

The Birds of Santa Barbara

A Guide for Kids and their Grown-ups

Topics:

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Why study birds?

Birds provide an excellent doorway into nature. They are easy to see and study, engage in fascinating behaviors, and play important roles in ecosystems. The best reason to study birds is because it's fun! Field practice is a great way to get outdoors and learn about the wonders of our natural world.

Nothing can compare to observing birds in their natural habitats, where you can feel the wind on your face, smell the leaf litter under your feet, and hear a Red-shouldered Hawk scream overhead "KEER KEER KEER" saying, "This is MY territory!"



Children are some of the most enthusiastic birders. Their wonderment of seeing and learning something new, especially in nature, is exciting to watch. The biggest regret of most birders is that we didn't start younger.

John E. Ruiutta



Christopher Taylor

Red-shouldered Hawk





Bill Bottom

Brown Pelican—Have you seen the Brown Pelicans at Stearns Wharf? Watch them dive into the ocean for fish. What happens to the pouch under their bill?

Let's start with the basics.

1. Birds are warm-blooded, like you.
2. They have a backbone, like you.

Mammals and birds are warm-blooded vertebrates.



Alex Abela

American Goldfinch (winter)

Do you have a birdfeeder in your backyard?
What birds come to your feeder?

Getting to know birds

There is a difference between seeing and observing. Seeing is looking with your eyes; observing is thinking about what you are seeing. Observation is the first step in all science.

To observe birds, you need to walk quietly and slowly in nature. Focus on what the birds are doing:

- preening?
- catching insects in the air?
- gleaning insects in trees?
- sipping nectar from flowers?
- soaring overhead?
- searching for insects in leaf litter?
- building nests?
- defending territories?
- feeding their young?

Listen closely to birds and you will hear the many different communication sounds of bird language.

As you learn more and more about the birds around you, you will want to learn their names. Knowing the name of a bird connects you with the natural world. It's no longer just a brown bird, but a **California Towhee** and you will know to look for its mate because the pair always feeds together. You will listen to the "chip" from the other towhee and spot it under the shrub, just where you expected it to be.



Tom Gray

California Towhee

Nature break

Take a 20 second nature break any time you are outdoors. Stop and stand still. Look up, down, and all around. Practice watching for bird activity.



What can we say about all birds?

1. Birds must eat, drink, find shelter, stay warm, avoid being eaten, and reproduce.
2. Birds have different ways to accomplish these tasks.
3. Birds have unique adaptations for acquiring food (bill shape, foot structure).
4. Birds mate, the female lays eggs, and the eggs must be incubated by an adult until the young hatch.
5. Most adults must feed their young until fledging.
6. Birds have a unique language that can be understood. Bird calls may be to attract a mate, declare territorial boundaries, identify family members, warn that a predator is near, or share information about food.

What do birds eat?

All birds must eat but birds do not eat the same things or in the same way. Here is a list of “bird food.” You will have to watch a bird feeding to determine what it is eating.

Nectar – the sweet liquid found in some tube-shaped flowers and nectar feeders

Seeds – found in dried grasses and flowers and in bird feeders

Fruit – from fruit-yielding plants

Buds – the beginning flower bloom

Invertebrates – organisms without a backbone.

Arthropods: insects (grasshoppers, butterflies, beetles, ants), arachnids (spiders, scorpions, ticks, mites) crustaceans (crabs, shrimps, lobsters, barnacles, isopods), centipedes, and millipedes.

Mollusks: snails, clams, mussels

Worms

Vertebrates – animals with a backbone: mice and other rodents, rabbits, snakes, other birds, fish

[If the organism lives on land, it is called *terrestrial*. If it lives in the water, it is called *aquatic*.]

Carrion – dead animals

Observing birds

Observing bird behavior is the best way to learn about birds.

- Where is the bird? On the ground, in a tree, in the air, on a phone wire?
- What is it doing? Is the bird looking for something to eat on the ground?
- Does the bird capture insects in the air?
- Is it visiting flowers for nectar?
- Does it have something in its bill? What could the bird be eating?
- What sound is it making?
- How big is it?
- What color is it?
- What does the beak look like? Thick, pointy, short, long, hooked?
- What shape are the wings? Long, short, pointy, round, broad?
- What does the tail look like? Long, short, fanned, forked, straight?
- Are there other birds nearby that look the same?

These are just some of the questions you can answer for yourself by watching.



Local urban birds: Observe in your own neighborhood, school grounds, and park.

Small birds: 9 - 15 cm tip of beak to end of tail

Medium birds: 15 - 22 cm tip of beak to end of tail



Christopher Taylor

Anna's Hummingbird



Dieter J. Schaefer

Black Phoebe



Lynn Watson

Dark-eyed Junco



Tom Gray

California Towhee



Wes Stone

House Finch (male)



Christopher Taylor

Northern Mockingbird



Christopher Taylor

House Sparrow

1 centimeter (cm) 

Which one of your fingers is about one centimeter wide? Use a metric ruler to measure across the four fingers of your hand. How wide is your hand in centimeters? What's the distance from the tip of your fingers to your elbow? Use your body measurements to think in centimeters.



Medium to large birds: 22 - 53 cm tip of beak to end of tail



Tom Gray

American Robin



Dave Furseth

Northern Flicker



Dieter J. Schaefer

Western Scrub-Jay



Christopher Taylor

Rock Pigeon



Dieter J. Schaefer

Acorn Woodpecker



Dave Furseth

Band-tailed Pigeon



Tom Gray

Mourning Dove



Christopher Taylor

American Crow

The Names of Birds

I wonder, do the names of
 Birds affect who they are?
 If the Magnificent Hummingbird
 And the Lesser Goldfinch sat
 Down in a coffee shop
 To share a pastry and
 Some time together,
 Would they be able to hold
 A conversation?
 Would the Lesser Finch be
 Struck dumb in the presence
 Of the Magnificence of his friend?

And how would the Magnificent
 Hummingbird be in the presence
 Of his Lesser friend?
 Would his magnificence hold
 Forth in tales of daring and
 Conquest, regaling his Lesser
 Friend with exploit after exploit,
 His Lesser friend sitting in awe
 And wonder, somewhat diminished,
 Becoming even Lesser than he was?

Or would his Magnificent friend
 Sit quietly with his Lesser friend,
 Drinking his coffee, offering
 The pastry, gently inquiring
 As to his Lesser friend's day,
 What he had done lately,
 How his family was, drawing
 Out and appreciating the Gold
 That was also part of his
 Lesser friend's name.

Tony Johansen
 Santa Barbara
 2010



Lynn Watson

Lesser Goldfinch
 Santa Barbara



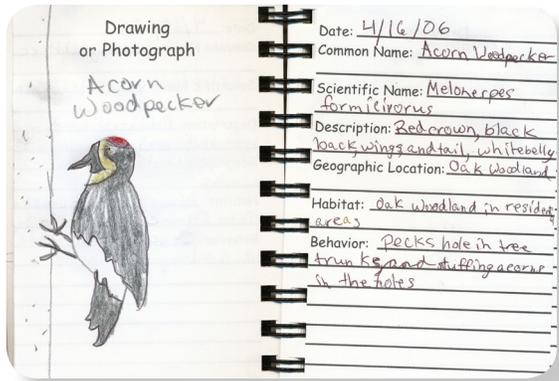
Don Roberson

Magnificent Hummingbird
 Costa Rica



Keeping a nature journal

A nature journal is a place for you to keep track of your experiences outdoors. Look at what's happening all around you. You are a scientist simply recording what you see. You don't have to be an artist. Your perceptions of the place are important. Draw what you see. Record what you feel.



Lisa Bell, age 12

Find a notebook that you will enjoy carrying with you. A nature journal is very personal. You may like a bound journal with blank pages (available at art supply or stationery stores), a spiral notebook with lines, or notebook paper that can be kept in a loose-leaf notebook.

Every time you go out to observe, record basic information:

- the date
- place
- time of day
- weather
- first impressions
- wind direction
- cloud patterns

Begin drawing. Make a brief sketch of the area: Are there tall trees? Mostly shrubs? Open space? Is there a water source? A quick sketch is all you need. If you do see a plant that is very interesting, draw the shape of the leaf in your journal and find out what it is later. As you see birds, add them to your drawing or use the following pages in your journal to draw birds in more detail.

Using field guides

To learn more about birds, you will need a field guide. Field guides will help you learn common names and other interesting information including scientific names. Scientists have a scientific name for every living thing. It might look like a crow, but scientists in any country would know exactly which bird you were describing if you called it *Corvus brachyrhynchos*.

Using a field guide, look up the following birds and mark the pages (use sticky notes). This will simplify using the field guide while bird watching.

- Anna's Hummingbird
- Dark-eyed Junco
- House Finch
- House Sparrow
- Black Phoebe
- California Towhee
- Northern Mockingbird
- American Robin
- Western Scrub-Jay
- Acorn Woodpecker
- Mourning Dove
- Northern Flicker
- Rock Pigeon
- Band-tailed Pigeon
- American Crow

Make a list of the birds you find in your own neighborhood, on your school grounds, and in your local park.

Do the same birds return over and over to your backyard?

Which birds do you see one at a time?

Which birds do you see in pairs?

Which birds do you see in larger groups?

When you learn these common birds, you are ready to add more birds to your list. Find an adult who will take you on a Birding Expedition!



Bird vocabulary

Alarm call – an agitated call that warns of a predator

Bird of prey – a bird that hunts for prey primarily in flight

Clutch – the set of eggs laid by a bird

Colony – large group of birds that roost or nest together in the same vicinity

Contact call – sound a bird makes to keep track of flock mate, usually a soft chip or tweet

Display – the way a bird moves to present itself for mating or fighting

Foraging – searching for food

Gleaning – searching for seeds or insects among plants

Hawking – feeding strategy in which birds perch and watch for airborne insects; when an insect is spotted, bird will fly out and capture the insect in its beak in midair

Incubation – keeping the egg warm while the chick grows inside

Iridescent – the sparkling appearance of a feather caused by the structure of the feather reflecting light

Locomotion – the way a bird moves: flying, walking, hopping, climbing, hanging, swimming, diving

Migration – movement between breeding and wintering locations.



Dave Fursteth

If you want to learn bird songs, find the bird that is singing and listen carefully.

Common Yellowthroat



Mobbing – noisy calls and aggressive behavior by a group of birds against another bird, usually a predator

Molt – process of shedding feathers to be replaced by fresh feathers

Nestling – a very young bird that needs to be taken care of in the nest by adult birds

Preening – a bird's use of the beak or claws to clean and groom its feathers

Range – an area where a bird is typically found

Roost – 1. verb: to rest or sleep; 2. noun: the place where birds rest or sleep

Song – best known noise that birds make; males usually sing in the spring

Territory – the location in which a bird nests and searches for food

Plant community – the various species of plants that exist in an area sharing the same conditions

Riparian – living or located on the bank of a natural waterway

Slough – a marshy area where a creek empties into a tidal flat at the ocean

Terrestrial – growing or living on land

Habitat vocabulary

Aquatic – growing or living in water

Arthropod – largest phylum of the animal kingdom; organisms with rigid exoskeleton, jointed legs, and a fluid-filled body cavity holding internal organs. Examples: insects, spiders, crustaceans

Carrion – dead and decaying animals

Chaparral – an area of poor soil where the dominant plants are shrubby such as Chamise, Ceanothus, Scrub Oak, and Toyon

Ecosystem – the relationship between the plants, animals, soil, and water in a habitat, everything depending on everything else

Grassland – an area where the dominant plants are grasses

Habitat – the place or environment where an animal or plant naturally lives or grows

Insect – invertebrate with rigid exoskeleton, well-defined head, thorax and abdomen and three pairs of jointed legs

Invertebrates – organisms without a backbone

Modified habitat – a natural place or environment that has been changed by the activity of human beings

Resources

Field Guides

A field guide is a book that will help you learn to identify birds. It's like having an expert by your side so you'll know what you're seeing.

Local Birds, Inc. 1996. *Local birds of Santa Barbara*. Woodside, CA: Wood-Howard Products, Inc.
A laminated folding guide to the most likely birds for our area.

Dunn, Jon L. and Jonathan Alderfer. 2006. *Field guide to the birds of North America*. Washington, DC: National Geographic.

Stokes, Donald and Lillian Stokes. 1996. *Stokes beginner's guide to shorebirds*. New York: Little Brown and Company.

Stokes, Donald and Lillian Stokes. 1994. *Stokes field guide to birds: Western region*. New York: Little Brown and Company.

Web sites

www.birds.cornell.edu/
The best resource for bird information.

www.birdwatchin.com/activity-for-kids.html
BirdWatchin.com

www.birds.cornell.edu/celebration
Celebrate Urban Birds – take part in a unique opportunity for your school to collect data for Cornell's Lab of Ornithology.

www.all-birds.com/Anatomy.htm
Bird anatomy, various beaks, feet, and legs illustrated.

Books

Arnold, Caroline. 1997. *Hawk highway in the sky: Watching raptor migration*. Ft. Worth, TX: Gulliver Green.

Arnosky, Jim. 1995. *All about owls*. New York, NY: Scholastic Inc.

Burnie, David. 1988. *Bird: The definitive visual guide*. New York, NY: DK Publishing.

Leslie, Clare Walker and Charles E. Roth. 2000. *Keeping a nature journal*. North Adams, MA: Storey Publishing.

Markle, Sandra. 2002. *Outside and inside birds*. New York, NY: Aladdin.

Parry-Jones, Jemima. 1997. *Eagle and birds of prey*. New York, NY: DK Children.

Steffoff, Rebecca. 1998. *Owl*. Salt Lake City, Utah: Benchmark Books.



Note to parents and other adult mentors

Bird-watching is an activity that can connect adults and children in an ever-deepening appreciation of the natural world. When a bird is really watched and given a name, we see the bird everywhere we look. Did this species suddenly appear?

We have a tendency to go about our lives without ever looking up — noticing birds, but not really seeing them.

Once we learn to “see,” the natural world around us explodes with diversity. Knowing the name gives us a connection to the species and expands our knowledge. That knowledge can lead to a lifetime passion for birding.

Beginning birders can have a difficult time using birding guides to identify what is being seen. An easier method is to focus on one habitat and the birds that can be expected based on food sources and other necessary conditions.

A first step is simply to observe with the naked eye. Where is the bird? What is it eating? Listen for sounds and locate the source.

Before going into the field, mark the birds in a good field guide that are expected to be seen with sticky notes. This will make quick referral possible.

Choosing binoculars for kids

Children can learn to observe bird behavior better without binoculars. Looking at the birds they can see and watching intently are preferable to trying to focus and failing. Binoculars take a certain amount of skill and practice to use effectively.



For toddlers, make your own binoculars from toilet tissue rolls or buy an indestructible pair at a toy store. At this age, indestructibility is the key.

Stellan Cook, age 3

If children want real binoculars, size and weight of the binoculars are important aspects to consider since most binoculars are designed for adults. Select a pair based on the child’s age and interest level.

1. **Binoculars need to fit the child’s face and hands.** Interpupillary distance (distance measured between the ocular lenses, IPD) must accommodate the distance between the child’s pupils. An optician can measure the child’s eyes. Make sure the oculars can be adjusted to fit the distance between the child’s eyes.
2. **The child needs to be able to hold the binoculars steady.** Weight matters. The smaller the child, the lighter the binoculars need to be.
3. **Bulk matters.** A child needs to get their hands around the barrels and needs to be able to operate the center control (knob or toggle) without changing their grip position. Toggles are easier for children.
4. **Low magnification of 4x to 7x is recommended.** Low magnification increases the size of the field of view, helping a child to stay on a bird. At this magnification, the image will be brighter and steadier.

The requirements for preschoolers: rugged, easy-to-focus, and low cost. The most important thing is a wide field of view. Look for the cheapest plastic binoculars you can find. Adult compact binoculars are small and light-weight but the field of view and exit pupil are not likely to adjust to a child’s size.

For young grade-schoolers: low power, compact binoculars of reverse porro prism construction. The wide field of view becomes more important since getting their binoculars “on” birds is difficult. They will also have a hard time keeping the binoculars steady, so a large exit pupil will help them keep the image centered over their eyes.

For pre-teens, consider a pair of “real” binoculars. This is when optical quality starts to matter. If a child is serious about birding, start to think about the \$75-\$150 entry-level birding binoculars from the major manufacturers. Still look for toggle focus, 7x to 8x magnification, and wide field of view.



Birding Expeditions

When you know the birds in your backyard and neighborhood, ask your parents, grandparents, or an adult friend who likes to be outdoors to take you on a bird-watching expedition to one of the many unique locations in Santa Barbara.

Andree Clark Bird Refuge, Arroyo Burro Beach, Ellwood Mesa, Lake Los Carneros, and the Oak Trail at the Santa Barbara Museum of Natural History are excellent places for beginning birders to see the various habitats that combine specific plants (trees, shrubs, grasses, flowers) and animals (insects, rodents, small reptiles).

Each habitat attracts the birds that rely on those unique elements for survival: a place to gather food, find shelter, and raise their young.

Birding Expedition 1:

Andree Clark Bird Refuge

(located off East Cabrillo Blvd; parking lot on Los Patos Way)

This is a good habitat for beginning birders. Ducks sit still for long periods of time and provide good practice in using binoculars.

Birding Expedition 2:

Arroyo Burro Beach

(located off Cliff Drive just west of Los Positas Rd; parking lot available from Cliff Drive)

Beach habitats offer plenty of food for shore birds. Time your visit for low tide and you will see birds feeding at tide pools where mussels and clams hold tightly to rocks. If you visit right after a high tide event, you'll see birds gleaning insects from the kelp that washed up on the beach.

Thousands of insects are attracted to the kelp and provide abundant food for birds. Birds that feed at the shore have bills and legs of various lengths to probe the sand for crabs, snails, and other arthropods.

Birding Expedition 3:

Los Carneros County Park

(located off Los Carneros Rd north of the 101 Highway; parking available near the fire station and Stow Historical Ranch House)

Coastal wetlands are the most endangered habitat in California with less than 5% of original wetlands remaining. Lake Los Carneros is a shallow, fresh-water marsh surround by tule and cattails, an excellent place to observe the wetland birds.

Birding Expedition 4:

Ellwood Mesa

(Across the street from Ellwood School; 7685 Hollister Ave)

Wide open grasslands with low profile grasses (many introduced from other parts of the world) and shrubs make up this habitat. Much of the open grassland habitat has been lost to development, but Ellwood Mesa is an important remaining terrace.

Birding Expedition #5:

Santa Barbara Museum of Natural History Oak Woodland Trail

(located at 2559 Puesta del Sol off Mission Canyon Rd.)

Park at the end of the parking lot and walk through four acres of riparian (located by water) woodlands. The tall trees, shrubs, and Mission Creek support many species of birds. This is an excellent location for listening to bird songs in the spring.



Liz Murruoka

Devereux Slough

Goleta

Another good location for birding!



Special thanks to our birding photographers for generously sharing their images with beginning birders:

Alex Abela
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 Robert Denholtz
 Hal Epstein
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 Tom Gray
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 Dennis Ringer
 Hugh Ranson
 Dieter J. Schaefer
 Alan Schmierer
 Brad Schram
 Wes Stone
 Christopher Taylor
 Glen Tepke
 Jerry Ting
 Alex Viduetsky
 Lynn Watson



Dave Furseth

Great Horned Owl

You may not see birds that hunt at night, but you might hear them. Listen late in the evening and early morning for the distinctive sound of this owl, “hoo-hoo hoooooo hoo-hoo.”

Special thanks to our resident birder, **Rebecca Coulter**, for sharing her knowledge of birds and passion for the joy of birding.

