GLOSSARY – GLOSSARIO (conclusão)

Kayapó	Inglês	Português
piã-õm	plant fiber	fibra de planta
pidjo-rã-kangô	nectar	água de flor (néctar)
pĩ-tum	dead trunk	tronco morto
py	anchiote, urucu	urucu *(Bixa orellana)*
ry	long, thin	comprido, fino
tê	foot	perna, pé
tê'a-ma	affix pollen to leg	fixar o pólen na perna
te'ỹ	end of abdomen	ponta do abdômen
ùrũkwa	house	casa
wa	mandible	mandíbula
wa-i-krã	labrum	cabeça de dente (labrum)
wajabore	non-agressive	manso
wa-nhot	teeth of mandible	dente da mandíbula
wayanga	shaman	xamã (feiticeiro)
ỳr-wai-djà	invasion	invasão

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AGNATHOTERMES CRASSINASUS, NEW SPECIES OF TERMITE FROM THE AMAZON BASIN (ISOPTERA: TERMITIDAE: NASUTITERMITINAE)

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ABSTRACT – Agnathotermes crassinasus, *a new species of termite collected in primary rain forest near the town of Maraã, Japurá River, Amazonas State, Brazil, is described. Drawings of soldier head, worker mandibles and enteric valve armature are presented.*

KEY-WORDS: *Agnathotermes crassinasus,* Isoptera, Termitidae, Nasutitermitinae, Taxonomy, Termites, Japurá River.

RESUMO – Agnathotermes crassinasus, *nova espécie de cupim coletada em floresta primária próximo à cidade de Maraã, Rio Japurá, Estado do Amazonas, Brasil, é descrita. São apresentados desenhos da cabeça do soldado e das mandíbulas e armadura da válvula entérica do operário.*

PALAVRAS-CHAVE: *Agnathotermes crassinasus,* Isoptera, Termitidae, Nasutitermitinae, Taxonomia, Cupins, Rio Japurá.

INTRODUCTION

Agnathotermes Snyder, 1926, previously included in *Convexitermes,* was raised to generic level by Fontes (1982) with only one species. Fontes (1987a, b) studied the morphology of the worker mandible and digestive tube of *A. glaber,*

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and registered the existence of a dimorphic worker caste, recognizable only by the mandibles. A second species collected in the Amazon Basin is described in this paper.

Agnathotermes crassinasus, sp.n.

Type material – BRASIL, Amazonas State, Maraã, Japurá River. Type colony number 2865 in the collection of Museu Paraense Emílio Goeldi (holotype soldier and paratypes soldiers and workers), 13.x.1988, R. Constantino, col.

Imago – Unknown.

Soldier (Figures 1-2) – Head capsule pyriform from dorsal view with very slight constriction behind antennae; sides convex. Nasus conical. Top of head with nasus almost straight in profile. Head with very short bristles and a few longer bristles, as figured. Nasus with longer bristles at apex. Head capsule yellow; nasus yellow-brown; antennae yellow; pronotum, mesonotum and metanotum pale; sclerites transparent. Antennae with 11 segments, third greater than second, fourth equal to third, fifth greater than fourth. Tergites with very short bristles on surface; sternites with longer bristles. Tibial spurs 2:2:2.

Measurements (in millimeters) of four soldiers: length of head with nasus 0.84-0.90; length of nasus 0.28-0.33; height of head excluding postmentum 0.31-0.33; width of head 0.39-0.40; width of pronotum 0.23; length of hind tibia 0.47-0.49.

Ratios based on measured soldiers: length of nasus to length of head without nasus 0.49-0.60; length of head with nasus to width of head 2.18-2.26; length of head without nasus to width of head 1.38-1.49.

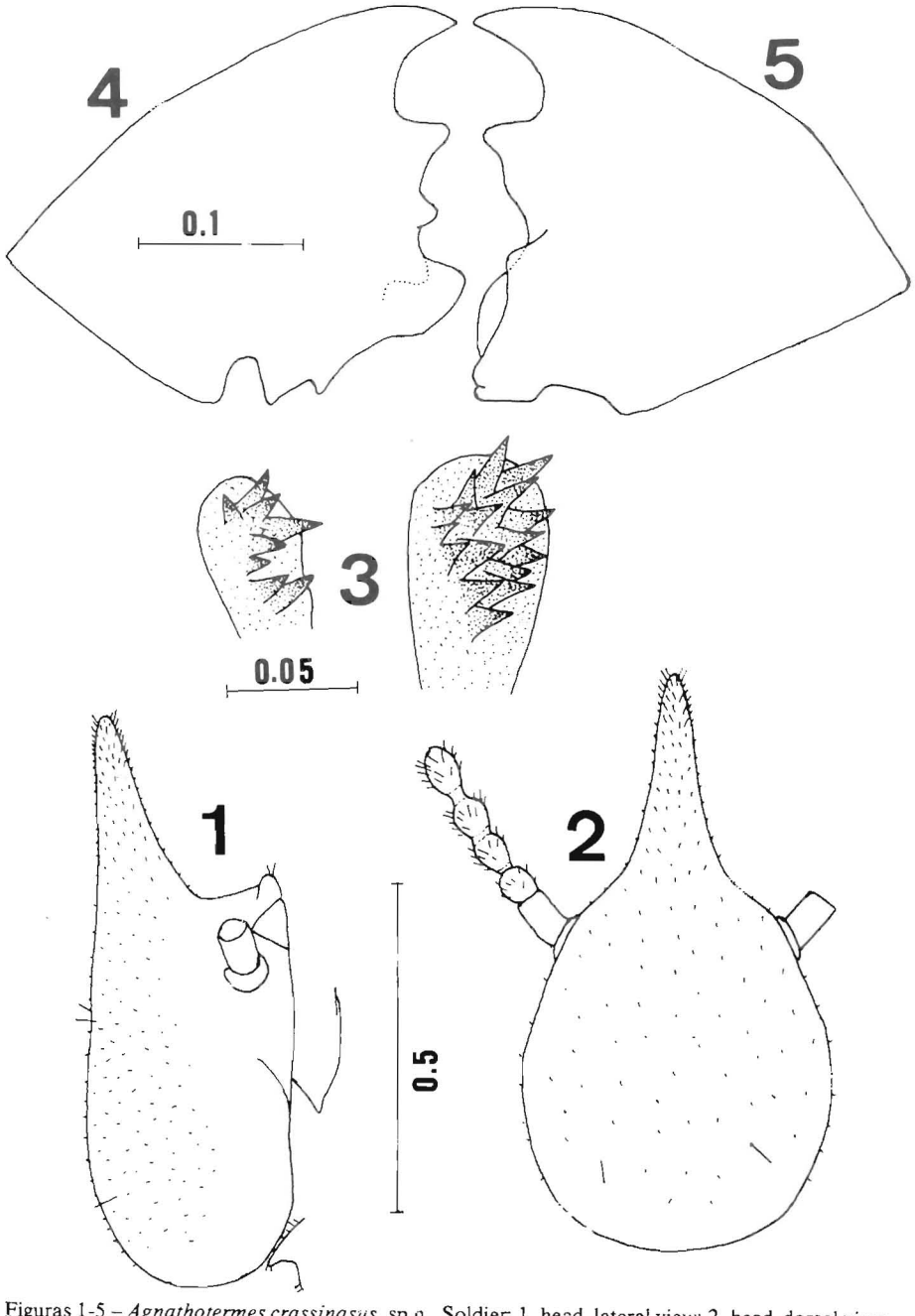
Worker (Figures 3-5) – Mandibles as in Figures 4-5. Left mandible index 1.3-1.4. The enteric valve armature consists of six chitinous plates with long spines, three major plates alternating with three minor plates (Figure 3).

Comparisons – The soldier of *A. glaber* has more slender nasus and the constriction of the head is more pronounced. The worker mandible of *A. glaber* has a more developed apical tooth and the left madible index is about 1.9. The enteric valve armature is similar, but the number of spines on major plates is greater in *A. glaber*.

Etymology – The specific name derives from *crassus* (L., "thick"), and *nasus* (L., "nose").

Remarks – The worker caste of *A. crassinasus* is probably dimorphic like in *A. glaber* and in the related genera, but the sample available has a small number of workers and there was not possible to comfirm it. The worker described in this paper has the "broad-gap" mandible, which is the more frequent type in *A. glaber* (Fontes 1987b).

I decided to include the new species in the genus *Agnathotermes* based on the chaetotaxy of the soldier head and the size and distribution of spines on enteric



Figuras 1-5 – *Agnathotermes crassinasus*, sp.n.. Soldier: 1. head, lateral view; 2. head, dorsal view. Woker: 3. enteric valve armature; 4. left mandible; 5. right mandible. Scales in millimeters.

valve armature, which are almost identical to the type-species, *A. glaber* (Fontes 1982 Figures 23-24; Fontes 1987a, Figures 64-65). The degree of development of the apical teeth of the worker's mandibles is an adaptative character, correlated to feeding habits, and I think this is not good for definition of genera.

The shape of the soldier's head of *A. crassinasus* is similar to that of *Coatitermes,* but this genus differs by the presence of numerous longer bristles on soldier's head and smaller, less numerous and differently located spines on enteric valve plates. *Subulitermes, Atlantitermes, Araujotermes,* and *Convexitermes* are other related genera of Neotropical Region. The nasus of the soldiers of *Subulitermes, Atlantitermes,* and *Araujotermes* are almost cylindrical. The soldier's head of *Convexitermes* is rounded. The enteric valve armature of *Araujotermes, Convexitermes,* and *Subulitermes* are weakly sclerotised and have only short spines. The enteric valve of *Atlantitermes* and *Coatitermes* are well sclerotised and have large distal spines and small proximal spines. *Agnathotermes* has only large, well sclerotised spines. For a detailed study of the morphology of the digestive tube and of the imago-worker mandibles of these genera, Fontes (1987a, b).

Biology – The type-colony was collected in an abandoned arboreal earthen termite nest.

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EUGRÉGARINES DE COLÉOPTÈRES DU BRÉSIL. DESCRIPTION DE TROIS ESPÈCES NOUVELLES ET NOTES BIOLOGIQUES

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RESUMO – Dez espécies de eugregarina de coleópteros brasileiros são relacionadas. Gregarinas pertencentes às famílias Gregarinidae, Actinocephalidae e Stylocephalidae são citadas neste trabalho, provenientes de 21 espécies de coleópteros brasileiros de sete famílias. Três espécies novas (Gregarina carinii, G. venturii, G. zophobasi) *são descritas e haverá provavelmente um número maior quando o ciclo desses parasitas for melhor conhecido. Algumas espécies de gregarinas aqui citadas são encontradas também no Velho Mundo.*

PALAVRAS-CHAVE: Protozoa, Gregarina, Apicomplexa, Gregarinida, Coleoptera.

RÉSUMÉ: Dix espèces d'Eugrégarines appartenant aux familles des Gregarinidae, Actinocephalidae et Stylocephalidae ont été mises en évidence chez 21 espèces de Coléoptères brésiliens appartenant à sept familles. Gregarina carinii, G. venturii *et* G. zophobasi *sont décrites comme nouvelles Des hôtes nouveaux sont signalés et des compléments sur la répartition géographique sont apportés pour* G. rostrata, G. munieri, G. crenata *et* G. haranti. *Trois espèces, appartenant aux genres* Gregarina, Pyxinia *et* Cystocephalus *et dont les cycles sont incomplétement connus, sont probablement nouvelles.*

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