“Enhancing our youths’ competitive edge through merit badges”
Note: In most cases, all specimens should be returned to the wild at the location of original capture after the requirements have been met. Check with your merit badge counselor for those instances where the return of these specimens would not be appropriate.

Under the Endangered Species Act of 1973, some plants and animals are or may be protected by federal law. The same ones and/or others may be protected by state law. Be sure that you do not collect protected species.

Your state may require that you purchase and carry a license to collect certain species. Check with the wildlife and fish and game officials in your state regarding species regulations before you begin to collect.

Requirements

Always check [www.scouting.org](http://www.scouting.org) for the latest requirements.

1. Name three ways in which plants are important to animals. Name a plant that is protected in your state or region, and explain why it is at risk.

2. Name three ways in which animals are important to plants. Name an animal that is protected in your state or region, and explain why it is at risk.

3. Explain the term “food chain.” Give an example of a four-step land food chain and a four-step water food chain.

4. Do all of the requirements in FIVE of the following fields:

   (a) Birds

   (1) In the field, identify eight species of birds.

   (2) Make and set out a birdhouse OR a feeding station OR a birdbath. List what birds used it during a period of one month.

   (b) Mammals

   (1) In the field, identify three species of wild mammals.

   (2) Make plaster casts of the tracks of a wild mammal.

   (c) Reptiles and Amphibians

   (1) Show that you can recognize the venomous snakes in your area.

   (2) In the field, identify three species of reptiles or amphibians.

   (3) Recognize one species of toad or frog by voice; OR identify one reptile or amphibian by eggs, den, burrow, or other signs.

   (d) Insects and Spiders

   (1) Collect and identify either in the field or through photographs 10 species of insects or spiders.*

   (2) Hatch an insect from the pupa or cocoon; OR hatch adults from nymphs; OR keep larvae until they form pupae or cocoons; OR keep a colony of ants or bees through one season.
(e) Fish
   (1) Identify two species of fish native to your area.
   (2) Collect four kinds of animal food eaten by fish in the wild.

(f) Mollusks and Crustaceans
   (1) Identify five species of mollusks and crustaceans.
   (2) Collect, mount, and label six shells.

(g) Plants
   (1) In the field, identify 15 species of wild plants.
   (2) Do ONE of the following options:
       (a) Collect and label the seeds of six plants OR the leaves of 12 plants.
       (b) Photograph the seeds of six plants OR the leaves of 12 plants and create a catalog of your photos.

(h) Soils and Rocks
   (1) Collect and identify three different types of soil that represent soils high in sand, clay and humus.
   (2) Collect and identify five different types of rocks from your area.

5. Discuss the principle of Leave No Trace and how it relates to nature.

6. Do the following:
   (a) Explain what succession is to your counselor.
   (b) Visit a natural area (forest, grassland, meadow, water feature) and explain what stage of succession (both plant and animal) the area is in. Talk about what community/succession stages may have been there before and what community/succession stages may replace what you see now. Discuss what disturbances or changes have taken place in the past to create this landscape and what changes may occur in the future to change the landscape further.

*Photos may be taken with your own equipment or gathered from other sources.*
Nature Resources

**Scouting Literature**
*Conservation Handbook; Fieldbook; The Principles of Leave No Trace; Mammals pocket guide; Reptiles and Amphibians pocket guide; Eastern Backyard Birds pocket guide; Western Backyard Birds pocket guide; Bugs and Slugs pocket guide; Edible Wild Plants pocket guide; Roadside Wildflowers pocket guide; Freshwater Fishes pocket guide; Trees pocket guide; Geology pocket guide; Animal Science, Backpacking, Bird Study, Camping, Canoeing, Environmental Science, Fish and Wildlife Management, Fishing, Fly-Fishing, Forestry, Gardening, Geology, Hiking, Insect Study, Mammal Study, Oceanography, Photography, Plant Science, Reptile and Amphibian Study, Soil and Water Conservation, Sustainability, and Wilderness Survival* merit badge pamphlets

**Books**


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.


**Organizations, Periodicals, and Websites**

**Acorn Naturalists**
Website: www.acornnaturalists.com

**American Birding Association**
Toll-free telephone: 800-850-2473
Website: www.aba.org

**American Museum of Natural History**
Central Park West at 79th Street
New York, NY 10024-5192
Website: www.amnh.org

**Bee Culture Magazine**
Website: www.beechallenge.com

**Discover Magazine**
Website: www.discovermagazine.com

**National Audubon Society**
Website: www.audubon.org

**National Fish and Wildlife Foundation**
1133 15th St. NW, Suite 1000
Washington, DC 20005
Website: www.nfwf.org

**National Geographic Society**
Website: www.nationalgeographic.com

**National Park Service**
Website: www.nps.gov

**U.S. Fish and Wildlife Service**
Website: www.fws.gov

**World Wildlife Fund**
Website: www.worldwildlife.org

**Recordings of Bird Calls**


**Biological Supply Companies**

**BioQuip Products**
Telephone: 310-667-8800
Website: www.bioquip.com

**Carolina Biological Supply Company**
Website: www.carolina.com