



***Caetetermes taquarussu* Fontes (Isoptera, Termitidae, Nasutitermitinae): description of the imago caste and new distributional records**

CAROLINA CUEZZO, TIAGO F. CARRIJO & ELIANA M. CANCELLO

Museu de Zoologia da Universidade de São Paulo, Cx. Postal 42.494, 04218-970 São Paulo, SP, Brazil.

E-mail: carolinacuezzo@csnat.unt.edu.ar, tiagocarrijo@gmail.com, ecancell@usp.br

Caetetermes Fontes, 1981 is a monotypic South American genus of Nasutitermitinae. Its single species, *Caetetermes taquarussu* Fontes, 1981, was described based on morphological characters from soldiers and workers collected at three localities in the tropical rainforest of northeastern Ecuador. Several samples of *C. taquarussu* represented also by the imago caste were examined at the Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil (MZUSP) and the National Museum of Natural History, Washington D.C., USA (USNM). Herein, we describe the imago caste of *Caetetermes* for the first time, with notes on soldier and worker caste and new distributional records for the species.

We use the terminology of Fontes (1987) for worker mandibles, and Noirot (2001) for the digestive tube of workers. We took the measurements with a micrometric reticle in the eyepiece of a stereomicroscope Leica MZ6 for the following morphometric characters (Roonwal 1970): imagoes, LH, length of head capsule (9); WH, width of head capsule without eyes (18); OF, occipito-fontanelle distance (23); LF, length of fontanelle aperture (26); DE, diameter of eye (48); LO, length of ocellus (55); WO, width of ocellus (56); EOD, eye-ocellus distance (57); LP, length of pronotum (65); WP, width of pronotum (68); soldiers, LH, length of head with nasus (12); WH, width of head capsule (18); HH, height of head excluding postmentum (21); WP, width of pronotum (68); LH_p, the maximum length of the head capsule to the postclypeus was measured in profile as the distance between two parallels marking the hindmost margin of the head capsule and the apex of the postclypeus; workers, LH, length of head (9); WP, width of pronotum (68); all castes, LT, length of hind tibia (85). Left mandible index (LMI) as in Emerson (1960). We photographed *C. taquarussu* with a Canon S5IS digital camera mounted on a Leica MZ95 stereomicroscope, and the gizzard and the enteric valve under a microscope Leica DM500B attached to a video camera Leica DFC 295. Images were combined with Helicon Focus 5.2.11 X64. We mapped the published records (Krishna *et al.* 2013) and the locality data for the samples examined with Quantum GIS 1.7.0.

Genus *Caetetermes* Fontes

Caetetermes Fontes, 1981: 135–137; Krishna *et al.* 2013: 1544 [catalog]

Type-species. *Caetetermes taquarussu* Fontes, 1981, by original designation.

Distribution. Neotropical region (Brazil, Ecuador, French Guiana, Guyana, Suriname).

Diagnosis. Soldier, head capsule with a strong constriction behind antenna; vestigial mandibles, without point; frontal tube long and cylindrical throughout its length; convex postclypeus, forming a 45° angle with the axis of head capsule in profile; and antenna with 14 articles. Worker, mandibles with concave molar area with ridges and basal notch well-defined; digestive tube with a short mixed segment, dorsal torsion well-developed, first proctodeal segment joining the paunch at the left half of the abdomen in dorsal view.

Caetetermes taquarussu Fontes, Figs 1–16

Caetetermes taquarussu Fontes, 1981: 137–139 [soldier, figs 1–8; major worker, figs 9–19; minor worker]; Krishna *et al.* 2013: 1544 [catalog]

Mutum Paraná, Jirau, 17.iv.2010, TF Carrijo and RG Santos coll., MZUSP 15156, MZUSP 15157. *Tocantins*, Aguiarnópolis, 14-19.i.2005, RR Silva and R Silvestre coll., MZUSP 11713.

Distribution (Fig. 16). Brazil (Amazonas; Mato Grosso; Pará, *loc. nov.*; Rondônia, *loc. nov.*; Tocantins, *loc. nov.*), Ecuador, French Guiana, Guyana, Suriname, *loc. nov.*

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References

- Emerson, A.E. (1960) New genera of termites related to *Subulitermes* from the Oriental, Malagasy, and Australian regions (Isoptera, Termitidae, Nasutitermitinae). *American Museum Novitates*, 1986, 1–28.
- Fontes, L.R. (1981) *Caetetermes taquarussu*, a new genus and species of ecuadorian nasute (Isoptera, Termitidae, Nasutitermitinae). *Revista Brasileira de Entomologia*, 25, 135–140.
<http://dx.doi.org/10.1590/S0101-81751985000100002>
- Fontes, L.R. (1987) Morphology of the alate and worker mandibles of the soil-feeding nasute termites (Isoptera, Termitidae, Nasutitermitinae) from the Neotropical region. *Revista Brasileira de Zoologia*, 3, 503–531.
<http://dx.doi.org/10.1590/S0101-81751986000400003>
- Krishna, K., Grimaldi, D.A., Krishna, V. & Engel, M.S. (2013) Treatise on the Isoptera of the world. 5. Termitidae (Part two). *Bulletin of the American Museum of Natural History*, 377, 1499–1987.
<http://dx.doi.org/10.1206/377.5>
- Noirot, C. (2001) The gut of termites (Isoptera). Comparative anatomy, systematics, phylogeny. II. Higher termites (Termitidae). *Annales de la Société Entomologique de France, New Series*, 37, 431–471.
- Roonwal, M.L. (1970) Measurement of termites (Isoptera) for taxonomic purposes. *Journal of the Zoological Society of India*, 21, 9–66.