

Caamembecaia graciosus n. gen., n. sp. (Acari: Trombiculidae), from *Trinomys graciosus* (Gunter) (Rodentia: Echimyidae), of Atlantic Forest in Southeastern Brazil

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From June 1999 to May 2001, small mammals were captured in three areas of the Atlantic Forest in Southeastern Brazil and examined for ectoparasites. Analysis of ectoparasites revealed the presence of a new chigger genus and species, Caamembecaia graciosus, from Trinomys graciosus. This is the first record of a chigger from T. graciosus.

Key words: *Caamembecaia graciosus* n. gen., n. sp.- Trombiculidae - rodent - Brazil

Larval Trombiculidae or chigger mites, have a world distribution and parasitize all classes of terrestrial vertebrates and some invertebrates (Krantz 1978, Zhang 1998). Chigger bites can produce a dermatitis called trombidiosis with itching and swelling at the site of attachment in man and animals. This dermatitis may be accompanied by secondary infections and persistent lesions. In addition, some species transmit *Orientia tsutsugamushi*, scrub typhus agent, an important public health disease in Southeast Asia (Wharton & Fuller 1952, Jensenius et al. 2004).

The number of described chiggers species world wide is approaching 3000, with 87 genera currently recognized of Neartic and Neotropical faunal regions (Brennan & Goff 1977, Goff & Gettinger 1989, 1991, Wilson et al. 1989).

This paper describe a new genus of chigger found on *Trinomys graciosus* (Gunter) (Rodentia: Echimyidae), of Atlantic Forest in Southeastern Brazil.

The type is deposited in the Instituto Oswaldo Cruz-Fiocruz.

MATERIALS AND METHODS

From June 1999 to May 2001, 546 small mammals representing 15 genera and 21 species, from the Serra da Bocaina National Park (22°44'125"S 44°37'007"W), São José do Barreiro/São Paulo (SP), Serra da Fartura (21°53621'S 46°45188'W), São João da Boa Vista/SP, and Itatiaia National Park (22°26'187"S 44°37'511"W), Itatiaia/RJ, areas of the Atlantic Forest in Southeastern Brazil were captured and examined for ectoparasites. The collecting sites were separated by the Paraíba do Sul river valley (Bossi 2003). Analysis of ectoparasites revealed the pres-

ence of a larva representing a new genus of chigger recovered from *T. graciosus*, captured in the Itatiaia National Park. The generic diagnosis follows Wharton and Fuller (1952), Brennan and Jones (1959), Brennan and Goff (1977), and the descriptions follows Fonseca (1955), Vercammen-Grandjean et al. (1970), Goff and Gettinger (1991). All measurements are given in micrometers. Terminology follows Goff et al. (1982)

RESULTS

Caamembecaia n.gen.

Type species: Caamembecaia graciosus n.sp.

Diagnosis: Trombiculinae larvae with 7-segmented legs; two genuala I, one genuala II, one guenuala III; tibiala III present, no mastibiala III; subterminala and parsubterminala present; coxa III with one setae. Palpal tarsus 4B; galeala N; palpal claw 3-pronged; cheliceral blade with tricuspid cap. Scutum subrectangular, with foliate AL and PL setae; sensillae broadly capitate, with heavy barbs. Eyes present, 2/2, intrascutal. Dorsal setae foliate. Sternal and preanal setae branched. Postanal setae foliate.

Caamembecaia graciosus n.sp.

(Figs 1, 2)

Description - Idiosoma: 223 µm of length and 175 µm of width (223 × 175). Eyes 2/2 intrascutal; 30 foliate dorsal opisthosomal setae, inserted on platelets and arranged in irregular rows, measuring 46-88; humeral setae, 73-74 long, are inserted on platelets; two pairs of sternal setae; anterior measuring 42-43 and posterior measuring 41-42; 28 branched preanal setae, measuring 31-43; 12 postanal setae, similar in form to dorsal idiosomal setae, measuring 45-62; total idiosomal setae 79.

Gnathosoma: palpal setal formula B/B/BNB/4B; galeala N; palpal claw 3-pronged; cheliceral blade (31-32) with tricuspid cap; gnathobase punctate, bearing a pair of branched setae.

Scutum: punctate, especially in the lateral areas, with anterior and posterior margins straight; anterior corners

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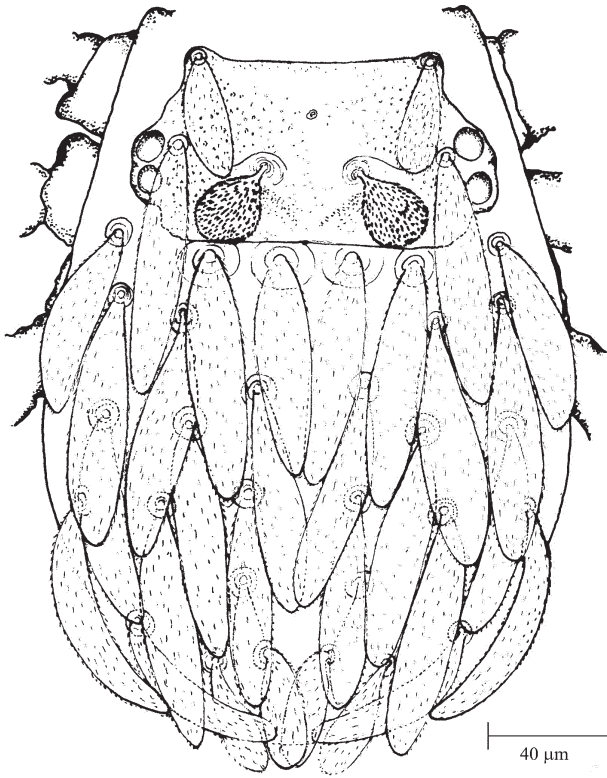


Fig. 1: larva of *Caamembecaia gratiosus* n. gen., n. sp. Dorsal view of idiosoma and gnathosoma.

slightly prominent; base of AM setae posterior to AL bases; bothridial bases slightly posterior to the PL bases; AL and PL setae similar in form to dorsal idiosomal setae; sensillae capitate, head with fine setules; PW/SD = 1.36; AW = 76; PW = 87; SB = 30; ASB = 40; PSB = 24; AM missing; AL = 44; PL = 90; sensillae = 34; AP = 30.

Legs: all 7-segmented; terminating in a pair of claws and a clawlike empodium. Onychotriches absent. IP = 710. Leg I: 256; coxa with 1 branched seta (1B); trochanter 1B; basifemur 1B; telofemur 5B; genu 6B; 2 genualae; microgenuala; tibia 11B, 2 tibialae, microtibiala; tarsus (64 × 27) 19B; tarsala (19), parasubterminala, subterminala, pretarsala. Leg II: 202; coxa 1B; trochanter 1B; basifemur 2B; telofemur 4B; genu 3B; genuala; tibia 6B, 2 tibialae; tarsus (57 × 26) 14B, tarsala (16), microtarsala, pretarsala. Leg III: 252; coxa 1B; trochanter 1B; basifemur 2B; telofemur 3B; genu 4B, genuala; tibia 6b, tibiala; tarsus (68 × 19) 15B.

Holotype is deposited in the Instituto Oswaldo Cruz/Fiocruz (Coleção Ixodológica do IOC - 0074/ACA).

Type material: Holotype: Itatiaia National Park, Rio de Janeiro State, Brazil, 1.170 m altitude, 20-VIII-1999, collector David Eduardo Paolinetti Bossi, ex *Trinomys gratiosus* (UFRJ, National Museum, MNRJ 67498).

DISCUSSION

Among the genera of Trombiculidae of western hemisphere, *Caamembecaia* is similar to *Trombewingia*

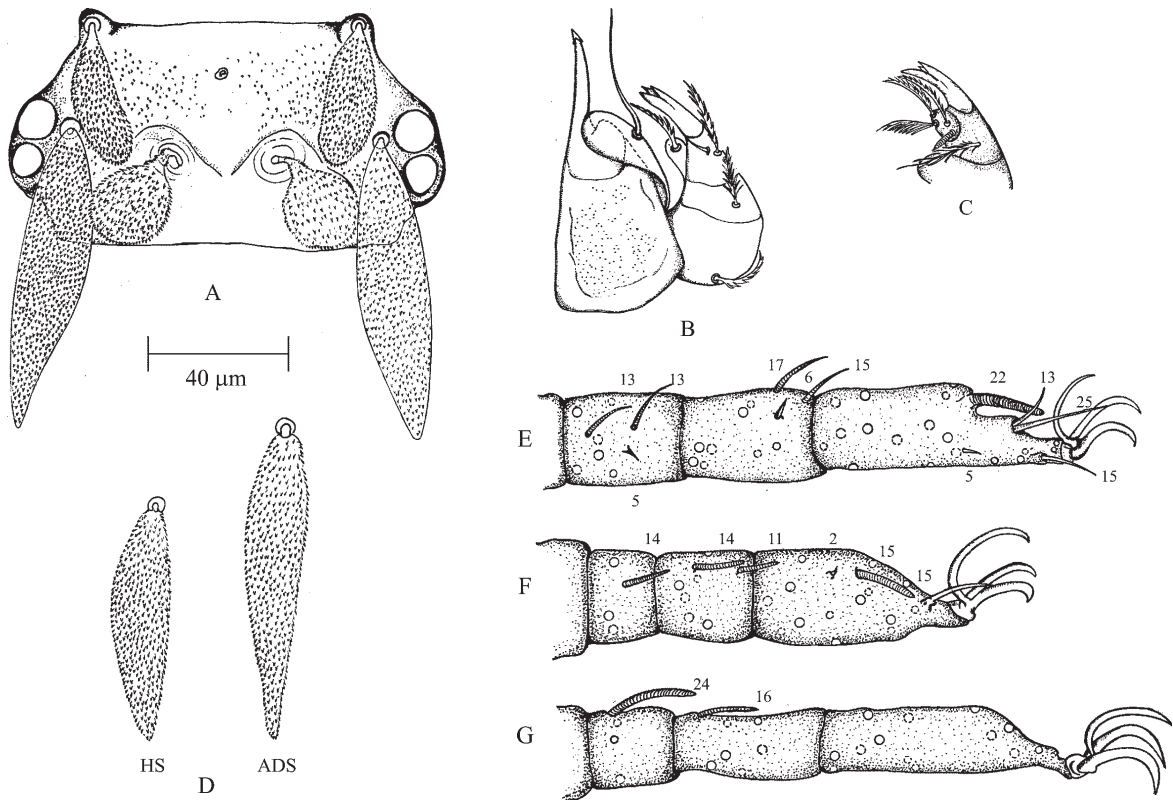


Fig. 2: larva of *Caamembecaia gratiosus* n. gen., n. sp. A: scutum; B: dorsal aspect of gnathosoma; C: ventral aspect of palpal tibia and tarsus; D: humeral seta (HS) and anterior dorsal idiosomal seta (ADS). E: leg I distal three segments showing specialized setae (numbers are measurements in micrometers) and bases of branched setae; F: leg II as above; G: leg III as above.

(Fonseca 1955), in having palpal tarsus 4B; subterminala and parasubterminala present; coxa III with one setae; cheliceral blade with a tricuspid cap; dorsal idiosomal and scutal setae foliate; sensillae expanded. However may be separated from *Trombewingia* in having two guenuala I (three guenuala I in *Trombewingia*) and eyes intrascutal (extrascutal in *Trombewingia*). The etymology of the generic name is based on the characteristics of the dorsal setae (derived from Caàmembeca a Brazilian Tupi dialect word meaning flabby leaf, flexible) and that of the specific name is from the host species. *T. gratiosus* is reported as a host for chiggers for the first time.

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