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**THE CORRECT NAME OF A COMMON COPEPOD (CRUSTACEA: HARPACTICOIDA)**

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**RESUMO - O NOME CORRETO DE UM COPÉPODE COMUM (CRUSTACEA: HARPACTICOIDA)**

Uma espécie de copépode (Crustacea; Harpacticoida), habitante comum de brejos e fitotelmos, também encontrada em lagos, rios e represas, tem sido registrada em uma vasta área, do Amazonas até o Paraná médio. O taxon recebeu três nomes diferentes: *Attheyella* (*Attheyella*) *santaremensis* EBERT (1976), *Mesochra* *sancarlensis* ROCHA & MATSUMURA-TUNDISI (1976), e *Attheyella* (*Attheyella*) *jureiae* POR & HADEL (1986). Segundo as regras taxonômicas internacionais, o nome válido da espécie é *Attheyella jureiae*.

Este artigo fornece uma sinonímia da espécie, uma breve redescricao, uma discussao sobre o nome válido, e um sumário da distribuicao da mesma, com a adicao de vários registros novos.

**ABSTRACT - THE CORRECT NAME OF A COMMON COPEPOD (CRUSTACEA: HARPACTICOIDA)**

A species of copepod (Crustacea; Harpacticoida), a

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common inhabitant of marshes and phytotelmata and also found in lakes, rivers and reservoirs, has been recorded from a vast area, from the Amazon Basin to the middle Paraná River. The taxon has received three different names: *Attheyella santaremensis* EBERT (1976), *Mesochra sancarlensis* ROCHA & MATSUMURA-TUNDISI (1976), and *Attheyella* (*Attheyella*) *jureiae* POR & HADEL (1986). According to the international rules of nomenclature, the valid name of the species is *Attheyella jureiae*.

This article furnishes a synonymy of the species, a brief redescription, a discussion of the valid name, and a review of the species distribution with the addition of several new records.

## INTRODUCTION

Nomenclatural confusion is an unfortunate but inevitable part of the taxonomic process. The International Code of Zoological Nomenclature, recently revised (ICZN, 1985), provides mechanisms for dealing with problems of the valid name of a taxon. An illustration of the workings of the Code is provided by the case of the broadly distributed harpacticoid copepod *Attheyella jureiae*, which has been described by several authors under different names. This article furnishes a synonymy of the species, a brief redescription, a discussion of the valid name, and a review of its distribution with the addition of several new records.

## TAXONOMIC SECTION

Family Canthocamptidae Sars, 1906

Genus *Attheyella* BRADY, 1880, s. lat.

*Attheyella jureiae* POR & HADEL, 1986

**SYNONYMY**

*Attheyella* (*Attheyella*) *jureiae*, POR & HADEL, 1986: 778-785, Fig. 1-17, 35-40.

*Attheyella* (*Attheyella*) *santaremensis*, EBERT, 1976: 203-205, Plate XXXIV.

*Mesochra sancarlensis*, ROCHA & MATSUMURA-TUNDISI, 1976: 52-55, Plates XXVI, XXVII.

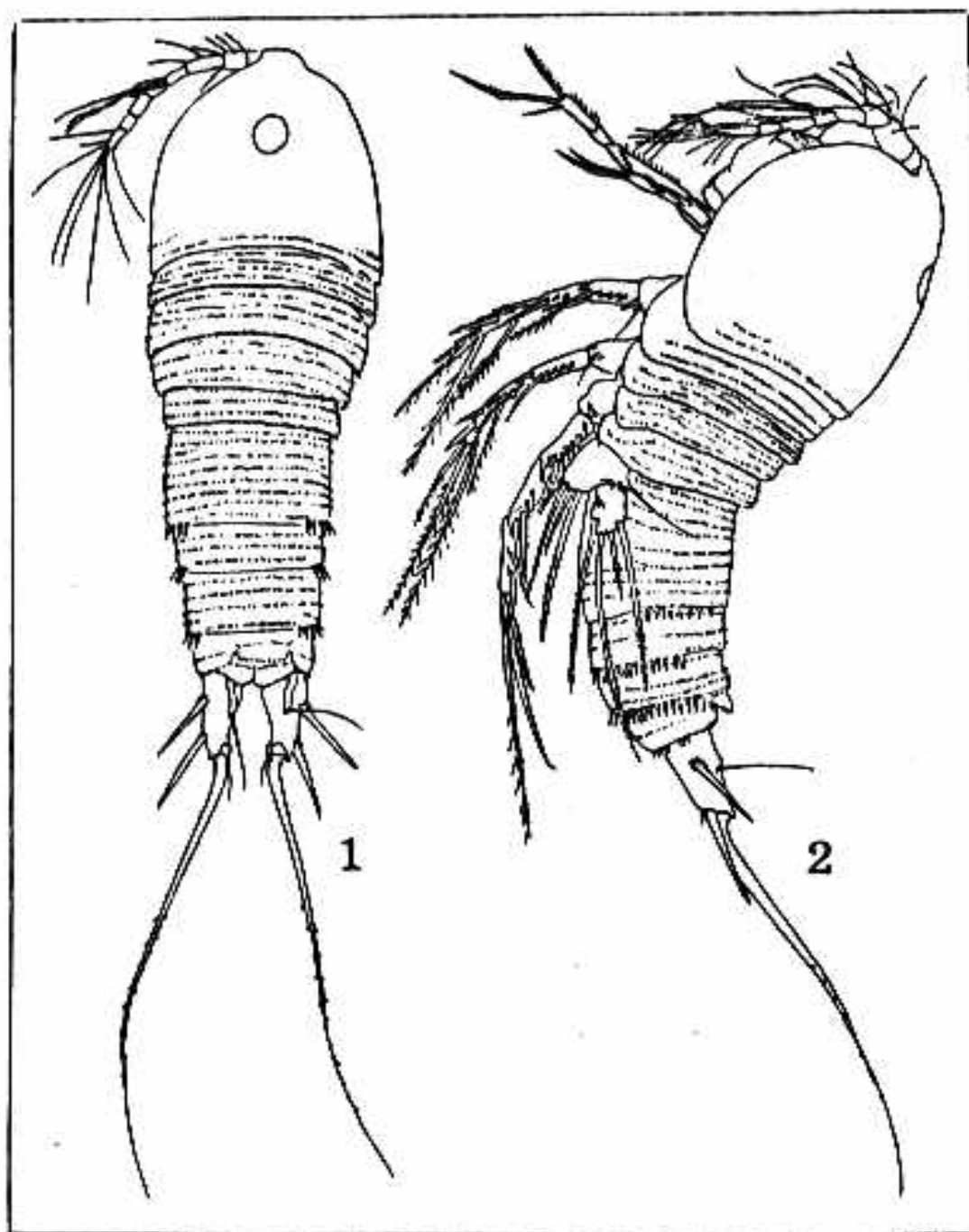
*Canthocamptid* a, REID, 1984: 100, 103, 104, 109.

*Attheyella* sp., REID, 1985: 78-79, Fig. 2.

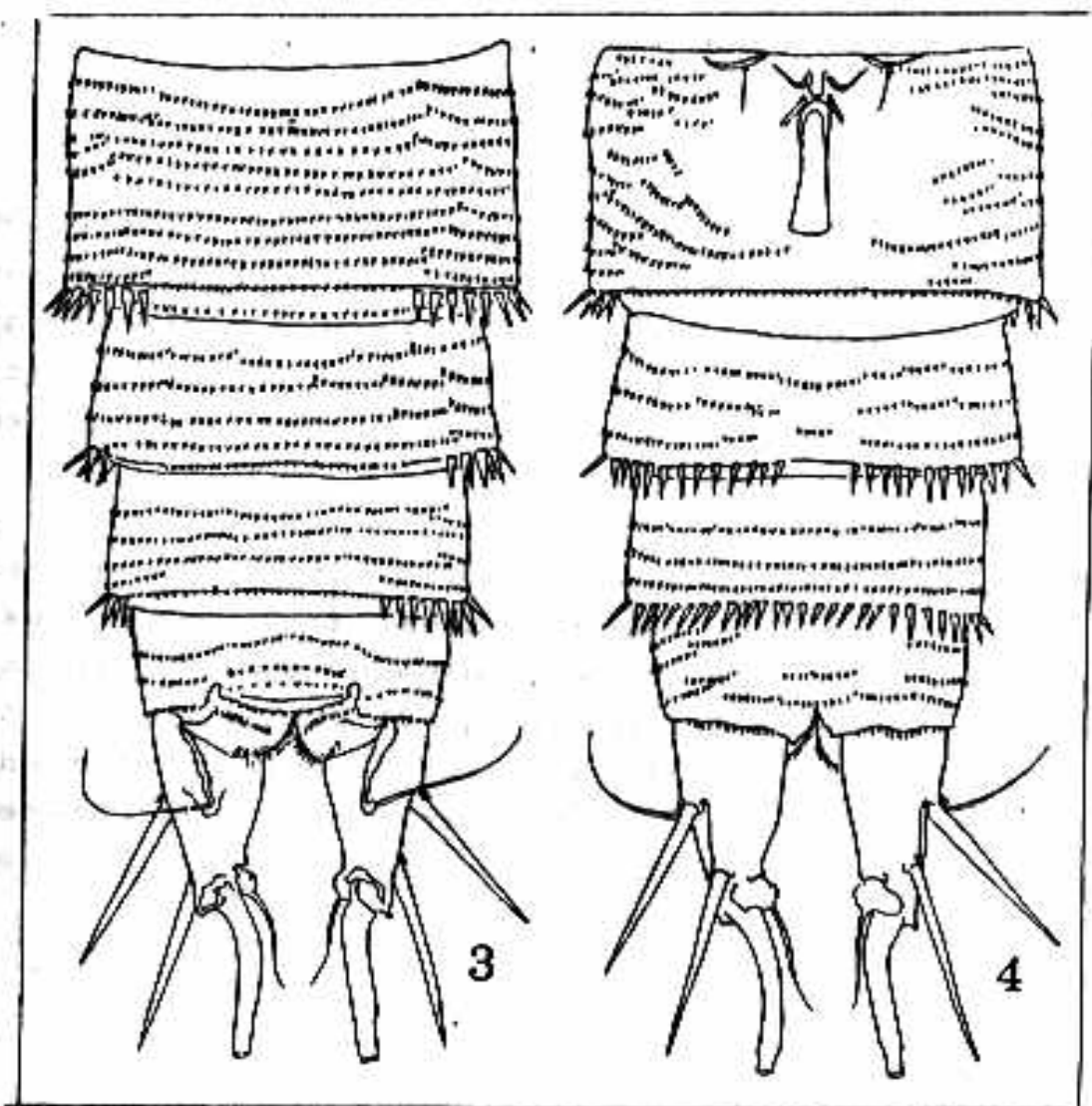
*Attheyella* (*Delachauxiella*) and (*Chappuisiella*)(?) *sancarlensis*, DUSSART & FRUTOS, 1986/1987: 243, 244, 246, 259-261, Fig. 87-103.

**DIAGNOSIS**

Female - Length about 0.50 mm. Prosome 1 with small round nuchal organ (Fig. 1, 2). All somites (Fig. 1-4) with rows of tiny spinules; urosomites also with lateral rows of large spinules on posterior margins, row on urosomite 4 continuous ventrally, or sometimes discontinuous. Genital field (Fig. 4) with elongate posterior expansion. Anal operculum with about 7-20 small teeth. Caudal ramus as long or longer than last urosomite, bearing 2 strong lateral spines and a slender seta inserted about midlength near tip of dorsal crest. Outermost terminal seta lacking or present, if present short and slender, inserted dorsally at base of long middle terminal seta. Innermost terminal seta short, slender, with extremely bulbous base. Middle terminal seta more or less curved outward near base. Antennule of 8 articles, with long aesthetasc on article 4. Antenna with allobasis, exopod of 1 article bearing 2 or 3 setae. Both rami of leg 1 and exopods of legs 2-4 of 3 articles; endopods of legs 2-4 of 2 articles. Leg 1 (Fig. 5), endopod article 1 longer than exopod. Formula for major



Figures 1, 2 - *Attheyella jureiae*, female. 1, Habitus, dorsal; 2, Habitus, lateral.



Figures 3, 4 - *Attheyella jureiae*, female. 3, Urosome, dorsal; 4, Urosome, ventral.

armament of swimming legs:

Leg 1: basis 1-0 exp 0-1; 1-1; 0,2,2  
          enp 1-0; 1-0; 1,2,0  
Leg 2: basis 1-0 exp 0-1; 1-1; 1,2,3  
          enp 1-0; 2,2,0  
Leg 3: basis 1-0 exp 0-1; 1-1; 2,2,3  
          enp 1-0; 3,2,1  
Leg 4: basis 1-0 exp 0-1; 1-1; 2,2,3  
          enp 1-0; 1,2,0

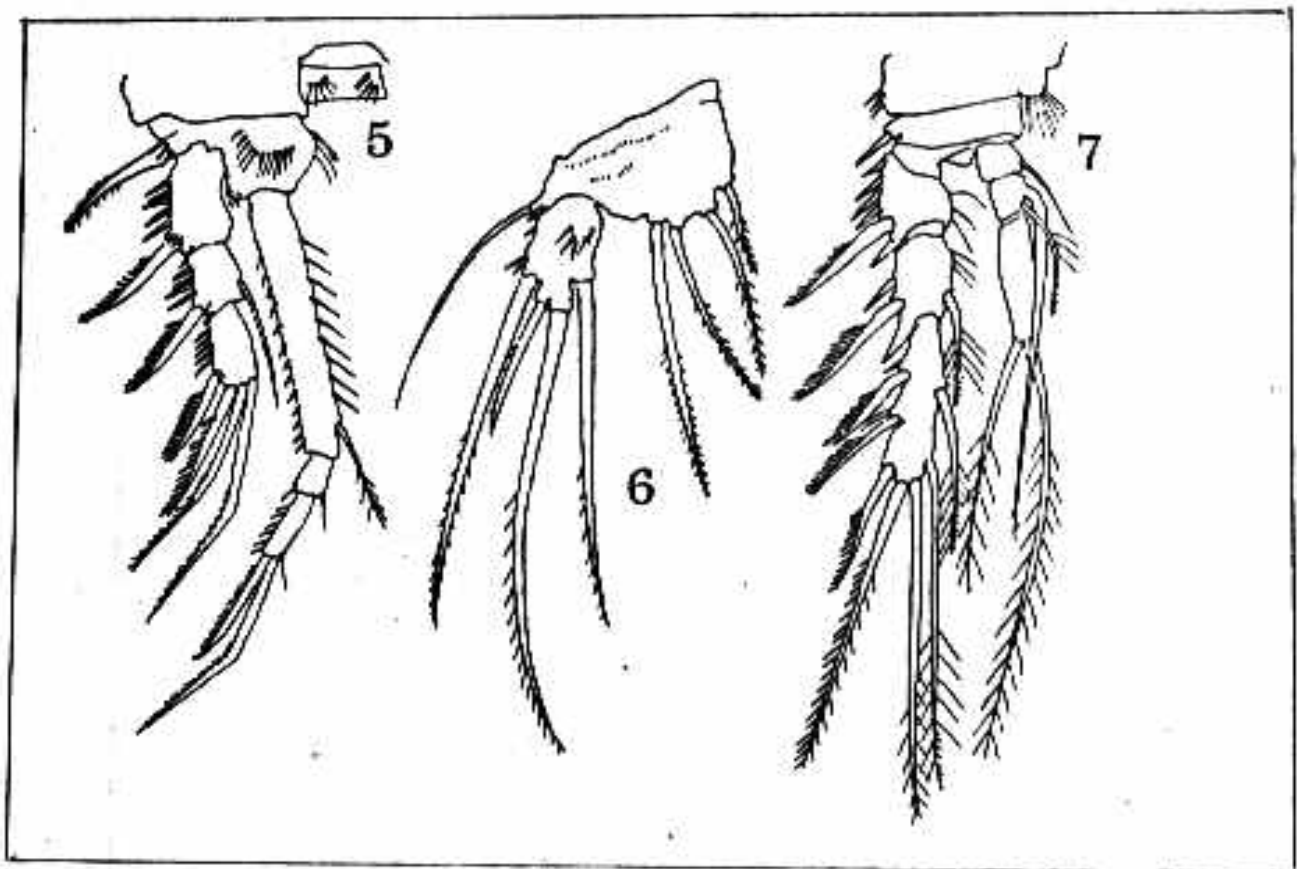
Leg 5 (Fig. 6), basipod and exopod each with 4 setae. Of 4 exopod setae, next outermost shortest, frequently preserved crossing outwards over outermost seta. Of 4 basipod setae, outermost seta usually longest, innermost seta shortest, 2 middle setae subequal to or much shorter than outermost seta.

Male - Urosomites (Fig. 8, 9) with all rows of spines continuous ventrally. Caudal ramus as female except innermost terminal seta lacking bulbous base. Antennules of 8 articles, geniculate. Leg 3 (Fig. 7) with endopod of 3 articles, article 2 with apophysis having 2-barbed or barbless tip; swimming legs otherwise similar to those of female. Leg 5 with fused basipods lacking setae, and small distinct exopod with 3 stout setae.

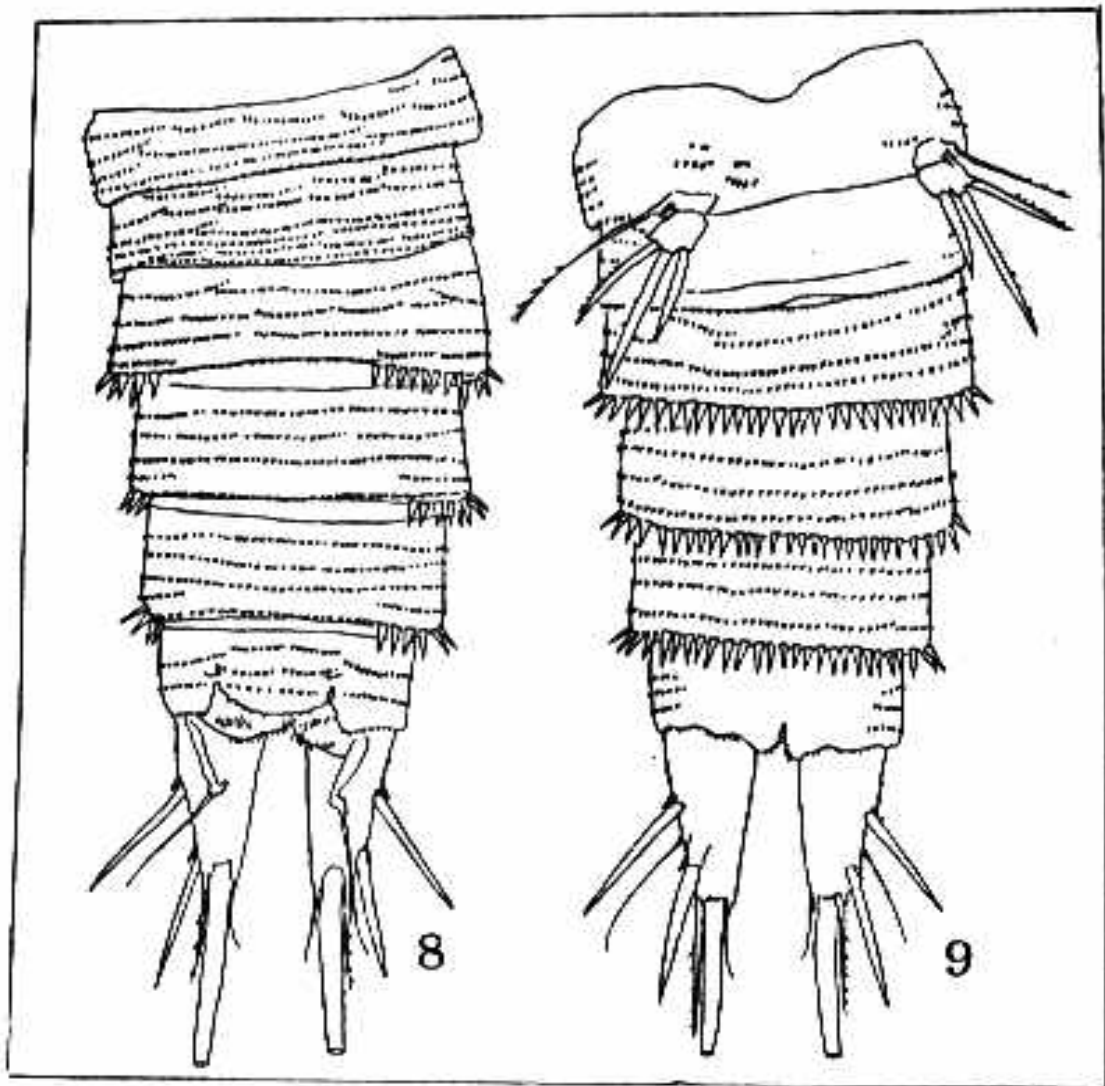
**VARIATION**

Females may have the row of spinules on the posterior margin of urosomite 4 discontinuous ventrally (AMAZONAS, EBERT, 1976; specimens from Mato Grosso), or continuous (Broa, São Paulo, ROCHA & MATSUMUTA-TUNDISI, 1976; Juréia, São Paulo, POR & HADEL, 1986; Paraná medio, DUSSART & FRUTOS, 1986/87; specimens from the Distrito Federal). All specimens that I have seen have a row of fine





Figures 5-7 - *Attheyella jureiae*. 5, Leg 1 of female; 6, Leg 5 of female; 7, leg 3 of male.



Figures 8, 9 - *Attheyella jureiae*, male. 8, Urosome, dorsal; 9, Urosome, ventral.



hairs on the anal somite beneath the anal operculum, not a second operculum as interpreted by DUSSART & FRUTOS (1986/87). The caudal ramus of the female may be stocky, only slightly longer than broad (POR & HADEL, 1986; Mato Grosso), but is oftener about twice longer than broad. A small outer terminal seta may be present on the caudal ramus of the female (EBERT, 1976; ROCHA & MATSUMURA-TUNDISI, 1976; POR & HADEL, 1986; Mato Grosso), or absent (DUSSART & FRUTOS, 1986/87; Distrito Federal). The inward curve of the middle terminal caudal seta of the female may be slight (ROCHA & MATSUMURA-TUNDISI, 1976; DUSSART & FRUTOS, 1986/87; Distrito Federal) or extremely exaggerated (POR & HADEL, 1986; Mato Grosso). ROCHA & MATSUMURA-TUNDISI (1976) show only 3 setae on the exopod of leg 5 of the female. The exopod of the antenna may bear 2 setae (ROCHA & MATSUMURA-TUNDISI, 1976; POR & HADEL, 1986), or 3 setae (EBERT, 1976; Mato Grosso, Distrito Federal). The innermost seta of the exopod of leg 5 of the male may be subequal in length to the outermost seta (POR & HADEL, 1986; DUSSART & FRUTOS, 1986/87; Distrito Federal), or extremely short (ROCHA & MATSUMURA-TUNDISI, 1976). Such variability is not uncommon in harpacticoids, particularly the Family Canthocamptidae (COKER, 1934). The distinctive features of the species are the structure of the caudal ramus of the female, elegantly described by POR & HADEL (1986); the elongate genital field of the female, the armament of the urosomes and of legs 1-5 of both sexes, the long article 1 of the endopod of leg 1, and the lack of sexual dimorphism in swimming legs except in the endopod of leg 3 of the male.

#### THE VALID NAME

The species was first described in the same year by EBERT, in a dissertation (1976) and by ROCHA & MATSUMURA-TUNDISI (1976). Since Ebert's work went

unpublished, names therein are unavailable (ICZN, 1985: Article 9). The case of the Atlas do Zooplâncton of ROCHA & MATSUMURA-TUNDISI is less clear. Although considered an internal publication (MATSUMURA-TUNDISI, pers. commun.), the work has received wide distribution within and outside Brazil, and constitutes a publication (ICZN, 1985: Article 8). However, since the species descriptions supplied in the Atlas consist only of figures and figure legends, lacking "a description or definition that states in words characters that are purported to differentiate the taxon" (ICZN, 1985: Article 13), the names in this publication are unavailable as well, contrary to the opinion of DUSSART & FRUTOS (1986/87).

We next come to a pair of works with apparent publication dates of 1986, both supplying extensive figures and discussions of this species. DUSSART & FRUTOS (1986/87) employed the name *santarlensis* of ROCHA & MATSUMURA-TUNDISI. POR & HADEL (1986) erected a new name, *jureiae*, apparently without connecting their specimens from São Paulo with Ebert's incompletely described *A. santarlemensis*, although they cited her work. The publication date of POR & HADEL's article is 31 October 1986. Although the date printed on the title page of the article by DUSSART & FRUTOS is 1986, the publication date, according to the cover of the journal, is November 1987. Therefore, by the principle of priority (ICZN, 1985: Article 23), the valid name of this taxon is POR & HADEL.

#### SYSTEMATIC PLACEMENT

Many new species of the Family Canthocamptidae have been discovered since the last general revision by LANG (1948). *Attheyella jureiae*, like many of these species, does not fit neatly within Lang's generic diagnoses. The attribution by ROCHA & MATSUMURA-TUNDISI (1976) to *Mesochra* is clearly incorrect. The species, as

noted by POR & HADEL (1986), shows affinities to both *Attheyella* and *Elaphoidella*, but its placement within either of these genera requires modification of the generic diagnoses. The lack of a seta on the fused basipods of leg 5 of the male distinguishes it from all members of the genus *Attheyella*. The setation of the fifth legs of both sexes agrees with neither subgenus *Delachauxiella* nor *Chappuisiella*, and in addition members of *Delachauxiella* are distinguished by a triangular anal operculum. POR & HADEL (1986) decided to place the species within the nominate subgenus *Attheyella*, without, however, making a formal modification of the subgenus to accommodate the reduced setation of *jureiae*. I suggest the provisional placement of this species in *Attheyella sensu lato*, in full agreement with the opinion of POR & HADEL (1986) that it seems profitless to modify diagnoses or erect new supertaxa in the absence of a general revision of the family.

#### DISTRIBUTION

*Attheyella jureiae* is broadly distributed in South America (Fig. 10). It was collected in a large lake near Santarém, State of Pará, Brazil (EBERT, 1976). In the Represa do Broa, State of São Paulo, Brazil (ROCHA & MATSUMURA-TUNDISI, 1976), it was represented by only a few specimens which probably washed out of a nearby marsh (ROCHA, in litt.). In the middle Paran region of northern Argentina, it occurred in the Rio Pilag, at less than 1 m depth, Secchi depth 4-7 cm, pH 6.9-7.2, conductivity 120-210 uS/cm, and oxygen 76-94% sat.; in the Rio de Oro, conductivity 285 uS/cm; and in the Baado Pitogue, in the Rio Paran floodplain, west of the river near Goya City, about 28°4'S 59°5'W (DUSSART & FRUTOS, 1986/87; FRUTOS, in litt.). POR & HADEL (1986) reported the species as a first successional settler in communities of aquatic fauna in

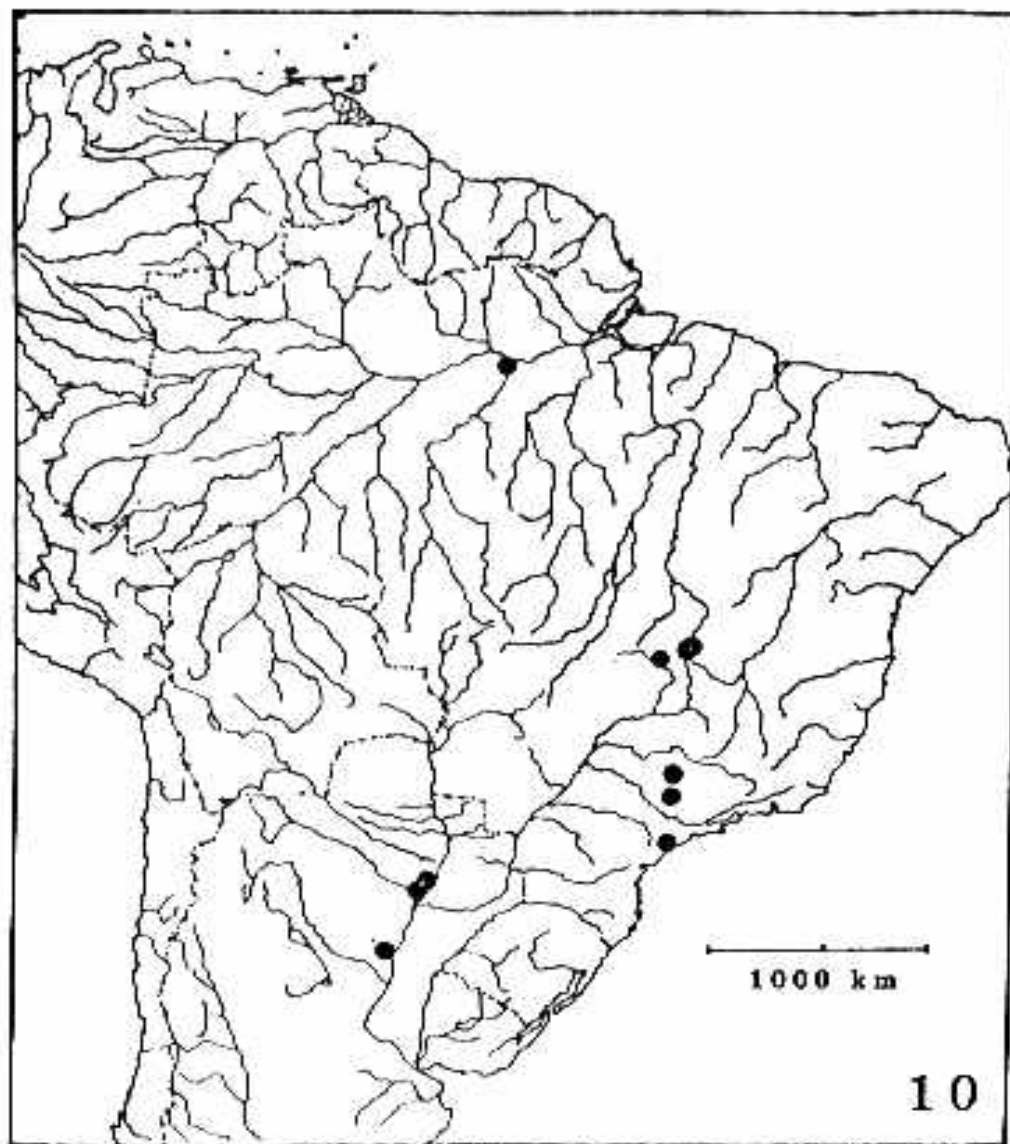


Figure 10 - Distribution of *Attheyella jureiae* in South America.

terrestrial and arboreal bromeliads in the Juréia Nature Reserve, State of São Paulo. It was present year-round in areas with surface water downhill in the campo úmido and adjacent gallery forest at the Fazenda Água Limpa, Distrito Federal, where water was well-oxygenated, with pH 4.5-4.95, and conductivity less than 10 uS/cm (REID, 1984). My additional records from Brazil include: Lagoa Bonita, Distrito Federal, roots of floating macrophyte, 19 January 1979; Lagoa do Campo de Vereda Grande, Reserva Biológica das Águas Emendadas, Distrito Federal, among macrophytes, 1 May 1982; and State of Mato Grosso, about 11°S 59°W, shallow puddles in leaf litter on forest floor, June 1980, coll. A. E. Mill. Therefore, although it is broadly distributed, *A. jureiae* appears to inhabit the benthos primarily of shallow, well-oxygenated, neutral to acid waters and also phytotelmata.

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