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NEOPRONEMATUS, A NEW GENUS
OF THE SUBFAMILY PRONEMATINAЕ
(ACARI: PROSTIGMATA: TYDEIDAE)
AND A NEW SPECIES FROM GREECE

by Heleni N. PANOU *, Nikolaos G. EMMANOUEL * and Andrzej KAŻMIERSKI **

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TAXONOMY, ACARI,
PROSTIGMATA, TYDEIDAE,
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NEOPRONEMATUS, N. AEGAEAE.
GREECE.

SUMMARY: A new genus of the subfamily Pronematinaе, Neopronematus gen.

nov. and a new species Neopronematus aegaeae sp. nov. are described and illustrated.

A key to the species of Neopronematus is given.

RÉSUMÉ: Un nouveau genre de la subfamille Pronematinaе, Neopronematus gen.

nov. et une nouvelle espèce Neopronematus aegaeae sp. nov. sont décrits et illustrés.

Une clef d'identification des espèces du genre Neopronematus est proposée.

INTRODUCTION

During studies carried out on the Greek tydeid-fauna, among other representatives of the subfamily Pronematinaе, a new species was found. This new species could not be placed in any of the described genera of the Pronematinaе (ANDRÉ, 1980; KAŻMIERSKI, 1998).

KUZNETZOV (1972) described two new species: neglectus and rapidus under the genus Pronematus. However, these two species have different characters from Pronematus, as described by ANDRÉ (1980). Pronematus rapidus was recorded for the first time in Greece by PANOU & EMMANOUEL on Quercus ilex at Olympus mountain Co. Pieria, 1992 (PANOU & EMMANOUEL, 1997). Greece is the second country in which this species is recorded after its original description.

KAŻMIERSKI (1998), places these two aforementio­ned species under “Pronematus” Generic Unit 3 -cf. Pronematus/Homeopronematus.

The report of a third new species from Greece sharing the same characteristics as KUZNETZOV’s species strengthens the case for creating a new genus, Neopronematus gen. nov. Thus P. neglectus and P. rapidus should be transferred to Neopronematus (PANOU 1998).

MATERIALS AND METHODS

The nomenclature proposed by KAŻMIERSKI (1989) is used for the idiosoma, infracapitulum (without palps), lyrifissures and setae is used, while that of ANDRÉ (1981a,b) is followed for appendages. All measurements are given in micrometers (μm).

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Neopronematus gen. nov.


Type species: Pronematus rapidus Kuznetzov 1972

Aspidosoma — 4 pairs of setae: ro (situated behind the line “la-la” = prodorsum “procurved”), la, ex, bo (bothridial setae = sensilli). Eyes absent.

Opisthosoma — 9 pairs of idiosomal setae: c1, c2, d1, e1, f1, f2, h1, p3, ps3 (ps3 situated ventrally); (d2, h2, ps2 missing). Poroidotaxy — 4 pairs of lyrifissures: ia, im, ip, ih. Genital organotaxy 1: AD (0-0-4), TN (0-4) with genital porus Κ-shaped, all the setae in length, thin, smooth and tapering.

Epidermal formula 1: AD-DN (3-1-4-2), PN (3-1-3-0), L (3-1-2). Ornamentation: striation only.

Legs — Leg I without apotele. Femur IV not divided. Leg chaetotaxy: AD-TN: I (8-3 + 1-3-3-1), II (6-2-3-3-1), III (5-2-2-2-1), IV (5-2-2-1-2). DN: I (8-3 + 1-3-3-0), II (6-2-3-3-0), III (5-2-2-2-1), IV (5-2-1-2-0). PN: as in deutonymph except IV: (5-0-0-0). Eupathidia on tarsus I: ft’+, t’+ (t’=) and (pC μ). Setae u undersized. Solenidiotaxy 3: ω1, ω2, θ1.

Larva: I (6-3 + 1-3-3-0), II (6-2-3-3-0), III (5-2-2-2-0). Tarsus I without claws, but with apotele and empodium with chetoids. Organotaxy: (ft), (tc), (p).

Gnathosoma — Palp chaetotaxy (5-1-2) with a double eupathidium at tip of tarsus: (pC), f’t’, f’+, θ, v + solenidion ω.

Diagnosis — This new genus is similar to Pronematus Canestrini (sensu Baker, 1965) and Homeopronematus André 1980.

These genera can be separated by means of the following key:

1. Tarsus III and IV with 6 setae ………………… Homeopronematus André

2. Tarsus III and IV with 5 setae ………………… 2

2. Trochanter I and II without setae ……… Pronematus Canestrini (sensu Baker 1965)

FEMALE (figs. 1-9) — Dimensions of holotype (measurements in parentheses are variations in the paratypes): length of idiosoma 207(202-222)/width 135(118-141).

Dorsum (fig. 1) — Idiosoma ovate, covered by fine striations. Striae connected to each other by small microtubercules (fig. 3). Striations run longitudinally on aspidosoma and on opisthosoma until base of d1, almost transverse beyond it, while at the end of opisthosoma they form an inverted U. — Dorsal idiosomal setae median in length, thin, smooth and tapering (fig. 3). Sensory setae as long as dorsal idiosomal setae, thin and smooth. Measurements: ro 15(14-16), la 14(14-17), ex 18(17-20), c1 18(16-18), c2 17(14-17), d1 17(14-18), e1 14(14-15), f1 12(12-13), f2 18(18-19), h1 13(11-13), ps1 19(16-19), ps3 14(11-14), bo 29(27-29). Lyrifissure ia mid-way between c2–d1, im in front of e1, and ip behind e2.

Venter (fig. 2) — Finely striated; striae between mta and mbt run longitudinally. Ventral setae simple, including ag3. Genital opening inverted T-shaped.

Legs (figs. 6-9) — Tarsus I without apotele, provided with four long and two minute, forked distal setae. First pair of distal setae longer than the length of tarsus I, second pair equal in length to tarsus I. Other legs provided with two claws (ol) and an empodium (em). Empodial claws (om) absent. Distal setae of tarsus I as well as ft’+ distinctly serrate except for nude tips (approx. 1/3 of total length of each seta). Remaining leg setae simple. Tarsus I almost equal in length with tibia I. Solenidion ω short, rod-like, curved, situated at middle of segment. Solenidion ωII rod-like. All solenidium subequal in length. Femur k’ forked. Measurements of legs (from base of proximal setae to end of pretarsus): I: 117(113-121), II: 104(104-103), III: 110(108-112), IV: 124(121-130). Length of tarsus I 20(21-22), width 10(10-11).
FIGS. 1-5: Neopronematus aegeae sp. nov. (female).1. — Dorsum. 2. — Venter. 3. — Dorsal idiosomal seta. 4. — Palp. 5. — Cheliceral stylet.

Length of tibia I 18(17-19), $\omega_I$ 5(4-5), $\omega_{II}$ 4(3-4), $f_I$ 4(3-4), $k''$ 1,5(1,5-2), $f''_{I}$ 14(13-16), $f''_{II}$ 19(18-22), $t_c$ 22(22-23), $t_c''$ 22(21-23), (p) 18(17-19).

Gnathosoma — Elongate and visible from above. Cheliceral stylets subequal in length to total length of palp tarsus and palp eupathidium p$.c$. Palp tarsus thin, palp eupathidion simple, short (figs. 4,5). Measurements: cheliceral stylets 14(14-16), palp tarsus 10(9-10), palp eupathidion (p$c$) 5(4-5).

Male (figs. 10-11) — Dimensions of allotype male: length of idiosoma 162, width 90.

Similar to female. Solenidion $\omega_I$ much longer and stronger than that of female, length 12, situated in middle of segment extending to end (fig. 10). Femur IV with distal spur (fig. 11).

Diagnosis — This species resembles Neopronematus neglectus (Kuznetzov 1972), but it can be easily distinguished from it by the nude, slightly longer...
Fig. 6-9: Neopronematus aegeae sp. nov. (female). 6. — Leg I. 7. — Leg II. 8. — Leg III. 9. — Leg IV.

Figs. 10-11: Neopronematus aegeae sp. nov. (male). 10. — Tarsus and tibia I. 11. — Femur IV.
dorsal idiosomal setae (serrate in *N. neglectus*). Moreover, *ag*₂ are simple in *N. aegeae* (forked in *N. neglectus*).

The following key can be used to distinguish the species belonging to the genus *Neopronematus*.

**KEY TO SPECIES OF THE GENUS *NEOPRONEMATUS***

1. Dorsal idiosomal setae serrate. Seta *ag*₃ bifurcate ................................. 2
   — Dorsal idiosomal setae nude. Seta *ag*₃ simple ................................. *Neopronematus aegeae* sp. nov.

2. Dorsal idiosomal setae long, strongly serrate and long (20-30). Bothridia (bo) subequal in length to other dorsal idiosomal setae .............................
   — *Neopronematus rapidus* (Kuznetzov 1972)
   — Dorsal idiosomal setae delicately serrate and short (11-15), with exception of “caudal” ones (19-21). Bothridia (bo) longer (25-27) than other dorsal idiosomal setae ........................
   — *Neopronematus neglectus* (Kuznetzov 1972)

**TYPE MATERIAL** — Holotype female, allotype male and ten female paratypes, collected on *Ballota acetabulosa* L. on Kassos island Co. Dodekanissa, Greece, 16 April 1994 by Prof. N.G. EMMANOUEL; deposited in the Acari Collection, Laboratory of Agr. Zoology & Entomology, Agricultural University of Athens, Greece. Two female paratypes are deposited in the US National Museum, Washington, D.C.

**ETYMOLOGY** — The name of the new species is derived from the Aegean sea, where the island of Kassos, Greece is located.

**REFERENCES**


