

**Description of the male of *Enoplognatha almeriensis* Bosmans & Van Keer (Araneae: Theridiidae)**

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**Summary**

The authors describe the previously unknown male of *Enoplognatha almeriensis* Bosmans & Van Keer from Spain. New records in Spain and the first record from Portugal are presented.

**Introduction**

Until the revision of Bosmans & Van Keer (1999), Mediterranean *Enoplognatha* species were very poorly known. In that revision, seven new species were described, new synonyms were proposed, the common species *Enoplognatha mandibularis* (Lucas, 1846) appeared to have a sibling species, and specimens in collections were found to be frequently misidentified. One unsolved problem was the unknown male of *Enoplognatha almeriensis* Bosmans & Van Keer, a new species described from Spain. Now, new material allows us to describe this male for the first time. It appears to be closest to *E. macrochelis* Levy & Amitai, 1981 from Greece and the Near East and to *E. gershomi* Bosmans & Van Keer, 1999 from Israel. As these species have quite different distribution areas, it cannot be confused with them. The closest species in the Iberian Peninsula is *E. diversa* (Blackwall, 1859). To facilitate identification, figures of this species are presented here as well.

Recently, Agnarsson (2004) proposed a new nomenclature for the male palpal sclerites of Theridiidae, based on their morphological phylogeny. It differs from the nomenclature used in the papers on *Enoplognatha* species by Levy & Amitai (1981) and by Bosmans & Van Keer (1999) in the following aspects: accessory apophysis is replaced by extra tegular apophysis; median apophysis is replaced by theriidid tegular apophysis; radix is replaced by median apophysis.

***Enoplognatha almeriensis* Bosmans & Van Keer (Figs. 5–8, Map 1)**

*Enoplognatha almeriensis* Bosmans & Van Keer, 1999: 231, figs. 121–122, map 11.

**Diagnosis:** *Enoplognatha almeriensis* is closely related to *E. diversa*, *E. gershomi* and *E. macrochelis*. In ventral view, the completely rounded mesal border of the median apophysis and the oblique, rectangular basal part of the conductor distinguish *E. almeriensis* readily from these species.

**Description:** Measurements (mm): *Male:* Total length 2.5–3.2; carapace 1.22–1.38 long, 0.90–1.06 wide; Fe I 1.26–1.42 long. *Female:* Total length 2.6–3.6; carapace 1.18–1.55 long, 0.88–1.25 wide.

**Male:** Colour: Carapace yellowish to olive-brown, spot before fovea, striae and margin indistinctly greyish; sternum yellow to olive brown, tinged with grey and with dark brown margin; legs pale grey-brown, tibiae and metatarsi with grey annulations and darkened apices; abdomen grey suffused with white, with distinct, denticulate, grey folium with cream white spots, grey lateral stripe, venter with broad grey stripe with some smaller white spots, region of spinnerets grey. Chelicerae: Fang groove of male with two large, unequal teeth, basal one largest and with broad, curved base with 2 denticles. Palp (Figs. 5–6): Tibia 0.24–0.26 long, cymbium 0.35–0.37 long; median apophysis mesally rounded, without tubercle at base and without folds; theriidid tegular apophysis twice as long as wide, at mesal side gently rounded, broader in middle, pointed at tip; conductor oblique, rectangular, suddenly narrowing in distal third; extra tegular apophysis much shorter than conductor; embolus describing  $\frac{3}{4}$  of a circle.

**Female:** Epigyne (Fig. 7): With small, oval, transverse pit, 0.05 wide, only anterior margin sclerotised, separated from epigastric furrow by slightly less than its narrowest diameter; posterior margin of epigastric furrow somewhat protruding in middle. Vulva (Fig. 8): Copulatory ducts very short, first turning outwards, then curving straight to pit.

**Material examined:** SPAIN: *Granada:* Baza, pitfalls in dry river bed, 1♂, 24 January 1991, 1♂, 10 February 1991, 1♂ 2♀, 24 March 1991, L. Zarcos leg. (collection R. Bosmans). *Valencia:* Bellus, 1♀, stones in nearly dry river bed, 7 April 1999, R. Bosmans leg. (collection R. Bosmans). PORTUGAL: *Bragança:* Parque Natural do Douro Internacional, Bruçó, 1♂, 21 March 2001, P. Cardoso leg. (collection P. Cardoso).

**Distribution** (Map 1): Previously known from the Spanish provinces Almería, Murcia and Teruel. The new localities in Granada and Valencia and the new record from Portugal extend the range of *E. almeriensis* to the west and the east.

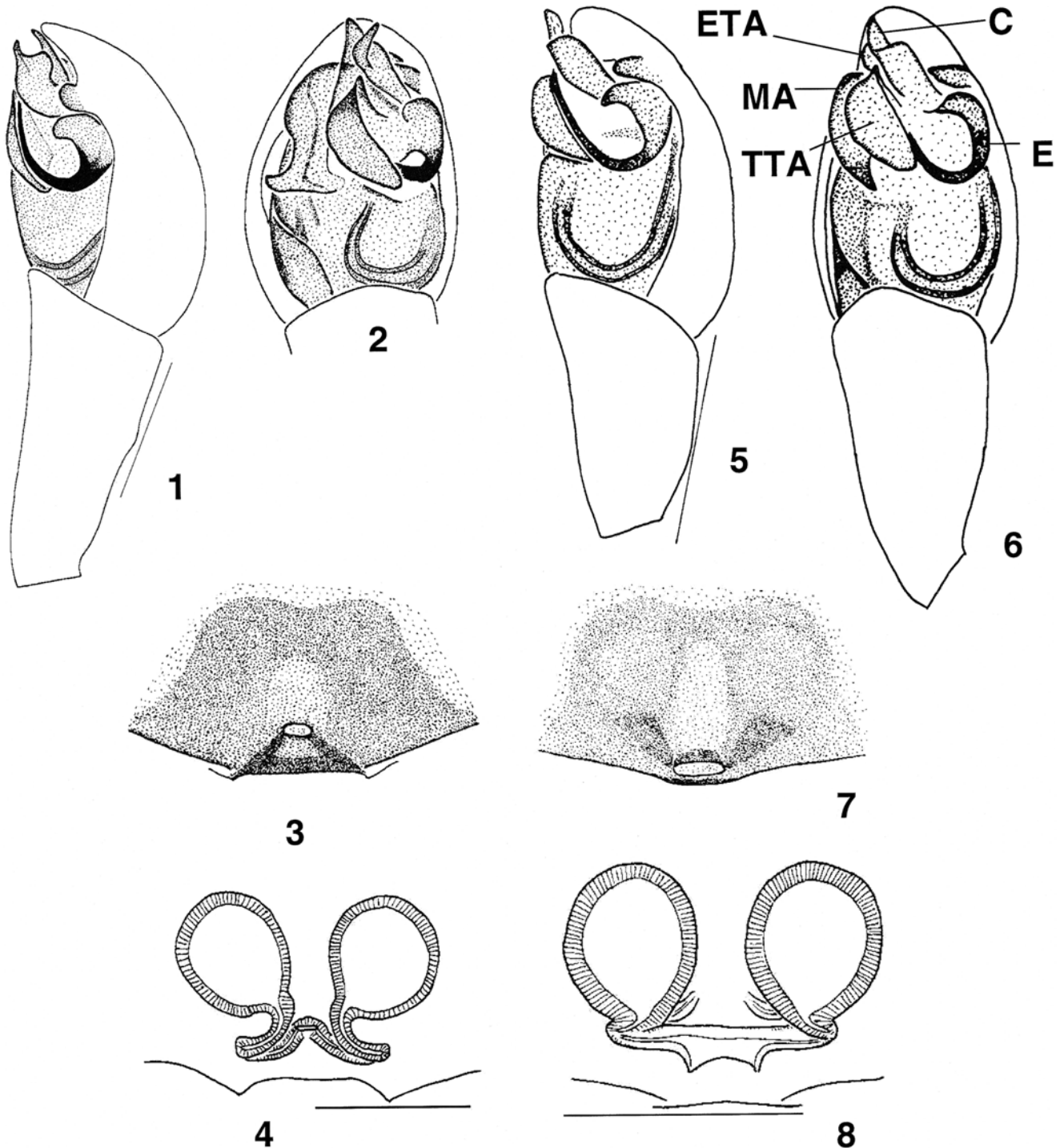
**Key to the groups of *Enoplognatha* and species of the *diversa* group (males only)**

**Remark:** As mentioned above, Agnarsson (2004) proposed a new nomenclature for the male palpal sclerites of Theridiidae. To avoid confusion, we repeat here the differences used in the key of Bosmans & Van Keer (1999).

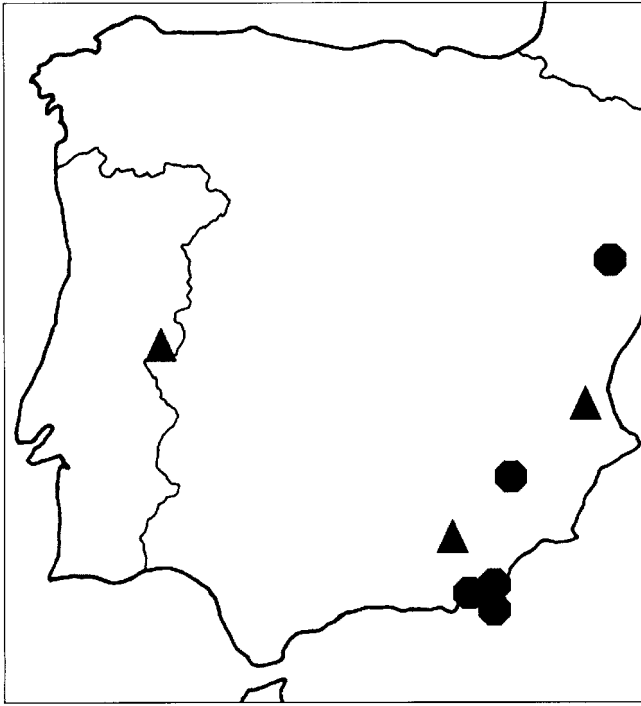
Agnarsson, 2004	Bosmans & Van Keer, 1999
Extra tegular apophysis	Accessory apophysis
Median apophysis	Radix
Theridiid tegular apophysis	Median apophysis

1. Chelicerae with one large tooth, sometimes accompanied at its base by denticles ..... *ovata* group
- Chelicerae with more than one tooth ..... 2

- 2. Chelicerae with frontal and posterior teeth.....  
.....*nigromarginata* group.....3
- Chelicerae with teeth only in fang groove.....3
- 3. Abdomen uniformly dark or with scattered white or whitish spots on dark background.....*thoracica* group
- Abdomen with dorsal folium.....4
- 4. Extra tegular apophysis and conductor two large, parallel sclerites; embolus generally short, hardly curved, describing less than half a circle.....*mandibularis* group
- Extra tegular apophysis not strongly developed (Figs. 1, 5); embolus generally long, distinctly curved, describing at least half a circle (*diversa* group).....5
- 5. Palpal tibia  $1.5 \times$  longer than cymbium; chelicerae with 1 large and 2 smaller teeth.....*sattleri*
- Palpal tibia as long as or shorter than cymbium (Figs. 1, 5); chelicerae with 2 teeth, a large and a small one.....6
- 6. Embolus long, describing a large circle; theridiid tegular apophysis elongate,  $4 \times$  as long as wide.....7
- Embolus shorter (Figs. 1, 5); theridiid tegular apophysis less than  $3 \times$  as long as wide (Figs. 2, 6).....8
- 7. Theridiid tegular apophysis widest in middle.....*franzi*
- Theridiid tegular apophysis with nearly parallel margins.....*hermani*
- 8. Median apophysis with two mesal denticles.....*deserta*
- Median apophysis without mesal denticles (Figs. 2, 6).....9
- 9. Median apophysis with basal denticle (Fig. 2).....10
- Median apophysis without basal denticle (Fig. 6).....12
- 10. Median apophysis with strong basal tooth, mesal margin strongly concave (Fig. 2).....*diversa*



Figs. 1-8: 1-4 *Enoplognatha diversa*. 1 Left male palp, retrolateral view; 2 Idem, ventral view; 3 Epigyne; 4 Vulva. 5-8 *Enoplognatha almeriensis*. 5 Left male palp, retrolateral view; 6 Idem, ventral view; 7 Epigyne; 8 Vulva. Scale lines=0.2 mm. Abbreviations: C=conductor, E=embolus, ETA=extra tegular apophysis, MA=median apophysis, TTA=theridiid tegular apophysis.



Map 1: Distribution of *Enoplognatha almeriensis* in the Iberian Peninsula. Octagons=previous records; triangles=new records.

- Median apophysis with small basal tooth .....11
- 11. Theridiid tegular apophysis sickle-shaped, widest in middle .....*oelandica*
- Theridiid tegular apophysis with parallel margins, not sickle-shaped.....*macrochelis*
- 12. Median apophysis with longitudinal fold; median apophysis 3–4 × as long as wide.....*gershomi*
- Median apophysis without longitudinal fold; median apophysis twice as long as wide (Fig. 6).....*almeriensis*

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