



Mammal Study

Scouts BSA · Nature

Name

Started

Completed

Mammals are everywhere, from squirrels in your yard to deer in the woods. This badge teaches you to observe them closely, understand how they live, and help their habitats. You'll become a better observer every time you're outdoors.

Requirements

Every official requirement, in plain language. Check the official wording when you sign off (scouting.org/merit-badges/mammal-study/). Tips and examples are ideas, not extra requirements.

- ☐ **1** Explain the terms animal, invertebrate, vertebrate, and mammal, and name three traits that set mammals apart from all other animals

Tip: Make a quick list of what all mammals have in common, then compare them with a bird, a fish, and a reptile.

Example: Make a quick chart of what only mammals have: hair or fur, milk to feed their young, and three tiny bones in the middle ear. Compare a raccoon with a robin, a frog, and a trout. The robin is warm-blooded too, but it has feathers, not fur.

- ☐ **2** Explain how the animal kingdom is classified and where mammals fit, and classify three mammals from phylum down to species

Tip: Pick three mammals you like and look up their scientific names and groups.

Example: Classify a white-tailed deer: kingdom Animalia, phylum Chordata, class Mammalia, order Artiodactyla, family Cervidae, genus Odocoileus, species virginianus. Do the same for two more, like a gray squirrel and a bat.

3 Field study or life history: Choose 1 of 3

Tips for this section: Choose a spot like a park or wooded edge and visit at dawn or dusk, when many mammals are active. Keep a notebook of what you see.

Example for this section: For 3b, pick a patch of woods and fields of at least 4 acres and spend 3 hours there on five different days, often at dawn or dusk. Record every mammal you see or find signs of: a rabbit at the field edge, deer tracks by the creek, a chipmunk on a stone wall.

- ☐ **3a** Spend 3 hours in each of two different natural habitats or elevations (6 hours total). Record each mammal species you spotted or found signs of, with counts, and explain why mammals don't all share one habitat

- ☐ **3b** Spend 3 hours on each of five different days in an area of at least 4 acres (about 3 football fields), 15 hours total, and list every mammal species you spotted or found signs of

- ☐ **3c** Using books and other research, write a simple life history of a nongame mammal near you: how it lived before people changed its habitat, how it reproduces, its food and habitat, how it and other plants and animals (people too) depend on each other, and how it and people have benefited from each other

4 Mammal study project: Choose 1 of 7

Tips for this section: Build a tracking pit of smooth sand or mud and check it each morning, or photograph wild mammals at a park or feeder with a parent's help, noting the time, weather, and distance.

Example for this section: Build a tracking pit: clear a square of ground, fill it with fine sand or mud smoothed flat, and put a little bait in the middle. Check it each morning, photograph the tracks with a ruler for scale, and use a field guide to name each visitor.

- ☐ **4a** Working with a natural history museum or nature center, make two rat or mouse study skins, and explain what study skins and mounted specimens are each used for

- ☐ **4b** Take good photos of two kinds of wild mammals, recording the dates, time of day, weather, approximate distance, habitat, and anything else that may have affected their activity and behavior

- ☐ **4c** Write the life history of a game mammal native to your area, covering the points in 3c, and list your sources

- ☐ **4d** Build and bait a tracking pit, and report which mammals and other animals came to it

- ☐ **4e** Tour a natural history museum; report how its specimens are prepared and cataloged, and explain what museums are for

- ☐ **4f** Write a 500-word report on a book about a mammal species

- ☐ **4g** Trace two possible food chains, from the soil through four stages, that end with a carnivorous mammal

- ☐ **5** With your counselor, choose and carry out one project that will affect the numbers of one or more kinds of mammals

Tip: Talk with your counselor about a project like building a habitat feature or planting food plants, and check with a wildlife expert first.

Example: With your counselor and a wildlife expert's advice, build and put up bat boxes at a nature center, or plant native shrubs that give mammals food and cover. Check on your project over the next few weeks.

- ☐ **6** Discuss why the Outdoor Code and the Leave No Trace Seven Principles matter for mammal study, and explain how you followed them in natural areas while observing, collecting, and identifying

Tip: Think about how to watch animals without disturbing them, like keeping your distance and never feeding wildlife.

Example: Leave No Trace for mammal study means watching from a distance with binoculars, never feeding wildlife, keeping food sealed at camp, and staying away from dens and young animals.

7 Careers or hobbies: Choose 1 of 2

Tips for this section: Visit a nature center and ask a naturalist or wildlife biologist how they got into their work.

- ☐ **7a** Research one career related to mammal study: training and education, costs, job outlook, pay, duties, and advancement. With a parent's or guardian's OK you may search online or at a library, interview a pro, or visit a workplace. Discuss your findings with your counselor and what makes the career appealing

- ☐ **7b** Explore how you could turn this badge's skills into a hobby or healthy lifestyle. Look into needed training, costs, and supporting groups, and talk with your counselor about short- and long-term goals you might set