Elliot's Short-tailed Shrew

Blarina hylophaga (Elliot, 1899)

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CONTENT AND TAXONOMIC COMMENTS

Elliot's short-tailed shrew (*Blarina hylophaga*) was described recently as distinct from the southern short-tailed shrew (*B. carolinensis*) and the northern short-tailed shrew (*B. brevicauda*) (Genoways and Choate 1972, George et al. 1981, George et al. 1982, Moncrief et al. 1982). Two subspecies are recognized. *Blarina h. plumbea*, described originally as *B. brevicauda plumbea* by Davis (1941) and referred to *B. carolinensis plumbea* by Schmidly and Brown (1979), is found only at its type locality at the Aransas National Wildlife Refuge, Aransas County, Texas (George et al. 1981, Schmidly 1983, Baumgardner et al. 1992). *Blarina h. hylophaga*, which is more widely distributed, is the only subspecies that occurs in the South.

DISTINGUISHING CHARACTERISTICS

Elliot's short-tailed shrew is intermediate in size between the other two *Blarina* species. Measurements are: total length, 103–120 mm; tail, 19–25 mm; hind foot, 12–16 mm; weight, 13–17 g. This species has small ears that are small and concealed in the pelage. The minute eyes are positioned in a long, pointed snout. The color of the pelage is similar to that of the southern short-tailed shrew, brownish gray to slate gray dorsally and only slightly paler below. Specimens of Elliot's short-tailed shrew may be confused with the southern short-tailed shrew to the south and east and with the northern short-tailed shrew to the north. Distinctions among the species sometimes can be made on the basis of distribution, but in areas of sympatry or parapatry, morphometric or genetic comparisons must be made (George et al. 1981, Moncrief et al. 1982). The dental formula of Elliot's short-tailed shrew is: I 3/1, C 1/1, P 3/1, M 3/3 = 32 (Figure 1). See keys for additional details.

CONSERVATION STATUS

Elliot's short-tailed shrew has a global rank of Secure (NatureServe 2007). It is Apparently Secure in Oklahoma and is unranked in Arkansas and Louisiana. However, it is classified as Critically Imperiled in Texas.

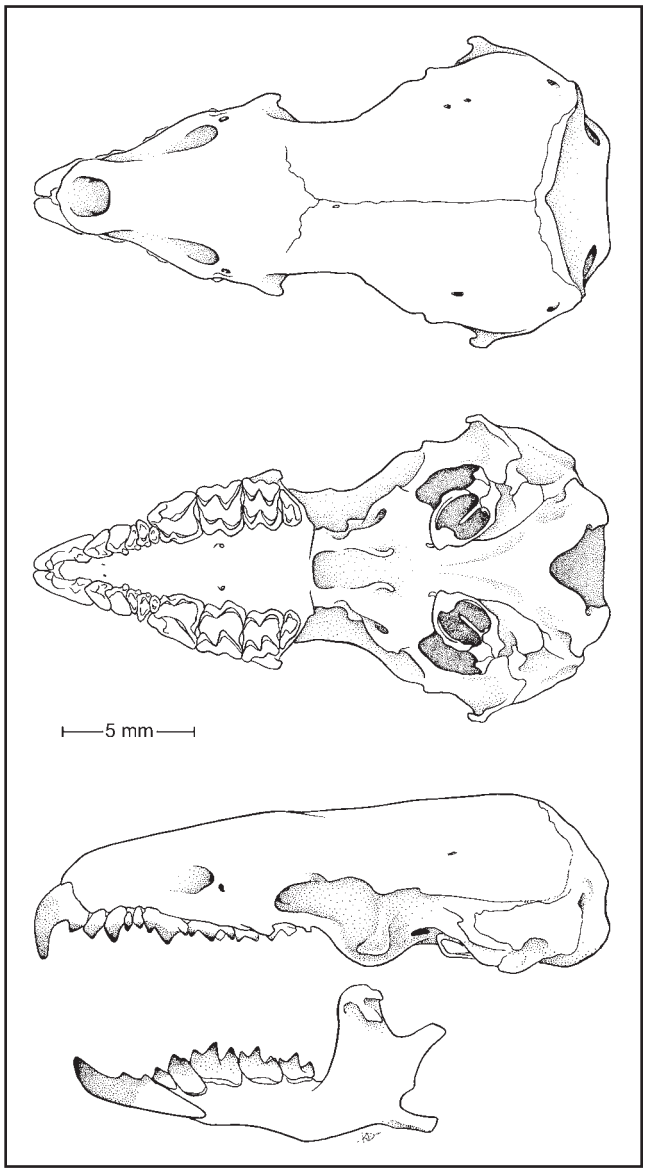

Figure 1. Dorsal, ventral, and lateral view of cranium and lateral view of mandible of *Blarina hylophaga* from Jefferson County, Kansas (USNM 568207, female).

DISTRIBUTION

The distribution of Elliot's short-tailed shrew extends from east-central Colorado across southern Nebraska into southwestern Iowa and south into Texas and northwestern Arkansas (Jones et al. 1984). Figure 2 depicts the distribution of the short-tailed shrew in

the South. Elliot's short-tailed shrew occurs throughout the eastern two-thirds of Oklahoma except for the southeastern corner (Caire et al. 1989, Stangl and Carr 1997). In Arkansas, the species is restricted to the Ozark and Ouachita Highlands in the northwest third of the state (Garland and Heidt 1989, Sealander and Heidt 1990). There are limited records of this species in Caddo Parish, Louisiana (George et al. 1981). The precise geographic boundaries between Elliot's short-tailed shrew and the northern short-tailed shrew to the north and the southern short-tailed shrew to east and the south are defined poorly (Stangl and Carr 1997). Elliot's short-tailed shrew and the southern short-tailed shrew may be sympatric in northwestern Louisiana (George et al. 1982, Jones et al. 1984).

ABUNDANCE STATUS

Little specific information on abundance and densities of Elliot's short-tailed shrew is available. Similar to other species of *Blarina*, the species probably is uncommon to locally abundant depending on habitat conditions (Caire et al. 1989, Sealander and Heidt 1990, Baumgardner et al. 1992).

PRIMARY HABITATS

In Oklahoma, Elliot's short-tailed shrew is found in oak-elm (*Quercus-Ulmus*) forests and wooded floodplains (Elliot 1899, Caire et al. 1989), woodland-grassland ecotones (McCarley 1961), and areas of emergent rock in the Wichita Mountains (Glass and Halloran 1961). In Arkansas, the species is restricted primarily to the oak-hickory (*Quercus-Carya*) woodlands in the Ozark and Ouachita Highlands (Jones and Glass 1960, Sealander and Heidt 1990), but it also may occur in mixed pine-hardwood (*Pinus* spp.) and loblolly pine-shortleaf pine (*P. taeda-P. echinata*) cover types. Outside of the South, Elliot's short-tailed shrew occurs in tall grass prairie habitats with high vegetative cover, deep litter, and high ambient moisture (Sietman et al. 1994, Matlack et al. 2002).

REPRODUCTION

Information regarding reproduction of Elliot's short-tailed shrew is not available (Caire et al. 1989, Sealander and Heidt 1990). Presumably, it is similar to that of other *Blarina* species.

FOOD HABITS

The food habits of Elliot's short-tailed shrew are not well known (Caire et al. 1989, Sealander and Heidt 1990), but the diet likely includes annelids, gastropods, lepidopteran larvae, chilopods, arachnids,

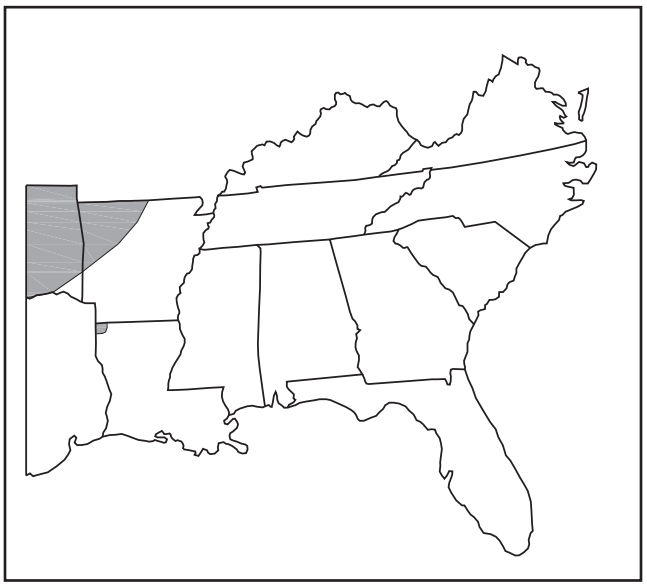

Figure 2. Distribution of *Blarina hylophaga* in the South.

other invertebrates, small vertebrates, and some plant material similar to *B. brevicauda* and *B. carolinensis*. Likewise, Elliot's short-tailed shrew has modified salivary glands that give the species a venomous bite (George 1999).

ASSOCIATED SPECIES

Elliot's short-tailed shrew occurs in communities that include other soricids and the rodents within its distributional range, including the least shrew (*Cryptotis parva*), white-footed mouse (*Peromyscus leucopus*), deer mouse (*P. maniculatus*), and golden mouse (*Ochrotomys nuttalii*). It occupies relatively narrow zones of sympatry with the southern short-tailed shrew in Arkansas (Sealander and Heidt 1990).

VULNERABILITY AND THREATS

There are no apparent threats to the survival of the species. Elliot's short-tailed shrew may be adversely affected by global climate change, long-term drought, or desertification in prairie and dry woodland habitats prone to moisture stress (Matlack et al. 2002).

MANAGEMENT SUGGESTIONS

Management activities that promote long-term site desiccation or habitat conversion are harmful. This species appears to prefer native prairie to hayfields (Sietman et al. 1994). Impacts from forest and range management activities, such as prescribed burning and livestock grazing, are unknown.

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