

The female of *Anyphaena furva* Miller (Araneae: Anyphaenidae)

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Summary

The female of *Anyphaena furva* Miller, 1967 is described and diagnosed. *Anyphaena furva* inhabits sun-exposed tree trunks on rocky slopes in Central Bohemia, and is also known from Bavaria, Slovakia, and probably Romania (dependent on the validity of the proposed synonymy with *A. pontica* Weiss, 1988). The differences between *A. furva* and *A. accentuata* (Walck.) are described.

Introduction

Some important discoveries have been made during intensive arachnological research in the Czech Republic in recent years (Buchar, 1997; Růžička & Holec, 1998). *Anyphaena furva* was described by Miller (1967) from one male from East Slovakia. A second male was reported by Šmaha (1985) from Central Bohemia. In this paper, a description of the hitherto unknown female of *Anyphaena furva* is provided, and it is provisionally

considered to be a senior synonym of *A. pontica* Weiss, 1988 from Romania.

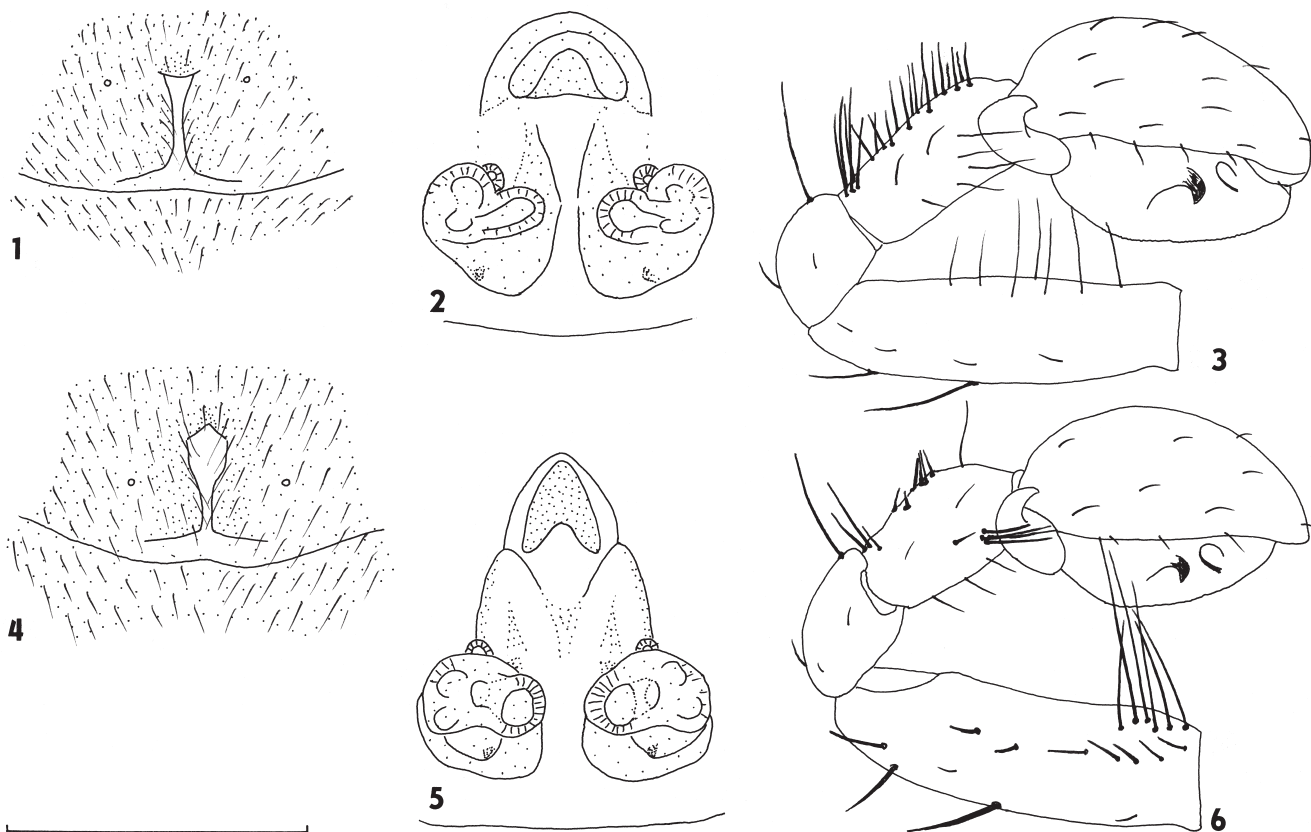
The names of settlements are given according to the Geographical Lexicon of the Czech Republic (Nováková, 1991). The number of the grid square (Buchar, 1982) is given in parentheses.

Anyphaena furva Miller, 1967 (Figs. 1–3, 7)

Anyphaena furva Miller, 1967: 292–293, pl. 14, fig. 7 (♂).
? *Anyphaena pontica* Weiss, 1988: 143–145, figs. 1–2 (♀).

Material examined: Central Bohemia, Velká Buková-Nezabudice, Nezabudické Skály rocks Nature Reserve (5949), 5 April–21 June 1997, 3 ♂, leg. V. Růžička & P. Antuš, 8 May 1998, 6 ♂ 5 ♀, leg. V. Růžička; Southeast Slovakia, Dlhá Ves, surroundings of Domicia cave (7588), 30 May 1959, 1 ♀, leg. J. Buchar; Southeast Slovakia, Zádielská Dolina valley (7391), 10 May 1960, 1 ♂, holotype, leg. F. Miller, coll. National Museum Prague, No. P6A-664/15 (omitted in the survey of Miller's material published by Kůrka, 1994).

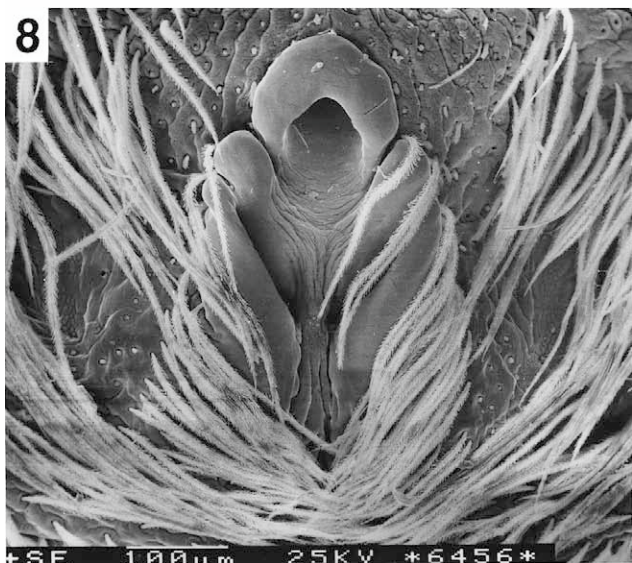
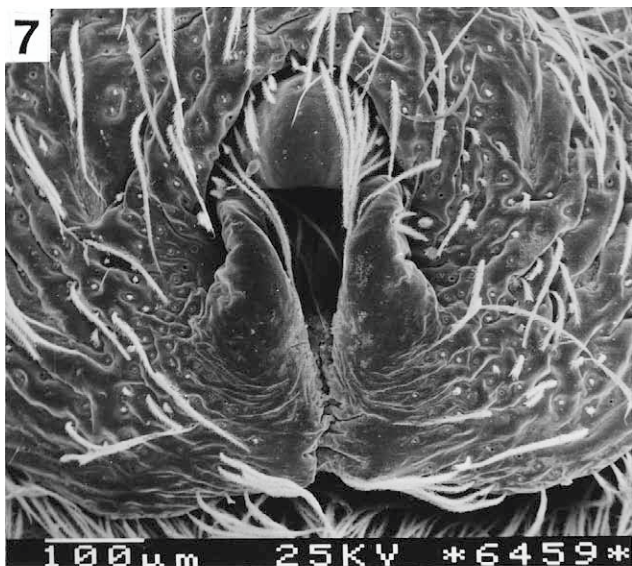
Comparative material: *A. accentuata* (Walckenaer, 1802): North Bohemia, Ústí nad Labem-Sebuzín, 29 May 1995, 1 ♂, leg. J. Buchar; Central Bohemia, Karlštejn, 28 May 1998, 1 ♀, leg. J. Buchar, 30 May 1999, 2 ♀, leg. L. Kubcová; Central Bohemia, Trhový Štěpánov-Soutice, 19 June 1975, 1 ♂, leg. M. Antuš;



Figs. 1–6: **1–3** *Anyphaena furva* (Czech Republic, Velká Buková-Nezabudice). **1** Epigyne; **2** Vulva, dorsal view; **3** Male palp. **4–6** *A. accentuata*. **4** Epigyne (Czech Republic, Lednice); **5** Vulva, dorsal view (Czech Republic, Karlštejn); **6** Male palp (Czech Republic, Ústí nad Labem-Sebuzín). Scale lines = 1 mm (1,4), 0.5 mm (2,3,5,6).

South Moravia, Lednice, 5 May 1974, 1 ♀, leg. J. Boháč, coll. V. Růžička. *A. pontica*: 1 ♀, holotype, deposited in Museum of Natural History, Sibiu (30.1.4/1-Nr. 1309), not available for study.

Description: Female: Carapace 2.2 mm long, 1.7 mm wide. Total length 5.8 mm. Carapace black-brown with light median band. Chelicerae and sternum dark brown, maxillae and labium brown with light anterior margin. Legs brown, coxae and proximal parts of femora light, distal parts of femora, tibiae and metatarsi with dark annulations. Abdomen brown with dark spots, centre with characteristic two pairs of dark spots as in *A. accentuata*. Epigynal area covered with dark bristles, which extend behind epigastric fold. Epigyne with longitudinal fissure, wider in front, anterior pocket with horizontal or slightly curved margin. Lateral spots (sigilla) at level of anterior end of epigynal fissure (Figs. 1, 7). Vulva as in Fig. 2, apparently close to *A. accentuata* (Fig. 5: see also Weiss, 1988: fig. 4, and Huber, 1995: fig. 2).



Figs. 7–8: Epigynes. **7** *Anyphaena furva* (Czech Republic, Velká Buková-Nezabudice), hairs removed; **8** *A. accentuata* (Czech Republic, Karlštejn), hairs partly removed.

Key to Central European *Anyphaena* species

1. General coloration dark with contrasting dark and light parts, carapace dark with light median band. Anterior part of epigynal fissure in form of funnel, with horizontal margin of anterior pocket (Figs. 1, 7). Lateral spots at level of anterior end of epigynal fissure. Hairy field extends behind epigastric fold in form of triangle (Fig. 1). Vulva with semicircular anterior border, margin of sclerotised anterior pocket horizontal or slightly concave (Figs. 2, 7). Male palp: femur without long ventral spines; tibia with proximal group of strong dorsal spines, and slightly shorter spines on whole dorsal side (Fig. 3)*A. furva* Miller, 1967
- General coloration light with dark pattern, carapace light with two dark bands. Epigynal fissure anteriorly widened, with pointed margin of anterior pocket (Figs. 2, 8). Lateral spots at level of middle of epigynal fissure. Hairy field extends behind epigastric fold and terminates in broad horizontal line (Fig. 4). Vulva with more pointed anterior border, margin of sclerotised anterior pocket sharply concave (Figs. 5, 8). Male palp: femur proximally with long ventral spines; tibia with two groups of strong but mostly short spines on dorsal side, and with group of strong lateral bristles near tibial apophysis (Fig. 6)*A. accentuata* (Walckenaer, 1802)

Relationships

Anyphaena furva can easily be distinguished from the three *Anyphaena* species of southern Europe (*A. sabina* L. Koch, 1866, *A. alboirrorata* Simon, 1878, *A. numida* Simon, 1897) recorded by Simon (1932) by the shape of the epigyne and male palpal tibia (Urones *et al.*, 1995). It is apparently close to *A. accentuata*, which is common in Central Europe. The female can be distinguished from *A. accentuata* by its dark coloration and the shape of the anterior pocket of the epigyne. There are small differences in overall coloration between specimens of *A. furva* from Central Bohemia and from Slovakia: the specimens from Bohemia are coloured more in dark grey tones, the specimens from Slovakia more in middle brown tones (Miller's description of the holotype carapace as "chestnut-coloured" seems to be inadequate, the carapace is medium brown), and the specimens from Bohemia seem to have a denser hair cover. Melanic specimens, which have been recorded as *A. accentuata* by various authors (Simon, 1932; Reimoser, 1937; Locket & Millidge, 1951) should probably be re-investigated, especially material from xerothermic habitats.

Weiss (1988) described a single female of *Anyphaena pontica* from Romania. It corresponds to *A. furva* in its general dark coloration and carapace coloration, and the stated metallic appearance of the legs is also visible in males of *A. furva*. The epigyne has a funnel-shaped anterior part of the fissure with a slightly curved margin of the anterior pocket. The lateral spots are in the anterior position, and the vulva has a semicircular

anterior border. The type material was not available for study. The type of *pontica* was examined by F. Miller, and Weiss (1988) cited from Miller's letter about *pontica* and *furva*: "Es handelt sich um zwei verschiedene Arten. Es gibt grosse Unterschiede nicht nur in der Färbung, besonders der Kopfbrust und der Beine, sondern auch in der Augenstellung, der Bestachelung der Beine u. a." However, when we compare the original descriptions of *A. furva* (Miller, 1967) and *A. pontica* (Weiss, 1988), we find a common description of a brown carapace with light median band and dark legs, and not greatly different description of eye arrangement. The chaetotaxy is not described. The question of conspecificity of *A. furva* and *A. pontica* can be confirmed only by comparison of more numerous specimens of *pontica*, including males. This material can probably be obtained on tree bark at the original locality.

Habitat and distribution

Miller (1967) found one male on a rock wall in Zádielská Dolina valley, East Slovakia. Šmaha (1985) found one male on a scree field under Týřovská Skála rock in Křivoklátsko Biosphere Reserve in Central Bohemia. We found the first three males in hanging desk traps (Růžička & Antuš, 1997) on old oaks on andesitic rocks forming a south-eastern exposed amphitheatre in the Berounka river valley in Křivoklátsko Biosphere Reserve. The next eleven specimens were collected by sieving bark taken from old trees at the same place. The record of *A. furva* from Bavaria (E. Bauchhenss, in litt.) originated from thermophilic shrubs (*Crataegus*). *Anyphaena pontica* was recorded in Romania in a river valley with sand dunes overgrown by oaks, *Crataegus* and *Robinia*. This allows the conclusion that *A. furva* inhabits tree trunks in xerothermic habitats with discontinuous cover of trees and shrubs. It is able to reach the northern limits of its distribution on sun-exposed rocks. The dark coloration seems to reflect life in sun-exposed habitats in comparison with the lighter *A. accentuata*.

Our material originated from Central Bohemia and South Slovakia, and literature data are from the same regions. E. Bauchhenss (in litt.) found two females in Bavaria (determination confirmed by I. Weiss by comparison with females from Central Bohemia). The occurrence in Romania requires confirmation.

Acknowledgements

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