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Two new species of *Oxytrechus* Jeannel, 1927 from Ecuador (Coleoptera, Carabidae)

PIER MAURO GIACHINO¹, GIANNI ALLEGRO² & COSIMO BAVIERA^{3,4}

¹*Settore Fitosanitario Regionale, Environment Park, Palazzina A2, via Livorno 60, I-10144 Torino.*

E-mail: piermauro.giachino@regione.piemonte.it

²*CRA/PLF Unità di Ricerca per le Produzioni Legnose Fuori Foresta, Strada Frassineto 35, I-15033 Casale Monferrato (AL).*

E-mail: gianni.allegro@entecra.it

³*Department of Biological and Environmental Science Messina University Viale Ferdinando Stagno d'Alcontres, 31 98166 Messina (Italy). E-mail: cbaviera@unime.it*

⁴*Corresponding author*

Abstract

Two new species of *Oxytrechus* Jeannel 1927 are described from the páramos of the Ecuadorian Andes in Pichincha province (Ecuador: Northern Sierra): *O. osellai* n. sp. from Cangahua at 3375 m a.s.l. and *O. belloi* n. sp. from Paso de la Virgen at 3515 m a.s.l.

Key words: Trechinae, *Oxytrechus*, *O. osellai*, *O. belloi*, páramo, Ecuador, neotropical fauna

Introduction

The genus *Oxytrechus* Jeannel 1927 (type species: *O. lallemandi* Jeannel, 1927) was established for three species: *O. arechavaletai* (Putzeys, 1870) from Uruguay, *O. fasciger* (Putzeys, 1870) from Chile and *O. lallemandi* Jeannel, 1927 from Ecuador (Jeannel, 1927). Only few contributions relative to this genus appeared in the following 50 years, so that Casale & Laneyrie (1982), in their catalogue of the Trechodinae and Trechinae of the world, listed only five species from the whole South America, and only *O. lallemandi* was known from Ecuador. Since 1986 a series of contributions by different authors (Mateu, 1988, 1991; Casale & Sciaky 1995; Moret, 2005; Allegro et al., 2008) increased the number of the species recorded from Ecuador to 16.

The expedition "Ecuador 2008", carried out under the auspices of the World Biodiversity Association, allowed the collection of many specimens of different Coleopteran families, among which several new taxa (eg.: Baviera et al., 2012). Among the Coleoptera Carabidae collected during this expedition we found two additional new species belonging to the genus *Oxytrechus* Jeannel 1927; their description is the object of this contribution.

Material and methods

All the specimens of the new species were collected during the expedition "Ecuador 2008" carried out under the auspices of the World Biodiversity Association. The specimens were extracted from soil litter (from 5 to 15 cm deep), first sieved through a 1 cm mesh wire sieve in order to separate larger materials, and then through a second thinner sieve (0.3 to 0.5 cm mesh); the samples of sifted litter were transported to the laboratory in individual cotton bags. Samples were either directly placed in Winkler extractors or "washed" in suitable containers, with subsequent removal of floating material by means of a sieve of 1 mm mesh, and then placed in Berlese funnels for at least 10–12 hours. In both cases the specimens extracted were examined under a binocular microscope and preserved in a mixture of alcohol and acetic acid until they were mounted dry for study.

Morphological analysis was carried out through the examination of the external morphological traits and the

Distribution and ecology. At present *O. belloi* n. sp. is only known from the type locality, Paso de la Virgen (Ecuador, Pichincha province), where it was collected by sifting soil collected under stones and tree branches on soil at the edges of a forest fragment (fig. 9). Three other *Oxytrechus* species living in sympatry with *O. belloi* n. sp. are recorded from the Páramo de Papallacta: they are *O. pichinchanus* Mateu, 1988, *O. moreti* Mateu, 1988 and *O. ecuatorianus* Mateu, 1988, which are syntopic and belong to the same species-group.

Comparative notes. We have compared type material of *O. belloi* n. sp. with specimens of the other sympatric *Oxytrechus* in the area of Papallacta Páramo, namely *Oxytrechus moreti* Mateu, 1988 (HT ♂, 1 PT ♀ from Ecuador, Prov. Napo, Pichincha, Col de Papallacta, antennas 4370 m, 5.IV.86, Pierre Moret leg. [CMA]); *Oxytrechus pichinchanus* Mateu, 1988 (HT ♂, 1 PT ♀ from Ecuador, Prov. Napo, Pichincha, Col de Papallacta, 4050–4150 m, 6.XII.84, Pierre Moret leg. [CMA]); and *Oxytrechus ecuatorianus* Mateu, 1988 (HT ♂, 1 PT ♀ from Ecuador, Prov. Napo, Pichincha, Col de Papallacta, antennas 4370 m, 5.IV.86, Pierre Moret leg. [CMA]) (figs. 4, 5–7).

O. belloi n. sp. is probably related to *O. pichinchanus* Mateu, 1988, *O. moreti* Mateu, 1988 and *O. ecuatorianus* Mateu, 1988 with regard to the slender shape of the median lobe of aedeagus, the apex more or less curved and / or like shoe-shaped; it differs from all these in the presence of a well defined copulatory piece (fig. 4), which is wanting in the other sympatric species (figs. 5–7). *O. belloi* n. sp. also differs from *O. pichinchanus* for the apex of the median lobe slightly turned upwards and more evidently shoe-shaped, as well as the pronotum less transverse; from *O. moreti* also for the apex of the median lobe shoe-shaped and the elytra more globose, less elongated; from *O. ecuatorianus* for the apex of the median lobe slightly turned upwards and the pronotum less transverse.

The complete revision of this homogeneous group of *Oxytrechus* will be the object of a more detailed contribution concerning all the Ecuadorian species, which is currently at an advanced stage of drafting (Giachino, Allegro, Moret, in prep.).

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