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**PETREJOIDES SALVADORAE SP. NOV. (COLEOPTERA:
PASSALIDAE) FROM EL SALVADOR**

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ABSTRACT

Petrejoides salvadorae sp. nov. is described from cloud forest at 2300m (El Trifinio). It is closely related to *P. reyesi* Schuster from Honduras.

RESUMEN

Se describe *Petrejoides salvadorae* sp. nov. de bosque nebuloso a 2300m altura (El Trifinio). Muestra parentesco cercano a *P. reyesi* Schuster de Honduras.

In the recent description of *Petrejoides reyesi* (Schuster 1988), I mentioned the existence of a similar, undescribed species from Cerro Montecristo (El Trifinio), El Salvador. At that time I had hesitated to describe it, having seen only 1 specimen. Since then I have seen 2 more specimens, all very similar, herein described (for specialized terminology see Reyes-Castillo, 1970).

Petrejoides includes 13 described species (Castillo & Reyes-Castillo 1984, Reyes-Castillo & Schuster 1983, Schuster 1988). Only 4 are known from south of the Isthmus of Tehuantepec; only 1, *P. subrecticornus* (Kuwert), from El Salvador. This latter species is cited from Guatemala, El Salvador and Costa Rica (Castillo & Reyes-Castillo 1984). Nevertheless, Guatemala and El Salvador are each represented by only 1 specimen, both collected in the last century. I have collected for 13 years in Guatemala and have not seen this species (Schuster 1985). It could, however, exist in wet Caribbean lowland forests similar to the Caribbean lowland forests of Costa Rica where it is most abundant (Castillo & Reyes-Castillo 1984). In Costa Rica, it is found from sea level to 800m altitude.

Petrejoides salvadorae sp. nov.

Fig. 1

Head. Anterior border of labrum very concave, anterior angles only slightly rounded; behind anterior border is a glossy, bare concavity similar to that of *Verres*. Clypeus inclined, almost trapezoidal, the fronto-clypeal suture straight mesally (Fig. 1), well marked throughout; anterior border sublinear, a slight median indentation present in at least 1 specimen, anterior angles sharp and directed downward; rugose throughout or partially smooth along anterior border. External tubercles large, rounded and directed forward.

Frontal area short, without frontal ridges or inner tubercles. Frontal fossae glabrous or with few hairs. Median frontal structure of the "falsus" type; center horn elongate with pointed apex almost reaching clypeus, without median longitudinal groove; lateral ridges at right angles to median horn, terminal tubercles rounded and pronounced,

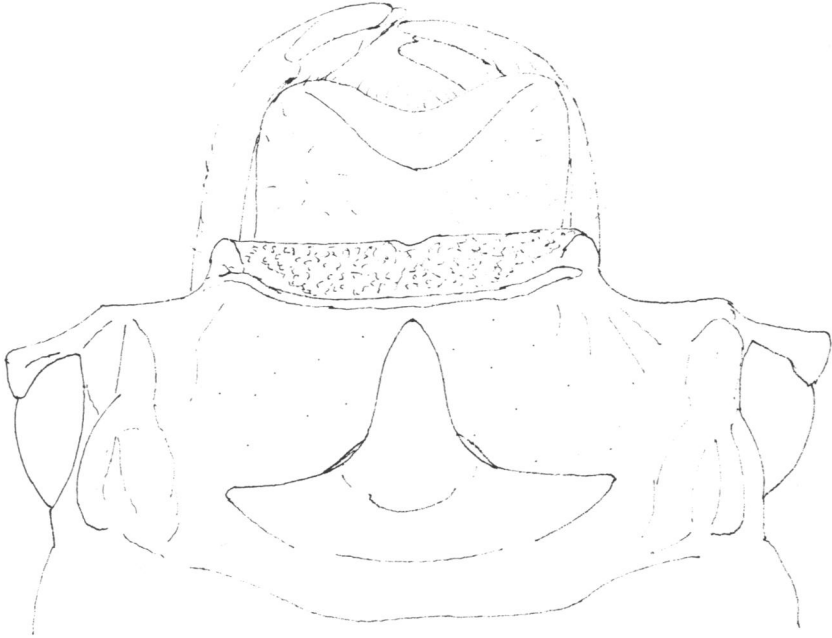


Fig. 1. Head, holotype of *Petrejoidea salvadorae*. Dorsal view.

more "massive" and elevated more posteriorly than in *P. reyesi*. Occipital groove well marked, concave and terminating in frontal fossa.

Anterior 1/2 of supraorbital ridge bituberculate, posterior 1/2 bifurcate. Anterior cephalic angle rounded or slightly protruding. Canthus swollen distally with apex rounded, protruding slightly beyond lateral border of eye. Eyes small, the dorsal width of an eye 1/13 - 1/14 head width.

Ligula between insertions of labial palps slightly protruding, pubescent with punctations. Lateral lobes of mentum with anterior external border rounded, whole surface punctate and pubescent, lateral border straight. Medial basal mentum with setae and punctations more abundant on posterior margin, anterior margin convex, not biconvex. Hypostomal process narrow, without lateral depression. Infraocular ridge smooth, glabrous, widened anteriorly.

Superior and median apical teeth of mandible protruding beyond inferior tooth. Dorsal tooth occupies more than 1/2 mandible length. Internal tooth of left mandible bifid.

Thorax. Lateral pronotal fossa without punctations. Marginal pronotal groove narrow, without punctations laterally, a few punctations anteriorly. Prosternum rhomboidal, posterior apex truncated though narrower than in *P. reyesi*.

Lateral margins of mesosternum rugose opaque. Mesoternal shield with few or no punctations. Anterior angles of metasternum pubescent. Metasternal disc delimited by 26 to 39 punctations in each lateral posterior side. Marginal fossa very narrow, glabrous or with scarce, short setae and weak punctations.

Anterior elytral profile convex; elytral striations marked uniformly with punctations, somewhat heavier in lateral striations. Punctations distinctly heavier than those of *P. reyesi*.

Legs. Femur I with anterior-ventral groove distinctly marked for at least 4/5 of anterior border, posterior 1/2 of ventral face pubescent. Dorsal ridge covered with hair, extends total length of tibia II.

Abdomen. Marginal groove of last sternite complete.

Dimensions (mm). Total length, tip of mandibles to tip of elytra 26.0-218.4, \bar{x} = 27.6; elytral length 14.8-16.0 \bar{x} = 15.4. This species. *P. reyesi* and *P. guatemalae* are the largest members of the genus.

Materials examined. Three specimens:

Holotype: EL SALVADOR, Metapán, Co.: Miramundo, Hda. Montecristo, 16-IV-1972, Altitude 2300, S. & L. Steinhauser, (collectors #3050), cloud forest. Deposited in the Florida State Collection of Arthropods, Gainesville, Florida.

Paratypes: 1) same location and collection data, 29-IV-1972, #3069. In my collection temporarily. Will be deposited with holotype.

2) "Trifinio." (This refers to essentially the same area as the other specimens). 27-VII-1960. Deposited in the Instituto de Ecología, Xalpa, Mexico.

Etymology. Refers to the country from which the only specimens are known, El Salvador.

Distribution. Known only from the Trifinio area of El Salvador near the juncture of that country with Guatemala and Honduras. This is an isolated montane cloud forest area with other endemic passalid species, e.g., *Ogyges politis* (Hincks). Except for passalids collected at Trifinio, most passalids known from El Salvador are lowland species (Hincks 1953). Hopefully, other high mountain areas can be explored before rampant deforestation leads to extinction of undescribed species.

Affinites. *P. salvadorae* is distinctly related to *P. guatemalae* Reyes-Castillo & Schuster and *P. reyesi*, forming a coherent biogeographic unit of montane cloud forest species in northern Central America. These species are in the "orizabae" group of Castillo & Reyes-Castillo (1984). *P. salvadorae* can be differentiated from other *Petrejoides* by the following modification in the key of Castillo & Reyes-Castillo (1984):

1. Posterior 1/2 of supraorbital ridge bifurcate. Dorsal ridge of tibia II long.
 . . . "orizabae" group 2
- 1'. Posterior 1/2 of supraorbital ridge not bifurcate. Dorsal ridge of tibia II short, if long, then infraocular ridge absent .. "laticornis" & "recticornis" groups
2. Clypeus partially or totally rugose and opaque, trapezoidal or almost trapezoidal with fronto-clypeal suture curved or straight. Internal tubercles absent 3
- 2'. Clypeus smooth and glossy throughout, rectangular. Internal tubercles present 3 in C. & R-C
3. Labrum with a glabrous depression or concavity behind its mid-anterior border, clypeus totally rugose. EL SALVADOR *P. salvadorae*
- 3'. Labrum without a distinct depression behind anterior border, clypeus partially rugose 4
4. Clypeus trapezoidal rugose and opaque throughout except for narrow glossy anterior margin; fronto-clypeal suture indistinct medially. Lateral 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 mm.
 GUATEMALA *P. guatemalae* Reyes-Castillo & Schuster
- 4'. 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 27.530 mm. HONDURAS
 *P. reyesi* Schuster

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REFERENCES CITED

- CASTILLO, C., AND P. REYES-CASTILLO. 1984. Biosistemática de género *Petrejoides* Kuwert (Coleoptera Lamellicornia, Passalidae). Acta Zool. Mexicana 4: 1-84.
- HINCKS, W. D. 1953. The Passalidae (Ins. Col.) of El Salvador. Senckenbergiana (Frankfurt) 34: 29-35.
- REYES-CASTILLO, P. 1970. Coleoptera: Passalidae: morfología y división en grandes grupos; géneros americanos. Folia Entomol. Mexicana 20-22: 1-240.
- REYES-CASTILLO, P., AND J. SCHUSTER. 1983. Notes on some Mesoamerican Passalidae (Coleoptera): *Petrejoides* and *Pseudacanthus*. Coleopt. Bull. 37(1): 49-54.
- SCHUSTER, J. 1985. Pasálidos como organismos indicadores de áreas bióticas para el establecimiento de reservas biológicas. in Godoy, J. (ed.). Primer congreso nacional de biología. Memorias. Guatemala, EB-USAC, AGHN, CQFG, DB-UDV: 161-169.
- . 1988. *Petrejoides reyesi* sp. nov. (Passalidae) from Honduras. Coleopt. Bull. in press.