

SCIENTIFIC NAME: *Lytta hoppingi*
COMMON NAME: Hopping's blister beetle
CLASS, FAMILY: Insecta, Meloidae

ORIGINAL DESCRIPTION: Wellman, C. 1912. New species of Lyttidae, with notes on described species. Entomological News 23:35.

TYPE MATERIAL: *Holotype:* Sex not given – California: Fresno County; Coalinga, 8 May (year not given), collected by R. Hopping. Deposited in the U.S. National Museum of Natural History (Smithsonian Institution).

RANKING/STATUS: G1G2S1S2 (NatureServe – CNDDDB).

GENERAL DESCRIPTION: Meloids are elongate beetles with soft elytra. The pronotum is narrower than the head and elytra. *Lytta hoppingi* is about 11-13 mm in length, black with brown wings and orange markings on the head and thorax. The elytra are broadened apically.

DIAGNOSTIC CHARACTERS: From Selander (1960): the elongated pronotum is orange with a wide, black median stripe with scalloped edges, and sometimes narrowed basally; the vertex of the head is also orange. The color pattern is unique among species of *Lytta*.

OTHER ILLUSTRATIONS: Selander (1960) illustrates the male antennae in fig. 101 and the female antennae in fig. 142. The emargination of the sixth sternum of the male is shown in fig. 256, and the male genitalia are illustrated in fig. 334. Fig. 46 gives a map of the known distribution of the species at that time.

DISTRIBUTION: Found in the foothills in the southern end of the Central Valley. Halstead and Haines (1992) report a 1978 collection in Taft, Kern County. The species has also been found in Fresno and Tulare counties.

HABITAT: Adult meloids are often found on flowers. There is no published information on habitat or floral visitation records for *Lytta hoppingi*, but Dr. John Pinto has seen specimens in the F.T. Scott collection from the early 1940s taken on alfalfa (pers. comm.)

LIFE HISTORY/BEHAVIOR: Very little is known about the life history or behavior of this species. It has been collected from late March through June. There is some developmental information available for other species in the genus. Mating in *Lytta* species often continues for many hours. Selander (1960) observed a pair of mating *L. cyanipennis* that lasted over 11 hours. Adults mate end-to-end; they continue feeding on flowers during mating, often pulling in opposite directions, but rarely become disengaged. Females excavate shallow burrows in which to oviposit. After oviposition is complete, the female brings soil down into the burrow and covers the egg mass. Some species in the genus are known to produce 80 to 250 eggs. *Lytta*

larvae are nest parasites of solitary bees; the beetle larvae feed on the pollen stores that the female bee has provided for her own larvae. Some species require only the pollen contents of one bee's larval cell to complete their development, but others need more and attack several cells. In doing so, larvae of these species frequently kill and consume the immature stages of the host bee as well as consuming their pollen stores.

SELECTED REFERENCES:

- Halstead, J.A. and R.D. Haines. 1992. New distributional records for some candidate species of *Lytta* in California (Coleoptera: Meloidae). *Pan-Pacific Entomologist* 68(1):68-69.
- Selander, R.B. 1960. Bionomics, systematics, and phylogeny of *Lytta*, a genus of blister beetles (Coleoptera, Meloidae). *Illinois Biological Monographs* 28:1-295.

Written by Sandra Shanks, California Department of Fish and Game, Natural Diversity Database

Reviewed by John Pinto, University of California, Riverside.