

## An Asian Ground Beetle, *Mochtherus tetraspilotus* (MacLeay), in Florida (Coleoptera: Carabidae: Lebiini)<sup>1</sup>

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**Figure 1.** *Mochtherus tetraspilotus* (MacLeay) adult on sweet gum stump. (Photography by P. M. Choate).

**INTRODUCTION:** *Mochtherus tetraspilotus* (MacLeay) was first detected in southern Florida in 1992 from 2 specimens taken at mercury light by Vince Golia in Palm Beach Co. These specimens remained unidentified until 1999 when Danny Shpeley, of the University of Alberta, determined them to be *Mochtherus*. Since then specimens have been collected in Gainesville by Paul Skelley, of the Division of Plant Industry, and myself, and additional specimens have been seen from light trap samples at Archbold Biological Station in Highlands Co.

**IDENTIFICATION:** Length 6-8mm. *Mochtherus tetraspilotus* may be distinguished from other Florida Lebiini by a combination of the following characters: hind tarsomere 4 not bilobed; tarsal claws with 3 teeth, a large outer tooth and 2 smaller inner teeth; mentum toothed;

elytral interval 3 with 2 dorsal punctures; each elytron with 2 yellowish orange spots (Fig. 1); labial palpi slender; pronotum setulose (covered with short hairs which are best viewed with side lighting). The most easily observed character is the presence of 2 yellowish-orange spots on each elytron. A humeral spot extends from intervals 4 or 5 to 7 or 8, and a subapical spot covers intervals 2 to 5. No other Florida Lebiini species is known with this coloration and combination of characters. Two genera containing maculate species that might be confused with this species are *Plochionus* and *Pinacodera*. However, these genera are separated from *Mochtherus* by their labrum being distinctly wider than long and their head lacking a long seta posterior to the submentum.

Within *Mochtherus* only 2 species have yellow orange spots, *M. tetraspilotus* and *M. longipennis* Jedlicka. They may be separated by the following characters: *tetraspilotus* has pronotum wider than head, oval body shape, with sides rounded; *M. longipennis* has pronotum only as wide as head, body elongate, sides parallel (Jedlicka 1963).

**BIOLOGY:** Little is known about the biology of this species. Members of the carabid subtribe Pericalina are known to inhabit the trunks of trees. Darlington (1968) reported a species of *Mochtherus* in New Guinea as occurring on recently felled logs. In Florida we have collected specimens on recently felled logs where they actively run about, feeding on small insects. Individuals have also been taken at lights. This species occupies the same habitat as a native carabid species, *Coptodera aerata* Dejean. The impact of *Mochtherus* on *Coptodera* remains unknown.

**DISTRIBUTION:** The genus *Mochtherus* is known from Japan, Formosa, Philippines, Borneo, Java, Sumatra, Malaya, Indo-China, Thailand, Burma, Ceylon, India, across the Malay Archipelago, New Guinea, as well as Christmas Is. and Samoa. (Habu 1967; Jedlicka 1963; Darlington 1968). *Mochtherus tetraspilotus* is known from Japan, Burma, Philippines, Laos, Taiwan, Borneo, Java, Ceylon, and India (Jedlicka 1963; Habu 1967). Habu (1967) considered *Mochtherus* a subgenus of *Dolichoctis*.

**PEST STATUS:** Unknown at present. Adult members of this group of Carabidae are known to be predators. The impact of this species on our native species remains to be determined, as does the source of introduction. Its rapid spread in Florida suggests that it may soon be found throughout the Gulf States.

**ACKNOWLEDGEMENTS:** Dr. Danny Shpeley, Dept. Biological Sciences, University of Alberta, Edmonton, for identification assistance; Mr. Vince Golia for bringing this species to my attention; and, Dr. M. C. Thomas, FDACS, for providing assistance with this publication.

<sup>1</sup> Entomology Contribution No. 919, Bureau of Entomology, Nematology and Plant Pathology - Entomology Section.

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