

THE GRYLLOTALPIDAE AND TRIDACTYLIDAE (ORTHOPTERA) OF TENNESSEE

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In North America, the Gryllotalpidae and Tridactylidae are among the smallest of the orthopteran families in numbers of species, the former having seven species and the latter two. Two species, *Neocurtilla* (= *Gryllotalpa*) *hexadactyla* Perty and *Tridactylus apicalis* Say were listed by Marcovitch (1920) from Tennessee. No further additions to the list of Tennessee fauna have been found in the literature.

Ellipes minuta (Scudder), Tridactylidae, and *Scapteriscus aletus* Rehn and Hebard, Gryllotalpidae, are reported as new state records. We have included keys, essential figures, synonymy, partial descriptions and collection data for all species in these families reported from Tennessee.

FAMILY GRYLLOTALPIDAE — Mole Crickets

Characteristics: Relatively large insects, ranging in size from 18 mm. up to 40mm. as adults; usually brownish, often quite dark; forelegs greatly modified for digging; usually associated with moist regions, as pond margins, where they burrow a few inches below the surface; not easily collected, although often quite numerous in a given locale.

Key to Genera and Species

1. Front tibia with 4 dactyls, 2 movable (see fig. 1A); hind femur shorter than pronotum *Neocurtilla hexadactyla*
 1'. Front tibia with 2 dactyls (see fig. 1B); hind femur often longer than pronotum *Scapteriscus aletus*



Figure 1. A. tibia of *Neocurtilla* sp. showing four dactyls; B. tibia of *Scapteriscus* sp. two dactyls. (not to scale)

Neocurtilla Kirby

Gryllotalpa Latreille, 1802. *Histoire Naturelle des Crustacés et des Insectes. Orthoptera*, Vol. III, p. 275 (partim).
Neocurtilla Kirby, 1906. *Synonymic Catalogue of Orthoptera*, Vol. II. British Museum (Natural History), p. 2.

Characteristics: Refer to key.

Neocurtilla hexadactyla (Perty)

Gryllotalpa hexadactyla Perty, 1832. *Insectes Brasiliensia. Orthoptera. Delectus Animalium Articularum Brasil*, p. 119.
G. borealis Burmeister, 1838. *Burm. Handb. Ent.*, Vol. II, p. 740.
G. brevipennis Serville, 1839. *Histoire Naturelle des Insectes. Orthopteres*, p. 368.
G. longipennis Scudder, 1863. *Jour. Bost. Soc. Nat. Hist.*, 7: 426.
G. columbia Scudder, 1869. *Memoirs Peabody Acad. Sci.*, 1:26.
G. columbiana Saussure, 1874. *Miss. Mex., Orth.*, p. 345.
G. columbiana Blatchley, 1891. *Proc. Ind. Acad. Sci.*, 3:131.

Characteristics: Tegmina one-half to three-fourths the length of the abdomen; anal cerci about one and one-half times as long as pronotum; range in length for both sexes from 21-30 mm.; all other eastern species of *Neocurtilla* are 35 mm., or greater, in length.

County Records: Jefferson, Knox
 Dates of collection: 8 April - June

Scapteriscus Scudder

Scapteriscus Scudder, 1868, *Proc. Soc. Nat. Hist.*, 11:385.
 Characteristics: Refer to key.

Scapteriscus aletus Rehn & Hebard

Scapteriscus aletus Rehn & Hebard, 1916. *Proc. Acad. Nat. Sci. Phila.*, 1916:279.

Characteristics: Size medium and slender; pinkish-buff in color; dorsum of pronotum with a blackish-brown oval; body length, male, 26.4-34.4 mm., female, 26.5-35.5 mm.; the remaining species of *Scapteriscus* in North America are restricted to the extreme southern portions of the country.

County Records: Knox
 Dates of collection: 11 Apr.

(FAMILY TRIDACTYLIDAE — Pygmy Mole Crickets)

Characteristics: Small, less than 10 mm. in length; exceptionally strong jumpers; similar to mole crickets in utilizing moist habitats and in burrowing; possess a very characteristic pair of "cerci-like" appendages just below the true cerci.

Key to Genera and Species

1. Length greater than 5.5 mm; hind tibia with four pairs of long slender plates used in swimming; hind tarsi 1-segmented *Tridactylus apicalis*
 1'. Length less than 5.5 mm; hind tibia with one pair of short plates (rarely two) used in swimming; hind tarsi absent. *Ellipes minuta*

Tridactylus Olivier

Tridactylus Olivier, 1789. *Encyclopedic methodique dictionnaire des insectes*, Vol. IV, p. 26.

Characteristics: Refer to key.