

Two new species of the genus *Scaptognathus* (Acari, Halacaridae) from the Sea of Japan.

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Résumé : Deux espèces nouvelles de genre *Scaptognathus* sont décrites sur la base des spécimens de Ile de Teuri, la mer du Japon : *Scaptognathus magnus* sp. nov. et *S. teuriensis* sp. nov. Une clé tabulaire de l'espèce dans le genre *Scaptognathus* est aussi présentée.

Abstract : Two new species of the genus *Scaptognathus* are described on the basis of the specimens from Teuri Is., the Sea of Japan : *Scaptognathus magnus* sp. nov. and *S. teuriensis* sp. nov. A tabular key to the species in the genus *Scaptognathus* is also presented.

INTRODUCTION

Up to this time, only one species of the genus *Scaptognathus* has been known from Japan, viz. *Scaptognathus ventridiscus* Abé, 1990, which was recovered from the intertidal zone in Hokkaido, northern Japan. The present paper describes two new species of the genus *Scaptognathus* found in sandy sediment at 10 m depth off Teuri Is., the Sea of Japan.

Terms and the systems of notation for numerical data follow Newell (1947, 1967, 1984). Measurements are given in micrometers (μm).

Abbreviations : AD, anterodorsal plate ; PD, posterodorsal plate ; OC, ocular plate ; AE, anterior epimeral plate ; PE, posterior epimeral plate ; GA, genitoanal plate ; ds, dorsal setae ; P-1 to P-4, first to fourth segment of palp.

In addition, the following abbreviations are used in the figure legends : Ds, dorsal view ; Vr, ventral view ; Lat, lateral view ; R, right appendage ; L, left appendage.

Genus *Scaptognathus* Trouessart, 1889

Scaptognathus magnus sp. nov. (Figs 1 - 2)

Type-series. Holotype : Female, in coarse sand at 10 m depth off Teuri Is. (44°75'N, 141°20'E), the Sea of Japan, 1. December 1988, H. Abé coll. **Paratype** : 1 female, data same as the *holotype*.

Type-depository. Holotype : Natural History Museum and Institute, Chiba, Japan. **Paratype** : Zoological Institute, Faculty of Science, Hokkaido University, Sapporo, Japan.

Etymology. Species epithet refers to the large body size.

Description. Female (*holotype*). Idiosoma 476 long, 324 wide ; color in life semitransparent, pale reddish brown with longitudinal median white line dorsally.

Dorsum (Fig. 1A) : Dorsal plates ornamented with porous panels as shown in Fig. 1D. AD and PD separated from each other by interval of about PD length. AD 136 long, 176 wide, nearly trapezoidal, with weakly convex posterior margin, ornamented with tiny areolations medially and posteriorly, furnished with a pair of large pores anteriorly. Membranous cuticle furnished with three pairs of subsurface pore-groups. OC (Fig. 1B) 39 long, 43 wide, furnished with one pore and posteroventral round projection ; cornea absent. Ornamentation faint. PD 156 long, 152 wide, slightly wider posteriorly ; anterior margin reaching level anterior to insertions of legs IV.

Chaetotaxy of dorsum : Dorsal setae filiform, seven pairs arranged as in Fig. 1A. Setae ds-i on AD long and thick, remaining setae short and fine ; ds-ii - ds-v on membranous cuticle ; ds-vi and ds-vii on PD.

Venter (Fig. 1C) : AE 128 long, 268 wide ; furnished with a pair of epimeral pores and several subsurface pores, with an anterior membranous collar. PE 176 long, subtriangular in outline, furnished with a number of anterior marginal subsurface pores. With a pair of medial subsurface pores.

Chaetotaxy of epimeral region : Epimeral setae fine, filiform ; three pairs on AE, four setae on each PE, arranged as in Fig. 1C.

Genitoanal region (Fig. 1E) : GA 168 long, 116 wide, oval in outline, consisting of pars membranousum and pars sclerosum, reaching level posterior to insertions of legs III. Pars membranousum 100 long, 96 wide, elliptical, occupying anterior half of GA, perforated with many slits. Pars sclerosum ornamented with lateral and posterior marginal areolations, concave anteriorly along pars membranousum. Genital foramen elliptical, occupying from 0.51 to 0.98 relative to GA length, length/width 1.33. Genital acetabula internal, two pairs visible. Ovipositor complicated in structure, with four robust fingers lying inside of genital foramen. Anal sclerites terminally placed.

Chaetotaxy of genitoanal region : Perigenital setae filiform, three pairs arranged as in Fig. 1E. Subgenital setae short, one pair, arranged 0-1. Adanal setae not seen.

Gnathosoma (Fig. 1F) : Gnathosoma 352 long, 168 wide, gnathosomal length/idiosomal length 0.74. Base 180 long, barrel-shaped, dorsally ornamented with porous panels except for several proximal and medial clear panels, ventrally ornamented with scattered clear panels. Pharyngeal plate subtriangular. Anterior margin of tectum sharply convex. Rostrum 172 long, 68 wide at terminal flare (Fig. 1G), not extending to end of palp, furnished with one pair of minute conical protuberances at terminal margin of flare, bearing three pairs of rostral setae as follows : Protorostrals short, placed near dorsolateral margin of flare, deutroostrals short, placed ventrolaterally ; tritroostrals long and thick, placed at 0.30 relative to rostral length. Basirostrals absent. Rostral sulcus extending to level of palpal insertion. Chelicera 304 long, styliiform. Palp (Fig. 1H) inserted dorsally, with three segments as follows : P-1 cylindrical, 36 long, 44 wide ; P-2 elongate, 108 long, 24 wide ; P-3 and P-4 fused. Palpal chaetotaxy as follows : P-1 without setae ; P-2 with one short filiform seta dorsoproximally, one long filiform seta distodorsally ; P-3 and P-4 with two anterior blade-like projections (dorsal projection larger than ventral one), two long filiform setae, one short fine seta, and two spiniform terminal setae.

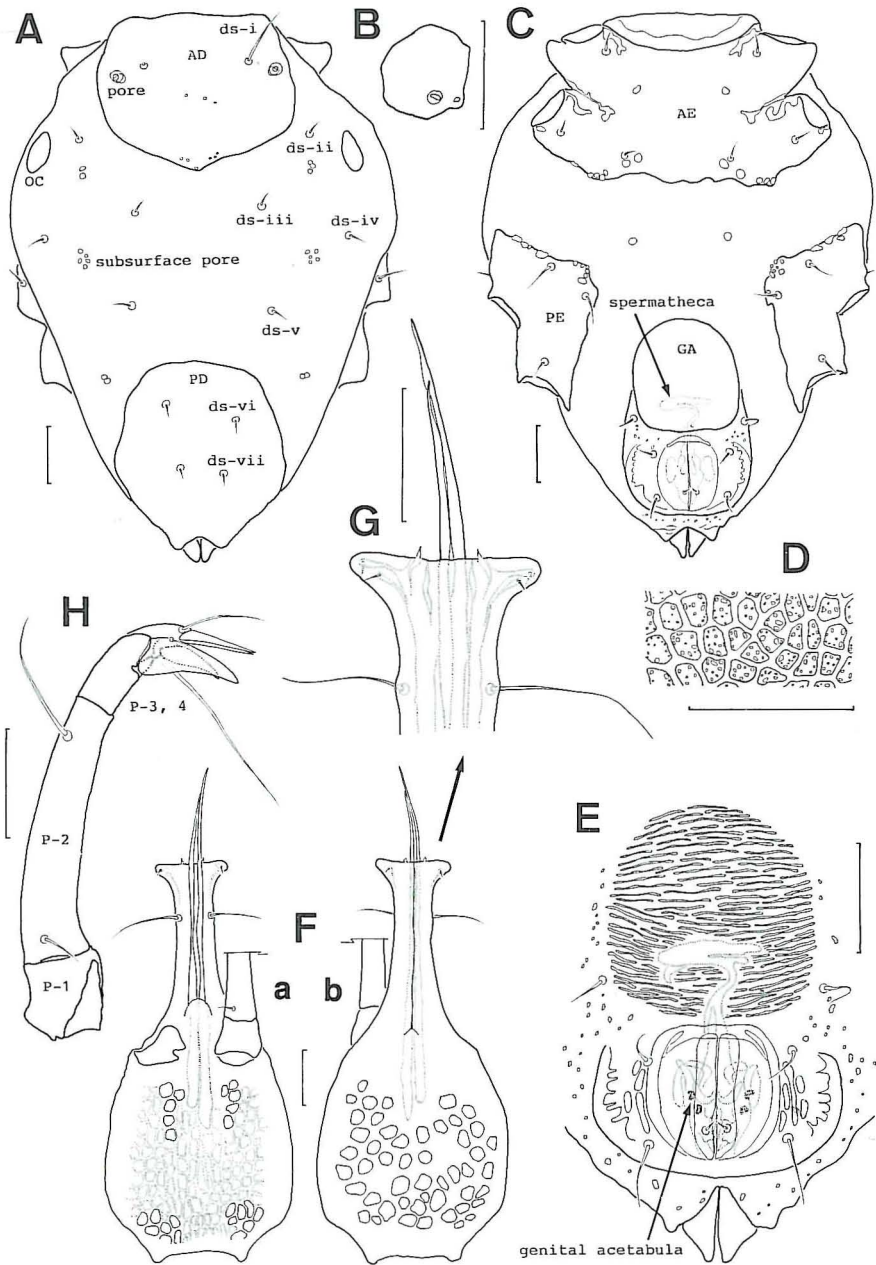


Fig. 1 : *Scaptognathus magnus* sp. nov. Female (holotype).

A, idiosoma (Ds) ; B, OC (Lat, L) ; C, idiosoma (Vr) ; D, ornamentation with porous panels on PD ; E, genitoanal region ; F, gnathosoma (a-Ds, b-Vr) ; G, terminal flare of rostrum (Vr) ; H, Palp (L). Scale bars = 50 μ m.

Legs (Fig. 2A-D) : Length of legs I, II, III, IV = 364, 308, 348, 352, respectively, ornamented with fine punctations and several porous panels. Lateral claws with tiny accessory teeth, without combs. Cavity in claw present. Median claw not developed. Fossary lamella and carpite not seen. Parambulacral setae all euphathidia, doublet on leg I, single on the other legs.

Chaetotaxy as follows :

	Leg I	Leg II	Leg III	Leg IV
Trochanter	1	1	1	1
Basifemur	2	2	2	2
Telofemur	4	3	2	2
Genu	4	5	3	3
Tibia	8	6	6	6

Bipectinate setae as follows :

	Leg I	Leg II	Leg III	Leg IV
Telofemur	2	1	0	0
Genu	2	1	0	0
Tibia	5	3	3	3
Tarsus	1	1	0	0

Tarsus I with three dorsal filiform setae, two ventral setae (one bipectinate, one filiform), one solenidion, one famulus, and four parambulacral setae. Solenidion curved, bacilliform, on posterior surface of claw fossa. Famulus digitiform. Lateral claws somewhat smaller than those on other legs. Tarsus II with three dorsal filiform setae, one ventral bipectinate seta, and one bacilliform solenidion at anterior surface, with two parambulacral setae. Tarsi III and IV each with three dorsal filiform setae and two parambulacral setae.

Males and immatures : Not found.

Morphological variation and abnormality : The size range of the idiosoma and gnathosoma in adults (n=2) is as follows : Idiosoma 476 - 484 long, 312 - 324 wide ; gnathosoma 352 - 360 long, 168 wide.

Remarks. *Scaptognathus magnus* sp. nov. is the largest species in this genus, exceeding 800 µm in total length. It somewhat resembles *S. tridens* Trouessart, 1889 and *S. trouessarti* Halbert, 1915 in body size. However, *S. magnus* sp. nov. is distinct from these two species in having a nearly trapezoidal anterior dorsal plate, a long interval between AD and PD, and a unique leg chaetotaxy.

Scaptognathus teuriensis sp. nov. (Figs 3-5)

Type-series. *Holotype* : Male, in coarse sand at 10 m depth off Teuri Is., the Sea of Japan, 18. February 1989, H. Abé coll. *Allotype* : Female, data same as the *holotype*. *Paratypes* : 5 males, 2 females, 1 protonymph, data same as the *holotype* ; 1 male, 1 female, locality same as the *holotype*, 1. December 1988, H. Abé coll.

Type-depository. *Holotype* & *Allotype* : Natural History Museum and Institute, Chiba.

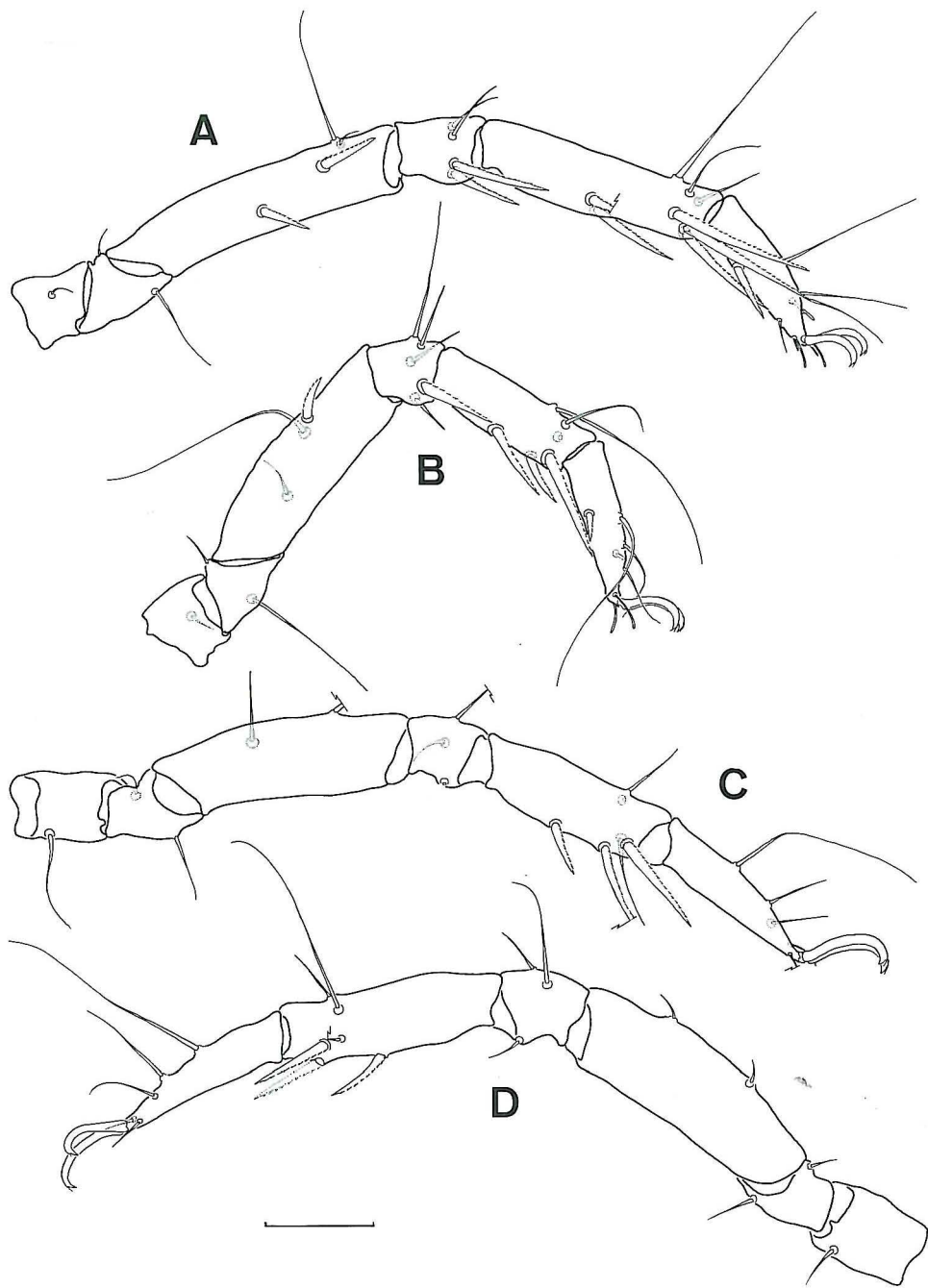


Fig. 2 : *Scaptognathus magnus* sp. nov. Female (holotype).

A, leg I (L) ; B, leg II (L) ; C, leg III (R) ; D, leg IV (R). Scale bar = 50 μ m.

Paratypes : Zoological Institute, Faculty of Science, Hokkaido University, Sapporo ; National Museum of Natural History, Smithsonian Institution, Washington, D.C., U.S.A.

Etymology. Species epithet refers to the type locality "Teuri".

Description. Male (*holotype*). Idiosoma 340 long, 216 wide ; color in life semitransparent, with longitudinal median white line dorsally.

Dorsum (Fig. 3A) : Dorsal plates ornamented with porous panels as shown in Fig. 3D. AD and PD separated from each other by interval of about AD length. AD 92 long, 128 wide, nearly trapezoidal in outline, ornamented with small areolations medially and posteriorly, furnished with a pair of small pores anteriorly. Membranous cuticle furnished with three pairs of several subsurface pore-groups. OC (Fig. 3B) 22 long, 22 wide, placed laterally, with tiny posteroventral pores, ornamented with fine punctations. Corneae not seen. PD 136 long, 124 wide, slightly wider posteriorly ; anterior margin nearly reaching level of insertions of legs III, ornamented with paired clusters of polygonal clear panels at 0.26.

Chaetotaxy of dorsum : Dorsal setae filiform, seven pairs arranged as in Fig. 3A. Setae ds-i on AD long and thick ; remaining setae short and fine ; ds-ii - ds-v on membranous cuticle ; ds-vi and ds-vii on PD.

Venter (Fig. 3C) : AE 88 long, 172 wide ; furnished with a pair of epimeral pores, a number of subsurface pores, and anterior membranous collar. PE 112 long, furnished with several subsurface pores anteriorly. With a pair of subsurface pores between AE and GA.

Chaetotaxy of epimeral region : Epimeral setae fine, filiform, three pairs on AE, four setae on each PE, arranged as in Fig. 3C.

Genitoanal region (Fig. 3E) : GA 140 long, 92 wide, oval, not bipartite, consisting of only pars sclerosum, reaching level anterior to insertions of legs III, furnished with a pair of subsurface pores at 0.36, and a cluster of polygonal clear panels surrounding genital foramen. Genital foramen 28 long, 20 wide, elliptical. Anal foramen terminally placed. Spermatophorotype massive, approximately 1/2 length of GA, length/width 1.04, reaching anteriorly nearly to level of insertions of legs IV. Genital acetabula faint, two pairs discernible.

Chaetotaxy of genitoanal region : one pair of outlying setae at 0.54 on GA, perigenital setae not paired, 22 setae surrounding lateral and posterior portions of genital foramen, arranged as in Fig. 3E. Subgenital setae short, three pairs on genital sclerites, arranged 1-2. Adanal setae not seen.

Gnathosoma (Fig. 4A) : Gnathosoma 212 long, 88 wide, gnathosomal length/idiosomal length 0.62. Base 104 long, barrel-shaped, dorsally ornamented with porous panels and several proximal and medial clear panels, ventrally ornamented with scattered clear panels. Pharyngeal plate subtriangular. Anterior margin of tectum sharply convex. Rostrum 108 long, 38 wide at terminal flare (Fig. 4B), not extending to end of palp, furnished with one pair of minute conical protuberances at terminal margin of flare, bearing three pairs of rostral setae as follows : protorostrals short, placed near dorsolateral margin of flare, deutorostrals short, placed ventrolaterally ; tritorostrals long and thick, placed at 0.25 relative to rostral length. Basirostrals absent. Rostral sulcus extending to level of palpal insertion.

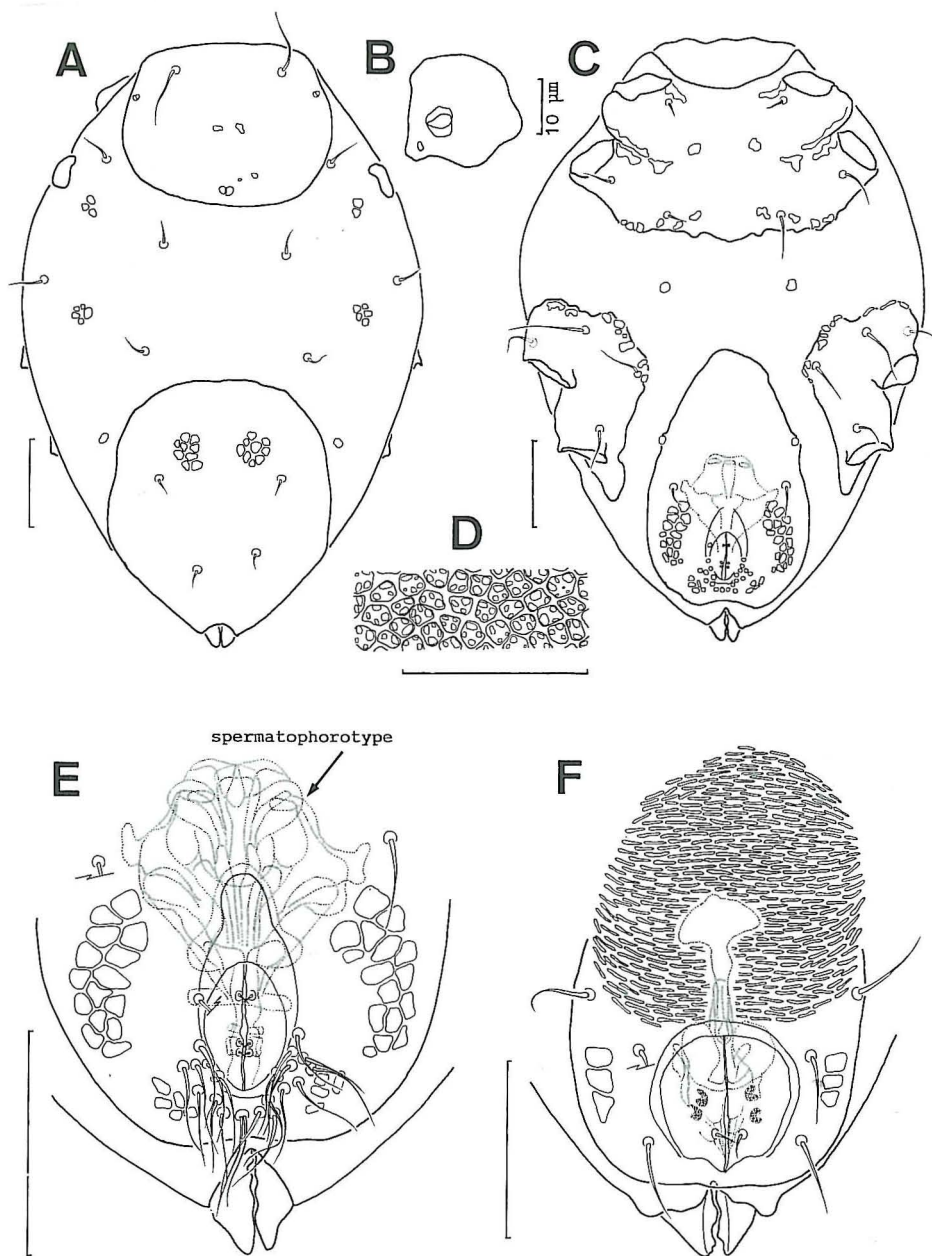


Fig. 3 : *Scaptognathus teuriensis* sp. nov. Male (holotype).

A, idiosoma (Ds) ; B, OC (Lat, R) ; C, idiosoma (Vr) ; D, ornamentation with porous panels on PD ; E, genitoanal region. Female (allotype). F, genitoanal region. Scale bars = 50 µm, if not otherwise indicated.

Chelicera 200 long, styliform. Palp (Fig. 4C) inserted dorsally, with three segments as follows : P-1 cylindrical, 24 long, 24 wide ; P-2 elongate, 74 long, 16 wide ; P-3 and P-4 fused. Palpal chaetotaxy as follows : P-1 without setae ; P-2 with one short filiform seta dorso-proximally, one long filiform seta distidorsally ; P-3 and P-4 with two blade-like anterior projections, two long filiform setae, one short fine seta, and two spiniform terminal setae.

Legs (Fig. 5A-D) : Length of legs I, II, III, IV = 222, 186, 196, 210 respectively, ornamented with fine punctations. Lateral claws with accessory teeth, without combs. Cavity in claw present. Median claw developed. Carpite and fossary lamella not seen. Parambulacral setae euphathidia, doublet on leg I and posterior side of leg III, single on the other legs.

Chaetotaxy as follows :

	Leg I	Leg II	Leg III	Leg IV
Trochanter	1	1	1	1
Basifemur	1	1	1	1
Telofemur	4	3	2	1
Genu	4	4	3	3
Tibia	7	5	5	5

Bipectinate setae as follows :

	Leg I	Leg II	Leg III	Leg IV
Telofemur	2	1	0	0
Genu	2	1	0	0
Tibia	4	2	2	2
Tarsus	1	1	0	0

Tarsus I with three dorsal filiform setae, two ventral setae (one bipectinate, one filiform), one solenidion, one famulus, and four parambulacral setae. Solenidion curved bacilliform, on posterior surface of claw fossa. Famulus digitiform, minute. Tarsus II with three dorsal filiform setae, one ventral bipectinate seta, one bacilliform solenidion on anterior surface of claw fossa, and two parambulacral setae. Tarsus III with three dorsal filiform setae, three parambulacral setae (doublet on posterior, single on anterior). Tarsus IV with three dorsal filiform setae, two parambulacral setae.

Female (*allotype*) : Idiosoma 312 long, 180 wide, gnathosomal length/idiosomal length 0.58, resembling male in essential respects except for the characters of PD and genitoanal region. *Dorsum* : AD and PD separated from each other by interval of about PD length. PD 112 long, 108 wide, approximately pentagonal in outline, consisting of only porous panels, without clear panels. *Venter, genitoanal region* (Fig. 3F) : GA 114 long, 80 wide ; nearly oval in outline, reaching level posterior to insertion of leg III, consisting of pars membranosum and pars sclerosum. Pars membranosum occupying anterior half, perforated with slits. Pars sclerosum ornamented with several clear panels laterally, concave anteriorly along pars membranosum, bearing three pairs of filiform perigenital setae arranged as in Fig. 3F. Genital foramen round, occupying from 0.65 to 0.96 relative to GA length, length/width 1.00. Subgenital setae one pair, arranged 0-1. Genital acetabula internal, two pairs visible. Ovipositor complicated in structure, with four fingers, lying inside of genital foramen.

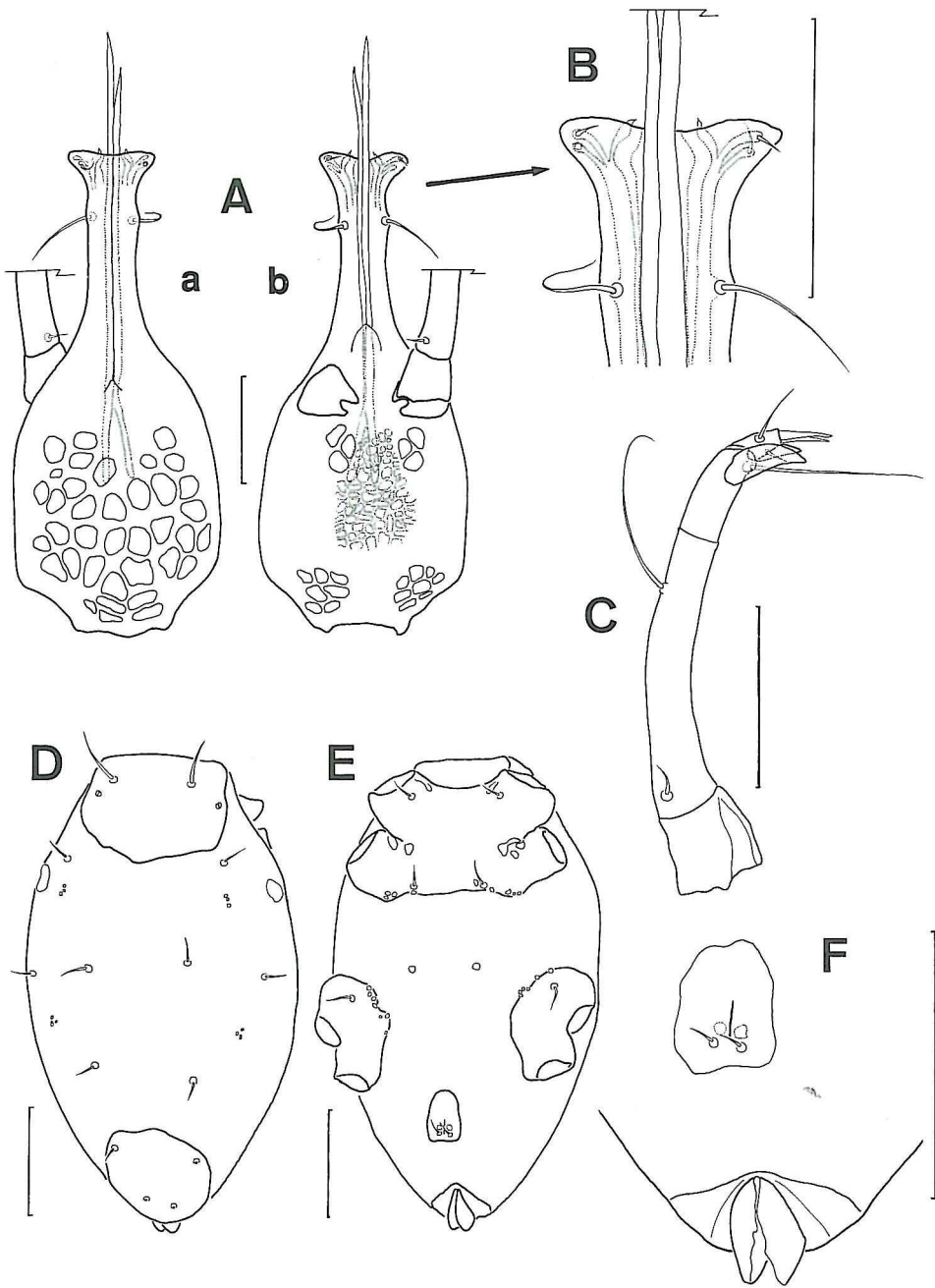


Fig. 4 *Scaptognathus teuriensis* sp. nov. Male (holotype).

A, gnathosoma (a-Vr, b-Ds) ; B, terminal flare of rostrum (Ds) ; C, palp (L). Protonymph (paratype). D, idiosoma (Ds) ; E, idiosoma (Vr) ; F, genitoanal region. Scale bars = 50 μm.

Spermatheca umbrella-like in form, extending anteriorly from anterior margin of genital foramen.

Immature stages : Only one protonymph specimen was discovered.

Protonymph (*paratype*) : Idiosoma 224 long, 120 wide, gnathosomal length/idiosomal length 0.61. *Dorsum* (Fig. 4D) : AD and PD separated each by interval three times as long as PD length. PD 40 long, 50 wide, without clear panels. *Venter* (Fig. 4E) : AE 46 long, 102 wide, furnished with two pairs of setae and pores. PE 62 long, each with one seta. *Genitoanal region* (Fig. 4F) : Genital plate 28 long, 18 wide, weakly sclerotized, furnished with one pair of perigenital setae at 0.85. Primordial genital slit faint. Subgenital setae absent. With one pair of genital acetabula. Anal plate small, surrounding anal sclerites.

Legs : Length of legs I, II, III, IV = 130, 112, 116, 116, respectively. Basifemur and telofemur fused.

Chaetotaxy as follows :

	Leg I	Leg II	Leg III	Leg IV
Trochanter	1	1	1	1
Basifemur	1	1	1	2
Telofemur	3	3	2	
Genu	4	3	3	3
Tibia	5	4	4	4

Bipectinate setae as follows :

	Leg I	Leg II	Leg III	Leg IV
Telofemur	1	1	0	0
Genu	2	1	0	0
Tibia	2	2	2	2

Morphological variation and abnormality : The size range of the idiosoma and gnathosoma in adults (n=9) is as follows : Idiosoma 268 - 368 long, 148 - 220 wide ; gnathosoma 192 - 212 long, 76 - 88 wide. The number of perigenital setae in males (n=6) varies from 22 to 28. The leg chaetotaxy of the adult specimens (n=9) varies as follows : Trochanter I-IV, (0,1)-(0,1)-(0,1)-1 ; basifemora, 1-1-1-1 ; telofemora, (3,4)-3-2-1 ; genua, 4-(3,4)-3-(2,3) ; tibiae, 7-5-5-(4,5). The allotype female has one additional seta on the right PE, and one additional subsurface pore on the membranous medioventral cuticle. These should be regarded as atypical.

Remarks. *Scaptognathus teuriensis* sp. nov. has closest affinity to *S. sabularius* André, 1961, in body size, number of perigenital setae, and in having a genitoanal plate which consists of only the pars sclerosum in the male. However, *S. teuriensis* is easily distinguished by having ds-ii on the membranous cuticle, by the bipartite genitoanal plate in the female, the well developed median claw, and the leg chaetotaxy.

Scaptognathus teuriensis also resembles *S. hallezi* Trouessart, 1894, *S. monnioti* Newell, 1984, *S. ornatus* Bartsch, 1984, and *S. tereninus* Bartsch, 1986, in body size. However, *S. teuriensis* differs from these species in having a male genitoanal plate which consists of only the pars sclerosum, a developed median claw, and a unique leg chaetotaxy.

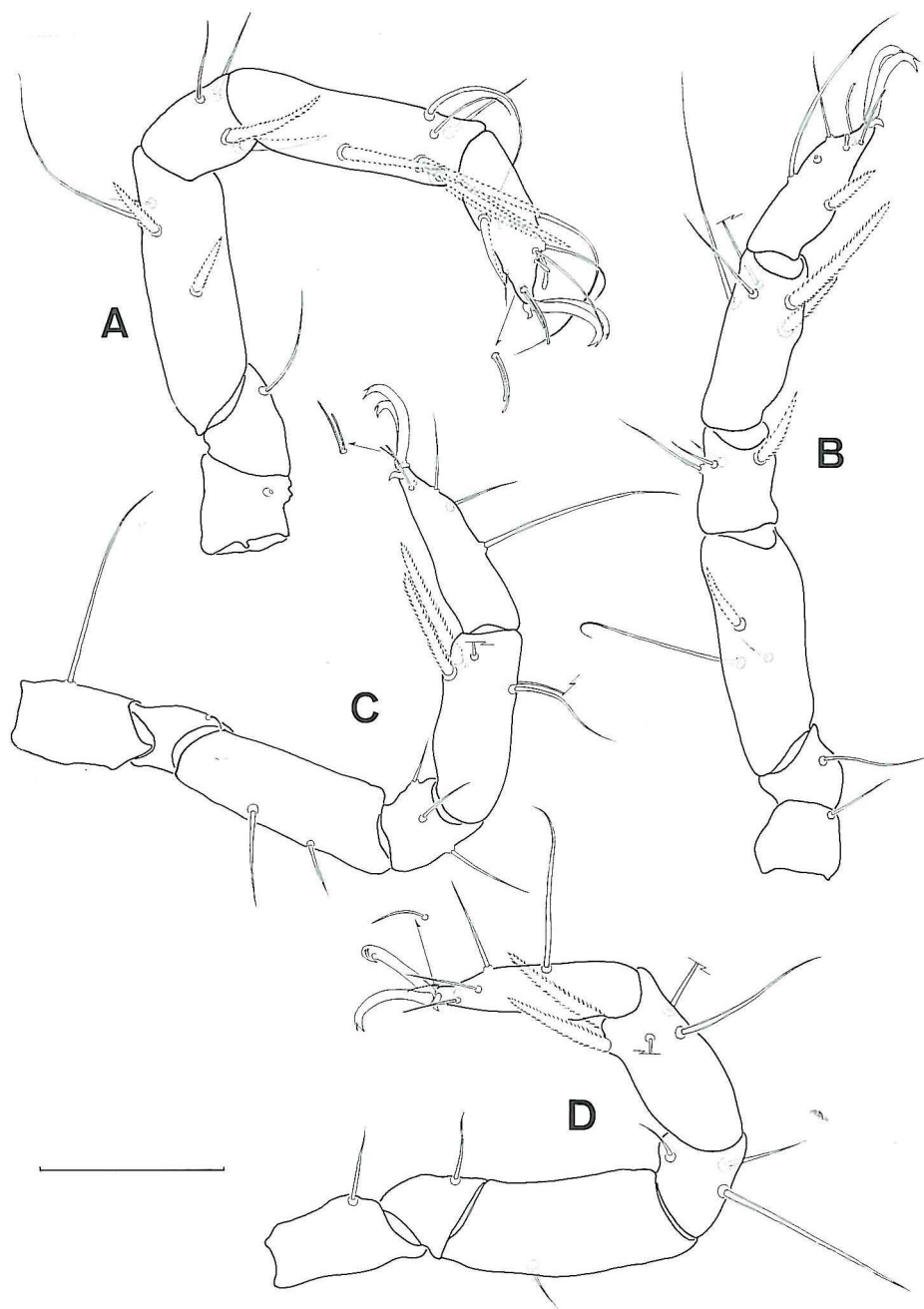


Fig. 5 : *Scaptognathus teuriensis* sp. nov. Male (holotype).

A, leg I (L) ; B, leg II (L) ; C, leg III (R) ; D, leg IV (R). Scale bar = 50 μ m.

Table I represents a tabular key to the 18 known species of the genus *Scaptognathus* (I agree with Bartsch (1986) who synonymized *S. neretinus* Morselli and Mari, 1981 with *S. hallezi*).

The following papers should be consulted in reference to Table I, in addition to the original descriptions.

Scaptognathus hallezi : Trouessart 1894 b ; Monniot 1964 ; Bartsch 1986.

S. minutus : Bartsch 1982.

S. pacificus : Newell 1984.

S. punctatus : Bartsch 1982.

S. sabularius : Bartsch 1986.

S. tridens : Trouessart 1894 a ; Monniot 1964 ; Bartsch 1986.

S. trouessarti : Abé and O'Connor (in press).

Taxonomic characters 1 - 16 and their character states in the adults used in Table I are summarized below.

1. Length of idiosoma. (μm)
2. Length of gnathosoma. (μm)
3. Ratio of gnathosoma-length to idiosoma-length.
4. Shape of posterior margin of AD.
 - a : truncated, slightly convex or rounded.
 - b : pointed or strongly convex.
 - c : concave
5. Position of ds-ii.
 - a : ds-ii on membranous cuticle.
 - b : ds-ii on AD.
6. Position of ds-v.
 - a : ds-v on membranous cuticle.
 - b : ds-v on PD.
7. Condition of GA in the female.
 - a : GA consists of pars membranosum anteriorly and pars sclerosum posteriorly. (bipartite)
 - b : GA consists of pars membranosum medially, and pars sclerosum anteriorly and posteriorly. (tripartite)
8. Condition of GA in the male.
 - a : GA consists of only pars sclerosum, and pars membranosum is lacking. (single)
 - a' : GA consists of only pars sclerosum, but pars membranosum also exists separated from GA.
 - b : GA consists of pars membranosum anteriorly, and pars sclerosum posteriorly. (bipartite)
 - c : GA consists of pars membranosum medially, and pars sclerosum anteriorly and posteriorly. (tripartite)
9. Number of genital setae in the female.
10. Number of genital setae in the male. (outlying seta + perigenital seta)

TABLE I

A tabular key to the species in the genus *Scaptognathus*

<i>Scaptognathus</i>	Taxonomic characters															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>gibbosus</i> Bartsch, 1977	160-175	153	0.87	a	a	a	a	b ¹	4-5	2+10	a	a	1-0-0-0	3-2-2-2	2-0-0-0	0-0-0-0
<i>hallesi</i> Trt., 1894	223-334	148-167	0.50-0.71	a	b	a	a	b	6-8	2+31-38	a	b	1-1-0-0	6-3-4-4	2-1-0-0	2-0-0-0
<i>kunzi</i> Bartsch, 1988	207	135	0.65	a	a	a	b	-	6	-	a	b	1-1-0-0	6-3-4-4	2-1-0-0	2-0-0-0
<i>magnus</i> sp. nov.	476-484	352-360	0.66-0.67	a	a	a	a	-	6	-	a	b	1-1-0-0	5-3-3-3	2-1-0-0	2-1-0-0
<i>minutus</i> Bartsch, 1973	145-178	136	0.85-0.89	b	a	b	a	-	6	-	b	b	1-1-0-0	6-3-3-4 (5 2 4)	2-1-0-0	2-0-0-0
<i>monnioti</i> Newell, 1984	284-334	203	0.63-0.71	a	a	a	a	b	6	2+8	a	?	0-0-0-0	3-2-2-3	2-1-0-0	0-0-0-0
<i>newelli</i> Bartsch, 1988	183-188	126	0.68	a	a	a	b	c	4	2+9-10	a	?	0-0-0-0	3-2-2-2	2-1-0-0	1-0-0-0
<i>ornatus</i> Bartsch, 1984	248-291	214	0.84	a	a	a	a	-	6	-	a	b	1-1-0-0	5-2-3-3	2-1-0-0	3-2-0-0
<i>pacificus</i> Newell, 1971	167	147-151	0.88-0.91	c	b	b	a	-	4	-	a	a	0-0-0-0	3-2-2-2	2-1-0-0	2-0-0-0
<i>pauciporus</i> Bartsch, 1977	202-248	150-174	0.74-0.79	a	a	a	a	b	6	2+20-24	a	b	1-1-0-0	6-3-4-4 (5)	2-1-0-0	2-0-0-0
<i>punctatus</i> Bartsch, 1981	229-257	207	0.84	a	a	a	a	b	4	2+17	a	b	1-1-0-0	5-2-3-3	2-1-0-0	3-2-0-0
<i>pusillus</i> Bartsch, 1982	188	162	0.86	a	b	a	a	-	6	-	b	b	1-1-0-0	6-4-3-4	2-1-0-0	3-0-0-0 (4)
<i>sabularius</i> André, 1961	248-304	173-205	0.67-0.75	a	b	a	b	a	6	2+24	a	b	1-1-0-0	6-3-4-4	2-1-0-0	2-0-0-0
<i>tereninus</i> Bartsch, 1986	298-347	190-217	0.60-0.69	a	b	a, b	b	b	6	2+22-30	a	b	1-1-0-0	6-3-4-4	2-1-0-0	2-0-0-0
<i>teuriensis</i> sp. nov.	268-368	192-212	0.58-0.72	a	a	a	a	a	6	2+22-28	a	a	1-1-0-0	4-2-2-2	2-1-0-0	2-1-0-0
<i>tridens</i> Trt., 1889	370-450	280-330	0.67-0.79	b	a	a	a	b	6	2+18	a	b	0-0-0-0	5-4-4-4	2-1-0-0	2-1-0-0
<i>trouessarti</i> Halbert, 1915	436	284	0.65	a	a	a	-	b	-	2+30	a	b	0-0-0-0	5-3-4-4	2-1-0-0	2-1-0-0
<i>ventridiscus</i> Abé, 1990	350-384	192-217	0.55-0.57	b	a	a	a	a ¹	6-7	2+29-39	b ²	b	1-0-0-0	6-4-4-4	2-1-0-0	2-1-0-0

1 I. Bartsch (pers. com.).

2 Erratum : In the original description, the author stated that lateral claws had faint accessory teeth.

11. Accessory teeth on the lateral claws.
 - a : developed.
 - b : undeveloped.
12. Median claw on each tarsus.
 - a : developed.
 - b : undeveloped.
13. Leg chaetotaxy of bipectinate setae on tarsi I-II-III-IV.
14. Leg chaetotaxy of bipectinate setae on tibiae I-II-III-IV.
15. Leg chaetotaxy of bipectinate setae on genua I-II-III-IV.
16. Leg chaetotaxy of bipectinate setae on telofemora I-II-III-IV.

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