

# MERIT BADGE SERIES



# FISH AND WILDLIFE MANAGEMENT



BOY SCOUTS OF AMERICA®

STEM-Based

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# FISH AND WILDLIFE MANAGEMENT



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# Requirements

1. Describe the meaning and purposes of fish and wildlife conservation and management.
2. List and discuss at least three major problems that continue to threaten your state's fish and wildlife resources.
3. Describe some ways in which everyone can help with fish and wildlife conservation.
4. List and describe five major fish and wildlife management practices used by managers in your state.
5. Do ONE of the following:
  - a. Construct, erect, and check regularly at least two artificial nest boxes (wood duck, bluebird, squirrel, etc.) and keep written records for one nesting season.
  - b. Construct, erect, and check regularly bird feeders and keep written records of the kinds of birds visiting the feeders.
  - c. Develop and implement a fishery improvement project or a backyard wildlife habitat improvement project. Share the results with your counselor.
  - d. Design and construct a wildlife blind near a game trail, water hole, salt lick, bird feeder, or birdbath and take good photographs or make sketches from the blind of any combination of 10 wild birds, mammals, reptiles, or amphibians.
6. Do ONE of the following:
  - a. Observe and record 25 species of wildlife. Your list may include mammals, birds, reptiles, amphibians, and fish. Write down when and where each animal was seen.

- b. List the wildlife species in your state that are classified as endangered, threatened, exotic, non-native, game species, furbearers, or migratory game birds. Discuss with your counselor management practices in place or being developed for at least three of these species.
  - c. Start a scrapbook of North American fish and wildlife. Insert markers to divide the book into separate parts for mammals, birds, reptiles, amphibians, and fish. Collect articles on such subjects as life histories, habitat, behavior, and feeding habits on all of the five categories and place them in your notebook accordingly. Articles and pictures may be taken from newspapers or science, nature, and outdoor magazines, or from other sources including the internet (with your parent's permission). Enter at least five articles on mammals, five on birds, five on reptiles, five on amphibians, and five on fish. Put each animal on a separate sheet in alphabetical order. Include pictures whenever possible.
7. Do ONE of the following:
- a. Determine the age of five species of fish from scale samples or identify various age classes of one species in a lake and report the results.
  - b. Conduct a creel census on a small lake to estimate catch per unit effort.
  - c. Examine the stomach contents of three fish and record the findings. It is not necessary to catch any fish for this option. You may visit a cleaning station set up for fishermen or find another, similar alternative.
  - d. Make a freshwater aquarium. Include at least four species of native plants and four species of animal life, such as whirligig beetles, freshwater shrimp, tadpoles, water snails, and golden shiners. After 60 days of observation, discuss with your counselor the life cycles, food chains, and management needs you have recognized. After completing requirement 7d to your counselor's satisfaction, with your counselor's assistance, check local laws to determine what you should do with the specimens you have collected.
8. Using resources found at the library and in periodicals, books, and the internet (with your parent's permission), learn about three different positions held by fisheries and/or wildlife professionals. Find out the education and training requirements for each position.

# Fish and Wildlife Resources

## Scouting Literature

*Scouts BSA Handbook for Boys; Scouts BSA Handbook for Girls; Fieldbook; Animal Science, Bird Study, Camping, Environmental Science, Fishing, Fly-Fishing, Forestry, Insect Study, Mammal Study, Nature, Oceanography, Pets, Reptile and Amphibian Study, Soil and Water Conservation, Sustainability, and Veterinary Medicine* merit badge pamphlets

With your parent's permission, visit the Boy Scouts of America's official retail website, [www.scoutshop.org](http://www.scoutshop.org), for a complete listing of all merit badge pamphlets and other helpful Scouting materials and supplies.

## Books

- Behler, John. *National Audubon Society First Field Guide: Reptiles*. Scholastic Trade, 1999.
- Bartlett, R.D., Patricia Bartlett, and Billy Griswold. *Reptiles, Amphibians, and Invertebrates: An Identification and Care Guide*, 2nd ed. Barron's Educational Series, 2010.
- Dunn, Jon L., and Jonathan Alderfer. *National Geographic Field Guide to the Birds of North America*, 7th ed. National Geographic, 2017.
- Hollow, Michele C., and William P. Rives, VMD. *The Everything Guide to Working With Animals*. Adams Media, 2009.
- Jackson, Tom. *The Illustrated Encyclopedia of Animals of the World*. Anness, 2012.
- Leopold, Aldo. *Aldo Leopold: A Sand County Almanac and Other Writings on Conservation and Ecology*. Edited by Curt Meine. Library of America, 2013.
- Mackay, Richard. *The Atlas of Endangered Species*, 3rd ed. University of California Press, 2017.
- Morgan, Tiffany, and Jon Young. *Animal Tracking Basics*. Stackpole Books, 2007.
- Page, Lawrence M., and Brooks M. Burr. *Peterson Field Guide to Freshwater Fishes*, 2nd ed. Houghton Mifflin Harcourt, 2011.
- Reader's Digest editors. *North American Wildlife*. Reader's Digest, 2012.

Reid, Fiona. *Peterson Field Guide to Mammals of North America*, 4th ed. Houghton Mifflin Harcourt, 2006.

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

## **Organizations and Websites**

### **American Birding Association**

93 Clinton St., Suite ABA  
Delaware City, DE 19706  
Toll-free telephone: 800-850-2473  
Website: [www.aba.org](http://www.aba.org)

### **American Fisheries Society**

425 Barlow Place, Suite 110  
Bethesda, MD 20814  
Telephone: 301-897-8616  
Website: [www.fisheries.org](http://www.fisheries.org)

### **Association of Fish and Wildlife Agencies**

1100 First St. NE, Suite 825  
Washington, DC 20002  
Telephone: 202-838-3474  
Website: [www.fishwildlife.org](http://www.fishwildlife.org)

### **Leave No Trace Center for Outdoor Ethics**

P.O. Box 997  
Boulder, CO 80306  
Toll-free telephone: 800-332-4100  
Website: [www.lnt.org](http://www.lnt.org)

### **National Audubon Society**

225 Varick St., 7th Floor  
New York, NY 10014  
Telephone: 212-979-3196  
Website: [www.audubon.org](http://www.audubon.org)

### **National Fish and Wildlife Foundation**

1133 15th St. NW, Suite 1100  
Washington, DC 20005  
Telephone: 202-857-0166  
Website: [www.nfwf.org](http://www.nfwf.org)

### **National Marine Fisheries Service**

Website: [www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)

### **National Wildlife Federation**

11100 Wildlife Center Drive  
Reston, VA 20190  
Toll-free telephone: 800-822-9919  
Website: [www.nwf.org](http://www.nwf.org)

### **National Zoological Park**

3001 Connecticut Ave. NW  
Washington, DC 20008  
Telephone: 202-633-4888  
Website: <https://nationalzoo.si.edu>

### **The Nature Conservancy**

4245 North Fairfax Drive, Suite 100  
Arlington, VA 22203-1606  
Toll-free telephone: 800-628-6860  
Website: [www.nature.org](http://www.nature.org)

### **U.S. Fish and Wildlife Service**

Toll-free telephone: 800-344-9453  
Website: [www.fws.gov](http://www.fws.gov)

### **Wildlife Conservation Society**

2300 Southern Blvd.  
Bronx, NY 10460  
Telephone: 718-220-5100  
Website: [www.wcs.org](http://www.wcs.org)

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courtesy—page 47 (*adult tortoise*)

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with starfish*)

