Revision of the endemic Hispaniolan genus Asteriza Chevrolat, 1836, with description of two new species
(Coleoptera: Chrysomelidae: Cassidinae: Ischyrosonychini)

CHULWOO SHIN1,3, CAROLINE S. CHABOO1 & SHAWN M. CLARK2
1Department of Ecology and Evolutionary Biology, Museum of Natural History and Biodiversity Research Institute, 1501 Crestline Drive, Suite #140, Lawrence, Kansas 66049, U. S. A.
2Monte L. Bean Life Science Museum, Brigham Young University, Provo, Utah 84602, U. S. A.
3Corresponding author. E-mail: shinio@ku.edu

Abstract

The cassidine genus Asteriza Chevrolat, 1836 is redescribed and two new species, Asteriza blakeae Shin, Chaboo & Clark and Asteriza tainosa Shin, Chaboo & Clark, are described from the Dominican Republic. A phylogenetic analysis and an illustrated key to the four Asteriza species are provided. Asteriza blakeae is diagnosed by the reddish lateral margin of the pronotum and more swollen brownish elytral margins. Asteriza tainosa is diagnosed by the relatively swollen maxillary and labial palpi and dominant yellow coloration of the elytra and pronotum.

Introduction

Chevrolat (1836) erected the genus name Asteriza for the Hispaniolan species, Cassida flavicornis Olivier, 1790. He listed two other names, Asteriza punctatissima Klug and Asteriza flavicornis var. retigera Mannerheim, whose origins are unclear since Klug (1829) and Mannerheim (1825) did not include any Asteriza species. Both these two names lack valid records (ICZN 1999, Article 12), and are therefore nomina nuda. Dugès (1901: 111) listed the name Asteriza mexicana Dugès from Mexico; we obtained photographs of Dugès's specimens and determined this to be Physonota disjuncta (Chevrolat, 1834), so the name A. mexicana is a junior synonym of P. disjuncta. The genus name is often cited as Asteriza Chevrolat, 1837 but Madge (1988) determined the date of publication to be 1836. A second species, Asteriza darlingtoni Blake, 1939 from the Dominican Republic, was diagnosed on the basis of elytral color, puncture pattern, and aedeagal form. Blake (1939) commented that specimens of A. darlingtonti recovered an opalescent color when they were soaked, consistent with Hincks’s (1952) distinction that Physonotini Spaeth, 1942 are opalescent. Blackwelder (1946) included Asteriza in the tribe Cassidini Gyllenhal, 1813 and treated other genera of Ischyrosonychini Chapuis, 1894; Enagria Spaeth, 1913; Eurypedus Gistel, 1834; Eurypepla Boheman, 1854; Physonota Boheman, 1854; and Platycycla Boheman, 1854) in the tribe Mesomphaliini Hope, 1840. Hincks (1952) erected the tribe Asterizini for Asteriza alone; he distinguished three tribes, Asterizini, Ischyrosonychini, and Physonotini on the basis of differences in the elytral margin, pronotal process, prosternal process form, color and opalescence. In couplet 29 (28), he mentioned another taxon, “Eurypedini. However, no morphological features or taxon names were associated and Eurypedini is not used in modern cassidine studies.

Seeno & Wilcox (1982) recognized three distinct tribes—Asterizini Hincks, 1952, Ischyrosonychini Hincks, 1952, and Physonotini Hincks, 1952. The author of Asterizini is indeed Hincks; however, the author of Ischyrosonychini and Physonotini is not Hincks because both tribes were validated previously by Chapuis (1875) and Spaeth (1942). Hincks (1952) only Latinized the family group names (ICZN [1999] article 11.7.2). Borowiec (1995) synonymised Asterizini with Ischyrosonychini and Physonotini under the oldest name Ischyrosonychini, because he considered the tribal boundaries ambiguous. However, Borowiec (1999) used the tribal name Physonotini because Ischyrosonyx Sturm, 1843 was already recognized as a junior synonym of Eurypedus by Barber (1946). In contrast,