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PETREJOIDES REYESI SP. NOV. (COLEOPTERA: PASSALIDAE) FROM HONDURAS

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ABSTRACT

Petrejoides reyesi sp. nov. is described from cloud forest above 1870 m on La Tigra Mountain near Tegucigalpa. This is the first record of this genus from Honduras. It is apparently closely related to *P. guatemalae* Reyes-Castillo and Schuster from the mountains of western Guatemala.

RESUMEN

Se describe *Petrejoides reyesi* sp. nov. del bosque nebular situado por arriba de 1870 m en Cerro La Tigra cerca de Tegucigalpa. Esta es la primera cita del género para Honduras. Aparentemente, está muy relacionada con *P. guatemalae* Reyes-Castillo y Schuster de las montañas del oeste de Guatemala.

Passalids are large, glossy black beetles common in most moist tropical forests (Schuster 1978). Surprisingly, many species remain undescribed. In part, this is probably due to their occupation of rotting logs, a habitat most collectors don't examine thoroughly; most collectors don't carry an ax. Also, most of the undescribed species are from isolated locations, especially mountain tops.

Petrejoides was recently monographed by Castillo and Reyes-Castillo (1984). It includes 12 described species, 9 of which are found only in Mexico north of the Isthmus of Tehuantepec. Of the 3 Central American species, 1 occurs in Guatemala, 1 in El Salvador and Costa Rica, and 1 in Costa Rica and Panama. The genus is unknown from Nicaragua and Honduras. The following new species is described from 12 complete specimens and a few pieces collected in 1 day on La Tigra Mountain in Honduras.

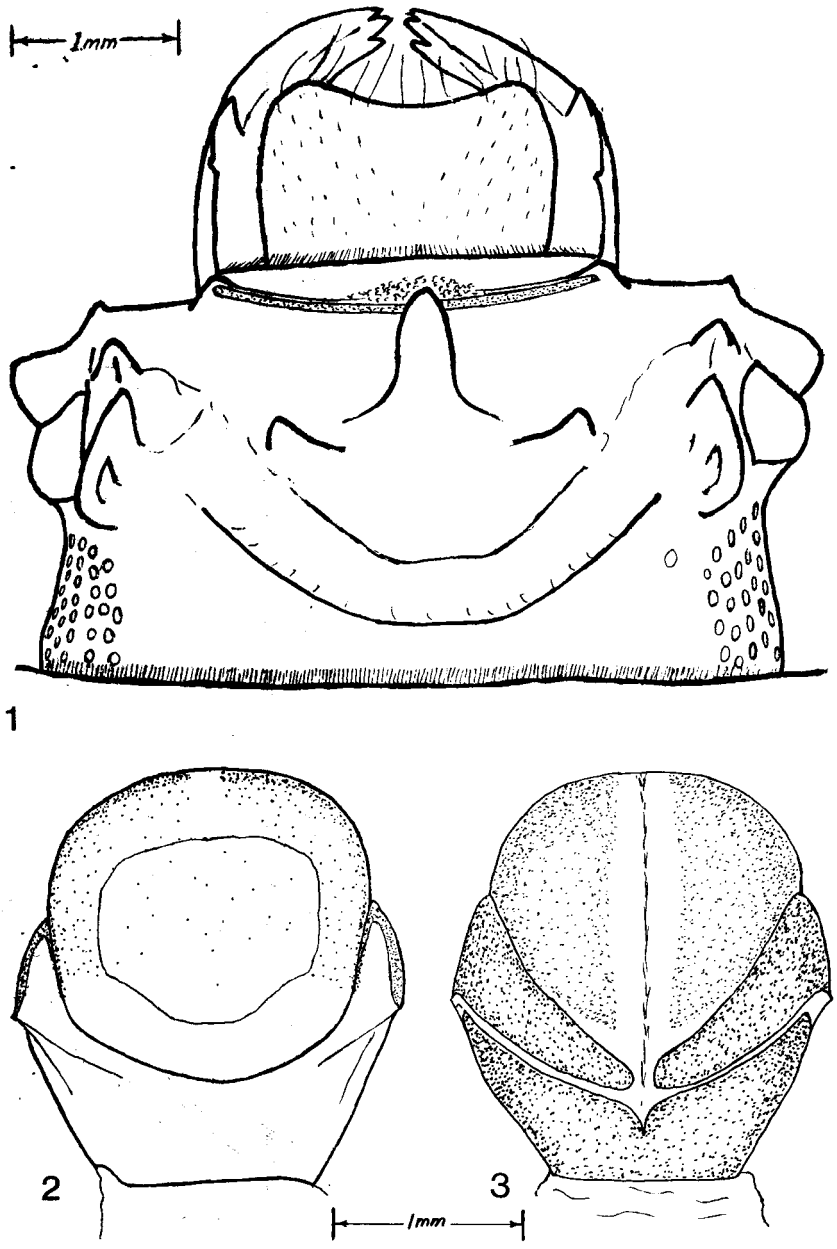
Petrejoides reyesi Schuster **nov. sp.**[1]

Figures 1–3

Description. *Head.* Anterior border of labrum concave, anterior angles rounded, without much pubescence mid-anteriorly. Clypeus inclined, not quite trapezoidal, frontoclypeal suture curved (Fig. 1), well marked throughout; anterior border sublinear, median indentation present (absent in some specimens), anterior angles sharp and directed downward; smooth and brilliant except for a rugose posterior median area (Fig. 1). External tubercles large, rounded, directed forward.

Frontal area short (though not as short as in *P. guatemalae* Reyes-Castillo and Schuster), without frontal ridges or inner tubercles. Frontal fossae glabrous. Median frontal structure of "falsus" type; center horn elongate with pointed apex reaching clypeus, without median longitudinal groove or, if present, only in basal ¼; lateral ridges curved

[1] For specialized terminology see Reyes-Castillo (1970).



Figs. 1–3. *Petrejoides reyesi* sp. nov. 1, dorsal view of head. 2, aedeagus, dorsal view. 3, aedeagus, ventral view.

slightly forward, terminal tubercles rounded, pronounced. Occipital groove well marked, concave, terminating in frontal fossa.

Anterior ½ of supraorbital ridge bituberculate; posterior ½ bifurcate. Anterior cephalic angle rounded or slightly protruding. Canthus swollen distally with apex rounded, protruding slightly beyond lateral border of eye. Eyes small, dorsal width of an eye $\frac{1}{10}$ head width.

Ligula between insertions of labial palps wide, flat, pubescent. Lateral lobes of mentum with anterior external border rounded, whole surface pubescent, lateral border straight. Medial basal mentum with setae more abundant on posterior margin, anterior border usually biconvex. Hypostomal process narrow, without lateral depression. Infraocular ridge long, smooth, glabrous, widened anteriorly.

Superior and median apical teeth of mandible protruding beyond inferior tooth. Dorsal tooth occupies more than ½ length of mandible. Internal tooth of left mandible bifid.

Thorax. Lateral fossa of pronotum with 1–6 punctations, 0–3 punctations in lateral pronotum outside fossa. Pronotum with marginal groove narrow, with punctations; anterior angles rounded. Prosternum rhomboidal with posterior apex truncated.

Lateral margins of mesosternum opaque. Mesosternal shield with few punctations.

Metasternum glabrous with a small group of punctations (less than 35 on each side) delimiting the lateroposterior sides of disc; marginal fossa very narrow, glabrous or with scarce, short setae and weak punctations.

Anterior elytral profile convex; elytral striations marked uniformly with small, light punctations, somewhat heavier in lateral striations; junction of striations 1 to 10 with extra punctations giving the appearance of 2 rows in places.

Wings. Partially reduced, not as extremely reduced as *P. jalapensis* (Bates) (Castillo and Reyes-Castillo 1984). Medius still well developed but without bend seen in *P. recticornis* (Burmeister) (Castillo and Reyes-Castillo 1984) and *Odontotaenius disjunctus* (Illiger) (Hermann and Anderson 1974).

Legs. Femur I with anterior-ventral groove distinctly marked for ⅘ of anterior border; posterior ½ of ventral face pubescent; dorsal ridge extends total length of tibia II, with 2 rows of setae same length as that of lateral border.

Abdomen. Marginal groove occupies only median of last sternite, though sometimes weakly complete. Form and coloring of aedeagus given in Figures 2, 3.

Dimensions (mm). Total length, mandibles to tip of elytra 27.5–31, $\bar{x}$ = 29.1, males 28–31, $\bar{x}$ = 29.5, females 27.5–30, $\bar{x}$ = 28.8; elytral length 14.6–16.5, $\bar{x}$ = 15.5; pronotal length 6.9–8.0, $\bar{x}$ = 7.4, head width 5.9–6.6, $\bar{x}$ = 6.2; pronotal width 8.7–10.4, $\bar{x}$ = 9.5, humeral width 8.1–9.6, $\bar{x}$ = 8.8. This species, and *P. guatemalae,* are the largest members of the genus.

MATERIAL EXAMINED. Twelve whole specimens, including 5 males, 6 females, and 1 of unknown sex, as well as assorted pieces of adults, four third instar larvae (head widths: 4.3, 4.4, 4.4, 4.5 mm) and 1 second instar (head width: 3.1 mm) were also examined.

TYPE MATERIAL. Holotype: male—HONDURAS, Francisco Morazan Dept., Cerro La Tigra [a mountain N.E. of Tegucigalpa approximately 10–15 km toward San Juancito]. 30-V-1984. Altitude 2,025 m. J. C. Schuster collector. Cloud forest. In log approximately 8 cm diameter, 50 cm long with female, 1 second and 3 third instar larvae. Female with eggs in ovaries. No other passalids in log. Field number QT-1. To be deposited in the Museo de Historia Natural de la Ciudad de Mexico.

Paratypes: 11, all from same location as holotype from elevations between 1,870 and 2,110 m. Paratypes will be deposited in the Florida State Collection of Arthropods, Gainesville, and the private collection of the author.

ETYMOLOGY. Named in honor of my good friend and eminent passalidologist Pedro Reyes-Castillo, who helped me initiate my studies of Passalidae.

LARVA. Keys to *Petrejoides* in the key to passalid genera by Schuster and Reyes-Castillo (1981) with the only difference being in the final couplet, which

separates *Pseudacanthus mexicanus* from *Petrejoides*. None of my specimens of *P. reyesi* has more than 12 anal ring setae, and the head width measured 4.3 mm in 1 specimen. Nevertheless, most lateral tergal setae are present, as mentioned in the couplet, thus separating it from *Pseudacanthus mexicanus*.

The larva is similar to those of *P. guatemalae* [= n. sp. C in Schuster and Reyes-Castillo (1981)] except that, whereas *P. guatemalae* usually have 14 anal ring setae, the *P. reyesi* specimens all have only 12 (1 specimen has 11). All the *P. reyesi* specimens have a pair of ventral abdominal setae on the ninth abdominal segment. *Petrejoides guatemalae* larvae lack 1 or both of these setae. The third instar head width ranges from 4.3 to 4.5 mm, approximately the same, or slightly smaller than that of *P. guatemalae*. The second instar head width is 3.1 mm.

The basic Proculini setal pattern of the *Chondrocephalus* group (Schuster and Reyes-Castillo 1981) is expressed with 1 pair of lateral and 1 pair of medial tergal setae on abdominal segments 1–9, 4 or 5 pairs of lateral pronotal shield setae, 2 or 3 pairs of lateral mesonotal setae, and 2 pairs of lateral metanotal setae. The coxae have 2 internal setae.

VARIATION. Junction of elytral striations 1 and 10 without the extra punctations. Longitudinal groove sometimes present in basal ¼ of center horn of median frontal structure. Ligula between bases of labial palps sometimes narrow.

DISTRIBUTION. Known only from La Tigra Mountain in Honduras between 1,870 and 2,110 m elevation in cloud forest. The cloud forest on La Tigra is above 1,850 m. Below this is a mixed pine-hardwood forest. At the high end of their altitudinal range they were the only passalids I found. At the low end, *Popilius eclipticus* (Truqui) and *Spurius dichotomus* Zang were also found in logs with *P. reyesi*. These other species are cloud forest inhabitants, though *P. eclipticus* is found in almost any kind of moist or wet forest (Schuster 1985). I have found *S. dichotomus* in cloud forest on Uyuca Mountain, south of Tegucigalpa near El Zamorano. Though *P. reyesi* was not encountered, I spent little time on the mountain. These 2 mountains are the only sites known for *S. dichotomus* in Honduras. With respect to Passalidae, the mountains of Honduras and Nicaragua are practically unexplored, so *P. reyesi* may be found in other cloud forests of the region.

AFFINITIES. *P. reyesi* show clear morphological affinities with *P. guatemalae* from the mountains of western Guatemala (Reyes-Castillo and Schuster 1983), as well as with an undescribed species from Cerro Montecristo (El Trifinio) in El Salvador. These species are in the *orizabae* group of Castillo and Reyes-Castillo (1984). *P. reyesi* can be differentiated from other *Petrejoides* by the following modifications in the key of Castillo and Reyes-Castillo (1984):

1. Posterior ½ of supraorbital ridge bifurcate. Dorsal ridge of tibia II long ..... *orizabae* group 2
1′. Posterior ½ of supraorbital ridge not bifurcate. Dorsal ridge of tibia II short, if long, then infraocular ridge absent ..... (see original couplets 6–11) *laticornis* and *recticornis* groups
2. Clypeus partially rugose and opaque, trapezoidal or almost trapezoidal with frontoclypeal suture curved. Internal tubercles absent 3
2′. Clypeus smooth and glossy throughout, rectangular. Internal tubercles present ..... (see original couplets 3–5) 4 species
3. Clypeus trapezoidal, rugose and opaque throughout except for narrow glossy anterior margin; frontoclypeal suture indistinct medially. Lat-

eral ridges of median frontal structure at right angles to longitudinal body axis. Femur I with anterior-ventral groove indistinct or absent. Body length 24.5–32.0 mm. Guatemala ..... *P. guatemalae* Reyes-Castillo and Schuster

3′. Clypeus almost trapezoidal, rugose and opaque only in posterior-medial area; fronto-clypeal suture curved and distinct throughout. Lateral ridges of median frontal structure curve slightly forward. Femur I with anterior-ventral groove distinct. Body length 27.5–30.0 mm. Honduras ..... *P. reyesi* nov. sp.

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