

MERIT BADGE SERIES



BIRD STUDY



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Bird Study

1. Explain the need for bird study and why birds are useful indicators of the quality of the environment. Describe how birds are part of the ecosystem.
2. Show that you are familiar with the terms used to describe birds by sketching or tracing a perched bird and then labeling 15 different parts of the bird. Sketch or trace an extended wing and label six types of wing feathers.
3. Demonstrate that you know how to properly use and care for binoculars, a spotting scope, or a monocular.
 - (a) Explain what the specification numbers mean on binoculars, a spotting scope, or a monocular.
 - (b) Show how to adjust the eyepiece and how to focus for proper viewing.
 - (c) Show how to properly care for and clean the lenses.
 - (d) Describe when and where each type of viewing device would be most effective.
4. Demonstrate that you know how to use a bird field guide. Show your counselor that you are able to understand a range map by locating in the book and pointing out the wintering range, the breeding range, and/or the year-round range of one species of each of the following types of birds:

- (a) Seabird
 - (b) Plover
 - (c) Falcon or hawk
 - (d) Warbler or vireo
 - (e) Heron or egret
 - (f) Sparrow
 - (g) Nonnative bird (introduced to North America from a foreign country since 1800)
5. Observe and be able to identify at least 20 species of wild birds. Prepare a field notebook, making a separate entry for each species, and record the following information from your field observations and other references.
- (a) Note the date and time.
 - (b) Note the location and habitat.
 - (c) Describe the bird's main feeding habitat and list two types of food that the bird is likely to eat.
 - (d) Note whether the bird is a migrant or a summer, winter, or year-round resident of your area.
6. Describe to your counselor how certain orders of birds are uniquely adapted to a specific habitat. In your description, include characteristics such as the size and shape of the following:
- (a) Beak
 - (b) Body
 - (c) Leg and foot
 - (d) Feathers/plumage
7. Explain the function of a bird's song. Be able to identify five of the 20 species in your field notebook by song or call alone. For each of these five species, enter a description of the song or call, and note the behavior of the bird making the sound. Note why you think the bird was making the call or song that you heard.
8. Do ONE of the following:
- (a) Go on a field trip with a local club or with others who are knowledgeable about birds in your area.
 - (1) Keep a list or fill out a checklist of all the birds your group observed during the field trip.
 - (2) Tell your counselor which birds your group saw and why some species were common and some were present in small numbers.
 - (3) Tell your counselor what makes the area you visited good for finding birds.
 - (b) By using a public library, the internet, or contacting the National Audubon Society, find the name and location of the Christmas Bird Count nearest your home and obtain the results of a recent count.

- (1) Explain what kinds of information are collected during the annual event.
 - (2) Tell your counselor which species are most common, and explain why these birds are abundant.
 - (3) Tell your counselor which species are uncommon, and explain why these were present in small numbers. If the number of birds of these species is decreasing, explain why, and what, if anything, could be done to reverse their decline.
9. Do ONE of the following. For the option you choose, describe what birds you hope to attract, and why.
- (a) Build a bird feeder and put it in an appropriate place in your yard or another location.
 - (b) Build a birdbath and put it in an appropriate place.
 - (c) Build a backyard sanctuary for birds by planting trees and shrubs for food and cover.
10. Do the following:
- (a) Explain the differences between extinct, endangered, and threatened.
 - (b) Identify a bird species that is on the endangered or threatened list. Explain what caused their decline. Discuss with your counselor what can be done to reverse this trend and what can be done to help remove the species from the endangered or threatened list.
11. Identify three career opportunities connected to the study of birds. Pick one and find out the education, training, and experience required for this profession. Discuss with your counselor if this profession might interest you.

Bird Study Resources

Scouting Literature

Eastern Backyard Birds pocket guide; *Western Backyard Birds* pocket guide; *Fieldbook*; *Environmental Science, Fish and Wildlife Management, Forestry, Gardening, Landscape Architecture, Mammal Study, Nature, Pets, Photography, Reptile and Amphibian Study, Soil and Water Conservation, Sustainability, and Woodwork* merit badge pamphlets

Visit the Boy Scouts of America's official retail website at <http://www.scoutstuff.org> for a complete listing of all merit badge pamphlets and other helpful Scouting materials and supplies.

Field Guides

Brinkley, Edward S. *National Wildlife Federation Field Guide to Birds of North America*. Sterling, 2007.

Dunn, Jon L., and Jonathan Alderfer. *Field Guide to the Birds of North America*, 6th ed. National Geographic Society, 2011.

Griggs, Jack, ed. *All the Birds of North America: American Bird Conservancy's Field Guide*. Collins Reference, 2002.

Kaufman, Kenn. *Kaufman Field Guide to Advanced Birding*. Houghton Mifflin Harcourt, 2011.

———. *Kaufman Field Guide to Birds of North America*. Houghton Mifflin Harcourt, 2005.

Peterson, Roger Tory. *Peterson Field Guide to Birds of Eastern and Central North America*, 6th ed. Houghton Mifflin Harcourt, 2010.

———. *Peterson Field Guide to Birds of Western North America*, 4th ed. Houghton Mifflin Harcourt, 2010.

———. *Peterson First Guide to Birds of North America*, 2nd ed. Houghton Mifflin Harcourt, 1998.

Robbins, Chandler, Bertel Bruun, Herbert Zim, and Jonathan Latimer. *Birds of North America*. St. Martin's Press, 2001.

Sibley, David Allen. *The Sibley Guide to Birds*, 2nd ed. Knopf, 2014.

Stokes, Donald, and Lillian Stokes. *The New Stokes Field Guide to Birds: Eastern Region*. Little, Brown and Co., 2013.

———. *The New Stokes Field Guide to Birds: Western Region*. Little, Brown and Co., 2013.

Thompson III, Bill. *The Young Birder's Guide to Birds of North America*. Houghton Mifflin Harcourt, 2012.

Other Books About Birds

- Able, Kenneth, editor. *Gatherings of Angels: Migrating Birds and Their Ecology*. Comstock Publishing, 2003.
- Choate, Ernest, and R.A. Paynter Jr. *The Dictionary of American Bird Names*. Harvard Common Press, 1985.
- Dennis, John. *A Complete Guide to Bird Feeding*. Castle Books, 2002.
- Ehrlich, Paul, David Dobkin, and Darryl Wheye. *The Birder's Handbook*. Fireside, 1988.
- Elbroch, Mark. *Bird Tracks and Signs: A Guide to North American Species*. Stackpole Books, 2001.
- Greenberg, Russell, and Jamie Reaser. *Bring Back the Birds*. Stackpole Books, 1995.
- Holloway, Joel E. *Dictionary of Birds of the United States: Scientific and Common Names*. Timber Press, 2009.
- Hoose, Phillip. *Moonbird: A Year on the Wind with the Great Survivor B95*. Farrar, Straus and Giroux, 2012.
- Kaufman, Ken. *Lives of North American Birds*. Houghton Mifflin Harcourt, 2001.
- Leahy, Christopher. *The Birdwatcher's Companion to North American Birdlife*. Princeton University Press, 2006.
- Sibley, David Allen, illustrator. *The Sibley Guide to Bird Life and Behavior*. Knopf, 2009.
- . *Sibley's Birding Basics*. Knopf, 2002.
- Thompson III, Bill. *Bird Watching for Dummies*. IDG Books, 1997.

Other Media

- Bird Brain 7.1 for Mac*. Ideaform. Listing and record-keeping software. Download.
- Birder's Diary*. Jones Technologies. Software for tracking bird sightings. Download.
- Birds of North America*. Thayer Birding Software, 2014. Photographs and songs of all North American birds, state checklists, bird club listings, electronic version of *The Birder's Handbook*, and more. Download/USB flash drive.
- Cornell Laboratory of Ornithology. *The Cornell Guide to Bird Sounds*. 2014. Download/USB flash drive.
- Dunn, Jon, Sheri Williamson, and John Vanderpoel. *Hummingbirds of North America*. 2003. 180 minutes. DVD.
- iBird Pro Guide to Birds*. App for iOS.
- Male, Michael, and Judy Fieth. *Watching Sparrows*. 2010. 75 minutes. DVD.
- . *Watching Warblers*. 2003. 60 minutes. DVD.
- . *Watching Warblers West*. 2009. 60 minutes. DVD.
- National Geographic Birds: Field Guide to North America*. App for iOS.
- Peterson Field Guide to Birds of North America*. App for iOS and Android.
- Peterson, Roger Tory. *Field Guide to Bird Songs: Eastern/Central North America*. 2002. Audio CD.
- . *Field Guide to Western Bird Songs*. 1999. Audio CD.

Porter, Diane. *How to Start Watching Birds*. 2006. 79 minutes. DVD.

Stokes, Donald. *The Stokes Field Guide to Bird Songs: Eastern Region*. 2010. Audio CD.

———. *The Stokes Field Guide to Bird Songs: Western Region*. 2010. Audio CD.

The Audubon Bird Guide App. iOS and Android.

The Sibley eGuide to Birds App. iOS and Android.

Walton, Richard, and Greg Dodge. *Shorebirds: A Guide to Shorebirds of Eastern North America*. 2005. 60 minutes. DVD.

Walton, Richard, and Robert Lawson. *Birding by Ear: Eastern/Central*. 2002. Audio CD.

———. *Birding by Ear: Western*. 1999. Audio CD.

Organizations and Websites

American Bird Conservancy

Toll-free telephone: 888-247-3624
Website: <http://www.abcbirds.org>

American Birding Association

Toll-free telephone: 800-850-2473
Website: <http://www.aba.org>

Cornell Laboratory of Ornithology

Website: <http://www.birds.cornell.edu>

eBird

Website: <http://ebird.org>

The Great Backyard Bird Count

Website: <http://www.birdsource.org>

Hawk Migration Association of North America

Website: <http://www.hmana.org>

Journey North

Website: <http://www.learner.org/jnorth>

National Audubon Society

Toll-free telephone: 844-428-3826

Website: <http://www.audubon.org>

North American Bluebird Society

Telephone: 508-238-3087

Website: <http://nabluebirdsociety.org>

Partners in Flight

Website: <http://www.partnersinflight.org>

Patuxent Wildlife Research Center

U.S. Geological Survey

Toll-free telephone: 888-275-8747

Website: <http://www.pwrc.usgs.gov>

Purple Martin

Conservation Association

Telephone: 814-833-7656

Website: <http://www.purplemartin.org>

U.S. Fish and Wildlife Service

Website: <http://www.fws.gov>