

A new species of the water mite genus *Sperchon* Kramer from Primorsk Territory of Russia (Acariformes: Sperchonidae)

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Female and male of the water mite *Sperchon ussuriensis* sp. n. from small rivers of the Primorsk Territory of Russia are described.

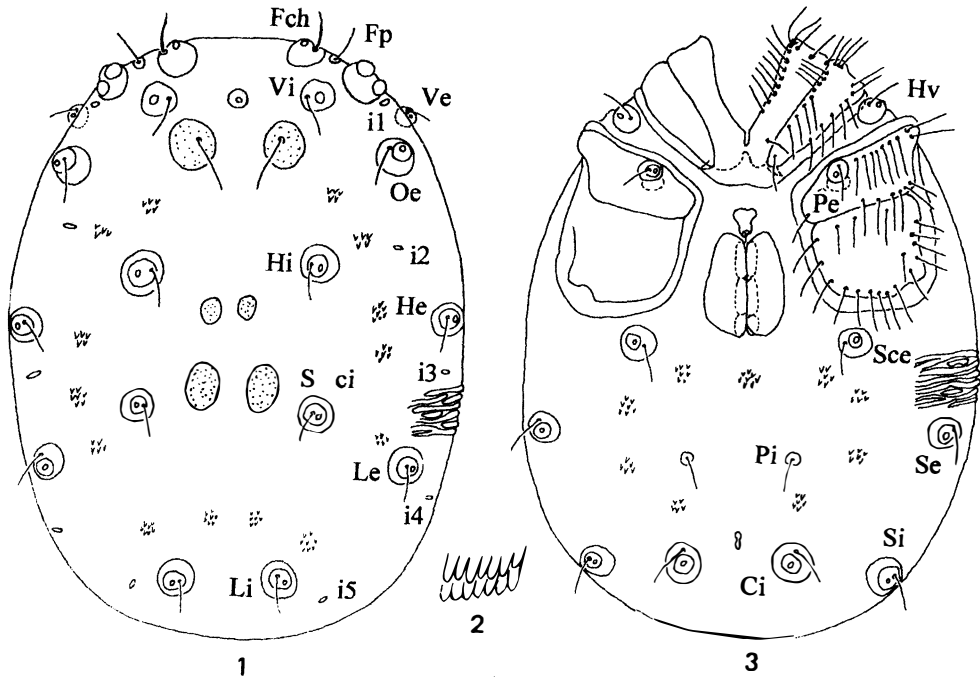
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Sperchon (*Sperchon*) *ussuriensis* sp. n. (Figs 1-11)

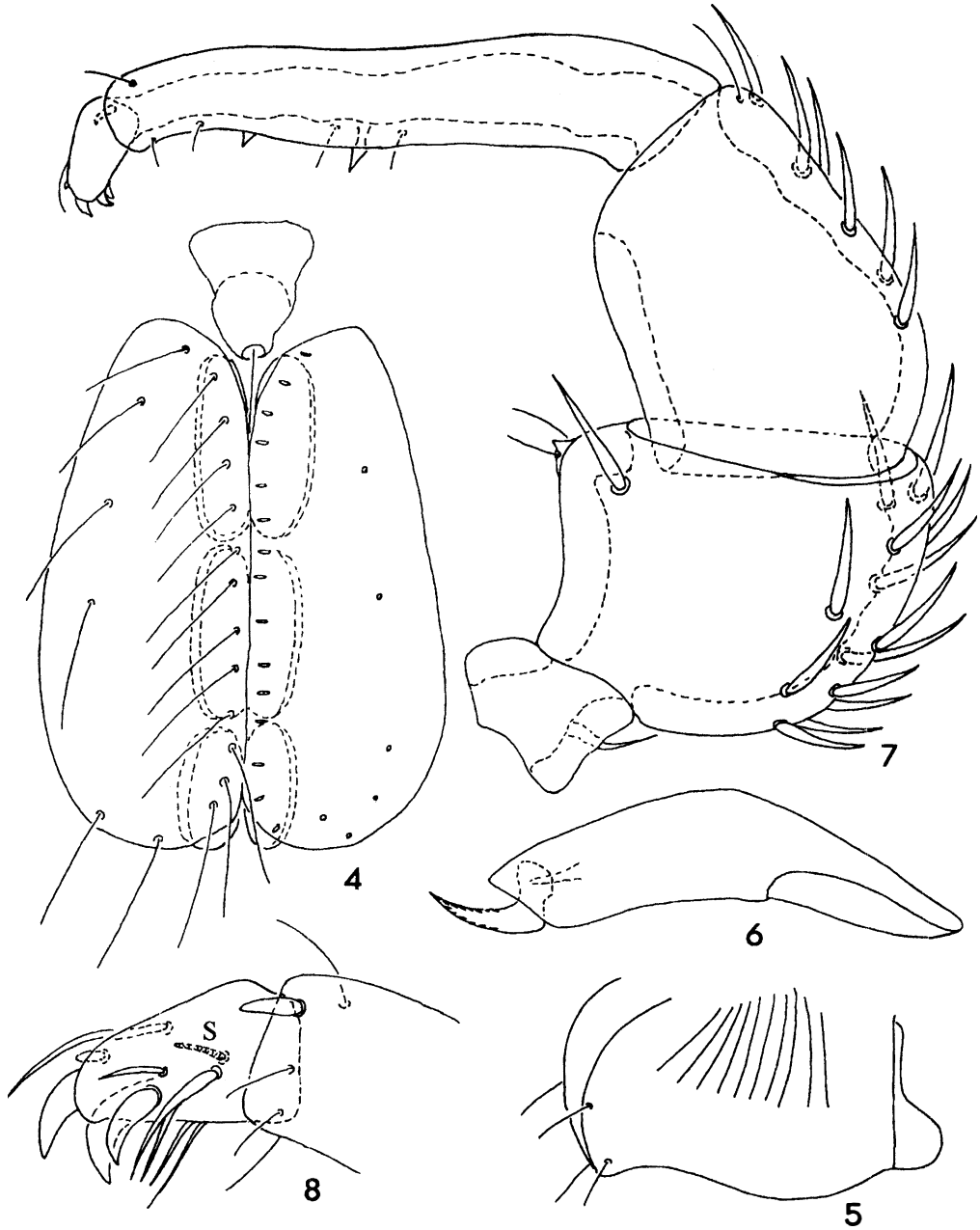
Holotype. ♀, **Russia**, Primorsk Territory, Edinka River, 27.VII.1985 (Tatiana Vshivkova), slide 4986, deposited in the collection of Institute for Biology of Inland Waters.

Paratypes. 1 ♀, 1 ♂, **Russia**, Primorsk Territory, Frolovka River, 9.IV.1986 (Tatiana Vshivkova).

Description (nomenclature of body setae and lyriform organs according to Tuzovskij, 1987). *Female*. Color yellow-brown. Body flat, oval. Dorsum (Fig. 1) with only 3 pairs of flat dorso-central plates well expressed. Anterior plates



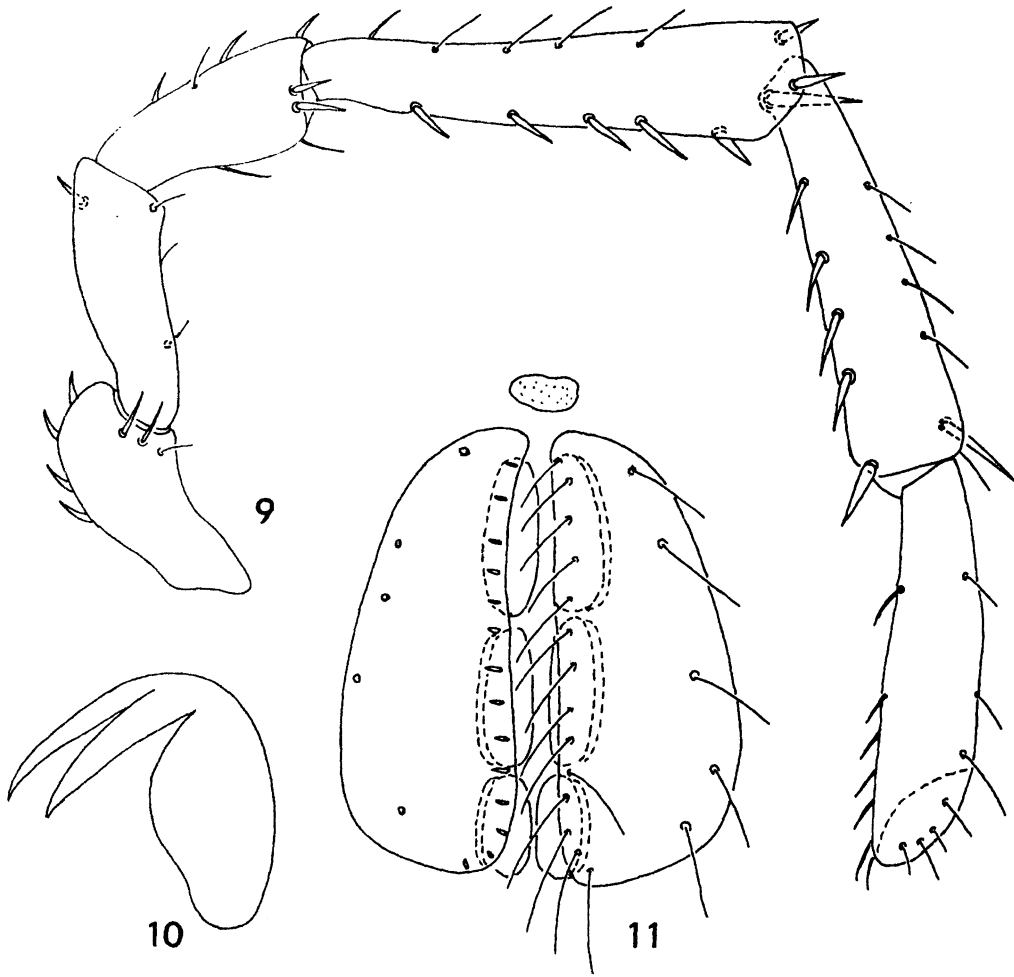
Figs 1-3. *Sperchon ussuriensis* sp. n., female: 1, dorsal view; 2, fragment of integument on posterior end of body; 3, ventral view.



Figs 4-8. *Sperchon ussuriensis* sp. n., female: 4, external genital organ; 5, hypostomic plate (lateral view); 6, chelicera; 7, pedipalp; 8, tarsus of pedipalp.

large, almost round, bearing setae Oi. Second pair of plates situated behind setae Hi and third pair, a little in front of setae Sci. Most of dorsal setae situated on large convex plates, and only setae Fp on small sclerites. Eye capsules widely spac-

ed, occupying lateral position. Frontal organ small, situated between setae Vi. All lyriform organs situated on a dorsum: i_1 behind eye capsules; i_2 lateral to setae Hi; i_3 and i_4 behind setae He and Sce, respectively; i_5 at the level of setae



Figs 9-11. *Sperchon ussuriensis* sp. n.: 9, leg IV of female; 10, claw of female; 11, external genital organ of male.

Li. Integument with ribbed sculpture. On most of dorsum, ribs of different shapes and sizes perpendicular to longitudinal axis of body; but on posterior end of body they are in the form of papillae and parallel to longitudinal axis (Fig.2).

Coxae of legs are incorporated into 3 groups and occupy in mature specimens less than half of ventral surface of body (Fig. 3). Coxae of legs I-II fused, but there is a narrow hollow in their medial part; anterior coxae longer than their combined width. Posterior groups of coxae widely spaced; their combined length greater than width. Setae Pe on the very anterior margin of coxae III; setae Hv in lateral position between coxae II and III. Posterior pairs of setae (Ci, Si) arranged in transverse row. Setae Pi without accompanying glandularia, situated on very small round

sclerites. Anal opening narrow, at the level of anterior margins of plates bearing setae Ci. External genital organ almost completely situated in interval between posterior groups of coxae. Pregenital plate fused with genital sclerite (Fig. 4). Genital flaps elongate, gradually widening to posterior end. Anterior margins of genital flaps obliquely cut, posterior margins rounded. Each genital flap with 13-16 medial and 4-6 lateral hairs. Two anterior pairs of genital acetabula subequal in size, longer than posterior acetabula. Hypostomic plate (Fig. 5) with short rostrum and convex ventral side. Rostrum 0.2 times as long as basic part of hypostomic plate. Dorsal and ventral hypostomic setae of identical shape and length. Lateral surfaces of hypostomic plate with 9-10 vertical folds.

Basal segment of chelicera (Fig. 6) large, with convex dorsal surface. Mobile segment of chelicera small, crescent, with 2 rows of fine denticles.

Trochanter of pedipalp (Fig. 7) very short, with one dorsal seta. Femur of pedipalp thick, high, with numerous (12-14) thick dorsal setae. Ventrodistal part of femur convex, with tiny conic tubercle (its height less than diameter of its basis), 2 thin hairs and long thick seta. Genu of pedipalp thickened in proximal part, with 6-7 thick dorsal setae. Tibia of pedipalp of moderate length, shorter than two preceding segments. Ventral spines well developed, with acute tops; anterior ventral spine situated near middle of ventral surface and posterior spine in distal part of tibia; anterior ventral spine slightly larger than posterior. Distolateral spine of pedipalp tibia short, with rounded top. Tarsus of pedipalp short, with short solenidion, 5 thin setae (one of them forked) and 4 thick dorsal spines. Dorsal spine on tarsus very short, straight, with rounded top; other spines large, bent, with acute tops.

Legs with not numerous, thin and thick setae (Fig. 9). Ventral sides of trochanter and femur I of leg IV weakly concave. Ambulacra with well developed plate (its ventral margin convex) and 2 teeth of equal length, but external tooth thinner than internal (Fig. 10).

Measurements, μm . Length: body 1020-1100; genital flap 185-195 (its width 65-70); hypostomic plate 180-205; basal segment of chelicera 180-225, mobile segment of chelicera 48-57; segments of pedipalp: 40, 125-135, 135-145, 200-210, 35; segments of legs: I – 55-60, 120-130, 130-135, 155-205, 180-195; II – 60-65, 130-140, 130-135, 195-220, 205-220, 155-180; III-70-75, 130-140, 130-140, 205-220, 210-220, 180-190, IV – 115-140, 155-170, 155-160, 280-290, 260-280, 220-230.

Male. Similar to female, but differing in smaller sizes, more convex ribs on integument and structure of genital organs. Anterior margins of geni-

tal flaps straight (Fig. 11). Pregenital plate not fused with genital sclerite and situated in front of flaps. Each flap with 14 medial and 5 thin lateral hairs.

Measurements, μm . Length: body 855; genital flap 145 (its width 55); hypostomic plate 145; basal segment of chelicera 165, mobile segment of chelicera 40; segments of pedipalp 32, 90, 100, 145, 32; segments of legs: I – 50, 100, 90, 140, 140, 140; II – 50, 100, 90, 140, 140, 140; III – 55, 105, 100, 165, 165, 150, IV – 100, 140, 115, 230, 205, 180.

Comparison. *S. ussuriensis* is similar to *S. brevirostris* Koenike, 1895. For *S. brevirostris* are characteristic small papillae on integument; genital organ half-projecting beyond posterior margins of coxae IV; femur of pedipalp with long, conic ventrodistal projection; tibia of pedipalp not shorter than two preceding segments, bent in distal part, with very small ventral spines of equal size. In *S. ussuriensis*, the integument is with ribs of different shapes and sizes; genital organ only slightly (by 1/3 to 1/4 of its length) projecting beyond posterior margins of coxae IV; tibia of pedipalp with tiny ventrodistal projection; tibia of pedipalp shorter than two preceding segments, not bent in distal part, with rather large ventral spines differing in size (the anterior one is longer than posterior).

Acknowledgements

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References

- Tuzovskij, P.V. 1987. *Morfologiya i postembrional'noe razvitiye vodyanykh kleshchei* [Morphology and post-embryonic development of water mites]. Moscow: Nauka. 172 p. (In Russian).

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