A new Cuban *Achipteria* (Oribatei: Achipteriidae) from Pinares of Mayari, Cuba

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ABSTRACT: *Achipteria mayariana* sp. nov. is described, figured and differentiated from other species. Specimens were found in soil of coffee plantations of Pinares of Mayari, Holguin, Cuba.

Key words: Oribatei, Achipteriidae, *Achipteria*, taxonomy, soil, Cuba.

INTRODUCTION

The family Achipteriidae comprises 10 genera: *Achipteria*, with cosmopolitan distribution; *Achipterina*, Africa; *Anachipteria*, Holartic and South America; *Anoribatella,* Holartic and South America; *Austrachipteria,* Australia; *Cerachipteria,* Europe; *Parachipteria,* Holartic; *Parahypozetes,* New Zealand, *Pseudachipteria,* Europe and *Dentachipteria,* United States. From North America five genera and 32 species have been recorded to Achipteriidae (Marshall *et al.*, 1987) and from Mexico only three species have been cited; one undescribed from *Parachipteria*, *P. neotropicalis* Mahunka, 1983 and another undescribed species of *Anachipteria* (Palacios-Vargas, 1994).

The family is represented in Cuba by two genera, *Achipteria* and *Anachipteria* (Balogh and Balogh, 1990) each with one species: *Achipteria (Cubachipteria) remota* Balogh and Mahunka and *Anachipteria pratensis* Scull, Jeleva and Cruz. The purpose of this paper is to describe a new species of *Achipteria*, often found in the soil of the coffee plantations at Pinares of Mayari, Holguin, Cuba.

SYSTEMATIC

Achipteria mayariana, sp. nov.

(Figs. 1-5)

Diagnosis. Notogaster without areae porosae. Sensillus thick, capitate and denticulate. Legs mondactylous with smooth claws. The only species of the genus *Achipteria* from the Neotropical Region is *A. remota* from Cuba. *Achipteria mayariana* sp. nov. has interlamellar setae thicker and more barbulate than *A. remota.* The sensillus of the new species is more capitate and serrate than *A remota. A. mayariana* sp. nov. has not porose area and all the notogastral setae are similar in length.

Description. Measurements: Average length 10 specimens, 340 μm (range 305-374); mean maximum notogastral width 256 μm (range 236-276). Prodorsum. (Fig. 1). Rostrum pointed. Lamella long surpassing tip of rostrum. Area between lamella very narrow. Translamella wide and short. Lamellar cusps with two teeth, the inner tooth with lamellar seta. Lateral tooth longer and more wide. Lamellar seta (le) smooth and short (45 μm),

interlamellar seta (in) long (100 μm) barbulate, reaching beyong the tip lamellar seta. Rostral seta (ro) (64 μm) more strongly barbulate and almost reaching tip of rostrum. Sensillus (ss) long (88 μm) clavate, head with many denticles, pedicel smooth.

Notogaster. (Fig. 1). Ten pairs of short and smooth seta, (10-20 μm). Without any porose area, with the normal lyrifissures ia, im, ih, ip, and the glandular opening. Pteromorphae long and wide, curving ventriad, with two anterior projections blade shaped, long (75 μm) and wide (20 μm). Median lateral border of pteromorphae with two undulations.

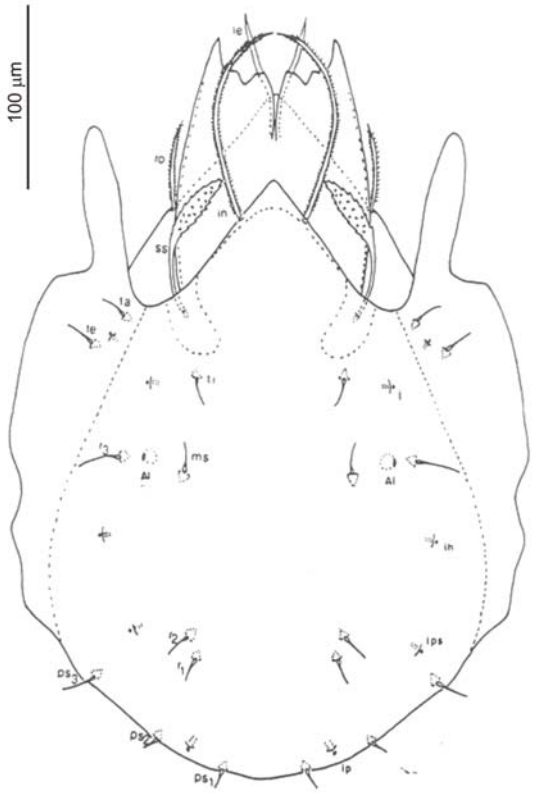

Fig. 1. Dorsal aspect of *Achipteria mayariana* sp. nov., adult female.

Lateral aspect of podosoma. Tutorium with smooth margin, long thick and with a rounded end. Ventral region. One pair of aggenital seta, two anals and three adanals, all smooth. Coxisternal setation 3-1-3-3. Genital plate with six pairs of smooth seta, g 1-2 on the anterior margin of genital plate. All ventral setae are smooth.

Legs. (Figs. 2-5). Monodactylous. Claws smooth. Legs setation from trochanter to tarsus, including famulus (solenidia in parentheses), as follows: Leg I: 1-5-3(1)-4(2)-17(2); Leg II: 1-5-3(1)-4(1)-14(2); Leg III: 0-2-1(1)-3(1)-14(0); Leg IV: 0-1-1(1)-3(1)-12(0). Ventral seta of femur I minute. Genua I and II with large, pointed carina in form of spine. Tarsus II with seta s thick and crenulate. Femur II with seta d very long and smooth.

Variation. One specimen have three seta in one anal plate and two in the other.

Etymology. The new species is named after type locality: Pinares de Mayarí.

Types. Holotype in alcohol. CUBA, Holguin, Pinares de Mayarí; 18.xi.92.; col. A. Socarrás, in soil of coffee plantation (female; IES). Eigth slide mounted paratypes. **Paratypes,** females**,** with the same locality (two paratypes deposited at IES). The remaining paratypes at senior author's institution.

DISCUSSION

The only known species of the genus from the Neotropical Region is *Achipteria (Cubachipteria) remota*, described by Balogh and Mahunka (1979) from Las Villas, Puente Colorados, near Cienfuegos, Cuba. Our species does not belong to this subgenus, because even the legs are also monodactyle, the interlamellar setae are not near each other. We consider to keep this species in the genus *Achipteria* and not to create another subgenus for the moment.

Achipteria mayariana sp. nov. has interlamellar setae longer and barbulate, while in *A. remota* they are short and smooth. The sensillus in the new species is more capitate and less serrate than *A. remota*. Both species have a similar size, but the setae are shorter in *A. mayariana* sp. nov. A more conspicuous difference is the shape of the lamellae, which are thicker in *A. remota* and in *A. mayariana* sp. nov. are sharp, with a median teeth. *A. mayariana* sp. nov. is also similar to *A. serrata*, recently described by Hirauchi and Aoki (1997) from Central Japan, but this last has very short setae, a more capitate sensillus and smooth intralamellar setae. Also the shape of the lamella is different as it has several teeth**.**

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REFERENCES

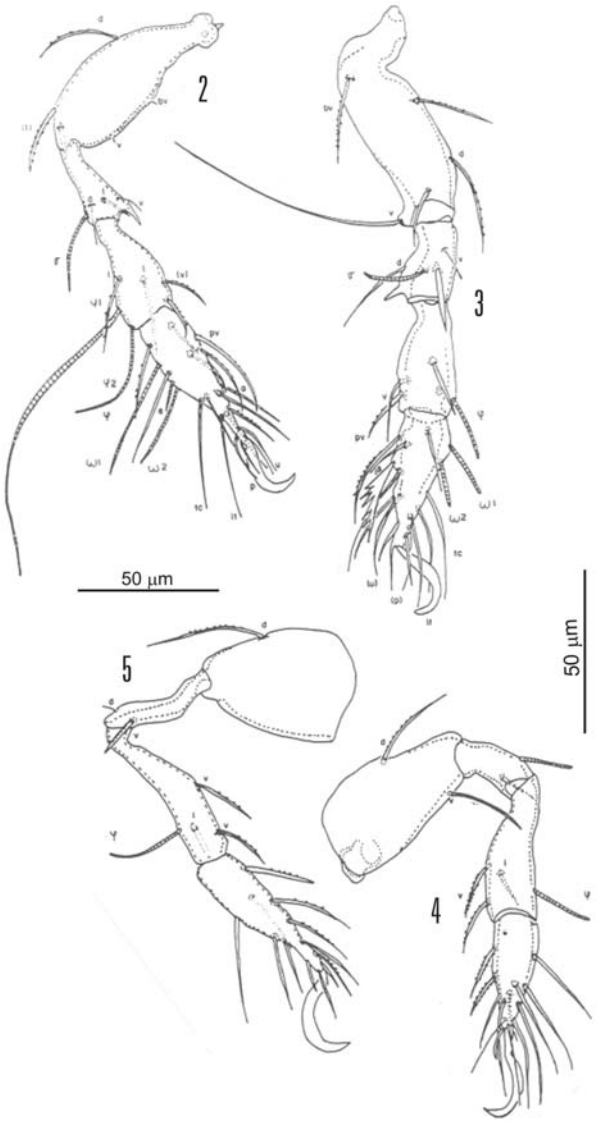
Balogh J. and S. Mahunka. 1979. New data to the knowledge of the oribatid fauna of the Neogea (Acari) IV. Acta Zool. Acad. Sci. Hungaricae 25: 35-60.

Balogh J. and P. Balogh 1990. Oribatid mites of the Neotropical Region II. Akadmiai Kiad, Budapest, 332 p.

Hirauchi, Y. and J. I. Aoki. 1997. A new species of the genus *Achipteria* from Mt. Tateyama, Central Japan (Acarida: Oribatida). Edaphologia 59: 5-9.

Marshall, V. G.; R. M. Reeves and R. A. Norton 1987. Catalogue of the oribatida (Acari) of continental United States and Canada. Entomol. Soc. Canada. 139: 1-418.

Palacios-Vargas, J. G. 1994. Los ácaros oribátidos de México. An. Ints. Biol. Ser. Zool. UNAM., 65(1): 19-32.



Figs. 2-5: *Achipteria mayariana* sp. nov. 2. Femur, genu, tibia and tarsus I. 3. Femur, genu, tibia and tarsus II. 4. Femur, genu, tibia and tarsus III. 5. Femur, genu, tibia and tarsus IV.