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On *Megalepthyphantes lydiae* Wunderlich, 1994 (Araneae: Linyphiidae)

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Abstract: *Megalepthyphantes lydiae* Wunderlich, 1994 is redescribed and illustrated on the basis of new material from Greece. Judging from the structure of the palp, this species is similar to the north-African *M. auresensis* Bosmans, 2006 and *M. bkheitae* (Bosmans & Bouragba, 1992). In the peculiar shape of its embolus *M. lydiae* resembles the Irano-Caucasian *M. camelus* (Tanasevitch, 1990). From these species *M. lydiae* is clearly distinguished by structural details of the genitalia in both sexes.

Keywords: Spiders - Micronetinae - redescription - Mediterranean - Greece.

INTRODUCTION

Megalepthyphantes lydiae Wunderlich, 1994 was originally described from Greece on the basis of a male and a female from Naxos Island, and a female from Epidaurus (Wunderlich, 1994). A re-examination of the male holotype revealed that the author illustrated a left palp with a broken distal part of the lamella characteristica, while the right palp is intact. Spider material collected by Antoine Senglet from Greece in 1972 contains a male and two females of *M. lydiae*. The redescription and illustration of this species is the subject of the present paper.

MATERIAL AND METHODS

This paper is based on material kept at the Muséum d'histoire naturelle de Genève, Switzerland (MHNG) and the Senckenberg Museum Frankfurt am Main, Germany (SMF). Specimens preserved in 70% ethanol were studied using a MBS-9 stereomicroscope. The terminology of copulatory organs mainly follows that of Merrett (1963) and Saaristo & Tanasevitch (1996). The chaetotaxy is given in a formula, e.g., Ti I: 2-1-1-2(3), which means that tibia I has two dorsal spines, one pro-, one retrolateral spine, and two or three ventral spines (the apical spines are disregarded). The sequence of leg segment measurements is as follows: total length (femur+patella+tibia+metatarsus+tarsus). All measurements are given in mm. All scale bars in the figures correspond to 0.1 mm.

Abbreviations

Ca	carina *sensu* Saaristo & Tanasevitch (1996)
DPS	distal part of scape *sensu* Saaristo & Tanasevitch (1996)
E	embolus
EP	embolus proper *sensu* Saaristo (1971)
L	lamella characteristica
MM	median membrane *sensu* Helsdingen (1965)
PH	pit hook *sensu* Saaristo & Tanasevitch (1996) = distal suprategular apophysis *sensu* Hormiga (2000)
PMP	posterior median plate *sensu* Helsdingen *et al.* (1977)
PS	proscape *sensu* Saaristo & Tanasevitch (1996)
SS	serrate surface of embolus *sensu* Saaristo & Tanasevitch (1996)
T	tooth
TA	terminal apophysis
TmI	position of trichobothrium on metatarsus I

RESULTS

Megalepthyphantes lydiae Wunderlich, 1994

Figs 1-13

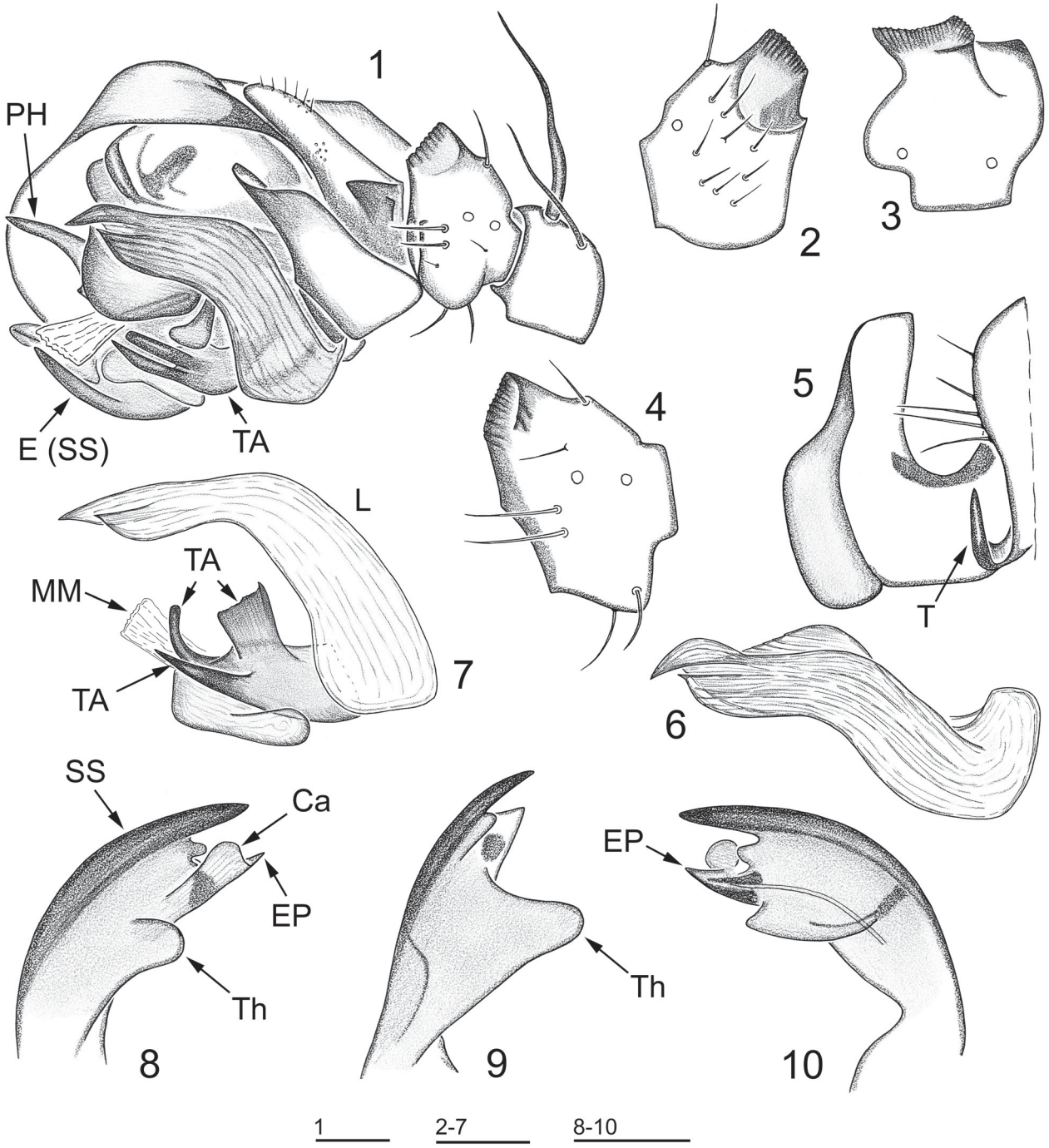
Type material examined: SMF, #39732 and #39756; male holotype and female paratype of *M. lydiae*; GREECE, Naxos; XI.1983; leg. J. Wunderlich.

Other material examined: MHNG; 1 male, 2 females; GREECE, Aetolia-Acarnania, between Chrisovergi and Aitolikón; 14.IX.1972; leg. A. Senglet.

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Description of male from Aetolia-Acarnania: Total length 4.25. Carapace 1.90 long, 1.45 wide, unmodified, pale brown to yellow, dorsally with a narrow, dark, longitudinal stripe becoming bifurcated in cephalic part. Chelicerae 0.75 long, unmodified. Legs yellow, distal ends and middle parts of segments darkened. Leg I 11.30 long (3.00+0.55+3.00+3.00+1.75), IV 8.20 long (2.50+0.45+1.95+2.05+1.25). Chaetotaxy. FeI: 0-1-0-0, II-IV: 0-0-0-0; TiI: 2-1-1-2(3), II: 2-0-1-2(3), III: 2-1-1-1(0), IV: 2-1-1-0; MtI-IV: 1(2)-1-1-0. TmI 0.14. Metatarsi IV without trichobothrium. Palp (Figs 1-10): Patella with two curved special spines (see Saaristo & Tanasevitch, 1996) of different sizes. Tibia dorsally with a short ridge and a rounded depression in its retrolateral side. Paracymbium relatively large, proximal part with a tooth ("T" in Fig. 5). Lamella



Figs 1-10. *Megalepthyphantes lydiae* Wunderlich, 1994, details of left palp of male specimen from Aetolia-Acarnania. (1) Distal part of palp, retrolateral view. (2-4) Tibia, prolateral, dorsal and retrolateral view, respectively. (5) Paracymbium, retrolateral view. (6) Lamella characteristica, retrolateral view. (7) Embolic division, retrolateral view. (8-10) Embolus, different aspects.

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characteristica massive, bent in distal third, with a beak-shaped apex. Terminal apophysis consisting of three parts: a small, straight, wide ridge and two narrow processes: one straight, pointed, stylet-shaped, other one bent and blunt. Embolus relatively large, its serrate surface extended forwards, forming a spear-shaped apex. Carina very small, thumb large, rounded. Embolus proper short, pointed. Abdomen 2.50 long, 1.50 wide, dorsally pale, with two longitudinal rows of grey sports interconnected by transverse stripes.

Description of female from Aetolia-Acarnania: Total length 4.35. Carapace 1.75 long, 1.30 wide. Chelicerae 0.80 long. Leg I 9.85 long (2.65+2.55+0.6+2.50+1.55), IV 8.70 (2.60+2.05+0.5+2.25+1.30). TmI 0.16. Metatarsi IV without trichobothrium. Abdomen 2.55 long, 1.75 wide. Epigyne (Figs 11-13): Proscape strongly sclerotized, slightly narrowed at its base. Distal part of scape swollen, lateral lobes and stretcher totally reduced. Posterior median plate blackish, with a deep median notch in distal margin. Body and leg coloration, and chaetotaxy as in male.

Taxonomic remarks: The structure of the palp of this species is similar to that of the north-African *M. auresensis* Bosmans, 2006 and *M. bkheitae* (Bosmans & Bouragba, 1992). The shape of the embolus, particularly the serrate surface extended forwards and forming a spear-shaped apex, of *M. lydiae* resembles that of the Irano-Caucasian *M. camelus* (Tanasevitch, 1990). From the three species mentioned above *M. lydiae* is clearly distinguished by the structural details of its male palp, especially by the shape of the apophysis on the palpal tibia, and by the structure of the paracymbium and the lamella characteristica. The shape of the epigyne of *M. lydiae* is similar to that of many congeners, but differs clearly by the deeply notched posterior median plate.

Distribution: Known only from Greece: Naxos Island and Epidaurus (Wunderlich, 1994), as well as Aetolia-Acarnania (new data).

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REFERENCES

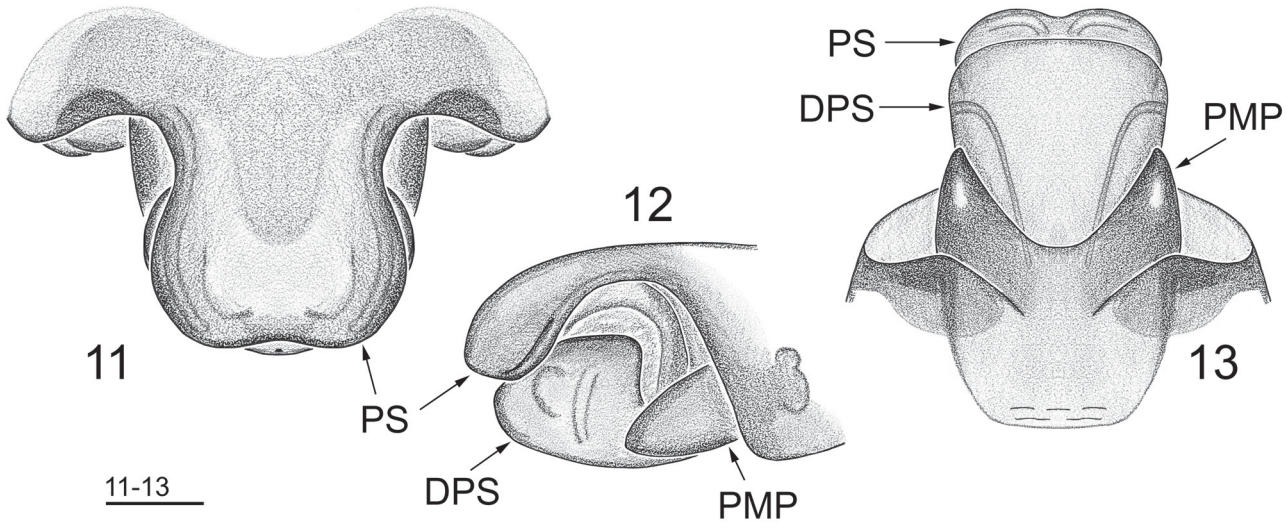
Bosmans R., Bouragba N. 1992. Trois nouvelles Linyphiidae de l'Atlas Algérien, avec la description du mâle de *Lepthyphantes djazairi* Bosmans, et la redescription de *Lepthyphantes homonymus* Denis (Araneae). *Bulletin et Annales de la Société entomologique de Belgique* 128: 245-262.

Bosmans R. 2006. Contribution to the knowledge of the Linyphiidae of the Maghreb. Part X. New data on *Lepthyphantes* Menge (*sensu lato*) species (Araneae: Linyphiidae). *Belgian Journal of Zoology* 136: 173-191.

Helsdingen P.J. van 1965. Sexual behaviour of *Lepthyphantes leprosus* (Ohlert) (Araneida, Linyphiidae), with notes on the function of the genital organs. *Zoologische Mededelingen* 41: 15-42.

Helsdingen P.J. van, Thaler K., Deltshev C. 1977. The *tenuis* group of *Lepthyphantes* Menge (Araneae, Linyphiidae). *Tijdschrift voor Entomologie* 120: 1-54.

Hormiga G. 2000. Higher level phylogenetics of erigonine



Figs 11-13. *Megalepthyphantes lydiae* Wunderlich, 1994, epigyne of specimen from Aetolia-Acarnania. (11-13) Ventral, lateral and dorsal view, respectively.

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spiders (Araneae, Linyphiidae, Erigoninae). *Smithsonian Contributions to Zoology* 609: 1-160.

Merrett P. 1963. The palpus of male spiders of the family Linyphiidae. *Proceedings of the Zoological Society of London* 140: 347-467.

Saaristo M.I. 1971. Revision of the genus *Maro* O. P.-Cambridge (Araneae, Linyphiidae). *Annales Zoologici Fennici* 8: 463-482.

Saaristo M.I., Tanasevitch A.V. 1996. Redelimitation of the subfamily Micronetinae Hull, 1920 and the genus *Lepthyphantes* Menge, 1866 with descriptions of some new genera. *Berichte des Naturwissenschaftlich-Medizinischen Vereins in Innsbruck* 83: 163-186.

Tanasevitch A.V. 1990. The spider family Linyphiidae in the fauna of the Caucasus (Arachnida, Aranei) (pp. 5-114). *In*: Striganova B.R. (ed.), Fauna nazemnykh bespozvonochnykh Kavkaza. *Akaedemia Nauk*, *Moscow,* 235 pp. (In Russian)

Wunderlich J. 1994. Beschreibung der neuen Spinnen-Gattung *Megalepthyphantes* aus der Familie der Baldachinspinnen und einer bisher unbekannten Art aus Griechenland (Arachnida: Araneae: Linyphiidae). *Entomologische Zeitschrift (Frankfurt a. M.)* 104: 168-171.

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