Theridion hannoniae Denis, 1944 in Britain (Araneae: Theridiidae)

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Summary

The theridiid spider *Theridion hannoniae* Denis, 1944 is described and illustrated from British material, and its habitat and distribution are discussed.

Introduction

In July 2007 a male of *Theridion hannoniae* Denis, 1944 was taken from among a pile of stones at Mynydd Bach, Glamorgan, as described by Warmingham (2008). After the specimen had been identified later that year, further visits were made to the site during 2008 to search for more specimens. An adult female and several juveniles were found on 30 April (Warmingham, 2008), and four adult females and four males were collected on 23 June. All the specimens came from stones derived from a discarded gabion at the side of a track. Both sexes are described and figured here from the British material. All measurements are in mm.

Theridion hannoniae Denis, 1944 (Figs. 1–9)

Theridion hannoniae Denis, 1944: 116, figs. 10, 13, 16 (descr. ♂♀).

Theridion denisi Wunderlich, 1987: 220, figs. 580–585 (descr. ♂♀).

Theridion hannoniae: Thaler & Noflatscher, 1990: 173, fig. 30 (♂);

Bosmans, Vanuytven & Van Keer, 1994: 238, figs. 16–22 (♂♀);

Kloid, 1944: 56, figs. 1–6 (♀); Jäger, 1996: 558, figs. 4–5 (♀);

Roberts, 1998: 298, figs. (♂♀).

Material examined: GREAT BRITAIN: Glamorgan, Mynydd Bach, near Maesteg (grid ref. SS 856930), alt. 200 m, 1&, 30 July 2007, among stones from discarded gabion (a wire basket filled with stones, used in engineering work), near track; 4& 4\$\,^2\$, 23 June 2008, same locality and habitat. All leg. S. Warmingham.

Description: Female (n=4): Total length 2.2–2.4. Carapace length 0.8, width 0.75. Abdomen length 1.4–1.55. Carapace light greyish brown, with paler U-shaped yellowish area between eyes and fovea, and in medial triangular area posteriorly; with darker striae radiating from fovea. Sternum dark grey-brown. Abdomen dorsally pale grey with dark dentate folium and numerous white guanine patches, both within folium and laterally (Fig. 4), very variable. Some irregular dark blotches laterally. Ventrally dark grey-brown, with pair of white spots halfway between epigyne and spinners. Legs pale greyish yellow, with dark grey-brown annulations distally on all segments except patellae, also

medially on all femora and tibiae and on metatarsi I–II, and basally on all metatarsi. Palp pale yellowish, brownish distally on tarsus. Epigyne (Figs. 5–7): Large dark, posteriorly rounded, slightly domed plate with median small bilobed depression, wider than long. Very variable in appearance, cavity often plugged, as in Figs. 6–7. Vulva (Figs. 8–9): Spermathecae large, oval (not usually clearly visible through integument), with ducts looping to anterolateral corners of median depression.

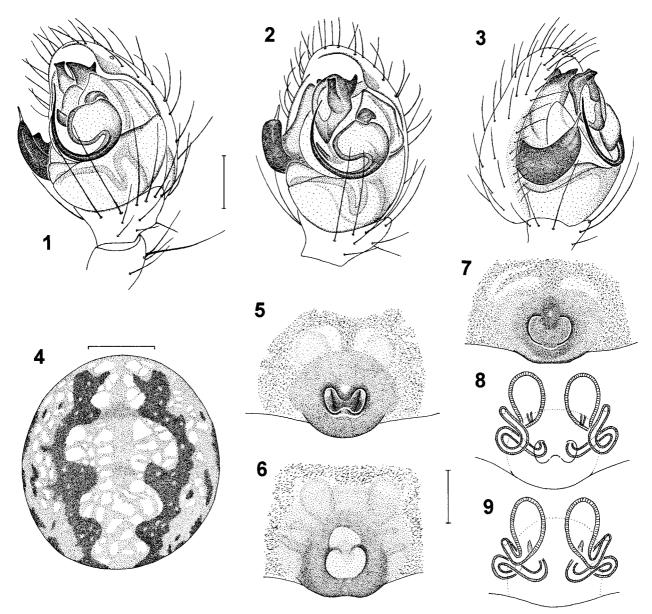
Male (n=5): Total length 1.75–2.05. Carapace length 0.75–0.8, width 0.75. Abdomen length 1.05–1.25. Carapace yellow-grey to light greyish brown, with darker striae radiating from fovea. Ground colour generally paler than in female, and paler U-shaped area between eyes and fovea, and posteriorly, less distinct. Sternum as in female. Abdomen as in female, but dark folium generally less distinct. Epigastric region swollen. Legs pale greyish yellow, with grey-brown annulations distally on all segments except femora III and patellae III-IV, and medially on femora and tibiae I, II and IV. Annulations sometimes less distinct than in female. Palp (Figs. 1–3): Cymbium pale yellow-brown to reddish brown, other segments pale greyish yellow. Median apophysis strongly developed and heavily sclerotised, but with thin membranous tip. Conductor complex, with median depression underlying tip of embolus.

Diagnosis: Smaller than most other British species of Theridion. The general appearance is rather like that of a small T. varians Hahn, but the carapace lacks the dark median band of that species. The male palp resembles those of T. varians and T. hemerobium Simon in general form, but the strongly curved median apophysis with thin pointed membranous tip is distinctive. The epigyne is variable, and often plugged. When unplugged, the shape of the median depression is clearly different from that of any other British species, but when plugged its position at the centre of the rounded epigynal plate is possibly more distinctive.

Habitat and distribution: The habitat at Mynydd Bach, among piles of fairly large stones, seems to be characteristic of the species. Bosmans *et al.* (1994) described it from large stones used to strengthen dykes in Belgium (where it was first recorded in 1986), which is similar to the situation with imported stones from the Welsh gabion. Bosmans *et al.* (1994) also recorded it from stones along the sides of a river, and from a disused quarry and under dry chalk rocks, all except the last being man-made habitats.

The main centre of distribution lies in the western Mediterranean region. Most records have come from coastal regions in France, Spain (including the Balearic islands), Portugal, Tunisia, Algeria, the Canary islands and Madeira, nearly always among large rocks, where it builds its small web in depressions in the stones (Bosmans *et al.*, 1994). It seems to have spread north in recent years, probably largely as a result of being transported with rocks, and has been reported from northern Italy (Thaler & Noflatscher, 1990), Germany (Kloid, 1994; Jäger, 1996; Staudt, 2003) and Poland (Prószyński & Staręga, 2003).

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Figs. 1–9: *Theridion hannoniae* Denis, 1944. **1** Male palp, retrolateral view; **2** Ditto, ventral view, slightly apically; **3** Ditto, prolateral view; **4** Female abdomen, dorsal view; **5** Epigyne, unplugged, ventral view; **6** Epigyne, plugged, ventral view; **7** Ditto, another specimen; **8** Vulva, ventral view; **9** Ditto, dorsal view. Scale lines=0.1 mm (1–3, 5–9), 0.5 mm (4).

Acknowledgement

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References

- BOSMANS, R., VANUYTVEN, H. & VAN KEER, J. 1994: On two poorly known *Theridion* species, recently collected in Belgium for the first time (Araneae: Theridiidae). *Bull. Br. arachnol. Soc.* **9**(7): 236–240.
- DENIS, J. 1944: Sur quelques *Theridion* appartenant à la faune de France. *Bull. Soc. ent. Fr.* **49**: 111–117.
- JÄGER, P. 1996: Spinnen (Araneae) der Wahner Heide bei Köln. *Decheniana* **35**: 531–572.

- KLOID, P. 1994: Erstnachweis von *Theridion hannoniae* für Deutschland (Araneae: Theridiidae). *Arachnol. Mitt.* **8**: 56–57.
- PRÓSZYŃSKI, J. & STARĘGA, W. 2003: Check-list of spiders (Araneae) of Poland. http://www.arachnologia.edu.pl/wykazpaj.html
- ROBERTS, M. J. 1998: Spinnengids. 1–397. Tirion, Baarn, Netherlands.
- STAUDT, A. 2003: Erste Freilandpopulationen von *Theridion hannoniae* Denis, 1944 in Deutschland (Araneae: Theridiidae). *Arachnol. Mitt.* **25**: 42–44.
- THALER, K. & NOFLATSCHER, M.-T. 1990: Neue und bemerkenswerte Spinnenfunde in Südtirol (Arachnida: Aranei). *Veröff. Mus. Ferdinandeum Innsbr.* **69**: 169–190.
- WARMINGHAM, S. 2008: *Theridion hannoniae* new to the British Isles. *Newsl. Br. arachnol. Soc.* **112**: 14–16.
- WUNDERLICH, J. 1987: Die Spinnen der Kanarischen Inseln und Madeiras: Adaptive Radiation, Biogeographie, Revisionen und Neubeschreibungen. Triops Verlag, Langen, West Germany.