*Zootaxa* 1816: 35–43 (2008)
www.mapress.com/zootaxa/


ISSN 1175-5326 (print edition)
**ZOOTAXA**
ISSN 1175-5334 (online edition)

# A review of the Neotropical genus *Alloscolytroproctus* Hustache, 1929 (Coleoptera; Curculionidae: Dryophthorinae)

ROBERT S. ANDERSON
*Research Division, Canadian Museum of Nature, P.O. Box 3443, Station D, Ottawa, ON. K1P 6P4, Canada.*
*Email: randerson@mus-nature.ca*

## Abstract

The genus *Alloscolytroproctus* Hustache is reviewed. It includes the type species, *A. peruanus* Hustache, and two new species, *A. dominicae* Anderson, sp. n, from the West Indies (Dominica) and *A. ashei* Anderson, sp. n., from Venezuela. All species are likely associated with palms. A key to the three species is provided, along with illustrations of the species and summaries of their natural history and distribution.

**Key words**: biodiversity, weevils, new species, palms, islands, taxonomy

## Introduction

The genus *Alloscolytroproctus* Hustache, 1929 was described to accommodate a new, odd, brentid-like species of weevil, *A. peruanus* Hustache, 1929 from Marcapata, Peru. Hustache placed the genus in the Old World tribe Campyloscelini but this was corrected by Kuschel in Wibmer & O'Brien (1986), who moved the genus to the tribe Sphenophorini of the subfamily Dryophthorinae (then Rhynchophorinae). Earlier, Kuschel (1955) had placed what was apparently this same genus and species, *Brenthidomimus hartmanni* Guenther, 1943, also described from Marcapata (likely from the same series of specimens), as a junior synonym of *A. peruanus*, synonymising also *Brenthidomimus* with *Alloscolytroproctus.* Collections over the past 10 years using flight intercept traps have turned up a number of specimens of this genus. Here I review its taxonomy and describe two new species, *A. ashei* Anderson, n. sp., and *A. dominicae* Anderson, n. sp., from northern Venezuela and the West Indian island of Dominica, respectively.

## *Alloscolytroproctus* Hustache, 1929

*Alloscolytroproctus* Hustache, 1929: 230, type species: *Alloscolytroproctus peruanus* Hustache, 1929, by monotypy; Alonso-Zarazaga & Lyal 1999: 66.
*Alloscolytoproctus* Csiki 1936: 6 (unjustified emendation), Wibmer & O'Brien 1986: 366; Anderson 2002: 8.
*Brenthidomimus* Guenther 1943: 90, type species: *Brenthidomimus hartmanni* Guenther 1943: 90, by monotypy; Kuschel 1955: 280 (syn.).

Redescription

Length 2.9–7.5 mm; width 0.6–1.2 mm. Body (Figs. 1–6) elongate, slender, cylindrical in cross-section. Color black with various reddish maculations on elytra and pronotum, prosternum, area around coxae and apically on legs. Integument shiny throughout, punctate. Rostrum short, slightly curved downward, non-carinate,

*Accepted by R. Oberprieler: 6 May 2008; published: 4 Jul. 2008*

not sculptured, punctate throughout dorsal surface. Peduncle of postmentum flat. Antennae inserted basally on rostrum, separated from eyes by width of scape; scape about as long as funicle; funicle 6-segmented, each segment short and broad, as long as wide or very slightly longer than wide; club oval, large, as long as funicle, basal glabrous shiny portion very small, making up only about basal 1/5 or less of club. Pronotum elongate, cylindrical, much longer than wide, densely punctate, glabrous except for anterior margin above eyes on each side with patch of erect, stout setae and fine, dense micropilosity. Elytra moderately long, subparallel, slender, about as wide as pronotum at base; striae distinctly impressed; arrangement and vestiture various. Scutellum small, triangular, widest at or near base. Procoxae and mesocoxae separated by more or less width of scape, metacoxae by about ½ width of coxa. Prosternum flat, punctate, evenly sloped anteriorly, prosternal process acuminate, mesosternal process flat, emarginate at middle; mesosternum broadly exposed, length at middle about ½ length of metasternum; metasternum long, about as long as ventrites 1–5 combined. Pygydium exposed, more or less vertical in orientation, punctate throughout, setose apically. Abdomen with 5 visible ventrites; ventrites 1, 2 and 5 of more or less same length, ventrites 3 and 4 short. Legs with femora sinuate subapcially, compressed, expanded apically, especially those of front legs; tibiae shorter than femora, variously toothed along inner margin (front legs) or anterior margin (middle legs), with large teeth on inner and outer apical angles of front (subfossorial) and middle legs, hind tibia robust, subquadrate in cross-section with large hook-like tooth and small basal tooth at inner apical angle and short, robust, hook-like tooth at outer apical angle. Tarsi with tarsites 1–3 with ventral surfaces densely pilose only towards apicolateral angles, width of tarsite 3 slightly greater than 2 (moreso on front legs). Male with aedeagus (Figs. 7–8) short, slightly ventrally arcuate, laterally with unsclerotized arcuate line dividing it into narrow ventral (pedon) and broader dorsal (tectum) portions, apex slightly projected, evenly rounded, median struts transversely fused near base with basal sclerotized area extended medially and fused with base of tectum, struts slightly divergent to apex; structure of internal sac various; tegminal strut extended to about half length of median struts. Tergite 8 produced and elongate in form, maximum length slightly longer than maximum width at base; with long setae at apex, apex evenly rounded. Paired sclerites of sternite 8 elongate, length about two times maximum width. Genitalia of female not examined.

Distribution

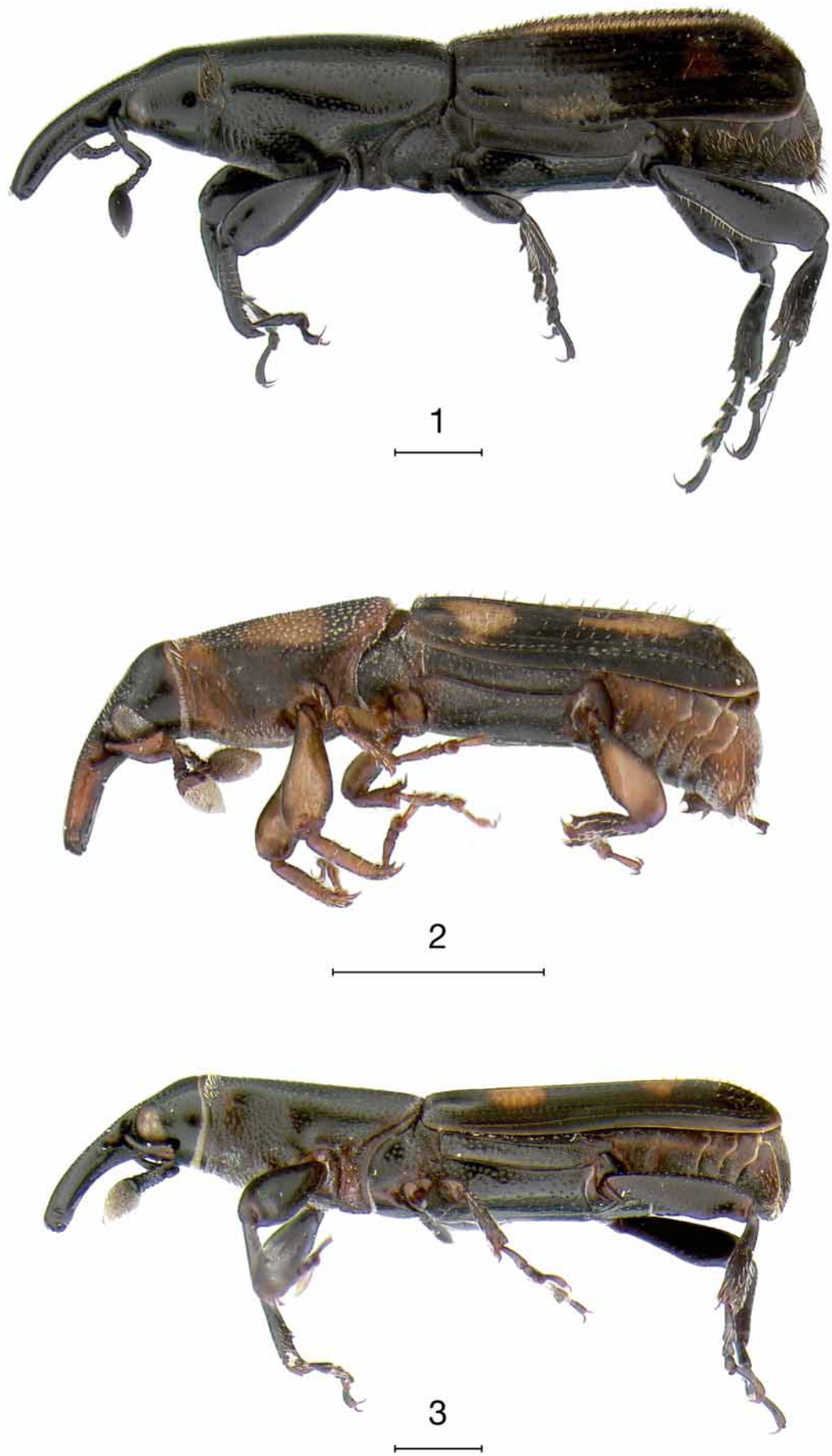
South America north to extreme southern Panama (Darien) and on the West Indian Island of Dominica (Fig. 9).

Biology

Few details are available on the life history of any species of *Alloscolytroproctus*. Most specimens have been collected in flight intercept traps, lindgren traps and *Metamasius* pheremone traps placed in various types of tropical forests. A number of specimens of *A. dominicae* were collected in Dominica in logs of fallen *Euterpe dominicana* palms (Arecaceae) and one specimen was taken in association with cut palm fronds.

Comments

The original and correct name of the genus is *Alloscolytroproctus*. Csiki (1936) either through lapsus or unjustified emendation changed the name to *Alloscolytoproctus*, a spelling followed by all subsequent authors until noted as unjustified by Alonso-Zarazaga & Lyal (1999). The sexes of the genus are very difficult to distinguish, sometimes only with certainty through dissections. Females tend to have a slightly longer, apically flatter rostrum and the middle abdominal ventrites slightly more convex. Males of *A. dominicae* are easy to recognize because of their characteristic elytral sculpture.




**FIGURES 1–3**. *Alloscolytroproctus*, lateral habitus of males. 1, *A. peruanus* Hustache. 2, *A. dominicae* Anderson, n. sp. 3, *A. ashei* Anderson, n. sp.

**Key to the species of *Alloscolytroproctus***

1. Elytral interval 2 (Fig. 4) with extremely dense, very fine, erect pilose vestiture from anterior half to declivity, similar vestiture also on intervals 3, 5 and 9 at declivity in larger specimens; rostrum with apex not to very slightly expanded apically, width at apex slightly less than distance between eyes; elytra with only posterior red maculae or also with smaller anterior red maculae. Widespread in South America ..... ..... *A. peruanus* Hustache

1'. Elytral interval 2 (Figs. 5–6) with sparse, fine, linearly arranged setae in posterior third to quarter or with setae absent (although sparse, linearly arranged on sutural and interval 3); rostrum with apex slightly to distinctly expanded apically, width at apex more or less equal to or slightly greater than distance between eyes; elytra with posterior and anterior red maculae .....2

2. Elytra with sutural and interval 3 with sparse, long, erect, linearly arranged setae; interval 2 slightly widened posteriorly in female, markedly so in male (Fig. 5) with sutural and interval 3 raised, shining and with low, linearly arranged tubercles; pronotum (Fig. 5) with large reddish maculation on each side at about midlength; apex of rostrum distinctly widened, wider than distance between eyes ..... ..... *A. dominicae* Anderson

2'. Elytra (Fig. 6) with intervals 2, 3 and 5 with sparse, long, erect, linearly arranged setae in posterior third to quarter (setae present but short on sutural interval); interval 2 at most slightly widened posteriorly but sutural and interval 3 not modified; pronotum (Fig. 6) black; apex of rostrum very slightly widened, more or less equal to distance between eyes..... *A. ashei* Anderson

***Alloscolytroproctus peruanus* Hustache**
(Figs. 1, 4, 7–9)

*Alloscolytroproctus peruanus* Hustache, 1929: 231 (type locality Marcapata, Peru); Wibmer & O'Brien 1986: 366.
*Brenthidomimus hartmanni* Guenther, 1943: 90 (type locality Marcapata, Peru); Kuschel 1955: 280 (syn.); Wibmer & O'Brien 1986: 366.

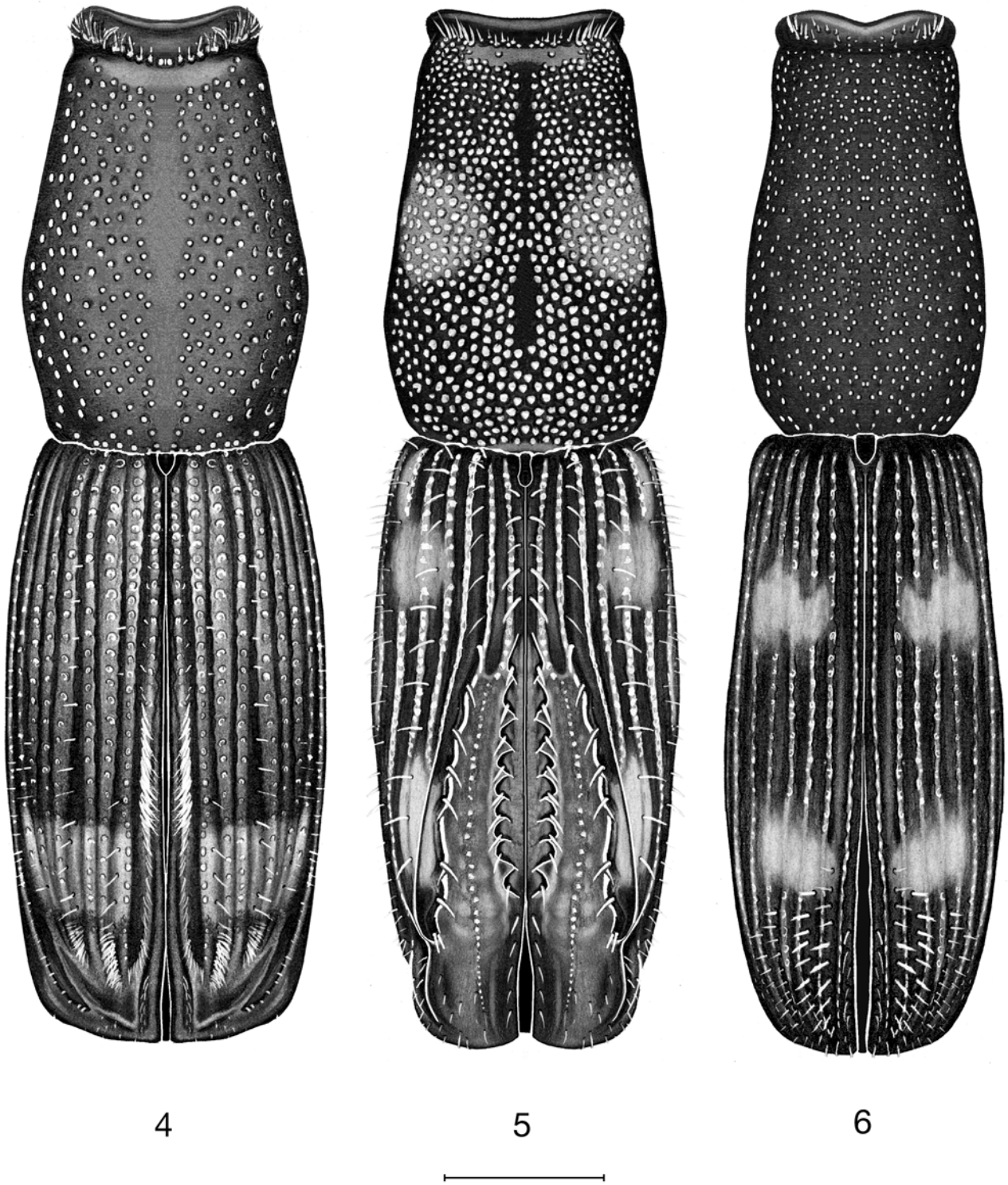
Diagnosis

Length 3.4–7.5 mm. Integument black except for red posterior elytral maculation, some specimens also with red anterior maculation and prosternum and portions of legs rufous. Rostrum with apex not or only very slightly expanded, width at apex slightly less than distance between eyes. Pronotal disc (Fig. 4) with punctures deep, separated by at least their own diameter, rarely slightly less, but not subcontiguous. Elytral interval 2 (Fig. 4) with extremely dense, very fine, erect pilose vestiture along length from anterior half to declivity, similar (but shorter) vestiture also on intervals 3, 5 and 9 at declivity. Hind tibiae with large tooth at inner apical angle curved towards apex and hook-like.

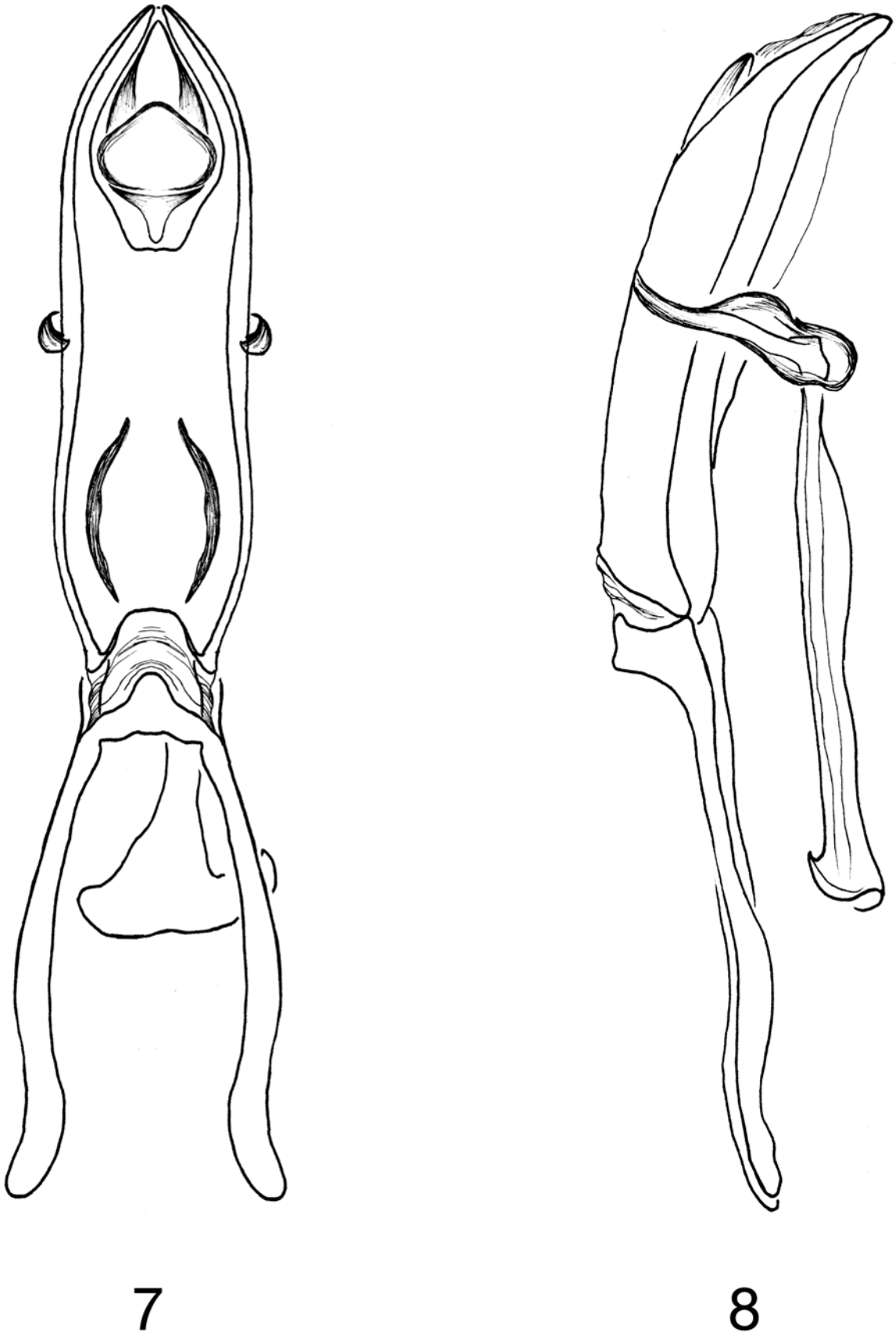
Material examined

**Bolivia**. Chapare, 400 m, viii.1958 (1, CWOB); Cochabamba, 124 km E. Cochabamba, 17º03'54"S 65º38'43"W, 730 m, 8–12.ii.1999, R. Hanley (2, CMNC); Cochabamba, 117 km E. Cochabamba, 17º 06'32"S 65º41'12"W, 1040 m, 10–12.ii.1999, R. Hanley (2, CMNC), 1–6.ii.1999 (1, CMNC), 6–8.ii.1999 (1, CMNC), 8–10.ii.1999 (1, CMNC); La Paz, Cerro Uchumachi, 16º12.71' S 67º42.81'W, 2550 m, 5–16.iv.2001, S. Marshall (1, CMNC). **Brazil**. Rondonia, 9 km N.E. Cacaulandia, xii.1996–i.1997, K. Vulinec (1, CWOB); Rondonia, Fzda. Rancho Grande, 62 km S.W. Ariquemes, 16.x.1993, C.W. O'Brien, *Metamasius* pheremone trap (14, CWOB); Mato Grosso, Sinop, 12º31'N 55º07'W x.1976, M. Alvarenga (1, CWOB). **Ecuador**. Cotopaxi, Las Pampas, v.1985, G. Onore (1, CWOB). **Panama**. Darien, Estacion Ambiental Cana, Cerro Pirre, 1450 m, 7–9.vi.1996, J. Ashe & R. Brooks, FIT (1, CNMC). **Peru**. Amazonas, Guayabamba, 70 km E Chachapoya,

17.viii.1935, P. Woykowski (1, CMNC); Ayacucho, Marcapata (1, CWOB; 1, NZAC [paratype]); Junin, Jauja, Sani Beni, 840 m, 9.ix.1935, P. Woykowski (1, CMNC); Loreto, 1.5km N. Teniente Lopez, 02º35'39.6"S 76º06'55"W, 230–305 m, 18–26.vii.1993, R. Leschen, FIT (2, CMNC); Tambopata, Madre de Dios, 15 km N Puerto Maldonado, Reseva Cuzco Amazonico, 12º33'S 69º03'W, 200 m, 13.vi.1989, J. Ashe & R. Leschen, FIT (1, CMNC), 15.vi.1989 (1, CMNC), 28.vi.1989 (1, CMNC); Madre de Dios, Manu National Park, Cocha Salvador, 12º00'13"S 71º31'36"W, 310 m, 20–21.x.2000, R. Brooks (1, CMNC); Madre de Dios, Pantiacolla Lodge, 2–7 km NW El Mirador Trail, 12º39'10"S 71º15'28"W, 450–700 m, 23–26.x.2000, R. Brooks, FIT (3, CMNC).




**FIGURES 4–6**. *Alloscolytroproctus*, pronotum and elytra of males. 4, *A. peruanus*. 5, *A. dominicae*. 6, *A. ashei*.




**FIGURES 7–8**. *Alloscolytroproctus peruanus* Hustache, aedeagus. 7, dorsal view. 8, lateral view.

Distribution

Extreme southern Panama (Darien) to western South America.

Biology

Specimens have been collected in flight intercept traps in forests ranging from lowland rainforest at 200 m (Peru) to montane cloud forest at 1450 m (Panama). One specimen was collected in yungas forest in Bolivia at 2550 m. Nothing is known of its natural history.

Comments

One paratype of *Alloscolytroproctus peruanus* from Marcapata, Peru, (NZAC) has been examined, but no types of *Brenthidomimus hartmanni*. Kuschel (1955) placed *Brenthidomimus hartmanni* as a junior synonym of *Alloscolytroproctus peruanus*, and this synonymy is followed here. Both taxa were described from Marcapata, Peru, likely from the same series of specimens, and one additional specimen from this locality has been examined. The species is generally larger than the others in the genus, the pattern of extremely dense, fine elytral vestiture along interval 2 (Fig. 4) is distinctive and there are only posterior red maculations in many specimens. Some specimens from Peru and Brazil are smaller and have both posterior and anterior red elytral maculations but otherwise appear conspecific with specimens from elsewhere throughout the range. The extent and density of the elytral vestiture also appears to be related to size, larger individuals having a longer row of denser vestiture along interval 2 and a denser vestiture on intervals 3, 5 and 9. Despite this variation, only one species is recognized here.

***Alloscolytroproctus dominicae* Anderson, sp. n.**
(Figs. 2, 5, 9)

Diagnosis

Length 2.9–3.4 mm. Integument black except for red anterior and posterior elytral maculations, pronotum with maculation at midlength and across apical margin, prosternum and portions of legs rufous. Rostrum with apex distinctly expanded, width at apex slightly greater than distance between eyes. Pronotal disc (Fig. 5) with punctures shallow, subcontiguous or some contiguous. Elytra (Fig. 5) with sutural and interval 3 with sparse, long, erect, linearly arranged setae; interval 2 slightly widened posteriorly in female, markedly so in male with sutural and interval 3 raised, shining and with low linearly arranged tubercles. Hind tibiae with large tooth at inner apical angle curved throughout length and hook-like.

Material examined

Holotype male labeled “West Indies: Dominica / Middleham Falls Trails, Cochrane / Forest FITs, 650 m / 15º20.841'N 61º22.000'W / 31.v.–11.vi.2004 S & J Peck 04-93” (CMNC). Paratypes (4 males, 8 females): labeled as holotype (3, CMNC); 5 mi. E. Dublanc, 10.viii.1986, C.W. O’Brien, on cut palms under base of fronds (1, CWOB); Fortune, 19.viii.1964, T.J. Spilman, in logs fallen *Euterpe dominicana* (5, USNM); 1.5 mi. N. Pont Casse, 12.ii.1965, W.W. Wirth (2, USNM); G’Leau Gommier, 15.ii.1965, J.F.G. Clarke (1, USNM).

Distribution

This species is known only from the island of Dominica.

Biology

This species is known from specimens collected in flight intercept traps in wet submontane rainforest at 650 m on the West Indian Island of Dominica. A number of specimens were collected in fallen logs of *Euterpe dominicana* and one specimen was taken on cut palms, under the base of a frond.

Comments

This species is named after the West Indian island of Dominica. It is the smallest of the three known species, reaching only 2.9–3.4 mm in length. The male has heavily sculptured elytra, whereas the elytra of the female are unmodified. All specimens examined have the same pattern of red posterior and anterior elytral maculations and also a large red maculation on each side of the pronotum near the midlength.

***Alloscolytroproctus ashei* Anderson, sp. n.**
(Figs. 3, 6, 9)

Diagnosis

Length 3.3–5.0 mm. Integument black except for red anterior and posterior elytral maculations, prosternum and portions of legs rufous. Rostrum with apex slightly expanded, width at apex more or less equal to distance between eyes. Pronotal disc (Fig. 6) with punctures shallow, separated by at least their own diameter. Elytra (Fig. 6) with intervals 2, 3 and 5 with sparse, long, erect, linearly arranged setae in posterior third to quarter (setae present but short on sutural interval); interval 2 at most slightly widened posteriorly but sutural and interval 3 not modified. Hind tibiae with large tooth at inner apical angle straight, not curved or hook-like.

Material examined

Holotype male labeled "Venezuela: Aragua / Parq. Nac. Henri Pittier / Est. Biol. Rancho Grande / 10º21'N 67º41'W, cloud forest / vi.21–24.1999, 1100 m / Ratcliffe, Jameson, Smith, Villatoro" (CMNC). Paratypes (9 males, 14 females): labeled as holotype (1 female, CMNC); Venezuela, Aragua, Rancho Grande Biological Station, 1300 m, 10 º21'0"N 67º41'0"W, 12–14.v.1998, J. Ashe, R. Brooks & R. Hanley, FIT (1, CMNC); Venezuela, Aragua, Rancho Grande Biological Station, 1450 m, 10 º21'38"N 67º40'38"W, 14.v.–2.vi.1998, J. Ashe, R. Brooks & R. Hanley, FIT (2, CMNC); Venezuela, Aragua, Parq. Nac. Henri Pittier, Portochuelo Pass, 1200 m, 7–13.vi.1999, Ratcliffe, Jameson, Smith, Villatoro, FIT (2, CMNC); Venezuela, Aragua, Rancho Grande Biological Station, 1140 m, 1–8.iii.1995, R. Brooks FIT (2, CMNC); Venezuela, Aragua, Parque Nacional Rancho Grande, Pico Guacamaya, 1800 m, 18.vi.1988, C. Bordon, lindgren trap (13, CWOB); Venezuela, Aragua, Rancho Grande Biological Station, 1100 m, 10.v.1973, G. Ekis (1, USNM); Venezuela, Caracas, collection Chevrolat (1, NRMS).

Distribution

This species is known from the area around the Rancho Grande Biological Station, north of Maracay in Venezuela. A single old specimen is labeled as having been taken at Caracas.

Biology

Specimens were collected in flight intercept traps in montane cloud forest between 1100 and 1450 m and in lindgren traps at 1800 m, from March through June.

Comments

This species is named after my friend and colleague James Steven Ashe, deceased on 27 December 2005. Steve was a wonderful field companion and friend and I'll always miss his youthful exuberance and enthusiasm upon making exciting new discoveries in the field; field trips are not the same without him. His widespread use of flight intercept traps led to the collection of many specimens of *Alloscolytroproctus*, including numerous specimens of this species that now bears his surname. Of the three species known this one is the least distinctive. The elytra are not distinctly modified as in *A. peruanus* or *A. dominicae*. All specimens examined have the same elytral color pattern, with both posterior and anterior red maculations but an entirely black pronotum.

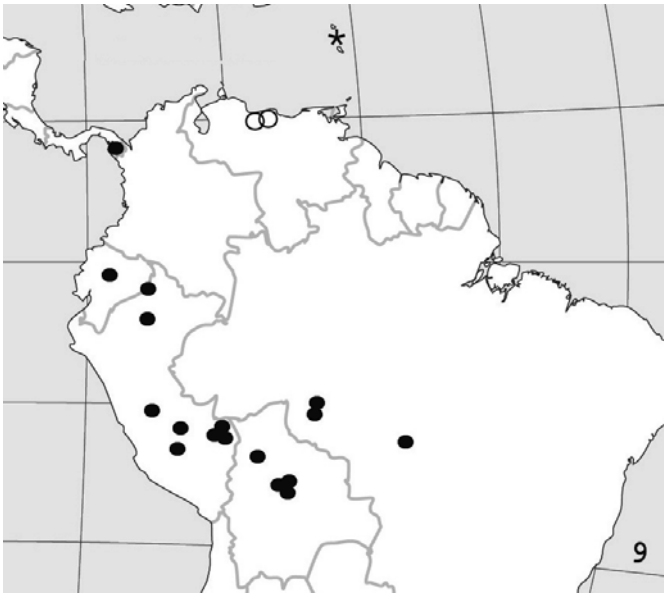



**FIGURE 9**. *Alloscolytroproctus*, distribution; solid circle — *A. peruanus*, open circle — *A. ashei*, asterisk — *A. dominicae*.


## Acknowledgements

Many of the specimens of *Alloscolytroproctus* studied herein were collected on field expeditions undertaken by the Snow Entomological Museum from the University of Kansas, Lawrence, Kansas. These expeditions were usually led by then collection manager Robert W. Brooks and Professor Steve Ashe. Over the years I was fortunate enough to be involved in many of these exciting and highly productive trips. I thank both Rob and Steve for their companionship during these times and for their diligent use of flight intercept traps, in which most of the specimens were collected. Unfortunately neither Rob nor Steve got to enjoy a career in entomology as long as they would have liked. I also wish to thank Jens Prena of the USDA Systematic Entomology Lab in Washington DC for his assistance with the use of the Synoptics imaging system used to take the photographs, and Nadine Dupérré of Shefford, Quebec, for her expert preparation of the illustrations and plates.


## References


Alonso-Zarazaga, M.A. & Lyal, C.H.C. (1999) *A World Catalogue of Families and Genera of Curculionoidea (Insecta: Coleoptera) (Excepting Scolytidae and Platypodidae).* Entomopraxis. Barcelona, Spain, 315 pp.

Anderson, R.S. (2002) The Dryophthoridae of Costa Rica and Panama: checklist with new synonymy and descriptions of new species of *Cactophagus*, *Mesocordylus*, *Metamasius* and *Rhodobaenus* (Coleoptera; Curculionoidea). *Zootaxa*, 80, 1–94.

Csiki, E. (1936) *Curculionidae: Rhynchophorinae, Cossoninae*. Pars 149, pp. 1–212. *In*: Junk, W., & Schenkling, S. (eds.), *Coleopterorum Catalogus,* W. Junk, Gravenhage.

Guenther, K. (1943) Vermischte Studien über Rüsselkäfer hauptsächlich aus der Sammlung Hartmann, jetzt im Staatl. Museum für Tierkunde, Dresden. *Deutsche Entomologische Zeitschrift. Iris, Ergänzungsband,* (1943), 10–96.

Hustache, A. (1929) Nouveaux Curculionides de l'Amérique du Sud. *Revista de la Sociedad Entomológica Argentina,* 2, 227–232.

Kuschel, G. (1955) Nuevas sinonimias y anotaciones sobre Curculionoidea (Coleoptera). *Revista Chilena de Entomología,* 4, 261–312.

Wibmer, G.J. & O'Brien, C.W. (1986) Annotated checklist of the weevils (Curculionidae sensu lato) of South America (Coleoptera: Curculionidae). *Memoirs of the American Entomological Institute,* 39, i–xvi, 1–563.