

WO NEW SPECIES OF WATER MITES (ACARI: HYDRACHNIDIA) FROM SURINAME

DEWANAND MAKHAN

University of Utrecht, The National Herbarium of The Netherlands, Heidelberglaan 2, 3584 CS Utrecht, The Netherlands; email: dewanandmakhan@yahoo.co.uk

ABSTRACT: Two new species of water mites collected from Suriname are described: *Arrenurus soesilae* Makhan and *Koenikea aschnae* Makhan.

KEY WORDS: Water mites, Hydrachnidia, new species, Suriname.

RESUMO: Duas novas espécies de ácaros aquáticos coletados em Suriname são descritas: *Arrenurus soesilae* Makhan e *Koenikea aschnae* Makhan.

PALAVRAS-CHAVE: Ácaros aquáticos, Hydrachnidia, novas espécies, Suriname.

INTRODUCTION

Arrenurus (*Micruracaropsis*) *phytotelmaticola* Viets, 1939 is the only species of the genus that was known from Suriname, until the second species was discovered, which is below described as *Arrenurus soesilae* sp. nov. Besseling (1949) described eight new Hydrachnidia species and ten species new for Suriname. As for the genus *Koenikea*, four species were known from Suriname, and *Koenikea aschnae* sp. nov., below described, is the fifth species of this genus reported for Suriname.

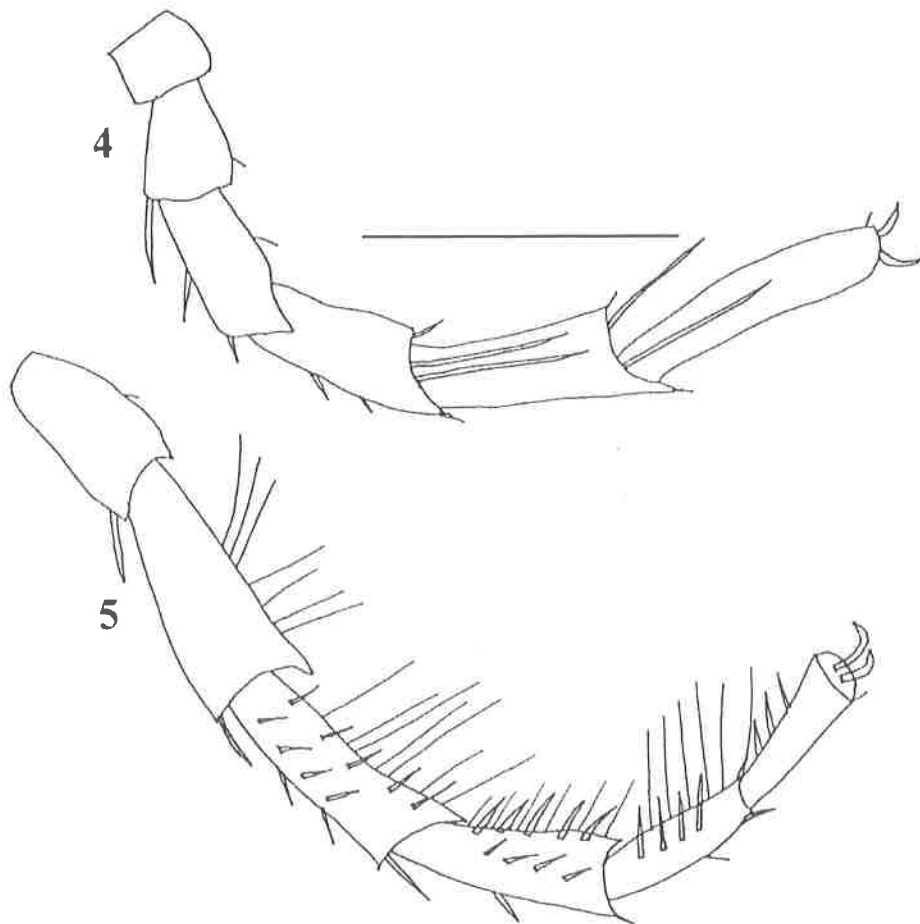
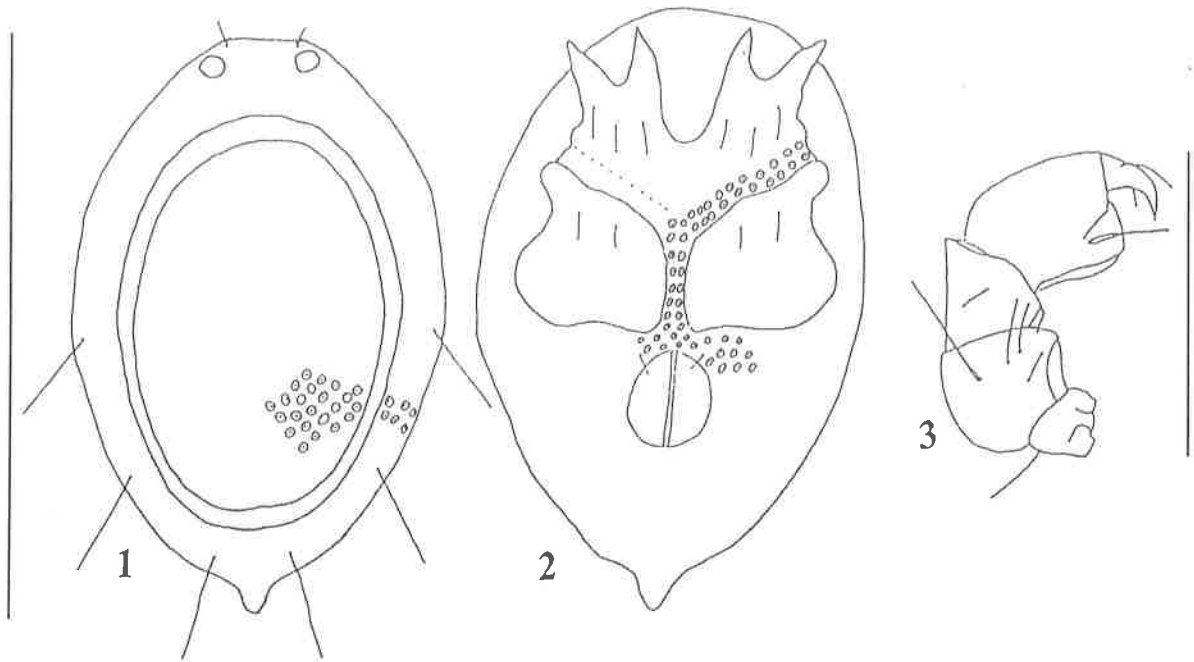
Both new species were collected in the District of Commewijne, in Tamanredjo, in a road side ditch. This semi-permanent ditch, 4 m wide and 50 cm deep, and clay soil, had a dense vegetation of emergent plants only. The stagnant water was clear.

The holotypes of both new species are deposited at the University of Suriname, Department of Entomology, Paramaribo, Suriname.

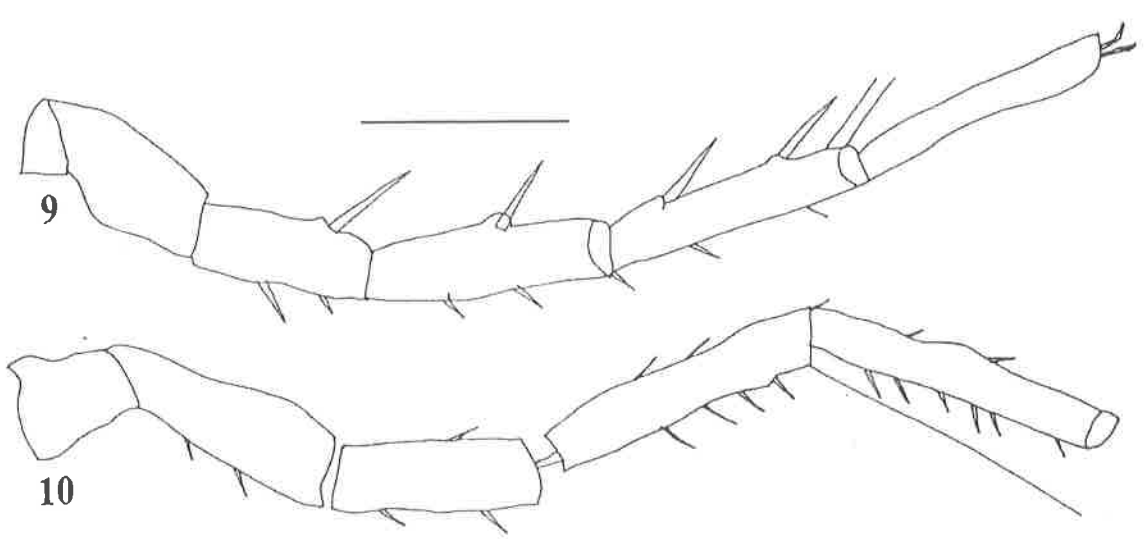
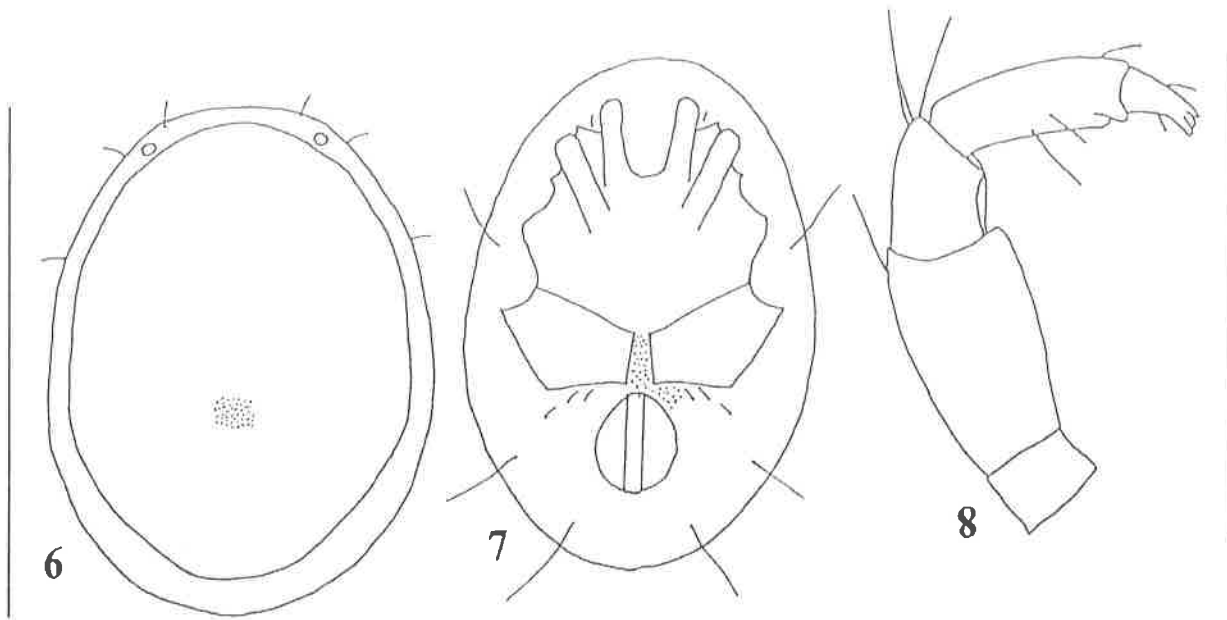
1. *Arrenurus* (*s.str.*) *soesilae*, sp. nov.

Type: (female) SURINAME: District Commewijne, Tamanredjo, 7.IV.1996, Makhan s.n. (holotype female) (Figs. 1-5)

Description: Female: 749.7 µm long, 588 µm wide, oval, narrowed backwards, green, legs green. Dorsal side only six long setae on the posterior shield. The I-Leg 352.8 µm long (Fig. 4, the scale line is 235.2 µm) swimming setae absent. 5th and 6th segments with two large spines 2nd, 3rd, 4th, 5th and 6th segments with short spines on the lateral side the other side only in the 4th segments and with setae on the 2nd, 3rd and 5th segments. The II-Leg 352.8 µm long. Swimming setae as in Leg IV. The III-Leg 352.8 µm long. Swimming setae as in Leg IV. The IV-Leg 382.2 µm long (Fig. 5, the scale line is 235.2 µm) with swimming setae on the 2nd, 3rd, 4th and 5th segments. The 2nd, 3rd, 4th, 5th and 6th segments with short spines on the lateral side the other side with two rows of spines in 3rd and 4th segments and 5th and 6th segments with one row of short spines. Pedipalp (Fig. 1b scale line is 117.6 µm) short and broad. PI- longer than wide, with one dorsal seta, PII wider than long, with four setae, PIII long as wide, with one seta, PIV longer than wide with one seta, claw with two setae. Anterior side of the ventral shields with 6 setae and 4 setae on the posterior side. On dorsal margin of the genital plates with two short setae.



Figures 1-5. *Arrenurus soesilae* Makhan (female). **1.** Dorsum. **2.** Venter (Scale line = 749.7 μ m). **3.** Pedipalp (scale line = 117.6 μ m). **4.** I-Leg. **5.** IV-Leg (Scale line = 235.2 μ m).



Figures 6-10. *Koenikea aschnae* Makhan (female). **6.** Dorsum. **7.** Venter. (scale line = 911.4 μ m), **8.** Pedipalp (scale line = 205.8 μ m). **9.** I-Leg. **10.** IV-Leg. (Scale line = 235.2 μ m).

Etymology: This species is named after my wife Soesila Makhan.

Remarks: This species seems to be allied to *Arrenurus (s.str.) brasiliensis* Lundblad, 1941 from Brazil, but there is a difference in the shape of the body, the dorsal apical side is wide in *A. (s.str.) brasiliensis* and narrow in *A. (s.str.) soesilae* **sp.nov.**

2. *Koenikea (s. str.) aschnae*, **sp. nov.**

Type: SURINAME: District Commewijne, Tamanredjo, 7.IV.1996, *D. Makhan s.n.* (Holotype female). (Figs. 6-10)

Description: Female: Body 940.08 μm long, 793.8 μm wide, round, pink; legs green, dorsal side 6 short setae on the anterior shields. The I-Leg 823.2 μm long (Fig. 9, the scale line is 235.2 μm). The 3th, 4th, and 5th segments with short setae on the lateral side and the 3th, 4th segments on the other side with longer spines and the 5th segments with 2 spines and with 2 setae. The II-Leg 823.2 μm long. Swimming setae as in Leg IV. The III-leg 705.6 μm long. Swimming setae as in Leg IV. The IV-leg 823.2 μm long ? (leg is broken) (Fig.10, the scale line is 235.2 μm). The 2nd, 3th, 4th, and 5th segments with short spines and the 5th segments with a swimming setae on the lateral side and the other side with short spines in the the 3th, 4th and 5th segments. Swimming setae in Legs II and Leg III as in Leg IV. Pedipalp (Fig. 1b; scale line = 205.8 μm). PI- wider than long, seta absent, PII longer than wide, with one dorsal seta, PIII longer than wide, with two dorsal setae, PIV longer than wide with three setae, claw with two setae. On the ventral side, two short setae on the anterior side and 6 setae on the posterior side. Setae absent on dorsal margin of the genital plates.

Etymology: This species is named after my daughter Aschna Makhan.

Remarks: This species seems to be allied to *Koenikea excavata* Lundblad, 1936 from Brazil, but there is a difference in the shape of the body: while P2 with one seta in *K. excavata*, *K. aschnae* **sp. nov.** has two setae on the P2,

and there is a difference in the shape of the P3. In addition, the long shape of the pedipalp is a diagnostic character for this species.

ACKNOWLEDGMENTS

I wish to thank Dr. Peter Roy Wiles and an anonymous reviewer for the constructive comments on the manuscript and additional information.

REFERENCES

Besseling, A. J. 1949. Watermijten uit Suriname. Entomol. Bericht. 13: 59-179.

Received 22.V.2005
Accepted 23.XI.2005