pounds thanks in part to their hollow bones—a feature most all birds share.



BELTED KINGFISHER

Uncom. PR on fresh and salt water

ID Tip: Female (pictured) - chestnut belly. Thick, daggerlike bill, blue crest,

Fun Fact: One of the few bird species in which the female is more brightly colored than the male, has a piercing rattle call.



OSPREY

Uncom. SR on fresh and salt water
Breeds in WA, AK, OR, and Canada

ID Tip: Brown line through eye, brown back and wings contrast with white belly, have a marked kink in their wings, making an M-shape when seen from below..

Fun Fact: Migrate to Central and South America for the winter. Conservation success



BALD EAGLE

Com. PR on fresh and salt water

ID Tip: Adult - white head and tail. Juveniles - brown head and body, black band on tip of tail.

Fun Fact: A famous eagle nest in Ohio weighed almost 4,409 pounds. It was used for 34 years. Conservation success story.



PEREGRINE FALCON

Uncom. PR
Nests in cliffs or tall manmade structures

ID Tip: Blackish helmet, yellow eye ring, strongly hooked bill.

Fun Fact: During a hunt it can dive from heights of over 3,000 feet and reach speeds of 200 mph as it drops toward its prey.



RED-TAILED HAWK

Com. PR

ID Tip: Belly streaked with brown, red-tail is more obvious viewed from above, head brown, white throat.

Fun Fact: Movie directors love using their raspy scream for eagle appearances.



CROW

Com. PR

ID Tip: Slightly smaller than ravens, make a “caw caw” call, do not have the “diamond shape” on their tail feathers.

Fun Fact: 99% of the time they remember where they put their food.



RAVEN

Com. PR

ID Tip: Have a heftier beak and are larger than crows. In flight, you can see they have longer middle feathers in their tails, making a diamond shape.

Fun Fact: One was seen flying upside down for more than a half-mile.



TURKEY VULTURE

Uncom. SR

ID Tip: Dark bodies, naked (featherless) bright red head. Soars with its wings raised in a V and makes wobbly circles.

Fun Fact: Western population migrates far with large numbers (more than a million) moving through Central America and in some cases as far as Venezuela, Colombia, and Ecuador.

HOW YOU CAN HELP

1. Learn More About Ways to Protect Forage Fish - Did you know? Forage fish are small, silvery fish found in large schools throughout our area (i.e. herring, sand lance, surf smelt, etc.). For sea birds, healthy stocks and protected breeding areas are key components necessary for thriving populations. The research available shows a tragic downward trend for some important populations.

- Puget Sound Partnership: vitalsigns.pugetsoundinfo.wa.gov/VitalSign/Detail/20
- Shore Stewards: s3.wp.wsu.edu/uploads/sites/2065/2017/06/May-June-2017.pdf
- Map of Forage Fish Spawning Beaches: www.arcgis.com/home/webmap/templates/OnePane/basicviewer/embed.html?webmap=19b8f74e2d41470cbd80b1af8dedd6b3&gcsextent=-126.1368,45.6684,-119.6494,49.0781&displayslider=true&displayscalebar=true&displaylegend=true&displaydetails=true&displaysearch=true&searchextent=true

2. Create Bird Friendly Yards- Did you know? 96% of land birds that rely on insects to feed chicks.

- Audubon Society: www.audubon.org/news/how-make-your-yard-bird-friendly-0
- Washington Audubon: wa.audubon.org/bird-friendly-communities-1
- Yale Press: www.youtube.com/watch?v=iaAFt_bmmwU&feature=youtu.be

3. Plant Native Plants - Did you know? Native plants, on the other hand, support a balance of predator and prey and thrive without pesticides.

- Washington Native Plant Society: www.wnps.org/

4. Get Involved - Did you know? The practice of forest stewardship extends beyond plant health to include the habitat and welfare of local wildlife, including birds which provide important ecosystem services such as insect and rodent predation, plant pollination, and seed dispersal (Burke et al. 2011).

- Skagit Audubon: www.skagitaudubon.org/
- Washington Audubon: https://wa.audubon.org/sites/default/files/cos_audubon_bird_bmp_final_9.29.2014_0.pdf

5. Reduce At Home Chemical Treatments - Did you know? 80 million pounds of pesticides are applied to lawns in the U.S. annually.

- Puget Sound Keeper Alliance: pugetsoundkeeper.org/pollution/
- Encyclopedia of Puget Sound: www.eopugetsound.org/articles/toxics-fish-implementation-strategy



BIRD SURVEY DATA

Helpful Apps to have: "Tide Charts" App has tide and moon phases, "Merlin Bird" App for calls,
GPS coordinates: use pin from any map app and scroll up to reveal coordinates. Have fun!

Surveyor Name		E-Mail	
Date	Start Time	Stop Time	
Location (approximate) <input type="checkbox"/> Washington Park <input type="checkbox"/> Tommy Thompson Trail <input type="checkbox"/> Guemes Channel Trail <input type="checkbox"/> My backyard <input type="checkbox"/> Other _____		Clouds (check one) <input type="checkbox"/> clear or few clouds <input type="checkbox"/> half / partly cloudy <input type="checkbox"/> overcast / mostly cloudy <input type="checkbox"/> fog or smoke <input type="checkbox"/> light drizzle <input type="checkbox"/> heavy rain	
GPS Coordinates (if able) Ex. 47° 40' 26.357" N 122° 7' 17.443" W Circle one: Stayed in Place Walked for ____ miles Start: _____ End (if walking): _____		Wind (estimate): <input type="checkbox"/> less than 1mph <input type="checkbox"/> 2-10 mph <input type="checkbox"/> 11-20 mph <input type="checkbox"/> 21-30+ mph	
Tide Circle one: Low Tide High Tide Tide Table: _____ (example: Guemes Channel) Tide in Feet: _____ at _____ (example: -1.5 ft at 2:45 pm)		Lunar Phase <input type="checkbox"/> New moon <input type="checkbox"/> Waxing Crescent <input type="checkbox"/> First Quarter <input type="checkbox"/> Waxing Gibbous <input type="checkbox"/> Full moon <input type="checkbox"/> Waning Gibbous <input type="checkbox"/> Last Quarter <input type="checkbox"/> Waning Crescent Phases simplified <input type="checkbox"/> New <input type="checkbox"/> Quarter <input type="checkbox"/> Full	

Field Notes, Questions, Drawings, or Interesting Observations (optional)



YOUR BIRD SURVEY

After the survey data (reverse) has been filled in, record your bird sightings below. Feel free to send us pictures (info@thesalishseaschool.org)! Listen to calls as you wait/watch (allaboutbirds.org)!

Species	Distinguishing feature	Count	Behavior
<i>Ex. 1: Common Goldeneye</i>	<i>circle behind its eye</i>	<i>4 females, 1 male</i>	<i>Swimming</i>
<i>Ex. 2: Cormorant (type unknown)</i>	<i>n/a</i>	<i>1, gender unknown</i>	<i>Diving every 2 min.</i>

Check one:

- I want The Salish Sea School to upload my sightings to **The Cornell Lab of Ornithology's eBird network**
Email survey (and pictures – optional) to info@thesalishseaschool.org
- I will start an eBird account and upload my sightings (we encourage this as it is fun to see your citizen science data in use and key into species being seen by others in the area!)

"Where in a cool solitude of trees, Where leaves and birds a music spin. Mind that was weary is at ease, New rhythms in the soul begin."
-William Kean Seymour

A HUGE THANK YOU

THANK YOU to our incredible naturalists, photographers, professions, and more for their generosity in allowing use of their amazing photographs and providing their time to review this guide.

Photographs:

Amanda Colbert on Instagram @thesnootyhooty | All other birds

Neil O'Hara | California Gull, Ring-billed Gull, Western Grebe, Long-tailed duck

Betsy Thoennes | Bald Eagle, Osprey, Pigeon Guillemot, Pelagic Cormorant, Double Crested Cormorant, Western Gull, Common Merganser, Canada Goose, Barrow's Goldeneye, Common Raven, Turkey Vulture, Belted Kingfisher

Peter Hodum | Tufted Puffin

All About Birds | Horned Grebe

Review:

Peter Hodum, Scott Pearson, Betsy Thoennes, Amanda Colbert, Deborah Gohrke, Linda Schroeder, Monique Lance, Erin Parsons, and Chad Norris.

ALLABOUTBIRDS.ORG: An incredible website, that provided the fun facts!

STAY IN TOUCH

Please visit us online to learn more about our student and adult marine conservation programs or volunteer!

TheSalishSeaSchool.org

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SPREAD THE LOVE

We are a 501(c)(3) passionate about educating the public and developing student leadership programs and curriculum in marine conservation. If you would like to support our work, we'd love to receive a donation.