

## Description of *Histocona breviemboli* sp. n. from the Balkan Peninsula (Arachnida, Araneae, Agelenidae)

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*Histocona breviemboli* sp. nov. (male) is described and illustrated from Bulgaria where it was collected in beech forest habitats (Strandzha Mts). The new species has somatic characters that correspond well to those of the genus *Histocona*. However, its embolus is much shorter than in any other *Histocona* species and the radix is also very different, having a thorn-like shape. The species cannot be placed with certainty in any of the existing *Histocona* species-groups.

The genus *Histocona* (Araneae, Agelenidae) currently includes 20 species (WSC 2017). Most of them inhabit Southeastern Europe and 13 species are presently known only from the Balkan Peninsula, primarily in caves. These are: *Histocona bidens* (Absolon & Kratochvil, 1933) from Croatia and Macedonia; *H. conveniens* (Kulczyński, 1914) from Bosnia-Herzegovina; *H. dubia* (Absolon & Kratochvil, 1933) from Croatia and Bosnia-Herzegovina; *H. egonpretneri* Deeleman-Reinhold, 1983 known only from Croatia; *H. hauseri* (Brignoli, 1972) from Greece and Macedonia; *H. isolata* Deeleman-Reinhold, 1983, known only from Crete; *H. krivosijana* (Kratochvil, 1935) known only from Montenegro; *H. laeta* (Kulczyński, 1897) from Bulgaria, Macedonia and Romania; *Histocona myops* (Simon, 1885), *H. strinatii* (Brignoli, 1976), *H. thaleri* Gasparo, 2005, and *H. vignai* Brignoli, 1980, all known only from Greece; and *H. tranteevi* Deltchev, 1978, found only in Bulgaria (Bolzern *et al.* 2013, Deeleman-Reinhold 1983, Deltchev, 1978, Deltchev & Petrov 2008, Gasparo 2005). In this paper, *Histocona breviemboli* sp. nov. is described and illustrated from Strandzha Mts., Bulgaria.

### Material and methods

The specimens from Bulgaria were collected using pitfall traps. Coloration is described from material that was preserved in 80 % alcohol. All specimens were examined and measured using a Wild M5A (Heerbrugg) stereomicroscope. Male palps were examined and illustrated after they were dissected from the spiders' bodies. Photos were taken with a Lumix digital camera mounted on Wild M5A stereomicroscope. Measurements of the legs are taken from the dorsal side. Total length of the body includes the chelicerae. All measurements were taken in mm. Abbreviations used in the text include: d—dorsal, v—ventral, p—prolateral, r—retrolateral; e—embolus; pa—patellar apophysis; ra—radix; ta—tibial apophysis. The type specimens are deposited in the National Museum of Natural History (NMNHS), Sofia, Bulgaria.

### Agelenidae C. L. Koch, 1837

#### *Histocona* Thorell, 1869

#### *Histocona breviemboli* sp. n. Figs. 1–8.

*Textrix chyzeri*: Demircan & Topcu 2015: 182 (misidentification).

**Type material:** Holotype ♂, Bulgaria, Strandzha Mts, Kondolovo Village, 30.6.2004, leg. M. Langouov. Paratypes: 1 ♂, same data as holotype; 4 ♂, same locality, 4.08.1998; 1 ♂, same locality, 9.10.1998; 1 ♂, same locality, 7.11.1998; 1 ♂, same locality, 11.11.2000; 1 ♂, Gramatikovo village, 13.11.1999; 1 ♂, same locality, 8.2000, leg. V. Popov.

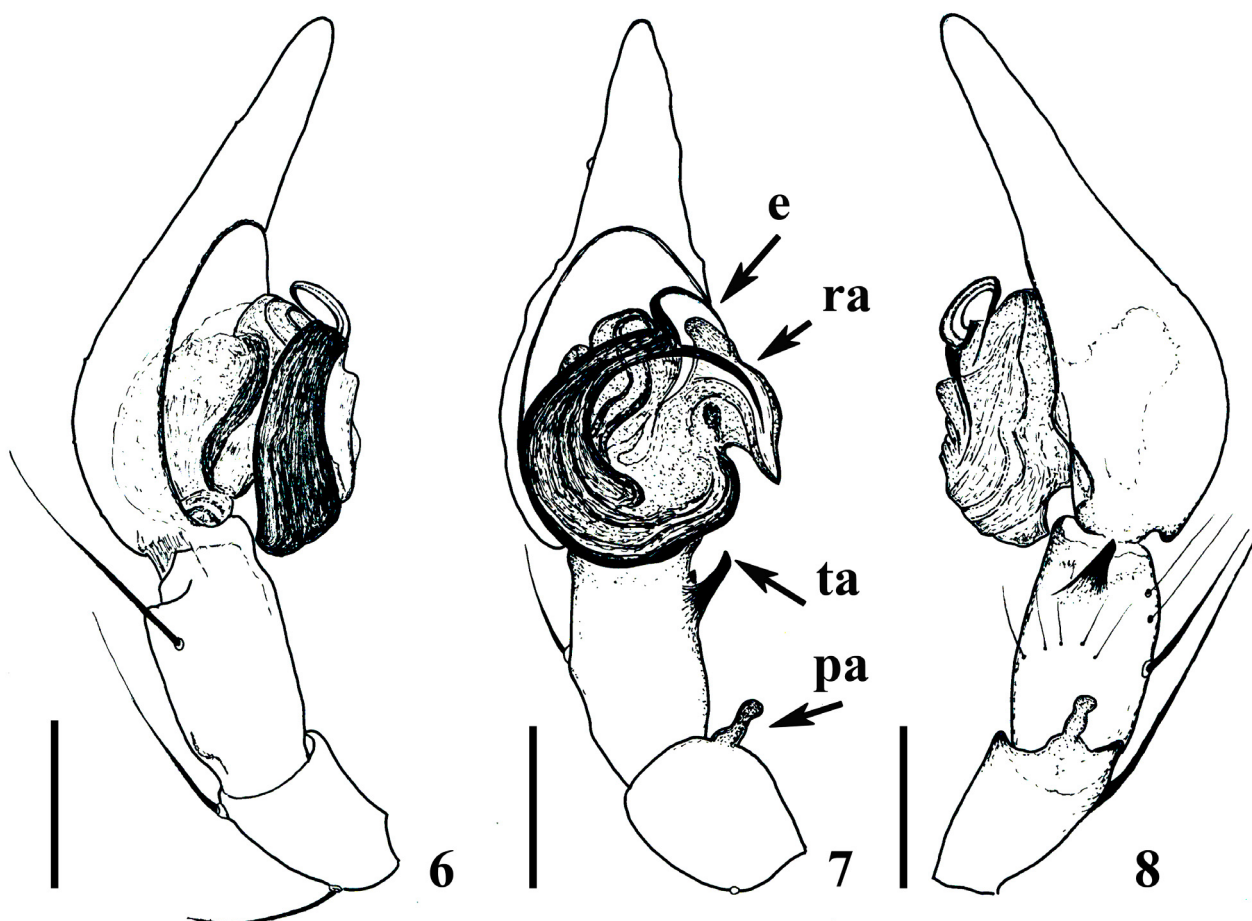
Other material (Demircan & Topcu 2015, not examined): 4 ♂, 6 ♀, Turkey, Kırklareli Province, Vize District, Balkaya Village, Uzuntarla (Domuzdere) Cave (Demircan & Topcu, 2015). The material is not examined because the images presented by Demircan & Topcu, 2015 were sufficient to match their specimens with the males described here.

**Etymology:** From the Latin words 'brevis' (short) and 'embolus'.

**Diagnosis:** The new species has somatic characters (notched trochanters, patellae with dorsal spines only, male palps with patellar apophyse) that correspond well to those of the genus *Histocona*, according to Bolzern *et al.* (2013). The male of *Histocona breviemboli* sp. n. can be easily separated from all the other *Histocona* species by the overall shape of the male bulbus, the short embolus and its position, the thorn-like radix, the shape of the patellar apophysis and the simple (with no branches) and pointed at the end tibial apophysis of the pedipalp (Figs 3–5, 6–8). It's not related to any of the known species.



**FIGURES 1–5.** *Histopona breviemboli* sp. n., male holotype. 1. Habitus, dorsal view; 2. Habitus, ventral view; 3–5. Male palp, prolateral, ventral and retrolateral view. Scale lines: 2.0—1, 2; 0.2—3–5.



FIGURES 6–8. *Histopona breviemboli* sp. n., male paratype. 6–8. Male palp, prolateral, ventral and retrolateral view. Scale lines: 0.2.

**Description:** Male holotype: Measurements (in mm): Total length, 4.5; cephalothorax: length, 1.73, width, 1.13; clypeus: width, 0.15; chelicerae: length, 0.83, width, 0.38; sternum: length, 0.90, width, 0.83. Coloration (Figs 1, 2): Prosoma yellow-brown. Sternum yellow-brown, without pattern. Opistosoma grey-white. Legs: same color as prosoma. Eyes: Both eye rows straight in dorsal view. Anterior lateral eyes larger than anterior median eyes. Posterior eyes equal in size. Chelicerae: with 2 teeth on promargin and 5 teeth on retromargin. The number of cheliceral teeth may vary even between left and right chelicerae of a single specimen. Colulus reduced, only two hairy plates are visible. Legs: All trochanters notched, patellae with dorsal spines only, measurements as in Table 1. Chaetotaxy see Table 2.

TABLE 1. *Histopona breviemboli* sp. n., leg measurements (holotype).

Legs	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.98	1.08	1.8	1.55	1.26	7.67
II	1.73	0.97	1.62	1.44	1.15	6.91
III	1.62	0.9	1.37	1.62	1.08	6.59
IV	2.16	1.08	1.98	2.52	1.26	9.00

TABLE 2. *Histopona breviemboli* sp. n., chaetotaxy (holotype).

Leg	Femur	Patella	Tibia	Metatarsus
I	2d, 1p, 1r, 2v	2d	2d, 1p, 1r, 2v	1p, 2v
II	2d, 1p, 1r, 2v	2d	1d, 2p, 1r, 3v	1p, 1r, 1v
III	2d, 1p, 1r, 2v	2d	1d, 3p, 2r, 3v	1d, 2p, 2r, 3v
IV	2d, 1p, 1r, 2v	2d	1d, 3p, 2r, 3v	1d, 2p, 2r, 3v



Male palps (Figs 3–5, 6–8): With retrolateral tibial and retrolateral patellar apophyses. Tibial apophysis with no branches, pointed at the end. Patellar apophysis short and simple. Bulbus: Embolus very short (not typical for *Histocona*). Radix thorn-like, very similar in shape to the embolus. At a glance, it looks like that the embolus is forked. Both embolus and radix go into conductor.

**General distribution:** Bulgaria, Turkey.

**Discussion:** The species has been previously recorded by Demircan & Topçu (2015) as *Textrix chyzeri*, which is obviously a misidentification. It certainly does not belong to *Textrix* at all because of the notched trochanters (straight in *Textrix*), straight eyerows (recurved in *Textrix*) and the presence of a patellar apophysis (missing in *Textrix*). Although its genital structure also differs from all known *Histocona*, the somatic characters (notched trochanters, presence of only dorsal spines on patellae, presence of patellar apophysis) are much closer to this genus (according to Bolzern *et al.* 2013). *Histocona breviemboli* sp. n. slightly resembles the species of *H. italica*—group by the overall structure of the bulbus and reduced colulus. For the record of *Textrix chyzeri*, cited above, Demircan & Topçu (2015) provide a picture and a short description of the female. The presented picture of the female epigyne also resembles those of *italica*—group. However, the embolus of *Histocona breviemboli* sp. n. is much shorter than in any other *Histocona* species and the radix is also very different, having a thorn-like shape, so the species cannot be placed in any of the existing *Histocona* species-groups.

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