



<http://dx.doi.org/10.11646/zootaxa.3869.2.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:97F39EFB-42A5-49F1-B2E6-B2AEC24A8C09>

A new genus and two new species, one extant and one fossil, in the family Troctopsocidae (Psocodea: 'Psocoptera': Troctomorpha: Amphientometae: Electrentomoidea)

EDWARD L. MOCKFORD¹ & ALFONSO N. GARCÍA ALDRETE²

¹School of Biological Sciences, Illinois State University, Normal, Illinois 61790-4120, USA. E-mail: elmockf@ilstu.edu

²Departamento de Zoología, Instituto de Biología, Universidad Nacional Autónoma de México, Apartado Postal 70-153, 04510, México, D. F., MÉXICO. E-mail: anga@ib.unam.mx

Abstract

We describe a new genus, *Troctopsocoides*, in the family Troctopsocidae with two new species, *T. erwini* n. sp. (Madre de Dios, Peru) and *T. gracilis* n. sp., a fossil in amber from the Dominican Republic. We include a diagnosis of the family Troctopsocidae following a recent important change in its status and a key to the known genera of the family.

Key words: new genus, new species, Peru, Dominican Republic, amber fossil

Introduction

The family Troctopsocidae is a small group of psocids known only from the American and Asian tropics. The family, originally recognized by Roesler (1940), who gave it the preoccupied name Plaumanniidae, was given its present name, with addition of several genera by Mockford (1967). Smithers (1972) recognized the set of included genera as constituting two subfamilies, Troctopsocinae and Protroctopsocinae, and, following the addition of several more genera (Lienhard 1988; Lienhard & Mockford 1997) Lienhard & Smithers (2002) raised these subfamilies to families.

In the present paper, we describe a new genus and two new species in Family Troctopsocidae. One of the new species is an extant form from western Amazonian Peru, and the other is a fossil from the Dominican Republic amber. We include a diagnosis of the family, a key to the known genera, and a brief biogeographic discussion.

Material and methods

The material consists of the single type specimen of *Troctopsocoides erwini* n.sp., and the single type specimen of *Troctopsocoides gracilis* n.sp., the latter a fossil in amber. The type of the former will be deposited in the United States National Museum collection, Washington, D. C. That of the latter will be placed in the Paleontology Collection of the Illinois Natural History Survey, Champaign, Illinois.

Illustrations were made with the use of a drawing tube. Orientation of figures follows Mockford (1993). Measurements, expressed in μm , were made with a filar micrometer. Color descriptions are based on observations through a dissecting microscope with direct light. The color of the fossil is probably affected by the moderately strong amber color of the surrounding medium.

Abbreviations, other than the standard ones for wing veins, are explained as follows: BL= body length; for head: d= distance from innermost to outermost point on compound eye in anterior or dorsal view (see Mockford 1989, Fig. 1); D= greatest antero-posterior diameter of compound eye in dorsal view; fn= a specific antennal flagellomere (f1-f4) and its length; IO= least distance between compound eyes in anterior or dorsal view; Pn= a particular segment, 1–4, of the maxillary palpus; for legs: F= hind femur length; T= hind tibia length; t1-t3= first to third hind tarsomeres and their lengths, measured condyle to condyle; for the ovipositor: v1= the large first valvula,

specimens of Psocoptera collected by the Smithsonian Institution Canopy Fogging Project, at the Río Tambopata Reserved Zone, Madre de Dios, Peru, among which was found the type of *T. erwini*. ANGA thanks Instituto de Biología, Universidad Nacional Autónoma de México, for continuous research support.

References

- Grimaldi, D. & Engel, M.S. (2005) *Evolution of the Insects*. Cambridge University Press, New York, xv + 755 pp.
- Lienhard, C. (1988) Three new extra-neotropical species of Troctopsocidae. *Journal of Natural History*, 22, 575–587.
<http://dx.doi.org/10.1080/00222938800770391>
- Lienhard, C. & Mockford, E.L. (1997) New taxa and records of Troctopsocidae (Psocoptera). *Bulletin de la Société Entomologique Suisse*, 70, 361–385.
- Lienhard, C. & Smithers, C.N. (2002) *Psocoptera (Insecta): World Catalogue and Bibliography*. Instrumenta Biodiversitatis V, Muséum d'histoire naturelle, Genève. xli + 745 pp.
- Mockford, E.L. (1967) The electrentomoid psocids (Psocoptera). *Psyche*, 74, 118–175.
- Mockford, E.L. (1989) *Xanthocaecilius* (Psocoptera: Caeciliidae), a new genus from the Western Hemisphere: I. Description, species complexes, and species of the *quillayute* and *granulosus* complexes. *Transactions of the American Entomological Society*, 114, 265–294.
- Mockford, E.L. (1993) *North American Psocoptera (Insecta)*. *Flora and Fauna Handbook No. 10*. Sandhill Crane Press, Gainesville, FL and Leiden, The Netherlands, xviii + 455 pp.
- Roesler, R. (1940) Neue und wenigbekannte Copeognathengattungen I. *Zoologischer Anzeiger*, 129, 225–243.
- Smithers, C.N. (1972) *The classification and phylogeny of the Psocoptera*. Australian Museum Memoirs, 14, 1–349.
<http://dx.doi.org/10.3853/j.0067-1967.14.1972.424>