

MERIT BADGE SERIES



MAMMAL STUDY



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"Enhancing our youths' competitive edge through merit badges"



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Requirements

1. Explain the meaning of “animal,” “invertebrate,” “vertebrate,” and “mammal.” Name three characteristics that distinguish mammals from all other animals.
2. Explain how the animal kingdom is classified. Explain where mammals fit in the classification of animals. Classify three mammals from phylum through species.
3. Do ONE of the following:
 - (a) Spend three hours in two different kinds of natural habitats or at different elevations for a total of 6 hours. List the different mammal species and how many of each you identified by sight or sign. Tell why all mammals do not live in the same kind of habitat.
 - (b) Spend three hours on five different days in at least a 25-acre area (about the size of 3½ football fields) for a total of 15 hours. List the mammal species you identified by sight or sign.
 - (c) From study and reading, write a simple life history of one nongame mammal that lives in your area. Tell how this mammal lived before its habitat was affected in any way by humans. Tell how it reproduces, what it eats, and its natural habitat. Describe its dependency upon plants and other animals (including humans), and how they depend upon it. Describe how humans have benefited from the mammal you have chosen and whether the mammal has benefited from association with humankind.

4. Do ONE of the following:
- (a) Under the guidance of a nature center or natural history museum, make two study skins of rats or mice. Tell the uses of study skins and mounted specimens respectively.
 - (b) Take good pictures of two kinds of mammals in the wild. Record the date(s), time of day, weather conditions, approximate distance from the animal, habitat conditions, and any other factors you feel may have influenced the animal's activity and behavior.
 - (c) Write a life history of a native game mammal that lives in your area, covering the points outlined in requirement 3c. List sources for this information.
 - (d) Make and bait a tracking pit. Report what mammals and other animals came to the bait.
 - (e) Visit a natural history museum. Report on how specimens are prepared and cataloged. Explain the purposes of museums.
 - (f) Write a report of 500 words on a book about a mammal species.
 - (g) Trace two possible food chains of carnivorous mammals from soil through four stages to the mammal.
5. Working with your counselor, select and carry out one project that will influence the numbers of one or more mammals.



Resources for Mammal Study

Scouting Literature

Pocket Guide to Mammals; Animal Science, Dog Care, Environmental Science, Fish and Wildlife Management, Nature, Pets, and Veterinary Medicine merit badge pamphlets

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

Books

Alderton, David. *Foxes, Wolves, and Wild Dogs of the World*. Sterling, 1998.

Barkhausen, Annette, and Franz Geiser. *Rabbits and Hares*. Gareth Stevens, 1994.

Bowen, Betsy. *Tracks in the Wild*. Little, Brown, 1993.

Bowers, Nora, Rick Bowers, and Kenn Kaufman. *Mammals of North America*. Houghton Mifflin Harcourt, 2004.

Carwardine, Mark, et al. *Whales, Dolphins, and Porpoises*. Nature Company: Time-Life Books, 1998.

Chinery, Michael, ed. *The Kingfisher Illustrated Encyclopedia of Animals: From Aardvark to Zorille—and 2,000 Other Animals*. Kingfisher Books, 1992.

Elbroch, Mark. *Animal Skulls: A Guide to North American Species*. Stackpole Books, 2006.

———. *Mammal Tracks and Sign: A Guide to North American Species*. Stackpole Books, 2003.

Graham, Gary L. *Bats of the World*. St. Martin's Press, 2001.

Halfpenny, James. *A Field Guide to Mammal Tracking*. Johnson Books, 1988.

Hare, Tony. *Animal Fact File: Head-to-Tail Profiles of More Than 100 Animals*. Facts On File, 1999.

Hodge, Deborah. *Deer, Moose, Elk, and Caribou*. Kids Can Press, 1999.

Lumpkin, Susan. *Small Cats*. Facts On File, 1993.

Miller, Sara Swan. *Rodents: From Mice to Muskrats*. Franklin Watts, 1998.

Stewart, Brent S., Phillip J. Clapham, and James A. Powell. *Audubon Society Guide to Marine Mammals of the World*. Knopf, 2002.

Vaughan, Terry A., James M. Ryan, and Nicholas J. Czaplewski. *Mammalogy*, 5th ed. Jones and Bartlett Learning, 2010.

Whitaker, John O. *National Audubon Society Field Guide to North American Mammals*. Alfred A. Knopf, 1996.

Wilson, Don E., and Sue Ruff. *Smithsonian Book of North American Mammals*. Smithsonian Books, 1999.

Zim, Herbert Spencer, and Donald F. Hoffmeister. *Mammals: A Guide to Familiar American Species*. Golden Press, 1987.

Other Resources**Mammals of the Great Smoky Mountains and Southern Appalachians**

App by BDY Environmental LLC

Organizations and Websites**American Society of Mammalogists**

P.O. Box 7060

Lawrence, KS 66044

Telephone: 785-843-1234

Website: <http://mammalsociety.org>

Association of American Zoos and Aquariums

8403 Colesville Road, Suite 710

Silver Spring, MD 20910-3314

Telephone: 301-562-0777

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

Bat Conservation International

P.O. Box 162603

Austin, TX 78716

Telephone: 512-327-9721

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

Conservation and Research Center

National Zoo Information

Washington, DC 20013-7012

Telephone: 202-633-4800

Website: <http://www.si.edu/crc>

National Audubon Society

700 Broadway

New York, NY 10003

Telephone: 212-979-3000

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

National Wildlife Federation

11100 Wildlife Center Drive

Reston, VA 20190

Toll-free telephone: 800-822-9919

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