

A new species of *Seticeros* from Costa Rica (Coleoptera, Cerambycidae, Prioninae)

R. Ramirez Campos¹, J. R. Esteban Duran^{2*} and A. Santos-Silva³

¹ *Escuela de Ciencias Biológicas. Universidad Nacional de Costa Rica. Heredia 40101. Costa Rica*

² *Departamento de Protección Vegetal. INIA. Ctra. A Coruña, km 7,5. 28040 Madrid. Spain*

³ *Museu de Zoologia. Universidade de São Paulo. CP 188, 90001-970. São Paulo (SP). Brazil*

Abstract

A new species of *Seticeros* Perger & Santos-Silva, 2010 (Prioninae: Callipogonini) from San Isidro del General, San José, Costa Rica is described and illustrated. A key to the species of *Seticeros* is added.

Additional key words: Callipogonini; Cerambycidae; Costa Rica; holotype; new species; *Seticeros*; taxonomy.

Resumen

Nueva especie de *Seticeros* de Costa Rica (Coleoptera, Cerambycidae, Prioninae)

Se ha descrito e ilustrado una nueva especie de *Seticeros* Perger & Santos-Silva, 2010 (Prioninae: Callipogonini) de San Isidro del General, San José, Costa Rica. Se propone una clave de las especies conocidas de este género.

Palabras clave adicionales: Callipogonini; Cerambycidae; Costa Rica; holotipo; nueva especie; *Seticeros*; taxonomía.

Introduction

Audinet-Serville (1832) described *Anacanthus* to assign *A. costatus* Audinet-Serville, 1832 (= *Prionus reticulatus* Dalman, 1817, actually *Chorenta reticulata*). Subsequently, Thomson (1865) described *Anacanthus aquilus* from Colombia, without specifying the quantity and the sex of the specimens. Gistel (1848) renamed *Anacanthus* Audinet-Serville to *Chorenta*, because it is a homonymous of *Anacanthus* Gray, 1830. Curiously, this nomenclatural act remained unknown until Monné (2006), who used Gistel's name for the first time. Perger and Santos-Silva (2010) divided *Chorenta*, erecting *Seticeros* to *S. aquilus* (type species) and *S. tunupai* Perger & Santos-Silva, 2010, a new species from Bolivia.

In this work we are describing a new species of *Seticeros* from Costa Rica, but we believe that the species also occurs in Panama. This statement is based in photos of two specimens (Costa Rica and Panama)

that belonged to the former collection of Frank T. Hovore. Unfortunately, we do not have access to those specimens.

Material and methods

The new species of *Seticeros* was hand collected in the mountains of Costa Rica's South Pacific region, in the town «La Bonita» from Rivas, San Isidro de El General, cantón de Perez Zeledón, San José Province (Fig. 1). The exact place is located in the coordinates 9° 23' 57.61" N and 83° 40' 24.10" W, altitude 850 m. The habitat is inside the Tropical wet Forest life zone characterized by an area between 0 and 1,000 m, with precipitation averaging 4,000 to 8,000 mm annually, and temperatures between 24 and 35°C. The collecting site is a rural and agricultural area, possessing fragments of secondary forest, mainly comprised of vegetation from the families Rubiaceae, Piperaceae, Solanaceae, Araliaceae, Cecropiaceae, etc. and the near

* Corresponding author: esteban@inia.es

Received: 10-08-10; Accepted: 03-02-11.

Abbreviations used: MNCR (Museo Nacional de Costa Rica, Departamento de Historia Natural, San José, Costa Rica), MNHN (Muséum National d'Histoire Naturelle, Paris, France).



Figure 1. Map of Costa Rica showing the collecting localities of *Seticeros granulocephalus* new species, La Bonita de Rivas, San Isidro del General, cantón de Perez Zeledón, San José Province.

presence of primary forests located in the skirts of the Chirripo national park close to the Talamanca mountain range.

The specimen collected was deposited at National Museum of Costa Rica, in the insect collection of the Department of Natural History.

The holotype of the new species of *Seticeros* was compared with photos of all syntypes of *Anacanthus aquilus* (= *S. aquilus*), sent by Gérard L. Tavakilian, and with the types of *S. tunupai*.

Results

Seticeros granulocephalus new species (Fig. 2)

Type material. Holotype male, COSTA RICA, San José: San Isidro del General, Pérez Zeledón, Rivas, La Bonita), 2.III.2008, Francisco Durán Alvarado col. (MNCR).

Description

Male (Fig. 2a). Integument dark-brown with lighter parts. Dimensions in mm: total length (including man-

dibles), 43.3; length of prothorax, 7.3; larger width of prothorax, 11.5; humeral width, 11.0; elytral length, 27.7.

Head (excluding mandibles) + prothorax as long as half of elytral length. Head elongate; area between posterior edge of eyes and prothoracic edge with approximately 3/4 of length of scape (Fig. 2b); area between antennal tubercles and epistoma grainy; central region, between antennal tubercles, with elliptical depression, not surpassing the level of anterior ocular edge; area between antennal tubercles and central depression rugose, separated from the contiguous region by a low crest, irregular and oblique; ocular carina not well marked; area between upper ocular lobes and occiput, and area behind those lobes coarsely and confluent punctate; antennal tubercles elevated, with apex rounded and surface covered by small punctures, moderately sparse, except on base, where there are granules, and on the apex, where the punctures are confluent; central region of epistoma almost horizontal, punctate-grainy, and lateral areas distinctly elevated, coarsely and confluent punctate; whole surface of dorsal face of head with very fine hairs, short and very sparse, with some long hairs near eyes.

Labrum smooth, much lower than the edge of epistoma, sub-horizontal at base, obliquely tilted down in the remainder, and with central projection very distinct and sub-acute; sub-horizontal area glabrous and obli-

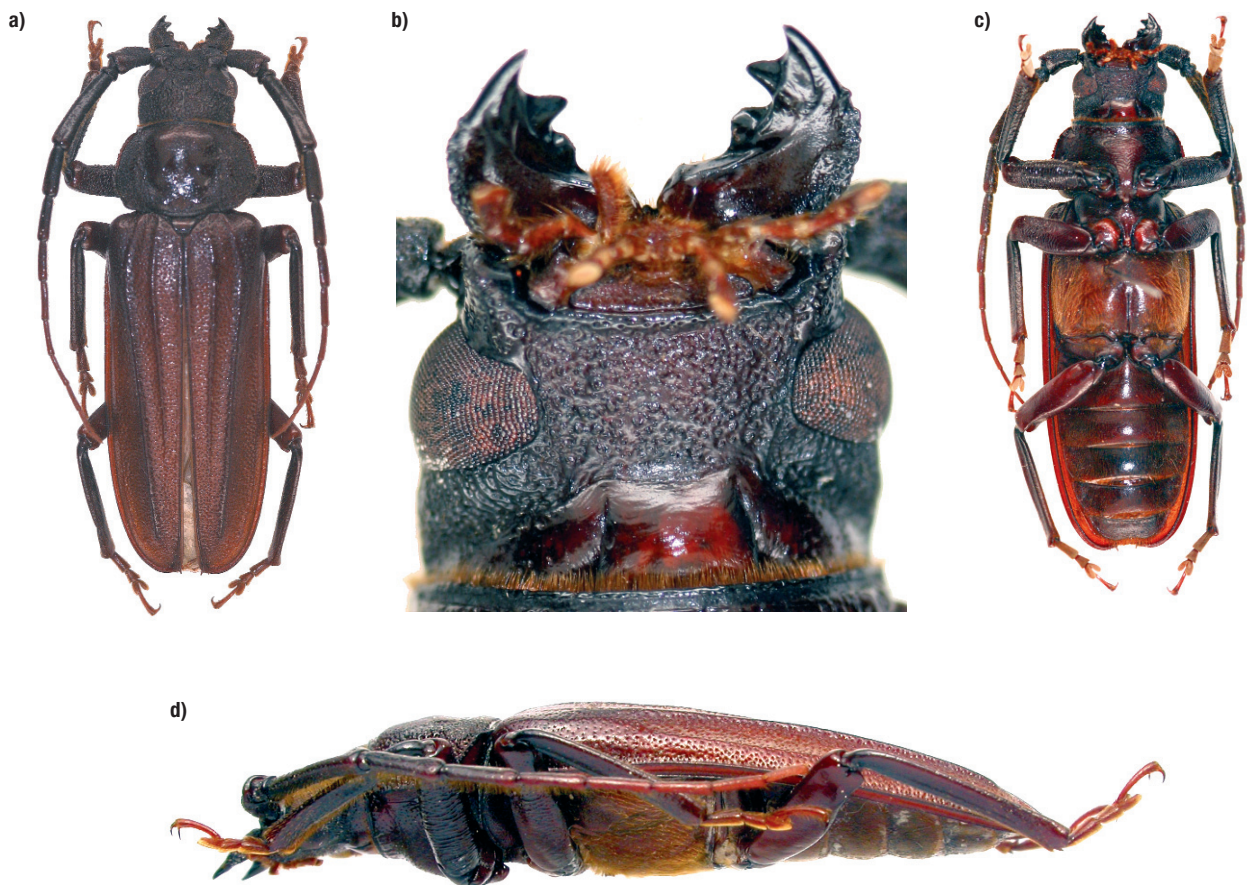


Figure 2. *Seticeros granulocephalus* new species, holotype male: a) dorsal habitus; b) head, ventral view; c) ventral habitus; d) lateral habitus.

que area with pilosity long and sparse, except at base of central projection, where the pilosity is more abundant. Area behind lower ocular lobes punctate-grainy, with oblique furrow, broad and well marked, separating it from the gula and of base of hypostomal area.

Distance between upper ocular lobes equal to 0.8 times the length of scape. Distance between lower ocular lobes (Fig. 2b) equal to 1.2 times the length of scape. Hypostomal area grainy (Fig. 2b); anterior region with transversal and shallow sulcus, more distinct centrally; pilosity short and sparse, intermixed by long and erect hairs. Genae with apex wide, smooth on the area close to lower ocular lobes, and coarsely, confluent punctate in the remainder (more abundant on apical third).

Dorsal surface of mandible punctate-grainy on basal third and punctate in the remainder (punctures deep and moderately coarse); outer lateral very coarsely, deeply, abundantly and confluent punctate; inferior margin of outer lateral with small tooth at base of api-

cal tooth (Fig. 2b); apex bifurcated (bifurcation distinctly broader in right mandible); inner margin with large, wide tooth obliquely truncated at apex, placed centrally; pilosity moderately short and erect, more abundant and long laterally.

Antennae (Figs. 2a,c,d) reaching the apical fourth of elytra; length equal to 1.25 times the elytral length; scape as long as half of length of antennomere III, with somewhat acute granules on outer lateral, and confluent punctate on dorsal face, mainly at basal third, where there are some granules; antennomere III finely, sparsely punctate on dorsal face, and sparsely granulated laterally (more abundant at outer lateral); antennomere IV just longer than V, and just longer than half of III; antennomere V little longer than VI and VII, that are subequal in length; antennomeres VIII and IX subequal in length, and just longer than VII; antennomere X little longer than IX; antennomere XI approximately as long as V.

Thorax: prothorax (Figs. 2a,c) 1.5 times wider than long. Central region of pronotum with two large callo-

sities, low and elongated, finely and sparse punctate (anteriorly more abundant); laterally punctate-grainy; pilosity long and sparse, present only laterally. Prosternum strongly convex, sparsely granulated laterally, and slightly striated on central region; pilosity very short and sparse. Prosternal process (Fig. 2d) wide, with lateral margins blackish and moderately elevated; apex just surpassing the procoxae, centrally with rounded lobe. Mesothorax: mesosternal process (Fig. 2c) longitudinally excavated, except at apical fourth, where it is tumid. Metathorax: metepisterna finely, abundantly punctate; pilosity long and very abundant; metasternum laterally microsculptured; pilosity long and very abundant, except along metasternal suture, where it is smooth and glabrous.

Abdomen: ventrites with pilosity short, decumbent and moderately abundant in throughout surface, mainly laterally; lateral finely punctate-rugose, gradually becoming finely and sparsely punctate towards middle.

Dorsal view: scutellum smooth and glabrous. Elytra (Figs. 2a,d) glabrous, moderately coarsely, abundantly punctate, more sparsely towards suture and scutellum; each elytron with three ridges, of which the central one is more distinct, not fused at their apex; apex with sutural spine very distinct.

Discussion

Seticeros granulocephalus new species differs from the males of *S. aquilus* (Thomson, 1865): length of head + prothorax equal to twice of elytral length (Fig. 2a); epistoma not excavated centrally, and not coplanar with it; the dorsal area of head, between antennal tubercles and epistoma with granules; scape granulate on outer lateral; mandibles with small tooth at outer face close to base of apical tooth; hypostomal area grainy; central area of pronotum with finer punctures; elytra dark-brown; first and second elytral ridges not fused at their apex; spine of elytral sutural apex fine and longer; pubescence of ventrites more abundant; metatarsi proportionally shorter (length equal to about half of length of metatibiae). In *S. aquilus*: length of head + prothorax equal to 2.5 times elytral length (Fig. 3); epistoma centrally excavated, and coplanar with it; dorsal area of head, between antennal tubercles and epistoma without granules; scape not grainy on outer lateral; mandibles without small tooth at outer lateral; hypostomal area punctate and not grainy; elytra brown or reddish; first and second elytral ridges fused at their apex; spine

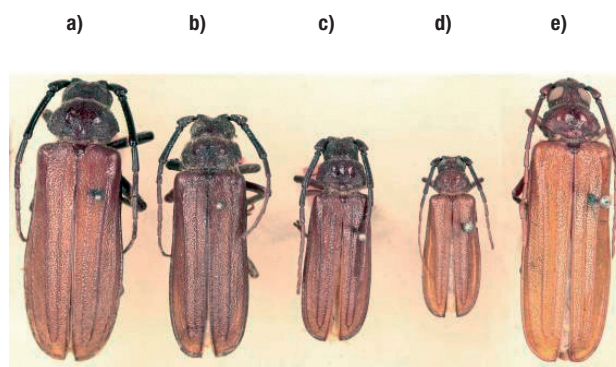


Figure 3. *Seticeros aquilus* (Thomson, 1865). a) Lectotype male; b-e) paralectotypes. Photos courtesy of Gérard L. Tavakilian (Photographer: Pierre Buirette).

of elytral sutural apex coarse and, usually, shorter; pubescence of ventrites more sparse; metatarsi proportionally longer (length equal to about 0.65 times the length of metatibiae).

Etymology. Latin, granulo = particle, grain; cephalus = head. Allusive to the distinctive sculpture of the head.

Key to the species of *Seticeros*

1. Profemur strongly sculptured. Males..... 2
Profemur smooth or almost smooth. Females (except *S. granulocephalus* new species)..... 4
- 2(1) Prothorax laterally not rounded. Bolivia.....
..... *S. tunupai* Perger & Santos-Silva, 2010
Prothorax laterally rounded..... 3
- 3(2) Elytra as long as twice the length of the head + prothorax; scape with granules on outer lateral. Costa Rica..... *S. granulocephalus* new species
Elytra 2.5 times longer than head + prothorax; scape without granules on outer lateral. Colombia..... *S. aquilus* (Thomson, 1865)
- 4(1) Sutural angles of elytra with spine long and fine; labrum not coplanar with epistoma.... *S. tunupai*
Sutural angles of elytra just projected or with spine short and coarse; labrum coplanar with epistoma..... *S. aquilus*

Acknowledgements

To Dr. Stéphane Boucher (MNHN) for his effort to locate the syntypes of *Anacanthus aquilus* in the MNHN (ex-Collection Thomson) and to Dr. Gérard

Luc Tavakilian (MNHN) for providing photos of the specimens. To biologist Francisco Durán Alvarado, for his interest and scientific curiosity, when collected the specimen that became the holotype of the new species here described. To Pilar Moulaert Quirós revising and correcting the English version of the article.

References

- AUDINET-SERVILLE J.G., 1832. Nouvelle classification de la famille des longicornes. Annales de la Société Entomologique de France (1)1, 118-201.
- GISTEL J.N.F., 1848. Naturgeschichte der Thierreiche für höhere Schulen. Hoffmann, Stuttgart. 216 pp. [In German].
- MONNÉ M.A., 2006. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical Region. Part III. Subfamilies Parandrinae, Prioninae, Anoplodermatinae, Aseminae, Spondylidinae, Lepturinae, Oxypeltinae, and addenda to the Cerambycinae and Lamiinae. Zootaxa 1212, 1-244.
- PERGER R., SANTOS-SILVA A., 2010. A new genus and species of Callipogonini, the description of the male of *Strongylaspis boliviana* Monné & Santos-Silva, 2003 and a new distributional record for *Chorenta reticulata* (Dalman, 1817) (Coleoptera, Cerambycidae, Prioninae). Zookeys 48, 29-38.
- THOMSON J., 1865. Diagnoses d'espèces nouvelles qui seront décrites dans l'appendix du systema cerambycidarum. Mémoires de la Société Royale des Sciences de Liège 19, 541-578. [In French].
- THOMSON J., 1878. Typi cerambycidarum Musei Thomsoniani. E. Deyrolle, Paris. 21 pp.
- WHITE A., 1855. Catalogue of the coleopterous insects in the collection of the British Museum. Longicornia 2. British Museum, London, 8, 175-412.