



Natural Heritage & Endangered Species Program

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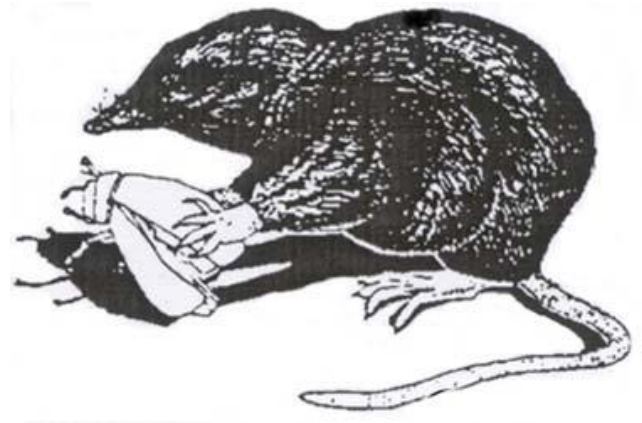
Massachusetts Division of Fisheries & Wildlife

Rock Shrew *Sorex dispar*

State Status: **Special Concern**
Federal Status: **None**

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 of overall length range from 10 to 14 cm (~4 - 5.5 in); tail lengths range from 5 to 6 cm (2.0-2.3 in); and hind foot length is 12 to 15 mm (0.47-0.59 in). Weights vary from 4 to 6 g (0.14-0.21 oz).

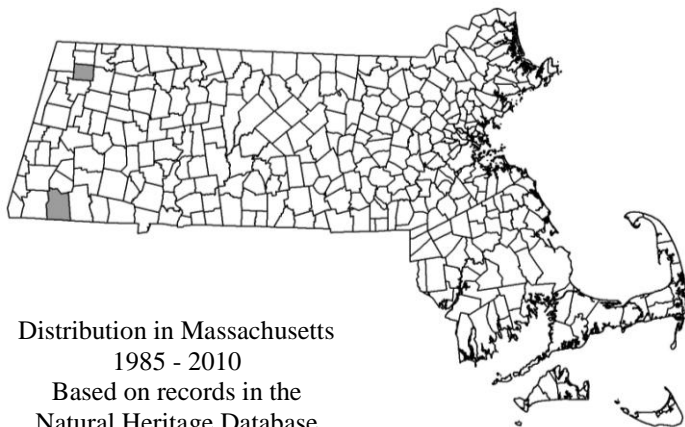
SIMILAR SPECIES IN MASSACHUSETTS: The Masked Shrew (*Sorex cinereus*), Smoky Shrew (*Sorex fumeus*), and Water Shrew (*Sorex palustris*, a Species of Special Concern in Massachusetts) are the three species of shrews in the state that most closely resemble the



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

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 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.

RANGE: *Sorex dispar*, meaning "different shrew," is restricted to sites in or near the Appalachian Mountains. Historically, the range of the Rock Shrew has been depicted as extending from the mountains of North Carolina and Tennessee, north through central Pennsylvania, western New Jersey, eastern New York, western Massachusetts, and Maine to southern New



Distribution in Massachusetts
1985 - 2010
Based on records in the
Natural Heritage Database

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

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Brunswick. However, most taxonomists now consider the Rock Shrew and the Gaspé Shrew (*Sorex gaspensis*), which is smaller but otherwise apparently identical, to be the same species. This lumping of two formerly distinct species extends the range further north through the Gaspé Peninsula of Quebec and Cape Breton, Nova Scotia. In Massachusetts, this shrew is known from only one historic and two current sites in Berkshire County, but probably occurs in other places in western Massachusetts in areas of suitable habitat.

HABITAT IN MASSACHUSETTS: The Rock Shrew prefers cold, deep, damp forests, particularly old-growth forest with hemlock or spruce. It is primarily a shrew of wooded rock slides or talus, just beneath low, shaded cliffs, and at the edges of nearby mountain streams. It can also be found in depressions of moist moss-covered logs and in crevices of large mossy rock piles. Occasionally, the Rock Shrew occurs in much drier spots, but is almost invariably associated with rock crevices and rock slides.

LIFE CYCLE/BEHAVIOR: Little is known about this species beyond its appearance and the type of habitat it is most likely to be found in. 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 rock pile. 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. 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 under the Massachusetts Endangered Species Act as a Species of Special Concern in Massachusetts. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. It is currently known from Berkshire County. Prior to 1978, there were reports in three locations in western part of the state. In 2010, two sites are considered to have current populations. As of 2010, only nine specimens have been documented in Massachusetts, but this shrew is probably much more common and secure in its limited habitat than these few records would suggest.

MANAGEMENT RECOMMENDATIONS: At present, there appears to be no immediate threat to the habitat of the Rock Shrew. Specific management recommendations are to protect streams and moist rocky hillsides at the higher elevations.

Updated 2015

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

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