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New data on spiders (Arachnida, Araneae) from the islands of the Strait of Sicily (Southern Italy) with taxonomic notes on *Poecilochroa loricata* Kraitscher, 1996 (Araneae, Gnaphosidae) and eight new records for Europe

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Abstract

We present a checklist of spiders inhabiting the Pelagic archipelago and Pantelleria island, in the Strait of Sicily (Southern Italy). Data were compiled from both literature sources and unpublished materials stored in museum collections. In total, we report new data on 100 species, bringing the total number of species documented for the islands of the Strait of Sicily to 148. Among these, 8 are new for Europe and 9 new for Italy. The island of Lampedusa hosts the highest number of species (107), followed by Pantelleria (63) and Linosa (25). The most represented families are Gnaphosidae in Lampedusa and Linosa, while Salticidae is dominant in Pantelleria. Most of the species present on the islands of the Strait of Sicily have a Holarctic distribution. Several rare species are recorded, including *Haplodrassus crassipes* (Lucas, 1846), *Palliduphantes labilis* (Simon, 1913) and *Xysticus promiscuus* O. Pickard–Cambridge, 1876. In addition, the female of *Poecilochroa loricata* Kraitscher, 1996 (Gnaphosidae) is here described and illustrated for the first time. As revealed by the study of the species-area relationship, the islands of the Strait of Sicily host a higher number of species compared to other small islands in Italy. Accordingly, species richness recorded in Lampedusa and Linosa is higher than expected, while further investigations are suggested to increase knowledge of the local spider diversity.

Keywords: Spider survey, Pelagic islands, Pantelleria, checklist, species-area relationship, SAR

Introduction

Due to their high levels of unique biodiversity, islands and archipelagos are perfect natural laboratories that provide researchers with replicated and simplified model systems where particular factors and processes can be isolated and their effects explored. The islands have therefore attracted the interest of biologists for a long time and have fueled ideas, theories and models in ecology, evolutionary biology and biogeography

(MacArthur & Wilson 1967; Whittaker & Fernandez-Palacios 2007). Among the more than 5,000 islands of the Mediterranean, the Pelagic archipelago and Pantelleria are located in the Strait of Sicily and, due to their position, include unique faunistic assemblages, which present affinities with both European and African fauna (e.g. Guariento et al. 2018), as well as numerous endemic taxa (see rev. in Muscarella & Baragona 2017). Over the previous centuries, the islands of the Strait of

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Sicily have been the subject of numerous scientific explorations which have collected a large amount of data and constitute a valid basis of knowledge for some invertebrates and less so for others (cf. Muscarella & Baragona 2017). Although scientific research on Italian spiders has been recently greatly accelerated (Pantini & Isaia 2019), the knowledge on the spider fauna of these islands, according to Hansen (1991) and Pesarini (1995), is still limited and likely destined to undergo a significant improvement over time.

The earliest known reports on the spiders of these islands was published by Pavesi (1876, 1878), based on specimens collected from Lampedusa and Pantelleria by Captain d'Alberis in 1876, during the first voyage of the *Violante* along the islands and the Mediterranean coast. Following studies were more frequent and accurate in Lampedusa than Pantelleria. Regarding Pantelleria, apart from the data reported by Pavesi (1876) and Mertens (1926), the most significant contribution comes from Hansen (1991). Hansen's study was based on material collected during an entomological sampling campaign promoted by the Natural History Museum of Venice in the mid-80s, contributing to a total count of 36 spider species for the island.

In addition to the collection of Captain d'Alberis, the spiders of Lampedusa were studied by Failla Tedaldi (1887), Roewer (1960) and Pesarini (1995), bringing the total number of species known for the island to 62.

The arachnofauna of the island of Linosa was much less known, as in Pavesi (1878) a single species, *A. lobata*, was reported. *Argiope lobata* (Pallas, 1772). Over the subsequent century, several other species were documented by Mertens (1926), Roewer (1960), Platnick and Murphy (1984), Grimm (1985), and Pesarini (1995), bringing the current number of reported taxa to eight. As regards the other smaller islands of the Pelagie archipelago, Lampione, Isola dei Conigli and Scoglio del Sacramento, we could not find any available data.

With this objective in mind, we present an update checklist of the spiders inhabiting the islands of the Strait of Sicily, based on unpublished material stored in museum collections, including "Museo Civico di Scienze Naturali di Bergamo", "Museo Civico di Storia Naturale di Verona", and "Museo Esapolis della Provincia di Padova", along with original data from our recent surveys. Through this compilation, our aim is to contribute to the knowledge of species distribution in the Mediterranean region.

Additionally, we provide the description and some illustrations of the previously unknown female of *Poecilochroa loricata* Kritscher, 1996 (Gnaphosidae). Notably, this species was described only on males collected from the island of Malta (Bauer 2022).

In conclusion, a brief comparative analysis of species richness among the smaller Italian islands is also added. This analysis allowed us to explore the effect of island size on spider species richness, investigating possible bias due to the unbalanced intensity of surveys between islands.

Material and methods

Study area

The Pelagie archipelago is located in the Sicilian Channel, approximately 160 km from Sicily and 120 km from Tunisia (Figure 1). It comprises Lampedusa (the largest island in the archipelago), Linosa and the smaller islands of Lampione, Isola dei Conigli, and Scoglio del Sacramento. Lampedusa is a continental fragment of sedimentary origin (Agnesi & Federico 1995), which was connected to Africa until approximately 18,000 years ago during the last glacial maximum, when a faunal passage existed (Burgio & Catalisano 1994). Linosa has instead a volcanic origin and was formed between one million and 500,000 years ago during three distinct stages of volcanic activity (Tranne 2002). The island of Pantelleria is located 70 km from the African and 120 km from the Italian coast (Figure 1). It has a recent volcanic origin, having emerged approximately 324,000 years ago. All the islands considered here have remained completely isolated from other emerged land masses (Agnesi & Federico 1995).

Both Pantelleria and the Pelagie Islands are included in the Natura 2000 network, with various Sites of Community Importance and Special Protection Areas established under the "Habitats" and "Birds" Directives. Furthermore, since 2016, approximately



Figure 1. Study area: Pantelleria and Pelagie islands (Strait of Sicily, Mediterranean Sea).

83% of Pantelleria's territory (6,500 hectares) has been designated as a National Park, making it the first established natural reserve in Sicily and the most recent one in Italy.

Data collection

The materials used in this study were obtained from sampling activities conducted by the authors on the islands of Linosa, Lampedusa, and Pantelleria, and partially from museum collections. Material is preserved in 70% alcohol in the collection of the "Museo Civico di Scienze Naturali di Bergamo", with the exception of specimens labeled with MCSNVR, which are preserved at the "Museo Civico di Storia Naturale di Verona", and those labeled with MEP preserved at the "Museo Esapolis della Provincia di Padova".

Taxonomic study

Female specimen of *Poecilochroa loricata* was examined and measured using a Leica M80 stereoscopic binocular up to 60× magnification connected to an EC3 camera. All measurements are given in mm. The female vulva was removed and treated with 10% KOH prior to examination. After observation and drawings, the vulva was washed in acetic acid (5%) and successively stored in 70% ethanol in a micro-vial in the same tube containing the specimen.

Abbreviations and symbols

Abbreviations. MEP = Museo Esapolis della Provincia di Padova; MCSNVR = Museo Civico di Storia Naturale di Verona; MI = Marco Isaia's collection – University of Turin; AE = anterior eye; PE = posterior eye; PLE = posterior lateral eyes; ALE = anterior lateral eyes; AME = anterior median eyes; PME = posterior median eyes; Fe = Femur; Pa = Patella; Ti = Tibia; Mt = Metatarsus; Ta = Tarsus; d: Dorsal; v: Ventral; pl: Prolateral; rl: Retrolateral; RTA = retrolateral tibial apophysis; CD = conductor; E = Embolus; PEM = posterior epigynal margin; AEM = anterior epigynal margin.

Symbol.

- ▲ first record for Italy
- first record for Europe

Species–area relationships

The species-area relationship (SAR), a fundamental ecological principle relating the total number of species to island size, has roots in the seminal works of

Arrhenius (1921), and was then explored and updated by several authors (e.g. Lawton 1999; Lomolino 2000; Drakare et al. 2006), becoming an essential element of the theory of island biogeography (MacArthur & Wilson 1967).

In our study, we utilized regression analysis implemented in the R environment to investigate the SAR of the islands of the Strait of Sicily compared to the other small Italian islands in the Mediterranean Basin. Therefore, our investigation extended beyond the Pelagie Islands to include Malta, situated within the Sicily Channel, along with the Sicilian Egadi and Aeolian Islands, the Campanian Archipelago (Ischia, Capri, Procida, Vivara, Nisida) and the islands of the Tuscan Archipelago (Elba, Giglio, Capraia, Montecristo, Pianosa, Giannutri and Gorgona). Other Italian islands were excluded from this comparison due to a lack of data on araneofauna.

This approach not only allowed us to frame the araneofauna of the islands of the Sicilian Channel within a broader biogeographical context but also ensured the robustness of our regression analysis, enhancing its statistical power. Data on species richness for each island were sourced from the updated version of the online Catalog of the Italian Spiders "araneae.it" (Pantini & Isaia 2019, accessed on 30/10/2023), while data from Malta were obtained from the World Spider Catalog 2024. The completeness of data for each island varies due to different levels of research effort. We fitted a log-log linear model to investigate how the number of species (dependent variable) is influenced by the area of study sites (independent variable) by using the power function in its linearized version (Fattorini & Fowles 2005; Fattorini 2020; Matthews et al. 2021):

$$\log(S) = \log(c) + z \log(A)$$

where S is the number of species, A is the area (in km^2), and c and z are fitted parameters. The back-transformed value of c expresses the number of species per unit area, while z is the slope of the regression.

Furthermore, we analyzed the standardized residuals to identify islands whose spider richness deviated the most from the predicted values. This, in turn, allowed us to discuss the potential factors driving such positive (i.e. more species than expected for a given island size) or negative (i.e. fewer than expected for a given island size) deviation.

Results

Material examined

Below is the list of examined material (according to the nomenclature of the World Spider Catalog

2024), with families listed in alphabetical order. For each species, we detailed the specific island where the species was recorded, the number and sex of the specimens examined, the location and date of collection, and the collectors. Additionally, taxonomical remarks and notes were provided where necessary. The full list of the species is reported in Table I.

Family AGELENIDAE C. L. Koch, 1837

Lycosoides coarctata (Dufour, 1831)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 5♀; Capo Grecale; 3.II.2008; V. Italiano leg. • 3♀; same locality; 1.III.2008; V. Italiano leg. • 1♀; same locality; 5.IV.2008; V. Italiano leg. • 1♂ 1♀; same locality; 9.XI.2008; V. Italiano leg. • 1♀; same locality; 12.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; 2.II.2008; paese; V. Italiano leg. • 1♀; same locality; 7.IV.2008; V. Italiano leg. • 1♀; same locality; 10.XI.2008; V. Italiano leg. • 1♀; Punta Sottile; 11.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; Spiaggia della Guitgia; 12.IV.2018; L.A. Guariento leg.; coll. MEP.

Lycosoides flavomaculata Lucas 1846

MATERIAL EXAMINED. — **Lampedusa Island:** 2♀; Contrada Aria Rossa; 10.IV.2018; U. Devincenzo leg.; coll. MEP • 4♀♀; Cala Croce; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 6♀♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 4♀♀; Capo Grecale; 1.III.2008; V. Italiano leg.; coll. MEP • 4♀♀; same locality; 5.V.2008; V. Italiano leg.; coll. MEP • 1♀; same locality; 12.IV.2018, L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; village; 5.V.2008; V. Italiano leg. • 2♀♀; promontory to the west of “Spiaggia dei Conigli”; 10–12. IV.2018, L.A. Guariento, U. Devincenzo leg.; coll. MEP • 3♀♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 2.III.2008, V. Italiano leg. • 1♀; same locality; 6.IV.2008; V. Italiano leg. • 1♀; same locality; 2.V.2008, V. Italiano leg. • 1♀; surroundings of “Spiaggia dei Conigli”; 10. IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP.

Tegenaria dalmatica Kulczynski, 1906

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Vallone della Forbice; 3.III.2008; V. Italiano leg.

Tegenaria parietina (Fourcroy, 1785)

MATERIAL EXAMINED. — **Pantelleria Island:** 1♀; V.1987; L. Zanca leg.

Family ARANEIDAE Clerck, 1757

Araneus alsine (Walckenaer, 1802)

MATERIAL EXAMINED. — **Pantelleria Island:** 1♀; Lago di Venere; 08.VIII.2023; G. Nicolosi leg.; coll. MI.

Araneus angulatus Clerck, 1757

MATERIAL EXAMINED. — **Pantelleria Island:** 2♀♀; maquis shrubland; IX.1987; L. Zanca leg. • 2♀♀; same locality; 15.IX.1989; L. Zanca leg.

Araneus triguttatus (Fabricius, 1775)

MATERIAL EXAMINED. — **Pantelleria Island:** 1♀; Cala Pozzolana, bunker World War II; 12.08.2023; G. Nicolosi leg.; coll. MI.

Argiope lobata (Pallas, 1772)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♀♀; 9–10.IX.1984; Mattaini leg.; coll. MCSNVR • 1♂ 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 13.VII.2008; V. Italiano leg. • 1♀; same locality; 7.VI.2008; V. Italiano leg. • Vallone della Forbice, 4.V.2008, V. Italiano leg. — **Linosa Island:** VII.2010; V. Italiano leg. — **Pantelleria Island:** 1♀; Monte Gibebe; 7.IX.1986; Sette leg.; coll. MCSNVR • 1♀; lake; 24.IX.1987; L. Zanca leg.

Argiope trifasciata (Forsskål, 1775)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Contrada Sangue dolce; 15.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; Cala Calandra; 9.IV.2018; L.A. Guariento, U. Devincenzo leg.

Cyclosa insulana (Costa, 1834)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 5.VIII.2008; V. Italiano leg. • Vallone della Forbice, 1♀; 4.V.2008; V. Italiano leg. • 1♂; same locality; 6.VIII.2008; V. Italiano leg. • 2♀♀; same locality; 8.IX.2008; V. Italiano leg. — **Linosa Island:** 1♀; 17. VII.2005; L. Zanca leg.; • 2♀♀; IV.2010; L. Zanca leg.; • 1♀; V.2010; L. Zanca leg.; • 1♀; VI.2010; L. Zanca leg.; • 1♂ 3♀♀; VII.2010; L. Zanca leg.; • 1♀; VIII.2010; V. Italiano leg.

Gibbaranea bituberculata (Walckenaer, 1802)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♂♂ 5♀♀; Albero Sole; 3.III.2008;

Table I. List of species recorded for the islands of the Strait of Sicily. Species highlighted in bold indicate new records. Species labeled with “▲” are new for Italy, while species labeled with “■” represent a new record for Europe.

Species	Lampedusa	Linosa	Pantelleria
Agelenidae			
<i>Allagelena gracilens</i> (C.L. Koch, 1841)	X		
<i>Gorbiscape agelenoides</i> (Walckenaer, 1841)	X		
<i>Lycosoides coarctata</i> (Dufour, 1831)	X		X
<i>Lycosoides flavomaculata</i> Lucas 1846	X		
<i>Tegenaria dalmatica</i> Kulczynski, 1906	X		
<i>Tegenaria parietina</i> (Fourcroy, 1785)			X
<i>Textrix caudata</i> L. Koch, 1872	X		
Araneidae			
<i>Agalenatea redii</i> (Scopoli, 1763)			X
<i>Araneus alsine</i> (Walckenaer, 1802)			X
<i>Araneus angulatus</i> Clerck, 1757			X
<i>Araneus diadematus</i> Clerck, 1757			X
<i>Araneus triguttatus</i> (Fabricius, 1775)			X
<i>Argiope lobata</i> (Pallas, 1772)	X	X	X
<i>Argiope trifasciata</i> (Forsskål, 1775)	X		
<i>Cyclosa insulana</i> (Costa, 1834)	X	X	
<i>Gibbaranea bituberculata</i> (Walckenaer, 1802)	X		
<i>Larinioides cornutus</i> (Clerck, 1757)	X		
<i>Larinioides suspicax</i> (O. Pickard-Cambridge, 1876)	X		X
<i>Mangora acalypha</i> (Walckenaer, 1802)			X
<i>Neoscona adianta</i> (Walckenaer, 1802)	X		
<i>Neoscona subfusca</i> (C.L. Koch, 1837)	X	X	X
<i>Siwa dufouri</i> (Simon, 1874)	X		
<i>Zygiella x-notata</i> (Clerck, 1757)	X	X	X
Cheiracanthiidae			
<i>Cheiracanthium angulitarse</i> Simon, 1878			X
Clubionidae			
<i>Porrhoclubiona genevensis</i> (L. Koch, 1866)	X		
Dysderidae			
<i>Dysdera crocata</i> C.L. Koch, 1838	X	X	X
<i>Dysdera flagellata</i> Grasshoff 1959	X		
<i>Dysdera submubila</i> Simon, 1907			X
<i>Harpactea carusoi</i> Alicata, 1974	X		X
Eresidae			
<i>Stegodyphus lineatus</i> (Latreille, 1817)			X
Filistatidae			
<i>Filistata insidiatrix</i> (Forsskål, 1775)	X		
Gnaphosidae			
<i>Aphantaulax cincta</i> (L. Koch, 1866)	X		
<i>Civizelotes civicus</i> (Simon, 1878)	X		
<i>Cryptodrassus helvolus</i> (O. Pickard-Cambridge, 1872) ▲	X		
<i>Drassodes lapidosus</i> (Walckenaer, 1802)	X		
<i>Drassodes lutescens</i> (C.L. Koch, 1839)	X		
<i>Drassyllus pumilus</i> (C.L. Koch, 1839)	X		
<i>Gnaphosa alacris</i> Simon, 1878		X	
<i>Gnaphosa lucifuga</i> (Walckenaer, 1802)	X		
<i>Haplodrassus crassipes</i> (Lucas 1846) ■	X		
<i>Haplodrassus kulczynskii</i> Lohmander, 1942	X		
<i>Haplodrassus securifer</i> Bosmans & Arous, 2018	X		
<i>Haplodrassus signifer</i> (C.L. Koch, 1839)	X		
<i>Heser nilicola</i> (O. Pickard-Cambridge, 1874)		X	
<i>Marinarozelotes barbatus</i> (L. Koch, 1866)	X	X	
<i>Marinarozelotes fuscipes</i> (L. Koch, 1866)	X	X	
<i>Marinarozelotes lyonneti</i> (Audouin, 1826)	X		
<i>Marinarozelotes mutabilis</i> (Simon, 1878)	X	X	
<i>Nomisia aussereri</i> (L. Koch, 1872)			X
<i>Nomisia exornata</i> (C.L. Koch, 1839)	X	X	X
<i>Nomisia recepta</i> (Pavesi, 1880)	X		

(Continued)

Table I. (Continued).

Species	Lampedusa	Linosa	Pantelleria
<i>Poecilochroa loricata</i> Kritscher, 1996 ▲	X		
<i>Prodidomus amaranthinus</i> (Lucas 1846)	X		
<i>Scotophaeus validus</i> (Lucas 1846)	X	X	
<i>Setaphis mollis</i> (O. Pickard-Cambridge, 1874) ■	X		
<i>Urozelotes rusticus</i> (L. Koch, 1872)	X	X	
<i>Zelotes criniger</i> Denis, 1937	X		
<i>Zelotes egregioides</i> Senglet, 2011 ▲	X		
<i>Zelotes scrutatus</i> (O. Pickard-Cambridge, 1872) ▲	X		
Letonetidae			
<i>Paraleptoneta spinimana</i> Ribera & Lopez, 1982			X
Linyphiidae			
<i>Acartauchenius insigniceps</i> (Simon, 1894) ■	X		
<i>Megalephyphantes collinus</i> (L. Koch, 1872)	X		
<i>Ouedia rufithorax</i> (Simon, 1881)	X		
<i>Palliduphantes labilis</i> (Simon, 1913) ■			X
<i>Tenuiphantes herbicola</i> (Simon, 1884)			X
<i>Walckenaeria erythrina</i> (Simon, 1884) ▲	X		
Liocranidae			
<i>Mesiotelus mauritanicus</i> Simon, 1909	X		X
Lycosidae			
<i>Arctosa lacustris</i> (Simon, 1876)			X
<i>Arctosa leopardus</i> (Sundevall, 1833)			X
<i>Arctosa similis</i> Schenkel, 1938			X
<i>Arctosa variana</i> C.L. Koch, 1847			X
<i>Hogna radiata</i> (Latreille, 1817)	X		
<i>Lycosa tarantula</i> (Linnaeus, 1758)	X		
Mimetidae			
<i>Ero aphana</i> (Walckenaer, 1802)	X		
Nemesiidae			
<i>Nemesia arboricola</i> Pocock, 1903 ▲	X		
Nesticidae			
<i>Kryptonesticus eremita</i> (Simon, 1880)			X
Oxyopidae			
<i>Oxyopes nigripalpis</i> Kulczynski, 1891			X
Palpimanidae			
<i>Palpimanus gibbulus</i> Dufour, 1820	X		X
Philodromidae			
<i>Philodromus cespitum</i> (Walckenaer, 1802)			X
<i>Philodromus rufus</i> Walckenaer, 1826	X		X
<i>Pulchellodromus bistigma</i> (Simon, 1870)			X
<i>Pulchellodromus pulchellus</i> (Lucas 1846)	X		
<i>Rhysodromus histrio</i> (Latreille, 1819)	X	X	
<i>Thanatus vulgaris</i> Simon, 1870	X	X	X
Pholcidae			
<i>Holocnemus pluchei</i> (Scopoli, 1763)	X		
<i>Pholcus phalangioides</i> (Fuesslin, 1775)	X		X
Salticidae			
<i>Aelurillus aeruginosus</i> (Simon, 1871)			X
<i>Aelurillus lopadusae</i> Cantarella, 1983	X		
<i>Aelurillus monardi</i> (Lucas 1846)	X		
<i>Bianor albobimaculatus</i> (Lucas 1846)			X
<i>Chalcoscirtus infimus</i> (Simon, 1868)	X		X
<i>Cyrba algerina</i> (Lucas 1846)	X		
<i>Euophrys gambosa</i> (Simon, 1868)	X	X	
<i>Evarcha arcuata</i> (Clerck, 1757)	X		
<i>Evarcha jucunda</i> (Lucas 1846)	X	X	X
<i>Hasarius adansonii</i> (Audouin, 1826)	X		
<i>Heliophanus decoratus</i> L. Koch, 1875			X
<i>Heliophanus kochii</i> Simon, 1868	X		
<i>Heliophanus rufithorax</i> Simon, 1868	X		
<i>Mendoza canestrinii</i> (Ninni, 1868)	X		
<i>Menemerus semilimbatus</i> (Hahn, 1829)	X		X

(Continued)

Table I. (Continued).

Species	Lampedusa	Linosa	Pantelleria
<i>Menemerus taeniatus</i> (L. Koch, 1867)			X
<i>Neon lewis</i> (Simon, 1871)	X		
<i>Phlegra bresnieri</i> (Lucas 1846)	X	X	X
<i>Phlegra fulvastra</i> (Simon, 1868)	X		
<i>Phlegra yaelae</i> Prószyński, 1998 ■	X		
<i>Plexippus paykulli</i> (Audouin, 1826)	X		
<i>Pseudicius encarpatus</i> (Walckenaer, 1802)	X		
<i>Salticus mutabilis</i> Lucas 1846	X		X
<i>Salticus propinquus</i> Lucas 1846	X		X
<i>Synageles dalmaticus</i> (Keyserling, 1863)			X
<i>Thyene imperialis</i> (Rossi, 1846)	X		X
Scytodidae			
<i>Scytodes velutina</i> Heineken & Lowe, 1832	X		X
Segestriidae			
<i>Ariadna</i> sp.	X		
<i>Segestria bavarica</i> C.L. Koch, 1843		X	
<i>Segestria florentina</i> (Rossi, 1790)		X	
<i>Segestria pusiola</i> Simon, 1882 ▲	X		
Selenopidae			
<i>Selenops radiatus</i> Latreille, 1819			X
Sicariidae			
<i>Loxosceles rufescens</i> (Dufour, 1820)	X		X
Sparassidae			
<i>Micrommata formosa</i> Pavesi, 1878	X		
Tetragnathidae			
<i>Tetragnatha nitens</i> (Audouin, 1826)			X
<i>Tetragnatha obtusa</i> C.L. Koch, 1837			X
Theraphosidae			
<i>Ischnocolus valentinus</i> (Dufour, 1820)	X		
Theridiidae			
<i>Argyrodes argyroides</i> (Walckenaer, 1841)			X
<i>Dipoena braccata</i> (C.L. Koch, 1841)	X		
<i>Enoplognatha franzi</i> Wunderlich, 1995 ▲	X		
<i>Enoplognatha mandibularis</i> (Lucas 1846)	X		
<i>Enoplognatha ovata</i> (Clerck, 1757)	X		
<i>Euryopis episinoides</i> (Walckenaer, 1847)	X		X
<i>Kochiura aulica</i> (C.L. Koch, 1838)	X	X	
<i>Latrodectus tredecimguttatus</i> (Rossi, 1790)	X		
<i>Nesticodes rufipes</i> (Lucas 1846)	X		
<i>Steatoda albomaculata</i> (De Geer, 1778)	X		
<i>Steatoda grossa</i> (C.L. Koch, 1838)		X	
<i>Steatoda paykulliana</i> (Walckenaer, 1806)	X		X
<i>Steatoda triangulosa</i> (Walckenaer, 1802)	X	X	X
<i>Theridion negebense</i> Levy & Amitai, 1982 ▲	X		
Thomisidae			
<i>Cozyptila blackwalli</i> (Simon, 1875)	X		
<i>Ozyptila patellibidens</i> Levy, 1999 ■	X		
<i>Runcinia grammica</i> (C.L. Koch, 1837)			X
<i>Synema globosum</i> (Fabricius, 1775)	X	X	X
<i>Thomisus onustus</i> Walckenaer, 1805		X	X
<i>Xysticus promiscuus</i> O. Pickard-Cambridge, 1876 ■	X		
Uloboridae			
<i>Uloborus plumipes</i> Lucas 1846			X
<i>Uloborus walckenaerius</i> Latreille, 1806			X
Zodariidae			
<i>Selamia numidica</i> Jocqué & Bosmans, 2001 ■	X		
<i>Selamia reticulata</i> (Simon, 1870)			X
<i>Zodarion elegans</i> (Simon, 1873)	X		X

V. Italiano leg. • 2♂♂; Vallone della Forbice; 3.III.2008; V. Italiano leg. • 2♀♀; same locality; 5.IV.2008; V. Italiano leg.

Larinioides suspicax (O. Pickard-Cambridge, 1876)

MATERIAL EXAMINED. — **Pantelleria Island:** 4♀♀; 15.IX.1989; L. Zanca leg.

Neoscona subfusca (C.L. Koch, 1837)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂ 1♀; Albero Sole; 3.V.2008, V. Italiano leg. • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP. — **Linosa Island:** 2♀♀; 17.VII.2005; L. Zanca leg. • 4♀♀; V.2010; V. Italiano leg. • 2♀♀; VI.2010; V. Italiano leg. • 1♀; VII.2010; V. Italiano leg. • 1♀; VIII.2010; V. Italiano leg.

Siwa dufouri (Simon, 1874)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg.

NOTE Second report for Italy after the one for the Sardegna (Caria & Pantini, 2023).

Zygiella x-notata (Clerck, 1757)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Vallone della Forbice; 5.IV.2008; V. Italiano leg. • 1♀; same locality; 6.VIII.2008; V. Italiano leg. • 3♀♀; same locality; 12.X.2008; V. Italiano leg. — **Linosa Island:** 1♀; IV.2010; V. Italiano leg.

Family CLUBIONIDAE Simon, 1878

Porrhoclubiona genevensis (L. Koch, 1866)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.II.2008; V. Italiano leg. • 1♀; same locality; 3.III.2008; V. Italiano leg. • 1♀; Capo Grecale; 3.II.2008; V. Italiano leg. • 1♀; surroundings of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP.

Family DYSDERIDAE C. L. Koch, 1837

Dysdera crocata C.L. Koch, 1838

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♂; Albero Sole; 3.II.2008; V. Italiano leg. • 3♂♂ 2♀♀; same locality; 3.III.2008; V. Italiano leg. • 1♂; Contrada Aria Rossa; 5.IV.2019; L.A. Guariento, U. Devincenzo leg. coll. MEP • 1♂; promontory to the west of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.

Dysdera flagellata Grasshoff 1959

MATERIAL EXAMINED. — **Lampedusa Island:** 2♀♀; Capo Grecale; 3.II.2008; V. Italiano leg. • 2♂♂; same locality; 1.III.2008; V. Italiano leg. • 1♂; Vallone della Forbice; 8.VI.2008; V. Italiano leg. *Harpactea carusoi* Alicata, 1974

NOTE. Endemic species of Lampedusa Island.

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.V.2008; V. Italiano leg. • 1♂; village; 1.III.2008; V. Italiano leg. • 1♂; Vallone della Forbice; 3.III.2008; V. Italiano leg. • 1♂; same locality; 5.IV.2008; V. Italiano leg.

NOTE. Species previously reported only in Pantelleria and Tunisia and recently documented in the city of Palermo, Sicily (Dentici 2022).

Family ERESIDAE C. L. Koch, 1845

Stegodyphus lineatus (Latreille, 1817)

MATERIAL EXAMINED. — **Pantelleria Island:** 1♂ 3♀♀; V.1987; lake shores, on the ground; L. Zanca leg.

Family FILISTATIDAE Ausserer, 1867

Filistata insidiatrix (Forsskål, 1775)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Vallone della Forbice; 4.V.2008; V. Italiano leg.

Family GNAPHOSIDAE Pocock, 1898

Aphantaulax cincta (L. Koch, 1866)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; village; 13.VII.2008; V. Italiano leg.

Cryptodrassus helvolus (O. Pickard-Cambridge, 1872) ▲

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. NOTE. This rare species has been reported from southern European Russia, Turkey, Cyprus, Israel, Iran, and Kazakhstan (WSC 2024). Its presence in Lampedusa extends its distribution westward, representing a new record for Italy.

Drassodes lutescens (C.L. Koch, 1839)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♀♀; Albero Sole, 3.II.2008; V. Italiano leg. • 1♂; same locality; 3.III.2008; V. Italiano leg. • 1♀; same locality; 4.IV.2008; V. Italiano leg. • 5♀♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • Capo Grecale, 2♂♂ 1♀; 1.III.2008; V. Italiano

leg. • 1♀; same locality; 5.IV.2008; V. Italiano leg. • 2♂♂ 1♀; same locality; 9.XI.2008, V. Italiano leg. • 3♀♀; same locality; 12.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; village; 1.III.2008; V. Italiano leg. • 1♀; promontory to the west of “Spiaggia dei Conigli”; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 4♀♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 1. II.2008; V. Italiano leg. • 1♂; same locality; 7. XI.2008; V. Italiano leg. • Vallone to the east of “Punta Parise”, 1♂ 5.IV.2019, L.A. Guariento, U. Devincenzo leg. (MEP) • 1♀; surroundings of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; Tabaccara; 14. IV.2018; U. Devincenzo leg.; coll. MEP.

Gnaphosa alacris Simon, 1878

MATERIAL EXAMINED. — **Linosa Island:** 3♂♂ 1♀; VI.2010; V. Italiano leg.

Gnaphosa lucifuga (Walckenaer, 1802)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 30.IV.2017; L.A. Guariento, U. Devincenzo leg.; coll. MEP.

Haplodrassus crassipes (Lucas 1846) ■

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Contrada Aria Rossa; 17.IV.2018; U. Devincenzo, I. Petri leg.; coll. MEP • 1♂; Cala Croce; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; Punta Alaimo; 12.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; Punta sottile; 11.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP.

NOTE. Species known from North Africa (Algeria, Tunisia, Morocco) (WSC 2024). New record for Europe.

Haplodrassus securifer Bosmans & Abrous, 2018

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Contrada Aria Rossa; 17.IV.2018; U. Devincenzo, I. Petri leg. • 1♂; same locality; 4. IV.2019; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♂ 2♀♀; Cala Croce; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 6♂♂ 3♀♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; Capo Grecale; 5.IV.2008; V. Italiano leg. • 1♀; same locality; 5.V.2008; V. Italiano leg. • 2♂♂; same locality; 12.IV.2018; L.A. Guariento, U. Devincenzo, leg. • 1♀; surroundings of “Spiaggia dei Conigli”; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 2♀♀; village; 7.IV.2008; V. Italiano leg. • 3♂♂ 2♀♀; promontory to the west of “Spiaggia dei Conigli”; 10–12.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂ 1♀; Punta “e

Manzu; 13.IV.2018, L.A. Guariento, U. Devincenzo leg. • 1♀; Punta O” Spada; 7.IV.2019; L. Bolognin leg.; coll. MEP • 2♀♀; Punta Sottile; 11.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♂ 1♀; Vallone to the east of “Punta Parise”; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; surroundings of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.

Heser nilicola (O. Pickard-Cambridge, 1874)

MATERIAL EXAMINED. — **Linosa Island:** 1♀; VII.2010; V. Italiano leg.

Marinarozelotes fuscipes (L. Koch, 1866)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♂♂; Albero Sole; 3.III.2008; V. Italiano leg. • 1♀; same locality; 4.IV.2008; V. Italiano leg. • 1♂ 1♀; Capo Grecale, 1.III.2008; V. Italiano leg. • 1♂; same locality; 5.IV.2008; V. Italiano leg. • 1♀; same locality; 9.XI.2008, V. Italiano leg. • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 7.XI.2008; V. Italiano leg. • 1♂; Vallone della Forbice; 2.II.2008; V. Italiano leg. • 2♀♀; same locality; 3.III.2008; V. Italiano leg. — **Linosa Island:** 1♀; V.2010, V. Italiano leg.

Marinarozelotes lyonneti (Audouin, 1826)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; Vallone della Forbice; 8.VI.2008; V. Italiano leg.

Marinarozelotes mutabilis (Simon, 1878)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Albero Sole; 4.IV.2008; V. Italiano leg. • 2♂♂ 1♀; Capo Grecale; 5.IV.2008; V. Italiano leg. • 4♂♂; Vallone della Forbice; 5. IV.2008; V. Italiano leg.

Nomisia exornata (C.L. Koch, 1839)

MATERIAL EXAMINED. — **Linosa Island:** 5♀♀; IV.2010; V. Italiano leg. • 2♀♀; V.2010; V. Italiano leg.

Nomisia recepta (Pavesi, 1880)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 7♂♂ 1♀; Albero Sole; 4. IV.2008; V. Italiano leg. • 2♀♀; same locality; 3. V.2008; V. Italiano leg. • 2♀♀; same locality; 7. VI.2008, V. Italiano leg. • 1♂; same locality; 10. IV.2018; L.A. Guariento, U. Devincenzo leg. • 2♂♂ 1♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 3♀♀; Capo Grecale; 5.IV.2008; V. Italiano leg. • 1♂; same locality; 5.V.2008; V. Italiano leg. • 1♀; same locality; 9.VI.2008; V. Italiano leg. • 1♀; same

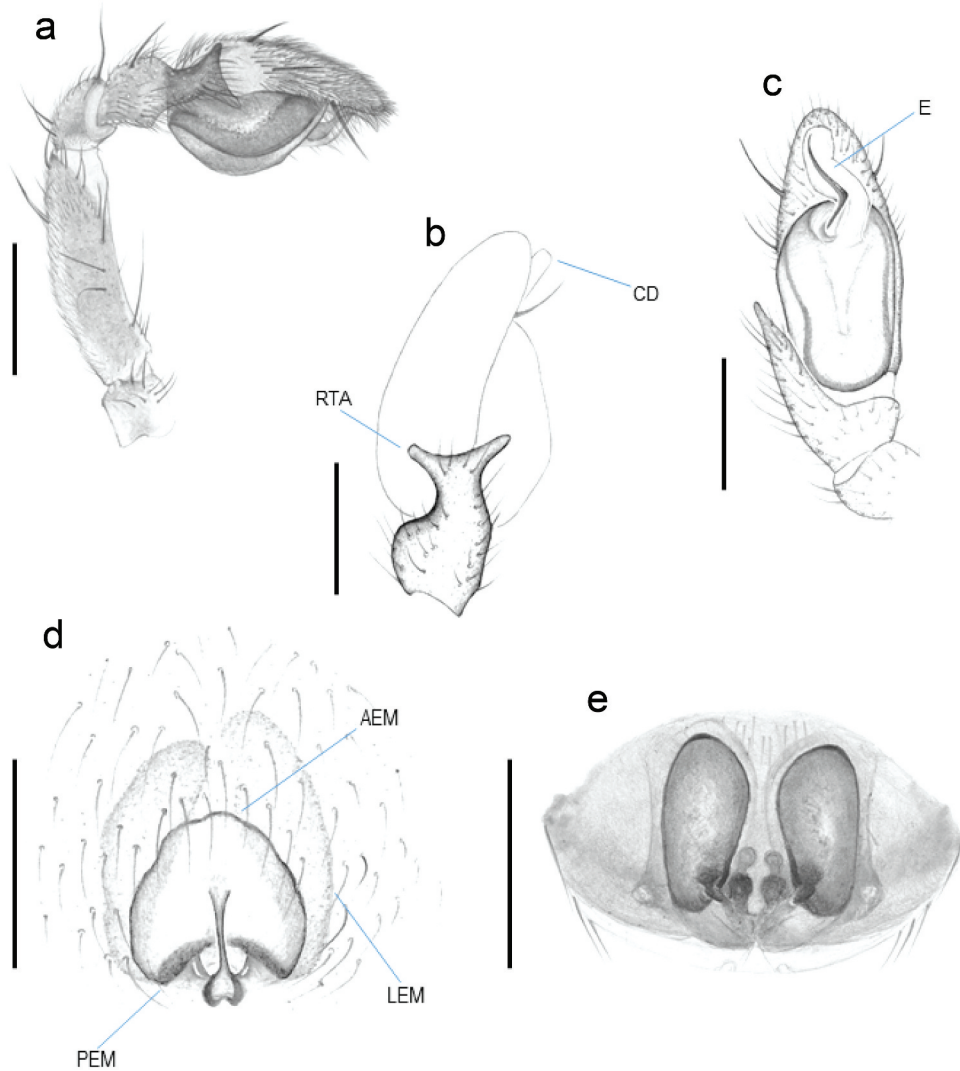


Figure 2. *Poecilochroa loricata* Kritscher, 1996. Male palp (a-c). Prolateral view (a); retrolateral view (b); ventral view (c); Epigyne, ventral view (d); vulva, dorsal view (e). Scale bars: 0.5 mm. RTA = retrolateral tibial apophysis; CD = conductor; E = Embolus; PEM = posterior epigynal margin; AEM = anterior epigynal margin.

locality; 13.VII.2008; V. Italiano leg. • 1♀; loc. Dammuso Casa Teresa; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; surroundings of “Spiaggia dei Conigli”; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂ 1♀; village, 7.IV.2008; V. Italiano leg. • 2♀♀; same locality; 5.V.2008; V. Italiano leg. • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg. • 1♀; same locality; 7.VI.2008; V. Italiano leg. • 1♀; Spiaggia della Guitgia; 12.IV.2018; L.A. Guariento leg.; coll. MEP • 1♂ 1♀; Vallone della Forbice; 5.IV.2008;

V. Italiano leg. • 3♀♀; same locality; 4.V.2008; V. Italiano leg. • 1♀; same locality; 8.VI.2008; V. Italiano leg.

***Poecilochroa loricata* Kritscher, 1996 ▲**

(Figure 2(a-e))

TYPE MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♂; Vallone della Forbice; 4.V.2008; V. Italiano leg. • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 2.V.2008; V. Italiano leg.

MALE. — (Figure 2(a–c)). See description in Bauer (2022).

FEMALE. — Coloration. Carapace uniformly yellowish-brown. Head region slightly lighter. Ocular area slightly black. Sternum yellowish-brown, without pattern. Labium and maxillae same color as sternum. Opisthosoma yellow-brown, without pattern. Legs same color as carapace.

PROSOMA. — Carapace 2.58 long, 1.50 wide, 1.47 high. Cephalothorax convex, narrower anteriorly and wider posteriorly, broadest between coxae II and III, posterior lateral margins of pars thoracica each with a mass of ca. 10 black hairs. Clypeus 0.12 long. Sternum 1.47 long and 0.87 wide with lateral margins more hirsute than median, anterior end straight and posterior end slightly tapered. Labium moderately longer than wide, base straight. Maxillae reddish brown, longer than wide with a widened apical end, narrowed base, inner lateral margin concave for reception of labium, scopulae diagonal in the junction of apico-inner lateral area.

Eight eyes in two rows, AE row strongly recurved and shorter (0.76 mm) than the slightly recurved PE row (0.891 mm), eye diameters: PLE = 0.09; ALE = 0.12; AME = 0.13; PME = 0.11. AME and ALE contiguous. AME–ALE distance: 0.02, AME–AME distance: 0.09, PME–PME distance: 0.09, PME–PLE distance: 0.09. OPISTHOSOMA. — 4.52 long, 2.11 wide, 1.87 high. Total length = 7.06 (7.70 including spinnerets). Abdomen hirsute, ending with a tuft of brown setae on the dorsal area. Spinnerets all cylindrical, anterior spinnerets much wider apart and longer than the posterior pair, median pair intermediate. Leg formula: IV > I > II > III.

APPENDAGES. — Chelicerae 0.78 long, 0.35 wide, with no teeth in both promargin and retromargin.

LEG MEASUREMENTS. — Leg measurements (Fe, Pa, Ti, Mt, Ta, total) as follows: I: 1.50, 0.86, 1.07, 0.79, 0.65, 4.87. II: 1.51, 0.72, 1.10, 0.79, 0.60, 4.73. III: 1.42, 0.72, 0.93, 0.81, 0.64, 4.51. IV: 1.81, 0.95, 1.33, 1.40, 0.86, 6.35. Palp: 0.64, 0.28, 0.33, 0.62, 1.87.

SPINATION. — Fe I–II: d3, pl1; Fe III: d2, pl1, rl2; Fe IV: d3, rl1. Pa I–IV spineless. Ti I–II: v2; Ti III: v4, pl2, rl4; Ti IV: v5, pl2, rl2. Mt I–II: v1; Mt III: d1, v4, pl3, rl3; Mt IV: d2, v5, pl5, rl4. Tarsi paired-clawed with teeth on inner margin.

EPIGYNE. — (Figure 2(d,e)). Epigyne dome-shaped with a thin longitudinal scape dividing the epigynal plate, and an enlarged, rounded end. AEM continuous

and connected to PEMs. Spermathecae lobe-like and of equal height.

DISTRIBUTION. Previously known only from the type locality (Marsaxlokk, Malta), Marsalforn, Gozo (Kritscher 1996): this record widens the distribution to the island of Lampedusa.

NOTE. The two females were identified based on the finding of one male of *Poecilochroa loricata* on the island. Moreover, the female specimens exhibited same habitus and chaetotaxy as the male specimen.

Prodidomus amaranthinus (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; village; 13.X.2008; V. Italiano leg. — **Lampione Island** • 2♀♀; V.2005; P. Lo Cascio leg.

Scotophaeus validus (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 8.XI.2008; V. Italiano leg. • 1♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; Vallone della Forbice, 3.III.2008; V. Italiano leg. • 1♂; same locality; 12.X.2008; V. Italiano leg. • 1♂; same locality; 8.XI.2008; V. Italiano leg. — **Linosa Island:** 1♀; VI.2010; V. Italiano leg.

Setaphis mollis (O. Pickard-Cambridge, 1874) ■

(Figure 3(a–e))

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.II.2008; V. Italiano leg. • 1♂; same locality; 3.III.2008; V. Italiano leg. • 1♀; same locality; 8.XI.2008; V. Italiano leg. • 4♀♀; Capo Grecale; 1.III.2008; V. Italiano leg. • 1♀; same locality; 9.XI.2008; V. Italiano leg. • 1♂; village; 10.XI.2008; V. Italiano leg. • 2♀♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 2.III.2008; V. Italiano leg. • 1♂; same locality; 13.X.2008; V. Italiano leg. • 1♀; same locality; 7.XI.2008; V. Italiano leg. • 1♀; Vallone della Forbice; 2.II.2008; V. Italiano leg. • 1♂; same locality; 3.III.2008; V. Italiano leg.

NOTE. Species known from Algeria, Tunisia, Libya, Egypt, and Israel (WSC 2024). New record for Europe.

Urozelotes rusticus (L. Koch, 1872)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♂; Albero Sole; 3.V.2008; V. Italiano leg. • 1♂; same locality; 7.VI.2008; V. Italiano leg. • 1♂; surroundings of “Spiaggia dei Conigli”; 9.IV.2018; L.A. Guariento,

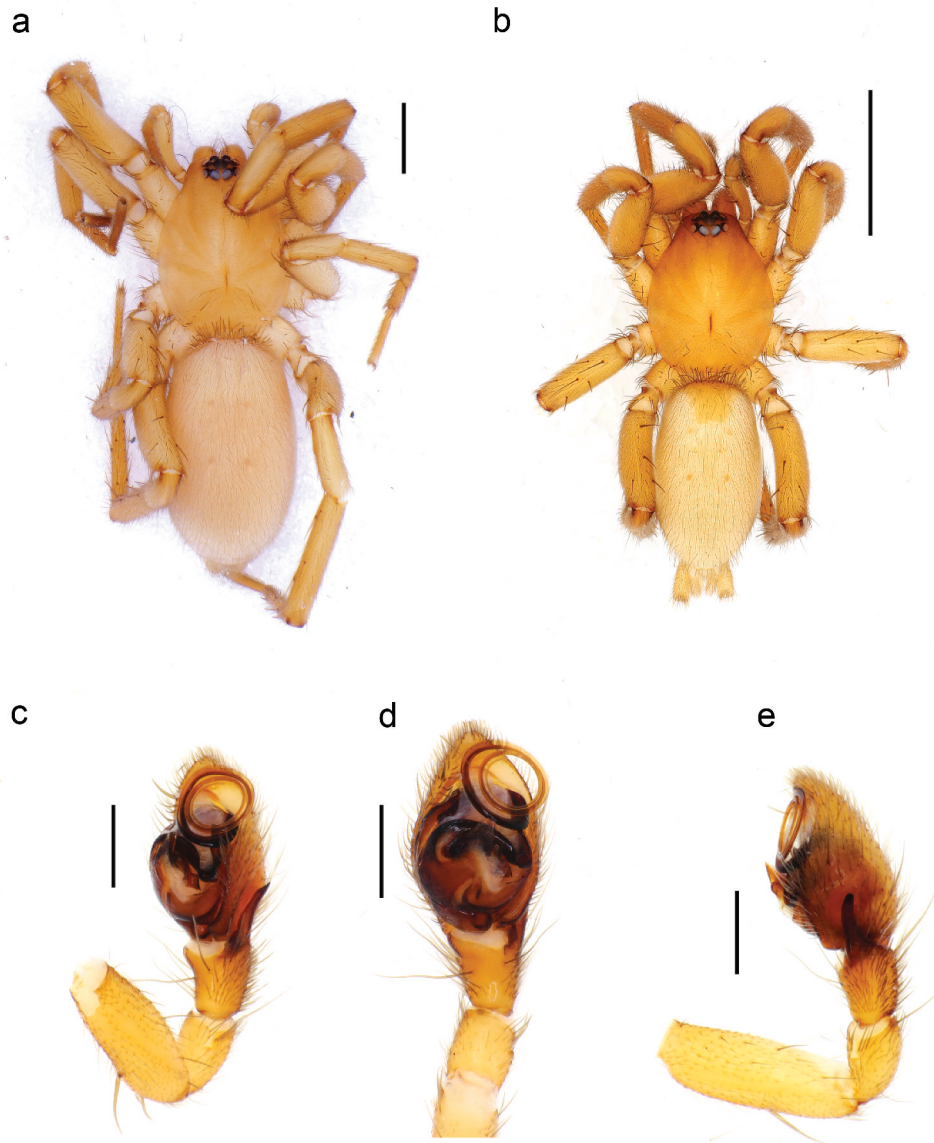


Figure 3. *Setaphis mollis* (O. Pickard-Cambridge, 1874) (a-e). Female habitus (a); male habitus (b); male palpus ventro-retrolateral view (c); male palpus ventral view (d); male palpus retrolateral view (e). Scale bar: c, d, e, 0.5 mm.

U. Devincenzo leg. • 1♂ 1♀; Vallone della Forbice; 4.V.2008; V. Italiano leg. • 1♀; same locality; 8.VI.2008; V. Italiano leg. — **Linosa Island**: 1♂; VI.2010; V. Italiano leg.

Zelotes criniger Denis, 1937

MATERIAL EXAMINED. — **Lampedusa Island**: 1♂; Capo Grecale; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 2♂♂; village; 7.IV.2008; V. Italiano leg. • 1♂ 1♀; Vallone della Forbice; 4.V.2008; V. Italiano leg.

Zelotes egregioides Senglet, 2011 ▲

MATERIAL EXAMINED. — Lampedusa Island: 1♀; village; 13.X.2008; V. Italiano leg. • 1♂ 1♀; 10. XI.2008; V. Italiano leg.

NOTE. Species known from Portugal, Spain and France (WSC 2024). New record for Italy.

Zelotes scrutatus (O. Pickard-Cambridge, 1872) ▲

MATERIAL EXAMINED. — **Lampedusa Island**: 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♂; Capo Grecale; 5.V.2008; V. Italiano leg.

NOTE. The distribution of the species includes Canary Is., Africa to Central Asia, Greece, Crete, Cyprus and Turkey (Nentwig et al. 2024). New record for Italy.

Family LEPTONETIDAE Simon, 1890

Paraleptoneta spinimana Ribera & Lopez, 1982

MATERIAL EXAMINED. — **Pantelleria Island:** 2♂♂ 3♀♀ 3juv.; “Grotta della Cisterna”; 9.VIII.2023; G. Nicolosi leg.; coll. MI.

NOTE. This species typically inhabits caves and other subterranean habitats or under large stones. Occasionally found beneath large stones. This troglophile species (Mammola et al. 2022) has been observed in non-native countries (see Nicolosi et al. 2023).

Family LINYPHIIDAE Blackwall, 1859

Acartauchenius insigniceps (Simon, 1894) ■

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Albero Sole; 3.III.2008; V. Italiano leg. NOTE. Species known from North Africa (Algeria, Tunisia, Morocco) (WSC 2024). New record for Europe.

Megalephyphantes collinus (L. Koch, 1872)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.III.2008; V. Italiano leg. *Ouedia rufithorax* (Simon, 1881)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg. • 1♂; same locality; 13.X.2008; V. Italiano leg.

Palliduphantes labilis (Simon, 1913) ■

MATERIAL EXAMINED. — **Pantelleria Island:** 5♂♂ 1♀; Grotta della Cisterna; 9.VIII.2023; Nicolosi leg.; coll. MI.

NOTE. Species known from North Africa (Algeria, Tunisia) (WSC 2024). New record for Europe.

Walckenaeria erythrina (Simon, 1884) ▲

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂ 1♀; Albero Sole; 8.XI.2008; V. Italiano leg.

NOTE. Species known from Morocco, Algeria, Tunisia and Corsica (WSC 2024). New record for Italy.

Family LIOCRANIDAE Simon, 1897

Mesiotelus mauritanicus Simon, 1909

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂ 4♀♀; Albero Sole; 3.II.2008; V. Italiano leg. • 5♀♀; same locality; 3.III.2008; V. Italiano leg. • 1♂; 4.IV.2008; V. Italiano leg. • 1♀; Capo Grecale; 1.III.2008; V. Italiano leg. • 1♂; same locality; 9.XI.2008; V. Italiano leg. • 2♀♀; loc. Dammuso Casa Teresa; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂ 1♀; village; 2.II.2008; V. Italiano leg. • 1♂; same locality; 10.XI.2008; V. Italiano leg. • 2♂♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 1.II.2008; • 1♂; same locality; 2.III.2008; V. Italiano leg. • 1♂; Vallone dell’Acqua; 8.IV.2019; Bolognin L. Devincenzo U. leg.; coll. MEP; • 1♂ 1♀; Vallone della Forbice; 2.II.2008; V. Italiano leg. • 1♂ 1♀; same locality; 3.III.2008; V. Italiano leg. • 3♂♂; same locality; 5.IV.2008; V. Italiano leg. • 1♂; same locality; 4.V.2008; V. Italiano leg. • 3♂♂; same locality; 8.XI.2008; V. Italiano leg.

Family LYCOSIDAE Sundevall, 1833

Arctosa lacustris (Simon, 1876)

MATERIAL EXAMINED. — **Pantelleria Island:** 2♀♀; lago; V.1987; L. Zanca leg.

Arctosa similis Schenkel, 1938

MATERIAL EXAMINED. — **Pantelleria Island:** 3♂♂; lago; 10.V.1987; L. Zanca leg.

Lycosa cfr *tarantula* (Linnaeus, 1758)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♀♀; 9–10.IX.1984; Mattaini leg.; coll. MCSNVR • 1♀; promontory to the west of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀ 1juv; surroundings of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.

NOTE. *L. tarantula* was reported from Lampedusa by Pavesi (1876), Roewer (1960), and Pesarini (1995) under the name *L. narbonensis*. The examined specimens from Lampedusa exhibit characteristics that differ from the typical form of *L. tarantula*, as previously noted by Pavesi. We are tentatively assigning these examined specimens to this species, pending further detailed study to assess whether these differences fall within the natural variability of the species or represent other similar and little known congeners of North African origin, such as *L. oculata* (Simon, 1876), *L. munieri* Simon, 1876, and *L. bedeli* Simon, 1876.

Family MIMETIDAE Simon, 1881*Ero aphana* (Walckenaer, 1802)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; promontory to the west of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6. IV.2008; V. Italiano leg.

Family NEMESIIDAE Simon, 1889*Nemesia arboricola* Pocock, 1903 ▲

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Vallone della Forbice; 2.II.2008; V. Italiano leg. • 3juv; same locality; 8.VI.2008; V. Italiano leg.

NOTE. Identified based on Cassar et al. 2022. Species known only from Malta. New record for Italy.

Family NESTICIDAE Simon, 1894*Kryptonesticus eremita* (Simon, 1880)

MATERIAL EXAMINED. — **Pantelleria Island:** 1♀; “Grotta della Cisterna”; 09.VIII.2023; G. Nicolosi leg.; coll. MI • 1♀; “Grotta dei Briganti”; 11.08.2023; G. Nicolosi leg.; coll. MI.

Family PALPIMANIDAE Thorell, 1870*Palpimanus gibbulus* Dufour, 1820

MATERIAL EXAMINED. — **Isoletto di Lampione** • 1♀; V.2005; P. Lo Cascio leg. — **Lampedusa Island:** 1♂; 7.IX.1984; Matteini leg.; coll. MCSNVR • 1♀; Albero Sole, 3.III.2008; V. Italiano leg. • 1♀; same locality; 10.IV.2018; V. Italiano leg. • 1♀; same locality; 3.V.2008; V. Italiano leg. • 1♀; same locality; 7.VI.2008; V. Italiano leg. • 1♂ 1♀; Cala Croce; 7.IV.2018; L. A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂ 3♀♀; Capo Grecale; 12. IV.2018; L.A. Guariento, U. Devincenzo leg. • 2♀♀; loc. Dammuso Casa Teresa; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 2♀♀; Contrada Muro Vecchio; 8.IV.2019; L. Bolognin, L.A. Guariento leg.; coll. MEP • 1♂ 1♀; village; 7. IV.2008; V. Italiano leg. • 1♀; same locality; 13. X.2008; V. Italiano leg. • 1♀; Punta Sottile; 11. IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 7.VI.2008; V. Italiano leg. • 1♀; surroundings of “Spiaggia dei Conigli”; 10. IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 2♂♂; Vallone della Forbice; 2.II.2008;

V. Italiano leg. • 1♀; same locality; 8.XI.2008; V. Italiano leg.

Family PHILODROMIDAE Thorell, 1870*Philodromus rufus* Walckenaer, 1826

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 18.IV.1991; G. Osella leg. — **Pantelleria Island:** 1♀; Punta Tracino; 3. III.1990; G. Osella, Mammoli leg.

Pulchellodromus pulchellus (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; village; 1.III.2008; V. Italiano leg. • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg.

Thanatus vulgaris Simon, 1870

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂ 2♀♀; Albero Sole; 3.V.2008; V. Italiano leg. • 2♂♂ 3♀♀; Capo Grecale; 5. V.2008; V. Italiano leg. • 1♀; same locality; 9. VI.2008; V. Italiano leg. • 1♂; village; 5.V.2008; V. Italiano leg. • 2♂♂ 1♀; same locality; 10. VI.2008; V. Italiano leg. • 2♂♂ 2♀♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6. IV.2008; V. Italiano leg. • 1♂; same locality; 2. V.2008; V. Italiano leg. • 2♀♀; same locality; 7. VI.2008; V. Italiano leg. — **Linosa Island:** 2♀♀; VI.2010; V. Italiano leg.

Family PHOLCIDAE C. L. Koch, 1850*Holocnemus pluchei* (Scopoli, 1763)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; surroundings of “Spiaggia dei Conigli”; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; village; 5.V.2008; V. Italiano leg. • 2♀♀; promontory to the west of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; Vallone dell’Acqua; 8. IV.2019; L. Bolognin, U. Devincenzo leg.; coll. MEP • 1♀; Vallone della Forbice, 5.IV.2008; V. Italiano leg. • 1♀; same locality; 12.VII.2008; V. Italiano leg. • 1♀; same locality; 6.VIII.2008; V. Italiano leg.

Pholcus phalangioides (Fuesslin, 1775)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; village; 10.XI.2008; V. Italiano leg. • 1♂ 1♀ 1juv; “Grotta dei Briganti”; 11.VIII.2023; G. Nicolosi leg.; coll. MI.

Family SALTICIDAE Blackwall, 1841*Aelurillus lopadusae* Cantarella, 1983

MATERIAL EXAMINED. — **Lampedusa Island:** 3♀♀; 7.IX.1984; Matteini leg.; coll. MCSNVR • 1♂ 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♀; Albero Sole; 4.IV.2008; V. Italiano leg. • 1♀; same locality; 12.VII.2008; V. Italiano leg. • 3♂♂ 4♀♀; same locality; 5.VIII.2008; V. Italiano leg. • 1♂; same locality; 10.IX.2008; V. Italiano leg. • 4♂♂; same locality; 14.X.2008; V. Italiano leg. • 1♂ 1♀; Capo Grecale; 1.III.2008; V. Italiano leg. • 1♀; same locality; 5.IV.2008; V. Italiano leg. • 2♂♂; same locality; 9.VI.2008; V. Italiano leg. • 1♀; same locality; 13.VII.2008; V. Italiano leg. • 3♂♂ 2♀♀; same locality; 7.VIII.2008; V. Italiano leg. • 3♂♂; same locality; 13.X.2008, V. Italiano leg. • 1♂; same locality; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; Contrada Terranova; 7.IV.2019; L. Bolognin L.A. Guariento leg.; coll. MEP • 1♂ 1♀; village; 10.VI.2008; V. Italiano leg. 2♀♀; same locality; 11.IX.2008; V. Italiano leg. • 1♀; Poggio Monaco; 7.IV.2019; L.A. Guariento leg.; coll. MEP • 1♀; promontory to the west of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 2♂♂ 2♀♀; 1.II.2008; V. Italiano leg. • 2♂♂; same locality; 2.III.2008; V. Italiano leg. • 3♂♂ 3♀♀; same locality; 7.VI.2008; V. Italiano leg. • 3♂♂; same locality; 13.VII.2008; V. Italiano leg. • 3♂♂; same locality; 5.VIII.2008; V. Italiano leg. • 4♂♂ 1♀; same locality; 13.X.2008; V. Italiano leg. • 1♀; same locality; 10.IV.2018; L.A. Guariento, U. Devincenzo leg. • 4♂♂ 1♀; Vallone della Forbice; 3.III.2008; V. Italiano leg. • 1♂; same locality; 8.VI.2008; V. Italiano leg. • 1♀; same locality; 12.VII.2008; V. Italiano leg. • 1♀; same locality; 8.IX.2008; V. Italiano leg. • 3♂♂; same locality; 12.X.2008; V. Italiano leg. • 1♀; Tabaccara; 14.IV.2018; U. Devincenzo leg.; coll. MEP.

Aelurillus monardi (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Capo Grecale; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; promontory to the west of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg. • 2♂♂; Vallone della Forbice; 5.IV.2008; V. Italiano leg. • 1♀; same locality; 4.V.2008; V. Italiano leg. • 1♂; village; 10.VI.2008; V. Italiano leg. • 3♂♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 2.V.2008; V. Italiano leg.

Cyrrba algerina (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.V.2008; V. Italiano leg. • 1♂; Contrada Muro Vecchio; 8.IV.2019; L. Bolognin, L.A. Guariento leg.; coll. MEP • 1♀; village; 7.IV.2008; V. Italiano leg. • 1♀; promontory to the west of “Spiaggia dei Conigli”; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.

Euophrys gambosa (Simon, 1868)

MATERIAL EXAMINED. — **Lampedusa Island:** 4♀♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♂; Albero Sole; 3.III.2008; V. Italiano leg. • 1♀; same locality; 4.IV.2008; V. Italiano leg. • 1♀; Cala Croce; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; Capo Grecale; 1.III.2008; V. Italiano leg. • 2♂♂ 3♀♀; same locality; 5.IV.2008; V. Italiano leg. • 1♂; quarry near Dammuso Casa Teresa; 8.IV.2019; U. Devincenzo leg.; coll. MEP • 1♂; village; 1.III.2008; V. Italiano leg. • 1♂ 1♀; same locality; 7.IV.2008; V. Italiano leg. • 1♀; Poggio Monaco; 7.IV.2019; L.A. Guariento leg.; coll. MEP • 3♂♂ 2♀♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg. • 4♂♂; same locality; 2.III.2008; V. Italiano leg. • 2♀♀; same locality; 2.V.2008; V. Italiano leg. • 3♀♀; same locality; 7.VI.2008; V. Italiano leg. — **Linosa Island:** 1♀; V.2010; V. Italiano leg. • 2♀♀; VI.2010; V. Italiano leg.

Evarcha jucunda (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂ 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 2♂♂; Albero Sole; 3.V.2008; V. Italiano leg. • 1♂; Capo Grecale; 5.V.2008; V. Italiano leg. • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg. • 1♂; same locality; 2.V.2008; V. Italiano leg. • 1♂; Vallone della Forbice; 4.V.2008; V. Italiano leg. — **Linosa Island:** 1♂; VI.2010; V. Italiano leg. — **Pantelleria Island:** 1♂; 1.V.1987, L. Zanca leg.

Hasarius adansoni (Audouin, 1826)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; 7–13.VI.1997; F. Magnati, P. Pantini leg.

Heliophanus kochii Simon, 1868

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg.

Heliophanus rufithorax Simon, 1868

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; village; 7.IV.2008; V. Italiano leg. • 1♀; same locality; 10.VI.2008; V. Italiano leg.

Menemerus semilimbatus (Hahn, 1829)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Capo Grecale; 5.IV.2008; V. Italiano leg. • 2♂♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 2.V.2008; V. Italiano leg. • 1♂; Vallone della Forbice, 5.IV.2008; V. Italiano leg. • 1♂; same locality; 8.VI.2008; V. Italiano leg. • 1♀; same locality; 12.X.2008; V. Italiano leg.

Menemerus taeniatus (L. Koch, 1867)

MATERIAL EXAMINED. — **Pantelleria Island:** 1♂; Campobello; 09.VIII.2023; G. Nicolosi leg.; coll. MI.

Phlegra bresnieri (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; village; 13.X.2008; V. Italiano leg. • 1♂; same locality; 10.XI.2008; V. Italiano leg. — **Linosa Island:** 1♀; V.2010; V. Italiano leg.

Phlegra yaelae Prószyński, 1998 ■

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 1997 (Hansen 2005: sub *Phlegra fulvas-tra*) • 1♂; Capo Grecale; 9.VI.2008; V. Italiano leg. NOTE. Species known from Tunisia, Israel and Iran (WSC 2024). New record for Europe.

Plexyppus paykulli (Audouin, 1826)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂ 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 5.VIII.2008; V. Italiano leg.

Salticus mutabilis Lucas 1846

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 7–13.VI.1997; leg. F. Magnati, P. Pantini.

Salticus propinquus Lucas 1846

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 7.VI.2008; V. Italiano leg. • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg. • 1♂; Vallone della Forbice, 3.III.2008; V. Italiano leg. • 3♂♂; same locality; 5.IV.2008; V. Italiano leg. • 1♂; same locality; 8.VI.2008; V. Italiano leg.

Thyene imperialis (Rossi, 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♂; Albero Sole; 4.IV.2008; V. Italiano leg. • 1♀; same locality; 10.IX.2008, V. Italiano leg. • 3♂♂; Vallone della Forbice; 5.IV.2008; V. Italiano leg. • 1♂; same locality; 4.V.2008; V. Italiano leg.

Family SCYTODIDAE Blackwall, 1864***Scytodes velutina*** Heineken & Lowe, 1832

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂ 1♀; Albero Sole; 3.II.2008; V. Italiano leg. • 2♀♀; promontory to the west of “Spiaggia dei Conigli”; 12.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; Punta O’ Spada; 7.IV.2019; L. Bolognin leg.; coll. MEP.

Family SEGESTRIIDAE Simon, 1893***Ariadna* sp.**

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 4.IV.2008; V. Italiano leg. • 1juv; Capo Grecale; 9.XI.2008; V. Italiano leg. ***Segestria bavarica*** C.L. Koch, 1843

MATERIAL EXAMINED. — **Linosa Island:** IV.2010; V. Italiano leg.

Segestria pusiola Simon, 1882 ▲

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Vallone della Forbice; 2.II.2008; V. Italiano leg.

NOTE. Species known from Portugal, Spain, Corsica, Algeria and Greece (WSC 2024). New record for Italy.

Family SELENOPIIDAE Simon, 1897***Selenops radiatus*** Latreille, 1819

MATERIAL EXAMINED. — **Pantelleria Island:** 1♂; V.1987; L. Zanca leg.

Family SICARIIDAE Keyserling, 1880***Loxosceles rufescens*** (Dufour, 1820)

MATERIAL EXAMINED. — **Lampedusa Island:** 2juv; Cala Croce; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1juv; Capo Grecale; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 2juv; Punta Sottile; 11.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 2.V.2008; V. Italiano leg. • 1juv; same locality; 4.IV.2019; L.A. Guariento leg.; coll. MEP • 1juv; Vallone to the east of “Punta Parise”; 5.IV.2019;

L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♂; “Grotta dei Briganti”; 11.VIII.2023; G. Nicolosi leg.; coll. MI.

Family SPARASSIDAE Bertkau, 1872

Micrommata formosa Pavesi 1878

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.II.2008; V. Italiano leg. • 1♂; same locality; 8.XI.2008; V. Italiano leg. • 1♀; Capo Grecale; 3.II.2008; V. Italiano leg. • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 7.XI.2008; V. Italiano leg. • 1♀; same locality; 4.IV.2019; L.A. Guariento leg.; coll. MEP • 1♀; same locality; 10.IV.2018; L.A. Guariento, U. Devincenzo leg. • 2♀♀; Vallone della Forbice; 3.III.2008; V. Italiano leg. • 1♂; same locality; 8.XI.2008; V. Italiano leg.

Family THERIDIIDAE Sundevall, 1833

Argyrodes argyroides (Walckenaer, 1841)

MATERIAL EXAMINED. — **Pantelleria Island:** 1♀; Lago di Venere; 03.VIII.2023; G. Nicolosi leg. • 1♂ 1♀; same locality; 08.VIII.2023; G. Nicolosi leg. • 2♀♀ 1juv; same locality; 11.VIII.2023; G. Nicolosi leg.

Enoplognatha franzi Wunderlich, 1995 ▲

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Capo Grecale; 3.II.2008; V. Italiano leg. • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg. NOTE. Species known from the Iberian Peninsula, Morocco, Algeria, Tunisia and Iraq (WSC 2024). New record for Italy.

Enoplognatha mandibularis (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.III.2008; V. Italiano leg. • 5♀♀; same locality; 4.IV.2008; V. Italiano leg. • 11♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂ 1♀; Capo Grecale; 3.II.2008; V. Italiano leg. • 1♂ 1♀; same locality; 1.III.2008; V. Italiano leg. • 1♂ 1♀; same locality; 5.IV.2008; V. Italiano leg. • 1♀; near loc. Dammuso Casa Teresa; 7.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; surroundings of “Spiaggia dei Conigli”; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; village; 1.III.2008; V. Italiano leg. • 7♀♀; same locality; 7.IV.2008; V. Italiano leg. • 1♀; Punta Alaimo; 12.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 1.II.2008; V. Italiano leg. • 2♀♀; same locality; 2.III.2008; V. Italiano leg. • 7♀♀; same locality; 6.IV.2008; V. Italiano leg. • 1♀; same locality; 2.

V.2008; V. Italiano leg. • 2♀♀; Vallone della Forbice; 3.III.2008; V. Italiano leg. • 1♀; same locality; 4.V.2008; V. Italiano leg.

Euryopsis episinoides (Walckenaer, 1847)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; 7–13.VI.1997; F. Magnati, P. Pantini leg. • 1♀; village; 10.VI.2008; V. Italiano leg. • 1♀; Vallone della Forbice; 8.VI.2008; V. Italiano leg.

Kochiura aulica (C.L. Koch, 1838)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♀♀; village; 10.VI.2008; V. Italiano leg. • 2♀♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 1.II.2008; V. Italiano leg. • 2♀♀; same locality; 7.VI.2008; V. Italiano leg. • 1♂; Vallone della Forbice; 2.II.2008; V. Italiano leg. — **Linosa Island:** 1♀; IV.2010; V. Italiano leg. • 3♀♀; V.2010; V. Italiano leg.

Latrodectus tredecimguttatus (Rossi, 1790)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Cala Croce; 7.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; village; 2.II.2008; V. Italiano leg. • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 7.VI.2008; V. Italiano leg. • 1♂; same locality; 13.VII.2008; V. Italiano leg. • 1♂; same locality; 5.VIII.2008; V. Italiano leg.

NOTE. Melanic specimens. Melanic forms were also reported by Levi (1959).

Nesticodes rufipes (Lucas 1846)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; village; 13.X.2008; V. Italiano leg. • 1♀; same locality; 10.XI.2008; V. Italiano leg. NOTE. Alien species native to South America (Nentwig et al. 2024) previously reported in Italy from the greenhouse of the Botanical Garden of Pavia in the early 1900s (Mariani 1900, 1901).

Steatoda grossa (C.L. Koch, 1838)

MATERIAL EXAMINED. — **Linosa Island:** 1♀; Interno; V.2010; V. Italiano leg.

Steatoda paykulliana (Walckenaer, 1806)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♀♀; Albero Sole; 3.II.2008; V. Italiano leg. • 1♀; same locality; 3.III.2008; V. Italiano leg. • 2♀♀; same locality; 4.IV.2008; V. Italiano leg. • 1♀; same locality; 7.VI.2008; V. Italiano leg. • 2♀♀; Contrada Aria Rossa; 5.IV.2019; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 2♀♀; Cala Pisana; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂ 1♀; Capo Grecale; 3.II.2008; V. Italiano leg. • 4♀♀;

same locality; 1.III.2008; V. Italiano leg. • 1♂ 2♀♀; same locality; 5.IV.2008; V. Italiano leg. • 1♀; same locality; 5.V.2008; V. Italiano leg. • 3♀♀; same locality; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; quarry near Dammuso Casa Teresa; 8.IV.2019; U. Devincenzo leg.; coll. MEP • 1♀; surroundings of “Spiaggia dei Conigli”; 9.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; Contrada Muro Vecchio; 8.IV.2019; L. Bolognin, L.A. Guariento leg.; coll. MEP • 1♀; Poggio Monaco; 7.IV.2019; L.A. Guariento leg.; coll. MEP • 2♀♀; village; 1.III.2008; V. Italiano leg. • 1♀; same locality; 7.IV.2008; V. Italiano leg. • 1♀; same locality; 5.V.2008; V. Italiano leg. • 1♀; Punta ‘e Manzu; 13.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♀; Punta Sottile; 11.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”, buco legno; 1.II.2008; V. Italiano leg. • 2♀♀; same locality; 2.III.2008; V. Italiano leg. • 1♀; same locality; 6.IV.2008; V. Italiano leg. • 1♀; same locality; 2.V.2008; V. Italiano leg. • 1♀ 1juv; Vallone to the east of “Punta Parise”; 12.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 1♀; same locality; 5.IV.2019; L.A. Guariento, U. Devincenzo leg.; coll. MEP • 2♀♀; surroundings of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; Vallone della Forbice; 2.II.2008; V. Italiano leg. • 1♂ 2♀♀; same locality; 3.III.2008; V. Italiano leg. • 1♀; same locality; 14.IV.2018; L.A. Guariento leg.; coll. MEP • 1♀; Vallone dell’Acqua; 8.IV.2019; L. Bolognin, U. Devincenzo leg.; coll. MEP.

Steatoda triangulosa (Walckenaer, 1802)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; village; 5.V.2008; V. Italiano leg. — **Linosa Island:** 1♀; VII.2010; V. Italiano leg. — **Pantelleria Island:** 1♀; Bunker World War II, Cala Pozzolana; 12.VIII.2023; G. Nicolosi leg.; coll. MI.

Theridion negebense Levy & Amitai, 1982 ▲

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 4.IV.2008; V. Italiano leg. • 1♀; Capo Grecale; 1.III.2008; V. Italiano leg. • 2♀♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 6.IV.2008; V. Italiano leg.

NOTE. Species known from Israel and possibly in Spain (WSC 2024). New record for Italy.

Family THOMISIDAE Sundevall, 1833

Ozyptila patellibidens Levy, 1999 ■

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; Albero Sole; 3.II.2008; V. Italiano leg. • 1♀; Punta Sottile; 11.IV.2018; L.A. Guariento,

U. Devincenzo leg.; coll. MEP • 1♀; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 1.II.2008; V. Italiano leg. • 1♀; same locality; 7.XI.2008; V. Italiano leg.

NOTE. Species known from Turkey, Israel and Iran (WSC 2024). New record for Europe.

Synema globosum (Fabricius, 1775)

MATERIAL EXAMINED. — **Lampedusa Island:** 1♀; village; 10.VI.2008; V. Italiano leg. • 3♂♂; Vallone della Forbice; 5.IV.2008; V. Italiano leg. • 1♂ 5♀♀; same locality; 4.V.2008; V. Italiano leg. • 1♂; same locality; 12.VII.2008; V. Italiano leg. — **Linosa Island:** 2♀; V.2010; V. Italiano leg. • 1♀; VII.2010; V. Italiano leg.

Thomisus onustus Walckenaer, 1805

MATERIAL EXAMINED. — **Linosa Island:** 1♀; d.V.2010; V. Italiano leg. • 1♂ 1♀; d.VI.2010; V. Italiano leg. • 1♂; d.VII.2010; V. Italiano leg. • 1♀; VIII.2010; V. Italiano leg. — **Pantelleria Island:** 1♂; d.V.1987; L. Zanca leg.

Xysticus promiscuus O. Pickard-Cambridge, 1876 ■

(Figure 4(a-g))

MATERIAL EXAMINED. — **Lampedusa Island:** Albero Sole, 1♀; 3.II.2008; V. Italiano leg. • 1♀; same locality; 3.III.2008; V. Italiano leg. • 1♀; same locality; 4.IV.2008; V. Italiano leg. • 2♂♂; Capo Grecale; 1.III.2008; V. Italiano leg. • 1♀; same locality; 5.IV.2008; V. Italiano leg. • 1♀; same locality; 12.IV.2018; L.A. Guariento, U. Devincenzo leg. • 1♂; Oriented Nature Reserve, trail to “Spiaggia dei Conigli”; 1.II.2008; V. Italiano leg. • 1♀; same locality; 6.IV.2008; V. Italiano leg. • 1♀; same locality; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP.

NOTE. Species known from Libya, Egypt and Israel (WSC 2024). New record for Europe.

Family ULOBORIDAE Thorell, 1869

Uloborus plumipes Lucas 1846

MATERIAL EXAMINED. — **Pantelleria Island:** 1♀; Bunker World War II, Cala Pozzolana; 12.08.2023; G. Nicolosi leg.; coll. MI • 1♂ 1♀; Grotta di Benikulà; 11.VIII.2023; G. Nicolosi leg.; coll. MI • 2♀♀; Grotta del Freddo; 11.VIII.2023; G. Nicolosi leg.; coll. MI.

Uloborus walckenaerius Latreille, 1806

MATERIAL EXAMINED. — **Pantelleria Island:** 1♂; Grotta del Freddo; 11.VIII.2023; G. Nicolosi leg.; coll. MI.

Family ZODARIIDAE Thorell, 1881

Selamia numidica Jocqué & Bosmans, 2001 ■

MATERIAL EXAMINED. — **Lampedusa Island:** 1♂; Albero Sole; 3.V.2008; V. Italiano leg.

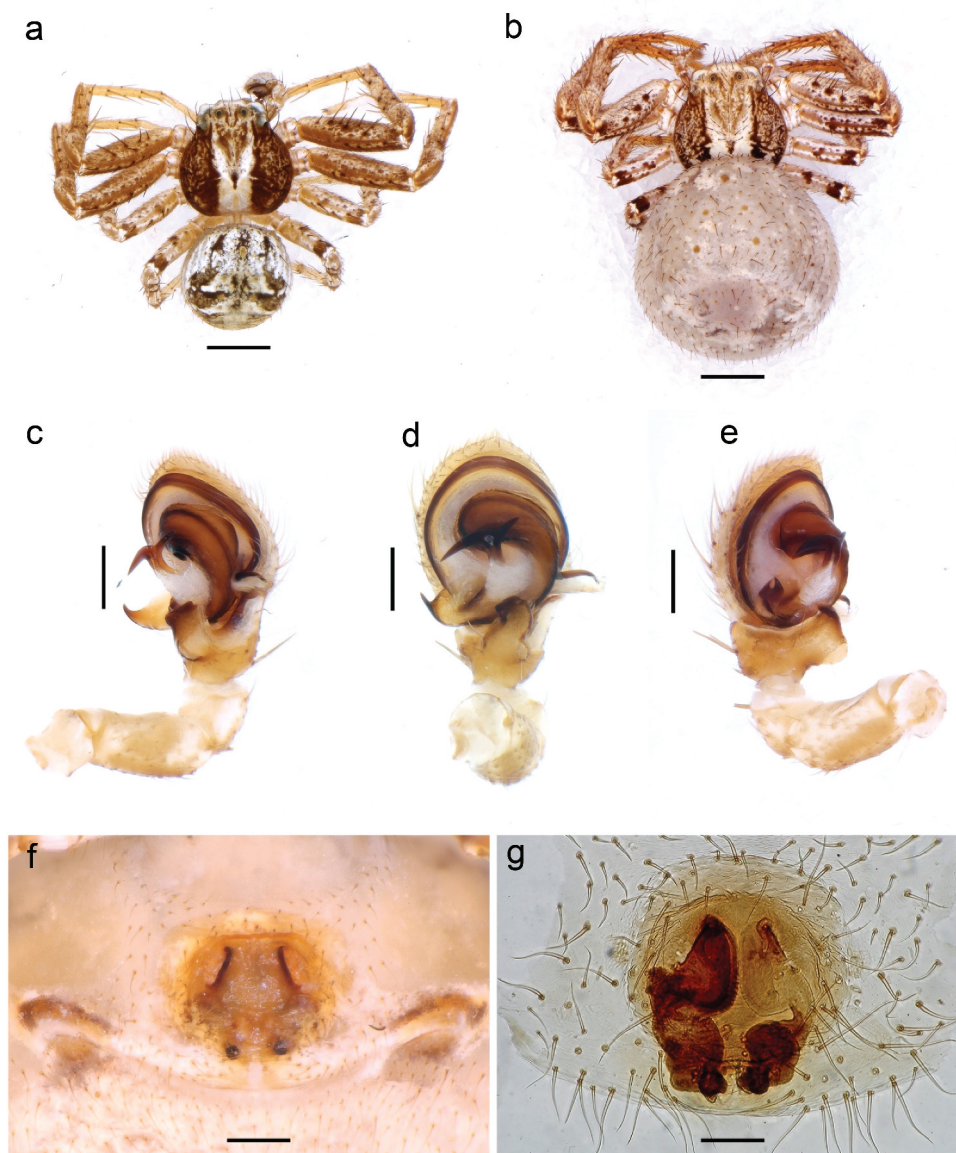


Figure 4. *Xysticus promiscuus* O. Pickard-Cambridge, 1876. Male habitus (a); female habitus (b); male palp ventro-retrolateral view (c); male palp ventral view (d); male palp ventro-prolateral view (e); Epigyne (f); vulva (g). Scale bar: c, d, e, 0.5 mm.

• 1♂; surroundings of “Spiaggia dei Conigli”; 10. IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP.

NOTE. Species known from North Africa (Algeria, Tunisia) (WSC 2024). New record for Europe.

Zodarion elegans (Simon, 1873)

MATERIAL EXAMINED. — **Lampedusa Island:** 2♂♂ 1♀; Capo Grecale; 5.IV.2008; V. Italiano leg. • 1♀; surroundings of “Spiaggia dei Conigli”; 10.IV.2018; L.A. Guariento, U. Devincenzo leg.; coll. MEP.

General remarks

Our review of the literature provided information on the presence of spiders in the islands of the Strait of Sicily extracted from 17 papers published between 1876 and 2017. The initial count of species on the islands remained relatively low before the seminal work of Roewer (1960), which notably expanded the arachnological knowledge, particularly for Lampedusa. Roewer’s contribution led to a notable increase in the species count on Lampedusa, rising from 15 to 47 species (Figure 5). Similarly, there were significant, albeit comparatively smaller, increments on Linosa, with eight species recorded (Figure 5).

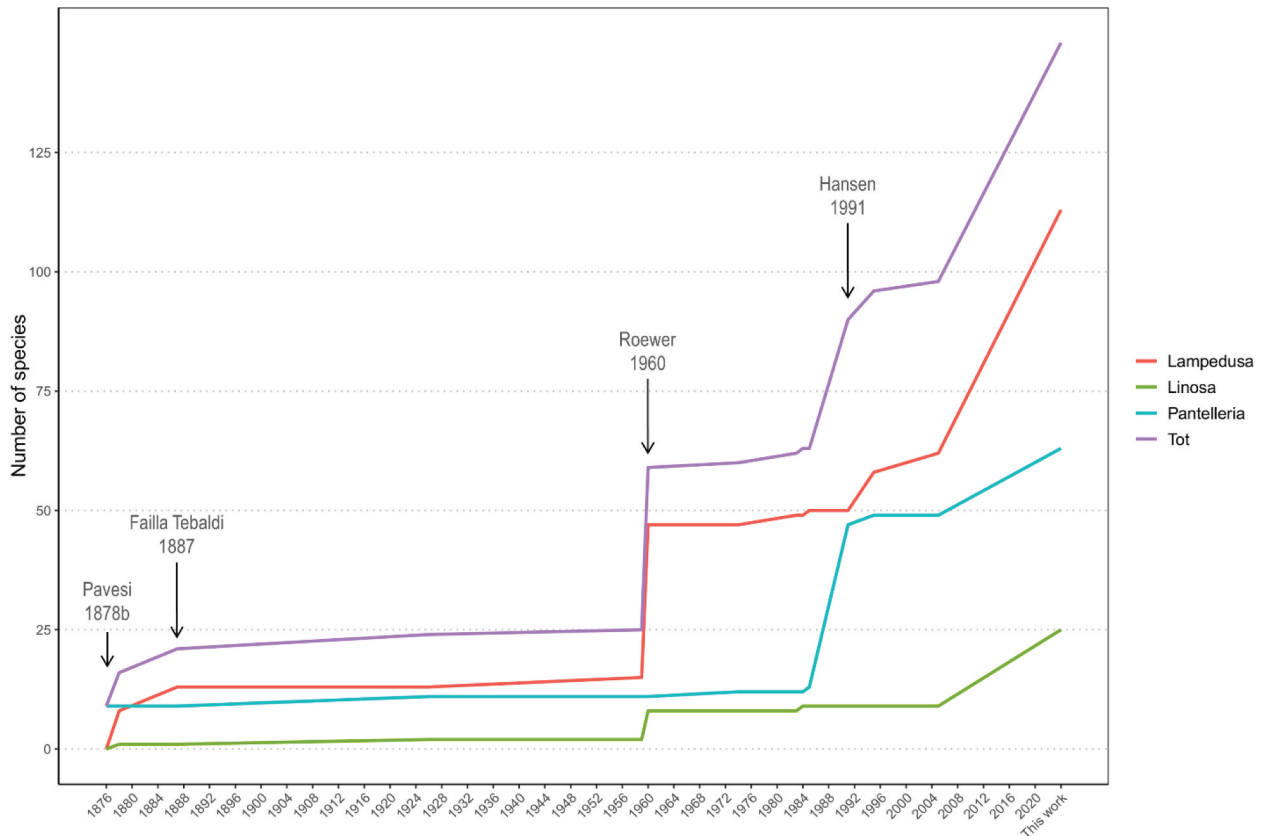


Figure 5. Increase in species richness of the spider fauna of the islands of the Strait of Sicily from 1876 to the present day.

Subsequently, the contribution by Hansen (1991) was a further significant improvement of the spider knowledge of the islands, particularly in Pantelleria, increasing the count from 13 to 47, while the subsequent contributions added limited new information (Figure 5).

Our study, built upon unpublished material stored in collections, recent surveys and occasional visits from arachnologists, reveals 59 species newly documented for the Islands of the Strait of Sicily. Among these, 51 species are newly recorded for Lampedusa Island, 16 for Linosa and 14 for Pantelleria (Table II). Moreover, two species are newly reported for the islet of Lampione.

When considering both original and literature data, we sum up 148 species: 107 for Lampedusa Island, 25 for Linosa, 63 for Pantelleria and 2 for Lampione (Table I).

Gnaphosidae emerged as the richest family in species represented in Lampedusa, accounting for 23% (25 species), followed by Salticidae (20%, 21 species), and Theridiidae (11%, 12 species) (Figure 6). Similarly, Gnaphosidae represent the richest family in Linosa (32%, 8 species), followed by Araneidae (4 species), Theridiidae and Salticidae (both accounting

for 16%, 3 species) (Figure 6). In Pantelleria, instead, Salticidae emerged as the richest family, encompassing 19% of the total diversity (12 species), with Araneidae closely behind, with 16% (10 species) (Figure 6).

Eight species are new records for Europe: *Haplodrassus crassipes*, *Setaphis mollis*, *Acartauchenius insigniceps*, *Palliduphantes labilis*, *Phlegra yaelae*, *Ozyptila patellibidens*, *Xysticus promiscuus* and *Selamia numidica* and nine species are new records for Italy, including *Cryptodrassus helvolus*, *Enoplognatha franzi*, *Nemesia arboricola*, *Poecilochroa loricata*, *Segestria pusiola*, *Theridion negebense*, *Walckenaeria erythrina*, *Zelotes egeioides* and *Zelotes scrutatus* (Table I).

As for chorology, most of the species recorded in the Strait of Sicily have a wide distribution in the Mediterranean area (31–21.1%), followed by Palearctic (20–13.6%), Holarctic (12–8.2%), W-Mediterranean (11–7.5%), N-African (10–6.8%) and Cosmopolitan (9–6.1%) (Table S2). The distribution of chorotypes is similar across the three islands, with a dominance of Holarctic species: 41 species in Lampedusa (38% of the total species), 13 species in Linosa (52%), and 27 species in Pantelleria (43%). The second most represented chorotype is the Mediterranean, with 38 species in

Table II. List of the publications referring to spider species found in the investigated islands, total number of species (literature) and number of new species reported for the islands (new) in each publication. *excluded the species erroneously reported for Lampedusa.

	Lampedusa		Linosa		Pantelleria	
	Literature	New	Literature	New	Literature	New
Pavesi, 1876	–	–	–	–	9	9
Pavesi, 1878b	8	8	1	1	–	–
Failla Tedaldi 1887	5	5	–	–	–	–
Mertens 1926	–	–	1	1	2	2
Grasshoff 1959	2	2	–	–	–	–
Roewer, 1960	36	32	7	6	–	–
Alicata, 1974	–	–	–	–	1	1
Cantarella, 1983	1	1	–	–	–	–
Grasshoff, 1983	1	1	–	–	–	–
Platnick & Murphy 1984	–	–	1	1	–	–
Grimm, 1985	1	1	1	–	1	1
Hansen, 1991	–	–	–	–	36	34
Pesarini, 1995	23	8	2	–	5	2
Hansen, 2005	11	4	–	–	11	–
Guanaducci & Wendt, 2014	1	–	–	–	–	–
Logunov, 2015	–	–	–	–	1	–
Colombo & Di Nicola, 2017	–	–	–	–	3	–
Total from literature	-	62	-	9	-	49
Original data from this work	–	51	–	16	–	14
Total	–	107*	–	25	–	63

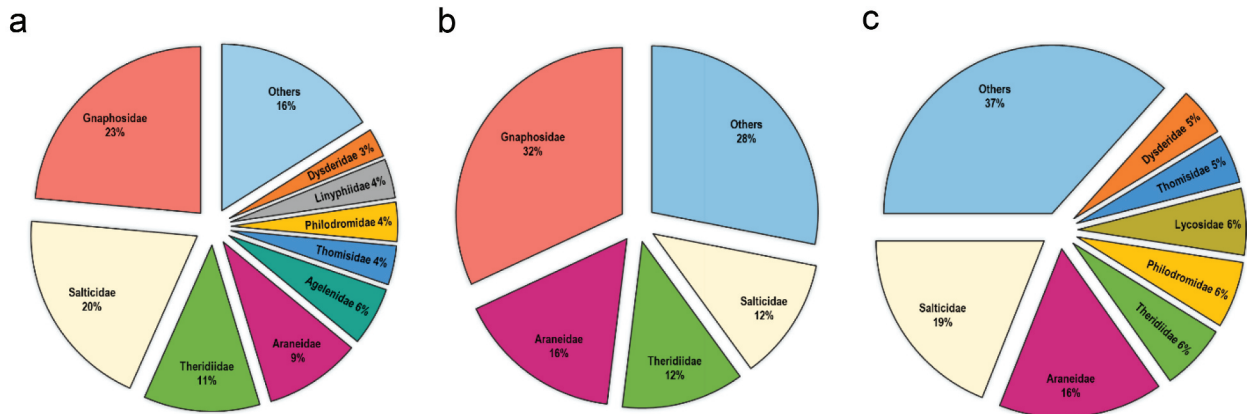


Figure 6. Species richness by family (in %) in Lampedusa (a), Linosa (b), and Pantelleria (c). Families with a % < 2 are filled in “Others”.

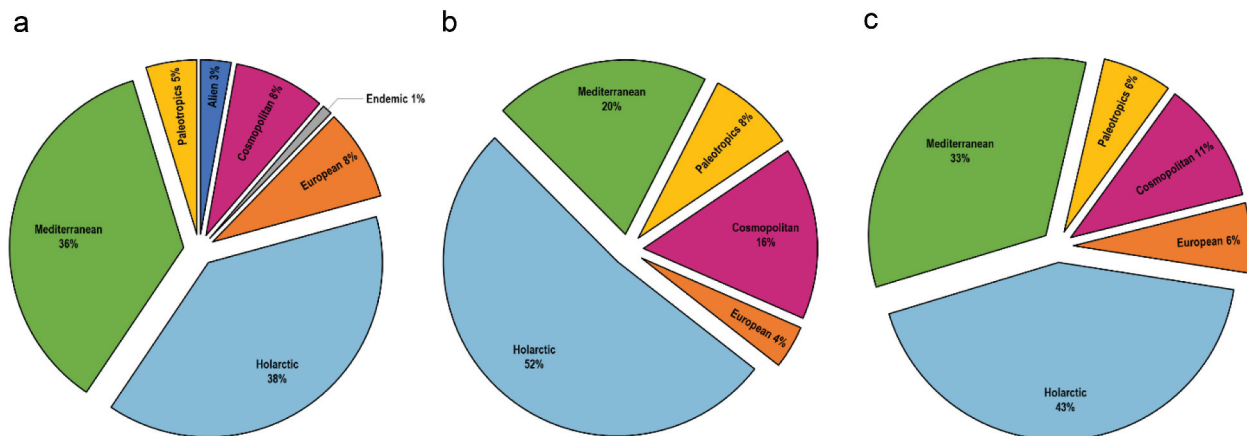


Figure 7. Percentage distribution of the chorotypes of species across different chorotypes in Lampedusa (a), Linosa (b), and Pantelleria (c). All chorotypes follow Vigna Taglianti et al. (1992, 1999) and Stoch and Vigna Taglianti (2006).

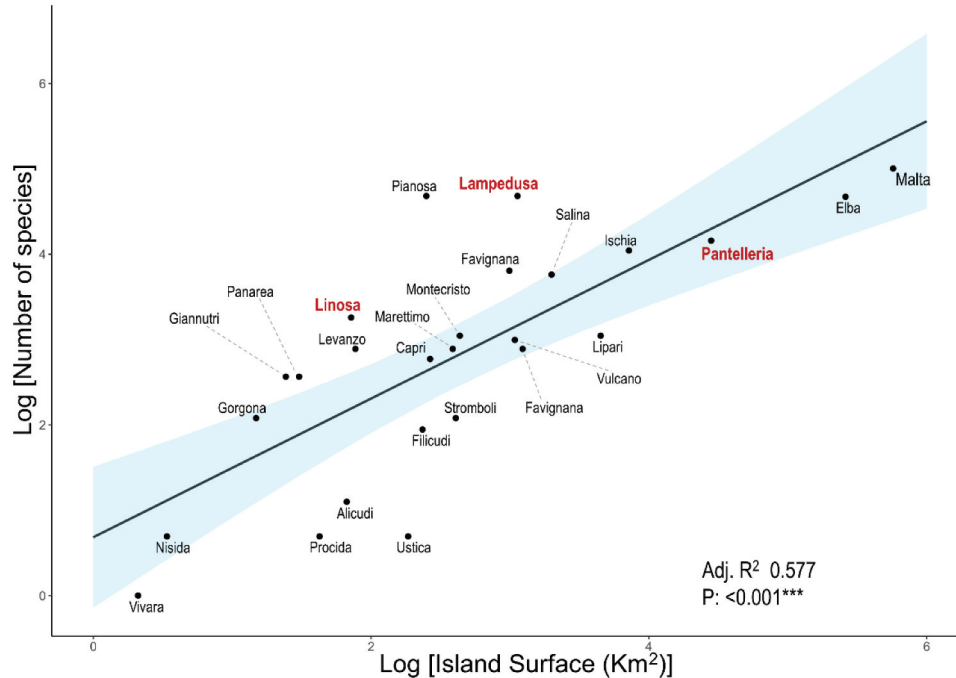


Figure 8. Species-area relationship (SAR) of spider species richness and island area in the Mediterranean Basin. The log-log model expresses the linear relationship (solid line) and 95% confidence interval (blue shading) between island surface area and number of species both transformed in logarithms (estimate: 0.683; std. err.: 0.814; $p < 0.001$). The adjusted coefficient of determination adj. R^2 and its statistical significance P are reported in the lower right corner. The islands of the Strait of Sicily are highlighted in red.

Lampedusa (36%), 5 species in Linosa (20%), and 21 species in Pantelleria (33%) (Table II; Figure 3).

Only one species, *Dysdera flagellata* Grasshoff 1959, is an endemic Sicilian species. We also recorded the presence of three introduced species, the American araneid *Argiope trifasciata* (Forsskål, 1775), the African salticid *Hasarius adansonii* (Audouin, 1826), and the American theridiid *Nesticodes rufipes* (Lucas 1846) (Figure 7).

As a final remark, we discuss six records that we consider incorrectly reported from Lampedusa: *Histoipona torpida* (C.L. Koch, 1837), *Tegenaria silvestris* L. Koch, 1872, *Dysdera ninnii* Canestrini, 1868, *Hogna leprieuri* (Simon, 1876), *Brachythele ictérica* (C. L. Koch, 1838), *Nemesia caementaria* (Latreille, 1799). *Histoipona torpida* has a central European distribution, known in northeastern Italy from Friuli Venezia Giulia to Lombardy. This suggests that the species likely spread into Italy from the east and then westwards along the southern side of the Alps. The Alps seem to hinder the southward expansion of central European populations from Germany and France. Therefore, the report of *Histoipona torpida* from Lampedusa by Roewer (1960): sub *Histoipona debilis* and Cantoni (1881) in the Madonie, as well as those by Bertkau (1890) in Sanremo (Liguria) and

Calloni (1889) in the mountains of Piedmont, are likely due to misidentifications.

Tegenaria silvestris is distributed across Europe and in Italy and is found in the Alps and central-northern Apennines. The southernmost report is from the Simbruini Mountains (Lazio), in a beech forest environment at 1300–1700 m above sea level (Lacasella et al. 2014). Reports from Tuscany (by Caporiacco 1923), Umbria (by Caporiacco 1950), and Puglia (by Caporiacco 1947) are unreliable due to inadult specimens or incorrect identifications. The report by Kolosváry (1938) for Calabria has not been confirmed. Additionally, the report from Lampedusa by Roewer (1960), based on females, seems unlikely given that the island's environments do not match the ecological requirements of the species, mainly associated with wooded and ecotonal environments of hilly and mountainous areas.

Dysdera ninnii has a limited distribution in northern Italy, Slovenia, and Croatia (Rezác et al. 2014). Accordingly, reports from Lampedusa (Roewer 1960) and peninsular Italy are likely due to confusion with other species within the *ninnii* group.

Hogna leprieuri was described from Algeria and redescribed based on Algerian material by Roewer (1959). The species is poorly described and lacks

illustrations of the habitus and male pedipalp. The report from Lampedusa (Roewer 1960) is based on immature female specimens, requiring further investigation for a certain identification on the island.

Nemesia caementaria ranges from northeastern Spain to southwestern France (see Pantini & Isaia 2019). Based on our expertise, records from Lampedusa (Pavesi 1878; Failla Tedaldi 1887) likely refer to *N. arboricola*. Finally, being mostly centered in the Balkans we regard the record of *Brachytele media* from Lampedusa (Pesarini 1995) as a possible misidentification of *Ischnocolus*.

Species–area relationships

When examining species richness in relation to the area of the main Italian islands we found a significant positive relationship (Estimate: 0.683; Std Err.: 0.814; $p < 0.001$) (Figure 8). Based on the available field and literature data reported in the present study, our analysis uncovered considerable variability in species richness among the studied islands. Some of them, like Ustica, Alicudi, and Stromboli, display negative residuals (i.e. fewer species than expected), suggesting a potential underestimation of species richness, possibly due to lower survey intensity (Tab. S1). Conversely, islands with positive residuals, such as Pianosa, Lampedusa, and Linosa, are richer in species than expected possibly due to thorough investigation and a longer history of exploration. However, Pantelleria exhibits negative residuals, appearing the least investigated among the three islands of the Strait here considered (Tab. S1).

Discussion

Research on spiders in the islands of the Strait of Sicily is rather outdated, as it has often been associated with short-term visits by scholars, resulting in a lack of comprehensive coverage. For instance, some recent contributions have only reported occasional discoveries of single new species (e.g. Hansen 2005). This work, therefore, attempts to fill the gap, presenting a comprehensive inventory of spiders for these islands based on both literature and original data.

Based on the data provided by recent updates of the Italian Catalog “araneae.it” (Pantini & Isaia 2019), our research was able to add 59 species to the list of known spider species in this area, bringing the total number known for the island of the Strait of Sicily to 148. However, the information on spiders colonizing the islets of the Pelagie archipelago

(Lampione, Isola dei Conigli, and Scoglio del Sacramento) remains virtually unknown.

Despite the sampling efforts varied between the investigated islands, the observed differences in spider assemblages between the Pelagie Islands and Pantelleria may be attributable to the habitat diversity on these islands. While Lampedusa is predominantly flat and composed of limestone and belongs geologically to the African continent, Linosa and Pantelleria are of recent volcanic origin. Moreover, Pantelleria has a more complex geology with mountains and promontories rising from the sea.

This variation in island morphology significantly influences the vegetation and habitat types available to spiders. For instance, Pantelleria boasts remnants of Mediterranean scrubland and forests not found elsewhere in the Pelagie Islands (Calò et al. 2013), thereby increasing its distinctive biological diversity. Furthermore, the island is dotted with numerous lava tubes (Bucolo et al. 2021), many of which remain understudied, thereby enhancing the habitat diversity and offering the potential to further increase the spider diversity.

Although direct comparison is challenging due to differences in sampling effort, period, and methods, it is noteworthy that the species richness of certain families, such as Gnaphosidae, Linyphiidae, and Theridiidae, is higher in Lampedusa than Pantelleria. Consequently, before knowledge of the spider assemblage and diversity in the islands of the Strait of Sicily can be considered sufficient and conclusive, further studies are desirable, particularly in Pantelleria, whose diverse and unique habitats make the investigation particularly intriguing.

Considering the chorotype profiles, our results align with expectations, given the characteristic Mediterranean climatic conditions and associated vegetation of this island complex.

In total, eight species are now documented for Europe and nine for Italy. Among these, we have uncovered new observations of North African species such as *Acartauchenius insigniceps*, *Haplodrassus crassipes*, *Setaphis mollis*, *Xysticus promisquus*, *Selamia numidica*, and *Palliduphantes labilis*, completing the list of previously identified species like *Harpactea carusoi*, *Micrommata formosa*, *Dysdera subnubila*, and *Heliophanus decorates*. Our results reaffirm the pronounced affinity between the fauna of Lampedusa and Pantelleria with North Africa and the Middle East. Of these, *Haplodrassus crassipes* and *Palliduphantes labilis* represent the first recorded occurrence in Italy and other European countries. *Haplodrassus crassipes* was previously solely documented in Algeria (Lucas 1846) and subsequently reported in Morocco and Tunisia (Bosmans et al.

2018). Similarly, *Palliduphantes labilis* was described from Algeria and later recorded in Tunisia.

Remarkably, only one species, *Dysdera flagellata*, is recognized as an endemic Sicilian species. The genus *Dysdera* is notable as one of the most diverse spider genera in the Mediterranean, demonstrating a particularly high level of endemism in the region. In the Italian peninsula alone, the genus boasts 40 species, with 27 of them considered Italian endemics (Pantini & Isaia 2019). *Dysdera flagellata* was initially described by Grasshoff (1959) for Lampedusa and subsequently reported by Pesarini (1995) for the same locality only.

The presence of three alien species in Lampedusa is particularly significant as they may pose threats to local biodiversity. Alien species, when invasive on islands, can have much larger impacts compared to continents, and these impacts are exacerbated through interactions with various other threats such as global warming and anthropogenic impacts (Russell et al. 2017).

Argiope trifasciata originates from the Americas and has been introduced to Africa, Europe, Asia, and Oceania. It was first recorded in Italy and Europe in 2011 by Di Pompeo et al. (2011). This species prefers warmer climates and is primarily found in Mediterranean coastal and low-altitude areas (Di Pompeo et al. 2011). Recent studies suggest that *A. trifasciata* comprises five genetically distinct, reciprocally monophyletic clades with evolutionary origins in the Plio-Pleistocene (Abel et al. 2020).

Hasarius adansoni is native to Africa and the Middle East but has been introduced to the Americas, Europe, and Southeast Asia. Known for its cosmopolitan distribution (WSC 2024) this species thrives in various environments ranging from semi-natural forests to residential interiors (Milano et al. 2017).

Nesticodes rufipes (Therididae) is likely one of the earliest recorded alien species in Italy. It was initially documented in the early 20th century within the greenhouses of the botanical garden of Pavia (Mariani 1900, 1901).

Overall, the study of these islands revealed a considerable diversity of spider species compared to studies conducted elsewhere on islands (e.g. Berdondini et al. 2006). Although the richness of the investigated islands is influenced by other factors than their area, the results indicate that Lampedusa is richer in species than expected. This is possibly due to thorough investigation and a longer history of exploration. Linosa presents a suitable number of species relative to its surface, especially when compared to

less explored islands such as Ustica, Procida, Alicudi, and Stromboli. Regarding Pantelleria, the island almost aligns with the expected trend. However, the significant habitat variability on Pantelleria, along with its proximity to the African continent, makes this area an intriguing subject for further investigation.

The probability of additional discoveries is quite high. Therefore, it is plausible that with further research, the total number of reported species will increase, potentially adding species not previously documented in Italy or Europe. It is hoped that systematic sampling of the less explored islands of the Mediterranean Sea will soon take place, providing a more complete picture of this important component of terrestrial ecosystems.

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Disclosure statement

No potential conflict of interest was reported by the author(s).

Supplementary material

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