On some new reports on the spider fauna of Italy and Sicily (Arachnida Araneae)

Antonino Dentici1,*, Antonino Barbera2, Angelo Ditta3 & Salvatore Surdo4

1Via Enrico Cialdini 2, 90124 Palermo, Italy; e-mail: antonino.dentic.1991@gmail.com Orcid: 0000-0003-0632-1633
2Via Giovanni Prati 28, 91022 Castelvetrano, Trapani, Italy; e-mail: abarberamail@gmail.com
3Via Trieste 16, 91026 Mazara del Vallo, Italy; e-mail: angelo_ditta@libero.it
4Dipartimento di Scienze agrarie, alimentari e forestali, viale delle Scienze, Edificio 4 - 90128 Palermo, Italy; e-mail: salvatore.surdo@unipa.it Orcid:0000-0002-0300-837X
*Corresponding author

ABSTRACT
New spiders (Arachnida Araneae) from Sicily (Italy) are reported, some new for Italy, in this paper. Particularly, twelve genera and sixteen new species are examined: Agelena orientalis C.L. Koch, 1837; Cyclosa algerica Simon, 1885; Larinia lineata (Lucas, 1846); Argenna patula (Simon, 1874), Lathys arabs Simon, 1910, Marilynia bicolor (Simon, 1870), Canariphantes zonatus (Simon, 1884), Cresmatoneta mutinensis (Canestrini, 1868), Diplocephalus graecus (O. Pickard-Cambridge, 1873), Leptophyphantes leprosus (Ohlert, 1865), Ostearius melanopygius (O. Pickard-Cambridge, 1880), Pelecopsis bucephala (O. Pickard-Cambridge, 1875), Pelecopsis inedita (O. Pickard-Cambridge, 1875), Lasaeola convexa (Blackwall, 1870), Neottiura uncinata (Lucas, 1846) and Ruborridion musivum (Simon, 1873). Additional biological and taxonomic notes are also provided.

KEY WORDS
New record; Larinia lineata; Cyclosa algerica; Lathys arabs; Araneae.

INTRODUCTION

The Spiders are a very diversified group of arthropods. In Italy the order, which worldwide has 49,854 species in 131 families (World Spider Catalog, 2022), is represented by 1,695 species with a high rate of endemism around 20% (Pantini & Isaia, 2019).

From the first catalog of Italian spiders edited by Giovanni Canestrini and Pietro Pavesi (1870) we can extrapolate both the total number of species known for Italy up to then, just 477 (some of which are no longer valid) and the number of species detected in Sicily at the time equal to 62 and only 6 species for Sardinia as reported in Pantini et al. (2013) and Crucitti (2020), excluding synonyms, updated identifications and nomina dubia of the reported species.

For these islands, in particular, not much is known, and in Sardinia such knowledge is practically non-existent. With the above-mentioned works, and the last one in chronological order (Caria et al., 2021), we reach 538 species for the second Mediterranean island while for Sicily with the last work (Dentici & Galasso, 2021) we have a total of 434 species cataloged (Pantini & Isaia, 2019).

All this leads us to believe that in Sicily there
are still ample margins for considerably increasing the number of species.

We are currently conducting various researches on the population of Arachnids in Sicily, of which we summarize some results in the present work: 16 new species of spiders are reported, 3 of which new for Italy, and 12 genera reported for the first time for Sicily; for each species the data relating to the collection are reported.

**MATERIAL AND METHODS**

All samples were collected on sight on plants, under the rocks or in their web. The specimens were observed, in laboratory, with stereomicroscope for identification, stored in centrifuge tubes of different sizes and fixed in 75% ethanol (Levi, 1977). The samples are stored in Dentici’s collection (Palermo, Italy) and for each sample all the collection data in Italian language and the collector are indicated.

The maps were created using the QGis open source program and we limited ourselves to depicting the distribution relating to the Western Paleartic, with regional detail for Italy only. Distribution data outside this area was listed in the text. The classification, taxonomic order and nomenclatural arrangement for spiders follow Roberts (1995), Trotta (2004), Pantini & Isaia (2019), World Spider Catalog (2022) and Netwig et al. (2022). Other references have also been used and cited.

**RESULTS**

**Systematics**

*Ordo ARANEAE* Clerck, 1757  
*Familia AGELENIDAE* C.L. Koch, 1837  
*Genus Agelena* Walckenaer, 1805

**Agelena orientalis** C.L. Koch, 1837 (Figs. 1, 2)

**Material examined.** Sicily (Italy), Palermo, Monreale, 38°00'16.0"N 13°15'40.0"E, 4.VII.2020, 4 females, legit A. Dentici.

**Distribution.** Italy to Central Asia, Iran.

**Remarks.** This species is here recorded for the first time in Sicily (for identification see Kovblyuk & Kastrygina, 2011). Its presence in Italy is reported in only two works (Pesarini, 1994; Trotta, 2005) and both are missing details on the place where it was found. For Pantini & Isaia (2022) the presence in Italy of this species needs confirmation. The specimens were collected on their webs, built on low shrub vegetation.

**Familia ARANEIDAE** Clerck, 1757  
*Genus Cyclosa* Menge, 1866

**Cyclosa algerica** Simon, 1885 (Fig. 3)

**Material examined.** Sicily (Italy), Palermo, Alia, 37°47'20.1" N 13°43'08.6" E, 15.V.2021, 2 females, legit A. Dentici.

Figure 1. Map distribution of *Agelena orientalis* in Western Palearctic.

Figure 2. *Agelena orientalis* on its web.
**Distribution.** Mediterranean: Portugal, Spain, France, Algeria, Tunisia, Turkey, Bulgaria.

**Remarks.** This species, recently discovered also in Turkey (Lecigne, 2021), is here recorded for the first time in Italy.

Both specimens were sampled on their cobwebs, which were “adorned” with the typical “packages” attached to the vertical central line and at the center of which they rested.

**Material examined.** Sicily (Italy), Palermo, 38°10'42” N 13°21’03” E, 25.1.2020, 1 male, legit R. Viviano.

**Distribution.** Europe, Caucasus, Russia (Europe to South Siberia), Kyrgyzstan, China, Iran?

**Remarks.** New genus and new species for Sicily. It is reported in Italy only for Piemonte (Isaia et al. 2007), Veneto (Hansen 2007), only one record in Apulia, Manfredonia (Ijland et al., 2012; Pantini & Isaia, 2019) and Isola dell’Asinara in Sardinia (Pantini & Sassu, 2009).

Spider found under boulders of a small stony ground.

Genus *Lathys* Simon, 1884

**Material examined.** Sicily (Italy), Trapani, Mazara del Vallo, 16.1.2021, 1 female, legit A. Ditta.

**Distribution.** Western Mediterranean: Portugal, Spain, France, Algeria, Morocco, Tunisia.

**Remarks.** The genus is here recorded for the first time in Italy. The specimen was sampled in the evening on its web, built between the low branches of a tree. During the day in the same area no specimens were found, probably the species is active only during the night.

Familia DICRTYNIDAE O. Pickard-Cambridge, 1871

Genus *Argenna* Thorell, 1870

**Argenna patula** (Simon, 1874) (Fig. 5)
**Lathys arabs** Simon, 1910 (Fig. 6)

**Material examined.** Sicily (Italy), Trapani, Mazara del Vallo, 30.I.2021, 1 male, legit A. Ditta.

**Distribution.** Algeria, Tunisia, Greece, Cyprus.

**Remarks.** The species is here recorded for the first time in Italy. New genus for Sicily.

The specimen was found on a hedge in an urban green area, collected in his web built on the leaves of a **Pittosporum**’s hedge. Identification follows Bosmans et al. (2009).

**Canariphantes zonatus** (Simon, 1884) (Fig. 8)

**Material examined.** Sicily (Italy), Trapani, Mazara del Vallo, Riserva Naturale Lago Preola e Gorghi Tondi, 37°36′39.2″ N 12°39′07.3″ E, 24.III.21, 1 female - 37°36′39.9″ N 12°39′59.7″ E, 08.IV.2021, 2 females, legit A. Ditta.

**Distribution.** Portugal, France, Italy, Greece, Algeria, Morocco, Tunisia.

**Remarks.** Only species of the genus *Canariphantes* known for Italy and, now, for the first time in Sicily. It is present in Sardinia (Bosmans & Colombo, 2009) and its presence in mainland Italy needs confirmation (Pantini & Isaia, 2019).

**Marilynia bicolor** (Simon, 1870) (Fig. 7)

**Material examined.** Sicily (Italy), Trapani, Castelvetrano, Triscina, 25.IV.2021, 1 male, legit A. Barbera.

**Distribution.** Europe to Central Asia, North Africa.

**Remarks.** The genus is recorded for the first time in Sicily. This species is known in Italy for Piemonte, Lombardia, Emilia Romagna, Liguria, Campania, Calabria and Sardinia (Pantini & Isaia, 2019).

The specimen was sampled on its particular web built on a blade of grass.

Familia LINYPHIIDAE Blackwall, 1859
Genus *Canariphantes* Wunderlich, 1992
Genus *Cresmatoneta* Simon, 1929

*Cresmatoneta mutinensis* (Canestrini, 1868) (Fig. 9)

**Material examined.** Sicily (Italy), Trapani, Mazara del Vallo, 37°38′02.1″ N 12°36′50.6″ E, 12.II.2021, 1 female, legit A. Ditta.

**Distribution.** Southern Europe, Russia (Europe), Turkey, Caucasus.

**Remarks.** The genus is here recorded for the first time in Sicily. It is widespread in almost all of Italy except for Valle d’Aosta, Piemonte, Trentino, Abruzzo, Molise and Basilicata (Pantini & Isaia, 2019).

The specimens were collected mostly wandering on low vegetation, it was not currently possible to make observations regarding its tritrophic role, although this aspect will hopefully be investigated in the near future. Identification follows Bosselaers (2018).

Figure 9. Map distribution of *Cresmatoneta mutinensis*.

Genus *Diplocephalus* Bertkau, 1883

*Diplocephalus graecus* (O. Pickard-Cambridge, 1873) (Fig. 10)

**Material examined.** Sicily (Italy), Trapani, Valderice, 25.IV.2020, 1 female - 03.V.2020, 1 female, legit S. Surdo.

**Distribution.** North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan. Introduced to North America, Chile.

**Remarks.** The genus is here recorded for the first time in Sicily. The species has been ascertained in Piemonte, Lombardia, Trentino Alto Adige, Sicily (Italy), Trapani, Mazara del Vallo, 05.I.2021, 2 females and 1 male, legit A. Ditta; Sicily (Italy), Trapani, Mazara del Vallo, 03.IV.2021, 3 females, legit A. D. Barbera; Sicily (Italy), Trapani, Triscina, 17.IV.2021, 1 female, legit A. Barbera; Sicily (Italy), Trapani, Mazara del Vallo, Riserva Naturale Lago Preola and Gorghi Tondi, 37°36′39.2″ N 12°39′07.3″ E, 11.IV.2021, 2 females and 1 female subadult, legit A. Ditta;

Figure 10. Map distribution of *Diplocephalus graecus*.

Genus *Lepthyphantes* Menge, 1866

*Lepthyphantes leprosus* (Ohlert, 1865) (Fig. 11)

**Material examined.** Sicily (Italy), Trapani, Valderice, 25.IV.2020, 1 female - 03.V.2020, 1 female, legit S. Surdo.
Veneto, Friuli Venezia Giulia and Campania (Pantini & Isaia, 2019). The specimen was found wandering in the evening in the small garden of a house. Troglophilic species (Mammola et al., 2018).

Pelecopsis bucephala (O. Pickard-Cambridge, 1875) (Fig. 13)

**Material Examined.** Sicily (Italy), Palermo, Monreale, Caculla, 24.IV.208, 1 female and 1 male, legit A. Dentici.

**Distribution.** Western Mediterranean: Portugal, Spain, France, Algeria, Morocco, Sardinia.

**Remarks.** The genus is here recorded for the first time in Sicily. In Italy, it is found in Sardinia (Helsdingen, 2005; Pantini et al., 2013). The specimens were collected under the same rock. The male seemed more active, and the presence of the two specimens of different sex in the same place suggests courtship or in any case the search for the other sex by one of the two specimens.

Genus Ostearius Hull, 1911

**Ostearius melanopygius** (O. Pickard-Cambridge, 1880) (Fig. 12)

**Material Examined.** Sicily (Italy), Trapani, Castelvetrano, 18.X.2020, 1 female, legit A. Barbera.

**Distribution.** South America. Introduced to Europe, Canary Is. to Egypt and Turkey, South Africa, China, Malaysia, Indonesia, New Zealand.

**Remarks.** The genus is here recorded for the first time in Sicily. Alien species known for Piemonte, Liguria, Lombardia, Trentino Alto Adige, Veneto, Friuli Venezia Giulia, Emilia Romagna, Abruzzo, Campania and Calabria (Pantini & Isaia, 2019).

According to Růžička (1995), this species “occurs in a wide variety of habitats, often in association with man”. In this case the specimens was found in a small garden of a house, probably it is a synanthropic species.

Genus Pelecopsis Simon, 1864

**Pelecopsis bucephala** (O. Pickard-Cambridge, 1875) (Fig. 13)

**Material Examined.** Sicily (Italy), Palermo, Monreale, Caculla, 24.IV.208, 1 female and 1 male, legit A. Dentici.

**Distribution.** Western Mediterranean: Portugal, Spain, France, Algeria, Morocco, Sardinia.

**Remarks.** The genus is here recorded for the first time in Sicily. Alien species known for Piemonte, Liguria, Lombardia, Trentino Alto Adige, Veneto, Friuli Venezia Giulia, Emilia Romagna, Abruzzo, Campania and Calabria (Pantini & Isaia, 2019).
**Pelecopsis inedita** (O. Pickard-Cambridge, 1875) (Fig. 14)

**Material examined.** Sicily (Italy), Trapani, Castelvetrano, 05.IV.2020, 1 female, legit S. Surdo.

**Distribution.** Mediterranean: Portugal, France, Italy, Greece, Algeria, Morocco, Tunisia and Egypt.

**Remarks.** The genus is here recorded for the first time in Sicily. In Italy, it is present in Trentino Alto Adige (Canestrini, 1875), Toscana (Brignoli, 1975), Lazio (Denis, 1966) and Sardinia (Bosmans & Colombo, 2015).

The specimen was collected in an urban green area on a hedge.

![Figure 14. Map distribution of *Pelecopsis inedita*.](image1)

**Familia THERIDIIDAE** Sundevall, 1833

**Genus Lasaeola** Simon, 1881

**Lasaeola convexa** (Blackwall, 1870)

**Material examined.** Sicily (Italy), Palermo, Monreale, 38°04’43.8" N 13°17’28.7” E, 01.V.2021, 1 female, legit A. Dentici.

**Distribution.** Mediterranean: Portugal, France, Italy, Greece, Albania, Croatia, Bulgaria, Romania, Algeria, Morocco, Tunisia.

**Remarks.** The genus is here recorded for the first time in Sicily. In Italy, it is present in Friuli Venezia Giulia (Di Caporiacco, 1927), Veneto (Di Caporiacco, 1940), Liguria (Thorell, 1875), Toscana (Picchi, 2020), Lazio (Brignoli, 1967), Marche (Kritscher, 1956) and Puglia (Ijland et al., 2012).

The specimen was collected on low vegetation.

![Figure 15. Map distribution of *Neottiura uncinata*.](image2)

**Genus Neottiura** Menge, 1868

**Neottiura uncinata** (Lucas, 1846) (Fig. 15)

**Material examined.** Sicily (Italy), Trapani, Valderice, 05.IV.2020, 1 male, legit S. Surdo.

**Distribution.** Mediterranean (Portugal, Spain, France, Italy, Greece, North Macedonia, Morocco, Algeria, Tunisia, Turkey).

**Remarks.** The species is here recorded for the first time in Sicily. In Italy, it is present in Trentino Alto Adige (Canestrini, 1875), Toscana (Berdondini et al., 2006), Calabria (Ijland & Helsdingen, 2019) and Sardinia (Pantini et al., 2013).

The specimen was collected in an urban green area on a hedge.

**Genus Ruborridion** Wunderlich, 2011

**Ruborridion musivum** (Simon, 1873) (Fig. 16)

**Material examined.** Sicily (Italy), Palermo, Monreale, 38° 04’44.0” N 13°17’28.4” E, 20.III.2020, 1 female and 1 male, legit A. Dentici; Sicily (Italy), Trapani, Mazara del Vallo, 28.XII.2020, 1 female, legit A. Ditta.
DISTRIBUTION. Mediterranean (Portugal, Spain, France, Italy, Croatia, Morocco, Algeria, Tunisia and Egypt), India.

REMARKS. The genus is here recorded for the first time in Sicily. In Italy, this species is present in Friuli Venezia Giulia (Di Caporiacco, 1927), Umbria (Di Caporiacco, 1936), Campania (Ijland & Helsdingen, 2014) and Sardinia (Pantini et al., 2013).

The specimens of Monreale were collected under a pile of dry vegetation, humid and dark environment, rich in detritivorous invertebrates, while that of Mazara del Vallo was found in low vegetation.

ACKNOWLEDGEMENTS

We want to thank Stefania D’Angelo, director of the natural reserve “Lago Preola e Gorghi Tondi” (Mazara del Vallo, Italy), for allowing us to investigate the arthropoda fauna present in this splendid area and for the continuous collaboration, Roberto Viviano (Palermo, Italy) and Franco Ciro Amata (Enna, Italy) for providing us with useful specimens, Ignazio Sparaco (Palermo, Italy), for useful glue advice and friendship that always shows us, Danilo Graffeo, Vincenzo Genna and Francesco Di Nicola (Trapani, Italy) for their support and pleasant company during field research and our families, whose support is priceless and essential.

REFERENCES


at http://wsc.nmbe.ch, accessed on 01/02/2022.
https://doi.org/10.24436/2.