
THE CURRENT KNOWLEDGE OF THE SPIDER FAUNA OF THE MALTESE ISLANDS WITH THE ADDITION OF SOME NEW RECORDS (ARACHNIDA: ARANEAE).

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ABSTRACT

The current knowledge of the spider fauna of the Maltese Islands is reviewed. Four species are recorded for the first time, and information is given about the banded argiope, *Argiope trifasciata*, which is thought to be a recently introduced species. An updated checklist of the spider fauna of the Maltese Islands is also provided.

INTRODUCTION

The recorded spider fauna of the Maltese Islands hitherto comprises 137 species in 31 Families, including seven endemic species. Only one species belongs to the suborder Orthognatha - the endemic trapdoor spider *Nemesia arboricola*, first recorded by R.I. Pocock in 1903, and recently re-described by Kraitscher (Kraitscher, 1994). Another nemesiid (*N. macrocephala*) was recorded by Baldacchino *et al.* (1993), but after re-examination of the specimens in the light of Kraitscher's 1994 redescription, this was found to be based on misidentification and the material was assigned to *N. arboricola* (Dandria 2001). The other 136 species belong to the sub-order Labidognatha, and their occurrence was documented by Cantarella (1982), Baldacchino *et al.* (1993), Bosmans & Dandria (1993) and Kraitscher (1996).

The largest family is that of the ground spiders, Gnaphosidae, numbering 21 species including the endemic *Poecilochroa loricata* Kraitscher 1996. The jumping spiders, Salticidae, which were the first Maltese spider family to receive serious attention in Cantarella's 1982 study, are represented by 19 species, among which is the sub-endemic *Aelurillus schembrii* Cantarella 1983, which has so far only been recorded from Malta and Sicily. Other prominent families include: the Theridiidae with 14 species including the endemic *Dipoenata cana* Kraitscher 1996; the Araneidae with 12 species including *Argiope lobata* Pallas 1772, the largest Maltese spider and *A. trifasciata*, which is thought to be a recent introduction; and the Linyphiidae, also with 12 species among which are two endemics: *Palliduphantes melitensis*, Bosmans 1993 and *Syedra parvula* Kraitscher 1996. The wolf-spiders, Lycosidae, and the crab-spiders, Thomisidae, are represented by 7 and 6 species respectively while the remaining families number less than 5 species. Eleven of these are represented by a single species including the 2 endemics *Nemesia arboricola* Pocock 1903 (Family Nemesiidae) and *Palpimanus punctatus* Kraitscher 1996 (Family Palpimanidae). Table 1 summarises the distribution of the hitherto recorded species among the 31 Families.

The present work records 4 species for the first time from the Maltese Islands: 3 linyphiids [*Hybocoptus corrugis* (O. P-Cambridge 1875), *Erigone longipalpis* (Sundevall 1830) and *Ostearius melanopygius* (O. P-Cambridge 1879)] and 1 araneid (*Larinioides cornutus* Clerck 1757) bringing the total number of recorded species to 141. Information about the recently introduced araneid, *Argiope trifasciata* (Forskål 1775), whose presence in the Maltese Islands has already been recorded by Victor Falzon (Falzon, 2005a & 2005b) and by Bonnet & Attard (2005) is also given, together with a complete checklist of Maltese spiders.

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Table 1. The Families of Maltese spiders.

FAMILY	NUMBER OF SPECIES	NOTES
Sub-order Orthognatha		
Nemesiidae	1	endemic
Sub-order Labidognatha		
Filistatidae	1	
Sicariidae	1	
Scytodidae	3	
Pholcidae	4	
Segestriidae	2	
Dysderidae	2	
Oonopidae	1	
Palpimanidae	1	endemic
Oecobiidae	2	
Uloboridae	2	
Theridiidae	14	1 endemic sp.
Linyphiidae	12	2 endemic spp.
Araneidae	12	
Lycosidae	7	
Pisauridae	2	
Zoropsidae	1	
Agelenidae	4	
Dictynidae	4	
Amaurobiidae	1	
Titanoecidae	1	
Miturgidae	2	
Liocranidae	2	1 endemic sp.
Clubionidae	1	
Zodariidae	2	
Prodidomidae	1	
Gnaphosidae	21	1 endemic sp.
Sparassidae	1	
Philodromidae	4	
Thomisidae	6	
Salticidae	19	
Total	137	7 endemic spp.

NEW RECORDS

Family Linyphiidae

Hybocoptus corrugis (O. P-Cambridge 1875)

Synonym: *H. decollatus* (Simon, 1881) (see Platnick, 2005)

Material examined: Ghadira Nature Reserve, Malta 28/10/04 1 male; N. Barbara leg.

Determination: after Roberts (1985)

Distribution: Europe (Platnick, 2005)

Notes: Specimen was taken in a pitfall trap set on the banks of the saline pool during a survey of the macrofauna of the Ghadira Nature Reserve. (Barbara, 2005)

Erigone longipalpis (Sundevall 1830)

Material examined: Dwejra Inland Sea, Gozo 6/03 1 male M. Gauci leg.

Determination: after Roberts (1985)

Distribution: Palaearctic (Platnick, 2005)

Notes: Specimen was taken in a pitfall trap in a coastal area (supralittoral) (Marika Gauci pers. comm.)

Ostearius melanopygius (O. P-Cambridge 1879)

Material examined: Zebbug, Malta 3/8/99 1 male, 3 females, 4 juveniles D. Dandria leg.

Determination: after Roberts (1985)

Distribution: Cosmopolitan (Platnick, 2005)

Notes: Specimens taken from larger population in an apparently communal web in low shrubs.

Family Araneidae

Larinioides cornutus (Clerck 1757) (Fig. 1)

Material examined: Naxxar, Malta 9/04 1 female Juan Ellul Pirotta leg. (specimen was examined alive under stereomicroscope then returned to web)

Determination: after Roberts (1985)

Distribution: Holarctic (Platnick, 2005)

Notes: The specimen had built its orbweb among tree branches in a private garden at Naxxar, hiding in a tubular retreat on one of the branches. The species is very similar to *L. suspicax* (O. P-Cambridge, 1876) (= *L. folium*) a species which is commonly encountered in the Maltese Islands on vegetation near freshwater pools and reservoirs.

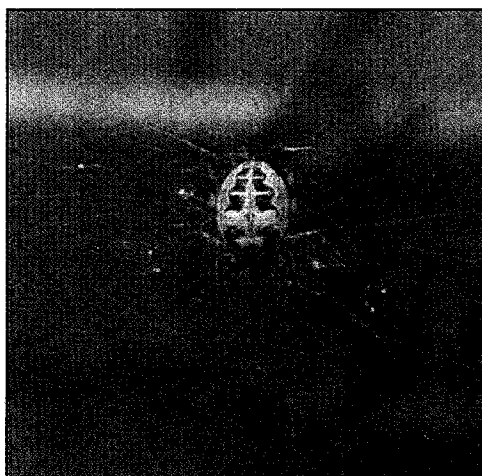


Fig. 1 *Larinioides cornutus* at web.

THE BANDED ARGIOPE

Argiope trifasciata (Forskål 1775) Fig. 2

Material examined: Is-Simar Nature Reserve 1/3/04 1 adult female DD leg.

Determination: after Levy (1997) by comparison of epigyne structure. Identification confirmed by Gershom Levy based on photograph of epigyne.

Distribution: Platnick (2005) gives the distribution as "Cosmopolitan (Except Europe)", while Levy (1997), quoting Levi (1983), gives "Cosmopolitan and partly temperate, not in Europe and Japan" and also mentions its presence in Egypt, Eritrea, Ghana and Israel. Despite the above indications of absence from Europe, however, the Fauna Europaea website indicates the species as present in the Canary Islands, Madeira, mainland Spain and mainland Portugal.

Notes: The presence of this species at the Ghadira Nature Reserve was brought to the attention of one of the authors (VF) in mid-October 2003, when a gravid female was observed on an orb-web suspended in a stand of rush growing near a small, shallow freshwater pool. A week later an egg sac was observed near the web. The specimen was last seen on 21/11/03, but the egg sac was still present at year's end (Falzon 2003a). At

first the spider was thought to be *Argiope bruennichi* (Scopoli 1772), a similar species which had been previously recorded from Malta, but which had not been seen since 1976 and is now regarded as being extinct from the islands (Baldacchino *et al.* 1993). Differences in the dorsal abdominal pattern soon became apparent and the spider was eventually identified as *Argiope trifasciata*. Later that year (11/11/03), *A. trifasciata* was also found at Is-Simar Nature Reserve, where a population consisting of at least 12 females and juveniles had become established in a grassy area of less than 100 sq. m., some of the webs being as near as 30 cm apart. At least 25 egg sacs were also noted. The population dwindled to four individuals by 8th December 2003 (Falzon 2003b). However in late February 2004, when the specimen on which the identification is based was taken, 6 adults and 2 juveniles were noted.

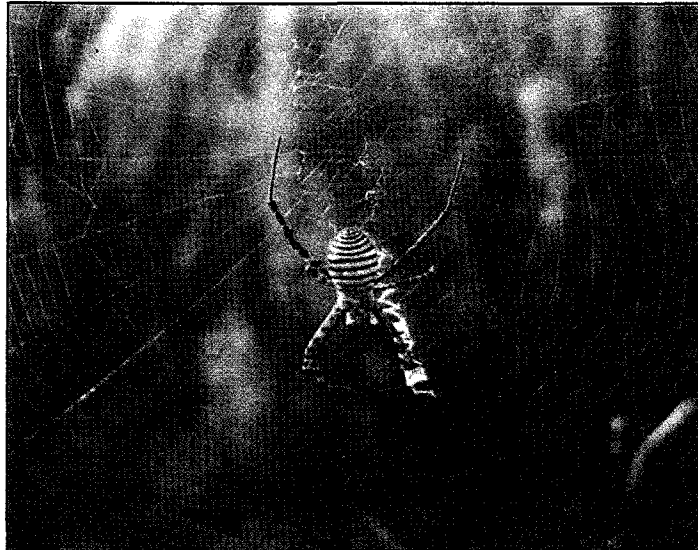


Fig. 2 *Argiope trifasciata* at web.

It later transpired that the species had been observed and photographed in Summer 2003 (May-June) at Wied il-Hanaq in Gozo (Joe Sultana pers. comm.) and this therefore can be taken as the first recorded sighting of the species. Subsequently the species was observed and photographed in a number of other locations including Birzebbuga (David Mifsud pers. comm.) and Naxxar (G. Bonnet pers. comm.). A population of several individuals was found at Il-Ballut saltmarsh, Marsaxlokk, where one of the authors (JH) made several observations on this population. The first sighting was on 10/9/04, when an adult female (bodylength 2 cm) was observed on an orbweb spanning 100 cm, constructed between two tamarisk trees at a height of 110 cm above ground level. A second female of comparable size was sighted on 16/10/04 on a smaller web (diam. 30 cm), this time constructed in a *Suaeda maritima* shrub about 50 cm above ground. On 25/11/04, seven individuals of varying sizes (range 0.7 – 2.3 cm bodylength) were detected in a patch of *Inula crithmoides* bushes. A number of unoccupied webs were also observed from time to time.

The large size and conspicuous colouration of this spider lead us to surmise that it is very unlikely that its presence in Malta had hitherto escaped detection, and it is therefore assumed that it has been recently introduced to the Maltese Islands. Such introduction could have taken place through the presence of egg cocoons in consignments of plant material imported from North Africa, where the spider is known to occur.

CHECKLIST

In the following checklist only taxa which have been identified to species level are included. The taxonomic order of Families follows that of Platnick (2005) while the order of species within families is alphabetical. An asterisk next to a species indicates that it is endemic to the Maltese Islands.

ORDER ARANEAE

SUBORDER ORTHOGNATHA

Nemesiidae

**Nemesia arboricola* Pocock 1903

SUBORDER LABIDOGNATHA

Filistatidae

Filistata insidiatrix (Forskål, 1775)

Sicariidae

Loxosceles rufescens (Dufour, 1820)

Scytodidae

Scytodes bertheloti Lucas 1838

Scytodes thoracica (Latreille, 1804)

Scytodes velutina Lowe 1836

Pholcidae

Holocnemus pluchii (Scopoli, 1763)

Pholcus opilionoides (Schrank, 1781)

Pholcus phalangioides (Fuesslin, 1775)

Spermophora senoculata (Dugès, 1836)

Segestriidae

Ariadna insidiatrix Audouin, 1827

Segestria senoculata (Linnaeus, 1758)

Dysderidae

Dysdera crocata C.L. Koch 1839

Harpactea corticalis (Simon, 1882)

Oonopidae

Silhouettella loricatula (Roewer, 1942)

Palpimanidae

**Palpimanus punctatus* Kritscher, 1996

Oecobiidae

Oecobius maculatus Simon 1870

Oecobius navus Blackwall 1859

Uloboridae

Uloborus plumipes Lucas, 1846

Uloborus walckenaerius Latreille, 1806

Theridiidae

Achaearanea tepidariorum (C.L. Koch, 1841)

Anelosimus aulicus (C.L. Koch, 1838)

Argyrodes argyroides (Walckenaer, 1841)

**Dipoenata cana* Kritscher, 1996

Enoplognatha macrochelis (Levy & Amitai, 1981)

Enoplognatha mandibularis (Lucas, 1846)

Euryopis acuminata (Lucas, 1846)
Neottiura uncinata Lucas 1846
Nesticodes rufipes Lucas 1846
Steatoda grossa (C.L. Koch, 1838)
Steatoda paykulliana (Walckenaer, 1806)
Steatoda triangulosa (Walckenaer, 1802)
Theridion mystaceum L. Koch, 1870
Theridion pinastri L. Koch, 1872

Linyphiidae

Araeoncus humilis (Blackwall, 1841)
Erigone longipalpis (Sundevall 1830)
Hybocoptus corrugis (O. P-Cambridge 1875)
Meioneta rurestris (C.L. Koch, 1836)
Microlinyphia pusilla (Sundevall, 1830)
Microctenonyx subitaneus (O.P-Cambridge 1875)
Ostearius melanopygius (O. P-Cambridge 1879)
**Palliduphantes melitensis* (Bosmans, 1994)
Pelecopsis inedita (O.P-Cambridge, 1875)
Silometopus curtus (Simon, 1881)
**Syedra parvula* Kritscher, 1996
Tenuiphantes tenuis (Blackwall, 1852)

Araneidae

Agelenatea redii (Scopoli, 1763)
Araneus quadratus Clerck, 1757
Argiope lobata (Pallas, 1772)
Argiope trifasciata (Forskål 1775)
Cyclosa insulana (Costa, 1834)
Cyrtophora citricola (Forskoel, 1775)
Larinioides cornutus (Clerck 1757)
Larinioides suspicax (O. P-Cambridge 1876)
Mangora acalypha (Walckenaer, 1802)
Neoscona subfusca (C.L. Koch, 1837)
Zygiella atrica (C.L. Koch, 1845)
Zygiella x-notata (Clerck, 1757)

Lycosidae

Alopecosa albofasciata (Brullé 1832)
Alopecosa canaricola Schmidt, 1982
Arctosa lacustris (Simon 1876)
Hogna ferox (Lucas, 1838)
Hogna narbonensis Walckenaer, 1806
Pardosa hortensis (Thorell, 1872)
Pardosa proxima (C.L. Koch, 1847)

Pisauridae

Pisaura mirabilis (Clerck, 1775)
Pisaura quadrilineata (Lucas 1838)

Zoropsidae

Zoropsis spinimana (Dufour, 1820)

Agelenidae

Lycosoides coarctata (Dufour, 1831)
Lycosoides flavomaculata (Lucas, 1846)
Tegenaria parietina (Fourcroy, 1785)
Tegenaria dalmatica Kulczynski 1906

Dictynidae

Dictyna civica (Lucas, 1850)
Dictyna latens (Fabricius, 1775)
Dictyna pusilla Thorell, 1856
Marilynia bicolor (Simon, 1870)

Amaurobiidae

Amaurobius erberi (Keyserling, 1863)

Titanoecidae

Nurscia albomaculata (Lucas, 1846)

Miturgidae

Cheiracanthium mildei L. Koch, 1864
Cheiracanthium pennyi O. P-Cambridge, 1873

Liocranidae

Mesiotelus tenuissimus (L. Koch, 1866)
**Scotina occulta* Kritscher., 1996

Clubionidae

Clubiona leucaspis Simon, 1932

Zodariidae

Zodarion emarginatum (Simon, 1873)
Zodarion nigriceps (Simon, 1873)

Prodidomidae

Anagraphis pallens Simon, 1893

Gnaphosidae

Aphantaulax cincta (L. Koch, 1866)
Drassodes lapidosus (Walckenaer, 1802)
Drassodes cupreus (Blackwall 1834)
Drassylus pusillus (C.L. Koch 1833)
Gnaphosa lugubris (C.L. Koch, 1839)
Haplodrassus severus (C.L. Koch, 1839)
Haplodrassus signifer (C.L. Koch, 1839)
Kishidaia conspicua (L. Koch, 1866)
Leptodrassus albidus Simon, 1914
Micaria coarctata (Lucas 1846)
Micaria formicaria (Sundevall, 1832)
Nomisia exornata (C.L. Koch, 1839)

Nomisia recepta (Pavesi 1880)
**Poecilochroa loricata* Kritscher, 1996
Pterotrichina elegans (Dalmas, 1921)
Scotophaeus blackwalli (Thorell, 1871)
Scotophaeus scutulatus (L. Koch, 1866)
Trachyzelotes barbatus (L. Koch, 1866)
Zelotes fuscotestaceus Simon, 1878
Zelotes nilicola (O. P-Cambridge, 1874)
Zelotes tenuis (O. P-Cambridge, 1874)

Sparassidae

Micrommata ligurinum (C.L. Koch, 1845)

Philodromidae

Philodromus glaucinus Simon, 1870
Philodromus pulchellus Lucas, 1846
Philodromus rufus Walckenaer, 1820
Thanatus vulgaris Simon, 1870

Thomisidae

Runcinia cerina (C.L. Koch, 1845)
Synaema globosum (Fabricius, 1775)
Thomisus onustus Walckenaer, 1806
Xysticus caperatus Simon 1875
Xysticus cribratus Simon, 1932
Xysticus nubilus Simon, 1875

Salticidae

Aelurillus monardi (Lucas, 1846)
Aelurillus schembrii Cantarella 1982
Chalcoscirtus infimus (Simon, 1868)
Cyrba algerina (Lucas, 1846)
Euophrys rufibarbis (Simon, 1868)
Evarcha jucunda (Lucas, 1846)
Hasarius adansoni (Sav. & Aud., 1825)
Heliophanus tribulosus Simon, 1868
Icius hamatus (C.L. Koch, 1846)
Icius nebulosus (Simon, 1868)
Menemerus semilimbatus (Hahn, 1827)
Menemerus taeniatus (L. Koch, 1867)
Neaetha membrosa (Simon, 1868)
Phlegra bresnieri (Lucas, 1846)
Phlegra fasciata (Hahn, 1826)
Plexippus paykulli (Sav. & Aud., 1825)
Salticus mutabilis Lucas, 1846
Salticus unciger (Simon, 1868)
Talavera petrensis (C.L. Koch, 1837)

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REFERENCES

- Baldacchino A.E., Dandria D., Lanfranco E. & Schembri P.J.** (1993) Records of spiders (Arachnida: Araneae) from the Maltese Islands (Central Mediterranean). *Cent. Med. Nat.* 2(2) 37 - 59
- Barbara, N.** (2005). *Ecology of the saline pool macrofauna at the Ghadira Nature Reserve*. Unpublished B.Sc (Hons) dissertation. Department of Biology, University of Malta.
- Bonnet G. & Attard J.** (2005) *The Maltese Countryside Vol 2: A pictorial guide to the fauna of the Maltese Islands* Publishers Enterprises Group (P.E.G.) Ltd., Malta 392 pp, ill.
- Bosmans R. & Dandria D.** (1993) Some new records of spiders (Arachnida: Araneae) from the Maltese Islands (Central Mediterranean). *Animalia* 20 (1/3)23 - 26
- Cantarella T.** (1982) Salticidae (Araneae) delle Isole Maltesi. *Animalia* 9(1/3): 239 - 252
- Dandria D.** (2001) Observations on the endemic Maltese trap-door spider *Nemesia arboricola* Pocock, 1903 (Araneae: Nemesiidae). *Cent. Med. Nat* 3(3): 103—107
- Falzon V.** (2005) "New Spider" in: *Ghadira Nature Reserve 2003 Report*. BirdLife Malta.
- Falzon V.** (2005) "The Banded Argiope" in: *Is-Simar Nature Reserve 2003 Report*. BirdLife Malta.
- Kritscher E.** (1994) *Nemesia arboricola* Pocock, 1903, eine durch ein Jahrhundert hindurch verschollene Spinnenart der Maltesischen Inseln. *Ann. Naturhist. Mus. Wien.* 96B: 49 - 57
- Kritscher E.** (1996) Ein Beitrag zur Kenntnis der Spinnen-Fauna der Maltesischen Inseln (Chelicerata: Araneae) *Ann. Naturhist. Mus. Wien* 98B: 117-156
- Levi H.W.** (1983) The orb-weaver genera *Argiope*, *Gea* and *Neogea* from the Western Pacific Region (Araneae: Araneidae: Argiopinae) *Bull. Mus. Comp. Zool. Harv.* 152: 167 - 315 (not seen)
- Levy G.** (1997) Twelve genera of orbweaver spiders (Araneae, Araneidae) from Israel *Isr. Journ. Zool.* 43: 311 - 365
- Platnick, N. I.** 2005. *The world spider catalog, version 6.0*. American Museum of Natural History, online at: <http://research.amnh.org/entomology/spiders/catalog/index.html>
- Pocock R.I.** (1903) Description of four new Arachnida of the Orders Palpigradi, Solifugae and Araneae. *Ann. Mag. Nat. Hist. ser 7, 11:* 220 - 236
- Roberts M.J.** (1985) *The Spiders of Great Britain and Ireland* Compact Edition, Harley Books, U.K.
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