

The beetle family Carabidae of Costa Rica: The genera of the Cryptobatida group of subtribe Agrina, tribe Lebiini, with new species and notes on their way of life (Insecta: Coleoptera)

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Abstract

Eight genera and eighteen species of the Cryptobatida group of subtribe Agrina, Lebiini, living in Costa Rica are diagnosed, described, illustrated or referenced and new species assigned to inclusive genera. Occurrences of some taxa outside of Costa Rica are also reported, these ranging from Texas to Argentina. Subtribe Agrina consists of those species formerly included in the Subtribe Calleidina. Four new species of *Aspasiola* Chaudoir 1877 are described: *A. bonita* Erwin, **n. sp.** (COSTA RICA. PUNTARENAS, Peninsula de Osa, P.N. Corcovado, Estación Sirena, 0–100 m, 08° 28' 0 N, 083° 35' 0 W, LS270500, 508300), *A. osa* Erwin, **n. sp.** (COSTA RICA. PUNTARENAS, Peninsula de Osa, P.N. Corcovado, Estación Sirena, upper Ollas Trail, 30–150 m, 08° 29' 00" N, 083° 34' 39" W), *A. selva* Erwin, **n. sp.** (COSTA RICA. HEREDIA, Estación Biológica La Selva, 3.0 km S Puerto Viejo, Finca La Selva, 50–150 m, 10° 25' 55" N, 084° 00' 32" W, LN535500, 268000), *A. steineri* Erwin **n. sp.** (COSTA RICA. HEREDIA, Estación Biológica La Selva, 3.0 km S Puerto Viejo, Finca La Selva, 50–150 m, 10° 25' 55" N, 084° 00' 32" W, LN535500, 268000). Two new species of *Hyboptera* Chaudoir 1872 are described: *H. apollonia* Erwin **n. sp.** (PANAMÁ, COLÓN, Porto Bello, 113 m, 09° 33' 0 N, 079° 39' 0 W), *H. auxiliadora* Erwin **n. sp.** (USA. TEXAS, Hidalgo County, Mission; Bentsen State Park, 26° 10' 22" N, 098° 22' 56" W). *Alkestis* Liebke 1939 is a **nomen dubium** and possible junior synonym of *Lelis* Chaudoir 1869. *Aspasiola rutilans ignea* Bates 1883 is changed to full species, *Aspasiola ignea* Bates **new status**. *Pseudolebia* Basilewsky 1942 is **NOT** a synonym of *Onota* Chaudoir 1872. *Pseudometabletus* Liebke 1930 is a **junior synonym** of *Cylindronotum* Putzeys 1846. *Pseudotoglossa rufitarsis nigrescens* Mateu 1961:177 is a **junior synonym** of *Pseudotoglossa terminalis* (Chaudoir).

An identification key is provided to the genera of the Cryptobatida Group and additional keys are provided for those genera with more than one species occurring in Costa Rica. Distribution data is provided for all species including their known occurrence outside of Costa Rica in adjacent Panamá and Nicaragua, and other countries. Adults of species of *Aspasiola*, *Cryptobatis*, *Otoglossa* and *Hyboptera* are known to occur on shelf fungi on rotting logs and have also been fogged from the canopy of tropical trees (which probably contained shelf fungi on dead branches); adults of species of *Cylindronotum*, *Onota*, *Pseudotoglossa*, *Valeriaaschero* have also been fogged from the canopy of tropical trees and likely adults of *Onota* and *Pseudotoglossa* collected from rotten logs were associated with fungi.

Key words: Costa Rica, Nicaragua, Panamá, INBio, Carabidae, Lebiini, *Alkestis*, *Aspasiola*, *Cryptobatis*, *Cylindronotum*, *Hyboptera*, *Onota*, *Otoglossa*, *Pseudolebia*, *Pseudometabletus*, *Pseudotoglossa*, *Thoasia*, *Valeriaaschero*.