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Arthropoda (except Coleoptera, Araneae and Lepidoptera) from the Isola delle Femmine Nature Reserve (north-western Sicily, Italy)

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ABSTRACT On the basis of specific entomological researches carried out on Isola delle Femmine Nature Reserve (north-western Sicily, Italy) in recent years, a first check-list of the Arthropoda species (except Coleoptera, Araneae and Lepidoptera) found is provided.

KEY WORDS Arthropoda; Isola delle Femmine Nature Reserve; Sicily; check-list; biodiversity.

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INTRODUCTION

The western Mediterranean Sea contains more than 1000 small islands, often less than 10 Km^2 wide. Some of them are poorly known or still to be explored. A lot of these host local endemics and have a more or less high biodiversity rate. In addition, they constitute a refuge area for many regional endemites or threatened species of the neighbor areas like big islands or continental coasts (see, for example, Bernini, 1973; Lo Cascio & Pasta, 2012; Muscarella & Baragona, 2017; Lo Cascio & Sciberras, 2020; Sparacio & Surdo, 2021; Sparacio et al., 2021). Small islands or archipelagos should play a significant role in conservation programs, and more investigations and deeper taxonomic knowledge are needed for this purpose (Minelli, 2012; Véla & Pavon, 2012).

The aim of this work is to increase the knowledge on the arthropods fauna of the Isola delle Femmine (or Isola di Fuori), a small island, on the north-western coast of Sicily (Italy).

Some previous works carried out by our group have involved terrestrial malacofauna (Sparacio et al., 2021; 2022; Viviano et al., 2021) while in this work the arthropods will be examined except Coleoptera, Araneae and Lepidoptera to which other specific contributions are dedicated (Morin et al., 2024; Dentici et al., 2024; Sparacio et al., 2024).

MATERIAL AND METHODS

Study area

Isola delle Femmine Nature Reserve was established under decree n° 584, 01/09/1997 (Suppl. Ord. G.U.R.S. n° 3 the 16/01/1998) by Sicilian regional Government (Catalano et al., 1979) and managed by LIPU/Birdlife Italia. This island is a part of

the regional protected areas belonging to Nature 2000 network under European Directives 79/409/CEE (Birds Directive) and 92/43/CEE ("Habitat" Dir.) as Site of Community Importance with code ITA020005 (Isola delle Femmine). Afterwards, on the island was established a Geosite with decree D. Ass. R. Sicilia n° 106 of 15 April 2015. Lastly, Isola delle Femmine was declared to be a Special Area of Conservation under European Directive 92/43/CEE (Riggio & Massa, 1974; Riggio & Raimondo, 1992; Di Dio, 2011).

Methods

The excursions carried out in the study area involved the main environments of the island: Mediterranean scrub with *Pistacia lentiscus* L., 1753, scrub with *Malva* spp., the coastal strip, the rocky cliffs and an underground environment (Island Cave). Different sampling methods were used: 1) visual collection under boulders, between shrubs, on plants and in the soil, in the litter; 2) with entomological aspirator; 3) pitfall traps; 4) examination of plant debris and soil in situ or in the laboratory; 5) entomological umbrella; 6) mowing net; 7) light traps. All this allowed us to draw up a first list of arthropods present on Isola delle Femmine and to observe their biology. The identifications were carried out directly in the field, limiting the sampling of living specimens to a minimum. The morphological study was carried out using an Optika stereomicroscope and with a Canon EOS 100D and Nikon D3100 camera. The specimens were preserved dry or in 80% alcohol in the respective authors' collections. The bibliography consulted and the determinations made by other colleagues are cited in the text. The systematic list follows the one adopted by Stoch (2003). The chorological categories are based on those adopted by La Greca (1962) and subsequently elaborated by Vigna Taglianti et al. (1993, 1999) and Parenzan (1994).

RESULTS

Systematics

Phylum ARTHROPODA Gravenhorst, 1843
Subphylum CRUSTACEA Brünnich, 1772
Classis MALACOSTRACA (Latreille, 1802)
Ordo ISOPODA Latreille, 1817
Familia STENONISCIDAE Budde-Lund, 1904

Genus *Stenoniscus* Aubert et Dollfus, 1890
Stenoniscus carinatus Silvestri, 1897

DISTRIBUTION AND BIOLOGY. North-Mediterranean-Atlantic species; in Sicily it is punctiformly distributed, which comprises few localities in the west, south and east. It is known from the circum-Sicilian islands, such as Ustica, Favignana, Marettimo, Lampedusa, Linosa, Pantelleria and Maltese archipelago (Pezzino, 2014).

Pezzino (2014) reports it as a halophilous, sublapidicolous and litter species.

REMARKS. On Isola delle Femmine, until now, its presence has been found exclusively inside the Island Cave, where it lives in plant debris mixed with soil and in the interstices between stones, even at a depth of 20 cm and more (Fig. 1); occasionally found outside, but always on the northern slope in cavities in the rock at ground level. Its presence is reported for the first time in Palermo province.

Familia PLATYARTHRIDAE Verhoeff, 1949

Genus *Platyarthrus* Brandt, 1833
Platyarthrus caudatus Aubert et Dollfus, 1890

DISTRIBUTION AND BIOLOGY. Western-Mediterranean, it is a very common myrmecophilous species in Sicily (Pezzino, 2014).

REMARKS. It is found in Isola delle Femmine under stones, both on the lower pages of the rock and in contact with the soil surface, in Formicidae nests.

Familia PORCELLIONIDAE Brandt, 1831

Genus *Leptotrichus* Budde-Lund, 1885
Leptotrichus panzerii (Audouin, 1826)

DISTRIBUTION AND BIOLOGY. Mediterranean-Macaronesian, common species in Sicily and the adjacent smaller islands.

Leptotrichus panzerii is a species moderately xerophilous, sublapidicolous and terricolous; it sinks into the loose soil very quickly (Pezzino, 2014).

Remarks. Very common species on Isola delle Femmine: from the plateau near the southern coast up to the Tower. It lives in litter, mixed debris and under stones.

Superclassis MYRIAPODA Latreille, 1802
Classis CHILOPODA Latreille, 1817
Ordo LITHOBIOMORPHA Pocock, 1895
Familia LITHOBIIDAE Newport, 1844

Genus *Eupolybothrus* Verhoeff, 1907
Eupolybothrus nudicornis (Gervais, 1847)

Distribution and Biology. Western-Mediterranean species, very common in small Italian islands, including those circum-Sardinian, circum-Sicilian and Maltese Archipelago (Zapparoli, 1995; Stoev et al., 2010). Sicily is the typical location of the species (Gervais, 1837).

Frequent in various types of Mediterranean environments, from open areas and pastures to areas with *Quercus ilex* L. (Zapparoli, 1995).

Remarks. Common on the Isola delle Femmine from the coastal strip to the Torre di Fuori: frequent in *Pistacia lentiscus* scrub under stones, in leaf litter and under wooden beams on the coast. Only female specimens were examined from study area, which however reflect the descriptions reported in Stoev et al. (2010), also showing moderate variability.

Genus *Lithobius* Leach, 1814
Lithobius cfr. ***castaneus*** Newport, 1844

Distribution and Biology. South-Western Europe and the Maghreb region. It is present in all Italian regions, including Sardinia, Sicily and small islands (Zapparoli, 1995).

Nemoral species, it is also found in back-cliff pastures (Zapparoli, 1995) and caves (Caruso, 1982).

Remarks. For comparison, two specimens attributable to this species (Fig. 2) were found in Isola delle Femmine Cave (May 2021).

Ordo SCOLOPENDROMORPHA Pocock, 1895
Familia SCOLOPENDRIDAE Newport, 1844

Genus *Scolopendra* Linnaeus, 1758
Scolopendra oraniensis Lucas, 1846

Distribution and Biology. North Africa, Southern Italy, Sicily, Sardinia, Corsica, Spain and Portugal (Iorio & Geoffroy, 2006).

Remarks. Species found under medium-buried stones, in the soil, in areas with *Pistacia lentiscus* and in the areas most exposed to the North.

Ordo GEOPHILOMORPHA Pocock, 1895
Familia GEOPHILIDAE Leach, 1815

Genus *Dignathodon* Meinert, 1870
Dignathodon microcephalus (Lucas, 1846)

Distribution and Biology. It is a species with a wide distribution in the continental and insular areas of the Mediterranean area (Zapparoli, 1995).

Remarks. Only one specimen attributable to this species has been found so far in a small area of scrub with mastic and *Pennisetum*. The morphological characteristics are: 75 pairs of legs, 48 mm long, very small head, 1/3 wider than the width of the central trunk of the body, tarsungulum with a pair of denticles near the apex (Bonato et al., 2014a; Voigtländer et al., 2022).

Genus *Henia* C.L. Koch, 1847
Henia pulchella (Meinert, 1870)

Distribution and Biology. Mediterranean. Europe: Greece, Italy (including Sicily); North Africa: Algeria (ChiloBase 2.0: Bonato et al., 2016).

Remarks. *Henia pulchella* was found only in the *Pistacia lentiscus* litter and in the first layer of moist soil rich in organic substance, even under small boulders.

Henia vesuviana (Newport, 1845)

Distribution and Biology. Southern Europe, North Africa, introduced to Great Britain, St. Helena and North America; widely spread in Italy, including major and minor islands (Zapparoli, 1995). Euriecia species, tending to be thermophilic, present both in open, scrub and woodland environments (Zapparoli, 1995).

Remarks. Species so far found on Isola delle Femmine only in the *Pistacia lentiscus* litter, in the first layers of litter, under branches and stones.

This specimens correspond to the morphological description provided by Bonato et al. (2014b).

Genus *Pachymerium* C.L. Koch, 1847
Pachymerium ferrugineum (C.L. Koch, 1845)

DISTRIBUTION AND BIOLOGY. W-Palearctic distribution including continental Italy, Sicily, Sardinia and smaller islands.

It is an euryoecious species, with high adaptation to numerous environments: supralittoral area, Mediterranean scrub, peri-lake, degraded open spaces, derived pastures, etc. (Zapparoli, 1995).

REMARKS. On Isola delle Femmine *Pachymerium ferrugineum* is present in mastic scrub, under stones and in leaf litter. The population studied correspond to the known morphological description (Chilokey: Bonato et al., 2014b).

Genus *Geophilus* Leach, 1814
Geophilus sp.

DISTRIBUTION AND BIOLOGY. It is a genus with Holarctic diffusion with different groups of species (Bonato & Minelli, 2014).

REMARKS. Only a single specimen of *Geophilus* found in the mastic scrub was examined. It has 57 pairs of legs, 35.7 mm long, tarsungulum that do not exceed the anterior cephalic margin; 5–6 pores in the coxopleuron in the margin with the metasternite, antennae 3 times as long as the head, last pair of legs almost twice as long as the penultimate pair, anterior part of the trunk: metasternite with group of pores in the shape of an ellipsoidal band in the posterior part, sternobothrium in the anterior part elliptical in shape; central part of the trunk with sternobothrium in the center of the metasternite.

Classis DIPLOPODA Blainville in Gervais, 1844
Ordo POLYXENIDA Lucas, 1840
Familia POLYXENIDAE Lucas, 1840

Genus *Polyxenus* Latreille, 1802/1803
Polyxenus cf. ***lagurus*** (Linnaeus, 1758)

DISTRIBUTION AND BIOLOGY. Very widespread species in the Western Paleartic (Recuero & Rodrìguez-Flores, 2023), Europe, North America and Australia (Enghoff, 1976; Condè, 1996; Short & Vahtera, 2017). In Italy, including Sicily and excluding Sardinia, it is the only species currently known (Foddai et al., 1995).

REMARKS. It is a typical litter species but is also found under bark and in dead wood; common in debris. Recent molecular studies seem to suggest the presence of a new species in the Italian territory (Short et al., 2020).

Familia LOPHOPROCTIDAE Silvestri, 1897

Genus *Lophoproctus* Pocock, 1895
Lophoproctus sp.

DISTRIBUTION AND BIOLOGY. Short (2015) mentions the genus *Lophoproctus* for Sicily, but indicating it as "*lucidus/coecus*?", two species well distributed in the Mediterranean area. *Lophoproctus lucidus* is distributed in North Africa and France, while *L. coecus* is well distributed in Italy, South-East France, Russia, Georgia, Iran and Kyrgyzstan (Short, 2015). Silvestri (1984) & Verhoeff (1921) considered these species synonymous.

REMARKS. It is found in Isola delle Femmine only in the *Pistacia lentiscus* litter, under layers of foliage, ground wood and soil.

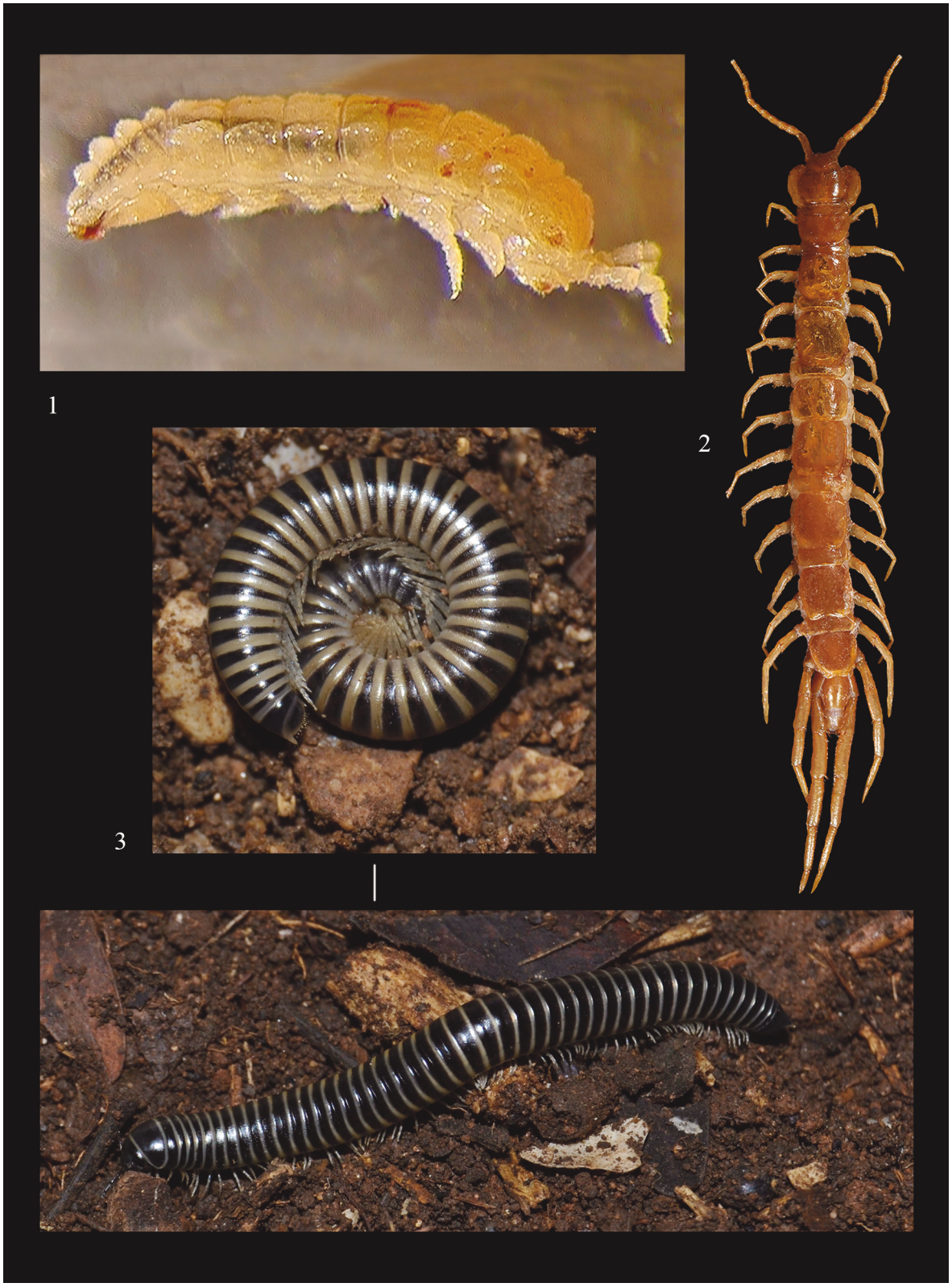
Ordo JULIDA Leach, 1814
Familia JULIDAE Leach, 1814

Genus *Ommatoiulus* Latzel, 1884
Ommatoiulus oxypygus (Brandt, 1841)

DISTRIBUTION AND BIOLOGY. Species widespread in Calabria, Sicily and Malta.

Ommatoiulus oxypygus is common in different environments (Kime & Enghoff, 2017), from coasts to mountain altitudes, often in association with *Pachyiulus flavipes* (Koch, 1847).

REMARKS. Very common species in the study area (Fig. 3), especially along the coast and in open areas with low, sublapidicolous and detrital vegetation. It is one of the most frequent Julidae in Sicily. The live animal is distinguished from the common millipede *Pachyiulus flavipes* (C.L. Koch, 1847) by its stockier body, with alternating black and white colours, by the spiniform protrusion of the telson, and by the morphology of the gonopods (Akkari & Enghoff, 2012).



Figures 1–3. Arthropoda from Isola delle Femmine (Sicily, Italy). Fig. 1: *Stenoniscus carinatus*. Fig. 2: *Lithobius* cfr. *castaneus*. Fig. 3: *Ommatoiulus oxypygus*.

Superclassis HEXAPODA Latreille, 1825
Ordo ZYGENTOMA Börner,1904
Familia LEPISMATIDAE Latreille, 1802

Genus *Ctenolepisma* Escherich, 1905
Ctenolepisma ciliatum (Dufour, 1831)

DISTRIBUTION AND BIOLOGY. South Palaeartic. It is one of the most widespread species of Lepismatidae (Molero-Baltanas et al., 2010). Common in Sicily and Sardinia, it is a thermophilic species (Molero-Baltanas et al., 2000).

REMARKS. On Isola delle Femmine, it lives under stones and in the litter of mallow and *Pistacia lentiscus*. According to Molero-Baltanas et al. (2010), the examined specimens present a variability in the color of the scales which varies from silvery gray to brownish-grey, do not exceed 11.5 mm in length (males generally up to 10 mm); both sexes with two pairs of abdominal stylets, urotergite I with 1 + 1 bristle-combs, urotergites II-VI with 3 + 3 combs, urotergites VII-VIII with 2 + 2.

Genus *Tricholepisma* Paclt, 1967
Tricholepisma aureum (Dufour, 1831)

DISTRIBUTION AND BIOLOGY. Species described for Valencia (Spain) widespread from north-western Spain to the Balearic Islands up to Sicily and Croatia, some records from Romania and Turkey, Algeria and Tunisia.

It is a myrmecophilous species, associated with Formicidae of the genus *Messor* Forel, 1890 (Molero-Baltanás et al., 2000; Robla et al., 2023).

REMARKS. It is a relatively common species in Isola delle Femmine, found in association with Formicidae, in the scrub area of *Pistacia lentiscus* and *Pennisetum.*

Ordo DIPLURA Börner, 1904
Familia JAPYGIDAE Lubbock, 1873

Genus *Monojapyx* Paclt, 1957
Monojapyx simplex (Verhoeff, 1923)

DISTRIBUTION AND BIOLOGY. Western Mediterranean. Described by Verhoeff (1923) for Sicily as a subspecies of *Japyx solifugus* Haliday, 1864 for Ognina (Catania), Taormina (Messina) and Monte Pellegrino (Palermo), this species was subsequently reported by Silvestri (1948) for numerous other localities. In Italy it is reported only for Puglia (Foggia and Taranto) by Pagès (1993). It is also reported in Europe for Valencia (Spain) (Sendra & Zaragoza, 1982), Malta (Pagés, 1978), the Balearic Islands (Ginés, 1982) and Barranco del Espartal, near Granada (Spain) (Doblas-Miranda, 2007).

Like all Diplura, it inhabits soil and subsurface terrestrial habitats, extending from non-consolidated debris in soils to network of voids in the bedrock, including caves (Condé, 1956; Sendra et al., 2021a). It is a predatory species of other small soil arthropods (Sendra et al., 2021b).

REMARKS. *Monojapyx simplex* is present in Isola delle Femmine in shaded areas, where there is a good soil level; it also lives beneath litter and under partially buried stones (Fig. 4). This specimens have the posterior margin of 7th utotergite with a straight angle, without an angular process, present instead in *Japyx solifugus* (the main diagnostic character according to Silvestri, 1948).

Ordo ODONATA Fabricius, 1793
Familia LIBELLULIDAE Rambur, 1842

Genus *Sympetrum* Newman, 1833
Sympetrum fonscolombii (Sélys-Longchamps, 1776)

DISTRIBUTION AND BIOLOGY. Asian-African distribution with a range extended to southern Europe including throughout Italy (www.iucn.it).

It is a pioneer, migratory species, whose larvae develop in stagnant fresh and brackish waters (www.iucn.it).

REMARKS. Species observed and identified directly on Isola delle Femmine.

Ordo BLATTODEA Latreille, 1810
Familia BLATTELLIDAE Karny, 1908

Genus *Loboptera* Brunner von Wattenwyl, 1865
Loboptera decipiens (Germar, 1817)

DISTRIBUTION AND BIOLOGY. *Loboptera decipiens* is widespread throughout the Mediterranean area (including Sicily, Sardinia, Lampedusa,

Figure 4. *Monojapyx simplex* from Isola delle Femmine (Sicily, Italy), lenght 7.6 mm, with detail of the head and of the last VII-IX urotergites (UT), VII urosternite (US), angular stylus (Sty) of the VII US and IX pretergites (PT). The white lines indicate the posterior margin of the IX PT, the posterior margin of the VIII UT and the posterior "subrectis" margin of the VII UT.

Linosa and Pantelleria, continental Italy, Malta), southern Europe (Romania, Bulgaria, Crimea), Madeira Island, Southwestern Asia, Kazakhstan, from sea level up to high altitudes averages (Failla & Messina, 1983; Baccetti et al., 1995; Hristov & Chobanov, 2016; Bohn & Sciberras, 2021).

Remarks. *Loboptera decipiens* is common in Isola delle Femmine in areas with *Pistacia lentiscus* scrub, in leaf litter and under stones with accumulations of plant debris.

Ordo MANTODEA Burmeister, 1838
Familia AMELIDAE Giglio-Tos, 1919

Genus *Ameles* Burmeister, 1838
Ameles spallanzania (Rossi, 1792)

Distribution and Biology. European-Mediterranean species (Fontana et al., 2005), mainly distributed in southern Europe and northern Africa (Agabiti et al., 2010; Battiston et al., 2010). Anselmo (2022) also reports it for the Western Alps.

This species mainly occupies Mediterranean habitats such as maquis and garrigue and is more common in coastal areas (Cogo & Battiston, 2007; Battiston, 2020).

REMARKS. Species identified from a photograph taken on the protection net that surrounds some plants in Isola delle Femmine Reserve.

Familia MANTIDAE Burmeister, 1838

Genus *Mantis* Linnaeus, 1758
Mantis religiosa (Linnaeus, 1758)

DISTRIBUTION AND BIOLOGY. Cosmopolitan: Europe, Asia and Africa including continental Italy (except in the high mountains), Sicilia, Sardegna and smaller islands (Baccetti et al., 1995; Stoch, 2003).

REMARKS. Adult specimen determined from a photograph taken on the protection net that surrounds some plants in the Reserve. An ootheca attributable to this species was collected under a boulder, post hatching, and measures 20 mm long and 18 mm wide, emergence area 2-4 mm wide.

Ordo ORTHOPTERA Latreille, 1793
Familia TETTIGONIIDAE Krauss, 1902

Genus *Odontura* Rambur, 1838
Odontura stenoxypha (Fieber, 1853)

DISTRIBUTION AND BIOLOGY. Endemic species to Sicily and Malta, already reported for Isola delle Femmine (Cassar & Massa, 2022).

REMARKS. *Odontura stenoxypha* is a frequent species in Isola delle Femmine where it is found on various herbaceous plants.

Genus *Platycleis* Fieber, 1853
Platycleis sabulosa Azam, 1901

DISTRIBUTION AND BIOLOGY. Species from Mediterranean Europe, Canary Islands, North Africa and Israel, fairly frequent in Sicily in low-altitude coastal areas with fragmented distribution (Massa, 2011). Already known for the areas ranging from Mondello to Balestrate (Ramme, 1927). It is also found in southern, south-eastern Sicily, in the hinterland (Piazza Armerina and Linosa island (Pelagie) (Fontana et al., 2005).

REMARKS. Two males of *Platycleis sabulosa* were collected in August, in the study area close to the *Pistacia lentiscus* maquis. Titillators of this population are like those illustrated in Massa et al. (2012, Tav. 57, Fig. 3).

Genus *Decticus* Serville, 1831
Decticus albifrons (Fabricius, 1775)

DISTRIBUTION AND BIOLOGY. Europe and Northwest Africa; common throughout Sicily, from sea level to the highest altitudes (Massa, 2011).

REMARKS. Some specimens of this species were found in Isola delle Femmine on a June evening among the branches of *Pistacia lentiscus*.

Familia MOGOPLISTIDAE Brunner von Wattenwyl, 1873

Genus *Mogoplistes* Serville, 1838
Mogoplistes brunneus (Serville, 1839)

DISTRIBUTION AND BIOLOGY. Species from southern Europe and North Africa, uncommon in Sicily, recorded for the Aeolian Islands (Failla et al., 1973; Fontana et al., 2005; Massa, 2011).

It is a nocturnal species, living in litter and under stones (Alexiou, 2017).

REMARKS. In Isola delle Femmine it is observed and collected only in the *Pistacia lentiscus* scrub, during the day, rummaging in the litter and under rock.

Familia ACRIDIDAE MacLeay, 1821

Genus *Acrida* Linnaeus, 1758
Acrida ungarica mediterranea Dirsh, 1949

DISTRIBUTION AND BIOLOGY. Species widespread in Mediterranean area and in Africa. It is frequent in Sicily and is also reported for the nearby coast of Isola delle Femmine (Massa & Ragusa, 1999).

It lives among the stems of herbs such as Poaceae.

REMARKS. In Isola delle Femmine, a different color of the integuments according to seasonality was observed for this species: green in the winter-spring period and yellow in the summer (personal observation by V. Di Dio).

Genus *Dociostaurus* Fieber, 1853
Dociostaurus maroccanus (Thunberg, 1815)

Distribution and Biology. Species widespread in southern Europe, south-western Asia, North Africa and the Macaronesian islands; frequent in Sicily, common from spring to autumn (Massa, 2011).

Remarks. Common on the island in the summer months, on the ground and at the base of various herbaceous species (Fig. 5).

Ordo EMBIOPTERA Lameere, 1900
Familia EMBIIDAE Burmeister, 1839

Genus *Embia* Latreille, 1825
Embia cfr. ***ramburi*** Rimski-Korsakow, 1905

Distribution and Biology. In Sicily, the genus *Embia* Latreille, 1829 (worthy of further studies: Fontana et al., 2021a; Fontana et al., 2021b; Fontana et al., 2022) is represented by only three species: *E. tyrrhenica* Stefani, 1953 reported for the Madonie around 1960 and only recently photographed on Mount Etna to confirm its presence in Sicily (Fontana et al., 2021a; Fontana, 2024); *E. ramburi* Rimski-Korsakow, 1905 reported only for the island of Lampedusa (Pelagie Islands, Strait of Sicily); *E. minapalumboi* Fontana, 2024 recently described from Madonie (Petralia Sottana) (Fontana, 2024).

They live in open environments, under stones, logs, piles of sheets; their period of activity goes from autumn to spring, while in the summer they tend to hide deep in the soil; they are known for their silk tunnels where they spend part of their lives and where females lay eggs (Fontana et al., 2022).

Remarks. In Isola delle Femmine (Fig. 6) it lives in areas covered by *Malva* sp. and *Pistacia lentiscus*, in the litter, where it weaves tunnels between the various accumulated leaves and in the first layers of mixed debris, even under boulders. On 28th June 2023, on the western side of the island, in the early morning, an adult male was observed resting on a flower of *Ecballium elaterium* (L.) A. Rich (Cucurbitaceae) in an area with *Malva* sp. and outcropping limestone rock.

Adult males are fundamental for identification and the last abdominal segment presents specific characteristics (Fontana et al., 2022).

Familia OLIGOTOMIDAE Enderlein, 1909

Genus *Haploembia* Verhoeff, 1904
Haploembia solieri (Rambur, 1842)

Distribution and Biology. Widely distributed in the Mediterranean area and introduced in USA and Japan (Ross, 1966; Fontana, 2002; Nokazi et al., 2018), recently discovered in Georgia (South Caucasus) (Seropian et al., 2023). It is present throughout Italy including the major islands (Stoch, 2003).

Biology similar to that of the previous species with which it lives together in many locaties.

Remarks. It is a very frequent species in the study area where it is found in the first layers of soil mixed with litter. Found mainly at the base of lentisks, but also at the base of rocks exposed to the north-east in the litter of *Malva* sp.

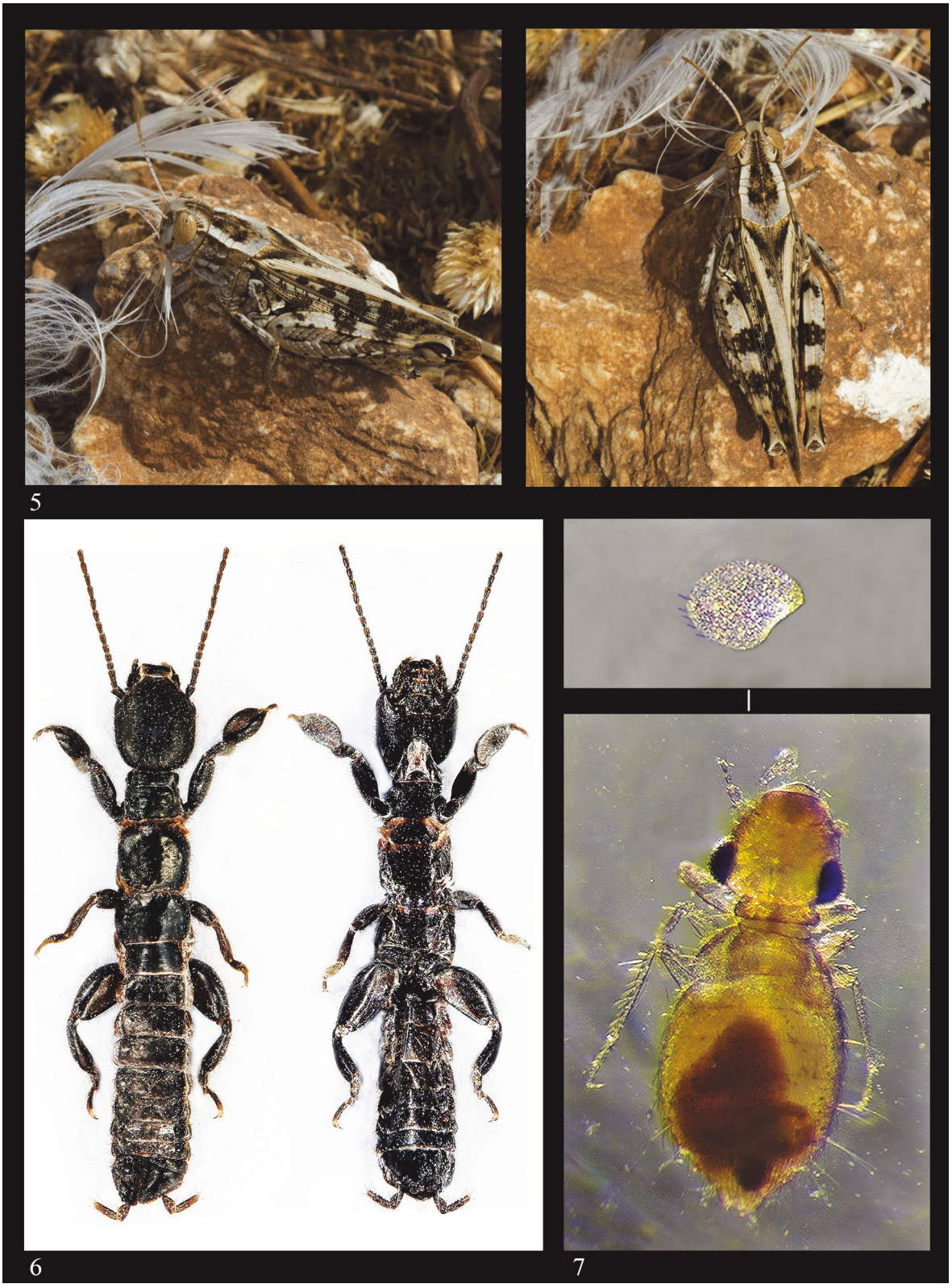
Morphologically, this species is recognized by the presence of two callosities on the basitarsus of the hind legs (Fontana et al., 2022).

Ordo PSOCOPTERA Shipley, 1904
Familia TROGIIDAE Roesler, 1944

Genus *Lepinotus* Heyden, 1850
Lepinotus reticulatus Enderlein, 1905

Distribution and Biology. It is a cosmopolitan species, reported for numerous European and world countries (http://Psocodea.SpeciesFile.org). It lives in different environmental contexts such as in litter and soil, in bird nests and mammal bedding, occasionally in bird plumage and granaries (Mockford, 1993), in coniferous forests (Feiyang et al., 2012), sometimes observed as a pest (Athanassiou et al., 2009; Qin et al., 2008). For Sicily it is reported by Baz ((1993: Monti Madonie, Rifugio Marini) but not by Schneider & Lienhard (1995) and Stoch (2003).

Remarks. It is common in Isola delle Femmine in the mallow and *Pistacia lentiscus* litter, where it lives feeding on plant remains, with generally large populations (Fig. 7). *Lepinotus reticulatus* is characterized by a blackish-brown colour, very small dimen-



Figures 5–7. Arthropoda from Isola delle Femmine (Sicily, Italy). Fig. 5: *Dociostaurus maroccanus*. Fig. 6: Male specimen of *Embia* cfr. *ramburi* in dorsal and ventral view, respectively. Fig. 7: *Lepinotus reticulatus* with wing finely reticulated.

sions (1.2–1.5 mm) and rudimentary scale-shaped sub-rounded wings, finely reticulated, which distinguish it from other species reported in Italy (Lienhard, 1998; Feiyang et al., 2012).

Ordo THYSANOPTERA Haliday, 1836
Familia AEOLOTHRIPIDAE Haliday, 1836

Genus *Aeolothrips* Haliday, 1836
Aeolothrips sp.

Distribution and Biology. Subcosmopolitan genus (GBIF Secretariat, 2023).

It is a genus of obligate or facultative predators, few are phytophagous (Marullo & De Grazia, 2013).

Remarks. It is found in the debris, probably fallen following the movement of overhead mastic branches or other vegetation (Fig. 12).

Ordo HEMIPTERA Linnaeus, 1758
Familia ANTHOCORIDAE Fieber, 1837

Genus *Orius* Wolff 1811
Orius laevigatus (Fieber, 1860)

Distribution and Biology. A species with a Mediterranean distribution, it is known throughout Italy except for the Alpine area; present in many Mediterranean islands (Carapezza, 1995).

Figure 8. *Aeolothrips* sp. from Isola delle Femmine (Sicily, Italy).

Species of the genus *Orius* are generalist predators of small arthropods in a wide range of natural and agricultural habitats (Vacante et al., 1997).

Remarks. It is found on *Malva*, where some Thysanoptera have been observed. The male genitalia of this population have the parameres with two flagella, the first of which has a very dilated base (Ferragut & Zamora, 1994)

Orius niger Wolff, 1811

Distribution and Biology. Species widely distributed in the western Palearctic, common on many Mediterranean islands (Carapezza, 1995).

Biology similar to the previous species. It is found on numerous plants (Tommasini, 2004).

Remarks. Found on mallow. The only two females examined correspond to the descriptions provided by Ferragut & Zamora (1994) and Tommasini (2004).

Familia MIRIDAE Hahn, 1831

Genus *Closterotomus* Fieber, 1858
Closterotomus norwegicus (Gmelin, 1788)

Distribution and Biology. Holarctic distribution (Carapezza, 1995).

It lays its eggs on the stems of herbaceous plants or on the trunks of tree (https://info.agrimag.it).

Remarks. Common in the study area on various plants, especially herbaceous, including Mallow.

Closterotomus trivialis (Costa, 1852)

Distribution and Biology. Mediterranean, including throughout Italy (Carapezza, 1995).

It lives on numerous plant species as Asteraceae, Apiaceae, Euphorbiaceae, Fabaceae and others (Kalaltzaki et al., 2023).

Remarks. Common in the study area on various annual plants, including mastic and mallow.

Genus *Heterotoma* Le Peletier et Serville, 1825
Heterotoma diversipes Puton, 1876

Distribution and Biology. Western Mediterranean; in Italy this species is known from Sicily,

Sardinia and the Island of Capraia (Carapezza, 1999). Raniero Alliata found this species in his Villa Alliata, in the city of Palermo (Lo Valvo, 2020).

REMARKS. On Isola delle Femmine this species was collected with a mowing net on the spontaneous flora mixed with *Pennisetum*.

Genus *Hadrophyes* Puton, 1874
Hadrophyes decipiens Linnavuori, 1964

DISTRIBUTION AND BIOLOGY. Mediterranean: Egypt, Tunisia, Sicily (Simeto River Mouth, Salt pans of Trapani, Municipality of Isola delle Femmine, Isola delle Femmine), Sardinia, in salt marshes on Chenopodiaceae (Carapezza, 2006).

REMARKS. Carapezza (2006) reports this species for Isola delle Femmine on *Arthrocaulon macrostachyum* (Moric.) Piirainen & G. Kadereit. (Chenopodiaceae) in June.

Familia RHOPALIDAE Amyot et Serville, 1843

Genus *Liorhyssus* Stål, 1870
Liorhyssus hyalinus (Fabricius, 1794)

DISTRIBUTION AND BIOLOGY. Cosmopolitan (Carapezza, 1995).

REMARKS. Common in Isola delle Femmine on mallow and mastic in late spring. This species shows a series of white spots arranged in a cross on the urotergites, which can also be seen through the transparency of the membranous wings.

Familia BERYTIDAE Fieber, 1851

Genus *Berytinus* Kirkaldy, 1900
Berytinus striola (Ferrari, 1874)

DISTRIBUTION AND BIOLOGY. Europe, North Africa and western Asia (Carapezza, 1995; Salvetti et al., 2022), in many Mediterranean islands and throughout Italy (Carapezza, 1995).

It is a species associated with *Coronilla varia* L. (Pericart, 1984).

REMARKS. It was found in the study area only in a specimen mowing with a net on various botanical species. This species is associated with the Fabaceae and is often found at the base of the stem (A. Carapezza det. and pers. comm.). On Isola delle Femmine, are listed twenty-two specie of Fabaceae (Caldarella et al., 2010).

Familia LYGAEIDAE Schilling, 1829

Genus *Spilostethus* Stål, 1868
Spilostethus pandurus (Scopoli, 1763)

DISTRIBUTION AND BIOLOGY. Subcosmopolitan, it is a very common species in Italy and throughout the Mediterranean (Carapezza, 1995).

Larvae and adults on leaves and fruits, it is a polyphagous species, observed on numerous plant species, sometimes also reported as a pest (https://bladmineerders.nl/).

REMARKS. On Isola delle Femmine it was found on the ground, near mallow maquis.

Genus *Nysius* Dallas, 1852
Nysius graminicola (Kolenati, 1845)

DISTRIBUTION AND BIOLOGY. Turanian-European-Mediterranean, in Italy it is quite widespread, especially in the central-southern regions; it is common in many Mediterranean islands (Carapezza, 1995).

It is a polyphagous species, larvae and adults can be found in fruits (https://bladmineerders.nl/).

REMARKS. It was found in Isola delle Femmine mowing with a net on various annual plant species, *Pistacia lentiscus* and Poaceae.

Genus *Oxycarenus* Fieber, 1837
Oxycarenus hyalinipennis (Costa, 1838)

DISTRIBUTION AND BIOLOGY. Widespread in all warm regions, such as Africa, South America, central-southern Asia; common in central-southern Italy and the Islands (Carapezza, 1995), introduced in the Caribbean (Baranowski & Slater 1994; Slater & Baranowski, 1994).

This species lives at the expense of the seeds of Malvales (Schaefer & Panizzi, 2000; Holtz, 2006)

REMARKS. Only a specimen in *Malva* maquis.

Oxycarenus lavaterae (Fabricius, 1787)

DISTRIBUTION AND BIOLOGY. Western Mediter-

ranean distribution, present throughout Italy and the Mediterranean Islands (Carapezza, 1995).

Oligophagous species, it is found on plants belonging to the Malvaceae family (https://bladmineerders.nl/).

Remarks. On the study area, it can be found especially on the leaves and stems of mallow, also at its base. Morphologically similar to the *O. hyalinipennis*, it differs externally due to the reddish hemilytra.

Familia CYDNIDAE Billberg, 1820

Genus *Cydnus* Fabricius, 1803
Cydnus aterrimus (Forster, 1771)

Distribution and Biology. Cosmopolitan species widespread in the Palearctic, Afrotropical and Indo-Australian regions including all of continental and insular Italy (Carapezza, 1995).

Remarks. On Isola delle Femmine this species was observed mainly on the ground at the base of rock faces and in plant debris, even under stones.

Genus *Geotomus* Mulsant et Rey, 1866
Geotomus punctulatus (Costa, 1847)

Distribution and Biology. Central Asian-European-Mediterranean; present throughout Italy, including major and minor islands (Carapezza, 1995).

Remarks. Always found in soil, leaf litter, under boulders and at the base of rock faces. The studied samples were identified according to Aukema et al. (2014).

Familia PENTATOMIDAE Leach, 1815

Genus *Acrosternum* Fieber, 1860
Acrosternum millierei (Mulsant et Rey, 1866)

Distribution and Biology. Turanian-Mediterranean distribution (Carapezza, 1995).

Remarks. A single specimen of this species was photographed on a summer evening attracted by LED light on a white cloth (Fig. 9). It is distinguished from the related *A. heegeri* Fieber, 1861 by its entirely green antennae and smaller dimensions (Angeli et al., 2021).

Genus *Sciocoris* Fallén, 1829
Sciocoris helferii Fieber, 1851

Distribution and Biology. Mediterranean-Atlantic and Western Asia distribution including throughout Italy (Roca-Cusachs et al., 2020; Borges et al., 2008; Laterza et al., 2022; Faraci, 2021).

It is a species that lives on plants such as *Hyparrhenia hirta* and, occasionally, also *Artemisia* and *Teucrium* (https://bladmineerders.nl/).

Remarks. It was found in Isola delle Femine on mallow.

Familia SCUTELLERIDAE Leach, 1815

Genus *Odontoscelis* Laporte, 1833
Odontoscelis sp.

Distribution and Biology. The genus *Odontoscelis* Laporte, 1833 has an European distribution. In the surroundings of Palermo there are two widely spread species: *O. fuliginosa* (Linnaeus, 1761) (6–8 mm) and *O. signata* Fieber, 1861 (4–6 mm) and both prefer sandy soils (A. Carapezza pers. comm.).

Remarks. A single juvenile specimen was found in the mastic scrub on the eastern side of the island.

Familia PYRRHOCORIDAE Fieber, 1860.

Genus *Pyrrhocoris* Fallèn, 1814
Pyrrhocoris apterus Linnaeus, 1758

Distribution and Biology. Central Asian-European-Mediterranean; including all of Italy (Carapezza, 1995). *Pyrrhocoris apterus* is a gregarious and polyphagous species and has been observed feeding on seeds and other parts of many plant species (Asparagaceae, Asteraceae Fabaceae, Malvaceae, etc.) (Kristenová et al., 2011 and cited works).

Remarks. In Isola delle Femmine, it was found on the ground, on stones, at the base of plants, sometimes in numerous colonies under shelters.

Genus *Scantius* Stl, 1866
Scantius aegyptius italicus (Rossi, 1790)

Distribution and Biology. *Scantius aegyptius aegyptius* (Linnaeus, 1758) is present in North

Africa, the Canary Islands, Israel, Iraq and in the islands of the Sicilian Channel Lampedusa, Linosa and Pantelleria while *S. aegyptius italicus* is widespread in southern Europe including Sicily (Carapezza, 1995).

REMARKS. Very common taxon in the study area, it is found walking on the ground, under stones and in the litter of *Malva* sp.

Familia CICADELLIDAE Latreille, 1802

Genus *Bugraia* Kocak, 1981
Bugraia ocularis (Mulsant et Rey, 1855)

DISTRIBUTION AND BIOLOGY. A Mediterranean-Atlantic species present in Sicily, Maghreb and Asia Minor.

This species feeds on *Pistacia lentiscus* (D'Urso & Guglielmino, 1995; D'Urso et al., 2019).

REMARKS. Some specimens of this species was observed in study area one summer evening attracted to a white cloth with LED light (Fig. 11).

Familia APHALARIDAE Low, 1879

Genus *Agonoscena* Enderlein, 1914
Agonoscena targionii Lichtenstein, 1874

DISTRIBUTION AND BIOLOGY. Mediterranean extended to Macaronesia (Rapisarda, 1995). The main host plant is *Pistacia lentiscus*, occasionally on *P. terebinthus* L. and *P. vera* L. (Rapisarda, 1995; Luker, 2015).

REMARKS. It was found in Isola delle Femmine on the foliage of *Pistacia lentiscus. Agonoscena targionii* is very similar to *A. succincta* (Heeger, 1856) with which it has been compared (Rodrigo-Gomez & Burckhardt, 2023; Bastin et al., 2023).

Familia APHIDIDAE Latreille, 1802

Genus *Aploneura* Passerini, 1836
Aploneura lentisci (Passerini, 1856)

DISTRIBUTION AND BIOLOGY. Cosmopolitan species of Mediterranean origin.

The life cycle is dioecious; in *Pistacia lentiscus*, the primary host, galls form at the height of the tops, becoming reddish when fully ripe, from which the winged insect emerge to create other colonies among the roots of the Graminaceae, the secondary host (Roberti, 1939; Wool & Manheim, 1986; Muller, 2019).

REMARKS. Found some galls attributable to this species on a mastic tree on the plateau on the south-eastern side of Isola delle Femmine. After the collection of the latter, in the laboratory, on the same day and after a few days, 12 winged specimens appeared, while the remaining number, over a hundred, is made up of juvenile and apterous forms found inside the galls themselves.

Ordo NEUROPTERA Linnaeus, 1758
Familia CHRYSOPIDAE Schneider, 1851

Genus *Chrysoperla* Steinmann, 1964
Chrysoperla agilis Henry, Brooks, Duelli et Johnson, 2003

DISTRIBUTION AND BIOLOGY. Asian-European chorotype with a population in Alaska, of uncertain origin (Pantaleoni & Sechi, 2014).

It lives in open environments with low and herbaceous Mediterranean scrub (Pantaleoni pers. comm.). Adults of species belonging to the Chrysopidae family store pollen in the intestine to provide the nutrients necessary for fertility (Sundby, 1967).

DISTRIBUTION AND BIOLOGY. It was found in Isola delle Femmine in large numbers in April on native Poaceae on the north-eastern side. The morphological taxonomy of *Chrysoperla* species always present a certain margin of uncertainty (see Pantaleoni & Sechi, 2014)

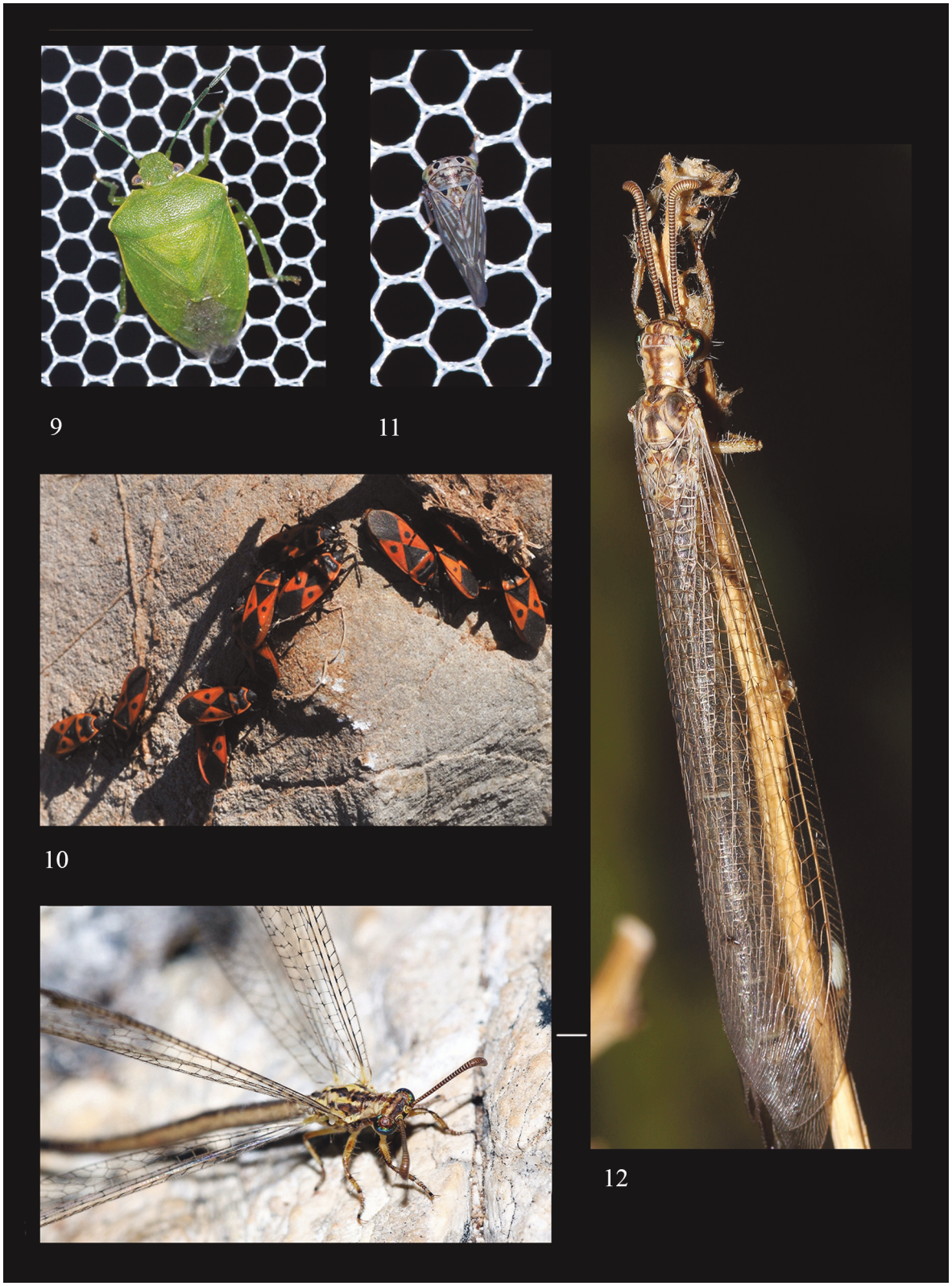
Chrysoperla lucasina (Lacroix, 1912)

DISTRIBUTION AND BIOLOGY. European-Mediterranean (Aldini et al., 2012).

Like other Chrysopidae, *C. lucasina* is a glyciphagous species in the adult stage, that is, it feeds on nectar and pollen, with oviposition near colonies of aphids because their larvae are aphidophagous (Plant, 1994).

REMARKS. Three specimens of this species were collected together with some of *C. agilis*.

Chrysoperla lucasina is distinguished from other species (as well as *C. agilis*) not only by ge-



Figures 9–12. Arthropoda from Isola delle Femmine (Sicily, Italy). Fig. 9: *Acrosternum millierei.* Fig. 10: *Scantius aegyptius italicus.* Fig. 11: *Bugraia ocularis*. Fig. 12: *Creoleon lugdunensis* (photos 9, 11, 12 by C. Muscarella).

nital traits, but also by vibrational courtship sounds with a distinct combination (Henry et al., 1996).

Familia MYRMELEONTIDAE Latreille, 1802

Genus *Creoleon* Tillyard, 1918
Creoleon lugdunensis (Villers, 1789)

DISTRIBUTION AND BIOLOGY. Western Mediterranean extended to Morocco and Atlantic France, also reported for the circum-Sicilian islands and Malta (Aspöck et al., 1980; Pantaleoni & Lo Valvo, 1995).

At the larval stage, *C. lugdunensis* colonizes xeric grasslands and meadows with sandy substrate and exposed conditions, often associated with herbaceous vegetation (Nicoli Aldini et al., 2012; Badano & Pantaleoni, 2014).

REMARKS. The specimen in question was collected on 14.VI.2021 during an inspection carried out in the late afternoon (Fig. 12). During dusk and at sunset numerous specimens were observed fluttering as we passed between one plant and another and were attracted by the light onto the white cloth.

Ordo DIPTERA Linnaeus, 1758
Familia SCIARIDAE Billberg, 1820

Genus *Bradysia* Winnertz 1867
Bradysia sp.

DISTRIBUTION AND BIOLOGY. In the Palearctic region, over 240 species of this genus are known, very similar to each other, which play an important role in the decomposition of plant substances in the soil (Menzel, 1999).

REMARKS. It was found in Isola delle Femmine under *Pistacia lentiscus*.

Familia SYRPHIDAE Latreille, 1802

Genus ***Eupoedes*** Osten Sacken, 1877
Eupoedes corollae (Fabricius, 1792)

DISTRIBUTION AND BIOLOGY. Palaearctic (Peck, 1988). *Eupeodes corollae* preys on numerous Aphididae species and some species of Thysanoptera and Lepidoptera (Rojo et al., 2003).

REMARKS. Found together with numerous other dipterans, in the month of March among the flowers of *Euphorbia dendroides* L. on the south-eastern plateau of the Isola delle Femmine. The only two female specimens found (M. Consolo det.) show the forehead with a straight margin between the black portion and the yellow portion, and the yellow spots of tergites 3 and 4 reaching the lateral margin of the abdomen (Van Veen, 2004).

Familia SCATHOPHAGIDAE Robineau-Desvoidy, 1830

Genus *Scathophaga* Meigen, 1803
Scathophaga cfr. ***stercoraria*** (Linnaeus, 1758)

DISTRIBUTION AND BIOLOGY. Holarctic distribution (Rohner, 2020).

It is associated with the dung of large mammals. The larvae are coprophagous, while the adults are predators of small insects, sometimes also attracted by nectar (Blanckenhorn et al., 2008).

REMARKS. On the flowers of *Euphorbia dendroides*. For Sicily, only *S. stercoraria* is reported (Šifner, 2008).

Familia ANTHOMYIIDAE Robineau-Desvoidy, 1830

Genus *Anthomyia* Meigen, 1803
Anthomyia procellaris Rondani, 1866

DISTRIBUTION AND BIOLOGY. Originally described for Italy, it is found in many regions of the Palearctic and Nearctic (Michelsen, 1980; http://www.diptera.org/).

Larvae or puparia have been found in carcasses, bird nests, eastern tent caterpillar tents and birch polypores, where it feeds on excrement and decaying substances (Griffiths, 2001).

REMARKS. The only male specimen examined, found in April, was compared with the figures and keys reported in Michelsen (1980) and Suwa (1987). It is attributable to this species for the shape of ventral processes, of the internal basal margin of the 5th sternite, surstylus, distiphallus, and for the spots of the mesonotum, which were partially confluent with each, other and the lateral-dorsal ones joined to the lateral-alar spots, the scutellum is totally black except the apex.

Familia CALLIPHORIDAE Brauer et Bergenstamm, 1889

Genus *Calliphora* Robineau-Desvoidy, 1830
Calliphora vicina Robineau-Desvoidy, 1830

Distribution and Biology. Holarctic distribution (Hall, 1948).

Adults are attracted to dead animals and feed on their remains, especially larvae (Fischer, 1999).

Remarks. Common species on Yellow-legged gull (*Larus michahellis* Naumann, 1840) carcasses and in their regurgitations, where it lays its eggs. This species is distinguished by its reddish-orange cheeks with black hairs which appear in reversed colors in the similar *Calliphora vomitoria* (Linnaeus, 1758).

Genus *Lucilia* Robineau-Desvoidy, 1830
Lucilia sericata (Meigen, 1826)

Distribution and Biology. Sub-cosmopolitan species (Nandi, 2002).

Adults are oviparous, typically a domestic species. They can be collected from decaying matters, carrion, excrements and fruits (Pont, 1980).

Remarks. *Lucilia sericata* was found in Isola delle Femmine on Yellow-legged gull carcasses, on the remains of animals regurgitated by the seagulls themselves and/or transported by the sea and on flowers of *Euphorbia dendroides* L.

Familia SARCOPHAGIDAE Macquart, 1834

Genus *Sarcophaga* Meigen, 1826
Sarcophaga croatica Baranov, 1941

Distribution and Biology. It replaces a similar species *S. variegata* (Scopoli, 1763) in Central-southern Italy up to Sicily (Whitmore et al., 2016; Whitmore et al., in press).

Remarks. A single adult male individual (D. Whitmore det.) was found in the study area on rocks and soil, attracted by dead substances.

Ordo HYMENOPTERA Linnaeus, 1758
Familia FORMICIDAE Latreille, 1809

Genus *Aphaenogaster* Mayr, 1853
Aphaenogaster semipolita (Nylander, 1856)

Distribution and Biology. Sicily and Southern Italy (Schifani et al., 2022).

Remarks. Common species under stones in open environments and with Mediterranean scrub.

Genus *Messor* Forel, 1890
Messor capitatus (Latreille, 1798)

Distribution and Biology. Euro-mediterranean (Borowiec, 2014).

The workers carry seeds of various plants inside the anthill to feed the rest of the colony (Orians & Pearson, 1979).

Remarks. Very common in Isola delle Femmine; in the colony, a symbiotic relationship with *Tricholepisma aurea* is often observed.

Genus *Pheidole* Westwood, 1839
Pheidole pallidula (Nylader, 1849)

Distribution and Biology. Europe, North Africa, western Asia and Socotra (Borowiec, 2014; Sharaf et al., 2017).

This species prefers warm, open habitats such as rural sites in anthropogenic habitats, roadsides, pastures, mediterranean shrubs and forests (Borowiec & Salata, 2021).

Remarks. Common species in Isola delle Femmine in colonies under stones.

Genus *Crematogaster* Lund, 1831
Crematogaster scutellaris **(**Olivier, 1792)

Distribution and Biology. European-Mediterranean (Borowiec, 2014).

It is an arboreal-nesting species with monomorphic workers (Seifert, 2018).

Remarks. In the dead wood of *Pistacia lentiscus.*

Crematogaster sordidula (Nylander, 1849)

Distribution and Biology. Palearctic distribution (Borowiec, 2014), already known from Sicily (Schifani, 2016).

It prefers warm Mediterranean environments; nests located under stones or directly in the ground (Borowiec & Salata, 2021).

REMARKS. It was found in Isola delle Femine in debris under mastic tree.

Genus *Tetramorium* Mayr, 1855
Tetramorium semilaeve André, 1883

DISTRIBUTION AND BIOLOGY. Mediterranean.
It is a thermophilic species, linked to generally coastal and flat environments with sparse vegetation on sandy and stony substrates (Borowiec et al., 2015).

REMARKS. Colonies of *Tetramorium semilaeve* were found in Isola delle Femmine in the mastic scrub under stones.

Familia APIDAE Latreille, 1802

Genus *Eucera* Scopoli, 1770
Eucera oraniensis Lepeletier, 1841

DISTRIBUTION AND BIOLOGY. South-Western Europe (Portugal, Spain, France and Italy) and Northern Africa; recently reported for the Egadi Islands (Catania et al., 2022).

REMARKS. Observed on various flowering plants, such as *Galactites tomentosus* Moench.

Genus *Apis* Linnaeus, 1758
Apis mellifera (Linnaeus, 1758)

DISTRIBUTION AND BIOLOGY. Cosmopolitan (Catania et al., 2022).

REMARKS. This species was observed in the study area on flowers.

DISCUSSION AND CONCLUSIONS

This first contribution on the arthropodofauna of Isola delle Femmine (Coleoptera, Lepidoptera and Arachnidae, as mentioned, are included in other works) has increased the list of 40 species, compared to only 2 known so far: *Hadrophyes decipiens* (Carapezza, 2006) and *Odontura stenoxypha* (Cassar & Massa, 2022). For the first time, photos of the Dipluro *Monojapyx simplex* are provided, known only from the drawings of some morphological characters (Verhoeff, 1923; Silvestri, 1948) and of an *Embia* cf. *ramburi* Rimski-Korsakow, 1905, not reported for northwestern Sicily. The presence of the halophilic isopod *Stenoniscus carinatus* is reported for the first time for the Palermo Province, the orthopteran *Platycleis sabulosa* is reconfirmed for this coastline from its last quote (Ramme, 1927), just as the psocopter *Lepinotus reticulatus* has never been reported in Sicily by the Italian check-list despite the reports by Baz (1993) for Sicily.

The arthropod fauna of Isola delle Femmine proved to be, overall, very rich and diversified, despite the small extension of the territory, 14 hectares, the local criticality linked to meteorological agents, the isolation from the coast, the poor water balance, and the presence of a large colony of Yellow-legged gull (*Larus michahellis* Naumann, 1840). The species observed show high resilience, adapting well to the aforementioned conditions. This fauna, even the most delicate species, has proven capable of colonizing the various types of environments present on Isola delle Femmine. The *Pistacia lentiscus* bush is the area with the greatest biodiversity. We must highlight how this contribution includes, at the moment, only the taxa identified, sometimes even for comparison, with a sufficient margin of certainty. In fact, many other species collected on Isola delle Femmine are in a further study phase such as, for example, numerous species of Diptera, including an Asilidae, or other taxa referable to pedofauna, such as Isopoda and Collembola. Other orders that deserve further investigation are represented by the Symphyla (Myriapoda), Machilida (Archaeognatha), Campodeidae (Diplura), and Neuroptera Aleuropteryginae, which are still under study. The increase in this knowledge, already evident from this first contribution, has allowed us to better understand the living populations of invertebrates on Isola delle Femmine, giving further value to these microisland environments in terms of biodiversity. This first list of the arthropodofauna of Isola delle Femmine (excluding beetles, arachnids and lepidopterans) includes, in conclusion, 70 species, grouped in 65 different genera and 44 families representing 19 orders.

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