ENTOMOLOGICAL Communications

Entomological Communications, 1, 2019: ec01005

Scientific Note

Triplocania Roesler, 1940: new record for *Triplocania rosae* Silva-Neto, García Aldrete & Rafael, 2016 and proposal of a new infrageneric group (Psocodea, 'Psocoptera', Ptiloneuridae)

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Edited by: Nikolas Gioia Cipola

Received: July 21, 2019. Accepted: August 09, 2019. Published: December 04, 2019.

Abstract. In this work a new record for *Triplocania rosae* Silva-Neto, García Aldrete & Rafael, 2016 in the Brazilian state of Minas Gerais was made, and also a propose for a new species group in *Triplocania*, with an identification key to the species in it.

Keywords: Epipsocetae, psocids, neotropics, taxonomy.

Triplocania Roesler, 1940 is one of 12 Ptiloneuridae genera (Silva-Neto et al. 2018, González Obando et al. 2018); it is the most diverse of the family, presently including 91 described species, with 38 species known only from males, 22 species known only from females and 31 species known from both sexes. *Triplocania* is characterized by having the vein M of the hindwing unbranched and the vein M of the forewing with three primary branches, occasionally dichotomously branched, resulting in M3a and M3b (Silva-Neto et al. 2018). The type species is *Triplocania magnifica* Roesler, 1940, from Nova Teutonia, Santa Catarina, Brazil. This country is the second most species rich for *Triplocania*, with 27 species, being Colombia the most species rich country for the genus, with 47 species (González Obando et al. 2017). *Triplocania rosae* Silva-Neto, García Aldrete & Rafael, 2016, *Triplocania manueli* Silva-Neto, García Aldrete & Rafael, 2016 and *T. magnifica*, constitute an assemblage of similar species (Silva-Neto et. al. 2016a, Silva-Neto et. al. 2018); but a proposal for inclusion of these species in a species group has not been made. Recently, one of us (AMSN) found one female specimen of *T. rosae* (Figs. 1-5) collected in the Brazilian state of Minas Gerais, quite distant from the type locality, in Morretes, Paraná (Silva-Neto et al. 2016a). The purpose of this work is to record the presence of *T. rosae* in the Brazilian state of Minas Gerais, and to propose a new species group in *Triplocania*, with an identification key to the species in it.

One female specimen of *T. rosae* was available for study. It was dissected in 80% ethanol, and their parts were mounted on slides in Canada balsam. Standard measurements (in mm) were taken with a filar micrometer. The final storage of the specimen was in CD boxes, as described by Silva-Neto et al. (2016b). Photographs of the parts mounted were taken with a Leica DFC500 digital camera attached to a Leica M205C stereomicroscope, connected to a computer with the Leica Application Suite LAS V3.6 software, which includes an Auto-Montage module (Syncroscopy software). Map of species locality were made after Shorthouse (2010). The specimen studied will be deposited in the Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia, in Manaus, Amazonas, Brazil (INPA).

We propose the creation of magnifica species group, diagnosed as follows: forewing with a U-shaped band from the apex of the areola postica to the basal and distal part of pterostigma (Fig. 1). Forewing M deeply concave before its first bifurcation, areola postica low, very wide (Fig. 1), side struts proximally expanded forming a shield (Figs. 6, 7, 8); v1 stout, wider in the middle (Fig. 5). Species included: *T. magnifica*, T. manueli and *T. rosae*. The diagnostic characteristics of the magnifica species group are not present in any other *Triplocania* species.

The distribution of species group *magnifica* was restricted to three Brazilian states (Ceará, Paraná and Santa Catarina) (Fig. 14) (Silva-Neto et al. 2016a). *Triplocania rosae* was described by Silva-Neto et al. (2016a) based on two male and two female specimens collected in the Brazilian state of Paraná. The new record for the Brazilian state of Minas Gerais (municipality of Cabo Verde, 21º27'11"S: 46º20' 52"W) extends in 621 kms to the northeast the distribution of *T. rosae* (Fig. 14).

Key to Triplocania species of magnifica group

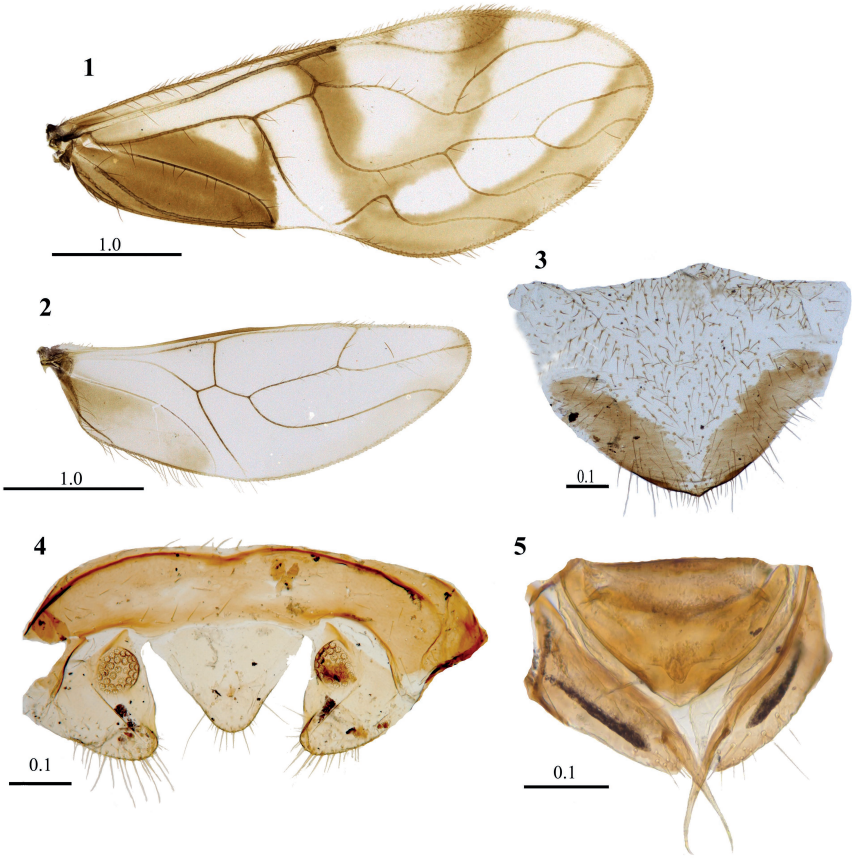
1. Hypandrium of three sclerites (Fig. 9); mesal endophallic sclerite U-shaped, wide a base and narrowing posteriorly (Fig. 6); ninth sternum almost elliptic (Fig. 12).....*T. magnifica*

-. Hypandrium of five sclerites (Figs 10, 11); mesal endophallic sclerite not U-shaped (Figs. 7, 8); ninth sternum V shaped (Figs. 5, 13) 2

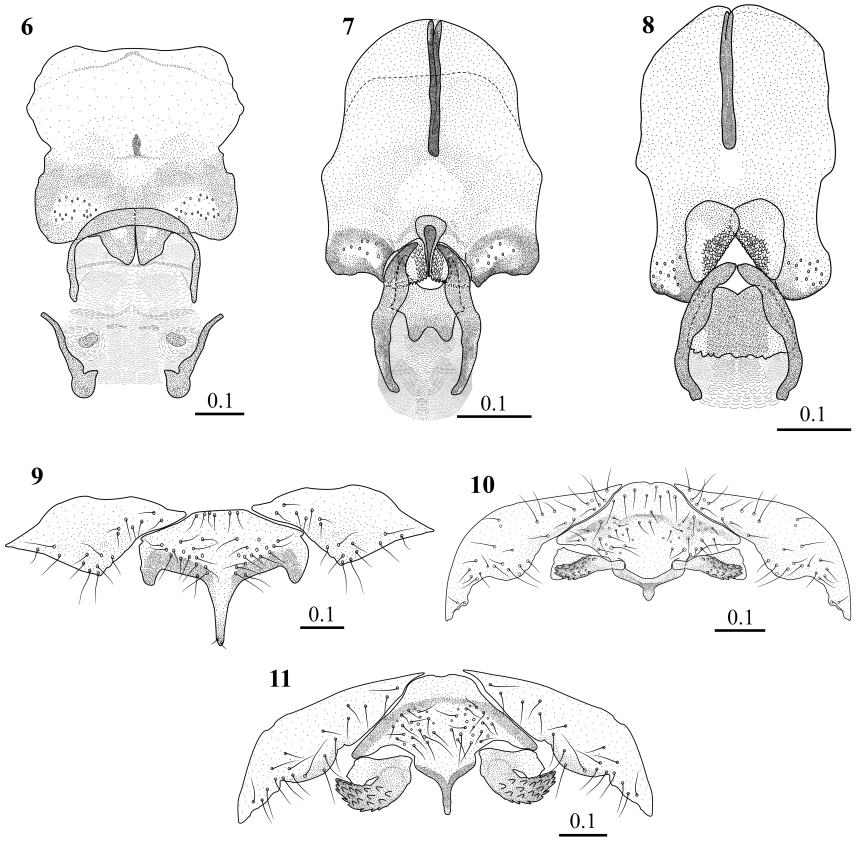
2. Hypandrium with median posterior process of the central sclerite short, posterior pair of sclerites slender, elongate, proximally overlapped over central sclerite, with field of papillae on distal half (Fig. 10); phallosome with a mesal anterior area bag shaped, mesal posterior endophallic sclerites, anteriorly and posteriorly concave, with two projections on each side, slightly curved inwards, posteriorly with two stout projections, leaving between them a small concavity (Fig. 7); ninth sternum broadly triangular, width greater than antero-posterior length (Fig. 5).....*T. rosae*

-. Hypandrium with median posterior process of the central sclerite long, posterior pair of sclerites stout, curved outwards, not overlapped over central sclerite, with field of papillae on distal half (Fig. 11); phallosome without a mesal anterior area bag shaped,

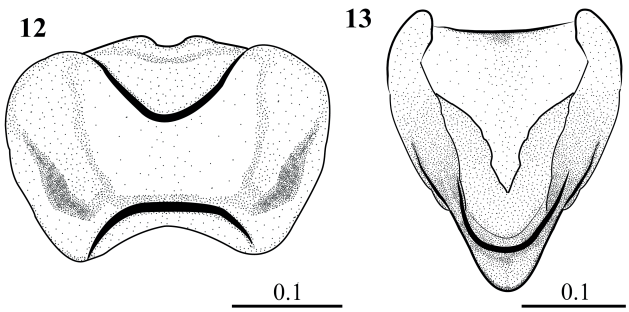
mesal posterior endophallic sclerite, anteriorly concave, with a small projection on each side, posteriorly with border jagged (Fig. 8); ninth sternum anteriorly concave, posteriorly rounded, width smaller than antero-posterior length (Fig. 13) .....*T. manueli*



Figures 1–5. *Triplocania rosae* Silva-Neto, García Aldrete & Rafael (female specimen from Minas Gerais). 1. Left forewing. 2. Left hindwing. 3. Subgenital plate in dorsal view. 4. Clunium, paraprocts and epiproct in dorsal view. 5. Ninth sternum and gonapophyses in dorsal view. Scales in mm.



Figures 6–11. Phallosome in dorsal view. 6. *Triplocania magnifica* Roesler. 7. *Triplocania rosae* Silva-Neto, García Aldrete & Rafael. 8. *Triplocania manueli* Silva-Neto, García Aldrete & Rafael. **Hypandrium in dorsal view.** 9. *Triplocania magnifica* Roesler. 10. *Triplocania rosae* Silva-Neto, García Aldrete & Rafael. 11. *Triplocania manueli* Silva-Neto, García Aldrete & Rafael. Scales in mm.



Figures 12–13. Ninth sternum in dorsal view. 12. *Triplocania magnifica* Roesler. 13. *Triplocania manueli* Silva-Neto, García Aldrete & Rafael. Scales in mm.

Figure 14. Records of the *Triplocania* species in *magnifica* group.

Acknowledgments

AMSN thanks Instituto Nacional de Pesquisas da Amazônia (INPA) for research support, particularly the Capes-INPA research grant (Process: 88887.312051/2018-00). ANGA thanks Instituto de Biología, Universidad Nacional Autónoma de México, for continuous research support.

Authors' Contributions

AMSN and ANGA identified the species, prepared the figures and wrote the manuscript.

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