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## Redescription of the spider *Haplodrassus caspius* Ponomarev & Belosludtsev, 2008, with the first description of the male (Araneae: Gnaphosidae)

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*Haplodrassus caspius* Ponomarev & Belosludtsev, 2008, previously known only from females from northern Ciscaspian, is redescribed on the basis of the types and newly collected material. The male of *Haplodrassus caspius* is described for the first time. New findings extend the known range of the species southwestward to Azerbaijan.

**Keywords:** Russia, Azerbaijan, new record, redescriptions, ground spider.

### Introduction

*Haplodrassus* Chamberlin, 1922 is a relatively large gnaphosid genus distributed in the Holarctic (58 species), India (6 species) and Africa south of the Sahara (1 species) (Platnick, 2012). The genus is relatively well studied in the Nearctic, Europe and Far East Asia. It remains poorly studied in Central Asia and India. Of 65 valid species, 17 are known from one sex only (Platnick, 2012), two from males and 15 from females. Among the species known from one sex, 14 occur in Asia. One of these species is *Haplodrassus caspius* Ponomarev & Belosludtsev, 2008 which was described on the basis of three females from western Kazakhstan and adjacent Russia. The epigyne of this species, with two anterior pockets (hoods), is unique for the genus. While studying unidentified material from Azerbaijan we found samples with females identical to the holotype and paratype of *H. caspius*. Some of the samples contained both males and females. Therefore, the aim of this paper is to redescribe the female and to describe the male of *H. caspius*.

### Methods

Photographs were taken in dishes of different sizes with paraffin at the bottom. Specimens were photographed using an Olympus Camedia E-520 camera attached to an Olympus SZX16 stereo microscope at the Zoological Museum, University of Turku, Finland. Digital images were montaged using a “CombineZM” image stacking software. Material presented herein will be deposited in the Zoological Museum of the Moscow State University, Moscow (ZMMU) and in the Zoological Department of the V.I. Vernadsky Taurida National University, Simferopol, Ukraine (TNU).

Legs segments were measured after their separation from the prosoma. All measurements are given in mm: minimum-maximum; a figure in brackets represents the average specimen. The following abbreviations have been used in the text: a – apical; d – dorsal; pl – prolateral; rl – retrolateral; v – ventral; RTA – retrolateral tibial apophysis.

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### ***Haplodrassus caspius* Ponomarev & Belosludtsev, 2008 (Figures 1–11)**

*Haplodrassus caspius* Ponomarev & Belosludtsev, in Ponomarev et al., 2008: 164, f. 7–8 (♀).

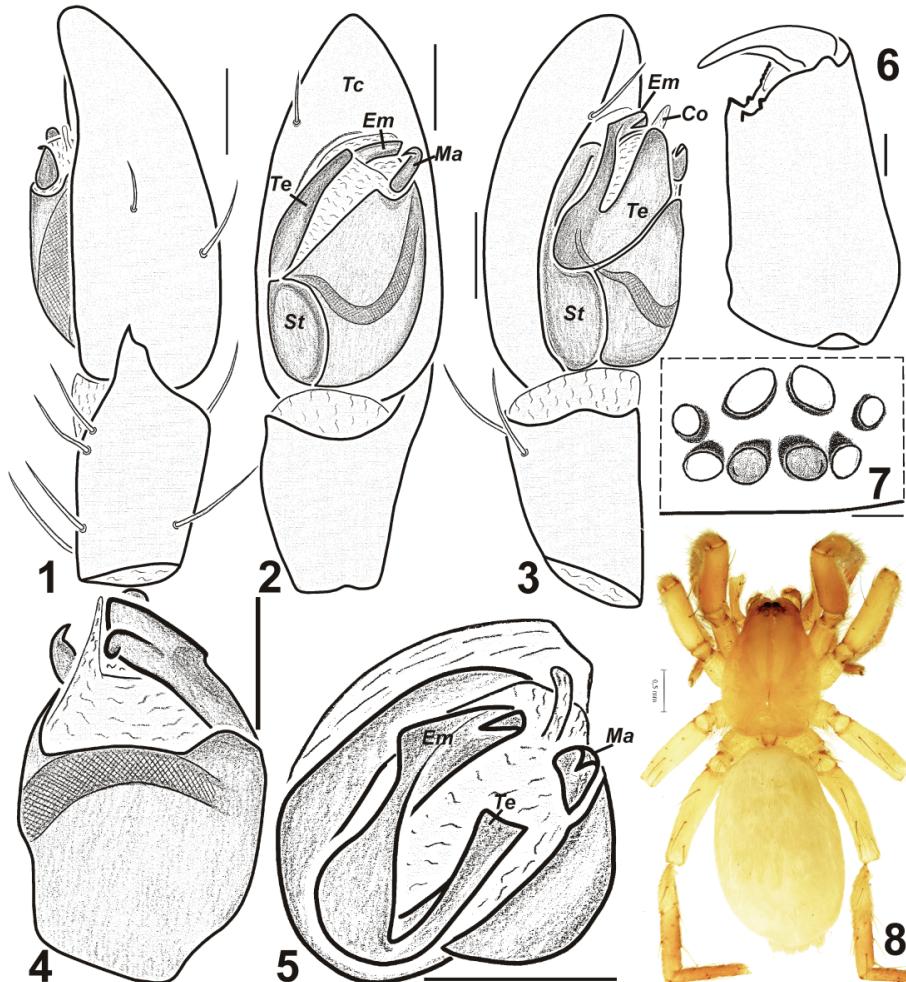
Material examined. RUSSIA. Holotype ♀ (ZMMU, Ta-6901), Astrakhan Area, Bogdinskobaskunchakski Reserve, meadow, 7-10.vi.2005 (E. A. Belosludtsev). KAZAKHSTAN: 1♀ paratype (TNU-18.30.1/2), Atyrau Area, 25 km E of Inderborskii Vill., Inder Hill, sand with rocks, *Artemisia*, 25.v.1987 (A. V. Ponomarev). AZERBAIJAN: 1♀ (ZMMU), Apsheron Peninsula, Dyubendy, 40°29'N, 50°13'E, 23.vii.1995 (E. F. Huseynov); 1♂ (ZMMU), Apsheron Peninsula, Dyubendy, 12.v.1998 (E. F. Huseynov); 1♂, 3♀ (ZMMU), Apsheron Peninsula, environs of Baku, Dyubendy, 40°29'N, 50°13'E, -9 m, semidesert, 18.v. & 8.vi.2003 (Yu. M. Marusik); 1♂, 3♀ (ZMMU), Apsheron Peninsula, Eny-Surahany, 40°25'N, 50°02'E, 21.vi.1996 (E. F. Huseynov); 1♀ (ZMMU), “♂ 1809” without label; 2♂, 3♀ (ZMMU), “♂ 3MA” without label; 1♀ (ZMMU), “♂ 677A” without label.

Diagnosis. Males of *H. caspius* differ from other *Haplodrassus* species by having an elongate cymbium (two times longer than wide) and a sharply pointed RTA (tip widened or blunt in other congeners), a thin terminal apophysis that partly hides the embolus (embolus clearly visible in other congeners) and by the hook-like shape of the embolus. Females differ from other congeners by having two anterior epigynal pockets instead of one, thin lateral pockets and converging chambers of the lateral pockets (diverging in other congeners). The epigyne of this species resembles that in some *Zelotes* by having two pockets and thin lateral pockets. Females of *H. caspius* can be easily separated from those of *Zelotes* by having no preening comb on metatarsus III.

Description. Female holotype: total length 4.3; carapace 1.55 long, 1.2 wide. Measurements (3♂ / 3♀ from Azerbaijan): total length 3.5–3.8 (3.7) / 3.5–5.3 (4.2); carapace 1.5–1.7 (1.6) / 1.4–2.2 (1.7) length, 1.0–1.2 (1.1) / 0.9–1.4 (1.1) width. Abdomen 2.0–2.2 (2.1) / 2.0–3.0 (2.4) length, 0.8–1.1 (0.9) / 0.9–1.5 (1.2) width. Length of palp segments: femur 0.54 / 0.58, patella 0.22 / 0.28, tibia 0.20 / 0.24, tarsus 0.46 / 0.42. – Chelicerae with 1–2 promarginal and 2 retromarginal teeth in males and females. Number of promarginal teeth varies from 2 (most common) to 1 (seldom). One male studied has one chelicera with 1 and the other chelicera with 2 promarginal teeth. – Leg spination (♂). Femur: I – d 1–1, pl 1; II – d 1–1, pl 1; III – d 1–1, pl 1–1, rl 1; IV – d 1–1, pl 1, rl 1. Patella: III – pl 1; IV – rl 1. Tibia: I – v 2; II – v 2; III – d 1, pl 1–1–1, rl 1–1, v 2–1–2(a); IV – d 1, pl 1–1, rl 1–1, v 2–1–1–2(a). Metatarsus: I – v 2; II – v 2; III – pl 1–2–2, rl 1–1–2, v 2–2(a); IV – pl 1–2–2, rl 1–2–2, v 2–1–1–2(a). – Leg spination (♀). Femur: I – d 1–1, pl 1; II – d 1–1, pl 1; III – d 1–1, pl 1–1, rl 1–1; IV – d 1–1, pl 1, rl 1. Patella: III – pl 1; IV – pl 1, rl 1. Tibia: I – v 1; II – v 1; III – d 1, pl 1–1–1, rl 1–1, v 2–1–2(a); IV – d 1, pl 1–1–1, rl 1–1–1, v 2–1–1–2(a). Metatarsus: I – v 2; II – v 2; III – pl 1–2–2, rl 1–1–2, v 1–1–2(a); IV – pl 1–2–2, rl 1–2–1–1, v 1–1–1–2(a). – Anterior eye row straight (Figure 7), posterior row slightly procurved. Carapace and abdomen yellow-brownish without pattern (Figure 8). Legs and palps yellow, femora lighter than other joints.

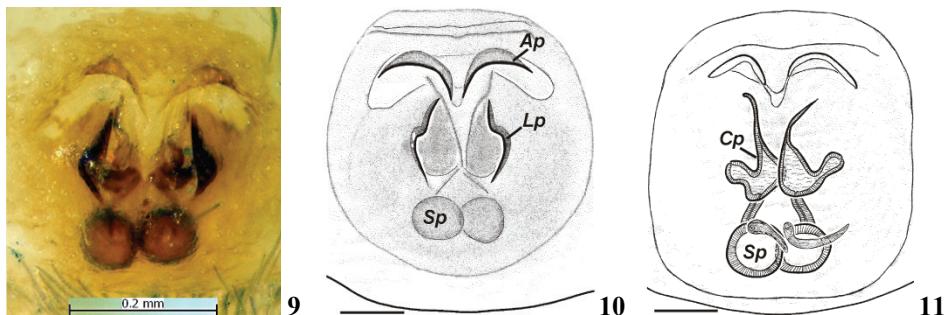
Table 1. Length of leg segments (♂/♀)- Lengths in mm.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.30 / 1.22	0.75 / 0.69	0.99 / 0.88	0.94 / 0.86	0.66 / 0.62	4.70 / 4.26
II	1.08 / 1.04	0.63 / 0.57	0.78 / 0.70	0.84 / 0.74	0.60 / 0.51	3.93 / 3.56
III	0.99 / 0.96	0.54 / 0.51	0.63 / 0.52	0.88 / 0.86	0.54 / 0.51	3.58 / 3.36
IV	1.47 / 1.38	0.78 / 0.75	1.14 / 1.04	1.53 / 1.38	0.75 / 0.69	5.67 / 5.24



Figures 1-8. Male palp and female of *Haplodrassus caspius*: 1- palp, retrolateral; 2- palp, ventral; 3- palp, prolateral; 4- bulbus, dorsal; 5- bulbus, apical; 6- left chelicera of female, posterior; 7- ocular area of female, frontal; 8- habitus of holotype female. 1-6 from Azerbaijan; 7- paratype female. Scale = 0.1 mm if not otherwise indicated.

Male palp as in Figures 1-5, cymbium droplet-shaped, elongate, two times longer than wide, with high tip (*Tc*), higher than subtegulum (*St*); tibia with short gradually tapering RTA, conductor (*Co*) long and thin; median apophysis (*Ma*) situated almost on top of tegulum, its lip close to tip of embolus (*Em*); terminal apophysis (*Te*) thin and hiding base of embolus; embolus with hook-like process, only tip visible in ventral view. Epigyne as in Figures 9-11, with two wide anterior pockets (hoods) (*Ap*), thin lateral pockets (*Lp*), spermathecae (*Sp*) large, globular; chambers of lateral pockets (*Cp*) and spermathecae slightly overlapping.



Figures 9–11. Epigyne of *Haplodrassus caspius* (9, holotype, 10–11– paratype): 9–10– ventral; 11– dorsal. Scale = 0.1 mm if not otherwise indicated.

**Comments.** Although the palp of males and epigyne of females of *H. caspius* differ from the generotype *H. hiemalis* (Emerton, 1909) and other congeners in many respects, e.g. shape of RTA (tapering and sharply pointed), cymbium (two times longer than wide, with high tip), embolic division (embolus with hook near tip, thin terminal apophysis hiding embolus), epigyne with two anterior pockets, etc., we are of the opinion that this species cannot be placed in any other genus.

**Distribution.** Russia (Astrakhan area), Kazakhstan (Atyrau area) and Azerbaijan (Ponomarev et al. 2008; present data).

**Habitat.** Semi-deserts (Ponomarev et al. 2008; present data).

**Phenology.** ♂: May to June, ♀: April to July (Ponomarev et al. 2008; present data).

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