

Hairy-tailed Mole

Parascalops breweri (Bachman, 1842)

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CONTENT AND TAXONOMIC COMMENTS

The hairy-tailed mole (*Parascalops breweri*) is a monotypic species. Literature on the hairy-tailed mole was reviewed by Hallett (1978).

DISTINGUISHING CHARACTERISTICS

The hairy-tailed mole has a robust body. Its measurements are: total length, 139–174 mm; tail, 23–36 mm; hind foot, 17–21 mm; weight, 40–65 g. The dense, soft pelage is gray to black dorsally, but slightly paler ventrally. The eyes are concealed in the pelage and the ears lack pinnae. The short tail (less than 25% of the body length) is fleshy, constricted at the base, and densely furred with coarse hairs. The forefeet are not webbed. The hairy-tailed mole is unlikely to be confused with the eastern mole (*Scalopus aquaticus*), which has a naked tail, or with the star-nosed mole (*Condylura cristata*), that has numerous fleshy rostral appendages. The dental formula of hairy-tailed mole is: I 3/3, C 1/1, P 4/4, M 3/3 = 44 (Figure 1). See keys for additional details.

CONSERVATION STATUS

The hairy-tailed mole has a global rank of Secure (NatureServe 2007). It is Secure in Virginia, and Apparently Secure in Kentucky and North Carolina. Tennessee classifies it as Vulnerable. It is Critically Imperiled in Georgia. It is currently unranked in South Carolina, where it has been monitored as a Species of Special Concern.

DISTRIBUTION

The hairy-tailed mole is distributed from Ontario and Quebec (van Zyll de Jong 1983, Burns 1983) throughout the northeastern United States and south throughout the Appalachian Mountains. The distribution of the mole in the South is depicted in Figure 2. Its geographical range includes the Southern Appalachian Mountains of Virginia (Odom 1944, Handley 1971, Pagels and Tate 1976, Handley 1992, Linzey 1998), Kentucky (Welter and Sollberger 1939, Wallace and Houp 1968, Barbour and Davis 1974, Fassler 1974, Meade 1992), Tennessee (Smith et al. 1974, Copeland 1981, Allsbrooks et al. 1983, Linzey 1995), North Carolina (Gordon and Bailey 1963, Johnston 1967, Lee et al. 1982, Webster et al. 1984, Linzey 1995),

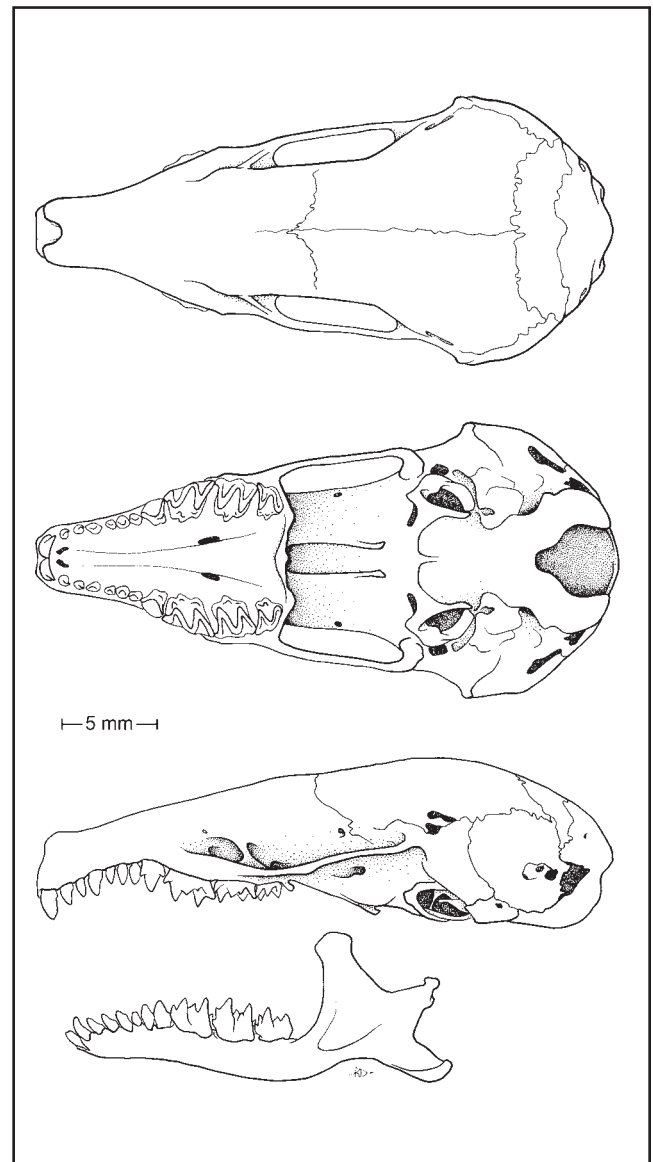


Figure 1. Dorsal, ventral, and lateral view of cranium and lateral view of mandible of *Parascalops breweri* from Giles County, Virginia (USNM 364611, male).

South Carolina (Reese and Luckett 1979) and Georgia (Laerm 1992, Brown 1993).

ABUNDANCE STATUS

In the South, the hairy-tailed mole varies in its abundance where found. Average population density estimates reach 25–30/ha in New Hampshire (Eadie 1939)

and New York (Hamilton 1939). It is abundant at Mountain Lake Biological Station, Giles County, Virginia in the Ridge and Valley (C. O. Handley, Smithsonian Institution, personal communication). In the extreme southern Appalachians, it is rarely reported even in appropriate habitat. Consequently, density estimates are unavailable and its status is uncertain in the southernmost areas of its range.

PRIMARY HABITATS

Throughout its distribution, the hairy-tailed mole constructs tunnels for foraging and nesting (Hallett 1978). It occurs in deciduous and conifer forests, oldfields, pastures, and grassy roadsides in substrates composed of light, well-drained soils with substantial surface cover. This species avoids soils with high clay or moisture content (Eadie 1939). It occurs in red spruce–Fraser fir (*Picea rubens*–*Abies fraseri*), northern hardwoods, cove hardwoods, and white pine–eastern hemlock (*Pinus strobus*–*Tsuga canadensis*). Handley and Patton (1947) report that it is abundant above 900 m in northern hardwood forest habitats in Virginia. In the Great Smoky Mountains, the hairy-tailed mole is found between 450–1950 m. In western North Carolina and eastern Tennessee, it has been found in sheltered areas with dense rhododendron (*Rhododendron maximum*; Komarek and Komarek 1938, Johnston 1967). An individual was recovered at 800 m in a mesic hardwood community in northern Georgia (Laerm 1992) and a single specimen was collected at a similar elevation in a mixed pine-hardwood community with fine, loamy soil in the upstate of South Carolina (Reese and Luckett 1979).

REPRODUCTION

The breeding season is typically March through April, and it apparently does not extend into summer. The gestation period is 4–6 weeks. A single litter is produced annually and the normal litter size is 4–5 young (Eadie 1939), although litter sizes of up to 8 are reported (Richmond and Roslund 1949). Individuals become sexually mature in their second year. Longevity in the wild is approximately 4 years (Eadie 1939).

FOOD HABITS

The foods of the hairy-tailed mole include adult and larval insects, annelids, chilopods, gastropods, diplopods, and rootlets (Eadie 1939, Hallett 1978, Hamilton 1941).

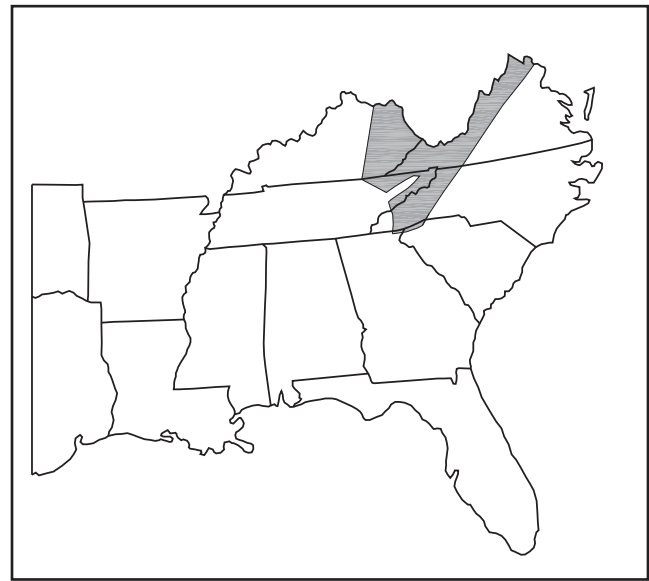


Figure 2. Distribution of *Parascalops breweri* in the South.

ASSOCIATED SPECIES

In the South, the hairy-tailed mole commonly occupies the same montane habitats as the masked shrew (*Sorex cinereus*), smoky shrew (*S. fumeus*), northern short-tailed shrew (*Blarina brevicauda*), deer mouse (*Peromyscus maniculatus*), southern red-backed vole (*Clethrionomys gapperi*), woodland vole (*Microtus pinetorum*), southern bog lemming (*Synaptomys cooperi*), and woodland jumping mouse (*Napaeozapus insignis*). It often is found in the same habitats as the star-nosed mole, but it apparently does not occur in association with the eastern mole (Hallett 1978). Shrews, particularly the northern short-tailed shrew, undoubtedly use tunnels and burrows constructed by the hairy-tailed mole.

VULNERABILITY AND THREATS

The hairy-tailed mole is widely distributed and common to abundant in appropriate habitats throughout most of its range. Its status in the southern Appalachians is less certain, but significant areas of appropriate habitat exist and there appear to be no known threats to the species.

MANAGEMENT SUGGESTIONS

Activities that permanently saturate the soil with water probably are detrimental. Surveys to ascertain the species full distribution south of the Great Smoky Mountains are needed.

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