



A new species of *Chrysobothris* Eschscholtz feeding on *Dudleya* spp. (Crassulaceae) from California and Baja California, with biological, distributional and taxonomic notes on other North American Buprestidae (Coleoptera)

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Abstract

Chrysobothris dudleyaphaga Westcott, new species, from California and Baja California is described and figured, and its biology is discussed in detail. It and a record for *C. schaefferi* Obenberger establish that larval and adult Buprestidae use hosts in the plant family Crassulaceae. *Acmaeodera montezuma* Obenberger and *A. perforata* Cazier are synonymized under *A. consors* Horn. The synonymy of *A. auritincta* Fall under *A. delectabilis* Waterhouse is reversed. New state records and other observations are provided for *Xenomelanophila miranda* (LeConte). Additional notes are provided for species in the genera *Acmaeodera* Eschscholtz, *Agrilus* Curtis, *Anthaxia* Eschscholtz, *Brachys* Dejean, *Chrysobothris* Eschscholtz, *Phaenops* Dejean, and *Taphrocerus* Solier.

Key words: Buprestidae, *Acmaeodera*, *Chrysobothris*, *Xenomelanophila*, new species, biology, distribution, taxonomy

Introduction

Approximately 30 years ago it was brought to my attention that larvae of Buprestidae had been cut from live-forever plants, *Dudleya* spp. (Crassulaceae), intercepted at the San Ysidro Border Station between Baja California, Mexico, and California (B.K. Dozier, pers. comm.). Earlier someone (unknown) had identified such a larva to be *Melanophila* sp.; however, based on the host, I knew that to be incorrect. Later, larvae were correctly identified in the genus *Chrysobothris*. As adults became available, I determined that they represented a new species, which is described herein. Especially notable is that no North American species of Buprestidae is known to work in the plant family Crassulaceae, to which *Dudleya* and a wide variety of other succulent plants belong. To the best of my knowledge and that of fellow specialists who I questioned, apparently that also is true for the world. Interestingly, I discovered another species, *C. schaefferi* Obenberger, that uses the genus *Dudleya* as a host in Baja California. That record, observations on *Xenomelanophila miranda* (LeConte), synonymy in the genus *Acmaeodera*, plus notes on other North American Buprestidae are provided in this paper. Codens for specimen location are as given at <http://hbs.bishopmuseum.org/codens/codens-r-us.html> as of August 2007. They may refer to more than one preceding set of label data. The names of countries, states, and larval and adult hosts that represent new records for previously known species are presented in **bold print**. In addition, “**new larval host**” is provided for emphasis of this more important aspect of plant relationships.