

The neotropical species of the genus *Allotrochus* FAGEL, 1955

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Abstract

Within the collections of the "Institut royal des Sciences naturelles" (Bruxelles) the "Natural History Museum of the University of Kansas" (Lawrence) and my own collections three new species of the genus *Allotrochus* were found for South America: *Allotrochus ecuadoriensis*, *A. mandibularis*, and *A. minor*. Together with *Allotrochus marginatus* (SHARP, 1887) four species are known from Central and South America.

Keywords: South America, Insecta, Coleoptera, Staphylinidae, Osoriinae, new species.

Introduction

The species of the genus *Allotrochus* FAGEL, 1955 resemble those of the genus *Holotrochus* ERICHSON, 1839. The procoxae are longer than usual in the tribe Thoracophorini that caused FAGEL (1955) to put *Allotrochus* to the tribe Osoriini. NEWTON (1990) fixed the Osoriini by the characteristic structure of the front tibia having an emargination and a comb of setae. The tibiae of *Allotrochus* FAGEL, 1955, however, are straight without emargination and without a comb of setae. The relation of the genus *Allotrochus* to other genera of the tribe Thoracophorini is underlined by the fine diagonal strigae of abdominal sterna of *Allotrochus* that are also found in *Lispinus* ERICHSON, 1839 and *Neolosus* BLACKWELDER, 1942. The pronotum of *Allotrochus* is relatively broad, broader than the head like in *Neolosus*. The species of *Neolosus*, however, are larger and the elytra have a characteristic transverse ground sculpture, whereas *Allotrochus* is smaller and the elytra have a coriaceous ground sculpture. The pronotum of the neotropical species of *Allotrochus* is very finely punctuate, the elytra have a coriaceous ground reticulation with a very fine, nearly invisible punctuation. The punctures on the scutellum are obviously larger than on the pronotum. In contrast to the related species the suture striae are straight originating at the scutellum, while the suture striae in the genera *Lispinus* and *Neolosus* are curved near the scutellum and parallel to the scutellum.

Abbreviations of collections and thanks to curators:

FMNH	Field Museum of Natural History, Chicago (Dr. A. NEWTON:)
IRSN	Institute royal des Sciences naturelles, Bruxelles (Dr. D. DRUGMAND)
BMNH	British Museum Natural History, London (Dr. M. BRENDELL)

KNM	Natural Natural History Museum of the University of Kansas, Lawrence (Dr. J. S. ASHE:)
UIC	Ulrich IRMLER collection, Kiel

The number in brackets followed by the collection means the number of specimens examined.

Key to the species

1. Pronotum emarginate in front of posterior angles 3. *A. ecuadoriensis* n. sp.
– Pronotum not emarginate in front of posterior angles, curved or straight narrowed 2
2. Small species of 2.7 mm length, mandibles of male not prominent and posterior edge not margined in front of scutellum 4. *A. minor* n. sp.
– Larger species of more than 3.0 mm length, mandibles of male prominent or posterior edge also margined in front of scutellum 3
3. Pronotum laterally rounded and posterior edge finely margined, mandibles not prominent 1. *A. marginatus* (SHARP, 1887)
– Pronotum laterally straight and slightly narrowed to posterior angles, posterior edge not margined, mandibles prominent with unsymmetrical apical tooth 2. *A. mandibularis* n. sp.

Description of species

1. *Allotrochus marginatus* (SHARP, 1887), comb nov.
Holotrochus marginatus SHARP, 1887: Fig. 1

Description

Length: 3.4 mm; *colour:* head piceous, pronotum reddish, elytra piceous, anterior tergites of abdomen piceous, last abdominal tergites yellow, legs and antennae yellow. *Head:* 0.6 mm long, 0.7 mm wide; 2nd segment of antennae oblong, scarcely shorter than the conical 3rd segment, 4th segment slightly longer than wide, 5th and 6th segment quadrate, segments 7 to 10 wider than long, head apically rounded, apical margin continuous laterally and terminates at posterior edge of eyes, on each side with 4 setae, the posterior setae above the anterior edge of the eyes, another long seta at lateral part of the disk, with slight prominence above the base of antennae, very sparsely and

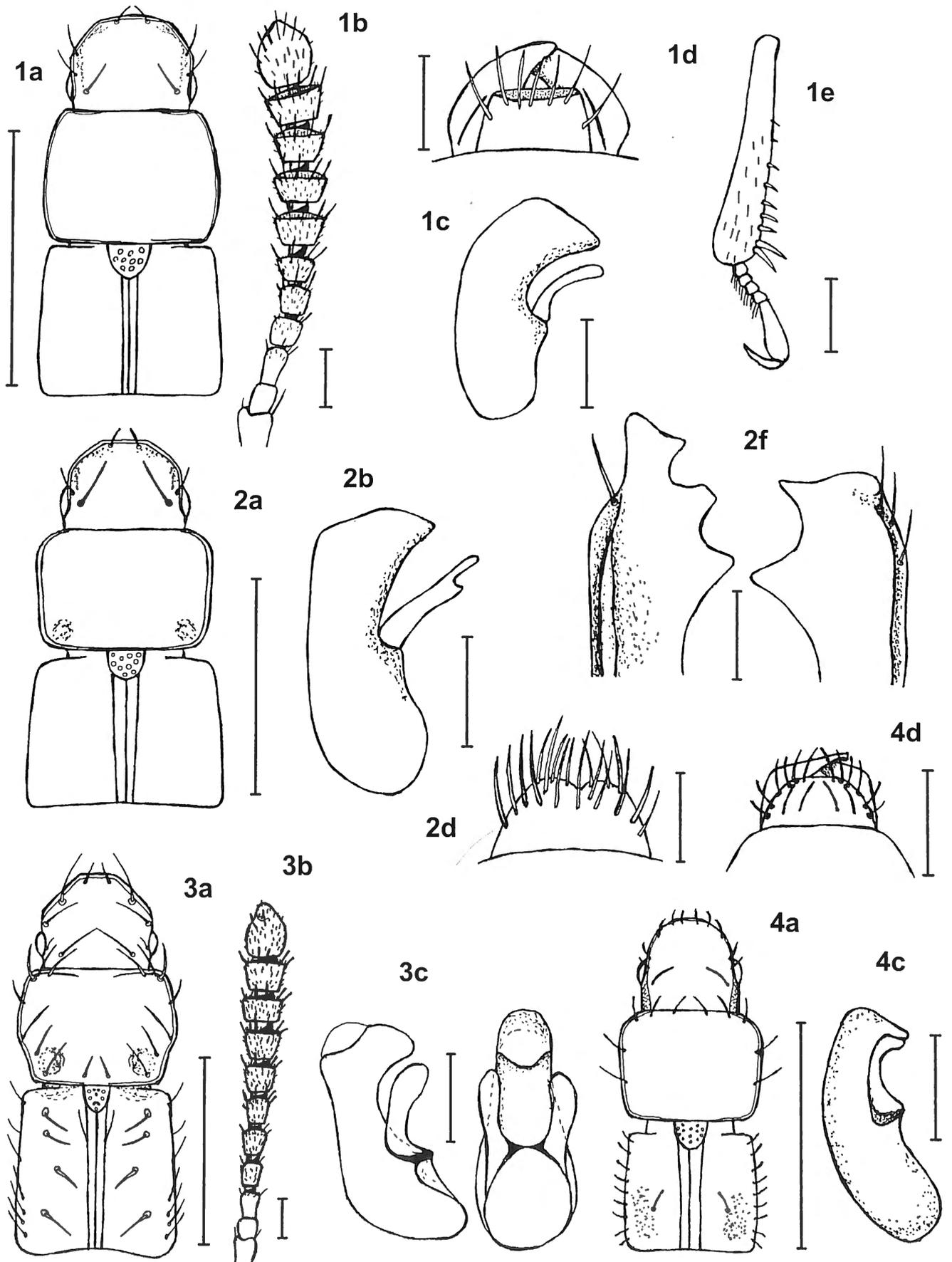


Fig. 1 — *Allotrochus marginatus*, 2: *A. mandibularis*, 3: *A. ecuadoriensis*, 4: *A. minor* (a: front body, b: antenna, c: aedeagus in lateral view (left) and ventral view (right), d: labrum, e: front leg, f: maxillae of male; line a: 1 mm, b-f: 0.1 mm).

finely punctuate, between the larger punctures some very fine micropunctures, without ground sculpture, polished, labrum with transverse microreticulation. *Pronotum*: 0.5 mm long, 0.7 mm wide; sides rounded, widest at middle, slightly more narrowed to the posterior angles, very sparsely and finely punctuate, polished, with smooth midline, without depressions at hind angles, posterior and anterior angles rounded, lateral margin continuous to anterior and posterior edge, only a small part in the middle of the anterior and the posterior edge not margined. *Elytra*: 0.6 mm long, 0.7 mm wide; with coriaceous reticulation, very finely and sparsely punctuate, much finer and sparser than pronotum, sutural striae narrowed to posterior edge, scutellum with few punctures, polished. Abdomen sparsely punctuate, punctures larger than on pronotum, a weak ground sculpture at base of abdominal tergites, posterior edge of tergites polished.

The species has no obvious characteristic feature and by this it is different from the other two *Allotrochus* species. It resembles very much a *Holotrochus* species in the overall appearance. The margin of the posterior edge is very fine and difficult to see.

Material examined

Mexico: Rio Metlac, Prov. Veracruz, leg. Newton (1, FMNH); Guatemala: Cerro Zunil, leg. Champion (1, BMNH, holotype).

2. *Allotrochus mandibularis* sp. n.

Fig. 2

Description

Length: 3.5 mm; colour: head piceous, pronotum reddish, elytra piceous, anterior abdominal tergites red, last tergites yellow, legs and antennae red. *Head*: 0.4 mm long, 0.7 mm wide; only 7 segments of antennae present at type specimen, 2nd segment oblong, scarcely shorter than the conical 3rd segment, 4th segment slightly longer than wide, segments 5 - 7 quadrate, head margined at apical edge, margin continuous laterally and terminates at posterior edge of eyes, very finely and sparsely punctuate, with coarser and finer punctures, without ground sculpture, polished, along the margin 4 setae at each side, the posterior seta above the eye, another long yellow seta between this seta and the disk, labrum quadrate, mandibles unsymmetrical prominent, left mandible with a broad stout apical tooth and a second stout tooth at the inner side, a third inner tooth acute, outer side with a declined ventral edge, upper edge with a broad ridge that terminates between second and third tooth, right mandible apically stout and with a long acute tooth at inner side, the second inner tooth opposite to the third tooth of left mandible, ventral edge of mandible declining, dorsal edge straight, within the angle of upper and lower edge of mandible with one seta on left mandible and three setae at right mandible. *Pronotum*: 0.55 mm long, 0.85 mm wide; widest at apical edge, apical and posterior angles widely rounded, slightly narrowed to the base, very indistinct round depressions at posterior angles, very finely and sparsely punctuate, without ground sculpture, polished, sides margined, lateral margin continuous shortly to the anterior and posterior edge. *Elytra*: 0.7 mm long, 0.85 mm wide; scutellum posteriorly rounded and distinctly punctuate, punctuation coarser and denser than on pronotum, elytra with distinct lateral margin that is visible in dorsal view, with coriaceous ground sculpture and very fine and sparse punctuation, shining, sutural striae straight and narrowed to posterior edge. Abdomen with relatively coarse punctuation, punctures much more distinct than on pronotum, distance be-

tween punctures as wide than diameter, punctuation of tergites denser at base than at posterior edge, polished. Outer edge of front legs straight with two longer apical spines and several smaller spines towards the base.

The species is conspicuous by the unique structure of the mandibles. The mandibles of the female are normal, without the conspicuous feature of the male mandibles. The straight sides of pronotum and the punctuation of the scutellum also differ from the related *A. marginatus* (SHARP, 1887).

Holotype: 1 male: Ecuador: verst. W. des Andes, Santo Domingo, 600 m, humus, IV. 1965, leg. N. & J. Leleup (IRSN).

Paratype: 1 female: with same data as holotype (IRSN).

3. *Allotrochus ecuadoriensis* n. sp.

Fig. 3

Description

Length: 4.2 mm; colour: red, legs yellow, disc of pronotum and elytra darker, posterior edge of abdominal tergites lighter. *Head*: 0.4 mm long, 0.7 mm wide; polished, punctuation distinct and sparse, distance between punctures wider than diameter, anterior edge margined, margin continuous to posterior edge of eyes, several setae along the anterior margin and two supraocular setae, three setae between eyes and neck, eyes scarcely prominent, labrum wider than long, without emargination at anterior edge. *Pronotum*: 0.6 mm long, 0.9 mm wide; polished, punctuation still sparser than on the head, sides rounded and narrowed from anterior edge to posterior edge, emarginate in front of posterior edge and there with a distinct depression, depression not punctuate, polished, sides margined, margin continuous at anterior edge and terminates in the central part, at the end of the anterior margin two deeper punctures with setae, central part of anterior edge not margined, posterior edge also margined except a central part in front of scutellum, several setae along anterior and lateral margin. *Elytra*: 0.9 mm long, 0.9 mm wide; polished, but with indistinct coriaceous ground sculpture, without punctuation, several setae along the lateral margin, and another row of four setae on the disk, one seta near the suture in the anterior half, scutellum, distinctly and densely punctuate. Abdomen distinctly punctuate and laterally with long yellow hairs, with weak, transverse or netlike microsculpture, sternites with diagonal strigae.

In contrast to the other two *Allotrochus* species the sides of the pronotum of *A. ecuadoriensis* are emarginate in front of the posterior angles and elytra carry a row of four setae on the disc.

Holotype: 1 male: Ecuador, Oriente, forêt trop. à Archidona, 750 m, humus, IV. 1965, leg. N. & J. Leleup (IRSN).

Paratypes: 1 male, 2 females: Ecuador, Oriente, forêt trop. à Puyo, 750 m, humus, IV. 1965, leg. N. & J. Leleup (IRSN, UIC).

4. *Allotrochus minor* n. sp.

Fig. 4

Description

Length: 2.7 mm; colour: light reddish, head and posterior edge of elytra excluding a small stripe adjacent to the suture darker, legs and antennae yellow. *Head*: 0.35 mm long, 0.5 mm wide; 3rd antennomere scarcely longer than 2nd, 5th quadrate, the

following slightly wider than long, head without microsculpture, polished, with fine and sparse punctuation, distance between punctures much wider than diameter, with scattered micropunctures between the normal punctuation, head laterally and apically margined, at apical margin 4 setae on each side of the middle and two supraocular setae, another two yellow setae between the eyes, the apical margin continuing to the neck separating the polished disc from the dull side, this lateral part of the head with dense netlike microsculpture, eyes short, not longer than temples, labrum with an apical and a basal row setae, not emarginate. *Pronotum*: 0.45 mm long, 0.6 mm wide; widest at the apical angles, slightly narrowed to the posterior angles, anterior and posterior angles curved, the depression at posterior angles flat, with several setae at the apical and lateral margin, disc polished, with fine and sparse punctuation, punctures much sparser than on the head, between the normal punctures a sparse micropunctuation, a weak midline from the apical third to the posterior edge. *Elytra*: 0.55 mm long, 0.65 mm wide; scutellum with dense and coarse punctures, elytra with very sparse punctuation, punctures still sparser than on the pronotum, a weak coriaceous ground sculpture, glossy, a lateral row of 9 setae adjacent to lateral margin and one seta on the disc. Abdomen scarcely punctuate, laterally with several dark setae, tergites on each side of the middle with two setae.

The species is most similar to *A. marginatus*, but it is lighter and smaller. In particular the light pronotum and the dark spot on the elytra are conspicuous.

Holotype: 1 male: Peru: Prov. Tambopata, Madre de Dios Dpto. 15 km NE Puerto, Maldonado Reserve, Cuzco Amazonica, 12°33'S 69°03'W, 200 m, 22 June 1989, leg. J.S. Ashe, R.A. Leschen #214, ex. compost pile (KNM).

Paratypes: 2 male, 3 females: Peru: Tambopata Prov. 15 km NE Pto. Maldonado, 13 June 1989, 24 June 1989 and 13 July 1989,

200 m, leg. J. Ashe, R. Leschen, #501 ex fungus on log, #334 ex *Daedalea*-like polypore (KNM, UIC); 1 female: Venezuela: Puy Puy, under bark in a banana-cacao plantation, 30 Mars 1998, 10°42'00" N 62°58'05" W, leg. Schmidt (UIC)

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