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**Limnolegeria longiseta** Motaş, 1928 and *Sperchon rostratus* Lundblad, 1969: Two Water Mite Species (Acari, Hydrachnidia) from Turkey

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**Abstract:** Two water mite species (Acari, Hydrachnidia) are reported from Turkey. *Limnolegeria longiseta* Motaş, 1928 and males of *Sperchon rostratus* Lundblad, 1969 are first records for the Turkish fauna. The morphological features and worldwide distribution of the species are given.

**Key Words:** Acari, water mite, Limnolegeria, new record, Turkey

**Introduction**

This paper deals with 2 interesting new records of water mites (Acari, Hydrachnidia) from South Anatolia. *Limnolegeria* (Motaş, 1928) has only one species, presently known not only from a lake in Southern France, but also from numerous sites in Sicily. *Limnolegeria longiseta* is characterized by the presence of relatively long I-IV legs with rows of long swimming hairs. The family Teutoniidae is herein reported for the first time from Turkey.

Another species, *Sperchon rostratus* is also reported from Turkey (Smith, 1995). To date, 15 species of *Sperchon* (*S. brevirostris* Koenike, *S. clupeifer* Piersig, *S. denticulatus* Koenike (Boyaci, 1990), *S. compactilis* Koenike, 1911, *S. thori* (Koenike, 1900) (Boyaci, 1995), *S. fundentalis* Bader and Sepasgosarian, 1980, *S. thienemanni* Koenike, 1907, *S. thori* Koenike, 1900, *S. longissimus*, Viets 1920, *S. plumifer* Thor, 1902 (Boyaci, 1994), *S. squamosus* Kramer, 1879, *Șenguni* Özkan 1989, *S. pallidus* Thor, 1901, *S. hispidus* Koenike, 1895 (Özkan, 1989), and *S. setiger* Thor, 1898 (Erman, 1990) have been reported from Turkey. This is an interesting record because the species was previously known from Turkey only by a single female, and based on careful examination of the characters of the males from Burma and Turkey there might also be differences that could document differences on the species level or confirm that this is a species with an interestingly extended distribution range.

**Materials and Methods**

Water mites were collected by hand netting, sorted on the spot from living material, and conserved in Koenike's fluid. Dissection of body parts and the orientation of specimens on a slide were made before the specimens could be classified. The figures of dissected body parts...
were drawn and dimensions were measured in micrometers (µm). The material was deposited in the collection of Eğirdir Fisheries Faculty. The following abbreviations are used: Cx-1: first coxae; L: length; P1: palp, first segment; W: width. All measurements are given in µm.

Taxonomy

Family Teutoniidae

Genus Limnolegeria (Motaş, 1928)

Characters of the subfamily Teutoniidae: Integument soft, without dorsalia or ventralia; lateral eye lenses separated and lying below the integument; coxae in 3 groups; posterior Cx groups more or less rectangular with Cx-4 elongated; posterior Cx groups well separated medially; unusual median apodemes associated with posterior Cx groups; suture lines between Cx-3 and Cx-4 incomplete, extending medially approximately half way and then upturned; epimer glandularia 1 fused with Cx-1; glands of Cx-3 located slightly anterior to the median end of suture lines between Cx-3 and Cx-4; openings for insertions of fourth legs located on the ventral side of P2 and on the distolateral portion of P3; P4 bears a small ventral tubercle. Prenatal sclerite large; postgenital sclerite absent. Acetabular plate L 96-96; number of swimming hairs of legs: I. Leg 5 = 4, II. Leg 4 = 10, II. Leg 5 = 6, III. Leg 3 = 9, II. Leg 4 = 12, III. Leg 5 = 9, IV. Leg 3 = 15, IV. Leg 4 = 14, IV. Leg 5 = 8. Fourth legs without claws (see Figures 2A-D for leg setation). L of leg segments as follows: I. Leg: 46-62-50-92-85-92 = 427, II. Leg: 58-65-58-108-92-104 = 485, III. Leg: 50-54-65-112-100-104 = 485, IV. Leg: 65-85-92-112-100-104 = 558.

Male: (Figure 1A-C) Total L of idiosoma 685, W 530. The shape and setation of body, genital field, and palps are very similar to those of the female. Posterior Cx groups well approached medially; Cx-4 somewhat rectangular and closely flanking the genital field. Cx group I L 175, Cx group II L 305; capitulum L 94, distance between lateral eyes and preantenniformae setae 135 and 150, respectively. Glandularia setae on posterior idiosoma certainly longer than those of the female. Dorsal length of P1-5: 18-58-53-68-30 = 227, ventral length of P1-5: 8-23-60-23 = 142; height of P1-5: 33-48-35-15. P2, P3, and P4 without ventral setal tubercles; postgenital sclerite absent; acetabular plate L 105; leg segments do not exhibit sexual dimorphism. Number of swimming hairs of legs: I. Leg 4 = 3, II. Leg 4 = 8, II. Leg 5 = 6, III. Leg 3 = 7, III. Leg 4 = 10, III. Leg 5 = 8, IV. Leg 3 = 10, IV. Leg 4 = 14, IV. Leg 5 = 6. L of leg segments as follows: I. Leg: 52-69-70-98-94-100 = 483, II. Leg: 66-108-92-110-94-100 = 570, III. Leg: 68-110-90-110-97-102 = 577, IV. Leg: 83-135-98-123-103-113 = 655.

Nymph: (Figures 2G) Total L of idiosoma 335, W 262; Cx group I L 65, Cx group II L 85; legs with several swimming hairs.

Dissected and slide mounted in Hoyers fluid. A very fast swimming species typically found in the pond of a weakly flowing small spring that flows into the nearby Köprüçay. Examined samples: Isparta province, South Taurus Mountains (Mediterranean) Turkey. 24.07.2003: 1 male, 2 females, and 1 nymph.
**Distribution:** Europe; France, Italy (Viets, 1956).

*Sperchon rostratus* Lundblad, 1969 (Figures 3)

**Description:**

**Male:** (Figure 3C-E) Idiosoma elongated, L 728, W 460; integument areolate and lined; dorsalia and ventralia present; dorsacentralia II fused with postocularia; dorsa lateralia I absent. Distances between lateral eyes and preantenniformae setae 142 and 160, respectively; a well-developed rostrum of capitulum, L 339; chelicerae total L 270, claw L 58. Cx group I 168, Cx group II 188; no gland openings present on Cx-3; P3 without ventral setae or a ventral projection; peg-like setae on P4 very small and not located close together. Dorsal length of P1-5: 25-128-190-188-50 = 581, ventral length of P1-5: 18-53-130-160-48 = 409, height of P1-5: 60-93-80-
28-25. Distance between peg-like setae of P4 is 69. Pregenital sclerite large; acetabular plate 138. Distances between acetabular plate and excretory pore 231.

**Female:** (Figure 3A-B) Idiosoma extremely elongated, L 910, W 520. The shape of dorsalia and ventralia, genital field, coxae, and gnathosoma are very similar to those of the male. Dorsal lateralia I and typically heavy seta on the ventral side of P3 absent. Distances between lateral eyes and preantenniformae setae 165, 245, respectively; capitulum L 425; Cx group I L 188, Cx group II L 226. Dorsal length of P1-5: 30-155-223-220-50 = 678, ventral length of P1-5: 28-60-140-190-30 = 448, height of P1-5: 63-108-88-35-28. Distance between peg-like setae of P4 is 45. Pregenital sclerite, acetabular plate 138, distanced 385 from excretory pore.
Examined samples: Köprüçay Stream near Isparta province. 22.06.2001: 2 male, 3 female; 18.07.2002: 1 male, 1 female.

Habitat: *S. rostratus* was found in running water with sand or gravel substratum.

Distribution: Turkey (Smith, 1995), Burma (Viets, 1956)

Results and Discussion

*Limnolegeria longiseta* Motaş, 1928 is distinguished from other species by the shape and chaetotaxy of its palps, and the location of epimerglandularia. For a more clear separation of the species, general variability of measurements in the genus *Limnolegeria* is necessary. This is a very interesting record that extends the distribution area of *L. longiseta*. 
A thorough description of *S. rostratus* was given by Lundblad (1969). The main characteristics and the measurements of the type specimen are as follows: Idiosoma L 353, chelicerae L 397; P3 with ventral heavy hair; integument with papillate; pre- and postgenital sclerite large. Dorsal length of P1-5: 46-226-239-300-43 = 854; ventral length of P1-5: 38-119-153-103-39 = 452.

Generally, the measurements given for *S. rostratus* by Lundblad are in agreement with our specimens, however, our specimens differ as follows: lack a heavy seta or a small hair-like seta on the ventral side of P3, P2 with very small ventral projection, and integument areolate and lined.

References


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