### MERIT BADGE SERIES







STEM-Based

## FISH AND WILDLIFE

MANAGEMENT



### BOY SCOUTS OF AMERICA MERIT BADGE SERIES

# FISH AND WILDLIFE MANAGEMENT



"Enhancing our youths' competitive edge through merit badges"



### Requirements

- Describe the meaning and purposes of fish and wildlife conservation and management.
- List and discuss at least three major problems that continue to threaten your state's fish and wildlife resources.
- 3. Describe some practical ways in which everyone can help with the fish and wildlife conservation effort.
- 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.
  - Construct, erect, and check regularly bird feeders and keep written records of the kinds of birds visiting the feeders.
  - 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 fish and 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.
- 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 MANAGEMENT

### Fish and Wildlife Resources

### **Scouting Literature**

Boy Scout Journal; Boy Scout Handbook; 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

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.

#### **Books**

- Behler, John. *Reptiles* (The National Audubon Society First Field Guide). 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*, 5th ed. National Geographic, 2006.
- 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, and Curt Meine, editor. *Aldo Leopold: A Sand County Almanac and Other Writings on Conservation and Ecology*. Library of America, 2013.
- Mackay, Richard. *The Atlas of Endangered Species*. University of California Press, 2008.
- 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*. Alfred A. Knopf, 2000.

### Organizations and Websites American Birding Association

1618 W. Colorado Ave. Colorado Springs, CO 80904 Toll-free telephone: 800-850-2473 Website: http://www.aba.org

### **American Fisheries Society**

5410 Grosvenor Lane Bethesda, MD 20814 Telephone: 301-897-8616

Website: http://www.fisheries.org

### Association of Fish and Wildlife Agencies

444 North Capitol St. NW, Suite 725 Washington, DC 20001

Telephone: 202-624-7890 Website: 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: http://www.lnt.org

### **National Audubon Society**

225 Varick St., 7th Floor New York, NY 10014 Telephone: 212-979-3000

Website: http://www.audubon.org

### National Fish and Wildlife Foundation

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

#### **National Marine Fisheries Service**

Website: http://www.nmfs.noaa.gov

#### **National Wildlife Federation**

11100 Wildlife Center Drive Reston, VA 20190

Toll-free telephone: 800-822-9919 Website: http://www.nwf.org

### **National Zoological Park**

3001 Connecticut Ave. NW Washington, DC 20008 Telephone: 202-633-4888

Website: http://nationalzoo.si.edu

#### The Nature Conservancy

4245 North Fairfax Drive, Suite 100

Arlington, VA 22203-1606

Toll-free telephone: 800-628-6860 Website: http://www.nature.org

### U.S. Fish and Wildlife Service

Toll-free telephone: 800-344-9453 Website: http://www.fws.gov

### Wildlife Conservation Society

2300 Southern Blvd. Bronx, NY 10460 Telephone: 718-220-5100

Website: http://wcs.org

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