

Some harvestmen records (Arachnida: Opiliones) from Niğde Province of Turkey

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Abstract

Four species of order Opiliones, *Homolophus funestus* L. Koch, 1877, *Oligolophus hansenii* (Kraepelin, 1896), *Oligolophus tridens* (C.L. Koch, 1836) and *Opilio redikorzevi* Roewer, 1956 are recorded for the first time from Turkey. The characteristic body parts of these species, and *Phalangium punctipes* (L. Koch, 1878), are measured and illustrated, and data of their distribution are given. These records increase the number of opilionids in Turkey to 33 species.

Keywords: Arachnida, Opiliones, New records, Turkey.

Introduction

Opiliones are commonly called shepherd spiders, harvest spiders or harvestmen. They have round bulbous bodies and very long legs. Their cryptic colouration affords protection from predators. They are usually able to repel their attackers with a repugnant secretion from odiferous glands. They are normally active during the night. Harvestmen feed on a wide variety of creatures, including small insects and other invertebrates, dead animals and plants. They can be found in a wide variety of habitats, including forests, brushy areas, open grasslands and even disturbed areas. Both Turkish and foreign researches made some important contributions to the Turkish harvestmen fauna. Up to now, 6125 species of 1638 genera of Opiliones have been described in the world (Hollan, 2005). There are only 29 species known from Turkey (Kulczyński, 1903; Nosek, 1905; Roewer, 1959; Gruber, 1968, 1969, 1976, 1979, 1998; Chevrizov, 1979; Bayram, 1994; Snegovaya, 1999; Bayram *et al.*, 2005; Bayram & Çorak, 2007; Çorak & Bayram, 2007). In this study, four species of Family Phalangiiidae Latreille, 1802 are recorded for the first time from Turkey. The characteristic body parts of these species, and *Phalangium punctipes* (L. Koch, 1878), are measured and illustrated, and data on their distribution are given. With these records, the number of opilionids in Turkey has increased to 33 species.

Material and Methods

This study was carried out in different periods between April and September 2002-2004 in Niğde. Examined specimens were preserved in 70% ethanol and deposited in the Arachnology Museum of Niğde University (NUAM). The identification was made with a ZX61 Olympus stereomicroscope. Identification references consulted are: Chevrizov (1979) and Babaşoğlu (1999). All measurements are in millimetres.

Abbreviations used: AL = abdominal portion length, Bs = basal segment, CL = carapace length, Ds = distal segment, F = femur, M = metatarsus, P = patella, Ti = tibia, TL = total length, Tr = tarsus.

Results

Homolophus funestus L. Koch, 1877 (Figs.1-2)

Material examined. Turkey: Niğde province: 1♀, Ulukışla, 37°33'N, 34°28'E, 25.08.2003; 1♀, Fertek, Özbelde, 37°58'N, 34°39'E, 06.06.2003; 3♀♀, Kemerhisar, 37°49'N, 34°34'E, 29.09.2003; 1♀, Çamardı, 34°49'N, 34°59'E, 23.05.2003; 1♀, Bor, 37°53'N, 34°33'E, 17.08.2003; 3♀♀, Altunhisar, 37°59'N, 34°22'E, 17.05.2003.

Measurements. Female. Dorsal scutum: CL 2.3, AL 3.7; Chelicera: Bs 0.8, Ds 2.2. Pedipalp [TL (F+P+Ti+Tr)]: 6.3 (1.7+0.8+1.1+2.7); Legs [TL (F+P+Ti+M+Tr)]: I 14.6 (3.0+1.0+2.4+2.3+5.9), II 19.3 (4.3+1.6+3.9+3.3+6.2), III 15.1 (2.5+1.1+2.3+3.0+6.2), IV 22.7 (4.0+1.5+3.3+5.4+8.5).

Habitat: The specimens were collected from stony and meadow places.

World distribution: Siberia, Mongolia (Hallan, 2005).

Oligolophus hanseni (Kraepelin, 1896) (Figs.3-4)

Material examined. Turkey: Niğde province: 1♀, Özbelde, 37°58'N, 34°39'E, 27.05.2004; 1♀, Fertek, 37°58'N, 34°37'E, 29.09.2004; 2♀♀, Gümüşler, 37°59'N, 34°46'E, 22.08.2003; 1♀, Uluğağaç, 38°25'N, 34°50'E, 26.08.2004.

Measurements. Female. Dorsal scutum: CL 2.0, AL 4.0; Chelicera: Bs 0.8, Ds 2.0. Pedipalp [TL (F+P+Ti+Tr)]: 4.0 (1.2+0.5+0.7+1.6); Legs [TL (F+P+Ti+M+Tr)]: I 14.6 (2.2+0.9+2.5+2.6+6.4), II 23.8 (4.4+1.4+4.2+3.8+10.0), III 16.1 (3.6+1.0+2.5+3.2+5.8), IV 22.3 (4.5+1.2+3.7+4.9+8.0).

Habitat: The specimens were collected from tree trunks and meadows.

World distribution: Belgium, Netherlands, Sweden, Germany, Czech Republic, Poland, (Blick & Komposch, 2004; Hallan, 2005; Stol, 2007).

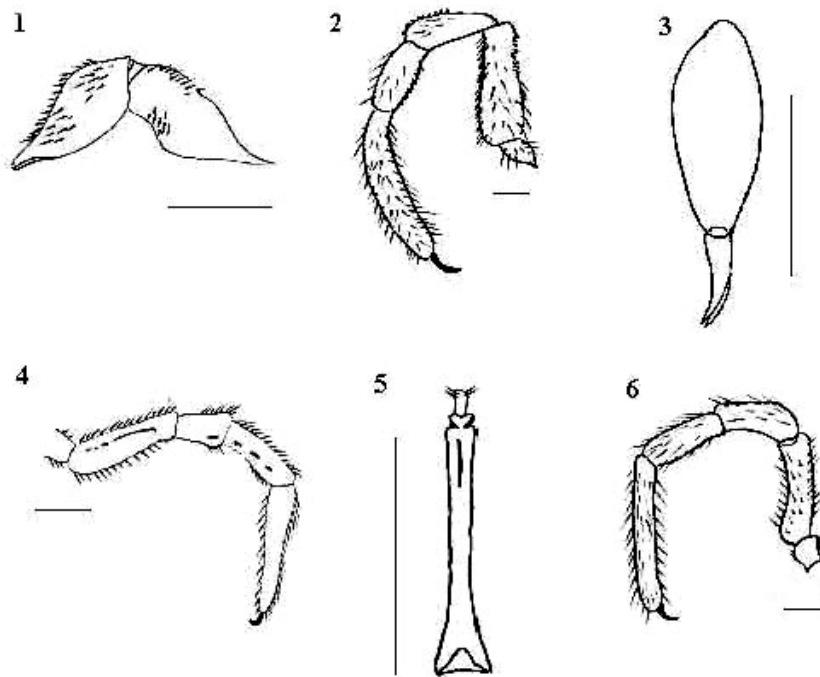
Oligolophus tridens (C.L. Koch, 1836) (Figs.5-6)

Material examined. Turkey: Niğde province: 1♂, Fertek, 37°58'N, 34°37'E, 27.05.2004; 2♂♂, Kayaardı, 37°58'N, 34°39'E, 13.03.1996; 1♂, Altunhisar, 37°59'N, 34°22'E, 25.06.2003; 2♂♂, Ulukışla, 37°33'N, 34°28'E, 07.06.2003.

Measurements. Female. Dorsal scutum: CL 2.1, AL 5.7; Chelicera: Bs 1.0, Ds 2.3. Pedipalp [TL (F+P+Ti+Tr)]: 5.5 (1.5+0.7+1.1+2.2); Legs [TL (F+P+Ti+M+Tr)]: I 13.0 (2.5+1.1+2.0+2.4+5.0), II 21.6 (4.4+1.4+3.3+2.9+9.6), III 12.9 (2.6+1.1+2.0+2.5+4.7), IV 20.5 (4.1+1.3+2.8+4.3+8.0).

Habitat: The specimens were collected from meadow places.

World distribution: Belgium, Netherlands, Denmark, Norway, Sweden, Germany, Switzerland, Austria, Czech Republic, Hungaria, Slovakia, Poland, Slovenia, Iceland, Finland (Blick & Komposch, 2004; Hallan, 2005; Stol, 2007).



Figs.1-6: *Homolophus funestus* (♀). 1. pedipalp, 2. chelicera.
Oligolophus hanseni (♀). 3. distal segment of chelicera, 4. pedipalp.
Oligolophus tridens (♂). 5. penis, 6. pedipalp. Scales: 0.5 mm.

***Opilio redikorzevi* Roewer, 1956 (Figs.7-9)**

Material examined. Turkey: Niğde province: 2♂♂, Kayaardı, 37°58'N, 34°39'E, 13.03.1996; 1♂, Kemerhisar, 37°49'N, 34°34'E, 01.07.2003; 1♂, Altunhisar, 37°59'N, 34°22'E, 05.06.2003; 1♂, Çiftlik, 38°10'N, 34°29'E, 11.05.2003; 1♂, Gölcük, 38°13'N, 34°46'E, 13.08.2003; 1♂ Bor, 37°53'N, 34°33'E, 09.06.2003.

Measurements. Male. Dorsal scutum: CL 2.5, AL 3.8; Chelicera: Bs 1.0, Ds 2.3. Pedipalp [TL (F+P+Ti+Tr)]: 5.4 (1.4+0.5+1.1+2.4); Legs [TL (F+P+Ti+M+Tr)]: I 14.5 (2.7+0.9+2.7+3.0+5.2), II 24.9 (4.4+1.6+4.0+3.9+11.0), III 16.5 (2.6+1.0+2.5+3.7+6.7), IV 24.3 (4.3+1.5+3.6+5.9+9.0).

Habitat: The specimens were collected from stony places and bare soil zones.

World distribution: Caucasus (Hallan, 2005).

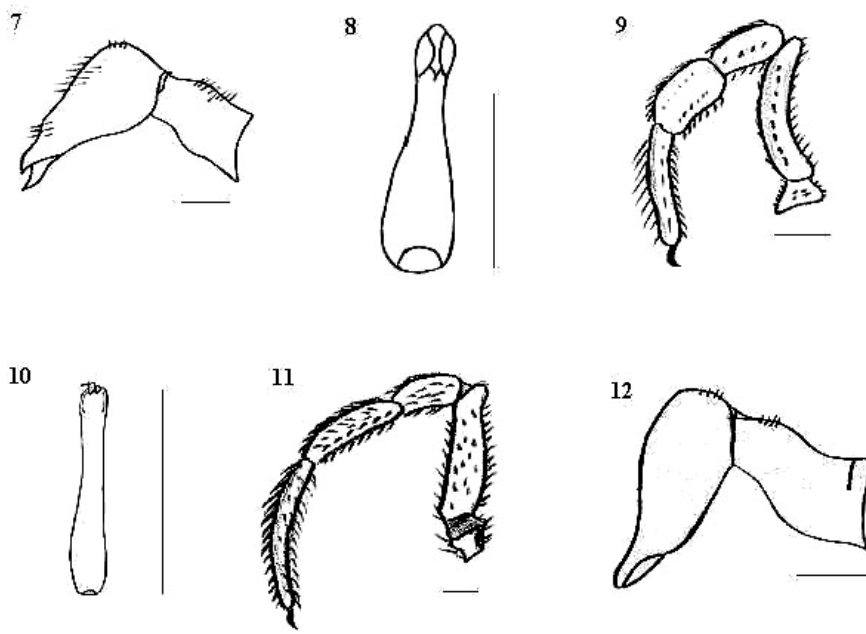
***Phalangium punctipes* (L. Koch, 1878) (Figs.10-12)**

Material examined. Turkey: Niğde province: 2♂♂, Ulukışla, 37°33'N, 34°28'E, 11.06.2003; 1♂, Bor, 37°53'N, 34°33'E, 19.05.2004.

Measurements. Male. Dorsal scutum: CL 1.8, AL 3.0; Chelicera: Bs 1.1, Ds 1.6. Pedipalp [TL (F+P+Ti+Tr)]: 13.7 (4.0+1.1+2.6+6.0); Legs [TL (F+P+Ti+M+Tr)]: I 20.8 (4.1+1.0+3.9+4.3+7.5), II 30.8 (5.8+1.3+5.0+6.1+12.6), III 21.2 (3.1+0.9+3.4+5.4+8.4), IV 29.7 (5.4+1.0+4.6+7.7+11.0).

Habitat: The specimens were collected from meadow places.

World distribution: Armenia, Congo, Turkestan, Crimea, Syria, Cyprus, Caucasus, Cuba (Hallan, 2005).



Figs. 7-12: *Opilio redikorzevi* (♂). 7. chelicera, 8. penis, 9. pedipalp.
Phalangium punctipes (♂). 10. penis, 11. pedipalp, 12. chelicera. Scales: 0.5 mm.

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