

**BIOLOGY OF THE MYRMECOMORPHIC PLANT BUG
ORECTODERUS OBLIQUUS UHLER
(HETEROPTERA: MIRIDAE: PHYLINAE)**

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Abstract. — The basic biology of the myrmecomorph *Orectoderus obliquus* Uhler (Heteroptera: Miridae: Phylinae) is described, including details of its growth, morphology, phenology, distribution and behavior. We document the temporal relation of *O. obliquus* to its host plant, *Penstemon procerus brachycanthus* (Pennell) Cronq., as well as to species of ants and visual predators that may serve as models and operators in a Batesian mimicry system including *O. obliquus*. The morphological and behavioral correspondence between various stages of the myrmecomorph and the six most common species of potential ant models is described.

Orectoderus obliquus Uhler (Miridae: Phylinae) is a myrmecomorphic plant bug traditionally placed in the tribe Hallodapini (Carvalho, 1958; Knight, 1968). New evidence suggests, however, that *Orectoderus* and its New World relatives *Coquillettia* Uhler and *Teleorhinus* Uhler form a monophyletic group distinct from other hallodapines (R. T. Schuh, pers. comm.). The less ant-like Nearctic genus *Pronotocrepis* Knight and the Palearctic genus *Ethelastia* Reuter also seem to belong to this group.

Orectoderus is a North American genus comprised of ten species, of which only *O. obliquus* is found east of the Rocky Mountains. The genus was reviewed by Knight (1968), who described six new species and provided a key to adult males. Our determination of *obliquus* for the present study was based on information in Knight's review in conjunction with an examination of type specimens at the National Museum of Natural History, Washington, D.C. *Orectoderus obliquus* is distinguished from other species of the genus by the large size (length: male 6.7–8.2 mm; female 5.3–5.8 mm), shiny luster of the pronotum and hemelytra, weakly convex calli of the male, and by the structure of the male genitalia.

Orectoderus obliquus has a transcontinental distribution in southern Canada and northern United States with deep southward penetration into the Rocky Mountains (Fig. 1). This species is typically associated with grasses and herbaceous flowering plants throughout its range (Knight, 1923, 1941; Kelton, 1980, also gives *Rosa acicularis* Lindl. as host). Knight (1941) reported that it "occurs on the ground" and is "associated with ants." In the western Cascades of Oregon, *obliquus* is strictly associated with *Penstemon procerus brachycanthus* (Pennell) Cronq., which we have identified as a breeding host of this species. Although adults are sometimes found on other herbaceous plants of the subalpine meadow community to which *obliquus* belongs, they do not appear to use these plants for oviposition or as an important food resource.