

Agauopsis narinosa Otto, 1999 (Acari: Halacaridae),
a new record from Sri Lanka:
complementary description

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(With 8 figures)



Abstract

Agauopsis narinosa Otto, 1999, recorded from the Great Barrier Reef, western Pacific, was found in the Indian Ocean, on a reef flat of Sri Lanka. A complementary description is presented.

Key words: Acari, Halacaridae, *Agauopsis*, *microrhyncha* group, taxonomy, Sri Lanka.

Introduction

Representatives of the genus *Agauopsis* Viets, 1927 live in shallow and deep waters, in a variety of habitats. The genus at present includes almost 80 species; descriptions of further species are in press. If the halacarid genera are ranged according to their number of species, *Agauopsis* is the third, preceded only by the genera *Copidognathus* Trouessart, 1888 and *Rhombognathus* Trouessart, 1888. Most of the *Agauopsis* species can be attributed to species groups which are expected to represent natural unities (Bartsch 1996). The two groups most rich in species are the *microrhyncha*- and *brevipalpus*-group, *Agauopsis narinosa* Otto, 1999 belongs to the former group, but differs in some details from the most common character combinations of this group. The original presentation of the species is supplemented.

Re-description of species

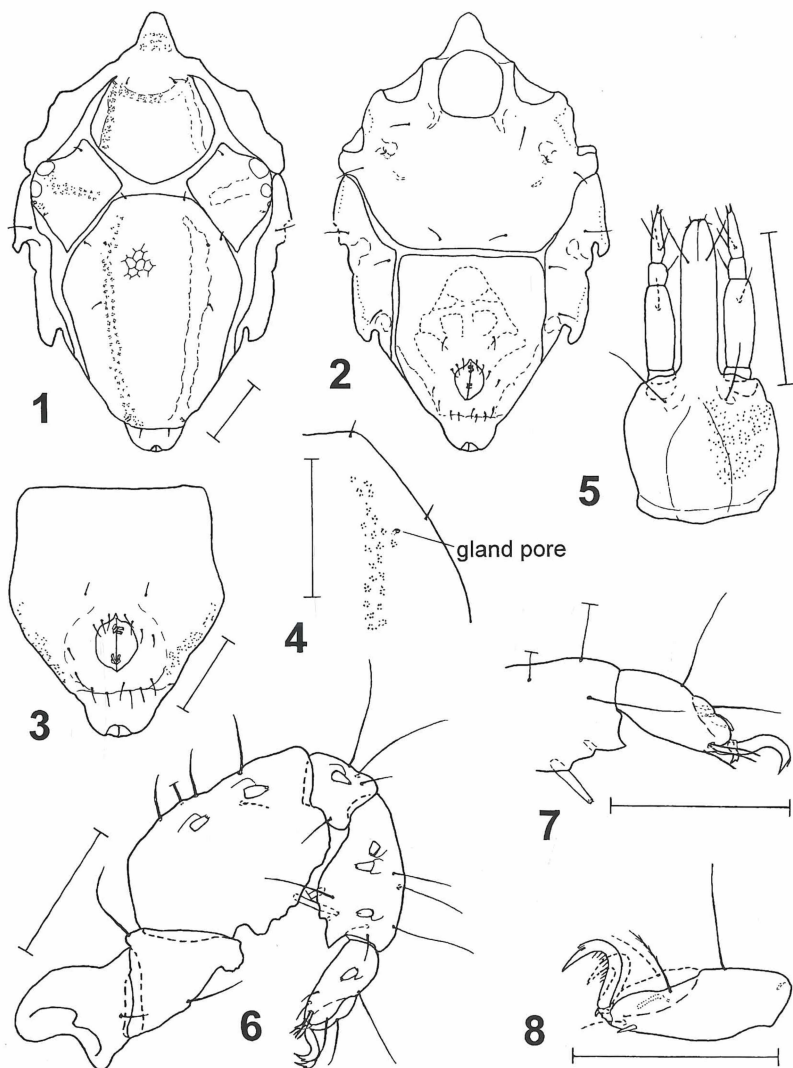
Agauopsis narinosa Otto, 1999

(Figs 1-8)

Agauopsis narinosa: Otto 1999: p. 807-809, Figs 9A-D, 10A-D.

MATERIAL EXAMINED: One male, southern Sri Lanka, Ahangama, ca. 6°00'S, 80°22'E; *Halimeda* sp. (Chlorophyta) on moderately exposed fringing reef flat; low tide area; 28 February 1993; coll. H.-G. Müller. Specimen housed in the Zoological Museum in Hamburg (ZMH, Acc. No. A19/06).

One female, paratype, northeastern Australia, Great Barrier Reef Marine Park, Cape Ferguson, algae on intertidal rocks; 13 July 1996; coll. J. C. Otto (ZMH Acc. No. A15/2000).



Figs 1-8. *Agauopsis narinosa* Otto, 1999, male: 1 – Idiosoma, dorsal; 2 – idiosoma, ventral; 3 – genitoanal plate; 4 – anterior part of posterior dorsal plate, at the level of third and fourth dorsal setae; 5 – gnathosoma, ventral; 6 – leg I, medial; 7 – posterior tibia and tarsus I, lateral (medial setae and claw omitted); 8 – tarsus II, medial (lateral setae and claw in broken line, solenidion dotted). (scale bars = 50 μ m).

DIAGNOSIS. Length of idiosoma 334-350 μm . With characters of the microrhyncha group. Frontal spine wide, flattened. Porose areolae of dorsal plates superficially with canaliculi arranged in groups; longitudinal costae of anterior and posterior dorsal plate and transverse costae of ocular plate mostly two such groups wide. Posterior dorsal plate with pair of gland pores at the level of fourth pair of dorsal setae. Male genitoanal plate with 6-8 pairs of perigenital setae close to genital opening and one pair of outlying setae. Rostrum slender, about as long as gnathosomal base. Basifemur I with small ventral lamella. Telo femora wide, with lamellae. Telo femur I with one ventral spine and two ventromedial spines. Genu I with ventral seta and ventromedial spine. Tibia I with one ventral spine and three ventromedial spines.

COMPLEMENTARY DESCRIPTION (on the basis of the specimen from Sri Lanka): **Male.** Length of idiosoma 334 μm , width 215 μm . Dorsal plates with demarcated porose areolae, remainder faintly reticulated (Fig. 1). Integument of porose areolae with canaliculi at surface, in general three to five canaliculi arranged together, and an alveolus in deeper integumental layers; alveolus and surrounding canaliculi representing a rosette pore. Anterior dorsal plate with flattened, spatula-shaped frontal spine, scattered canaliculi at base of that spatula. Posterior margin of plate somewhat triangular. Porose longitudinal costae of anterior dorsal plate mostly two rosette pores wide, a slightly concave transverse costa at the level of insertion of leg I one to two rosette pores wide. First pair of dorsal setae medial to anterior corner of longitudinal costae. Ocular plate with two large corneae, adjacent gland pore and pore canaliculus in lateral margin and porose areolae, viz. small areolae posterior and medial to corneae and a narrow transverse areola, one to two rosette pores wide, extending almost to posteromedial margin of plate. Second pair of dorsal setae within anterior angle of ocular plate. Anterior margin of posterior dorsal plate truncate, then margins divergent; plate widest about halfway between insertions of legs III and IV. Third pair of dorsal setae in anterior margin of posterior dorsal plate; fourth pair within anterolateral margin of posterior dorsal plate at the level of pair of gland pores; fifth pair close to lateral margin of costae; adanal setae in posterior margin of posterior dorsal plate. Pair of longitudinal porose costae mostly two rosette pores wide, extending antieriad distinctly beyond fourth pair of dorsal setae; pair of gland pores (Fig. 4) at 0.22-0.24 relative to length of posterior dorsal plate.

Integument of major areas of anterior epimeral plate and genitoanal plate with delicate, scattered canaliculi, marginal areas with rosette pores; transverse area immediately posterior to camerostome smooth. Ventral part of posterior epimeral plate with canaliculi, marginal areas with rosette pores. Opposing margins of anterior epimeral plate and genitoanal plate straight. Genital opening small, distance from anterior margin of genitoanal plate to genital opening equalling 2.4 times length of genital opening. With 7-8 pairs of short perigenital setae plus one pair of outlying setae (Fig. 2). Genital sclerites with four pairs of subgenital setae (Fig. 3), these setae short, wide, with tri- or fourfid tip.

Spermatopositor large though not reaching to anterior margin of genitoanal plate.

Length of gnathosoma 100 μm , i.e., 0.3 of length of idiosoma. Gnathosoma almost twice as long as wide, its rostrum about as long as gnathosomal base (Fig. 5). Base with pair of porose areolae. Tectum truncate.

Basifemur I with lobiform lamella (Fig. 6). Telo femora with ventrolateral lamellae; lamellae of telofemora I and II undulate, of telofemora III and IV straight. Tibia I with apical, triangular ventrolateral lamella (Fig. 7). All tarsi with fossa membranes. Leg chaetotaxy (solenidia and pas excluded; stout spiniform setae in roman numerals): leg I, 1, 2, 5+III, 4+I, 6+IV, 5+I; leg II, 1, 2, 6, 5, 6, 3; leg III, 1, 2, 3, 3, 5, 3; leg IV, 0, 2, 3, 3, 5, 3. Spines on leg I with blunt, dentate tip. Tibiae II-IV with 3, 2, 2 bipectinate ventral setae. All tarsi with three dorsal fossary setae, the two apical ones on fossa membranes, situated paired. On tarsi III and IV both these apical fossary setae plumulose, on tarsus II medial seta plumulose, lateral fossary seta smooth. On tarsus I lateral fossa membrane with fossary seta and adjacent baculiform solenidium, 8 μm in length; famulus vestigial; on tarsus II solenidium on inner flank of dorsomedial fossa membrane. Tarsus I with ventromedial spine and two small ventral setae, one slender tapering, the other one eupathid, these setae not paired; tip of tarsus with doubled parambulacral setae. Tarsus II with spiniform medial and setiform lateral parambulacral seta (Fig. 8); tarsi III and IV with single lateral parambulacral seta.

Remarks

The specimen from Sri Lanka most likely is conspecific with *Agauopsis narinosa*, a species described from Townsville, Queensland, Australia, western Pacific (Otto 1999). The differences in the outline of the dorsal plates are mainly due to the compressed state of the type material, the porose costae of the posterior dorsal plate extend halfway between third and fourth pair of dorsal setae, in both the male from Sri Lanka and the paratype female from Australia, the pair of anterior gland pores of the posterior dorsal plate is at about the level of the fourth dorsal seta. In the specimen from Sri Lanka the base of the frontal spine bears a porose ornamentation, whereas the specimens from Australia seem to lack such porosity (see Otto 1999: Fig. 9A); the mounted paratype shows the ventral side and the frontal spine is obscured by the gnathosoma. Genua III and IV bear three setae each, both in the paratype female and the present male.

Agauopsis narinosa is a member of the *microrhyncha* group though differs from the majority of species of this group by: its flattened, spatula-shaped frontal spine, the slender ventral seta on genu I, the absence of a ventral spiniform process on tarsi II to IV, and the low number of perigenital setae around the male genital opening. In the majority of species of the *microrhyncha* group the frontal spine is short and pointed, the ventral seta of genu I is spiniform, tarsi II to IV have small ventral processes, and in the male the perigenital setae are arranged in a ring around the genital opening.

Zusammenfassung

Agauopsis narinosa Otto, 1999, einst vom Großen Barriere Riff, Westpazifik, gemeldet, wurde im Indischen Ozean auf einem Riffwatt vor Sri Lanka gefunden. Die Beschreibung der Art wurde ergänzt.

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