

Contribution to the knowledge of sicilian spider fauna (Arachnida Araneae)

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ABSTRACT

In the present paper are reported new spiders from Sicily (Aranea). Additional biological and taxonomic notes are provided.

KEY WORDS

Araneae; new data; first records; Sicily.

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INTRODUCTION

In Italy 1632 species of spiders are currently reported, divided in 429 genera and 54 families (Pantini & Isaia, 2017); of these, 403 species are reported for Sicily, divided in 186 genera and 42 families (see also van Helsdingen, 2010 and World Spider Catalog, 2017).

The present paper reports on two species of spiders, new for Sicily, as a result of field work carried out on the sicilian spider fauna in the last years.

MATERIAL AND METHODS

All samples were collected by sight on the soil, on plants or under the rocks. Observations on ecology of these organisms were made directly in the field.

The samples, taken in laboratory, were treated with ethyl acetate and then observed with binoculars. They were photographed with a Nikon d90 reflex and a macro lens of 100 mm for identification.

The specimens were stored in centrifuge tubes of different sizes, depending on the size of the sample, and were fixed in 75% ethanol.

Voucher specimens are stored in the author's collection and were collected by the same author. Each locality and/or collection site is in the original language (Italian).

The classification, taxonomic order and nomenclatural arrangement follow Roberts (1995), Trotta (2004) and Pantini & Isaia (2017). For each species, literature, chorotype, regional distribution and habitats are indicated.

RESULTS

Systematics

Ordo ARANEAE Clerck, 1757
Familia ARANEIDAE Clerck, 1757
genus *Lipocrea* Thorell, 1878

Lipocrea epeiroides (O. Pickard-Cambridge, 1872)

EXAMINED MATERIAL. Sicily, Palermo, Monreale: Caculla, 05.IX.2017, 2 females; idem, 10.IX.2017.

DISTRIBUTION AND BIOLOGY. Sardinia, Greece, Cyprus, Turkey, Israel, Yemen, India. This species



Figures 1–5. *Lipocrea epeiroides* from Caculla (Sicily, Palermo, Monreale). Fig. 1: *Lipocrea epeiroides* in the natural habitat. Fig. 2: *Lipocrea epeiroides* male. Fig. 3: *Lipocrea epeiroides* female. Fig. 4: Particular of epigynum, external genital structure of female. Fig. 5: Cocoon of *Lipocrea epeiroides*.



Figures 6, 7. *Ozyptila confluens* from Caculla (Sicily, Palermo, Monreale). Fig. 6: *Ozyptila confluens*.
Fig. 7: Particular of epigynum.

has been described for the first time in Israel (Pickard-Cambridge, 1872), rediscovered in Israel (Levy, 1986), subsequently reported in Yemen (Grasshoff & van Harten, 2007), Turkey (Kunt et al., 2010), Greece (Wunderlich, 2011), central India (Keswani & Vankhede, 2013), Sardinia (Bosman & Colombo, 2015).

The two sicilian specimens were found and caught in their webs, during the night (see also Bosman & Colombo, 2015); the collection area was a riparian area close to the banks of the Sant'Elia River, upper course of the Oreto River; the partially anthropic area has olive trees, *Prunus* sp., *Juglans regia* L., *Populus* sp., *Salix* sp., and spontaneous vegetation typical of the river areas in northwest Sicily: *Rubus* sp., *Arundo donax* L., *Borago officinalis* L., etc.

Several specimens have been observed, webs of about 40 cm in circumference were at low altitudes, on average 30–40 cm from the ground and always very close to the banks of the river. The specimens occupied the center of their web while waiting for a prey, and if they were touched with a stronger vibration, they dropped down from the web, abandoning it. Although I did a lot of research, I've never seen specimens during the day. Moreover, the first specimen, which I bred for a while, spent the day off and idle, which makes me suppose that this is a purely night-time species. On 06.IX.2017 eggs were laid in a sample cocoon, no longer cared for, which was stored in a damp environment; when the cocoon was opened, on 26.IX.2017, it showed 10 spiderlings.

Familia THOMISIDAE Sundevall, 1833
Subfamilia Thomisinae Sundevall, 1833
Tribù Diaeini Sundevall, 1833
genus *Ozyptila* Simon, 1864

Ozyptila confluens (C.L. Koch, 1845)

EXAMINED MATERIAL. Sicily, Palermo, Monreale: Caculla, 08.IV.2017, 2 females; idem, 10.IX.2017.

DISTRIBUTION AND BIOLOGY. Southern Europe, Syria. Italy: Tuscany (de Dalmas, 1922); Umbria (di Caporiacco, 1950); Apulia (di Caporiacco, 1953); Lazio (di Caporiacco & Denis, 1954); Sardinia (Kraus, 1955; Pavesi, 1876 sub *Oxyptila guttulata* n. sp.; Garneri, 1902 sub *Oxyptila grata*; Trotta, 2009, 2011; Pantini & Sassu, 2009; Pantini et al., 2013); Emilia-Romagna (Zangheri, 1966); Liguria (Thaler & Zapparoli, 1993; Trotta, 2007); Campania (Trotta, 2007).

Habitat (see Pantini et al., 2013): Cherry-orchard, garrigue, hazelnut-orchard, walnut-orchard, minning landfills covered by pioneer plants. A sicilian specimen was found under a bird carcase in advanced state of decomposition,

REMARKS. The genus *Ozyptila* is morphologically similar to the genus *Xysticus* C.L. Koch, 1835, but it is different from the latter by the disposition of the median eyes, that are disposed in a square slightly wider than long and by the presence of clabbing bristles. Within the *Ozyptila* genus genital organs are extremely useful to distinguish the species.

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REFERENCES

- Bosmans R. & Colombo M., 2015. New species of spiders from Sardinia (Araneae), with ecological notes on *Lipocrea epeirooides* (O. Pickard-Cambridge, 1872) (Araneae: Araneidae). *Arachnology*, 16: 319–332.
- di Caporiacco L., 1950. Una raccolta di ragni umbri. *Annali del Museo civico di Storia Naturale "Giacomo Doria"* di Genova, 64: 62–84.
- di Caporiacco L., 1953. Aracnidi pugliesi raccolti dai Signori Conci, Giordani-Soika, Gridelli, Ruffo e dell'autore. *Memorie di Biogeografia Adriatica*, 2: 63–94.
- di Caporiacco L. & Denis J., 1954. Aranchida (sic!). In: Zavattari E. e Coll. *Biogeografia dell'Isola di Zanone (Arcipelago Pontino)*. Rendiconti dell'Accademia Nazionale dei Lincei, 40: 136–142.
- de Dalmas R., 1922. Catalogue des araignées récoltées par le Marquis G. Doria dans l'ile Giglio (Archipel toscan). *Annali del Museo civico di Storia naturale di Genova*, 50: 79–96.
- Garneri G.A., 1902. Contribuzione alla fauna sarda. Aracnidi. *Bollettino della società zoologica italiana*, 3 serie 2: 57–103.
- Grasshoff M. & van Harten A., 2007. Orb-weaving spiders of the family Araneidae (Araneae) from mainland Yemen and the Socotra Archipelago. *Fauna of Arabia*, 23: 151–162.
- Keswani S. & Vankhede G., 2013. *Lipocrea epeirooides* (O.P. Cambridge, 1872) (Araneae: Araneidae) a new record from India. *Indian Journal of Arachnology*, 2: 66–72.
- Kraus O., 1955. Spinnen von Korsika, Sardinien und Elba (Arach., Araneae). *Senckenbergiana biologica*, 36: 371–394.
- Kunt K.B., Bayram A., Yağmur E.A., Kaya R. & Uğurtaş İ.H., 2010. The first record of genus *Lipocrea* Thorell, 1878 in Turkey (Araneae, Araneidae). *Biological Diversity and Conservation*, 3: 70–74.
- Levy G., 1986. Spiders of the genera *Siwa*, *Larinia*, *Lipocrea* and *Drexelia* (Araneae: Araneidae) from Israel. *Bulletin of the British Arachnological Society*, 7: 1–10.
- Pantini P. & Isaia M., 2017. Checklist of the Italian spiders (version May 2017).
- Pantini P. & Sassu A., 2009. I ragni dell'Isola dell'Asinara (Sardegna NW) (Arachnida, Araneae). *Annali del Museo civico di storia naturale di Genova*, 100: 619–647.
- Pantini P., Sassu A. & Serra G., 2013. Catalogue of the spiders (Arachnida Araneae) of Sardinia. *Biodiversity Journal*, 4: 3–104.
- Pavesi P., 1876. Le prime crociere del Violante, comandato dal Capitano-Armatore Enrico d'Albertis. Rезультаты арахнологии. *Annali del Museo Civico di Storia Naturale di Genova*, 8: 407–451.
- Pickard-Cambridge O., 1872. General list of the spiders of Palestine and Syria, with descriptions of numerous new species, and characters of two new genera. *Proceedings of the Zoological Society of London*, 40: 212–354.
- Roberts M.J., 1995. *Spiders of Britain and Northern Europe*. Harper Collins, London, 383 pp.
- Thaler K. & Zapparoli M., 1993. Epigaeic spiders in a olive-grove in central Italy (Araneae). *Redia*, 76: 307–316.
- Trotta A., 2004. Introduzione ai Ragni italiani (Arachnida Araneae). *Memorie della Società Entomologica Italiana*, 83: 3–178. DOI: <https://doi.org/10.4081/memorieSEI.2004.3>
- Trotta A., 2007. Short notes 1. Arachnida, Araneae, pp. 378–384. In: Nardi G. & Vomero V. (Eds.), *Artropodi del Parco Nazionale del Vesuvio: ricerche preliminari. Conservazione Habitat Invertebrati*, 4. Cierre edizioni, Verona, 496 pp.
- Trotta A., 2009. Ricerche zoologiche della nave oceanografica "Minerva" (C.N.R.) sulle isole circumsarde. XXXII. Araneae. *Annali del Museo Civico di Storia Naturale Giacomo Doria*, 100: 481–500.
- Trotta A., 2011. Second contribution to the knowledge of the spiders of Sardinia (Arachnida, Araneae). In: Nardi G., Whitmore D., Bardiani M., Birtele D., Mason F., Spada I. & Cerretti P. (Eds.), *Biodiversity of Marganai and Montimannu (Sardinia). Research in the framework of the ICP Forest network. Conservazione Habitat Invertebrati*, 5: 137–161.
- van Helsdingen P.J., 2010. Araneae. In: *Fauna Europaea Database* (Version 2010.1), online at www.european-arachnology.org
- World Spider Catalog, 2017. *World Spider Catalog*, version 18.0. Natural History Museum Bern, online at <http://wsc.nmbe.ch>, accessed on 23.01.2017
- Wunderlich J., 2011. Extant and fossil spiders (Araneae). *Beiträge zur Araneologie*, 6: 1–640.
- Zangheri P., 1966. *Repertorio sistematico e topografico della flora e fauna vivente e fossile della Romagna*. Tomo II. *Museo Civico di Storia Naturale di Verona*, *Memorie Fuori Serie n. 1*: 538–589.