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**A NEW SUBGENUS AND A NEW SPECIES
OF THE GENUS *Putzeysius* FROM PERU
(Coleoptera Carabidae Trechinae)**

SUMMARY- *Trichoputzeysius* new subgenus of *Putzeysius* from Peru is described. This subgenus includes only the new species *P. caecus* and can be distinguished from the nominotypical one through the body dorsally pubescent, the eyes completely missing, the apical triangle complete and the elytral striae superficial.

RIASSUNTO - Un nuovo sottogenere e una nuova specie del Perù del genere *Putzeysius* (Coleoptera Carabidae Trechinae). Viene qui descritto *Trichoputzeysius*, nuovo sottogenere di *Putzeysius* del Perù. Questo sottogenere comprende solamente la nuova specie *P. caecus* e si distingue da *Putzeysius* s. str. per il corpo dorsalmente pubescente, gli occhi completamente assenti, il triangolo apicale completo e le strie elitrali superficiali.

INTRODUCTION

Among the material of Trechinae from South America collected by some Czech friends we found with much interest a single specimen from Peru that at first glance was impossible to attribute to any known genus. An accurate study of this specimen lead us to conclude that we were in front of an undescribed species of the genus *Putzetysius* Jeannel, 1962. This was particularly interesting, since the only species of this genus had been described long before, upon a specimen of uncertain locality from Chili and had never been met with again. Moreover our specimen was completely anophthalmous while the other species was microphthalmous. The differences were so strong that we were convinced that a new subgenus was necessary for this species. The description of the new subgenus and of the new species is the subject of this work.

***Trichoputzeysius* nov. subg.**

Diagnosis

A subgenus of *Putzetysius* of 3.9 mm, yellow-reddish, characterized by the occurrence of short but dense hair on head, pronotum and elytra, the complete lack of eyes and the occurrence of a complete apical triangle at the elytral apex.

Type species: Putzeysius coecus n. sp., herewith described.

Description

Size small (3.9 mm), micropterous; depigmented. Integument pubescent on head, pronotum and elytra.

Head large, with ocular convexity very strong. Eyes completely absent; frontal sulci deeper on vertex; three ocular setae forming a triangle: the first one just outside the frontal sulci almost in correspondence of the maximum width of the ocular convexity; the second one exactly in the frontal sulci behind the first one and the third one behind the eye scar almost at the same level of first one. Buccal parts like in the other genera of the phyletic line of *Homalodera*.

Pronotum wide, subcordiform, with wide lateral gutter and rounded, deep basal impressions.

Elytra with all striae very superficial, punctate; two large pore-punctures on interval three in the anterior half; apical triangle complete.

Aedeagus long, thin, with copulatory piece anisotopic, small and almost triangular.

Affinities

This subgenus shares with the nominotypical one most of its main characters, but the differences are important: the dorsal side of the body is completely pubescent instead of glabrous, the eyes are completely missing instead of reduced, the apical triangle is complete instead of incomplete (see JEANNEL, 1962: 596, fig. 147) and the elytral striae are superficial instead of deep and crenulate. Other minor differences have been noticed, too, but these could be only of specific value, while those here enumerated are in our opinion of subgeneric value.

Biogeographical observations

The type species of the genus *Putzeysius* was described as *Trechus quadriceps* Chaudoir, 1870 from «Pampas du Chili, env. 20° lat. S». Since then no more specimens have been captured and its habitat has not been better understood. JEANNEL wrote in 1962: «Les condition d'existence de l'espèce ne son pas connues; mais on peut affirmer qu'il s'agit certainement d'une espèce souterraine, endogé ou cavernicole». Since then the knowledge on the South American Trechini have much increased, but it seems that nothing related to this genus has ever been found.

***Putzeysius (Trichoputzeysius) coecus* n. sp.**

Diagnosis

A *Putzeysius* of 3.9 mm, yellow-reddish, similar to *P. quadriceps*, from which it mainly differs in the complete lack of eyes, the stouter body shape, the body dorsally pubescent and the complete apical triangle.

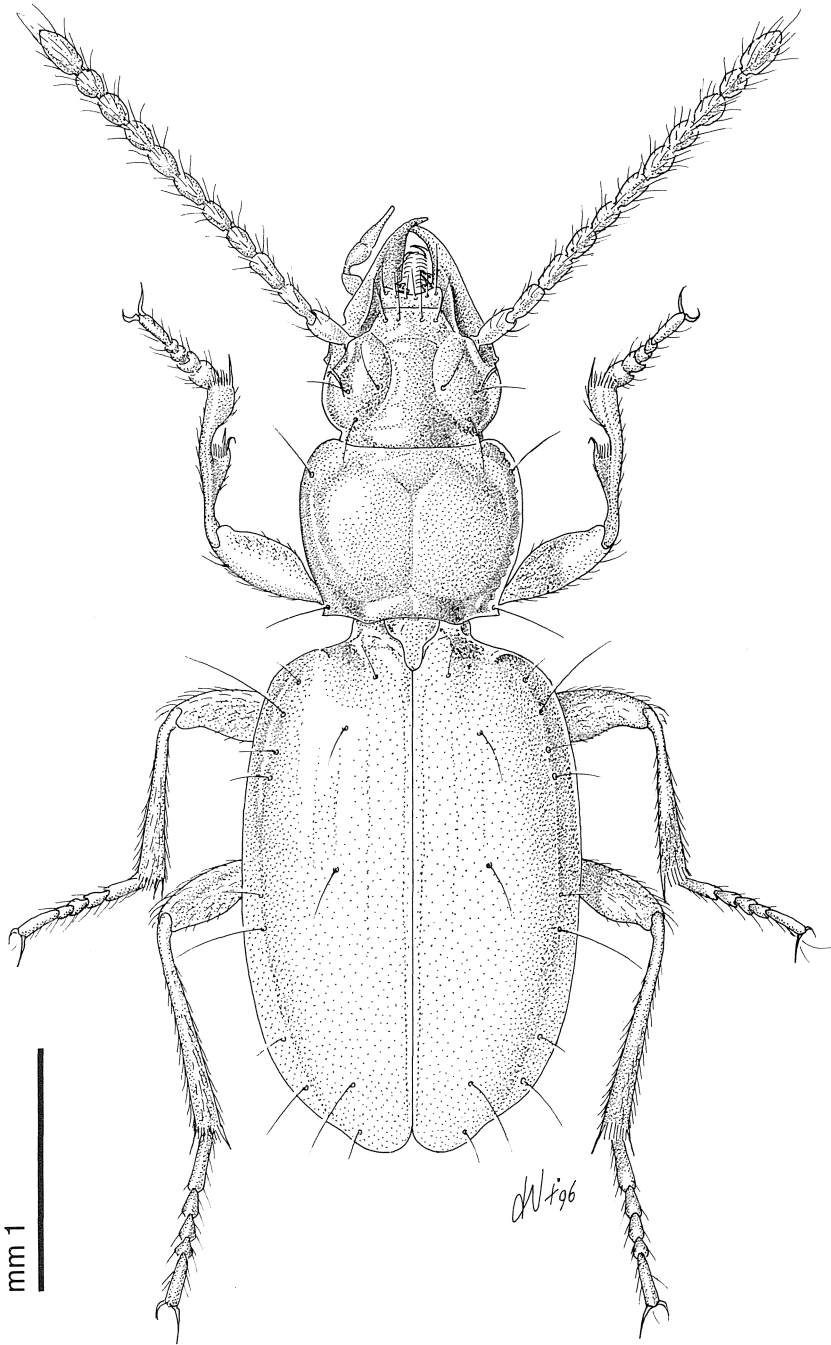


Fig. 1. *Putzeysius* (*Trichoputzeysius*) *coecus* n. sp., Holotypus, habitus.

Type locality: Peru, Cordillera, Vilcabamba, Salcantay 4200 m.

Type series: Holotypus ♂, IV.1992, Divàk leg. (Coll. Grottolo).

Derivatio nominis

This specific name alludes to the lack of eyes of the species, the first completely anophthalmous known from South America.

Description

Total length mm 3.9. Body and appendages yellow-reddish. Integument completely covered with short, dense pubescence.

Head large, wide, rounded; temples long, strongly convex; frontal sulci deep and complete; eyes completely absent, ocular scar as a curved line convex in front (fig. 2). Antennae short and stout, with apical articles less than one and one half times longer than wide. Mandibles short and weakly hooked at apex; labrum concave in the middle.

Pronotum distinctly transverse (width/length ratio = 1.3), weakly convex on disk. Sides rectilinearly constricted, then briefly and abruptly sinuate just before hind angles. Fore angles hardly prominent, hind angles acute; anterior margin almost straight, base weakly salient at sides; lateral gutter very wide and explanate; median sulcus deep and well-engraved, not reaching base nor anterior margin; basal impressions deep and wide, almost circular, well delimited. Two marginal setae on each side, the anterior one inserted at three quarters of the pronotal length, in the middle of the gutter, the posterior one in the hind angle, in the pronotal margin. Legs short and stout; protibial sulcus incomplete and superficial; tibiae externally pubescent; protarsi of ♂ with two first articles distinctly dilated but weakly asymmetrical.

Elytra short and wide (length/width ratio = 1.5), rather flat; lateral gutter very wide and explanate; humeri square, prehumeral margin perpendicular to median line. Striae very superficial, punctate; scutellar stria, recurrent stria and apical carina weakly impressed but evident. Lateral margin continuing on the base until the root of stria 5. Chaetotaxy normal, complete: two discal pore-punctures large, foveolate, on elytral interval 3 adjoining stria 3; the anterior one at the level of anterior fourth, the posterior slightly in front of the middle of elytra. Umbilicate series regular, with humeral group of four pore-punctures almost at same distance from each other.

Edeagus (fig. 3) narrow, very long, median lobe strongly bent after base; basal bulb small, sagittal carina wanting. Internal sac with small copulatory piece, very weakly sclerotized and ill-defined, distally wrapped up in a pack of scales. Parameres large, each with four long setae at apex.

Affinities

The only species of this subgenus differs from *Putzeysius quadricollis* in the characters enumerated under the description of the subgenus, therefore we will not repeat them here.

mm 0.5
2
mm 0.1
3

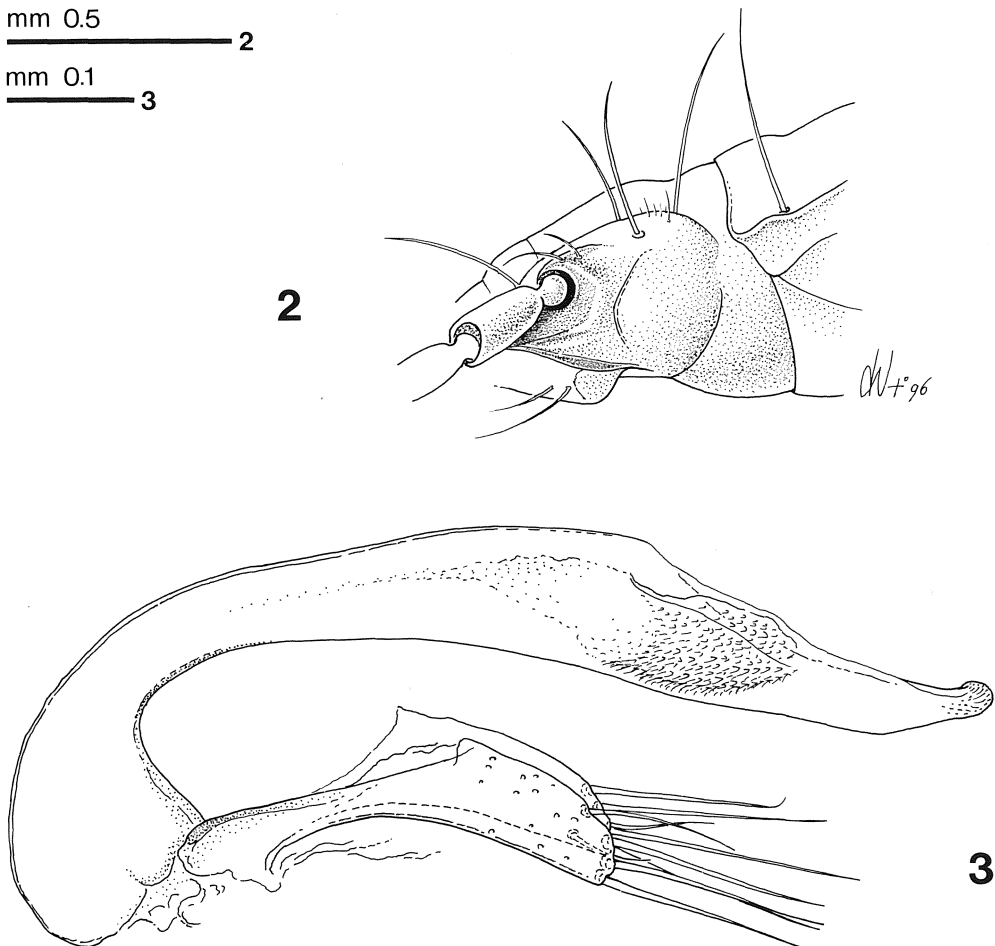


Fig. 2-3. *Putzeysius (Trichoputzeysius) coecus* n. sp.: head in lateral view (2); aedeagus and parameres (3).

Discussion

There are two characters of this species that make it so interesting among South American Trechini: the complete atrophy of the eyes and the diffused pubescence. Several species of Trechini from this biogeographic region have reduced eyes (e.g. *Trechicomimus* Mateu & Nègre, 1972, *Incatrechus* Mateu & Bellés, 1982, a few species of *Trechisibus* Motschulsky, etc.), but none of them has undergone an analogous complete reduction of eyes, that has left only a small ocular scar.

On the other hand, the body dorsally pubescent has been observed up to now, as far as we are aware, only in *Trechisibus setulosus* Mateu & Nègre, 1972 and *Incatrechus pilosus* Mateu & Bellés, 1982. Both these species are very far from *Putzeysius coecus*; the only

thing that we can observe concerning them is that *Trechisibus setulosus* Mateu & Nègre, 1972 has the protibiae distinctly pubescent and therefore can not be correctly determined with Jeannel's key (1962) or with Casale & Laneyrie's one (1982), while the key proposed by Mateu & Nègre (1972) does not include the genus *Putzeysius*. A new key to all the genera and species of South American Trechini is badly needed.

Therefore, *Putzeysius coecus* is the only species of the phyletic line of *Homalodera* presenting these two characters and is therefore easy to distinguish from all the other species from South America. It is likely that future entomological explorations will lead to the discovery of new species either of *Putzeysius* s. str. or of *Trichoputzeysius*. The areas where such a discovery is most probable are southern Peru, Bolivia or northern Chili; as far as we know these interesting areas are scarcely explored for entomological purposes but we hope that we or someone else will soon have the opportunity of visiting them.

ACKNOWLEDGEMENTS

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