



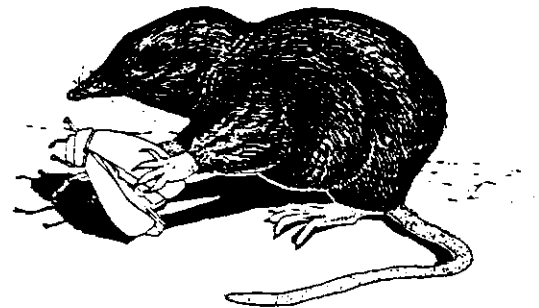
# Natural Heritage & Endangered Species Program

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## MASSACHUSETTS SPECIES OF SPECIAL CONCERN

### Rock Shrew (*Sorex dispar*)

**DESCRIPTION:** The Rock Shrew (also known as the Long-tailed Shrew) is a large, dull gray-black shrew with nearly uniform coloration in all seasons. The tail is indistinctly bicolored; black above, usually paler below; and is long, sparsely haired, and rather heavy and ropelike in appearance. The long tail is this shrew's trademark. The body of the Rock Shrew is slender, and the snout is long, slender, highly movable, and incessantly rotating, with conspicuous vibrissae. The eyes are minute but visible, and the ears usually project slightly above the pelage (fur). The skull is long, narrow, and depressed with a peculiar dentition. The two sexes are equal in size. Measurements range from 101–139 mm (3.9–5.3 in) in overall length; tail, 50–60 mm (2.0–2.3 in); and hind foot, 12–15 mm (0.47–0.59 in). Weights vary from 4–6 g (0.14–0.21 oz).

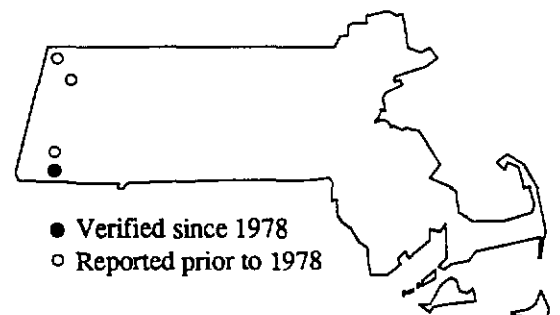


**SIMILAR SPECIES IN MASSACHUSETTS:** The Masked Shrew (*Sorex cinereus*), Smoky Shrew (*Sorex fumeus*), and Water Shrew (*Sorex palustris*) are three species of shrews in Massachusetts that most closely resemble the Rock Shrew. The Masked Shrew is the most common long-tailed shrew with a range overlapping that of the Rock Shrew, but it is generally smaller and brown rather than gray in color. The Smoky Shrew is more likely to be confused with the Rock Shrew particularly in winter when both are the same shade of dark gray. At that time of year, they can be distinguished by looking at the belly hair. The belly hair of the Smoky Shrew is lighter in color than the rest of the body hair; the hair all over the Rock Shrew is uniform. During the summer, the Smoky Shrew turns a dull brownish gray which differs markedly from the Rock Shrew's intense gray-black fur. The Smoky Shrew is larger and more robust with a shorter and thinner tail. In general, Smoky Shrews are more robust, have a shorter tail, and noticeably larger front teeth than Rock Shrews.

DeGraaf, Richard M. and Rudis, Deborah D.  
*New England Wildlife: Habitat, Natural  
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Report NE 108. Broomall, PA: U.S. Dept. of  
Agriculture, Forest Service, Northeastern  
Forest Experiment Station, 1986.



Range of the Rock Shrew



Distribution in Massachusetts

**RANGE:** *Sorex dispar*, meaning "different shrew," is a product of the Appalachian Mountains. It can be found nowhere else in the world but in or near this geologically ancient range of mountains which extend from Maine to Georgia. The range of the Rock Shrew is from the mountains of Maine, south through western Massachusetts to eastern New York, central Pennsylvania, and western New Jersey, and south into North Carolina and Tennessee with an isolated population in New Brunswick. In Massachusetts, this shrew is known to inhabit only three sites in Berkshire County, but may possibly occur elsewhere in western Massachusetts in areas of suitable habitat.

**HABITAT IN MASSACHUSETTS:** The Rock Shrew prefers cold, deep, damp coniferous forests, particularly old-growth forest with hemlock or spruce, in boreal pockets at altitudes as high as 6,000 ft. It is found in depressions of moist moss-covered logs, in crevices of large mossy rock piles, among shaded, wooded rock slides or talus, just beneath low, shaded cliffs, and at the edges of moist grassy clearings surrounded by swampy woods. Occasionally the Rock Shrew occurs in much drier spots but almost invariably it is associated with rock crevices and sliderock.

**LIFECYCLE/BEHAVIOR:** Beyond knowing what the animal looks like, and the type of habitat it is most likely to be found in, little else is known about this species. It is believed that the Rock Shrew's habits are much the same as those of the Masked Shrew or Smoky Shrew, which are often found in the same rockpile. Fragments of spiders and centipedes as well as traces of plant material have been identified from stomach analysis, but the Rock Shrew probably kills and eats a great variety of insects and other small invertebrates as well. The Rock Shrew is appropriately named in that it forages in deep, subterranean tunnel systems among rocky outcrops where there is little or no soil but rather a loose accumulation of boulders. This long-tailed shrew is well adapted for its life in boulder piles. Its long, slender body permits fine-tuned navigation of its labyrinth-like home and its long tail facilitates balancing while climbing.

Because it is difficult to capture the Rock Shrew within its home of boulders, very little is known about its breeding behavior. Breeding activity is believed to begin in early spring and continuing until the end of summer. The gestation period is unknown. Probably only one litter of 2 to 5 offspring are produced yearly.

**POPULATION STATUS IN MASSACHUSETTS:** The Rock Shrew is currently listed as a "Species of Special Concern" in Massachusetts. Prior to 1978, there were three reports in three locations in the western part of the state: Adams, Monterey, and Williamstown. Since 1978, only one report has been recorded which was documented in New Marlborough. The limited availability of suitable habitat restricts its distribution to a few sites in western Massachusetts.

**MANAGEMENT RECOMMENDATIONS:** At present, there appears to be no immediate threat to the habitat of the Rock Shrew. Building roads may have the only possible effect on the Rock Shrew, but it is believed that this will have no major impact on the populations. Specific management recommendations are to protect streams and moist rocky hillsides at the higher elevations.

## **BIBLIOGRAPHY**

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