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A NEW SPECIES OF *PETREJOIDES* FROM GUATEMALA AND  
 COMMENTS ON *PETREJOIDES MICHOCANAE*  
 (COLEOPTERA: PASSALIDAE)

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ABSTRACT

*Petrejoides caralae* **New Species** is described from wet lowland forest of eastern Guatemala (450-950 m altitude). The aedeagus of *Petrejoides michoacanae* Schuster is described.

Key Words: Aedeagus, Mexico.

RESUMEN

Se describe *Petrejoides caralae* **Nueva Especie** de bosque húmedo de tierras bajas, del este de Guatemala, entre 450-950 metros de altitud. Se describe el eedeago de *Petrejoides michoacanae* Schuster.

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Only two of the 18 previously described species of *Petrejoides* are known from below 1000 m altitude (Schuster 1991). Here we describe a new species from a wet, lowland forest of two isolated mountains of eastern Guatemala (Fig. 1). We also comment on the holotype of *Petrejoides michoacanae* Schuster and describe the aedeagus.

*Petrejoides caralae* Cano & Schuster **NEW SPECIES**  
 Figures 2, 3

Description

Head: anterior border of labrum concave, anterior angles rounded. Clypeus inclined, short (anterior-posterior), rectangular, anterior border linear slightly arcuate, anterior angles rounded and directed downward, smooth and brilliant. Frontoclypeal suture slightly arcuate. External tubercles distinct, rounded.

Frontal area short, without inner tubercles. Frontal ridges poorly marked. Frontal fossae glabrous or with 1-2 setae. Median frontal structure of "falsus" type (see Reyes-



Fig. 1. Distribution of *Petrejoides caralae* **New Species**. Square = Sierra de Caral, circle = Cerro San Gil. Elevations: 0-500 m = irregular dots, 500-1500 m = regular dots, 1500-2500 m = horizontal lines, >2500 m = vertical lines.

Castillo 1970), center horn short with apex not free, without median longitudinal groove posteriorly; lateral ridges curved slightly forward, with terminal tubercles. Occipital groove well marked, terminating in supraorbital ridges.

Anterior 1/2 of supraorbital ridge bituberculate, posterior 1/2 not bifurcate. Anterior cephalic angle rounded. Canthus not swollen distally, apex rounded, not, or barely, reaching lateral eye margin. Dorsal width of an eye 1/8 head width.

Ligula between insertions of labial palps wide, convex or slightly convex. Lateral lobes of mentum with anterior external border rounded, whole surface punctate and pubescent, lateral border straight. Medial basal mentum bare without punctures, anterior border slightly biconvex. Hypostomal process narrow without lateral depression. Infraocular ridge indistinct, punctate and pubescent.

Mandible with only 2 apical teeth. Mandibular tooth occupies more than 1/2 mandible length. Internal teeth bifid.

Thorax: Lateral fossa of pronotum without punctations, 0-2 other punctations on lateral pronotum outside fossa. Arcuate (3 specimens) or linear (1 specimen) scars dorsally on posterior 1/3 of pronotum, 1 on each side. Pronotum with marginal groove very narrow; anterior angles rounded. Prosternum rhomboidal with posterior apex truncate.

Mesosternum mostly brilliant throughout, narrow rugose line bordering mesepisternum, without or with a few punctations, with a few hairs. Mesosternal groove lightly present. Mesepisternum not rugose, brilliant. Mesepimeron hairy.

Metasternum anterior angles pubescent. Lateroposterior sides of disk delimited by 11-38 punctations on each side; marginal fossa wide, very pubescent.

Anterior elytral profile convex; elytral striations marked uniformly with small, round, light punctations, somewhat heavier in lateral striations; junction of striations 1 and 10 with many extra punctations forming a double line, with many fine hairs.

Wings: as in *Petrejoides recticornis* (Burmeister), not reduced (see Fig. 5 in Castillo & Reyes-Castillo (1984)).

Legs: Femur I with anterior-ventral groove almost absent or slightly marked. Tibia II with long dorsal ridge.

Abdomen: Marginal groove complete around last sternite.

Aedeagus: Median lobe large and globose, with many pigment punctations. Ventral view: parameres and basal piece not completely separated by a distinct suture, the tegmen is narrower at the base than the apex. Dorsal view: Basal piece small, all the way round.

Dimensions (mm). Total length, mandibles to tip of elytra 33-34.2,  $\bar{x}$  = 33.5, males 33-34.2,  $\bar{x}$  = 33.5, female 33.6; elytral length 18.4-18.7,  $\bar{x}$  = 18.6; pronotal length 8.1-8.6,  $\bar{x}$  = 8.4; pronotal width 10.8-11.0,  $\bar{x}$  = 10.9; humeral width 9.6-10.2,  $\bar{x}$  = 9.9; head width 7.4-7.7,  $\bar{x}$  = 7.5; aedeagal length 3.6.

#### Material Examined

Four whole specimens, including one teneral female, two almost black males and one black old male.

#### Type Material

Holotype male, **Guatemala**, Izabal Dept., Morales, Sierra de Caral, altitude 450 m., 28-X-1992, J. Monzón collector.

Paratypes: Two from same location and collection data as holotype; one from Izabal Dept., Puerto Barrios, Cerro San Gil, 950 m., VI-1993, J. Monzón.

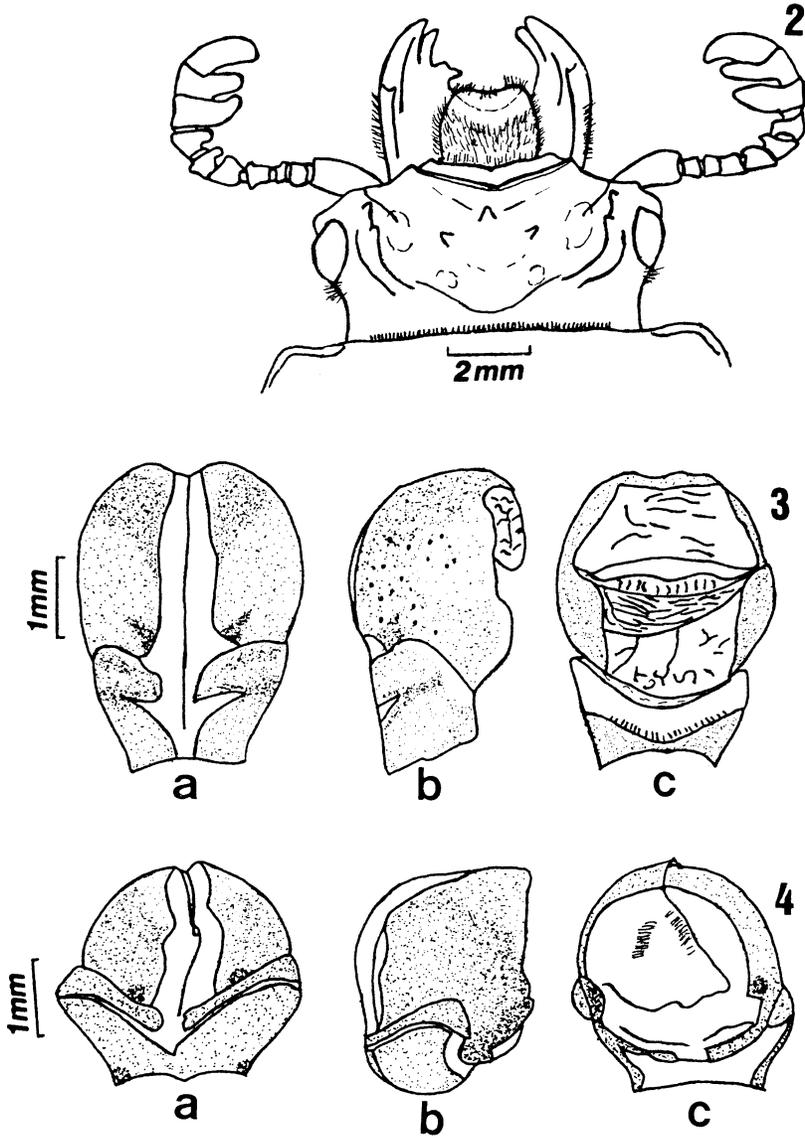
Types at present are in the Arthropod Collection of the Universidad del Valle de Guatemala. We plan to deposit paratypes in the collection of the Instituto de Ecología, Xalapa, Mexico and in the Natural History Museum of Paris.

#### Etymology

Refers to the mountain from which 3 of the 4 specimens are known, Sierra de Caral, Guatemala.

#### Distribution

Known from a wet, lowland forest of two mountains of eastern Guatemala, the Sierra de Caral near the Guatemalan-Honduran border, and Cerro San Gil near Puerto Barrios (Fig. 1).



Figs. 2-4. 2 - *Petrejoides caralae* **New Species** dorsal view of head, 3 - *Petrejoides caralae* **New species**: 3a, aedeagus, ventral view; 3b, aedeagus, lateral view; 3c, aedeagus, dorsal view. 4 - *Petrejoides michoacanae* Schuster: 4a, aedeagus, ventral view; 4b, aedeagus, lateral view; 4c, aedeagus, dorsal view.

At present, apparently no gene flow occurs between these two areas. Sierra de Caral and Cerro San Gil are separated by the wide, lowland valley of the Motagua

river. This valley could have been easily crossed during glacial times when montane forests were lower (MacVean & Schuster 1981).

Other species found at the collection sites in the Sierra de Caral include: *Verres corticicola* (Truqui), *Passalus jansoni* (Bates) and *Passalus punctiger* Lepeletier and Serville. On Cerro San Gil, they include: *Proculus opacipennis* (Thompson), *Popilius eclipticus* (Truqui), *Passalus caelatus* Erichson, *Odontotaenius striatopunctatus* (Perch.) and *Paxillus leachi* MacLeay.

#### Affinities

*P. caralae* is the largest species of *Petrejoides*. It seems most related to *P. michoacanae* Schuster. These species are in the "reticornis" group of Castillo & Reyes-Castillo (1984). *P. caralae* can be differentiated from other *Petrejoides* by the following modification in the key of Schuster (1991):

- 8(7') Mandible with 2 apical teeth, pronotum with a pair of dorsal scars posteriorly; frontal fossae glabrous or with 1-2 setae, metasternum with lateral fossae wide, juncture of elytral striae 1-10 with many fine hairs ..... *Petrejoides caralae* **New species**
- 8' Mandible with 3 apical teeth. Pronotum without dorsal scars posteriorly; frontal fossae pubescent; metasternum with lateral fossae narrow, junction of elytral estriae 1-10 glabrous ..... *Petrejoides michoacanae* Schuster

#### *Petrejoides michoacanae* Schuster

Schuster (1991) describes this species based on one specimen from Michoacán, México. On reviewing the holotype, we noted that the humeral width is 9.9 mm, not 6.3 mm, and it is male. The aedeagal description is as follows (Fig. 4):

Ventral view: Aedeagus asymmetrical, almost as long as wide, 2.68 mm long. Median lobe almost as long as tegmen. Tegmen divided, narrower at the base than at the apex; lateral lobes more short than basal piece. Dorsal view: Median lobe and basal piece with the sclerotized area lightly visible.

#### ACKNOWLEDGMENTS

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