

A NEW GENUS AND SPECIES OF LACHNOPHORINI AND TWO NEW SPECIES OF LEBIINI FROM COSTA RICA (COLEOPTERA: CARABIDAE)

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Abstract

A new genus and new species of Lachnophorini and 2 new species of Lebiini from Costa Rican are described (type localities in parentheses): *Quammenis spectabilis*, **n. gen., n. sp.** (type locality: COSTA RICA: Heredia Province, Estación Magsasay, Parque Nacional Braulio Carrillo, 200m, LN264600,531100); *Lebia* (*Chelonodema*) *inbio*, **n. sp.** (type locality: Guanacaste Province, Estación Pitilla, 9 km S Santa Cecilia, 700 m, LN329950,380450 #4355); *Agra yola*, **n. sp.** (type locality: Guanacaste Province, Estación Pitilla, 9 km S Santa Cecilia, 700 m, LN329650,378600 #4600).

This is the first in a new series of papers with new taxa descriptions for the family Carabidae for the National Biodiversity Inventory project of Costa Rica. A full description of all taxa, including color images, maps of their known distributions, and what is known of their natural history may be found at the following web-site: <http://www.inbio.ac.cr/ubis/>

Taxonomic History of Taxa Discussed

The unexpected discovery of a new genus of Lachnophorini in Costa Rica is recorded here. Its placement within that tribe and its relationship to *Stenocheila* Laporte 1832 of South America will be discussed elsewhere (Erwin, in prep.).

Reichardt (1972) revised *Chelonodema* Laporte 1834 in which he accounted for 44 species; two additional species were described subsequently, one by Reichardt, the other by Nègre. Reichardt treated *Chelonodema* as a subgenus of *Lebia* Latreille 1802, following Madge (1967).

Erwin, in a series of 10 group revisions, has studied *Agra* Fabricius 1801, in which there are currently 656 described species.

Accounts of Taxa

Lachnophorini

Quammenis Erwin, **new genus**
(Fig. 1a)

Type Species. *Quammenis spectabilis* Erwin, **new species**, here designated.

Derivation of Name. The generic name, *Quammenis*, is a latinized masculine noun based on the surname of David Quammen, author of **The Song of the Dodo** (1996, Simon & Schuster, New York), a book that should be required reading for every student of biology and every student interested in conservation.

Diagnosis. Unique (Fig. 1a) among new world Carabidae; with metallic green dorsum and elytra with large purplish ocellate foveae; head and pron-

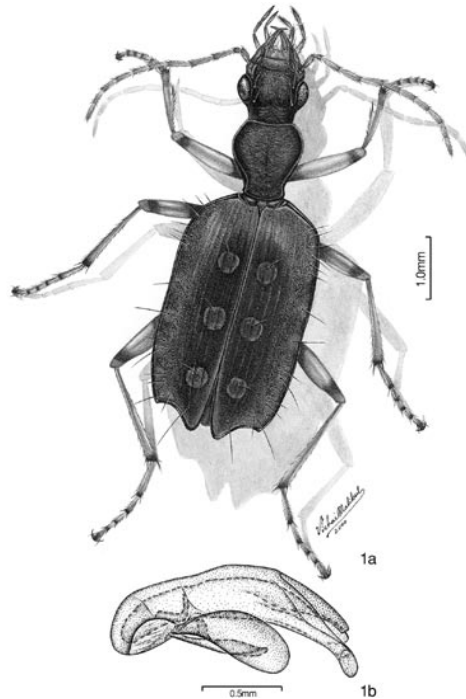


Fig. 1. *Quammenis spectabilis*: **a)** habitus; **b)** left lateral aspect, aedeagus.

tum with fine, closely spaced ridges, longitudinally arranged on head, transversely arranged on pronotum.

Description. Head across eyes slightly broader than prothorax; elytral apex deeply arcuate; pronotum without setae.

Notes. This genus is related to *Stenocheila* Laporte of South America, which is known to have two species.

Quammenis spectabilis Erwin, **new species**
(Figs. 1a, 1b)

Type Series. Holotype female, **COSTA RICA**: Heredia Province, Estación Magsasay, Parque Nacional Braulio Carrillo, 200 m, LN 64600,531100, October, (A. Fernandez)(INBio: CRI 000–647080).

Derivation of Name. The species name, *spectabilis*, is an adjective describing the elegance of this metallic green mountain beetle.

Diagnosis. (Fig. 1a) As described for genus.

Description. As described for genus. Size moderately small: 6.44 to 7.32 mm in length, 2.56 to 2.76 in width. Aedeagus (Fig. 1b) without armature on the endophallus; right paramere small, narrow.

Specimens Examined. Paratypes: **COSTA RICA**: 1 male, Cartago Province, Pacayas, 1600 m, 09°55'N, 083°48'W, (C. Werckele)(AMNH)

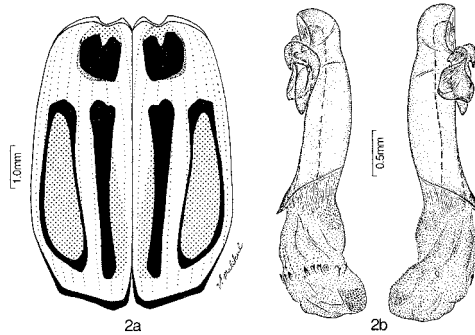


Fig. 2. *Lebia (Chelonodema) inbio*, **a)** dorsal aspect, elytra; **b)** left lateral aspect, aedeagus.

ADP44192; 1 female, San Jose Province, Estación Zurqui, 500 meters before the tunnel, 1600 m, LN226800,535200, April, (G. Maass)(USNM) ADP100513.

Notes. Remarkably, this species has remained unnoticed. I suspect it lives among mossy boulders at the steep sunny edges of mountain torrents, a slippery and perhaps dangerous place to collect.

Lebini: Lebiina

Lebia (Chelonodema) inbio Erwin, **new species**

(Figs. 2a, 2b)

Type Series. Holotype male, **COSTA RICA:** Guanacaste Province, Estación Pitilla, 9 km S Santa Cecilia, 700 m, LN329950,380450 #4355 (C. Moraga)(INBio: CRI 002-134601). Paratypes, 5 males, 13 females from the type locality (11-INBio, 2-CAS, 2-UASM, 3-USNM), 1 male, Estación Maritza, west slope of Volcan Orosi, 600 m, LN326900,373000 (K. Taylor)(INBio: CRI 000-394820); 1 male, Alajuela Province, Estación San Ramon, 620 m, LN318100,381900 #2817 (F. Quesada)(INBio: CRI 001-776999), 1 male, Sect. San Ramon de Dos Rios, 1.5 km N Hde. Nueva Zelandia, 620 m, LN 318100,381900 #7332 (F. Quesada) (USNM), 1 male, Finca San Gabriel, 2 km SW Dos Rios, 600 m, LN318800,383500 (GNP Biodiv. Survey)(INBio: CRI 001-024138).

Derivation of Name. The specific epithet, *inbio*, an acronym for the Costa Rican institution in which the type series was encountered is used as a noun in apposition.

Diagnosis. This is the only species of *Lebia (Chelonodema)* with two longitudinal and bordered spots on the elytron (Fig. 2a) which cover 2/3 of the elytral surface.

Description. Testaceous; each elytron with 3 “spots,” the scutellar one black, the discal ones beige with black borders; palpi, antennomeres 3–11, femoral apex, tibiae and tarsomeres black. Pronotum broadly explanate; disc finely rugose. Size moderately large: 9.8 to 11.84 mm in length, 5.38 to 5.86 mm in width. Aedeagus (Fig. 2b).

Specimens Examined. The type series of 23 specimens is listed above.

Notes. This species does not trace satisfactorily in Reichardt’s key (1972)

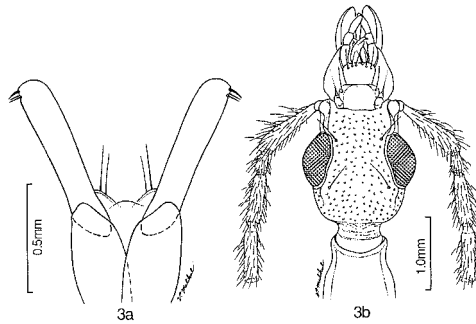


Fig. 3. *Agra yola*, a) dorsal aspect, stylomere 2; b) dorsal aspect, head with partial antenna.

due to the unique elytral color pattern; the key will need to be significantly reordered rather than simply adding a step.

Lebiïni: Agrina

Agra yola Erwin, **new species**

(Figs. 3a, 3b)

Type Series. Holotype female, **COSTA RICA:** Guanacaste Province, Estación Pitilla, 9 km S Santa Cecilia, 700 m, LN329650,378600 #4600, April (E. Alfaro)(INBio: CRI 002-140738).

Derivation of Name. The specific epithet, *yola*, is a noun in apposition based on the given name of Yolanda Camacho Garcia, Curator of Mollusca at INBio and sometime guide for me to the carabid habitats of Costa Rica.

Diagnosis. Head and pronotum markedly punctate; antenna markedly long for genus, scape elongate and robust, antennomeres robust (Fig. 3b). Mouthparts, antennae, forepart of the head, tibia, tarsomeres, coxae, and femoral apex testaceous; base of head and neck, femoral base and venter piceous; pronotum and elytra with piceous, elytra with deep blue metallic sheen.

Description. Elytral interneurs markedly deep, punctulae slightly cribriform. Stylomere 2 (Fig. 3a) elongate, with three terminal setae, two of which are spinose. Size moderately large: 12.43 mm in length, 3.38 in width.

Specimens Examined. Known only from the type. Two undescribed species of this group are known from Panamá and another 8 undescribed ones from South America.

Notes. This species belongs to the *fallax* group of *Agra* whose range extends from Costa Rica to Bolivia along the east side of the Andes and east into Guyana. In addition to *A. yola* and the 10 undescribed species, this group includes *A. fallax* Liebke, *A. punctulata* Liebke, and *A. cribriceps* Straneo.

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(Received and accepted 27 April 2000; publication supported by Instituto Nacional de Biodiversidad.)