**ARTÍCULO:**

Atelopsalis atlantica sp. n., a new species of halacarid mites from the south-eastern Brazilian coast (Acari, Halacaridae)

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Revista Ibérica de Aracnología

ISSN: 1576 - 9518.
Dep. Legal: Z-2656-2000.
Vol. **10**, 31-XII-2004
Sección: Artículos y Notas.
Pp: 145–148.

Edita:

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ARTÍCULO:

ATELOPSALIS ATLANTICA SP.N., A NEW SPECIES OF HALACARID MITES FROM THE SOUTH-EASTERN BRAZILIAN COAST (ACARI, HALACARIDAE)

Almir Rogério Pepato & Cláudio Gonçalves Tiago

Abstract:

Two females and one protonymph belonging to a new species of halacarid mite, *Atelopsalis atlantica* sp. n., were obtained from samples collected on rocky shores at Caraguatatuba, Brazil. The new halacarid is here described.

Key words: Acari, Halacaridae, *Atelopsalis*, South America, Brazil.

Taxonomy: *Atelopsalis atlantica* sp. n.

Atelopsalis atlantica sp. n., nueva especie de ácaro halacárido de la costa sureste de Brasil (Acari, Halacaridae)

Resumen:

Se describen dos hembras y una protoninfá pertenecientes a una nueva especie de ácaro halacárido, *Atelopsalis atlantica* sp. n., colectadas en una plataforma rocosa de Caraguatatuba, Brasil.

Palabras clave: Acari, Halacaridae, *Atelopsalis*, América del Sur, Brasil.

Taxonomía: *Atelopsalis atlantica* sp. n.

Introduction

The genus of marine mites, *Atelopsalis* Trouessart, 1896, widely distributed, comprises six recognized species and an undetermined occurrence. Among these, four species were found in depths ranging from 193 to 1410 m. Two very similar species, *A. aliger* Bartsch, 1977 and *A. pacifica* Bartsch, 1985, were found in intertidal or shallow subtidal waters (Bartsch, 1973, 1977, 1982, 1985, 2002; Sarma & Chatterjee, 1990).

This study deals with the description of a new species collected from the intertidal rocky shore on Southeastern Brazil, among individuals of *Brachidontes solisianus* d'Orbigny, 1846 (Mollusca: Bivalvia; Mytilidae) and *Perna perna* Linnaeus, 1758 (Mollusca: Bivalvia; Mytilidae).

Material and Methods

The material was collected and sorted by researchers from the Program BIOTA/FAPESP staff, in the frame of the project "Benthic marine diversity of the State of São Paulo".

Mites were obtained from samples of rocky shore epibionts which were taken from Martim de Sá beach (Caraguatatuba) at 23°38' S, 45°24' W in North Coast of São Paulo State, Southeastern Brazil. Samples were sorted under stereomicroscope and the material obtained was fixed in 4% formalin. Mites were cleared in lactic acid and mounted in glycerin jelly. The holotypes and paratypes were deposited in the Museu de Zoologia da Universidade de São Paulo (MZUSP) or in the author's collection. Drawings were made with the aid of a camera lucida.

Abbreviations used in the description: AD, anterior dorsal plate; PD, posterior dorsal plate; AE, anterior epimeral plate; PE, posterior epimeral plate; GA, genitoanal plate; GO, genital opening; OC, ocular plate; ω, solenidia; Legs numbered I to IV and the segments, from proximal to distal, named: trochanter, basifemur, telofemur, genu, tibia and tarsus; palpal segments in the same order numbered P1 to P3; ds, dorsal setae, from anterior to posterior: ds-1 to ds-5; gp, gland pores.

Chaetotaxy formulas are referred without solenidia and parambulacrals setae, from trochanter to tarsus.

Systematic

Genus *Atelopsalis* Trouessart, 1896

Small mites, idiosoma 171-218 µm long, with well developed idiosomal plates. Gnathosoma short bears three segmented palps attached laterally. P2 has no seta. P3 bears one basal seta, two apical setae and a spur. First pair of legs armored with at least one pair of spines on tibia. A pair of epimeral vesicles present on epimere II. In males genitoanal plate bears five pairs of perigenital setae.

Atelopsalis atlantica sp. n.

(Fig. 1 and 2)

EXAMINED MATERIAL: Holotype: Female (MZUSP) from intertidal rock shore at Martins de Sá beach ($23^{\circ}38' S$ $45^{\circ}24' W$), 13 March 2001; Coll. BIOTA/FAPESP. Paratype: Female and Protonymph (author's collection), collecting data as holotype.

DESCRIPTION:

Female: Idiosoma 208-213 µm long, 123-128 µm wide. Plates separated by membranous cuticle and bearing areolas and costae which are composed by modified rosette pores that consist at an ostium overlying a larger and deep alveolus.

Anterior dorsal plate 84-85 µm long, 64-65 µm wide, including anterior spine. AD bears an anterior areola and two posterior costae which range from one to three rosette pores in width and are "U"-shaped. Pair of ds-1 lies at 0.35-0.36 of AD total length. At approximately the same level, a pair of gland pores is found on AD, near its lateral edge.

Ocular plates caudate, with two large corneas, a small areola with 3-5 rosette pores, a gland pore and ds-2. OC 56-60 µm in length and 17-18 µm in width. Third pair of dorsal setae lies on the stripe of membranous cuticle between AD and PD.

Posterior dorsal plate 113-118 µm long, 93 µm wide. Costae two rosette pores wide in most of their length. PD bears ds-4 at 0.19-0.27 and ds-5 at 0.53-0.60 of its overall length. Adanal setae stand dorsal on the anal papillae.

Anterior epimeral plate 70-72 µm long, 112-113 µm wide, bears three pairs of setae, a pair of epimeral vesicles and three pairs of areolas. Posterior epimeral plates with three pair of setae and one ventral and two lateral areolas.

Genital anal plate has three pairs of perigenital setae and one pair of anterior subgenital setae. There is one areola on each side of GO that almost reaches pgs-1. Distance between GO and GA 58-59 µm. GO 30-31 µm long and 22-25 µm wide.

Chaetotaxy of legs, leg I, 1, 2, 5, 4, 8, 6; leg II, 1, 2, 5, 4, 7, 4; leg III, 1, 1, 3, 3, 5, 4; leg IV, 0, 1, 3, 3, 5,

3. Tibia I bears two blunt spines near its middle length. Tibia II bears one bipectinate seta and a posterior medial spine. Tibiae III-IV have only one bipectinate seta. Telo-femur I bears an anterior medial spine-like projection. A pair of long doublet eupathidia, three ventral and three dorsal setae could be found on tarsus I. Tarsus II with one ventral, three dorsal and a pair of parambulacrals setae. Four dorsal and a pair of parambulacrals setae were found on tarsus III; ventral setae absent. Tarsus IV with three dorsal and a pair of parambulacrals setae; ventral setae absent.

Lateral claws of tarsus I smooth, accessory process could not be seen. Lateral claws of tarsi II-IV with accessory tooth and pecten which reaches the claw basis. Medial claws reduced and bidentate.

Gnathosoma short, 42 µm long, 33 µm wide. Rostrum as long as 0.33 times the gnathosoma length. Palps three segmented. P2 without setae. P3 bears a dorsal seta, two apical setae and a terminal spur.

Protonymph: Idiosoma 143 µm long, 79 µm wide, with plates less developed and ornamented. Measurements of dorsal plates: AD 62 µm long, 45 µm wide; PD 72 µm long, 51 µm wide; OC 28 µm long, 13 µm wide; gnathosoma 33 µm long, 27 µm wide. Ocular plates rectangular. Chaetotaxy of dorsal plates similar to females.

Anterior epimeral plate 63 µm long, 80 µm wide with three pairs of setae, a pairs of epimeral vesicles and two pairs of areola. Posterior epimeral plate bears two ventral and one dorsal seta; devoid of ventral areola. Genital plate 32 µm long, 29 µm wide, with a slit-like primordial genital opening almost surrounded by areola.

ETYMOLOGY: The species is named after the Atlantic Ocean where this new species of the genus *Atelopsalis* was found.

REMARKS: *A. atlantica* sp. nov. shares most features (e.g. similar ornamentation on AD, PD and AE, chaetotaxy of all legs and presence of a spine-like projection on telofemur I) with *A. pacifica* Bartsch, 1985. However, *A. atlantica* bears an areola on OC which is devoid on *A. pacifica*, and has costae on PD almost twice broader than that found on *A. pacifica*.

Acknowledgements

Mites were collected in the frame of the project "Benthic marine biodiversity on the State of São Paulo" (BIOTA/FAPESP Program; Proc nº 1998/07090-3) whose coordinator, Prof. Dr. Antônia Cecília Amaral, is thanked for her kindness on sending the material. We are in debt to M. Sc. Cynthia Santos and M. Sc., Dacha A. Ariznavarreta who kindly reviewed the manuscript and resumen respectively.

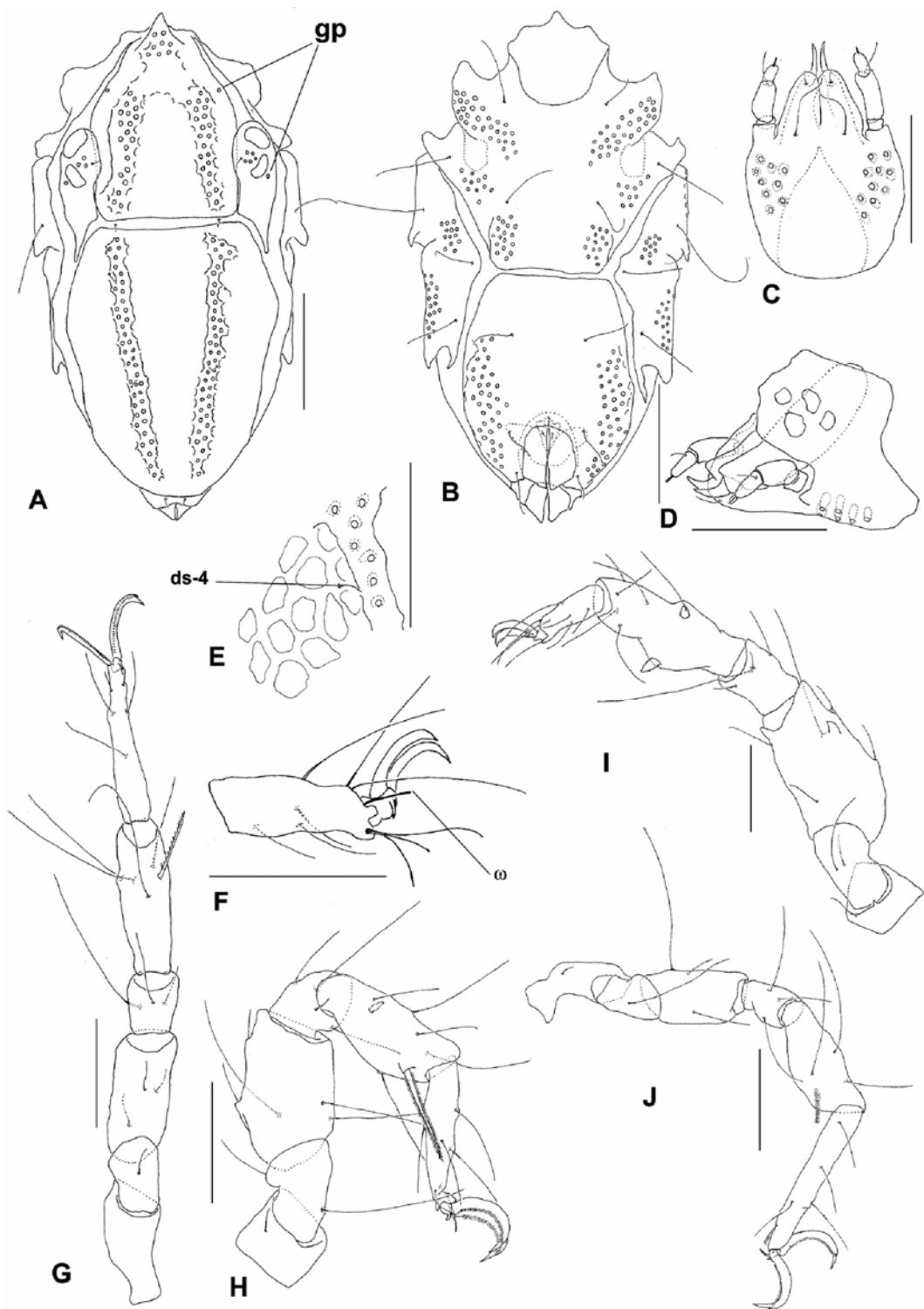


Fig. 1. *Atelopsalis atlantica* sp. nov., female. **A.** Idiosoma, dorsal view. **B.** Idiosoma, ventral view. **C.** Gnathosoma, ventral view. **D.** Gnathosoma, medial view. **E.** Portion of posterior dorsal plate near to ds-4. **F.** Tarsus I, lateral view. **G.** Leg IV, ventral view. **H.** Leg II, lateral view. **I.** Leg I, ventral view. **J.** Leg III, lateral view. Scale bar: A, B 50 μm ; C-J 25 μm .

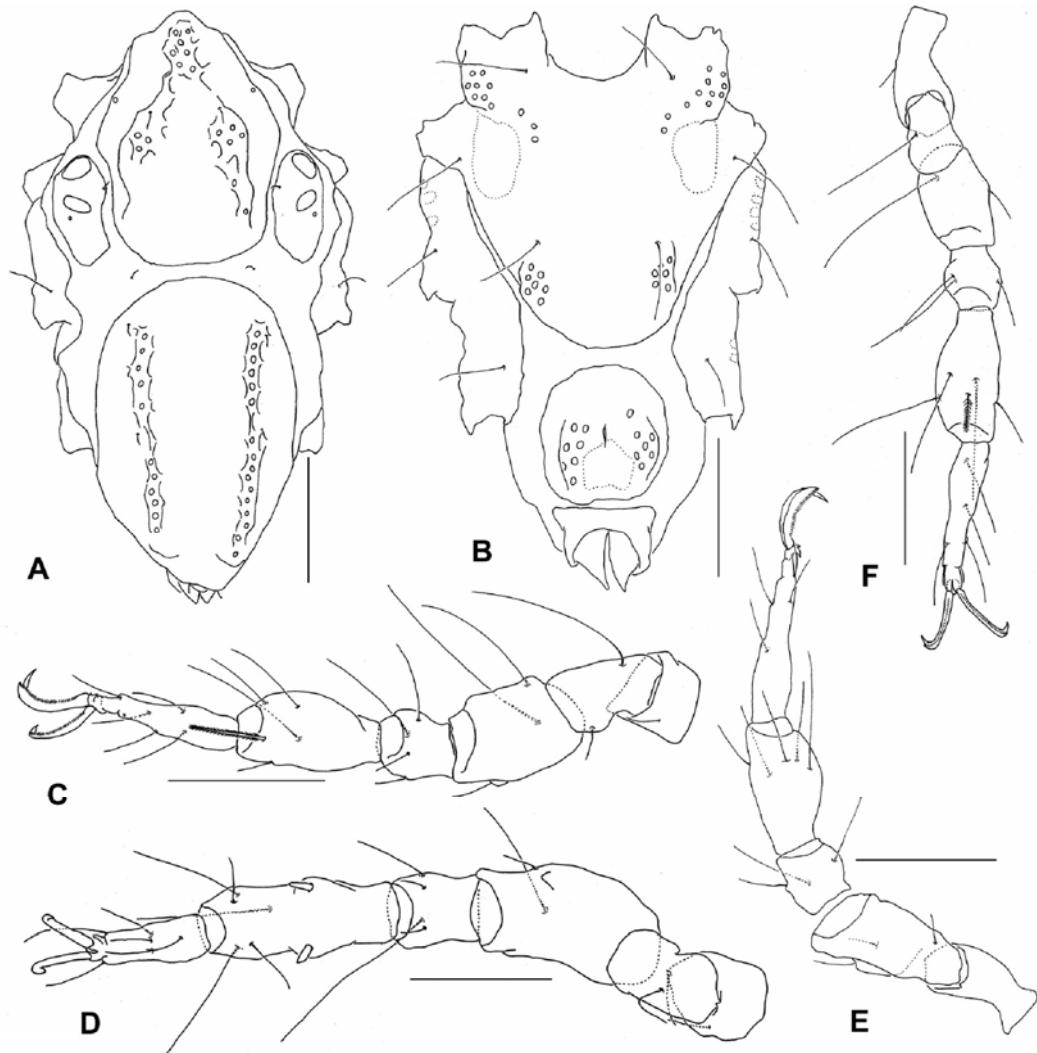


Fig. 2. *Atelopsalis atlantica* sp. nov., protonymph. **A.** Idiosoma, dorsal view. **B.** Idiosoma, ventral view. **C.** Leg II, medial view. **D.** Leg I, ventral view. **E.** Leg IV, lateral view. **F.** Leg III, medial view. Scale bar: A-F 25 µm.

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