

# A short note on three *Nilotonia* species from Trinidad (Acariformes: Hydrachnidia: Anisitsiellidae)

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## Short note

### ABSTRACT

Examination of three *Nilotonia* species described by Bader (1995) revealed, that they all belong to *Anisitsiella aculeata* Daday.

**Keywords** *Nilotonia*; *Anisitsiella*; *Mamersoniellides*; Neotropics; systematics

**Zoobank** <http://zoobank.org/FE6F9C63-2361-437C-9001-68D9EB8B5973>

## Introduction

Bader (1995) described three new *Mamersonia* species from Trinidad. *Mamersonia* is considered a subgenus of *Nilotonia* by Cook (1974) and Panesar (2004), and this is followed in this paper as well. The three species should have swimming setae according to Bader (1995), a characteristic rare in *Nilotonia* and found only in the subgenus *Nilotonia* s.s. Therefore, I decided to examine the type material of the three species from Trinidad.

The following material was examined, all from the Naturhistorisches Museum, Basel (MNHB):

- *Mamersonia biscutata*, holotype female Trinidad, 23-iii-1988, leg. Paneth (slide 1960, MNHB)
- *Mamersonia monoscutata*, holotype male, Trinidad, 18-iii-1988, leg. Paneth (slide 1961, MNHB)
- *Mamersonia similis*, holotype male, Trinidad, 18-iii-1988, leg. Paneth (slide 1962, MNHB)

## Results

### Family Anisitsiellidae Koenike, 1910

### Subfamily Anisitsiellinae Koenike, 1910

### *Anisitsiella aculeata* Daday, 1905

(Figure 1)

*Mamersonia biscutata* Bader, 1995 – n. syn.

*Mamersonia monoscutata* Bader, 1995 – n. syn.

*Mamersonia similis* Bader, 1995 – n. syn.

Only the slide with *N. similis* Bader, 1995 is in good condition, although the dorsal shield is not removed from the idiosoma. The gnathosoma with the palps is dissected. Moreover, the specimen is well sclerotized. The two other types, *Nilotonia monoscutata* Bader, 1995 and *N. similis* Bader, 1995, are juvenile specimens, and are somewhat squashed in the slide. In the slide with *N. monoscutata* the first two pairs of legs and the gnathosoma with the palps are

Received 09 August 2019

Accepted 05 October 2019

Published 08 October 2019

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Academic editor

Mąkol, Joanna

DOI

10.24349/acarologia/20194342

ISSN 0044-586X (print)

ISSN 2107-7207 (electronic)

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broken off from the remainder of the idiosoma. In the slide with *N. biscutata* the left first two legs and one palp are broken off from the remainder of the idiosoma.

According to Bader (1995) all three types should have several dorsal and ventral platelets. Based on the differences in the shape of these platelets Bader described the three species mentioned above. However, all three specimens have clearly one large dorsal shield. The differences seen by Bader are the result of sculpturing and depressions in the dorsal shield. However, I was unable to see these patterns in the dorsal shields in the mounted specimens.

The same applies to the venter, which has a complete ventral shield which includes the genital field and the coxae. There is no suture line between the genital field and the ventral shield. My first conclusion is that these specimens cannot be assigned to the Nilotoniinae, but should be assigned to the Anisitsiellinae.

All three types have a number of characteristics in common:

- A complete dorsal and ventral shield
- Rounded third+ fourth coxae
- Third and fourth legs with several long swimming setae
- A similar shaped palp and genital field

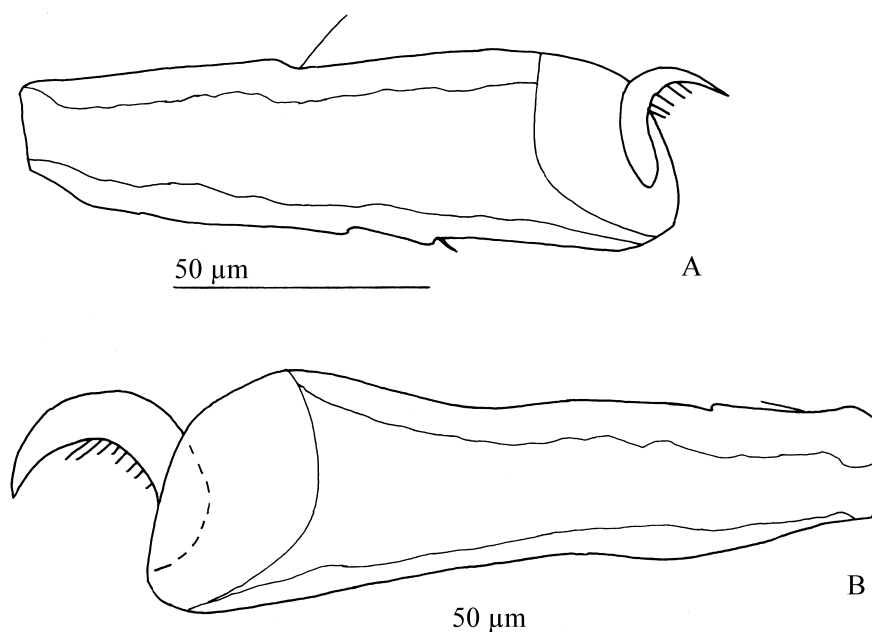
My second conclusion is that they all belong to the same species.

Bader (1995) overlooked a number of important characters:

- A small gland can be seen just posterior to the suture line of the third and fourth coxae
- The claw of the third leg is distinctly larger than the claws of the first and second leg, and has a comb
- The claws of the first and second leg have several ventral clawlets, forming an irregular comb
- A membranous area (see fig. 375 of Cook 1974, arrow A) can be seen flanking the genital field in *N. biscutata*, but not in the other two types.

My third conclusion is that Bader's specimens are not *Nilotonia* species, but must be assigned to *Anisitsiella* Daday (= *Mamersellides* Lundblad). According to Panesar (2004) *Mamersellides* Lundblad, 1937 is a junior synonym of *Anisitsiella* Daday, 1905. Two *Anisitsiella* species have been described, *A. aculeata* Daday, 1905 (= *Mamersellides ventriperforatus* Lundblad) from South America and *A. costenius* (Cramer & I.M. Smith, 1993) from Central America and Florida. The differences between the two species are based on the pattern of depressions of the dorsal shield (Cramer & I.M. Smith 1993). However, these patterns are not well visible in the mounted types listed above. *Anisitsiella* males have a more anteriorly truncated idiosoma compared to females. The idiosoma shape is best preserved in the holotype of *Mamersonia similis*. This specimen is truncated only slightly, and no genital skeleton can be seen in the slide. Therefore, this is in my opinion a female. Besides the differences in the dorsal shield, the genital field of female *A. costenius* is more rounded compared to *A. aculeata*. As the genital field of the holotype of *M. similis* is rectangular, I assign Bader's types to *A. aculeata*.

In all three *Mamersonia* types mentioned above the claw of the third leg is distinctly larger than the claws of the first and second leg (Figs. 1A-B). On my request Gunvi Lindberg (Swedish Museum of Natural History, Stockholm) send me some pictures of the claws of the types of *Mamersellides ventriperforatus*. Also, in the holotype female and paratype male the claw of the third leg is larger. This characteristic is not mentioned by Lundblad (1941) nor by Rosso de Ferradás (1973). The latter author illustrated all three legs, but the claws of the legs are all similar. Lundblad (1941) illustrated the claw of the third leg correctly, but as mentioned before, without giving the differences with the claws of the first and second leg.



**Figure 1** *Mamersonia biscutata* Bader, holotype, A – I-leg-6; B – III-leg-6 (Scale bar = 50 µm).

## Acknowledgements

I am indebted to Ambros Hänggi (MNHB) for the loan of the three *Mamersonia* types from Trinidad. Gunvi Lindberg (SMNH) send me some pictures of the claws of the holo- and paratype of *Mamersellides ventriperforatus*. Reinhard Gerecke (Tübingen) send me a copy of the paper of Rosso de Ferradás.

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