

# Papéis Avulsos de Zoologia

## A NEW ECITOPHILOUS SPECIES OF *ECITOXENIA* WASMANN (COLEOPTERA, STAPHYLINIDAE) FROM COLOMBIA

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### ABSTRACT

*A new species of ecitophilous staphylinid, Ecitoxenia lucanoides, is described from Colombia. This is the first species of staphylinid known to be associated with the army ant Eciton lucanoides Emery. Seevers' (1965) key to the species of Ecitoxenia is modified to include the new species.*

During a six month period in 1969 and 1970 I was a participant in the scientific exchange program conducted by the National Research Council of Canada and the Conselho Nacional de Pesquisas of Brasil. This exchange permitted me to study the Staphylinidae in the collection of the Museu de Zoologia da Universidade de São Paulo. This collection is particularly rich in ecitophilous staphylinids because it contains most of Borgmeier's collection of neotropical staphylinids associated with army ants. Among this material I found four specimens of a new species of ecitophile of the genus *Ecitoxenia* Wasmann collected from a column of *Eciton lucanoides* Emery. This is the first record of a staphylinid associated with this species of *Eciton*. All of the known species of *Ecitoxenia* are associated with army ants of the genus *Eciton*.

Seevers (1965) in his review of the staphylinids associated with army ants combined the genera *Ecitoxenia* Wasmann and *Ecitoxenides* Borgmeier. This considerably broadened the concept of *Ecitoxenia* since five species were involved, ranging from the relatively generalized *hamati* Reichensperger to the more specialized *mirabilis* Wasmann. Specimens of the new species proposed herein fall well within the range of variation between these two species, so I have followed the generic concept of Seevers.

Adults of *lucanoides* may be readily distinguished from those of other species of *Ecitoxenia* by modifying Seevers' (1965: 290) key as follows (figure numbers 26 and 31 refer to illustrations in Seevers' paper):

1. Head, pronotum, and elytra with carinae and eminences as in fig. 31, F; ninth tergite with two strong clawlike processes (fig. 26, G) ..... *mirabilis* Wasmann
- Head, pronotum, and elytra without the extreme ornamentation indicated above, although head and pronotum may be carinate; ninth tergite apparently without clawlike processes (not determined with certainty for some species) ... 2

2. Head with a pair of strong carinae between eyes; pronotum with two strong parallel carinae (similar to those of *mirabilis*) ..... 3  
 Head, at most, with feeble carinae between eyes; pronotum not carinate, although with impressions as in fig. 31, B, C and fig. 2 ..... 4
3. Eyes large, as long as temples ..... *oculata* (Borgmeier)  
 Eyes small, distinctly shorter than temples .....  
 ..... *cariniceps* (Borgmeier)
4. Only third abdominal tergite impressed; basal angles of pronotum acute (figs. 1, 2) ..... *lucanoides*, sp. n.  
 Third, fourth, and fifth abdominal tergites impressed; basal angles of pronotum rounded or obtuse ..... 5
5. Third, fourth, and fifth tergites very deeply and distinctively impressed (fig. 31, C); head relatively long, about two-thirds longer than broad (excluding eyes); eyes small; medial pronotal sulcus narrow and deep. *impressa* Seevers  
 Third, fourth, and fifth tergites broadly, uniformly impressed but not as above; head less than two-thirds longer than broad (excluding eyes); eyes large; medial pronotal impression broader and shallower ..... 6
6. Head (fig. 31, B) about one-third longer than broad (excluding eyes); vertexal impression relatively broad and deep; head with a pair of low carinae between eyes; pronotal apex (fig. 31, B) strongly bisinuate, its apical angles produced; medial impression relatively deep ..... *megalops* Seevers  
 Head (fig. 31, E) about three-fifths longer than broad (excluding eyes); vertexal impression relatively shallow; head not carinate between eyes; pronotum (fig. 31, E) with apical angles less produced and medial impression more shallow than in above ..... *hamati* Reichensperger

***Ecitoxenia lucanoides*, sp.n.**

(Figs. 1, 2)

Black; surface coarsely granulate, completely opaque; body with numerous long, semi-erect, black setae. Length 2.8 to 2.9 mm; width 0.8 mm across middle of abdomen.

Head long and narrow; 1.7 times longer than wide (excluding eyes); antennal insertions narrowly separated; clypeus vertical and broadly carinate medially; dorsal surface slightly flattened with a shallow, elongate-oval impression extending from antennal insertions posteriad to level of middle of eyes; eyes small, slightly prominent, 2.0 times longer than temples, ocular index (Campbell and Marshall 1964) of four specimens ranging from 62 to 71 ( $\bar{x}$  = 65.5); antennae robust, compact, gradually increasing in width from segments two through nine, antennal segments cylindrical, relative lengths of segments one through eleven as follows: 29: 10: 10: 11: 13: 14: 15: 17: 20: 18: 18.

Pronotum distinctly wider than head, slightly longer than wide (64: 59); surface very coarsely sculptured (fig. 2); apex transverse, base slightly convex, sides widest just before middle and then constricted to acutely projecting basal angles; disc broadly and deeply impressed medially and shallowly impressed on each side

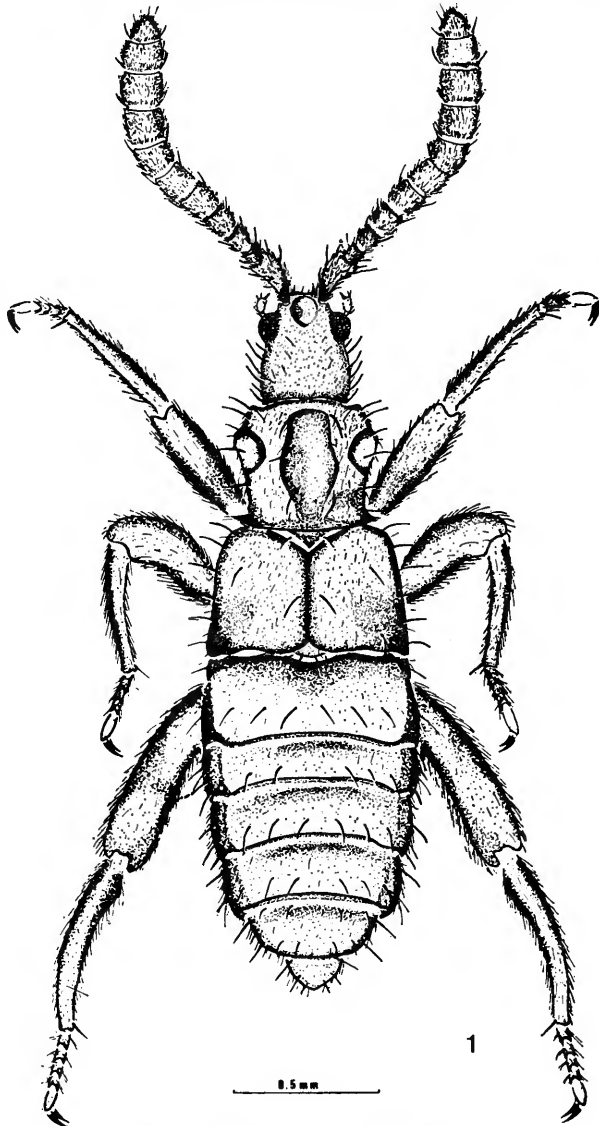


Fig. 1, *Ectitoxenia lucanoides*, sp. n.

(fig. 2). Prosternum narrow with a fine ridge along entire posterior margin and a small acute projection on base of each side; prosternal process narrow, carinate and forming a sharp tooth anteriorly at juncture with bases of prosternum.

Elytra distinctly wider than pronotum, unimpressed and lacking protuberances; apical margin sinuate; surface very uneven, sculpture distinctly coarser than on pronotum; length, from apex of scutellum, .7 as great as length of pronotum. Abdomen evenly curved dorsad; abdominal tergites (except third) evenly convex, third tergite deeply impressed basally; eighth sternite and tergite with apical margins evenly convex; abdominal sternites strongly and evenly convex. Tarsal segments broad, compact, tarsal formula 4, 5, 5; hind leg segments with relative lengths as follows: femur (70), tibia (60), and tarsus (36).

*Types.* Holotype with labels as follows: Mun. Buenaventura, 16 — 17 Mar (Bajo Colima) Carton de Col. lowld. rainfor/ COLOMBIA: Dept. Valle, 1967, R. B. Root, W. L. Brown/ ex column of *Eciton lucanoides* Emery/ Holotype *Ecitoxenia lucanoides* Campbell 1972. The specimen is deposited in the collection of the Museu de Zoologia da Universidade de São Paulo.

*Paratypes.* Three with identical data as the holotype deposited in the Canadian National Collection (CNC No. 12753) and the Museu de Zoologia.

*Remarks.* Specimens of *lucanoides* may be readily distinguished from those of all other species of *Ecitoxenia* by the characteristic shape of the median impression of the pronotum, by the lack of carinae on the vertex of the head, the pronotum, and the elytra, by the acute and projecting basal angles of the pronotum, and by having only the basal abdominal tergite impressed.

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**Fig. 2.** *Ectoxenia lucanoides*, scanning electron microscope photograph of pronotum.

