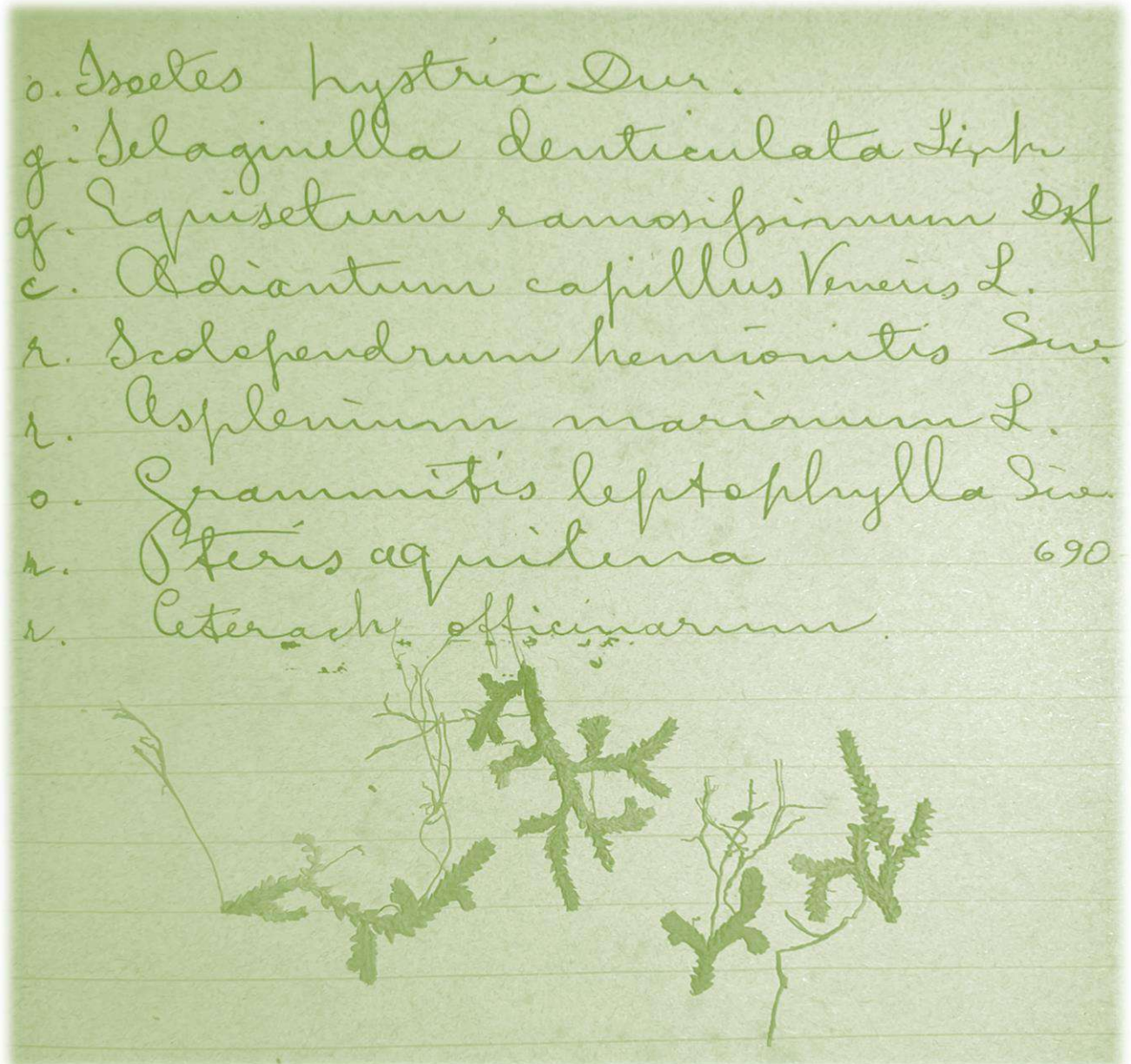


BULLETIN OF THE NATIONAL MUSEUM OF NATURAL HISTORY, MALTA



BULLETIN OF THE
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Cover image: Page from a botanical journal belonging to Alfredo CARUANA GATTO (1868–1926), with pressed specimens of *Selaginella denticulata* (L.) Spring. (Archives of the National Museum of Natural History, Mdina, Malta).

**A NEW MEDITERRANEAN SPECIES OF *MANGELIA* RISSO, 1826
(GASTROPODA: CONOIDEA: MANGELIIDAE),
DESCRIBED FROM THE MALTESE ISLANDS**

Charles CACHIA¹

ABSTRACT

Mangelia mifsudi n. sp. is described from shells collected from Maltese littoral and circalittoral waters.

Keywords: Mangeliidae, *Mangelia*, new species, Maltese Islands, Mediterranean

SINTEŻI

[Speċi Mediterranja ġdida ta' *Mangelia* Risso, 1826 (Gastropoda, Conoidea, Mangeliidae), deskritta mill-Gżejjer Maltin.] *Mangelia mifsudi* n. sp. hija deskritta minn kampjuni miġburin mill-ibħra littorali u ċirkalittorali Maltin.

Kliem muftieħ: Mangeliidae, *Mangelia*, speċi ġdida, il-Gżejjer Maltin, Mediterran

INTRODUCTION

According to MolluscaBase (<https://www.molluscabase.org/>; last accessed 28 Oct. 2024) the genus *Mangelia* Risso, 1826, of the neogastropod family Mangeliidae Fischer, 1883, consists of 125 species. Of these, 16 recent species are accepted for the Mediterranean, as listed in the checklist of the Società Italiana di Malacologia (<https://www.societaitalianadimalacologia.it/>; last accessed 28 Oct. 2024 see also GRUPPO MALACOLOGICO LIVORNESE & GRUPPO MALACOLOGICO ROMAGNOLO, 2005; SCAPEROTTA et al., 2014; ÖZTÜRK, 2021; SPADA et al., 2022; and GIANNUZZI-SAVELLI et al., 2023). CACHIA et al. (2001: 51) list 15 species for Maltese waters, this list rises to 18 in CACHIA et al. (2019: 111); this difference results from synonymizations, new descriptions, and transfers of former '*Mangelia*' species to *Bela* Leach, 1847, *Pseudomangelia* Sabelli & Spada, 2023, *Pyrgocythara* Woodring, 1928, *Smithiella* Monterosato, 1890, and *Villiersiella* Monterosato, 1890.

In this contribution, a new species is described from material collected from Maltese waters.

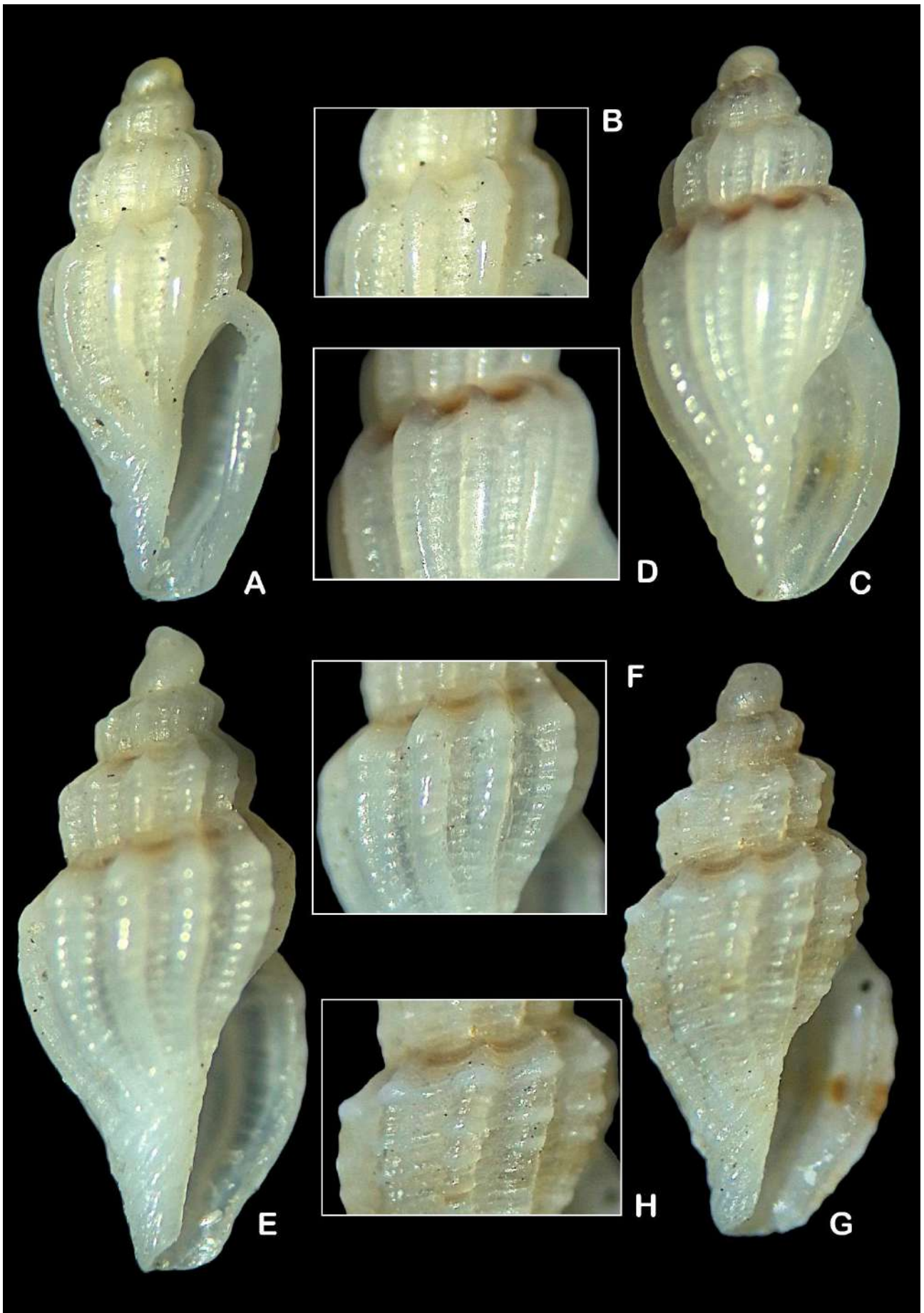
MATERIALS AND METHODS

Only a few fresh, empty shells of the new species could be obtained. These were isolated from bioclastic detritus collected from Maltese waters at depths of 5 to 60 m.

SYSTEMATICS

Class Gastropoda Cuvier, 1795
Order Neogastropoda Wenz, 1938
Superfamily Conoidea Fleming, 1822

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Pl. 1 Figs. A–H: Mediterranean species of *Mangelia* Risso, 1826. **A–D:** *Mangelia mifsudi* n. sp. **A, B:** Holotype of *Mangelia mifsudi* n. sp., from detritus taken at c. 5 m depth, Salina Bay, Malta, Aug. 2005, C. CACHIA leg. (National

Museum of Natural History, Mdina, Malta, NMNH-MOL-4602), with detail of the body whorl. **C, D:** Paratype 1 of *Mangelia mifsudi* n. sp., from 3–5 m depth, Salina Bay, Malta, Sep. 1980, C. CACHIA leg. (coll. C. CACHIA, no. 562/1), with detail of the body whorl. **E–H:** *Mangelia thapsiae* (Oberling, 1970). **E, F:** *Mangelia thapsiae* (Oberling, 1970), from detritus taken at c. 5 m depth, Salina Bay, Malta, Aug. 2005, C. CACHIA leg. (coll. C. CACHIA), with detail of the body whorl. **G, H:** *Mangelia thapsiae* (Oberling, 1970) [*Mangiliella angelinae* Cecalupo & Quadri, 1996 morphotype], from Macronissos, Cyprus, Mar. 1996 (coll. C. CACHIA), with detail of the body whorl.

Family Mangeliidae Fischer, 1883

Genus *Mangelia* Risso, 1826

***Mangelia mifsudi* n. sp. (Pl. 1 Figs. A–D)**

urn:lsid:zoobank.org:act:49DBCDA9-FBE9-46B2-9475-0DE03019125C

Type material (material studied):

MALTA • **holotype:** 1 shell; Salina Bay; in detritus taken at c. 5 m depth; Aug. 2005; C. CACHIA leg.; National Museum of Natural History, Mdina, Malta, NMNH-MOL-4602 (3 mm × 1.75 mm).

MALTA • **paratypes:** 5 shells (3 adult + 2 subadult); Salina Bay; at 3–5 m depth; Sep. 1980; C. CACHIA leg.; coll. C. CACHIA, no. 562/1–5 • 1 shell; Rdum id-Delli; at 60 m depth; C. MIFSUD leg.; coll. C. CACHIA, no. 562/6 • 2 shells; Birżebbuġa; beached; C. CACHIA leg.; coll. C. CACHIA, no. 562/7–8 • 2 shells; Birżebbuġa; beached; C. CACHIA leg.; coll. C. MIFSUD, M1746a.

Type locality: Salina Bay, Malta.

Etymology: The new species is dedicated to Constantine MIFSUD (Rabat, Malta), long term friend and colleague of the author.

Distribution: Hitherto only known from localities off the Maltese coast.

Description: Shell fusiform, rather solid, 3 to 4 mm in height. White to cream in colour; in one specimen, a thin subsutural brown stripe, and another rather faint intermittent one on the middle of the body whorl, appear. Protoconch paucispiral, white, and smooth. Axial sculpture composed of orthocone to slightly opisthocone smooth ribs, 11 on the body whorl, which are equal to the interspaces in thickness. Spiral sculpture composed of flattened spiral chords of equal thickness, separated by rather linear interspaces, and present only between the axial ribs. Teleoconch whorls 4 to 5, regularly convex, without any hint of angulation. Aperture slightly more than half the total shell height. Siphonal canal short. Inner apertural lip smooth.

DISCUSSION

The subfamily Mangeliinae Fischer, 1887 was discussed by VAN AARTSEN & FEHR-DE WAL (1978) with the establishment of four new species. They grouped the European species of *Mangelia* under two genera: *Mangelia* and *Mangiliella* Bucquoy, Dautzenberg & Dollfus, 1883, distinguished mainly by (1) the type of protoconch, i.e. respectively multispiral and paucispiral, (2) the type of spiral sculpture present on the shell. From the *Mangiliella* group (now accepted as *Mangelia*, see BOUCHET, 1990), *Mangiliella fieldeni* van Aartsen & Fehr-de Wal, 1978, now recognized as *Mangelia thapsiae* (Oberling, 1970) (**Pl. 1 Figs. E–H**), has a spiral sculpture of ‘few relatively strong spiral bands’ (VAN AARTSEN & FEHR-DE WAL, 1978: 109). This type of spiral sculpture in fact occurs only in *Mangelia thapsiae*, easily distinguishing this species from all other Mediterranean *Mangelia* species.

Mangelia mifsudi n. sp. also belongs to this group. However, it differs from *M. thapsiae* by the following important and reliable characteristics: (a) teleoconch whorls that are regularly convex in *M. mifsudi*, but that present a clear, often sharp, angulation at the adapical third of the whorls in *M. thapsiae* (b) spiral cords that are present only between the ribs in *M. mifsudi*, but that cross over the ribs in *M. thapsiae*, where they can be quite prominent (as in *Mangiliella angelinae* Cecalupo & Quadri, 1996, considered a junior subjective synonym of *M. thapsiae*) (**Pl. 1 Figs. G, H**) (c) shells

of *M. mifsudi* that are consistently smaller than those of *M. thapsiae* at the same number of whorls (d) a protoconch that in *M. mifsudi* is less prominent and slightly smaller, and in *M. thapsiae* more prominent and slightly bigger, and in *M. mifsudi* joining the teleoconch whorls without any change in sculpture, whereas this transition in *M. thapsiae* is marked by a few thin axial striae.

ACKNOWLEDGEMENTS

The author wishes to thank Constantine MIFSUD, for useful discussions in the preparation of this paper, and David P. CILIA (National Museum of Natural History, Malta), who prepared the plate.

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AN ANNOTATED CHECKLIST OF THE OLIGO-MIOCENE CEPHALOPODS OF THE MALTESE ISLANDS

David P. CILIA ^{2*}, Dirk FUCHS ³, Stijn GOOLAERTS ⁴

ABSTRACT

A systematic checklist of cephalopod fossils (Phylum Mollusca: Class Cephalopoda) recorded from the Oligo-Miocene sedimentary sequence of the Maltese archipelago is given. It consists of species of the nautilid genera *Aturia* and *Eutrephoceras*, next to calcified parts of the nautilid animal's upper jaw placed under the parataxon *Rhyncolites*, and of sepiid and spirulid coleoid genera *Sepia* (Sepiida) and *Spirulirostra* (Spirulirostrida). Cephalopod fossils from the Maltese archipelago, in particular abundant limonitic or phosphoritic specimens of *Aturia* and *Sepia*, have been recorded in scientific literature since the middle part of the 19th Century. The identification of several species of *Sepia* is hampered by lost type material and taphonomic distortion or loss of diagnostic traits.

Keywords: Mollusca, Cephalopoda, Nautiloidea, Coleoidea, fossil species, Maltese Archipelago

SINTEŽI

[Lista ta' kontroll annotata tač-čefalopodi Oligo-Mijočeniči tal-Gzejjer Maltin.] F'dan l-istudju tingħata lista ta' kontroll sistematika ta' fossili tač-čefalopodi (Filum Mollusca: Klassi Cephalopoda) rreġistrati mis-sekwenza sedimentarja Oligo-Mijočenika tal-arčipelagu Malti. Din tikkonsisti fi speči mill-ġeneri nawlitidi *Aturia* u *Eutrephoceras*, biswit partijiet kalčifikati tax-xedaq ta' fuq tal-animall nawtilidu meqjusin bħala l-paratasson *Rhyncolites*, u tal-ġeneri sepjidi u spirulidi *Sepia* (Sepiida) u *Spirulirostra* (Spirulirostrida). Fossili ta' čefalopodi minn Malta, spečjalment kampjuni limonitiči jew fosforitiči abbondanti ta' *Aturia* u *Sepia*, ilhom jġu irreġistrati fil-letteratura xjentifika min-nofs is-Seklu Dsatax. L-identifikazzjoni ta' diversi speči ta' *Sepia* hija mxekkla minħabba li l-materjal tat-tip huwa mitluf jew minħabba deformazzjoni jew telf tafonomiku ta' karatterističi dijanjostiči.

Kliem muftieħ: Mollusca, Cephalopoda, Nautiloidea, Coleoidea, speči fossili, l-arčipelagu Malti

INTRODUCTION

The Cenozoic (Oligo-Miocene) sedimentary sequence exposed on the Maltese archipelago was deposited from the Chattian to the Lower Messinian and consists of five distinct formations (**Table 1**). The earliest of these is the Lower Coralline Limestone Formation. This unit of Chattian age (GIANNELLI & SALVATORINI, 1972; FELIX, 1973; ROSE et al., 1992; JACOBS et al., 1996; FORESI et al., 2008; BRANDANO et al., 2009a, 2009b) is an indurated, white, coarse, occasionally crystalline, shallow water limestone, with laterally variable amounts of bioclastic content including rhodoliths, nummulitiform foraminifers, large strombids, and sessile and mobile bivalves (ZAMMIT-MAEMPEL, 1979, 1993; HARZHAUSER, 2001; GATT, 2006).

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The following unit is the Globigerina Limestone Formation, underlain by an indurated bed rich in the echinoid *Scutella* Lamarck 1816 and deposited from the Upper Chattian until the Langhian (GIANNELLI & SALVATORINI, 1972; MAZZEI, 1986; CARBONE et al., 1987; ABELS et al., 2005; FORESI et al., 2008; HILGEN et al., 2009; JANSSEN, 2012; BALDASSINI et al., 2013). It is a fine, soft, whitish to yellowish porous limestone, divided into three subunits simply termed the Lower, Middle and Upper Globigerina Limestones (RIZZO, 1932). These are interspersed with three main and several subordinate phosphorite conglomerate horizons, usually denoting indurated hiatal surfaces and frequently demonstrating extensive bioturbation (PEDLEY & BENNETT, 1985; GATT, 2005; FÖLLMI et al., 2008; GRUSZCZYNSKI et al., 2008; DI STEFANO & BALDASSINI, 2015). The Lower Globigerina Limestone Formation and parts of the basal portion of the Middle Globigerina Limestone Formation, including the C₀ and C₁ Phosphorite Conglomerate Beds, are of Chattian age (REHFELD & JANSSEN, 1995; GATT, 2005; and references above), while most of the Middle Globigerina Limestone Formation is of an Upper Burdigalian age (MAZZEI, 1980; THEODORIDIS, 1984; JANSSEN, 2012; and references above), with Chattian outliers (ZAMMIT et al., 2022). The Upper Globigerina Limestone Formation, including the C₂ Phosphorite Conglomerate Bed, is of Upper Langhian age (MAZZEI, 1980; THEODORIDIS, 1984; BALDASSINI et al., 2011; MOURIK et al., 2011; CILIA, 2024; and references above). Fossils of deep-sea organisms are characteristic of Globigerina Limestone thanatocoenoses; these include foraminifers (GIANNELLI & SALVATORINI, 1972) and other pelagic species, ranging in size from holoplanktonic gastropods (JANSSEN, 2003, 2012) to cetaceans and other marine mammals (COOKE, 1895, MENESINI, 1972; BIANUCCI et al., 2011). Benthic species are represented predominantly by pectinids (SPRATT, 1843; ROMAN & ROGER, 1939) and echinoids (WRIGHT, 1855; COTTREAU, 1913; WIGGLESWORTH, Ph.D.; ROSE, 1974).

The Blue Clay Formation is a soft, impermeable, and plastic unit, rich in goethite and gypsum fragments, that coincides almost fully with the Serravallian (GIANNELLI & SALVATORINI, 1975; RUSSO & BOSSIO, 1976; HILGEN et al., 2006) except for its uppermost glauconite- and pectinid-rich sections, which frequently extend into the Lower Tortonian (MAZZEI, 1986; JANSSEN, 2012; CATANZARITI & GATT, 2014). Fossils of the Blue Clay Formation are normally replaced by pyrite pseudomorphed into goethite, and include ahermatypic corals, gastropods, and bivalves (FUCHS, 1874, 1876; GATT, 2006).

Following a depositional hiatus (KIENEL et al., 1995), the Greensands Formation and the following Upper Coralline Limestone Formation (*Qawwi ta' Fuq*) are deposits from the Upper Tortonian to the Lower Messinian (PEDLEY, 1976, 1979; BOSENCE & PEDLEY, 1982), possibly terminating at the onset of the Messinian Salinity Crisis (BIALIK et al., 2021). Typical thanatocoenoses of these formations are biodiverse and abundant, and include *Heterostegina* d'Orbigny, 1826, rhodoliths, corals, bryozoans, brachiopods, serpulids, decapods, echinoids, and fish (PEDLEY, 1976, 1978; BOSENCE, 1983; GATT & DE ANGELI, 2010; DULAI et al., 2015; BIALIK et al., 2021).

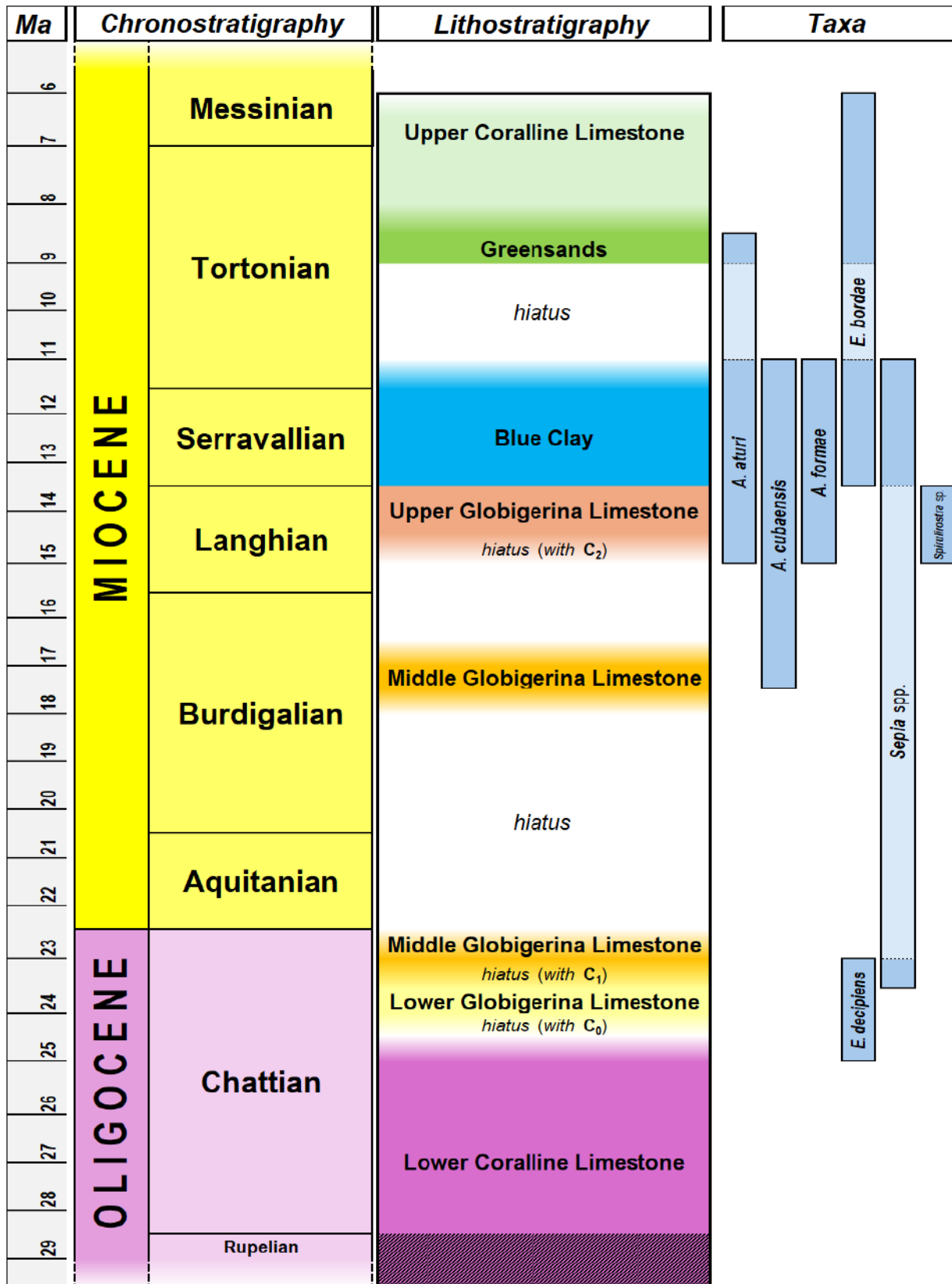
The earliest mentions of cephalopod fossils in these units appear in general checklists of Maltese Tertiary fossils or conchological contributions, including those by SPRATT (1843), WRIGHT (1855), CARUANA (1867), FUCHS (1874), ADAMS (1879), DE GREGORIO (1895), COOKE (1896), and DE STEFANI (1913), of which GATT (2006) provides a bibliographic and systematic overview. Studies on specific taxonomic groupings of cephalopods include that on aturiids by BOSSIO (1972) and another on sepiids by HEWITT & PEDLEY (1978). By way of information, extant cephalopods of Maltese waters are mainly treated by [Gav.] GULIA (1858-59), CARUANA (1867), [Gio.] GULIA (1914), MICALLEF & EVANS (1968), CACHIA (1973), CACHIA et al. (1993), SCHEMBRI & SCHEMBRI (1997), MIFSUD & CACHIA (2001), CACHIA et al. (2004) and MIFSUD & SCHEMBRI (2016).

MATERIALS AND METHODS

The aim of this paper is to provide an updated and complete checklist of all fossil cephalopod species known from the Oligo-Miocene sedimentary sequence of the Maltese archipelago, together with their mentions in literature. Chresonymies are largely limited to referencing studies that document Maltese material, although basionyms subsequently synonymized with the taxa of interest are also included. A few previously unrecorded species of coleoids collected by Arie W. JANSSEN (1937–2021; see VAN DER VOORT et al., 2021) and mentioned in his treatment of Maltese Tertiary holoplanktonic molluscs (JANSSEN, 2012) (deposited within the collections of Naturalis Biodiversity Center in

Leiden, The Netherlands)) were examined and illustrated for the first time in this work. Photography of specimens was kindly executed by Ronald POWER (Naturalis) and Imelda HAUSMANN (BSPG). Nomenclature of lithostratigraphic formations follows MURRAY (1890). Unless indicated otherwise, measurements of sepiid fossils are given as [*length of median axis* × *maximum width*].

Table 1: Chronolithostratigraphy of the exposed sedimentary sequence of the Maltese archipelago, based on the sources mentioned in the text, with approximate temporal occurrence of the taxa discussed (except *Rhyncolites mediterraneus*).



Symbols and abbreviations:

[?]: uncertain taxonomic allocation

[**sic**]: intentionally so written

Ma: megaannum

BSPG: Bayerische Staatssammlung für Paläontologie und Geologie, Munich, Germany

RGM: Naturalis Biodiversity Center (formerly the Rijksmuseum van Geologie en Mineralogie), Leiden, The Netherlands

NMNH: National Museum of Natural History, Mdina, Malta

SYSTEMATICS

Mollusca Linné, 1758

Cephalopoda Cuvier, 1797

Nautiloidea Agassiz, 1847

Nautilida Agassiz, 1847

Remarks: All Maltese fossils of Nautilida are restricted to remnants of their spirally coiled chambered shell, in the form of sediment or mineral casts, with extremely uncommon traces of the original aragonitic shell. Remnants of soft parts are unknown, although remains of their buccal mass in the form of calcified parts of their upper jaw, placed under the parataxon *Rhyncolites* Faure-Biguet, 1819, do occur.

Aturiidae Chapman, 1857

Aturia Bronn, 1838

Type species: *Aturia aturi* (de Basterot, 1825)

Remarks: Some records of *Aturia* sp. from Maltese strata are left in open nomenclature and could not be determined to species level by the present authors. These appear in ZAMMIT-MAEMPEL (1977: 26), JANSSEN (1999: 114), and JANSSEN (2012: 517, 515 fig. 70).

Aturia aturi (de Basterot, 1825)

Nautilus Aturi DE BASTEROT, 1825: 17.

Nautilus zigzag – FORBES in SPRATT, 1843: 230, 231. [**sic**, non *ziczac* Sowerby, 1812]

Nautilus diluvii SISMONDA in MICHELOTTI, 1847: 346.

Megasiphonia zic-zac – WRIGHT, 1855: 104. [non *ziczac* Sowerby, 1812]

Nautilus ziz-zag – CARUANA ex MAMO, 1867: 56. [**sic**, non *ziczac* Sowerby, 1812]

Aturia Aturi Bast. – BELLARDI, 1872: 23.

Aturia radiata BELLARDI, 1872: 24, pl. 3 fig. 3.

Nautilus diluvii – FUCHS, 1874: 98.

Nautilus (Aturia) Aturi Bast. – HÖRNES, 1875: 336, 337, 341.

Megasiphonia Aturi d'Orb. – HÖRNES, 1875: 345.

Nautilus Aturi Bast. – FUCHS, 1876: 67, 68, pl. 1 figs. 8, 9.

Nautilus ziczac – ADAMS, 1879: 519. [non *ziczac* Sowerby, 1812]

Aturia Aturi Basterot – FOORD, 1891: 351.

Aturia Aturi Bast. – DE GREGORIO, 1895: 7, pl. 4 fig. 14.

Aturia Aturi Bast. – COOKE, 1893a: 127.

Aturia aturii Basterot – COOKE, 1896: 502, 503, 505, 507, 509. [**sic**]

Aturia Aturi Bast. – PARONA, 1898: 161.

Aturia Aturi Bast. – DE STEFANI, 1913: 5.

Aturia Aturi – RIZZO, 1914: 1068.

Aturia aturi (Basterot) – STURANI, 1958: 366, 367 fig. 2, 369 figs. 3a-c, 370 figs. 4, 5, 371 fig. 6, 372 fig. 7 [graph], 374 fig. 8, pl. 18 fig. 1, pl. 19 figs. 1, 2, pl. 20 figs. 2, 4.

Aturia aturi – WIGGLESWORTH, Ph.D.: 37.

Aturia aturi Basterot – BOSSIO, 1972: 89.

Aturia aturi Bast. – ZAMMIT-MAEMPEL, 1977: 30, 32 fig. 6.

Aturia aturi – HEWITT & PEDLEY, 1978: 232, 233 fig. 2d [graph, *partim*].

Aturia sp. – GEYS & BEEUSAERT, 1982: 47, 48 fig. 14.

Aturia aturi – MAGRI, M.Sc.: 32.

Aturia sp. – PEDLEY et al., 2002: 55 fig. 65.

Aturia aturi (Basterot, 1825) – GATT, 2006: 203, 203 un. fig.

Material studied:

MALTA • 1 specimen; Blue Clay Formation; Miocene (Serravallian to Tortonian); ex coll. M. NANI; NMNH • 2 specimens; Ġnejna Bay; Blue Clay Formation ('*Sez[ione] 1: M8, livello leggermente glauconitico a Flab[ellum] e Amussium*'); Miocene (Serravallian); 6 Sep. 1969; L. GIANNELLI & G. SALVATORINI leg.; NMNH; NMNH-M/C.305 • 1 specimen; Mtaħleb; Blue Clay Formation ('*Sez[ione] 4: M7, argille livello glauconitico*'); 5 Sep. 1969; L. GIANNELLI & G. SALVATORINI leg.; NMNH; NMNH-M/V.304

Lithostratigraphic range in Malta: C₂ Phosphorite Conglomerate Bed to Greensands Formation.

Chronostratigraphic range in Malta: Miocene [Langhian to Tortonian].

Remarks: The literature cited above refers to finds of *A. aturi* in units ranging from the Langhian to the Tortonian, although most of the records originate from the Serravallian Blue Clay Formation.

Nautilus diluvii Sismonda in Michelotti, 1827 was synonymized with *A. aturi* by FOORD (1891).

One of the specimens in the Naturalis collection (RGM.394070, A.W. JANSSEN leg. 1995) was determined by JANSSEN as '*Aturia* cf. *radiata* Bellardi, 1872'. PARONA (1898: 163) had synonymized the two taxa, as the characteristics that seemingly differentiate *A. radiata* from *A. aturi* are of taphonomic, rather than biological, origin: '*non si tratta di differenza specifica, ma semplicemente di un particolare stato di conservazione*'. The sample labelled as '*Aturia aturi* (de Basterot, 1825)' (RGM.397781, A.W. JANSSEN leg. 6-9 Jun. 1995) originates from the same locality and horizon as the *A. cf. radiata* specimen, namely the outcrops of the Blue Clay Formation ('*lower 30 m of upper brownish-green part*') along the road from Żebbuġ to Marsalforn in Gozo (between UTM 319930 and 321932), and therefore the two lots could be incorporated into one (RGM.397781; R. POWWER, pers. comm. 2024).

***Aturia cubaensis* (Lea, 1841) (Pl. 1 Figs. A–B)**

Nautilus Cubaensis LEA, 1841: 259, pl. 10 fig. 15.

Aturia cubaensis Lea – BOSSIO, 1972: 89, pl. 1 figs. 7a, 7b.

Aturia cubaensis – HEWITT & PEDLEY, 1978: 232, 233 fig. 2d [graph, *partim*].

Aturia cubaensis (Lea, 1841) – GATT, 2006: 203, 203 un. fig.

Material studied:

MALTA • 1 specimen; Marsaxlokk, Delimara peninsula, near Fort Delimara; 35.8246082, 14.5562424; Middle Globigerina Limestone Formation; Miocene (Burdigalian); 6 Dec. 2015; S. CARDONA leg.; NMNH, NMNH/TER-128 • 2 specimens; Gozo, Marsalforn; C₂ Phosphorite Conglomerate Bed ('*M19: liv[ello] fosforitico secondario...*'); 15 & 16 Sep. 1969; L. GIANNELLI & G. SALVATORINI leg.; NMNH; NMNH-MC.309-312 [*partim*].

Lithostratigraphic range in Malta: Middle Globigerina Limestone Formation to Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Burdigalian to Serravallian].

Remarks: The specimen studied and illustrated in this paper is from the Middle Globigerina Limestone Formation at Delimara, dated to the Burdigalian by BALDASSINI & DI STEFANO (2016), and therefore extending the local chronostratigraphic range of the species.

Morphologically, *A. aturi* and *A. cubaensis* can be confidently differentiated by the lateral lobes on the sutures. In the former, this attains its greatest width towards the lobe's distal end (i.e. opposite to the direction of growth), while in the latter it is vaguely triangular and widest at the junction with the umbilical lobe (i.e. towards the direction of growth).



Pl. 1 Figs. A–C: *Aturia cubaensis* (Lea, 1841); Delimara, Malta; Middle Globigerina Limestone Formation; Miocene (Burdigalian); S. CARDONA leg. 6 Dec. 2015; NMNH/TER-128. The specimen consists of two complementary parts: the larger part of the specimen which is still mostly embedded in matrix (A), and a detachable fragment with four well-

preserved consecutive chambers (**B, C**). The maximum width of the block of limestone shown (**A**) is 181 mm wide, and that of the four-chambered fragment (**B, C**) is 101 mm tall.

Aturia formae Parona, 1898

- Aturia Formae* PARONA, 1898: 164, pl. 13 figs. 7a-c, 8.
Aturia formae Parona – BOSSIO, 1972: 89, pl. 1 figs. 1a, 1b.
Aturia formae – HEWITT & PEDLEY, 1978: 232, 233 fig. 2d [graph, *partim*].
Aturia formae Parona, 1898 – GATT, 2006: 204.

Material studied:

MALTA • 1 specimen; Gozo, Marsalforn; C₂ Phosphorite Conglomerate Bed ('M19: *liv[ello] fosforitico secondario...*'; 15 & 16 Sep. 1969; L. GIANNELLI & G. SALVATORINI leg.; NMNH; NMNH-MC.309-312 [*partim*]).

Lithostratigraphic range in Malta: C₂ Phosphorite Conglomerate Bed to Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Langhian to Serravallian].

Remarks: HEWITT & PEDLEY (1978) state that this species may be found in the Blue Clay Formation, all other records are from the C₂ Phosphorite Conglomerate Bed. Unlike the previously mentioned species of *Aturia*, which are rather flattened, *A. formae* possesses a distinctively broad shell.

Nautilidae Blainville, 1825

Euciphoceras Schultz, 1976

Type species: *Nautilus regalis* Sowerby, 1822

Remarks: SCHULTZ (1976) is here followed for generic allocation of all nautilids of the Maltese Oligo-Miocene, which are therefore assigned to *Euciphoceras* Schultz, 1976 (see TEICHERT & MATSUMOTO, 2010; LESPORT et al., 2021) and not *Nautilus* Linné, 1758 (type species: *Nautilus pompilius* Linné, 1758). Some records of '*Nautilus* sp.' are left in open nomenclature and could not be determined to species level by the present authors. These appear in SPRATT (1843: 226), FORBES in SPRATT (1843: 230), COOKE (1896: 506 as '*large nautiliform cephalopod*'), 509), HEWITT & PEDLEY (1978: 228), and ZAMMIT-MAEMPEL (1979: 5). WRIGHT (1855: 104–105) recognizes three (unnamed) morphospecies, two from the Greensands Formation ('*Yellow Sand*' *sensu* WRIGHT) and one from the Globigerina Limestone Formation ('*Calcareous Sandstone*' *sensu* WRIGHT). This information is reiterated by CARUANA (1867: 56).

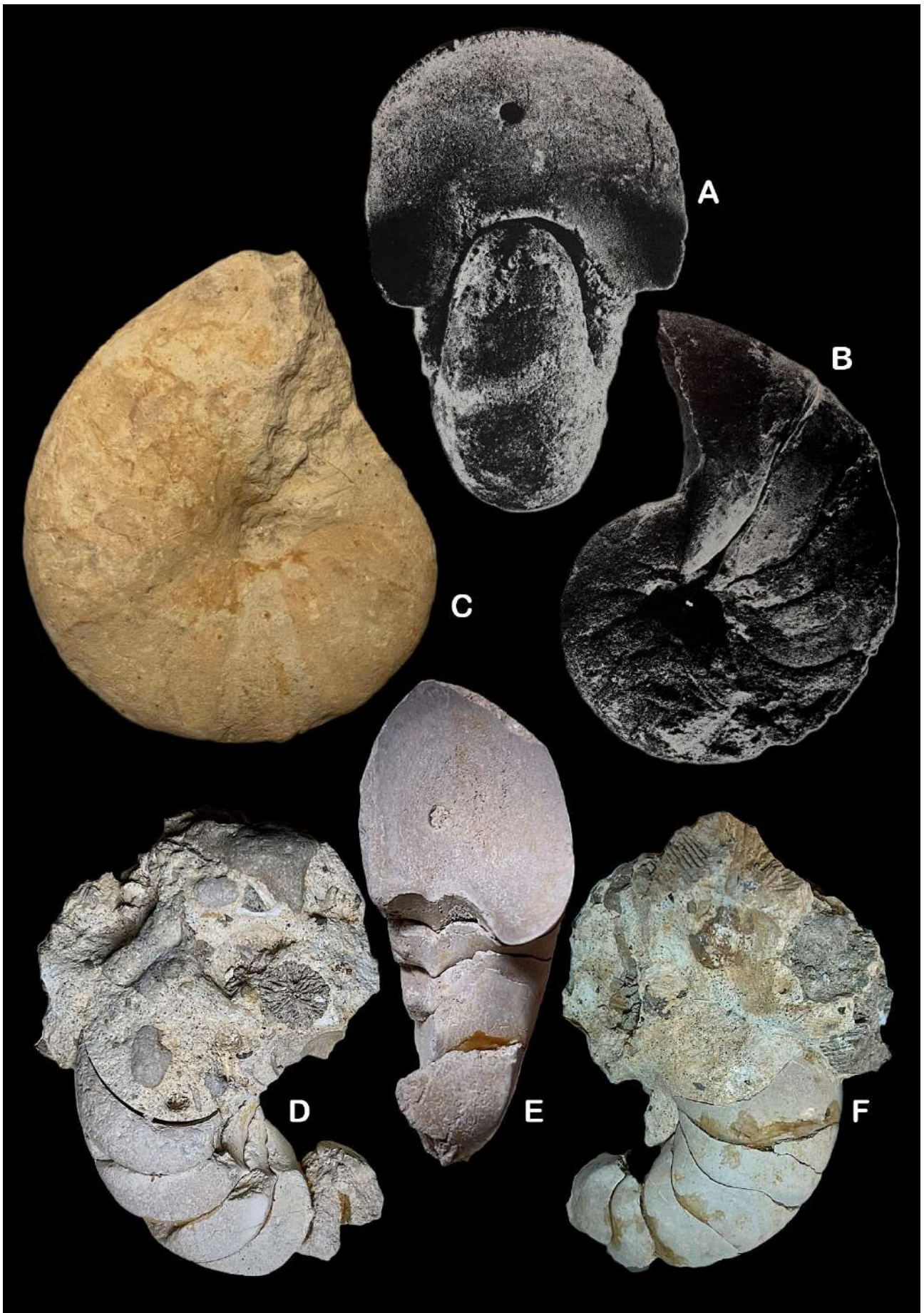
Euciphoceras bordae (de Grateloup, 1827) (**Pl. 2 Figs. A, B**)

- Nautilus Bordæ* DE GRATELOUP, 1827: 24.
Nautilus Allionii MICHELOTTI, 1840: 3.
Nautilus Allioni Michelotti – FOORD, 1891: 331. [*sic*]
Nautilus Dubaleni PEYROT, 1933: 30, pl. 18 figs. 21, 22.
Eutrephoceras allioni (Michelotti, 1840) – KUMMEL, 1956: 380.
Eutrephoceras (Euciphoceras) allionii (Michelotti, 1840) – SCHULTZ, 1976: 47.
Eutrephoceras cf. dubaleni Peyrot – ZAMMIT-MAEMPEL, 1977: pl. 28.

Lithostratigraphic range in Malta: Blue Clay Formation to Upper Coralline Limestone Formation.

Chronostratigraphic range in Malta: Miocene [Serravallian to Lower Messinian].

Remarks: *Nautilus allioni* Michelotti, 1840 and *Nautilus dubaleni* Peyrot, 1933 were recently synonymized with *E. bordae* by LESPORT et al. (2021). The upper limit of its stratigraphic range outside of Malta does not exceed the Serravallian (LESPORT et al., 2021).



Pl. 2 Figs. A–F: Fossil *Euciphoceras* spp. from the Maltese islands. **A, B:** *Euciphoceras bordae* (de Grateloup, 1827); Upper Coralline Limestone Formation; Miocene (Tortonian to Messinian); reproduced from ZAMMIT-MAEMPEL (1977: pl. 28 sub *Eutrephoceras* cf. *dubaleni* Peyrot) [maximum diameter c. 114 mm]. **C:** Adult *Euciphoceras decipiens*

(Michelotti, 1861); Lower Globigerina Limestone Formation; Oligocene (Chattian); NMNH/unnumbered [maximum diameter c. 205 mm]. **D–F**: Juvenile *Euciphoceras decipiens* (Michelotti, 1861); C₁ Phosphorite Conglomerate Bed; Oligocene (Chattian); ex coll. M. NANI; NMNH/unnumbered [height 50 mm]. The specimen consists of two complementary parts: the larger part of the specimen which is still mostly embedded in matrix (**D, F**) with *Flabellum* sp., and a detachable fragment [height 41 mm] with six well-preserved consecutive chambers (**E**).

Euciphoceras decipiens (Michelotti, 1861) (Pl. 2 Figs. C–F)

Nautilus decipiens MICHELOTTI, 1861: 137, pl. 13 fig. 11.

Nautilus decipiens Michelotti – FOORD, 1891: 330.

Eutrephoceras (Euciphoceras) decipiens (Michelotti, 1861) – SCHULTZ, 1976: 47.

Eutrephoceras decipiens (Michelotti) – ZAMMIT-MAEMPEL, 1977: 25.

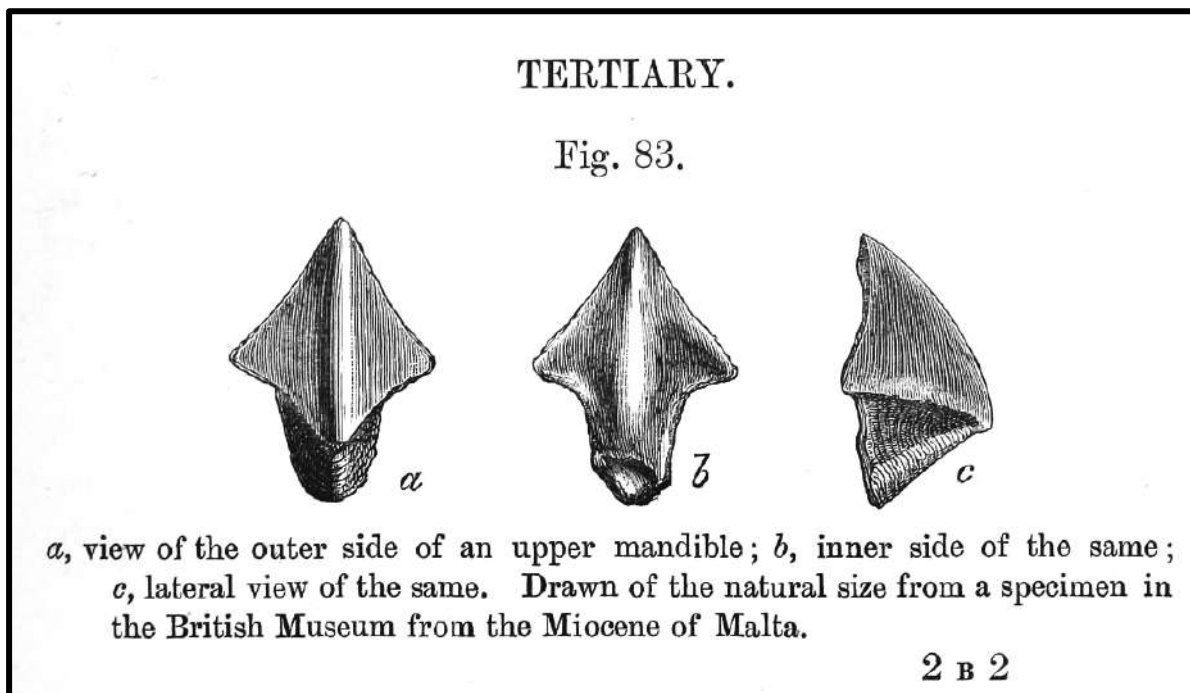
Nautilus decipiens Michelotti, 1861 – GATT, 2006: 202, 202 unnumbered fig.

? *Eutrephoceras* sp. – GATT, 2006: 202.

Lithostratigraphic range in Malta: Lower Globigerina Limestone Formation to C₁ Phosphorite Conglomerate Bed.

Chronostratigraphic range in Malta: Oligocene [Chattian].

Remarks: A specimen catalogued in the Naturalis collection as RGM.284717, collected by JANSSEN from the C₁ Phosphorite Conglomerate Bed, outcrop south of Dabrani hill, Marsalforn, Gozo, Malta, and provisionally identified by him as ‘Nautilidae sp.’, is of a fragmentary nature that prevents any meaningful taxonomic assignment.



Text Fig. 1: The illustration of a rhyncholite from the ‘Miocene’ of Malta, reproduced from FOORD (1891: 371 figs. 83a–c). This specimen was formally described as *Nautilus (Rhyncholithes mediterraneus)* by TILL (1907).

Rhyncholites Faure-Biguet, 1819

Type species: *Rhyncholites hirundo* Faure-Biguet, 1819

Remarks: *Rhyncholite* in FAURE-BIGUET (1819: 58) was amended to *Rhyncholites* by WARD & COOPER (1972: 408).

Rhyncolites mediterraneus (Till, 1907) (**Text Fig. 1**)

[upper mandible] – FOORD, 1891: 371 figs. 83a-c.
Nautilus (Rhyncholithes mediterraneus) TILL, 1907: 541. [sic]
Rhyncolite mediterraneus (Till, 1907) – TEICHERT & SPINOSA, 1971: 4, 3 tab. 1. [sic]
Rhyncholithes mediterraneus Till, 1907 – TEICHERT & SPINOSA, 1971: 8. [sic]
Rhyncholithes mediterraneus – GAŚIOROWSKI, 1973: 184. [sic]
Rhyncolites mediterraneus Till, 1907 – PACAUD, 2010: 125, 125 tab. 1.

Lithostratigraphic range in Malta: unknown.

Chronostratigraphic range in Malta: ‘Miocene’ (FOORD, 1891; see *Remarks*).

Remarks: *R. mediterraneus* is a parataxon (BENGTSON, 1985) based on the calcified tip of the upper jaw (‘beak’) of nautilids (see SOUQUET et al., 2024) and is only considered here for the sake of completeness. The first and only primary reference to it is by FOORD (1891: 371 figs. 83a-c; see **Text Fig. 1**); this is the basis of all subsequent mentions in the literature.

The broad chronostratigraphic range specified by FOORD (1891) prohibits any further assumptions regarding the specimen’s age, especially as the Lower Globigerina Limestone Formation was also considered by ‘classic’ authors of FOORD’s time (e.g. GREGORY, 1891; COOKE, 1893b, 1896), and even more recent ones (e.g. JANSSEN, 2003; GRUSZCZYNSKI et al., 2008), to be of Miocene age.

Coleoidea Bather, 1888

Remarks: So far, coleoid fossils belong only to sepiid and spirulid decabrachians, whose mineralized shells withstand decomposition; non-mineralized remains are unknown.

Decabrachia Haeckel, 1866

Sepiida Gray, 1849

Sepiidae Leach, 1817

Sepia Linné, 1758

Type species: *Sepia officinalis* Linné, 1758

Remarks: Sepiid records from Malta exclusively consist of remains of their mineralized cuttlebones. Some records of *Sepia* sp. from Maltese strata are left in open nomenclature and could not be determined to species level by the present authors. These appear in COOKE (1893a: 127), HEWITT & PEDLEY, (1978: 228), JANSSEN (1999: 114), and MAGRI (M.Sc.: 32).

Sepia gastaldii Bellardi, 1872 (**Pl. 3 Figs. K–L**)

Sepia gastaldii BELLARDI, 1872: 14, pl. 1 fig. 3.
Sepia gastaldii Bell. – BELLARDI, 1873: 44, pl. 1 fig. 3.
Sepia gastaldii Bellardi, 1873 – JANSSEN, 2012: 517.

Material studied:

MALTA • 1 specimen; Gozo [Għawdex], Marsalforn, cliff section at N.E. corner of Marsalforn Bay; Blue Clay Formation (upper 5 m of section); Miocene (Serravallian); 20 Sep. 1996; A.W. JANSSEN leg.; RGM.429173.

Lithostratigraphic range in Malta: Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Upper Serravallian (to Lower Tortonian?)].

Remarks: *Sepia gastaldii* was described from the ‘upper Miocene’ by BELLARDI (1872: 14, pl. 1 fig. 3; reprinted in BELLARDI, 1873: 44, pl. 1 fig. 3), but is considered a Burdigalian species by KOŠŤÁK et al. (2019: 106 fig. 6) and a Langhian species by FUCHS & LUKENEDER (2014: 30 tab. 2 sub *Sepia gastaldi*). JANSSEN’s (2012) record is from the Serravallian.

Comparison of the Maltese specimen with the type unfortunately proved impossible, as the latter, deposited in the Reale Scuola d'Applicazione per gli Ingegneri (now Politecnico di Torino, Italy), could not be located (C. CLERICI, pers. comm. 2024). The Maltese specimen is illustrated for the first time in this paper.

***Sepia* cf. *harmati* Szörényi, 1933**

Sepia cf. *harmati* Szörényi, 1933 – HEWITT & PEDLEY, 1978: 235, 233 figs. 2B, C [graph, *partim*], 234 fig. 3E.

Sepia cf. *harmati* Szorenyi, 1933 – GATT, 2006: 207, 207 un. figs.

Sepia cf. *harmati* Szörényi, 1933 (sensu Hewitt & Pedley, 1978) – KOŠŤÁK et al., 2016: 19 fig. 10 [map].

Sepia cf. *harmati* Szörényi, 1933 (sensu Hewitt & Pedley, 1978) – KOŠŤÁK et al., 2019: 105, 105 fig. 5 [map], 106 fig. 6 [graph].

Lithostratigraphic range in Malta: Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Upper Serravallian (to Lower Tortonian?)].

Remarks: The single specimen upon which the record by HEWITT & PEDLEY (1978) is based is compared by those authors to *Sepia harmati* Szörényi, 1933, which is a Rupelian species (SZÖRÉNYI, 1933: 184, pl. 6 figs. 4–6, 10) with its type series in the Magyar Természettudományi Múzeum (Hungary), registered as M.59.4655 to 4660 (PÁLFY et al., 2008). HEWITT & PEDLEY's Malta specimen was housed in the collection of the Geology Department of the University of Hull (U.K.) (registered as HUP 1985). In 1987, parts of this collection were transferred to Oxford University (and possibly other repositories) upon the closure of the Hull Geology Department (H.M. PEDLEY, pers. comm. 2024); however, the *S. cf. harmati* fossil could not be traced among this transferred material (E. HOWLETT, pers. comm. 2024). Unfortunately, the specimen is currently be deemed to be 'lost' within Hull, together with other type and figured material, and therefore unavailable for study (D. SIVETER, pers. comm. 2024).

***Sepia* cf. *isseli* Bellardi, 1872 (Pl. 3 Figs. A–H)**

Sepia cf. *isseli* Bellardi, 1887 – JANSSEN, 2012: 517.

Material studied:

MALTA • 2 specimens; Gozo [Għawdex], Żebbuġ, outcrops along the road to Marsalforn, between UTM 319930 and 321932; Blue Clay Formation (lower 30m of upper brownish-green part); Miocene (Upper Serravallian); 6–9 Jun. 1995; A.W. JANSSEN leg. (hand-picked from surface); RGM.397780.a, 397780.b • 2 specimens; W. of St. Paul's Islands, Blata l-Bajda, coastal exposure at UTM 452806; Blue Clay Formation (brownish-green part above light-coloured clay); Miocene (Upper Serravallian); 12 Jun. 1995; A.W. JANSSEN leg. (hand-picked from surface); RGM.397892.a, 397892.b.

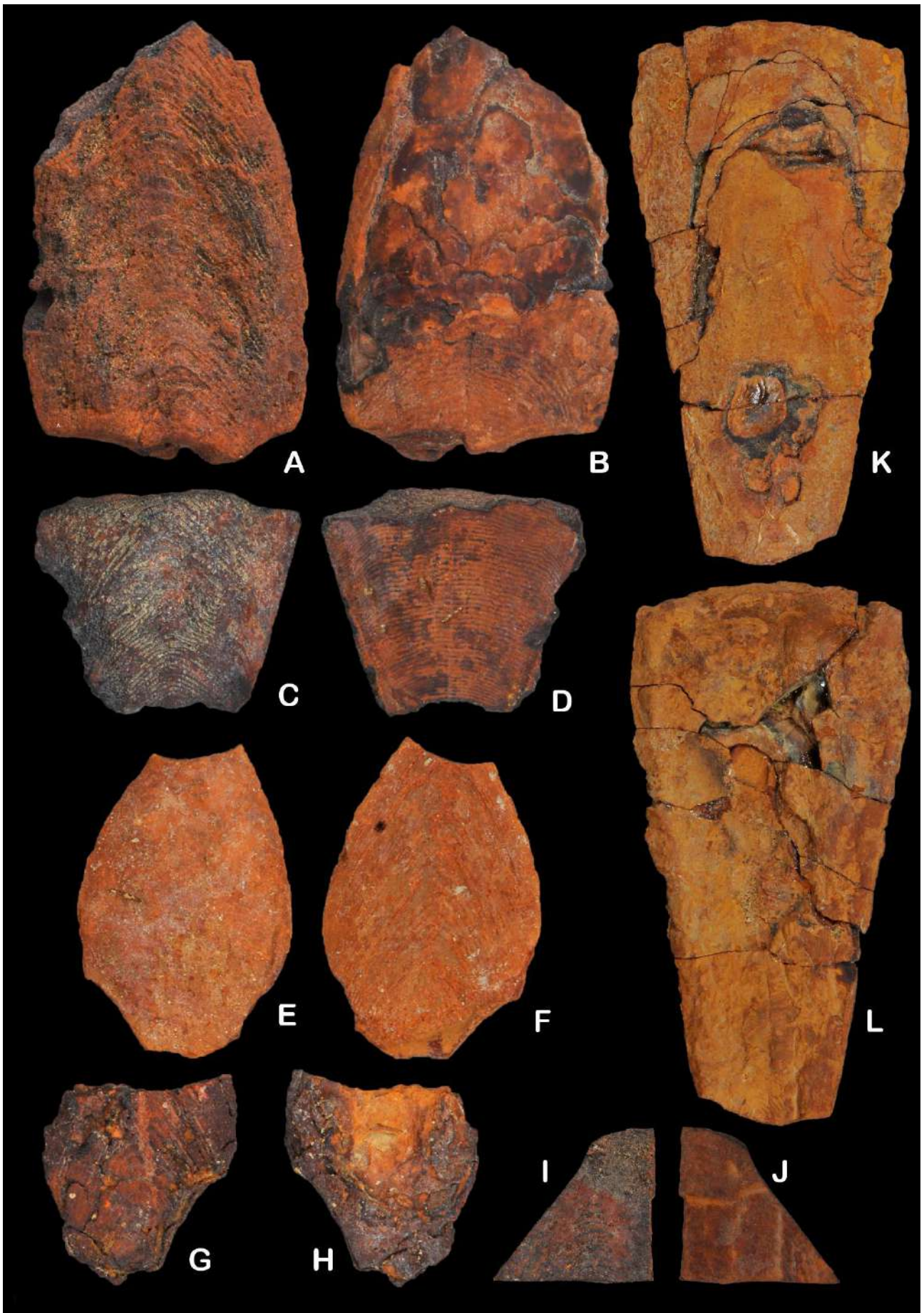
Lithostratigraphic range in Malta: Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Upper Serravallian (to Lower Tortonian?)].

Remarks: *Sepia isseli* was described from the 'upper Miocene' by BELLARDI (1872: 19, pl. 2 figs. 7a, b; reprinted in BELLARDI, 1873: 49, pl. 2 figs. 7a, b), but it is considered a Zanclean species by KOŠŤÁK et al. (2019: 106 fig. 6).

Comparison of the Maltese specimens with the type unfortunately proved impossible, as the latter, deposited in the Università degli Studi di Genova (Italy), could not be located (A. BRIGUGLIO, pers. comm. 2024). The Maltese specimens are illustrated for the first time in this paper.

The '*Sepia* cf. *isseli*' fragment (Pl. 3 Figs. I, J) collected by A.W. JANSSEN and catalogued in the Naturalis collection as RGM.397620, from the Blue Clay Formation (brownish-green part), Tafal Cliffs at UTM 361867, Xatt l-Aħmar, Għajnsielem, Gozo [Għawdex], Malta, is undeterminable, and should be regarded as *Sepia* sp.



Pl. 3 Figs. A–L: Fossil *Sepia* spp. from the Blue Clay Formation of the Maltese islands. **A, B:** Two views of *Sepia* cf. *isseli* Bellardi, 1872; Żebbuġ, Gozo [Ghawdex], Malta; Blue Clay Formation; Miocene (Upper Serravallian); A.W. JANSSEN leg. 6–9 Jun. 1995; RGM.397780.a [35.8×23.8 mm]. **C, D:** Two views of *S.* cf. *isseli*; Żebbuġ, Gozo [Ghawdex],

Malta; Blue Clay Formation; Miocene (Upper Serravallian); A.W. JANSSEN leg. 6–9 Jun. 1995; RGM.397780 [18.2×22.1 mm]. **E, F:** Two views of *S. cf. isseli*; Blata l-Bajda, W. of St. Paul's Islands, Malta; Blue Clay Formation; Miocene (Upper Serravallian); A.W. JANSSEN leg. 12 Jun. 1995; RGM.397892.a [18.2×12.9 mm] **G, H:** Two views of *S. cf. isseli*; Blata l-Bajda, W. of St. Paul's Islands, Malta; Blue Clay Formation; Miocene (Upper Serravallian); A.W. JANSSEN leg. 12 Jun. 1995; RGM.397892.b [10.7×11.4mm] **I, J:** *Sepia* sp.; Ghajnsielem, Gozo [Għawdex], Malta; Blue Clay Formation; Miocene (Upper Serravallian); A.W. JANSSEN leg. 9 Jun. 1995; RGM.397620 [height 19mm]. **K, L:** Two views of *Sepia gastaldii* Bellardi, 1872; Marsalforn, Gozo [Għawdex], Malta; Blue Clay Formation; Miocene (Serravallian); A.W. JANSSEN leg. 20 Sep. 1996; RGM.429173 [71.4×36.7 mm].

***Sepia sepulta* Michelotti in Bellardi, 1872 (Pl. 4 Figs. A–D)**

Sepia sp. – SPRATT, 1843: 226.

Sepia sp. – FORBES in SPRATT, 1843: 230.

? *Belemnites aprina* CARUANA ex MAMO, 1867: 55. [*nomen nudum*]

Sepia sepulta MICHELOTTI in BELLARDI, 1872: 17, pl. 2 figs. 5a-c.

Sepia sepulta Michtti. – MICHELOTTI in BELLARDI, 1873: 47, pl. 2 figs. 5a-c.

Sepia sp. – FUCHS, 1874: 98.

Sepia sp. – FUCHS, 1876: 68, pl. 1 figs. 12, 13.

Sepia sp. – ADAMS, 1876: 519.

Sepia sp. – ZAMMIT-MAEMPEL, 1977: 26.

Sepia sepulta Bellardi, 1873 – HEWITT & PEDLEY, 1978: 232, 233 figs. 2B, 2C [graphs, partim], 234 figs. 3A, 3B, 3D, 3F, 234 fig. 5 [graph].

Sepia sp. – GEYS & BEEUSAERT, 1982: 47, 48 fig. 14.

Sepia sepulta Bellardi, 1873 – GATT, 2006: 206, 206 un. figs.

Sepia sepulta Bellardi, 1873 – JANSSEN, 2012: 517.

Sepia sepultatum – FUCHS & LUKENEDER, 2014: 30 tab. 2. [*sic*]

Sepia sepulta Michelotti in Bellardi, 1872 – KOŠŤÁK et al., 2016: 19 fig. 10 [map].

Sepia sepulta Michelotti in Bellardi, 1872 – KOŠŤÁK et al., 2019: 105, 105 fig. 5 [map], 106 fig. 6 [graph].

Material studied:

MALTA • 1 specimen; Gozo [Għawdex], Għarb; Blue Clay Formation; Miocene (Serravallian); Apr. 1992; H. MAYR leg.; BSPG, SNSB-BSPG 1992 I 11 • 11 specimens; Gozo [Għawdex], Żebbuġ, outcrop along the road to Marsalforn, UTM 321932; Blue Clay Formation (lower 30m of upper brownish-green part); Miocene (Upper Serravallian); A.W. JANSSEN & E. JANSSEN-KRUIT leg. 22 Sep. 1996; NMNH • 2 specimens; Gozo [Għawdex]; Blue Clay Formation; Miocene (Serravallian); ANONYMOUS leg.; NMNH.

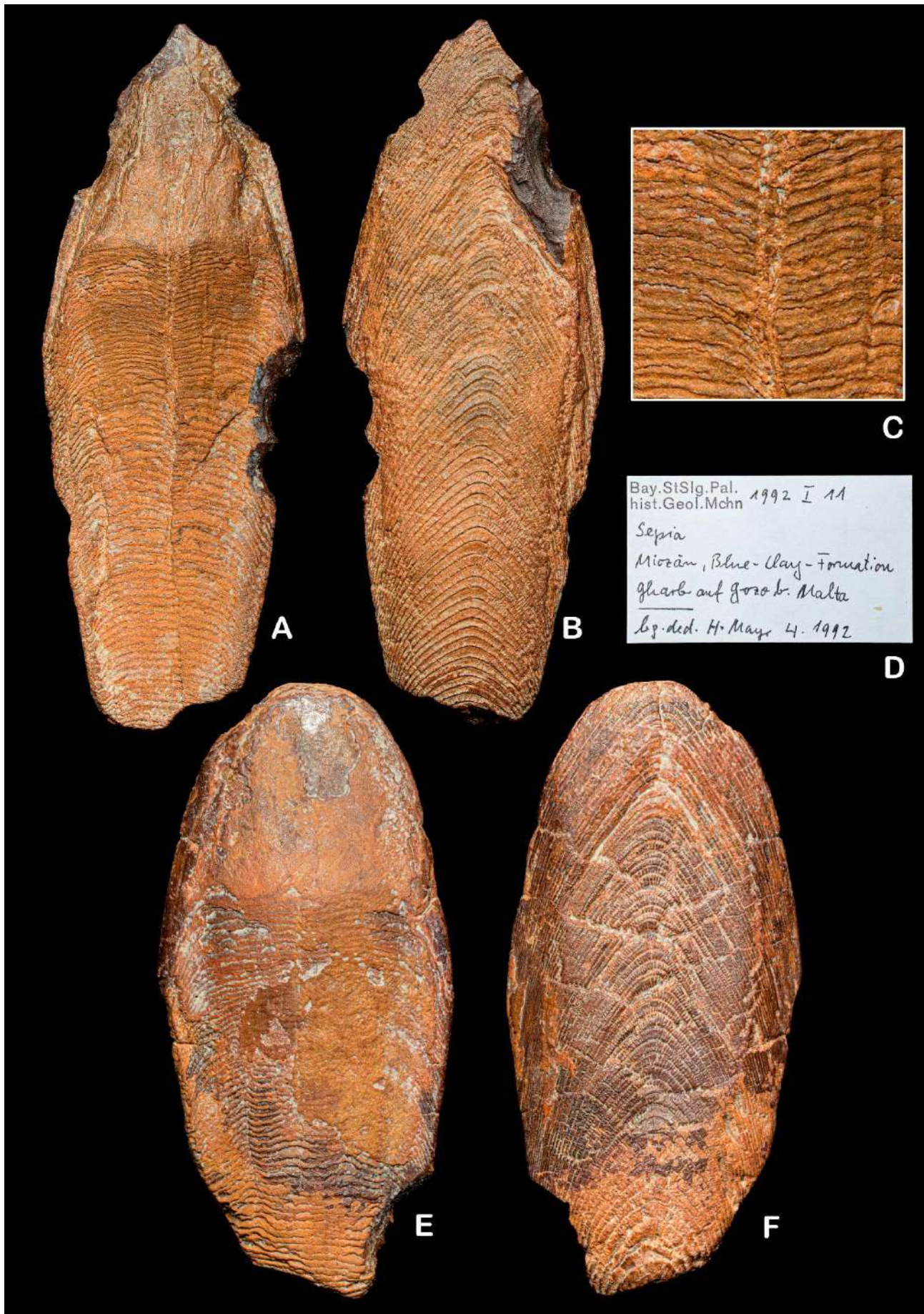
Lithostratigraphic range in Malta: Blue Clay Formation to Greensands Formation.

Chronostratigraphic range in Malta: Miocene [Upper Serravallian to Tortonian].

Remarks: This is by far the commonest species of *Sepia* encountered as a fossil in Maltese rocks. The cuttlebone of *S. sepulta* can be differentiated from that of the co-occurring (but rare) *S. cf. stricta* by its M-shaped septa and acutely angled anterior.

Although specimens from the collection of Giovanni MICHELOTTI (1812–1898) are present in Italian museums, it seems that the holotype of *S. sepulta* is lost (A. PISTARINO, pers. comm. 2024). Several specimens collected by HEWITT & PEDLEY (1978) were housed in the collection of the Geology Department of the University of Hull (U.K.) (registered as HUP 1980 to 1983, 1986 to 1992, 1994 to 1999), but are currently unavailable for study (see *Remarks* for *S. cf. harmati*).

A nearly complete specimen (C25367), deposited in the Natural History Museum (London, U.K.) and labelled as *S. orbignyana* Férussac, 1826 from 'Malta' most likely belongs to *S. sepulta* as well. It was collected by John H. COOKE (1862–1933), author of several works on the geology of Malta (e.g. 1893a, 1893b, 1895, 1896, etc.), and acquired by the museum in 1896.



Pl. 4 Figs A–F: Fossil *Sepia* spp. from the Blue Clay Formation of the Maltese islands and an associated specimen label. A–C: Two views of *Sepia sepulta* Michelotti in Bellardi, 1872, and a detailed view of the M-shaped septa; Gharb, Gozo [Ghawdex], Malta; Blue Clay Formation; Miocene (Serravallian); H. MAYR leg. 1992; SNSB-BSPG 1992 I 11

[28.4×10.4 mm]. **C:** Specimen label for SNSB-BSPG 1992 I 11. **E, F:** Two views of *Sepia* cf. *stricta* Bellardi, 1872; Għarb, Gozo [Għawdex], Malta; Blue Clay Formation; Miocene (Serravallian); H. MAYR leg. Apr. 1992; SNSB-BSPG 1992 I 12 [25.1×12.7 mm].

***Sepia* cf. *stricta* Bellardi, 1872 (Pl. 4 Figs. E, F; Pl. 5 Fig. A)**

Material studied:

MALTA • 1 specimen; Gozo [Għawdex], Għarb; Blue Clay Formation; Miocene (Serravallian); Apr. 1992; H. MAYR leg.; BSPG, SNSB-BSPG 1992 I 12.

Lithostratigraphic range in Malta: Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Upper Serravallian (to Lower Tortonian?)].

Remarks: A different morphospecies of *Sepia*, close to *Sepia stricta*, which was described from the ‘upper Miocene’ by BELLARDI (1872: 17, pl. 2 fig. 4; reprinted in BELLARDI, 1873: 47, pl. 2 fig. 4) can be discerned among specimens the co-occurring, commoner *S. sepulta*, from which they can be differentiated by their rounded anterior end and simple septa. Another specimen (C11643) that fits this description is deposited in the Natural History Museum (London, U.K.). It was collected from Chambray (Gozo) and was part of the Caroline BIRLEY (1851–1907) bequest to the museum in 1907. BIRLEY probably collected the specimen on her trip to Malta in November of 1891.

It is conceivable that the *S. sepulta* and *S. cf. stricta* discussed in this paper (or even in the original descriptions) belong to the same species, with morphological disparity attributable to ecophenotypic or ontogenetic variation. However, specimens with intermediate characteristics that would support such a hypothesis could not be traced. The type specimen of *S. stricta* could not be located.

***Sepia* sp. 1 (Pl. 5 Figs. B–G)**

Material studied:

MALTA • Sliema, coastal cliff outcrop at UTM 3974.598 / 455.669; lower phosphorite conglomerate [C₁] at the base of the Middle Globigerina Limestone Formation; Oligocene (Chattian) [but erroneously stated as ‘Miocene (Burdigalian)’ on the specimen label]; 24 Oct. 2004; A.W. JANSSEN leg. (hand-picked from surface); Naturalis, RGM.515679.

Lithostratigraphic range in Malta: C₁ Phosphorite Conglomerate Bed.

Chronostratigraphic range in Malta: Oligocene [Chattian].

Remarks: The label by JANSSEN, written in 2005, states that this single specimen, preliminarily identified as ‘*Spirulirostra* sp. ?’, was retrieved from a Burdigalian deposit (**Pl. 5 Fig. F**). However, he later reassigns the entire Sliema C₁ Phosphorite Conglomerate Bed to an Oligocene (Chattian) age (see JANSSEN, 2012). The same is true for e.g. *Johnjagtia baharensis* Janssen, 2012 (p. 334, pl. 6 figs. 7, 8) found in the same locality, which is expressly stated elsewhere be restricted to Chattian deposits (JANSSEN, 2012: 336).

The present record is the first and sole representation of the genus from the Oligocene of Malta. Although the genus *Sepia* is normally understood to occupy a chronostratigraphic interval from the Burdigalian to the Holocene, with Eocene to Oligocene forerunners being assigned instead to *Archaeosepia* Szörényi, 1934 (KOŠŤÁK et al., 2019), differentiation between the genera is indistinct (FUCHS, 2023: 25), and therefore the former genus is preliminarily maintained here.

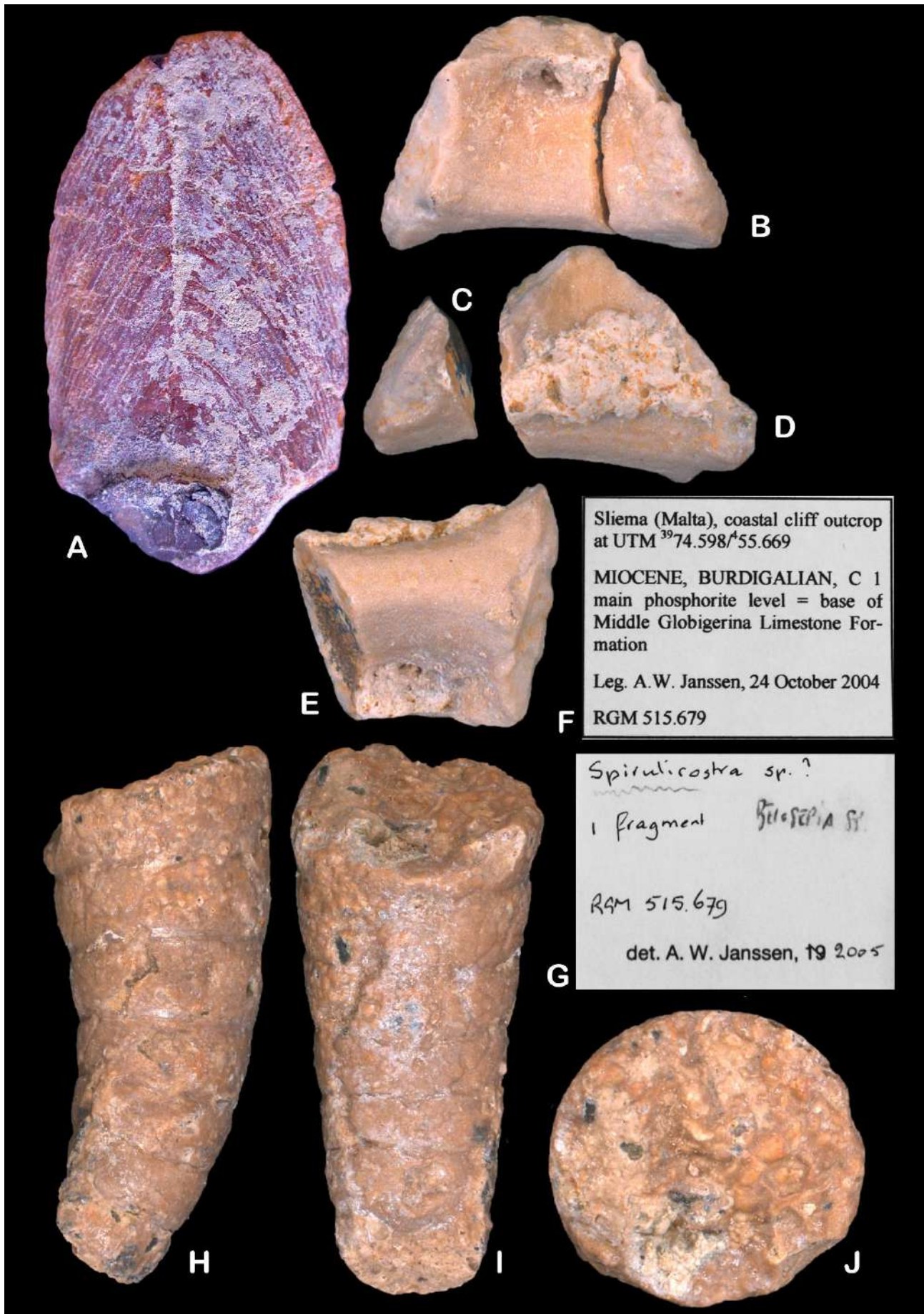
***Sepia* sp. 2**

Sepia sp. – HEWITT & PEDLEY, 1978: 236, 233 figs. 2B, C [graph, *partim*], 234 fig. 3C.

Sepia sp. – GATT, 2006: 207, 207 unnn. figs.

Sepia sp. indet. (sensu Hewitt & Pedley, 1978) – KOŠŤÁK et al., 2016: 19 fig. 10 [map].

Sepia sp. indet. (sensu Hewitt & Pedley, 1978) – KOŠŤÁK et al., 2019: 105, 105 fig. 5 [map], 106 fig. 6 [graph].



Sliema (Malta), coastal cliff outcrop
at UTM ³⁹74.598/55.669
MIOCENE, BURDIGALIAN, C 1
main phosphorite level = base of
Middle Globigerina Limestone For-
mation
Leg. A.W. Janssen, 24 October 2004
RGM 515.679

Spirulirostra sp.?
1 fragment *Bellosepia* sp.
RGM 515.679
det. A. W. Janssen, 19 2005

Pl. 5 Figs A–J: Fossil *Sepia* spp. and *Spirulirostra* cf. *bellardii* d'Orbigny, 1842 from the Maltese islands, and associated specimen labels. A: *Sepia* cf. *stricta* Bellardi, 1872; Chambray, Gozo [Ghawdex], Malta; Blue Clay Formation; Miocene (Serravallian); C. BIRLEY leg. ?1891; Natural History Museum, London, C11643 [dimensions unknown]. B–E: Three

views of two fragments of *Sepia* sp. 1; Sliema, Malta; Middle Globigerina Limestone Formation; Oligocene (Chattian); A.W. JANSSEN leg. 24 Oct. 2004; RGM.515679 [4.3×2.6 mm]. **F, G:** Specimen labels for RGM.515679. **H–J:** Three views of early chambers without protoconch of *S. cf. bellardii*; San Lawrenz, Gozo [Ghawdex], Malta; Upper Globigerina Limestone Formation; Miocene (Langhian); A.W. JANSSEN leg. 1993 to 2000; RGM.429350 [8.2×3.8 mm].

Lithostratigraphic range in Malta: Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Upper Serravallian (to Tortonian?)].

Remarks: KOŠŤÁK et al. (2019: 106, 106 fig. 6) assign a Burdigalian age to this entity, despite HEWITT & PEDLEY (1978) stating explicitly a Serravallian (perhaps Lower Tortonian) origin for their two specimens. These were housed in the collection of the Geology Department of the University of Hull (U.K.) (registered as HUP 1984 and 1993) but are currently unavailable for study (see remarks on *S. cf. harmati*).

HEWITT & PEDLEY (1978) suggest that this entity may simply be older *S. sepulta*.

Spirulida Haeckel, 1866

Remarks: As in most localities, Maltese remains of spirulids either consist of steinkerns (casts) of the fragile phragmocone or the enveloping guard-like sheath.

Spirulirostridae Naef, 1921

Spirulirostra d'Orbigny 1842

Type species: *Spirulirostra bellardii* d'Orbigny, 1842

Spirulirostra cf. bellardii d'Orbigny, 1842 (**Pl. 5 Figs. H–J; Pl. 6 Figs. A–K; Text Fig. 2**)

Spirulirostra sp. – JANSSEN, 2012: 517, 516 fig. 714.

Spirulirostra sp. – FUCHS & KOŠŤÁK, 2014: 5 fig. 4E.

Material studied:

MALTA • 1 specimen (early chambers without protoconch); Gozo [Ghawdex], San Lawrenz, outcrop 1 km S. of San Dimitri Point; 5 to 8 m above the upper phosphorite conglomerate [C₂] in the Upper Globigerina Limestone Formation; Miocene (Langhian); 1993 to 2000; A.W. JANSSEN leg. (hand-picked from surface); Naturalis, RGM.429350 • 1 specimen (protoconch + 7 consecutive chambers); Gozo [Ghawdex], Żebbuġ, Reqqa Point, coastal cliff section at UTM 314399; 0 to 2 m above the upper phosphorite conglomerate [C₂] in the Upper Globigerina Limestone Formation; Miocene (Langhian); 24 May 1993; A.W. JANSSEN leg. (hand-picked from surface); RGM.516883 • 2 fragments (protoconch + isolated chamber); Gozo [Ghawdex], San Lawrenz, outcrop 1 km S. of San Dimitri Point; 5 to 8 m above the upper phosphorite conglomerate [C₂] in the Upper Globigerina Limestone Formation; Miocene (Langhian); 6 Oct. 1995; A.W. JANSSEN leg. (hand-picked from surface); RGM.517026.

Lithostratigraphic range in Malta: C₂ Phosphorite Conglomerate Bed to boundary with Blue Clay Formation.

Chronostratigraphic range in Malta: Miocene [Upper Langhian].

Remarks: D'ORBIGNY (1842: 376, pl. 11 figs. 1-6) described *S. bellardii* from the 'sein des couches du second étage tertiaire' observing it is the only known one within its genus (at the time), also described in the same work. The genus, particularly its type species *S. bellardii*, is based on the morphology of the guard-like sheath. As the phragmocone morphology is poorly known, the present taxonomic assignment of these Maltese phragmocone casts must be seen as tentative. It is also reasonable to assume that the specimens could be representative of more than one species, because the protoconchs displayed by RGM.516883 and RGM.517026 differ in shape. In addition, the phragmocone curvatures of RGM.516883 and RGM.429350 slightly deviate from each other.

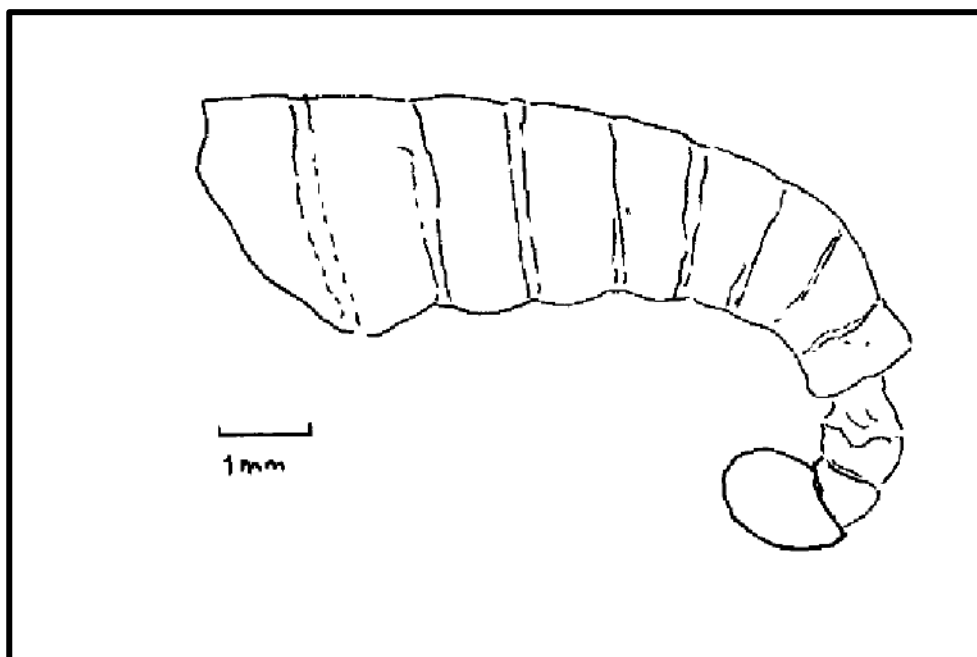


Pl. 6 Figs. A–K: Fossil *Spirulirostra* cf. *bellardii* d'Orbigny, 1842 from the Globigerina Limestone Formation of the Maltese islands. **A–F:** Six views of protoconch and seven consecutive chambers of *S.* cf. *bellardii*; Żebbuġ, Gozo [Ghawdex], Malta; Upper Globigerina Limestone Formation; Miocene (Langhian); A.W. JANSSEN leg. 24 May 1993; RGM.516883 [4.7×1.9 mm]. **G, H:** Two views of protoconch of *S.* cf. *bellardii*; San Lawrenz, Gozo [Ghawdex], Malta;

Upper Globigerina Limestone Formation; Miocene (Langhian); A.W. JANSSEN leg. 6 Oct. 1995; RGM.517026.a [length 2.2 mm]. **I–K**: Three views of isolated chamber of *S. cf. bellardii*; San Lawrenz, Gozo [Ghawdex], Malta; Upper Globigerina Limestone Formation; Miocene (Langhian); A.W. JANSSEN leg. 6 Oct. 1995; RGM.517026.b [width 1.6 mm].

Unfortunately, specimen RGM.516883 (consisting of the steinkern of the eight earliest chambers, including the protoconch) was damaged at some point between its discovery and its subsequent retrieval for the purposes of this study (R. POWWER, pers. comm. 2024). A sketch JANSSEN made of the original specimen prior to the damage is reproduced here as **Text Fig. 2**, while a photograph may be consulted in JANSSEN (2012: 516 fig. 714).

In FUCHS & LUKENEDER (2014: 26) and FUCHS (2023: 11, 12 fig. 5.3 A–D), a specimen from a different genus (not yet found in Malta), *Spirulirostridium* Naef, 1922, is cited as having the registration number of RGM.516883 and as coming from the middle Miocene of Żebbuġ, Malta. This data is incorrect; the registration number instead refers to one of the *Spirulirostra* fossils listed in the present study and illustrated on **Pl. 6 Figs. A–F** and **Text Fig. 2**.



Text Fig. 2: Drawing by A.W. JANSSEN of *Spirulirostra cf. bellardii* d'Orbigny, 1842, specimen RGM.516883, in the state in which it was originally found.

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The first author dedicates this article to the memory of Arie W. JANSSEN, friend and tutor, ever inspirational in his enthusiastic, skilful, and meticulous treatment of malacological themes.

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**THE CONCHOLOGICAL COLLECTION OF GIACOMO DEPASQUALE
(1870–1955) & VINCENZO A. DEPASQUALE (1920–2012),
WITH A NOTE ON HISTORICAL RECORDS OF *LAURIA CYLINDRACEA*
(DA COSTA, 1778) (GASTROPODA: LAURIIDAE) FROM MALTA**

David P. CILIA⁵

ABSTRACT

The natural history collection of two Maltese collectors, Giacomo DEPASQUALE (1870–1955) and his son Vincenzo Agostino DEPASQUALE (1920–2012), was donated to the National Museum of Natural History, Malta, in July of 2024. The collection, containing items of substantial historical and scientific value, is largely conchological in scope, albeit also including several geological and other organic specimens. Labels accompanying some of the specimens establish links with renowned international conchologists. Older records of *Lauria cylindracea* from Malta are reviewed.

Keywords: natural history, collection, Giacomo Depasquale, Vincenzo A. Depasquale, *Lauria cylindracea*, Giuseppe Despott

SINTEZI

[Il-kollezzjoni konkoloġika ta' Giacomo DEPASQUALE (1870–1955) u Vincenzo Agostino DEPASQUALE (1920–2012), b'nota dwar registrazzjonijiet storiċi ta' *Lauria cylindracea* (Da Costa, 1778) (Gastropoda: Lauriidae) minn Malta.] Il-kollezzjoni tal-istorja naturali ta' żewġ kollezzjonisti Maltin, Giacomo DEPASQUALE (1870–1955) u ibnu Vincenzo Agostino DEPASQUALE (1920–2012), inghatat lill-Mużew Nazzjonali tal-Istorja Naturali, Malta, f'Lulju tal-2024. Din il-kollezzjoni, li fiha jinstabu oġġetti ta' valur storiku u xjentifiku sostanzjali, hija fil-biċċa l-kbira konkoloġika fl-ambitu tagħha, għalkemm tinkludi wkoll diversi kampjuni ġeoloġiċi u organiċi oħrajn. It-tabelli li jakkumpanjaw numru ta' kampjuni jstabbilixxu rabtiet ma' konkoloġisti internazzjonali rinomati. Qegħdin jiġu ukoll riveduti registrazzjonijiet antiki ta' *Lauria cylindracea* minn Malta.

Kliem muftieħ: storja naturali, kollezzjoni, Giacomo Depasquale, Vincenzo A. Depasquale, *Lauria cylindracea*, Giuseppe Despott

INTRODUCTION

Giacomo DEPASQUALE (**Pl. 1 Fig. A**) was born on the 1st of April of 1870 in Senglea. He enrolled into the Royal University of Malta where he graduated with Bachelor of Arts in 1889, and subsequently with Doctor of Laws in 1893. He retired in 1935, and passed away on the 26th of November of 1955, in Qormi. Vincenzo Agostino DEPASQUALE (**Pl. 1 Fig. B**), son of Giacomo and Maria Dolores née ZAHRA, was born on the 27th of April of 1920 in Qormi. He enrolled into the Royal University of Malta where he graduated with Bachelor of Arts in 1939, and subsequently with Doctor of Laws in 1943. Described as '*profondo erudito di prodigiosa memoria*' (BERTÈ, 1975), Vincenzo served as research assistant, cataloguer and director of the Royal Malta Library, acted as member and secretary of the Maltese National Commission for UNESCO, and as chairman and member of various other government boards and committees, such as the Antiquities Committee and the Heritage Advisory

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Pl. 1 Figs. A–C: Archival photographs related to the DEPASQUALE collection. **A:** Portrait of Giacomo DEPASQUALE (1870–1955). **B:** Portrait of Vincenzo Agostino DEPASQUALE (1920–2012). **C:** Part of the DEPASQUALE collection *in situ*

(July 2024). **D**: Part of the collection during processing and packaging for eventual transfer to the National Museum of Natural History, Mdina, Malta (July 2024).

Committee within the Planning Authority. In 2003, the Grand Master of the Sovereign Military Order of Malta, Andrew BERTIE (1929–2008), decorated him with the Croce dell'Ordine al Merito Melitense. Vincenzo passed away on the 4th of March of 2012 in Valletta.

Giacomo DEPASQUALE showed an interest in natural history from a young age, leading him to collect natural objects that attracted his attention; in time, this pursuit was emulated by his son Vincenzo. Their collection was housed in a designated 'shell room' (**Pl. 1 Fig. C**) at a private residence in Archbishop Street in Valletta. Giacomo and Vincenzo evidently self-collected many of their specimens, which are generally accompanied by handwritten labels. (The latter's calligraphy is displayed on **Pl. 2 Figs. M, N** and **Pl. 3 Figs. A, C**. A sketch in pencil, also by Vincenzo, shown on **Pl. 2 Fig. O**, was found on the back of one of the frames). On several occasions, both collectors bought shells at auctions or made exchanges with other local and foreign enthusiasts. This resulted in a collection of around 600 lots, which, through data labels and other information, also provides a snapshot of the international malacological community of the time. Despite its largely conchological scope, the collection's creators were also clearly interested in a much wider definition of natural history. This is evidenced, for example, by an impressive array of rocks and minerals, several of which also appear to be self-collected from Malta and abroad. Another essential part of the collection is a wide variety of objects of organic (non-molluscan) origin, ranging from foraminifers (**Pl. 3 Figs. B, C**) to algae (**Pl. 1 Fig. M**) to vertebrate skeletal elements. Every item acquired reflects an appreciation of natural substances and forms, underscoring the collectors' curiosity and attention to detail.

The collection was donated to the National Museum of Natural History, Malta (NMNH), in July of 2024 by the heirs of Vincenzo: Cecilia J. DEPASQUALE (Valletta), Theresa M. RIZZA DEPASQUALE (Sliema), and James G. DEPASQUALE (Valletta).

MATERIALS AND METHODS

The present author spent a few days in July of 2024 preparing and packaging the lots in anticipation of their transport to Mdina (Malta), where they were deposited in the NMNH (**Pl. 1 Fig. D**). Most of the lots consist of mollusc shells, ranging in size from giant *Tridacna* Bruguière, 1797 and *Tutufa* Jousseume, 1881 to microshells such as *Pisidium* Pfeiffer, 1821 and *Cecilioides* Férussac, 1814, therefore requiring different handling and packaging protocols.

Some of the smaller species are arranged and glued onto cardboard or wooden panels that were later framed by the original owners (e.g. **Pl. 2 Fig. N, P**); a few of these, in danger of disintegration and subsequent loss of specimens, had to be preserved accordingly. This process consisted of careful detachment, cleaning, and transfer of the specimens into storage-grade containers (**Pl. 4 Figs. K–M**). Some labels showed evidence of pest or water damage (**Pl. 3 Figs. J, L, Pl. 4 Figs. I, J**); when possible, conservation strategies to salvage these were employed. Several specimens unfortunately lacked collection data, due to the absence or the irrevocably advanced deterioration of labels.

RESULTS

The present report, while not exhaustive or even comprehensive, serves as a curated assortment that invites further exploration by showcasing some of the collection's most scientifically or historically significant specimens and artefacts. Several lots in the collection are accompanied by data labels and supplementary information, offering not only insight into the specimens themselves, but also a broader historical glimpse of the network of scientists, collectors, and researchers active during that era. Not all calligraphed labels could be attributed to one author with absolute certainty; however, some labels contained autographs or a script that left no doubt as to who their author is.



Pl. 2 Figs. A–P: Specimens and artefacts from the DEPASQUALE collection. A–J: Specimens with labels ex coll. Giuseppe DESPOTT (1878–1936). A: *Theba pisana* (Müller, 1774), Ghadira, Malta. B: *Trochoidea spratti* (Pfeiffer, 1846),

Bugibba, Malta; leg. 1931. **C.** *Tudorella melitensis* (Sowerby I, 1843), Malta. **D, E:** *Lampedusa melitensis* (Caruana Gatto, 1892), Dingli, Malta. **F:** *Lampedusa imitatrix* (Boettger, 1879), Imtahleb, Malta. **G–H:** *Galba truncatula* (Müller, 1774). **G:** *G. truncatula*; Manikata, Malta. **H:** *G. truncatula*; Girgenti, Malta. **I:** *G. truncatula*; ?Siggiewi, Malta. **J:** *Pseudamnicola moussonii* (Calcara, 1841), Imtahleb, Malta; leg. 1926. **K:** Specimen label ex coll. Ezra Newton DRIER (c. 1871–1942). **L:** Labels for specimens ex coll. John Read le Brockton TOMLIN (1864–1954), with calligraphy by DESPOTT. **M:** Specimen label ex coll. V.A. DEPASQUALE. **N:** *Echinocardium* sp.; Mellieħa, Malta; V.A. DEPASQUALE leg. Feb. 1948. **O:** Sketch in pencil by V.A. DEPASQUALE, undated. **P:** Typical arrangement of micromolluscs in a wooden frame.

In this section, an overview of some of these personalities is presented, with brief biographies and a pictorial supplement of their specimen labels present in the DEPASQUALE collection.

I. Personalities with a connection to the DEPASQUALE collection

Tommaso di Maria ALLERY, Marquis of MONTEROSATO (1841–1927) from Palermo (Italy) was a prominent author who contributed significantly to the understanding and taxonomy of Mediterranean molluscs, with several of his works persisting as a mainstay in contemporary malacology. In his lifetime, MONTEROSATO sold off (or exchanged) parts of his massive conchological collection to museums and collectors around the world (e.g. PROZ 1999; MIENIS 2012; REITANO et al., 2020; NAPPO et al., 2023). Around 80 lots from MONTEROSATO's collection, mainly fossil species from Monte Pellegrino and Ficarazzi (Italy) that were treated in two of his publications (MONTEROSATO, 1872, 1877), have been discovered in the DEPASQUALE collection. A catalogue of these specimens is the subject of a forthcoming study; in the interim, some of the labels bearing MONTEROSATO's calligraphy are being illustrated herein (**Pl. 3 Figs. I–L**). The remainder of MONTEROSATO's collection was acquired by a malacologist from Palermo (Italy), Vito BELTRANI (?–1943), on the condition that the former could still access it if required (R. GIANNUZZI-SAVELLI, pers. comm. 2024). Eventually, this segment of his collection would be integrated within the Museo Civico di Zoologia in Rome (Italy) (see APPOLLONI & al., 2018). Lots from BELTRANI's collection are also present among the DEPASQUALE material (**Pl. 3 Fig. H**).

Some specimens were collected by Joseph G. BALDACCHINO (1894–1974), curator of the Maltese natural history collections from 1933 to 1947 (see CILIA, 2024) (**Pl. 3 Figs. N–O**).

Raimondo DEL PRETE (1850–1937) was a collector from Viareggio (Italy) who contributed to the knowledge of the malacofauna of Italy (e.g. DEL PRETE, 1879, 1883), whose collection is housed in the Museo Civico di Storia Naturale di Piacenza (Italy) (BRACCHI, 2012–2014). His printed labels are highly stylized and ornamental (**Pl. 4 Figs. H, I**, see also BRACCHI, 2012–2014: 27 Fig. 3).

Ezra Newton DRIER (c. 1871–1942) was born in Canada, but later moved to New Zealand, and visited Europe in 1931. His collection of around 4500 lots may be found at the Auckland Museum (New Zealand) (BLOM, 2023). A label of his found in the DEPASQUALE collection (**Pl. 2 Fig. K**) is atypical (see BLOM, 2023: 17 fig. 1, 27 fig. 13).

Anson Andreus HINKLEY (1857–1920) was an American collector who travelled far and wide in his quest for molluscs, in the process discovering several new species, although he preferred to entrust other academics with their description (WALKER, 1920). His collection of over 200,000 non-marine molluscs was eventually acquired by the Museum of Natural History of the University of Illinois (U.S.A.) (JOHNSON, 1921). HINKLEY's labels feature his rubber-stamped name accompanied by calligraphy (**Pl. 4 Fig. J**).

Arthur Wilson STELFOX (1883–1972) was considered an expert in several disparate aspects of natural history, but was mainly known as a student of Hymenoptera and the freshwater bivalve *Pisidium*, a subject he treated in an influential monograph (STELFOX, 1918). A few lots in the DEPASQUALE donation consist of Irish *Pisidium* from STELFOX's collection, also collected in 1918 (**Pl. 4 Fig. L**). The autographed labels (**Pl. 4 Fig. M**) could be compared to other samples of STELFOX's handwriting (e.g. FISHER MCMILLAN, 1972: pl. 21 [b]). In 1951, STELFOX donated the rest of his *Pisidium* collection, which now housed in the Museum of Zoology of University of Michigan (U.S.A.) (FISHER MCMILLAN, 1972).



Pl. 3 Figs. A–O: Specimens and artefacts from the DEPASQUALE collection. A: Specimen label ex coll. V.A. DEPASQUALE. B, C: Fossil nummulite specimens and accompanying specimen label. D: Vial with *Megathiris detruncata* (Gmelin, 1791), *Megerlia truncata* (Linnaeus, 1767), *Maltaia maltensis* Cooper, 1983, and possibly other small terebratulids;

Mgarr, Malta; Upper Coralline Limestone Formation; Miocene (Upper Tortonian to Lower Messinian). **E:** Vial with *M. detruncata*; Mellieħa, Malta; Upper Coralline Limestone Formation; Miocene (Upper Tortonian to Lower Messinian); leg. 1931. **F, G:** *Dallinella occidentalis* (Dall, 1871); California, U.S.A.; and accompanying specimen label. **H:** Specimen label ex coll. Vito BELTRANI (?–1943). **I–L:** Specimen labels ex coll. Tommaso di Maria ALLERY, Marquis of MONTEROSATO (1841–1927). **M:** Coralline algal specimen affixed to cardboard. **N, O:** Specimen label (obverse and reverse) ex coll. Joseph G. BALDACCHINO (1894–1974).

John Read le Brockton TOMLIN (1864–1954) was a British collector of beetles and molluscs who amassed a shell collection which was ‘*the largest, most complete, most valuable, both in the scientific and commercial sense*’ (DANCE, 1966). It originated in 1853 at the hands of James Cosmo MELVILL (1845–1929) and was transferred to TOMLIN in 1919, who augmented it until it came to amass over a million specimens that represent over 30,000 species. Within this collection, now housed in the Amgueddfa Cymru (Wales), several Maltese specimens are to be found, mainly acquired by TOMLIN through Maltese natural history curator and shell collector Giuseppe DESPOTT (1878–1936) (B. ROWSON & H. WOOD, pers. comm. 2004). Conversely, TOMLIN also sent many specimens from his collection to DESPOTT, who added small and neat labels designed to fit into tiny cut glass pipette containers (**Pl. 2 Fig. L**) and passed them on to or exchanged them with other collectors. A considerable number of these ended up in Giacomo DEPASQUALE’s possession and may now be studied at the NMNH. Incidentally, TOMLIN (1944) wrote about the collection of another Maltese conchologist, Giuseppe MAMO (1793–1865).

II. Interesting specimens and artefacts from the DEPASQUALE collection

Personalities and historical anecdotes aside, several specimens in the collection are of particular scientific interest, especially with regard to knowledge of their distribution or local occurrence. Observations on six such lots are presented hereunder. A systematic arrangement is not the scope of the present report, and taxa (three molluscs, an echinoderm, a brachiopod, and a crustacean) are arranged with genera (and an ichnogenus) in alphabetical order.

1. *Achatinella* Swainson, 1828 (Mollusca: Gastropoda): A small lot of exotic non-marine shells originally affixed to a cardboard base and mounted in a frame were detached, cleaned, and prepared for deposition (**Pl. 4 Fig. K**). The significance of this lot is owed to the presence of shells of tree snails of the genus *Achatinella*, endemic to the island of O’ahu (U.S.A.) and currently the subject of intensive conservation efforts. The vivid colours and patterns characterizing *Achatinella* shells made them very popular with 19th Century collectors, who gathered and traded them in their thousands (HADFIELD, 1986). It is therefore not uncommon to encounter several such specimens in older collections, such as the present one. The advent of predatory invasive species on O’ahu dramatically accelerated the decline of native land snail populations, leading to a current extinction rate of around 75% of all *Achatinella* (HOLLAND & HADFIELD, 2004; HOLLAND et al., 2009). The present lot from the DEPASQUALE collection includes 14 shells of ‘*Achatina producta* Reeve.’ (*Achatinella stewartii producta* Reeve, 1850) and two (sinistral) shells of ‘*Achatina Perversa* Spix’ (*Achatinella decora* (Férussac, 1821)), both collected from the ‘*Sandwich Is.[lands]*’ (Hawaiian Islands, U.S.A.). The latter species, populations of which display enantiomorphy (i.e. containing dextral and sinistral individuals), is extinct. Other specimens of interest in the same lot include a shell of the critically endangered ‘*Partula gibba* Fer.’ (*Partula gibba* Férussac, 1821), from ‘*Mariannes*’ (Marianas Islands, Guam), and another shell labelled ‘*Helic. Ferussacia* Lesson’ (*Papuina ferussacii* (Lesson, 1831), a *nomen inquirendum*), collected from ‘*New Guinea*’. This last specimen, with its multiple whorls, concealed umbilicus, and a simple (non-reflected) peristome, does not belong in *Papuina* Martens, 1860, but rather to *Geotrochus conus* (Pfeiffer, 1841) (incorrectly known as *Geotrochus zonatus* van Hasselt, 1823, a *nomen nudum*) (see PILSBRY, 1935).

2. *Echinocardium* Gray, 1825 (Echinodermata: Echinoidea): Collected before the first published record of its genus in Malta, a damaged test of a species of *Echinocardium* was acquired by Vincenzo A. DEPASQUALE from ‘*Melleħa Bay* [Mellieħa Bay, Malta]’ in February of 1948 and stored in a glass-lidded box bearing his autograph (**Pl. 2 Fig. N**). In the first literary mention of the genus for Maltese waters, ZAMMIT-MAEMPEL (1986) discussed finds of *Echinocardium mediterraneum* (Forbes, 1844). Prior to that, DESPOTT (1928) had mentioned specimen/s of *E. mediterraneum* within the national



Pl. 4 Figs. A–M: Specimens and artefacts from the DEPASQUALE collection. A–D: Sculpture by G. DEPASQUALE showcasing a *Thalassinoides callianassae* Ehrenberg, 1944 ichnofossil in Globigerina Limestone. E: Specimen label for *Lauria cylindracea* (Da Costa, 1778); Ghajn il-Kbira, Siggiewi, Malta; G. DESPOTT leg. 1 Oct. 1914. F: Specimen label

for *L. cylindracea*; San Martin, Mgarr, Malta; G. DESPOTT leg. 29 Jan. 1918. **G**: Specimen label for samples from C₁ Phosphorite Conglomerate Layer; Buġibba, Malta; G. DESPOTT leg. 3 Apr. 1933. **H, I**: Specimen labels ex coll. Raimondo DEL PRETE (1850–1937). **J**: Specimen label ex coll. Anson Andreus HINKLEY (1857–1920). **K**: *Achatinella decora* (Férussac, 1821) from Hawaiian Islands (U.S.A.) and *Partula gibba* Férussac, 1821 from Marianas Islands, Guam, cleaned, and prepared for deposition into the museum collection. **L, M**: Specimens of *Pisidium personatum* Malm, 1855 and specimen labels ex coll. Arthur Wilson STELFOX (1883–1972).

collection, although there is no indication as to whether these were Maltese or otherwise – earlier in the same document, DESPOTT alludes to ichthyological specimens of Mediterranean provenance, which were however ‘not locally obtained’. One of the five specimens on which ZAMMIT-MAEMPEL’s study is based originated from the same locality as the DEPASQUALE specimen. Later, TANTI & SCHEMBRI (2006) published the first records of *Echinocardium cordatum* (Pennant, 1777) and *Echinocardium flavescens* (Müller, 1776), although more specific collection data remained unpublished. An article in a local children’s publication shows beached specimens identified as *E. cordatum*, also from Mellieħa Bay (ANONYMOUS, 2012). Maltese specimens of *E. flavescens*, *E. mediterraneum*, and *Echinocardium capense* (Mortensen, 1907) are present in the collection of Constantine MIFSUD (1943–*) now deposited at the NMNH; the first record of *E. capense* for Malta was contributed by the same researcher (MIFSUD, 2012).

3. *Gamopleura melitensis* Janssen, 1995 (Mollusca: Gastropoda): On the 3rd of April of 1933, Giuseppe DESPOTT collected a sample from the ‘*Buġibba Nodular Seam*’ (**Pl. 4 Fig. G**), containing several phosphatized fossils of cup-shaped porifers, solitary corals, and an endemic pteropod, which was only described 62 years later (REHFELD & JANSSEN, 1995). Despite this, *G. melitensis* was already known in Maltese folklore by the vernacular name ‘*qanneb*’ (hemp seed), with its presence in the rock being an indicator of building material of poor quality (ZAMMIT-MAEMPEL, 1982). The presence of *G. melitensis*, making evident an Upper Oligocene deposition (JANSSEN, 2012), indicates that DESPOTT collected his sample from an exposure of C₁ Phosphorite Conglomerate Layer within the Lower Globigerina Limestone; this unit indeed outcrops at several locations along the Buġibba coastline.

4. *Limnaea melitensis* (Mollusca: Gastropoda): This taxon is a *nomen nudum* used in manuscripts and ephemera by Giuseppe DESPOTT (e.g. DESPOTT, undated) (e.g. **Pl. 5 Fig. C**), and refers to the ubiquitous freshwater species *Galba truncatula* (Müller, 1774). Three undated lots of *Limnaea melitensis*, originating from ‘*Manicata*’, ‘*Għain il għira*’, and ‘*Għirghenti*’, are present in the collection (**Pl. 2 Figs. G–I**). Other Maltese non-marine molluscs are also well-represented within the DEPASQUALE collection, with commoner species such as *Helix pisana* (*Theba pisana* (Müller, 1774)) collected from Ghadira (**Pl. 2 Fig. A**) to geographically restricted taxa, such as two lots of *Delima melitensis* (*Lampedusa melitensis* (Caruana Gatto, 1892)) from ‘*Rdum il-Madliena*’ (**Pl. 2 Figs. D, E**), *Delima imitatrix* (*Lampedusa imitatrix* (Boettger, 1879)) from ‘*Imtahlep*’ (**Pl. 2 Figs. F**), *Trochoidea spratti* (Pfeiffer, 1846) collected from Buġibba in 1931 (**Pl. 2 Fig. B**), *Pseudamnicola moussonii* (Calcara, 1841) collected from ‘*Emtahleb*’ in 1926 (**Pl. 2 Fig. J**), and various specimens of *Cyclostoma melitensis* (*Tudorella melitensis* (Sowerby I, 1843)) (**Pl. 2 Fig. C**). All these specimens bear labels with calligraphy by DESPOTT.

5. *Megathiris detruncata* (Gmelin, 1791) (Brachiopoda: Rhynchonellata): A few brachiopods were found to form part of the DEPASQUALE collection. Such material is mostly fossil and originates from Upper Coralline Limestone Formation of the Maltese Upper Tortonian to Lower Messinian. One lot from ‘*Il Prayet*’ (Il-Prajjet, Mellieħa, Malta) was collected in 1931 and consists exclusively of the rather common *M. detruncata* (**Pl. 3 Fig. E**). Another lot from the same geological formation, but from the different locality of ‘*Tas-Santi*’ (Mgarr, Malta), consists of *M. detruncata*, *Megerlia truncata* (Linné, 1767), *Maltaia maltensis* Cooper, 1983, and possibly other small terebratulids (**Pl. 3 Fig. D**). An intriguing Recent brachiopod, labelled as *Terebratalia occidentalis* Dall, a name now superseded by *Dallinella occidentalis* (Dall, 1871), was dredged from deep water off Santa Catalina Island (California, U.S.A.) (**Pl. 3 Figs. F, G**). The identity of the calligrapher for this specimen’s label (**Pl. 4 Fig. G**), to which other such labels of Recent brachiopods may be attributed, is yet unknown.

6. *Thalassinoides callianassae* Ehrenberg, 1944 (ichnofossil): Among the commonest trace fossils in bioturbated horizons within the Globigerina Limestone Formation of the Maltese islands (*Franka*) are *Ophiomorpha* Lundgren, 1891 and *Thalassinoides* Ehrenberg, 1944 (BROMLEY & FREY, 1974: 331 fig. 11; GRUSZCZYŃSKI et al., 2008). These describe large three-dimensional structures consisting of smooth and regularly branching cylindrical burrows, swollen at the nodes and connected by vertical shafts, attributed primarily to burrowing crustaceans such as callianassids and thalassinids (EHRENBERG, 1938). Giacomo DEPASQUALE fashioned a small slab of whitish Globigerina limestone containing a segment of such a burrow (without nodes) into a sculptural curio that is intended to showcase the ichnofossil (**Pl. 4 Figs. A–D**). The artifact consists of two interlocking, elongated trapezoidal prisms. Simple line and dot motifs decorate the upper prism (**Pl. 4 Fig. A**), which at its centre features an elliptical cylindrical protrusion with a stylized tetramerous flower carved in bas-relief. The lower prism (**Pl. 4 Fig. C**) is more robust, and one of its two longer facets is smoothed and engraved with decorative lines framing the inscription ‘WORM CAST’. As the ichnofossil protrudes from the inner surface of the lower prism, it may only be seen in its entirety upon disassembling the structure; only the two terminal cross-sections of it are evident when the prisms are stacked. A pencil inscription reading ‘Dr. G. Depasquale’ may be discerned on the smoothed facet of the upper element, which was broken into two chunks at some point in its history.

III. A note on historical records of *Lauria cylindracea* (Da Costa, 1778) (Mollusca: Gastropoda) from Malta

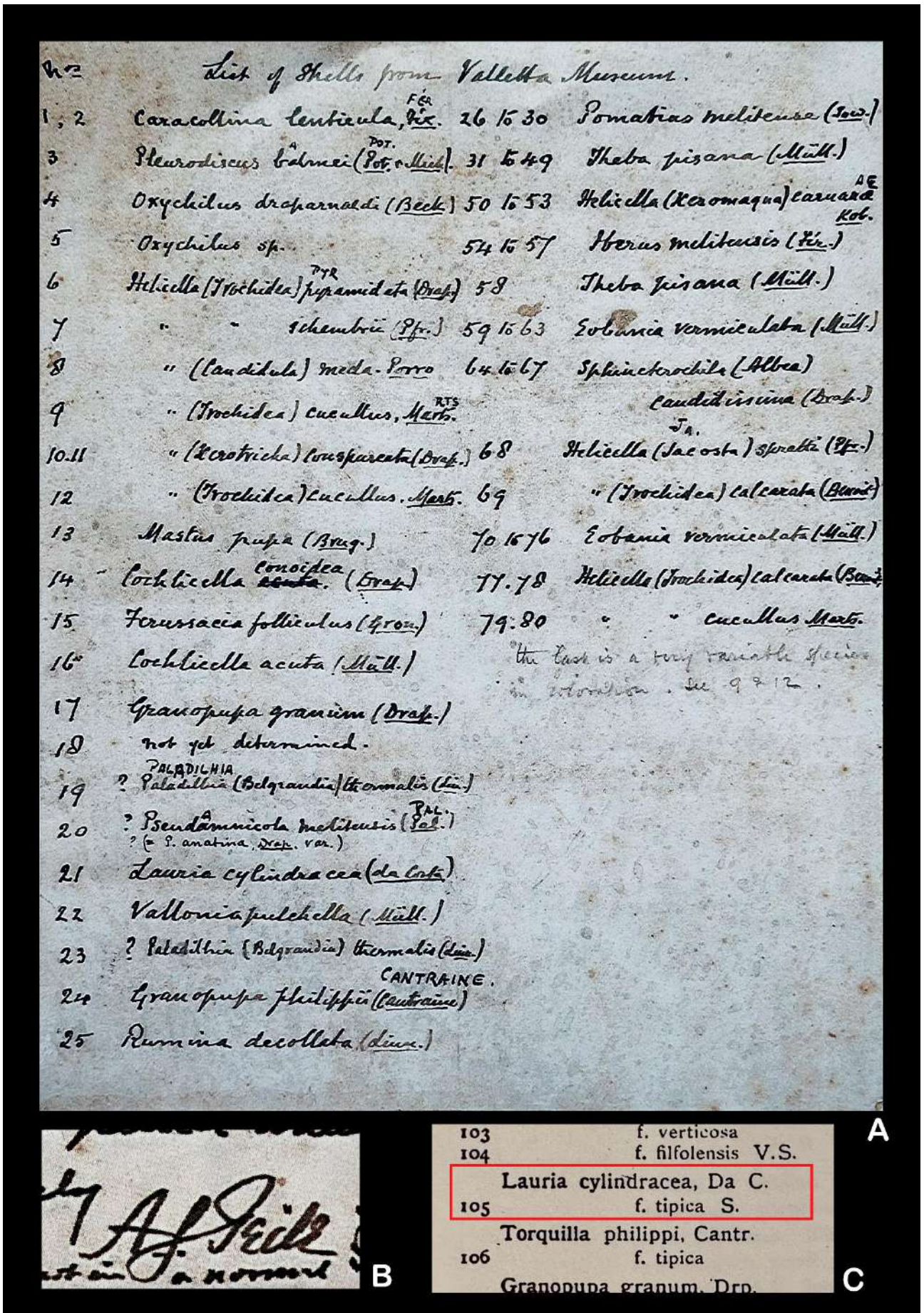
The terrestrial snail *L. cylindracea* was purportedly first recorded from leaf litter in Malta by THAKE (1984), who was evidently unaware of a catalogue by Giorgio Silvio COEN (1945: 27) listing Maltese shells of *L. cylindracea* in that author’s collection. In turn, THAKE’s record was overlooked a few years later by MIENIS (1987), who declared another ‘first’ Maltese record of *L. cylindracea* on the basis of COEN’s specimens, now housed in the Zoological Museum of the Hebrew University of Jerusalem (Israel).

However, two lots of *L. cylindracea*, collected by Giuseppe DESPOTT and passed on to Giacomo DEPASQUALE, predate even COEN’s publication by a few decades. Their labels, handwritten by DESPOTT, read ‘*Għajn il gbira* [Għajn il-Kbira], 1 Oct. [19]14’ (**Pl. 4 Fig. E**) and ‘*San Martin* [Mgarr], 21.1.[19]18’ (**Pl. 4 Fig. F**). Indeed, shells of *L. cylindracea* (‘form *typica*’) may be found listed among other Maltese specimens in an undated exchange list distributed by DESPOTT (undated: 3) (**Pl. 5 Fig. C**), which according to GIUSTI et al. (1995: 88) was published at some point between 1915 and 1930. DESPOTT places an initial ‘S.’, an abbreviation of ‘*Scarce*’, next to the listing.

Another manuscript that predates COEN’s record is a six-page letter sent by Alfred James PEILE (1868–1948) to Joseph G. BALDACCHINO in August of 1935, in which reference is made to *L. cylindracea* shells in the Valletta Museum (precursor of the current NMNH). A transcript of PEILE’s letter is reproduced in this paper as **Appendix 1**; the handwritten list is shown in **Pl. 5 Fig. A**, and PEILE’s autograph in **Pl. 5 Fig. B**. PEILE was known for his careful and reliable taxonomic assessments. He amassed a collection of c. 3700 slides of radulae of mainly tropical gastropods, in which he specialized; these are nowadays part of the National Museums Scotland inventory (V. BLAGODEROV pers. comm. 2024).

Unfortunately, the specimens or the counterpart to the Maltese specimens examined by PEILE (along with many other historical specimens) could not be traced within the current national collection, probably having perished as a result of the intense and persistent hostilities directed centred around Valletta during the Second World War (see DELIA, 2011; BORG, 2023; CACHIA et al., in press).

Notwithstanding the specimens from COEN’s collection (HUJ 12251/9), two other lots of Maltese *L. cylindracea* are present in the Jerusalem museum and are mentioned by MIENIS (1987). The first of these (HUJ 12249/2) originated from the Valletta Museum collection, then made its way into PEILE’s collection, and thence into the collection of Arthur BLOK (1882–1974), which then found its permanent home in the Jerusalem museum in 1974 (MIENIS, 2012). It is probable that this lot is the same, or at least part of the same, mentioned in the correspondence between BALDACCHINO and PEILE. The second lot (HUJ 12250/8) was collected by DESPOTT from San Martin, and, although undated, is part of the 1918 lot within the DEPASQUALE collection (**Pl. 4 Fig. F**).



Pl. 5 Figs. A–B: Evidence of *Lauria cylindracea* (Da Costa, 1778) from Malta from a six-page letter sent by Alfred James PEILE (1868–1948) to Joseph G. BALDACCHINO (1894–1974), dated 8 Aug. 1935 (NMNH Archives), and an

undated list Maltese of exchange material distributed by G. Despott. **A:** Second page of the letter, with a list of Maltese shells PEILE received from BALDACCHINO on behalf of the Valletta Museum. **B:** PEILE's autograph from the first page of the letter. **C:** Excerpt from DESPOTT's conchological exchange list, mentioning the availability of Maltese specimens of *L. cylindracea* 'form *typica*'.

Therefore, the first finding of *L. cylindracea* in Malta dates back to at least 1914, but this information, published as a small entry in an ephemeron circulated by DESPOTT amongst fellow shell collectors, went virtually unnoticed elsewhere. In fact, even the authoritative and otherwise exhaustive monographs of SOÓS (1933) and ALZONA (1971) make no mention of the species' local presence.

A similar history may be gleaned for a very different, but likewise (locally) elusive species: *Vallonia pulchella* (Müller, 1774). Maltese specimens of *V. pulchella* are also first mentioned in the exchange list distributed by DESPOTT (undated), omitted by both SOÓS (1933) and ALZONA (1971), then mentioned again by MIENIS (1987 sub *Vallonia excentrica* Sterki, 1892) via specimens in BLOK's collection in the Jerusalem museum, which also originated from Valletta Museum material sent to PEILE (HUIJ 12253/2). However, *V. pulchella* is not mentioned in PEILE's 1935 list (**Appendix 1, Pl. 5 Fig. A**) nor in the catalogue by COEN (1945). The species is not represented within the DEPASQUALE collection either.

As implied by PEILE in the letter transcribed herein, other instances of communication between him and BALDACCHINO certainly occurred; but at present, the many ideas presumably resulting from their exchanges remain largely unknown.

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Appendix 1: Transcript of cover letter and list sent from Alfred James PEILE (1868–1948) to Joseph G. BALDACCHINO (1894–1974), dated 8 Aug. 1935. Four handwritten papers classifying the molluscs in the list according to the scheme of THIELE (1929–1935) are omitted. Text in square brackets and updates in nomenclature have been added by the present author.

‘18 Leopold Road
Wimbledon
[London, S.W.19]
[U.K.]
8 Aug. [19]35

Dear Dr. Baldacchino,

Herewith my report on the numbered shells you sent and which I am glad to add to my collection.

Before discussing it I must thank you for the Museum Report which arrived yesterday. I find it most interesting and am much gratified at your kind mention of my small efforts of assistance. [see BALDACCHINO, 1934–1935: 22, 1937–1938: 48.]

I am surprised you never found *Euthria cornea*. It was likely to be confused with *Pisania maculosa* [*Pisania striata* (Gmelin, 1791)].

The determination of the shells you lately sent would have been completed much sooner but for the presence of those small freshwater species which gave me more trouble than all the rest put together and even now I am extremely doubtful whether I have them rightly named, you will notice I have put a strong “?” against them. I am not abandoning the search and will let you know if any amendments must be made.

Meanwhile I did not want to delay your work with the remainder.

I presume you have a definite locality associated with each of your serial numbers. It would be of great interest to me to have a note of these localities not on the main island, e.g. Gozo, Filfla and Comino – am particularly interested to hear the location for no. 6 *H. pyramidata* and no. 68 *H. spratti*. The [British Museum] has the former from Filfla and I have the latter from Gozo. Is it found in Malta?

You may think the systematic arrangement [illegible] is rather complicated! But it enables one to visualise the relationships between these different groups of snails.

It is possible that Thiele’s [Johannes THIELE, 1860–1935] choice of generic and other names may not be concurred in by other authors but by sticking to one main arrangement one is following a logical scheme. I have added a few notes in pencil which will not confuse the main issue.

Yours sincerely,
A. J. Peile

[P.S.] It might help in the determination of no. 5 if you could send a larger series of specimens. It is possible the shell you sent is not in a normal state of presentation. I would of course return them.

List of shells from Valletta Museum:

1, 2	<i>Caracollina lenticula</i> , Fér.	[<i>Caracollina lenticula</i> (Michaud, 1831)]
3	<i>Pleurodiscus balmei</i> (Pot. & Mich)	[<i>Pleurodiscus balmei</i> (Potiez & Michaud, 1838)]
4	<i>Oxychilus draparnaldi</i> (Beck)	[sic, <i>Oxychilus draparnaldi</i> (Beck, 1837)]
5	<i>Oxychilus</i> sp.	[possibly <i>Mediterranea hydatina</i> (Rossmässler, 1838)]
6	<i>Helicella</i> (Trochidea) <i>pyramidata</i> (Drap.)	[sic, <i>Trochoidea spratti</i> (Pfeiffer, 1846)]
7	<i>Helicella</i> (Trochidea) <i>schembrii</i> (Pfr.)	[sic, <i>Trochoidea spratti</i> (Pfeiffer, 1846)]
8	<i>Helicella</i> (Candidula) <i>meda</i> Porro	[<i>Xerocrassa meda</i> (Porro, 1840)]
9	<i>Helicella</i> (Trochidea) <i>cucullus</i> Marts.	[sic, <i>Trochoidea cucullus</i> (Martens, 1875)]
10, 11	<i>Helicella</i> (Xerotricha) <i>conspurcata</i> (Drap.)	[<i>Xerotricha conspurcata</i> (Draparnaud, 1801)]
12	<i>Helicella</i> (Trochidea) <i>cucullus</i> Marts.	[sic, <i>Trochoidea cucullus</i> (Martens, 1875)]
13	<i>Mastus pupa</i> (Brug.)	[<i>Mastus pupa</i> (Linné, 1758)]
14	<i>Cochlicella conoidea</i> (Drap.)	[<i>Cochlicella conoidea</i> (Draparnaud, 1801)]
15	<i>Ferussacia folliculus</i> (Gron.)	[<i>Ferussacia folliculum</i> (Schröter, 1784)]
16	<i>Cochlicella acuta</i> (Müll.)	[<i>Cochlicella acuta</i> (Müller, 1774)]
17	<i>Granopupa granum</i> (Drap.)	[<i>Granopupa granum</i> (Draparnaud, 1801)]
18	not yet determined	[unknown identity]
19	? <i>Paladilhia</i> (Belgrandia) <i>thermalis</i> (Lin.)	[possibly <i>Pseudamnicola moussonii</i> (Calcara, 1841)]
20	? <i>Pseudamnicola melitensis</i> (Pal.) (= ? <i>P. anatina</i> Drap. var.)	[<i>Mercuria melitensis</i> (Paladilhe, 1869)]
21	<i>Lauria cylindracea</i> (da Costa)	[<i>Lauria cylindracea</i> (Da Costa, 1778)]
22	<i>Vallonia pulchella</i> (Müll.)	[<i>Vallonia pulchella</i> (Müller, 1774)]

23	? Paladilhia (Belgrandia) thermalis (Lin.)	[possibly <i>Pseudamnicola moussonii</i> (Calcara, 1841)]
24	Granopupa philippii (Cantraine)	[<i>Rupestrella philippii</i> (Cantraine, 1841)]
25	Rumina decollata (Linn.)	[<i>Rumina decollata</i> (Linné, 1758)]
26–30	Pomatias melitense (Sow.)	[<i>Tudorella melitensis</i> (Sowerby I, 1843)]
31–49	Theba pisana (Müll.)	[<i>Theba pisana</i> (Müller, 1774)]
50–53	Helicella (Xeromagna) caruanae Kob.	[<i>Cernuella caruanae</i> (Kobelt, 1888)]
54–57	Iberus melitensis (Fér.)	[<i>Murella melitensis</i> (Férussac, 1821)]
58	Theba pisana (Müll.)	[<i>Theba pisana</i> (Müller, 1774)]
59–63	Eobania vermiculata (Müll.)	[<i>Eobania vermiculata</i> (Müller, 1774)]
64–67	Sphincterochila (Albea) candidissima (Drap.)	[<i>Sphincterochila candidissima</i> (Draparnaud, 1801)]
68	Helicella (Jacosta) spratti (Pfr.)	[<i>Trochoidea spratti</i> (Pfeiffer, 1846)]
69	Helicella (Trochidea) calcarata (Benoit)	[sic, <i>Trochoidea spratti</i> (Pfeiffer, 1846)]
70–76	Eobania vermiculata (Müll.)	[<i>Eobania vermiculata</i> (Müller, 1774)]
77, 78	Helicella (Trochidea) calcarata (Benoit)	[sic, <i>Trochoidea spratti</i> (Pfeiffer, 1846)]
79, 80	Helicella (Trochidea) cucullus Marts.	[sic, <i>Trochoidea cucullus</i> (Martens, 1875)]

CATALOGUE OF THE NON-MARINE MOLLUSCA FROM THE MALTESE ISLANDS IN THE COLLECTION OF THE NATIONAL MUSEUM OF NATURAL HISTORY, MALTA

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ABSTRACT

Part of the malacological collection of the National Museum of Natural History, Mdina, Malta, consists of 1626 lots representing 86 species and subspecies of non-marine molluscs (Mollusca: Gastropoda and Bivalvia) collected from the Maltese Islands. This collection has been renovated and augmented in recent years, in efforts to address significant damage caused by the Second World War, exacerbated by subsequent neglect of the collection. A systematic and taxonomically updated catalogue of the lots is presented.

Keywords: non-marine molluscs, museum collection, catalogue, Maltese Islands, National Museum of Natural History, Malta

SINTEŻI

[Katalogu tal-molluski mhux tal-baħar mill-Gzejjer Maltin fil-kollezzjoni tal-Mużew Nazzjonali tal-Istorja Naturali, Malta.] Parti mill-kollezzjoni malakoloġika tal-Mużew Nazzjonali tal-Istorja Naturali, l-Imdina, Malta, tikkonsisti f'1626 lott li jirrapreżentaw 86 speċi u sottospeċi ta' mollusk mhux tal-baħar (Mollusca: Gastropoda u Bivalvia) miġbura mill-Gzejjer Maltin. Din il-kollezzjoni giet irrestawrata u mkabbra f'dawn l-aħħar snin sabiex tiġi indirizzata ħsara sostanzjali li saret matul it-Tieni Gwerra Dinjija, li giet aggravata mill-abbandun tal-kollezzjoni. Katalogu sistematiku tal-kampjuni, b'tassonomija aġġornata, qiegħed jiġi ippreżentat.

Kliem muftieħ: molluski mhux tal-baħar, kollezzjoni tal-mużew, katalogu, Gzejjer Maltin, Mużew Nazzjonali tal-Istorja Naturali, Malta

INTRODUCTION

The first attempts at establishing a national collection of non-marine molluscs from the Maltese islands emerged from the setting up of a small museum within the National Library in Valletta, which was only one of two institutions (together with the Palace Armoury) to function as a public museum, before the first national museum was inaugurated in 1903 (DELIA, 2011). The National Library collections were then transferred to the new museum, at Palazzo Xara (Saint Zachary Street, Valletta), under the curatorship of Themistocles ZAMMIT (1864–1935). The conchological section was continuously and rapidly augmented to include marine specimens as well, with a large part serving as a study collection and a smaller portion destined for the exhibition halls.

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By 1922, the national collections of art, archaeological artifacts, and natural history specimens had grown enough to necessitate their transfer to the larger Auberge D'Italie (Merchants Street, Valletta). The Museums Department was created, and curatorship of much of the natural history section was handed over to Giuseppe DESPOTT (1878–1936).

Bombardment of Valletta during the Second World War was intense and continuous, resulting in the irreversible loss of innumerable historical artifacts, monuments, and buildings. The Auberge D'Italie was directly hit twice, destroying several artworks awaiting transfer to safer repositories. The conchological collection, with other assorted natural history specimens, was hastily packed in wooden crates and moved to the cellars of Casa Leone (Santa Venera), where it remained unattended until 1969, when it was again transported to the cellars of Palazzo Vilhena (Mdina) in anticipation of the inauguration of the National Museum of History Museum in 1974. Unfortunately, however, the collection languished in obscurity until 1987 (**Pl. 1 Fig. A**), until one of the authors (PS) was transferred on loan from the Education Department to the museum. The officer-in-charge of the time, Joseph A. VELLA-GAFFIERO (1941–2019), entrusted PS with the formation of a new conchological study collection, into which the older lots could be amalgamated.

Initially, the collection started by PS included marine and non-marine material of Maltese and exotic origin. Towards the year 2010, CS, CC and CM joined PS as volunteers at the museum. CM and PS donated substantial additions to the collection. Under the curatorship of John J. BORG, essential items such as cabinets, trays, specimen boxes, and laboratory and other tools were procured. The original collection material was in a dilapidated state and mostly undocumented. Some labels had been attacked by insects and rendered undecipherable. Therefore, steps were taken to salvage any possible lots and conserve them accordingly. Material of historical importance currently found in the collection includes specimens collected by the Maltese malacologists Giuseppe MAMO (1793–1865), Alfredo CARUANA GATTO (1868–1926), and DESPOTT. The collection also includes type material and specimens identified by Tommaso di Maria ALLERY, Marquis of MONTEROSATO (1841–1927). It may nowadays be accessed by researchers and students through prior appointment.

MATERIALS AND METHODS

Despite the historical fragmentation and neglect (and subsequent unusableness) of a large part of older collections already housed within the NMNH (**Pl. 1 Figs. A, B**), some lots could be salvaged and appropriated into the current collection. Although some of them may not be ideal choices for zoological or ecological studies, their historical provenance is noteworthy.

Fresh specimens were mainly sourced from material collected in the field, which often required additional processing in a laboratory to enhance yield. Such processing ranged from the fractionation and screening of detritus under a microscope to the cleaning and drying of the specimens destined for deposition into the collection. Series of specimens collected at the same place at the same time were grouped together as one lot. Identification to species level was then carried out by the authors. Taxonomy adopted in the collection and in the present work is mostly in accordance with MolluscaBase (<https://www.molluscabase.org/>; last accessed 10 Nov. 2024).

Prepared and identified lots were processed and organized according to these steps:

Registration: Each lot was assigned a numerical string of two and three digits, separated by a hyphen (e.g. 19-001). Each two-digit prefix (e.g. 19) corresponds to a specific or subspecific taxon; e.g. 19 is the prefix assigned to all lots of *Myosotella myosotis* (Draparnaud, 1801). The suffix of three digits starts at 001 for the first lot attributed to each taxon, the number increasing by one with each additional lot. The nine lots of *M. myosotis* were therefore be assigned suffixes ranging from 001 up to 009. The resulting five-digit sequences are unique for each lot within the collection. Following submission of this paper, registration codes of new accessions will be designated to ensure continuity with the sequences established herein.

Labelling: Aside from a catalogue number and a taxonomic allocation, each lot bears the data crucial for meaningful interpretation of specimens. Data labels (**Pl. 1 Figs. C, F**), and separate cardboard

squares on which the unique registration number were printed in laser ink (**Pl. 1 Fig. E**) accompany each lot. One of each was placed in the acrylic or glass containers with the specimens. Another registration number slip was attached to each containment tray in a way that permits visual recognition at a distance, for more efficient retrieval of specimens and avoidance of unnecessary handling (**Pl. 1 Fig. E**). The five main data categories included on the labels are described below. A semicolon separates these categories for each entry within this catalogue. Lots lacking data from one or more of the mentioned categories were only maintained within the collection if that deficiency did not compromise their scientific or historical value; otherwise, the material was excluded from the collection and set aside for use in educational activities.

1. *Locality data*: All specimens in all lots originated from islands of the archipelago that constitutes the Republic of Malta. For some specimens of historical importance, a locality more precise than this was lacking; this is here indicated by the phrase ‘*no further data*’ in square brackets next to the country name. For the more recently collected lots, locality data was annotated with the name of the larger location first (e.g. ‘*Mellieħa*’), then with names of ever smaller areas contained within (e.g. ‘*Għadira Bay*’). Coordinates were sometimes provided; two groups of three numerals separated by a hyphen in square brackets (e.g. ‘*[504-728]*’) indicate a MGRS / UTMREF grid reference.
2. *Ecological data*: Such information gives details about the physical environment from which the specimen/s were retrieved, including details of the habitat or ecosystem in situ. Method of capture was sometimes included in this category.
3. *Date of collection*: Dates were annotated starting with the day of the month, proceeding with three-letter abbreviation indicating the month, and ending with the year. Dates are of crucial importance for the measurement and interpretation of environmental changes, for example, the introduction and establishment of non-native species.
4. *Name of collector*: In this catalogue, the name of the individual was annotated starting with an initial representing the given name, followed by the full surname in small capital letters. The inscription ‘*leg.*’ after the individual’s name, short for the Latin ‘*legit*’, is evidence that this person (very often also the collector) assumed responsibility in associating the specimen with the data provided.
5. *Other information*: At the end of each entry, a number in parentheses (e.g. *(17)*) indicates the number of specimens in the lot, to which the addition of any of the abbreviations ‘*D*’, ‘*DS*’, ‘*GP*’, ‘*P*’, ‘*R*’ and ‘*W*’ denotes additional preservation or anatomical information (see *Abbreviations and symbols*). In some cases, additional information is included in square brackets. It may include historical provenance, or archaeological or palaeontological relevance. Quotation marks within (e.g. ‘*Caecilioides? Gattoi West.?*’) enclose interesting quotes that were copied *ad verbatim* from label, and that do not necessarily reflect the opinion/s of the present authors. Finally, square square brackets are sometimes added for the sake of completion (e.g. year ‘*[19]84*’), for orthographic clarification (e.g. ‘*Kalet Marcu [Qalet Marku]*’), or for bilingual renderings of placenames (e.g. ‘*Gozo [Għawdex]*’).

Specimen storage and maintenance: The larger part of the NMNH collection consists of shells in a dry preservation state. Such lots were mainly enclosed within Perspex® acrylic specimen boxes of various sizes (**Pl. 1 Figs. E, F**) or in stoppered glass jars or vials (**Pl. 1 Figs. C, D**). These facilitate the handling and cursory observation of specimens while protecting against damage or loss. About 10% of lots excluding slugs consist fully or partly of ‘wet’ material (preserved in 70% ethanol solution) sealed in airtight glass vials or jars to prevent evaporation of liquid (**Pl. 1 Figs. C, D**). Such lots are regularly inspected to maintain specimen integrity.

Systematic arrangement: The glass or acrylic containers were fitted into custom-made acid-free cardboard trays (**Pl. 1 Figs. E, F**), many of which could fit contiguously within bigger drawers (**Pl. 1 Fig. F**). Lots assigned to a taxon were arranged in numerical order within the same drawer, in a systematic order mostly following MolluscaBase (<https://www.molluscabase.org/>; last accessed 10 Nov. 2024) and reflected in this catalogue. Drawers were stacked within a closed metal cabinet to minimize atmospheric exposure and can now be handled or relocated as necessary.



Pl. 1 Figs. A–F: The Maltese non-marine mollusc collection of the NMNH. **A:** State of a part of the general conchological collection in the early 1990s (photographed by John J. Borg, NMNH Archives). **B:** Labels and specimens from the non-

marine collection that could not be rehabilitated into the present collection due to advanced deterioration resulting from years of neglect. **C, D:** 'Wet-preserved' specimens in 70% ethanol solution in stoppered vials in the current collection. **E:** Specimens arranged systematically in acrylic boxes fitted into cardboard trays, with visible registration numbers facilitating access. **F:** Integration of dry specimens in acrylic boxes and containers with 'wet-preserved' specimens, fitted into cardboard trays and arranged systematically into a wooden drawer.

Abbreviations and symbols:

D: dry specimens (only indicated when dry and wet specimens are present within the same lot; specimens without such indication are dry)

DS: dissected specimen/s

GP: genitalia preparation

NMNH: National Museum of Natural History, Mdina, Malta

P: protoconch

R: radula preparation

W: wet specimen/s

RESULTS

The collection consists of 1626 lots, pertaining to 86 taxa at specific or subspecific rank, and in total containing a minimum of 32542 specimens. The mean number of lots representing each taxon is about 19, while the mean number of specimens per lot is 20, from a minimum of one specimen to a maximum of over 500. Excluding slugs, which are almost exclusively preserved in ethanol, around 175 other lots partly or fully consist of specimens preserved in ethanol. The rest are shells in dry storage or as specific anatomical preparations.

The Recent species *Testacella riedeli* Giusti, Manganelli & Schembri, 1995, *Schileykiella parlatoris* (Bivona, 1839), and *Paludinella sicana* (Brugnone, 1876) were each recorded from Malta once (GIUSTI et al., 1995; MIFSUD & CACHIA, 2011) and are yet unrepresented in the collection. Several newly collected allochthonous species are unlisted and will be fully documented in upcoming thematic publications.

SYSTEMATICS

Phylum Mollusca Cuvier, 1795

Class Gastropoda Cuvier, 1795

Subclass Caenogastropoda Cox, 1960

Superfamily Cerithioidea Fleming, 1822

Family Thiaridae Gill, 1871 (1823)

Subfamily Thiarinae Gill, 1871 (1823)

Genus *Melanoides* Olivier, 1804

Melanoides tuberculata (Müller, 1774)

01-001	MALTA • Salina Bay; -4 m, in detritus; 12 Aug. 1986; C. CACHIA leg. (26)
01-002	MALTA • Salina Bay; on canal bank; 23 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (19)
01-003	MALTA • Salina Bay; on canal bank; Mar. 1987; C. MIFSUD leg. (3)
01-004	MALTA • Salina Bay; on canal bank; Mar. 2003; C. MIFSUD leg. (2)

Order Littorinimorpha Golikov & Starobogatov, 1975

Superfamily Littorinoidea Children, 1834

Family Pomatiidae Newton, 1891 (1828)

Genus *Pomatias* Studer, 1789

Pomatias elegans (Müller, 1774)

- 03-001 MALTA • San Anton Gardens; 17 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (79)
- 03-002 MALTA • San Anton Gardens [504-728]; Aug. 1987; P. SAMMUT leg. (12)
- 03-003 MALTA • San Anton Gardens; 17 Jan. 2003 (10)
- 03-004 MALTA • San Anton Gardens; 27 Feb. 2005 (4)
- 03-005 MALTA • San Anton Gardens; Jul. 1987; P. SAMMUT leg. (2)
- 03-006 MALTA • San Anton Gardens; 8 Feb. 2002; M. THAKE leg. (14)
- 03-007 MALTA • San Anton Gardens; 30 Jan. 1985; P. SAMMUT leg. (30)

Genus *Tudorella* Fischer, 1885

Tudorella melitensis (Sowerby II, 1843)

- 02-001 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (7)
- 02-002 MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (12)
- 02-003 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (7)
- 02-004 MALTA • Mellieħa, Għajn Hadid [448-807]; 26 Mar. 2002; P. SAMMUT leg. (6)
- 02-005 MALTA • Filfla; 10 Jun. 2002; J.J. BORG leg. (3)
- 02-006 MALTA • Gozo [Għawdex], Xewkija, Ta' Ċenċ [334-860]; 5 Mar. 2002; P. SAMMUT leg. (3)
- 02-007 MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-880]; 12 Feb. 2002; P. SAMMUT leg. (5)
- 02-008 MALTA • Dingli, attached to wall near school; Sep. 2008; C. MIFSUD leg. (4W)
- 02-009 MALTA • Valletta (4) [*Cyclostoma melitense*, ex coll. Valletta Museum]
- 02-010 MALTA • Mtaħleb; P. SAMMUT leg. (4)
- 02-011 MALTA • Għargħur, Wied id-Dis; 19 Jan. 2002; C. MIFSUD leg. (3)
- 02-012 MALTA • Gozo [Għawdex], Għasri (7)
- 02-013 MALTA • Gozo [Għawdex], Xagħra [367-897]; 18 Feb. 2002; P. SAMMUT leg. (7)
- 02-014 MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (7)
- 02-015 MALTA • Għargħur, Wied id-Dis [511-766]; 18 Jan. 2002; P. SAMMUT leg. (12)
- 02-016 MALTA • Mgarr, Roman Baths; Oct. 1993; C. MIFSUD leg. (6)
- 02-017 MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (17)
- 02-018 MALTA • Buskett, Xagħra ta' Laroka [458-683]; 8 Feb. 2000; P. SAMMUT leg. (7)
- 02-019 MALTA • Mellieħa, Għajn Hadid [448-407]; 26 Feb. 2002; P. SAMMUT leg. (5)
- 02-020 MALTA • Bahrija, Xagħra tal-Bahrija; 15 Jan. 2002; P. SAMMUT & J.J.BORG leg. (16)
- 02-021 MALTA • Rabat, Lunzjata [447-706]; 29 Jan. 2002; P. SAMMUT leg. (10)
- 02-022 MALTA • Gozo [Għawdex], Marsalforn, Qbajjar [320-933]; 12 Feb. 2002; P. SAMMUT leg. (5)
- 02-023 MALTA • Buskett, Xagħra ta' Laroka [458-683]; 8 Feb. 2000; P. SAMMUT leg. (8)
- 02-024 MALTA • Siġġiewi, Għar Lapsi; 15 Jan. 2002; P. SAMMUT leg. (10)
- 02-025 MALTA • Buskett, Xagħra ta' Laroka [458-683]; 8 Feb. 2000; P. SAMMUT leg. (13)
- 02-026 MALTA • Ras il-Qawra [Ta' Fra Ben] [483-797]; 16 Sep. 1988; P. SAMMUT leg. (14)
- 02-027 MALTA • Gozo [Għawdex], Munxar; under stones; 12 Feb. 2002; C. MIFSUD leg. (3)
- 02-028 MALTA • Mtaħleb, Miġra Ferħa; Oct. 1993; C. MIFSUD leg. (18)
- 02-029 MALTA • Bahrija, Xagħra tal-Bahrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (15)
- 02-030 MALTA • Birzebbuga, Għar Hasan [565-629]; 12 Jan. 2002; P. SAMMUT leg. (11)

02-031	MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (15)
02-032	MALTA • Gozo [Għawdex], Wied [?]; 4 [?] 1924 [original label partly undecipherable, now lost, ex coll. Valletta Museum]
02-033	MALTA • Concezione [Kuncizzjoni]; 8 Feb. [19]18.
02-034	MALTA • Kuncizzjoni; Feb. 2003; C. MIFSUD leg. (10W)
02-035	MALTA • [no further data] (15)
02-036	MALTA • Siġġiewi, Għar Lapsi [35°50'N, 14°25'E]; 11 Feb. 2002; J.J. BORG leg. (4)
02-037	MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-880]; 12 Feb. 2002; P. SAMMUT leg. (3W)
02-038	MALTA • [no further data] (7)
02-039	MALTA • Mistra; 30 Nov. 2011 (10W)
02-040	MALTA • Mistra, Tal-Blata [453-805]; 11 Nov. 1988; P. SAMMUT leg. (6)
02-041	MALTA • Wied il-Koton; 20 Oct. [19]20 (29) [ex coll. A. CARUANA-GATTO]
02-042	MALTA • [no further data] (21) [ex coll. Valletta Museum]
02-043	MALTA • [no further data] (19) [ex coll. Valletta Museum]
02-044	MALTA • Cominotto; 4 Sep. [19]23 (36) [ex coll. Valletta Museum]
02-045	MALTA • Mġarr, Is-Santi; Oct. 1993; C. MIFSUD leg. (20W)
02-046	MALTA • Argotti [Floriana]; 26 Jan. [19]27 (15) [ex coll. G. DESPOTT]
02-047	MALTA • [no further data] (15) [ex coll. Valletta Museum]
02-048	MALTA • [no further data] (37) [ex coll. Valletta Museum]
02-049	MALTA • Birzebbugia, Salini; 22 Oct. [19]20 (52) [ex coll. G. DESPOTT, material for exchange]
02-050	MALTA • Birzebbugia, Salini; 22 Oct. [19]20 (89) [ex coll. G. DESPOTT, material for exchange]
02-051	MALTA • Birzebbugia, Salini; 22 Oct. [19]20 (88) [ex coll. G. DESPOTT, material for exchange]
02-052	MALTA • Żnuber Tower; 13 Nov. 1991; M. BRIFFA leg. (9)

Superfamily Truncatelloidea Gray, 1840
 Family Assimineidae Adams & Adams, 1856
 Subfamily Ekdantinae Thiele, 1929
 Genus *Paludinella* Pfeiffer, 1841

Paludinella globularis (Hanley, 1844)

10-001	MALTA • Mellieħa, il-Marbat; P. SAMMUT leg. (2)
10-002	MALTA • [no further data] (13)

Family Cochliopidae Tryon, 1866
 Subfamily Semisalsinae Giusti & Pezzoli, 1980
 Genus *Eupaludestrina* Mabile, 1877

Eupaludestrina stagnorum (Gmelin, 1791)

04-001	MALTA • St. Thomas' Bay; -8 m; Aug. 1985; C. MIFSUD leg. (32) [<i>Heleobia stagnorum</i> (Gmelin, 1791)']
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Family Hydrobiidae Stimpson, 1865
 Subfamily Hydrobiinae Stimpson, 1865
 Genus *Ecrobia* Stimpson, 1865

Ecrobia ventrosa (Montagu, 1803)

- 05-001 | MALTA • St. Thomas' Bay; -3 m; Aug. 1985; C. MIFSUD leg. (30) ['*Ventrosia ventrosa*']

Genus *Hydrobia* Hartmann, 1821

Hydrobia acuta (Draparnaud, 1805)

- 06-001 | MALTA • Marsaskala; in brackish water pool on algae; 9 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (100W)
06-002 | MALTA • Marsaxlokk, il-Magħluq [606-688]; 9 Apr. 2002; P. SAMMUT leg. (100)
06-003 | MALTA • [no further data] (20)
06-004 | MALTA • Marsaskala, il-Magħluq; 9 Apr. 2002; C. MIFSUD leg. (10W)
06-005 | MALTA • Marsaskala, il-Magħluq; 9 Apr. 2002; P. SAMMUT leg. (100)
06-006 | MALTA • [no further data] (19)
06-007 | MALTA • Marsaxlokk, il-Magħluq [606-688]; 9 Apr. 2002; P. SAMMUT leg. (>50)

Subfamily Mercuriinae Boeters & Falkner, 2017

Genus *Mercuria* Boeters, 1971

Mercuria melitensis (Paladilhe, 1869)

- 07-001 | MALTA • Wied tal-Bahrija; Oct. 1993; C. MIFSUD leg. (c. 50W + 50D) ['*Mercuria similis*']
07-002 | MALTA • Wied tal-Bahrija; Jul. 1997; C. MIFSUD leg. (c. 200W) ['*Mercuria similis*']
07-003 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (5)
07-004 | MALTA • Mtahleb; spring in cave in rock face; Oct. 1992; C. MIFSUD leg. (50W) ['*Mercuria similis*']
07-005 | MALTA • [no further data] (3) [ex coll. Valletta Museum]
07-006 | MALTA • Miġra Ferħa; -120 m; Oct. 1998; C. MIFSUD leg. (2)
07-007 | MALTA • St. Paul's Bay; -3 m; Nov. 1990; C. MIFSUD leg. (5)
07-008 | MALTA • Wied tal-Bahrija [404-727]; 15 Jan. 2002; P. SAMMUT & J.J. BORG leg. (>30)
07-009 | MALTA • Burmarrad; Aug. 2003; T. GAMBIN leg. (1) [subfossil]
07-010 | MALTA • Salina Bay; -3 m; Aug. 1984; C. CACHIA leg. (1)
07-011 | MALTA • [no further data] (3) [ex coll. Valletta Museum]
07-012 | MALTA • [no further data] (30) ['*Pseudamnicola melitensis* Pal.', ex coll. Valletta Museum]
07-013 | MALTA • Wied tal-Bahrija; 1 Apr. 2002; P. SAMMUT & C. MIFSUD leg. (1)
07-014 | MALTA • Wied tal-Bahrija; 15 Jan. 2002; P. SAMMUT & J.J. BORG leg. (>50) ['*Mercuria cf. similis*']
07-015 | MALTA • [no further data] (>50)
07-016 | MALTA • Wied tal-Bahrija; Sep. 1987; P. SAMMUT leg. (10)
07-017 | MALTA • San Martin watercourse; 10 Sep. 1988; P. SAMMUT leg. (10)

Subfamily Pseudamnicolinae Radoman, 1977

Genus *Pseudamnicola* Paulucci, 1878

Pseudamnicola moussonii (Calcara, 1841)

08-001	MALTA • Gozo [Għawdex], Wied ix-Xlendi; on stones; Sep. 1993; P. SAMMUT & MIFSUD leg. (6)
08-002	MALTA • Gozo [Għawdex], Wied ix-Xlendi; on stones; Sep. 1993; P. SAMMUT & MIFSUD leg. (20)
08-003	MALTA • Gozo [Għawdex], Dwejra, il-Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (20)
08-004	MALTA • Gozo [Għawdex], Munxar, Wied tax-Xlendi [308-882]; 12 Feb. 2002; P. SAMMUT leg. (200)
08-005	MALTA • Gozo [Għawdex], Fontana, Għajn tal-Ħasselin [311-886]; 5 Mar. 2002; P. SAMMUT leg. (>200)
08-006	MALTA • Gozo [Għawdex], Dwejra, Qattara; 1 Dec. 2016; C. MIFSUD, C. CACHIA & P. SAMMUT leg. (200)
08-007	MALTA • Gozo [Għawdex], Xagħra, Għajn Ħosna; 18 Feb. 2002; C. MIFSUD leg. (>50)
08-008	MALTA • Gozo [Għawdex], Munxar, Wied tax-Xlendi [308-882]; 12 Feb. 2002; P. SAMMUT leg. (10)
08-009	MALTA • Gozo [Għawdex], Xagħra, Għajn Ħosna (50)
08-010	MALTA • Gozo [Għawdex], Fontana; 5 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (>50)
08-011	MALTA • Gozo [Għawdex], Wied tal-Lunzjata [307-882]; 24 Feb. 2002; J.J. BORG leg. (8)
08-012	MALTA • Gozo [Għawdex], Xlendi, Munxar; 12 Feb. 2002 (10)
08-013	MALTA • Gozo [Għawdex], Fontana, wash-house [315-885]; 24 Feb. 2002. J.J. BORG leg. (10W)
08-014	MALTA • Gozo [Għawdex], Lunzjata; 9 Oct. 1992 (300)
08-015	MALTA • Gozo [Għawdex], Xagħra, Għajn Ħosna [350-898]; 18 Feb. 2008; P. SAMMUT leg. (5)
08-016	MALTA • Gozo [Għawdex], Qattara; 5 Mar. 2002; C. MIFSUD & P. SAMMUT leg. (>20)
08-017	MALTA • Gozo [Għawdex], Wied tax-Xlendi; 12 Feb. 2002 (>50)
08-018	MALTA • Gozo [Għawdex], Fontana; Jan. 2022 (>20W)

Family Truncatellidae Gray, 1840

Subfamily Truncatellinae Gray, 1840

Genus *Truncatella* Risso, 1826

Truncatella subcylindrica (Linné, 1767)

09-001	MALTA • Marsaxlokk; Dec. 1992; P. SAMMUT leg. (10)
09-002	MALTA • Gozo [Għawdex], Qbajjar near Marsalforn; Aug. 1988; C. MIFSUD leg. (1)
09-003	MALTA • Mellieħa, Mġiebaħ seashore; 28 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (20W + 20D)
09-004	MALTA • Mellieħa, Mġiebaħ seashore [444-807]; 26 Feb. 2002; P. SAMMUT leg. (29)
09-005	MALTA • [no further data] (8)
09-006	MALTA • Mellieħa, Mġiebaħ seashore [444-807]; 20 Feb. 2002; P. SAMMUT leg. (>100W)
09-007	MALTA • [no further data] (2)
09-008	MALTA • [no further data] (2)
09-009	MALTA • Mellieħa, Għajn Ħadid; Nov. 1992; P. SAMMUT leg. (9)
09-010	MALTA • Salina Bay (on canal bank); 21 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (12)

- 09-011 | MALTA • Mellieħa, Ghajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (11)
09-012 | MALTA • Mellieħa, Mġiebaħ seashore; 26 Feb. 2002; P. SAMMUT leg. (>30W)

Subclass Heterobranchia Gray, 1840
Infraclass Euthyneura Spengel, 1881
Superorder Eupulmonata Haszprunar & Huber, 1990
Order Ellobiida Van Mol, 1967
Superfamily Ellobioidea Pfeiffer, 1854 (1822)
Family Ellobiidae Pfeiffer, 1854 (1822)
Subfamily Carychiinae Jeffreys, 1830
Genus *Carychium* Müller, 1773

Carychium schlickumi Strauch, 1977

- 22-001 | MALTA • Gozo [Għawdex], Xlendi Bay; in sand from -30 m; Aug. 2001; C. MIFSUD leg. (1)

Subfamily Ellobiinae Pfeiffer, 1854 (1822)
Genus *Leucophytia* Winckworth, 1949

Leucophytia bidentata (Montagu, 1808)

- 21-001 | MALTA • [no further data] (4) [lectotype and paralectotypes of *Alexia kobelti* CARUANA-GATTO, 1890]
21-002 | MALTA • [no further data] (52) [paralectotypes of *Alexia kobelti* CARUANA-GATTO, 1890]
21-003 | MALTA • Salina Bay; -5 m, in detritus; Aug. 1995; C. CACHIA leg. (2) [*Auriculinella bidentata*']

Subfamily Pythiinae Odhner, 1925 (1880)
Genus *Ovatella* Bivona e Bernardi, 1832

Ovatella firminii (Payraudeau, 1827)

- 20-001 | MALTA • Ghajn Tuffieħa (2)

Genus *Myosotella* Monterosato, 1906

Myosotella myosotis (Draparnaud, 1801)

- 19-001 | MALTA • [no further data] (2)
19-002 | MALTA • Mellieħa, Ghajn Hadid; 26 Feb. 2002; P. SAMMUT leg. (7)
19-003 | MALTA • Marsaskala Bay; Dec. 1993; P. SAMMUT leg. (3)
19-004 | MALTA • Marsaxlokk, Magħlaq; 9 Apr. 2002; P. SAMMUT leg. (9)
19-005 | MALTA • Marsaxlokk, Magħlaq; 9 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (2)
19-006 | MALTA • Salina Bay; 21 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (25)
19-007 | MALTA • Mellieħa, Ghajn Hadid; 27 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (4W)
19-008 | MALTA • Marsaxlokk, Magħlaq; 9 Apr. 2002; P. SAMMUT leg. (40)
19-009 | MALTA • Mellieħa, Ghajn Hadid; 26 Feb. 2002; P. SAMMUT leg. (12)

Order Stylommatophora Schmidt, 1855
Suborder Achatinina Schileyko, 1979

Superfamily Achatinoidea Swainson, 1840
 Family Achatinidae Swainson, 1840
 Subfamily Rumininae Wenz, 1923
 Genus *Rumina* Risso, 1826

Rumina decollata (Linné, 1758)

- 23-001 MALTA • Bahrija; Sep. 2008; C. SAMMUT leg. (13)
 23-002 MALTA • Mdina; 8 Jan. 2002; P. SAMMUT leg. (14)
 23-003 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (2)
 23-004 MALTA • Gozo [Għawdex], Xagħra, road from Ramla to Nadur [367-897]; 18 Feb. 2002; P. SAMMUT leg. (7)
 23-005 MALTA • Bahrija, Xagħra tal-Bahrija; 15 Jan. 2002; P. SAMMUT leg. (3)
 23-006 MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (3)
 23-007 MALTA • Gozo [Għawdex], Nadur, Tal-Bordin, near Hxajma Borehole [350-884]; 18 Feb. 2002; P. SAMMUT leg. (4)
 23-008 MALTA • Għar Hasan [564-629]; P. SAMMUT leg. (10)
 23-009 MALTA • Gozo [Għawdex] Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (10)
 23-010 MALTA • Buskett, Xagħra ta' Laroka, [458-683]; 8 Feb. 2000; P. SAMMUT leg. (9)
 23-011 MALTA • [no further data] (3) [ex coll. Valletta Museum]
 23-012 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (4)
 23-013 MALTA • Mellieħa, Għajn Hadid; Jan. 1988; P. SAMMUT leg. (4)
 23-014 MALTA • St. Paul's Bay, Ta' Fra Ben; 18 Oct. 1988; P. SAMMUT leg. (4)
 23-015 MALTA • Gozo [Għawdex], Marsalforn, Qbajjar [320-933]; 12 Feb. 2002; P. SAMMUT leg. (1)
 23-016 MALTA • Ta' Vnezja Tombs; Mar. 1936; (2) [ex coll. Valletta Museum, ex coll. G. DESPOTT]
 23-017 MALTA • [no further data] (1) ['*Bulimus Decollatus*', ex coll. Valletta Museum]
 23-018 MALTA • Gozo [Għawdex], Xagħra, Wied il-Hanaq [354-889]; 12 Feb. 2002; P. SAMMUT leg. (7)
 23-019 MALTA • Buskett; Sep. 1993; P. SAMMUT leg. (1)
 23-020 MALTA • Ta' Qali; 2 Dec. 2011 (1W)
 23-021 MALTA • Birżebbuġa Bay; 25 Jan. 2008; C. MIFSUD leg. (5W)
 23-022 MALTA • Mellieħa, Ċirkewwa [393-829]; 2 Feb. 2002; P. SAMMUT leg. (8)
 23-023 MALTA • Mtaħleb, Miġra Ferħa; 8 Feb. 1988; P. SAMMUT leg. (5)
 23-024 MALTA • Mdina [462-717]; 8 Jan. 2000; P. SAMMUT leg. (12)
 23-025 MALTA • Salini, near Salina Bay Hotel; Oct. 1993; C. MIFSUD leg. (7)
 23-026 MALTA • Bingemma near chapel; Oct. 1993; P. MIFSUD leg. (3W)
 23-027 MALTA • Ta' Qali National Park; 20 Jan. 2006; C. MIFSUD leg. (1)
 23-028 MALTA • Mistra, Tal-Blata [453-701]; 11 Sep. 1988; P. SAMMUT leg. (1)
 23-029 MALTA • Gozo [Għawdex], Xagħra, road to Nadur; 18 Feb. 2002; C. MIFSUD leg. (6W)
 23-030 MALTA • Bahrija, Ras ir-Raħeb; Jul. 1997; C. MIFSUD leg. (1) [juvenile]
 23-031 MALTA • Għar Dalam (2) [fossil]
 23-032 MALTA • Qaliet; 13 Nov. 1991; M. BRIFFA leg. (2)

Family Ferussaciidae Bourguignat, 1883
 Genus *Cecilioides* Férussac, 1814

Cecilioides acicula (Müller, 1774)

- 24-001 MALTA • C[asal] Curmi, Bajjada, from a tomb; Nov. 1936 (16) ['*Caecilioides? Gattoi* West.?', ex coll. G. DESPOTT]
- 24-002 MALTA • C[asal] Curmi, Bajjada, from a tomb; Nov. 1936 (>75) ['*Caecilioides melitensis* West.', ex coll. G. DESPOTT]
- 24-003 MALTA • C[asal] Curmi, Bajjada, from a tomb; Nov. 1936 (41) ['*Caecilioides pollonera* West.?', ex coll. G. DESPOTT]
- 24-004 MALTA • [no further data]; P. SAMMUT leg. (5)
- 24-005 MALTA • Ġhajn Ħadid, on hillside; 27 Feb. 2002; C. MIFSUD & P. SAMMUT (1W + 2D)
- 24-006 MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (1)
- 24-007 MALTA • Wied tal-Baħrija; Aug. 1997 (1) [fossil]
- 24-008 MALTA • Wied tal-Baħrija; Nov. 1993; C. MIFSUD leg. (5)
- 24-009 MALTA • Gozo [Ġhawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (2)
- 24-010 MALTA • Ġhargħur, Wied id-Dis; in leaf litter; Jan. 2002; C. MIFSUD leg. (9)
- 24-011 MALTA • Gozo [Ġhawdex], Ramla to Nadur road; in leaf litter; 18 Feb. 2002; C. MIFSUD leg. (1W)
- 24-012 MALTA • Gozo [Ġhawdex], Munxar; in leaf litter; Feb. 2002; C. MIFSUD leg. (2)
- 24-013 MALTA • Binġemma chapel; in leaf litter; Sep. 1993; C. MIFSUD leg. (52)
- 24-014 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (2)
- 24-015 MALTA • Mtaħleb, Ras ir-Raħeb; -120 m; Aug. 1994; C. MIFSUD leg. (8)
- 24-016 MALTA • Birżebbuġa, Bay, beached; Mar. 2009; C. MIFSUD leg. (1)
- 24-017 MALTA • Birżebbuġa, Bay, beached; Nov. 1993; C. MIFSUD leg. (1)
- 24-018 MALTA • Gozo [Ġhawdex] (1)
- 24-019 MALTA • Attard, Wied Inċita; Nov. 2019; S. CARDONA leg. (6)
- 24-020 MALTA • Birżebbuġa, Ġhar Dalam (2) ['*Cecilioides stephaniana* Benoit, 1862']

Cecilioides veneta (Strobel, 1855)

- 25-001 MALTA • Gozo [Ġhawdex], Ġhajn Ħosna; Dec. 2010; C. CACHIA leg.(1)
- 25-002 MALTA • Mġiebaħ; in leaf litter; Mar. 2002; C. MIFSUD leg. (1) ['*Cecilioides janii* De Betta & Martinati, 1855']
- 25-003 MALTA • Buskett; Feb. 2002; P. SAMMUT leg. (1) ['*Cecilioides janii* De Betta & Martinati, 1855']
- 25-004 MALTA • Birżebbuġa; in beach detritus; Nov. 1993; C. MIFSUD leg. (1) ['*Cecilioides janii* De Betta & Martinati, 1855']
- 25-005 MALTA • Mtaħleb, Ras ir-Raħeb; dredged from -120 m; Jul. 1994; C. MIFSUD leg. (5)
- 25-006 MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (13)
- 25-007 MALTA • Gozo [Ġhawdex], Ġhajn Ħosna; Dec. 2010; C. CACHIA leg. (1)
- 25-008 MALTA • Gozo [Ġhawdex], Wied Hanaq (1)

Genus *Hohenwartiana* Bourguignat, 1864

Hohenwartiana hohenwarti (Rossmässler, 1839)

- 26-001 MALTA • Ġhajn Ħadid; under stones; 27 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (20W + 1D)
- 26-002 MALTA • Selmun; under stones; Feb. 2003; C. MIFSUD & P. SAMMUT leg. (6W)
- 26-003 MALTA • Ġhajn Tuffieħa Bay; under stones; 5 Mar. 2003; C. MIFSUD & P. SAMMUT leg. (2W)
- 26-004 MALTA • Mellieħa, Ġhajn Ħadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (2)

- 26-005 | MALTA • Gozo [Għawdex], Ghajn Hosna; in reservoir silt; 18 Feb. 2002; C. MIFSUD leg. (1)
 26-006 | MALTA • Mellieħa, Ghajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (2)
 26-007 | MALTA • Ghajn Hadid; 26 Feb. 2002; P. SAMMUT leg. (27W)

Genus *Ferussacia* Risso, 1826

Ferussacia folliculum (Schröter, 1784)

- 27-001 | MALTA • [no further data] (>100) [*Ferussacia vescoi* Bgt.]
 27-002 | MALTA • Żebbiegħ, near St. Martin church [438-769]; 26 Mar. 2002; P. SAMMUT leg. (3)
 27-003 | MALTA • Rabat, Lunzjata [447-706]; 20 Feb. 2002; P. SAMMUT Leg. (5)
 27-004 | MALTA • Mellieħa, Ghajn Hadid [448-807]; 26 Feb. 2006; P. SAMMUT Leg. (2)
 27-005 | MALTA • Gozo [Għawdex], Munxar; 12 Feb. 2002; C. MIFSUD leg. (10)
 27-006 | MALTA • [no further data]; P. SAMMUT leg. (5)
 27-007 | MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (17)
 27-008 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (22)
 27-009 | MALTA • Mtaħleb, Miġra Ferħa; 25 Nov. 2011 (2)
 27-010 | MALTA • Bingemma; 2 Apr. 2002; C. MIFSUD leg. (12W)
 27-011 | MALTA • Ghargħur, Wied id-Dies; in leaf litter; Jan. 2002; C. MIFSUD leg. (4)
 27-012 | MALTA • Ta' Qali; Oct. 1993; C. MIFSUD leg. (1W)
 27-013 | MALTA • Gozo [Għawdex], Xaghra; in leaf litter [367-897]; Feb. 2002; P. SAMMUT leg. (6)
 27-014 | MALTA • Mtaħleb, Miġra Ferħa [423-710]; 1 Mar. 2002; P. SAMMUT leg. (1)
 27-015 | MALTA • Wied id-Dis [571-766] 18 Jan. 2002; P. SAMMUT leg. (5)
 27-016 | MALTA • Mistra, Tal-Blata [453-805]; 26 Mar. 2002; P. SAMMUT leg. (9)
 27-017 | MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (8)
 27-018 | MALTA • Mistra; 30 Nov. 2011 (2)
 27-019 | MALTA • Żebbiegħ; 31 Oct. 2011 (1)
 27-020 | MALTA • Wied il-Qoton (6) [ex coll. Valletta Museum]
 27-021 | MALTA • [no further data] (32) [ex coll. Valletta Museum]
 27-022 | MALTA • [no further data] (101) [*Ferussacia gronoviana* (Risso)], ex coll. Valletta Museum]
 27-023 | MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD (11W)
 27-024 | MALTA • Naxxar; 13 Nov. 1988; P. SAMMUT leg. (4W)
 27-025 | MALTA • [no further data] (26)
 27-026 | MALTA • Siġġiewi, Għar Lapsi; 15 Dec. 2011 (3)
 27-027 | MALTA • Bajjada, from a tomb at C[asal] Curmi; Nov. 1936 (7) [ex coll. G. DESPOTT]
 27-028 | MALTA • Ta' Vnezja (10) [*Ferussacia folliculus* Gron?]
 27-029 | MALTA • Qaliet; 10 Feb. 1992; M. BRIFFA leg. (6)

Suborder Helicina Rafinesque, 1815

Superfamily Punctoidea Morse, 1864

Family Discidae Thiele, 1931 (1866)

Genus *Gonyodiscus* Fitzinger, 1833

Gonyodiscus rotundatus (Müller, 1774)

- 43-001 | MALTA • Balzan, San Anton Gardens; 7 Jan. 2016; S. CARDONA leg. (6)

Infraorder Clausilioidei Gray, 1855
Superfamily Clausilioidea Gray, 1855
Family Clausiliidae Gray, 1855
Subfamily Aloiinae Wagner, 1913
Tribe Delimini Brandt, 1956
Genus *Papillifera* Hartmann, 1842

Papillifera papillaris (Müller, 1774)

- 42-001 MALTA • Mtaħleb (101)
42-002 MALTA • Marfa, Trincea (72) [ex coll. A. CARUANA-GATTO]
42-003 MALTA • Braxia; Dec. 1929 (161)
42-004 MALTA • [no further data] (123) ['*Clausilia bidens* Paulucci']
42-005 MALTA • Marfa, Trincea (66) [ex coll. A. CARUANA-GATTO, originally part of lot 42-002]
42-006 MALTA • limits of C.[asal] Curmi, from a tomb at Bajjada; Nov. 1926 (30)
42-007 MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (12W)
42-008 MALTA • Ġhajj Tuffieħa (52) [ex coll. Valletta Museum]
42-009 MALTA • Musta, Wied is-Sir; 5 Feb. 1927 (90) [ex coll. Valletta Museum]
42-010 MALTA • Birzebbuga / Gzira; 29 Oct. 1915 (74) [two data labels]
42-011 MALTA • Dwejra chapel; Oct. 93; C. MIFSUD leg. (5W)
42-012 MALTA • Comino, Scoglio (6) [ex coll. Valletta Museum]
42-013 MALTA • Mtaħleb (9) [ex coll. Valletta Museum]
42-014 MALTA • Mdina, NMNH grounds; Mar. 2011; P. SAMMUT leg. (10)
42-015 MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (12)
42-016 MALTA • Filfla; 23 Oct. 1989; J. Sultana leg. (1)
42-017 MALTA • Gozo [Ġhawdex], Wied tar-Ramla; Dec. 2010; C. CACHIA leg. (2W)
42-018 MALTA • Gozo [Ġhawdex], Xlendi; 1 Nov. 2011 (4)
42-019 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (3)
42-020 MALTA • Gozo [Ġhawdex], Munxar; P. SAMMUT leg. (17) [label partly decipherable]
42-021 MALTA • Casal Lia; 23 Nov. 1923 (21) [ex coll. Valletta Museum]
42-022 MALTA • Bengemma (6)
42-023 MALTA • Mistra; Nov. 1923 (38) [ex coll. Valletta Museum]
42-024 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (11)
42-025 MALTA • Gozo [Ġhawdex], Xagħra, road from Ramla to Nadur [367-897]; 18 Feb. 2002; P. SAMMUT leg. (6)
42-026 MALTA • Wied il-Ġhomor; 12 Nov. 1914 (23) [ex coll. Valletta Museum]
42-027 MALTA • Tal-Ballut; 22 Nov. 1923 (8) [ex coll. Valletta Museum]
42-028 MALTA • near Dwejra chapel; Oct. 1993; C. MIFSUD leg. (2)
42-029 MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (4)
42-030 MALTA • Dingli Cliffs; Sep. 1993; C. MIFSUD leg. (38)
42-031 MALTA • Gozo [Ġhawdex], Munxar; under stones; 12 Feb. 2002; C. MIFSUD leg. (6)
42-032 MALTA • Ta' Qali National Park; under stones by roadside; 20 Jan. 2006; C. MIFSUD leg. (3W)
42-033 MALTA • Ta' Qali; 2 Dec. 2011 (3W)
42-034 MALTA • Zammit Nurseries, Qormi; 28 Sep. 2010; C. MIFSUD & P. SAMMUT leg. (9)
42-035 MALTA • Gozo [Ġhawdex], road to Għasri; 18 Feb. 2011; C. MIFSUD leg. (3)
42-036 MALTA • Żebbiegħ, near St Martin Church [438-769]; 26 Mar. 2002; P. SAMMUT leg. (4)

- 42-037 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (7)
- 42-038 MALTA • Żebbiegħ to Mġarr; 31 Oct. 2011; C. MIFSUD leg. (7)
- 42-039 MALTA • Gozo [Għawdex], Lunzjata Valley [307-882]; 24 Feb. 2002; J.J. BORG leg. (4)
- 42-040 MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (3)
- 42-041 MALTA • Wied Gerżuma (4) [ex coll. Valletta Museum]
- 42-042 MALTA • Mellieħa, Għajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (3W)
- 42-043 MALTA • [no further data] (5) [label undecipherable, mounted specimens, ex coll. Valletta Museum]
- 42-044 MALTA • [no further data] (5) ['*Cl. (Papillifera) melitensis* Platania = *bidens*']
- 42-045 MALTA • Chadwick Lakes; under stones; 26 Jan. 2002; C. MIFSUD leg. (3W)
- 42-046 MALTA • limits of C.[asal] Curmi, from a tomb at Bajjada; Nov. 1926 (3)
- 42-047 MALTA • Rabat [455-705]; 6 Jun. 1988; P. SAMMUT leg. (7W)
- 42-048 MALTA • Għajn il-Kbira; 20 Nov. 1991; M. BRIFFA leg. (6)

Tribe Medorini Nordsieck, 1997

Genus *Lampedusa* Boettger, 1877

Lampedusa imitatrix imitatrix (Boettger, 1879)

- 35-001 MALTA • Mtaħleb, Ta' Żepita; Nov. 1993; C. MIFSUD leg. (29W + PG)
- 35-002 MALTA • Rdum tal-Imtaħleb; Sep. 2002; P. SAMMUT leg. (34)
- 35-003 MALTA • Wied Gerżuma [407-737]; 1992; P. SAMMUT leg. (12)
- 35-004 MALTA • north of Mtaħleb (23) ['*Delima imitatrix* + *Papillifera oscitans*', ex coll. Valletta Museum]
- 35-005 MALTA • Imtaħleb; 13 Jan. 1917 (98) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT]
- 35-006 MALTA • Imtaħleb (33) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT]
- 35-007 MALTA • Baħrija, Xagħra; 15 Jan. 2002; P. SAMMUT & J.J. BORG leg. (20)
- 35-008 MALTA • Mtaħleb, road to Miġra Ferħa [423-710]; 1 Mar. 2002; P. SAMMUT leg. (17)
- 35-009 MALTA • Baħrija, Fomm ir-Riħ, Ras ir-Raħeb; 16 Oct. 1988; P. SAMMUT leg. (15)
- 35-010 MALTA • Mtaħleb, Ta' Żepita; Sep. 1986; C. MIFSUD leg. (3)
- 35-011 MALTA • way to Mtaħleb, wall on left side; 13 Jan. 1917 (>100) [ex coll. G. DESPOTT]
- 35-012 MALTA • Wied Gerżuma; 1918 (72) ['form of *imitatrix* which may prove to be *emersoniana* Pilsbry']
- 35-013 MALTA • Rabat, Kuncizzjoni [413-732]; 16 Oct. 1988; P. SAMMUT leg. (7W)
- 35-014 MALTA • Mtaħleb; 30 Dec. 1919 (96) [possibly ex coll. G. DESPOTT]
- 35-015 MALTA • Baħrija, Rdum is-Sarç [408-715]; 24 Oct. 1988; P. SAMMUT leg. (10)
- 35-016 MALTA • Xagħra tal-Baħrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (14)
- 35-017 MALTA • Baħrija, Rdum is-Sarç [408-715]; 24 Oct. 1988; P. SAMMUT leg. (22)
- 35-018 MALTA • [no further data] (>100) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT]
- 35-019 MALTA • [no further data] (>100) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT]
- 35-020 MALTA • [no further data] (>50) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT]
- 35-021 MALTA • [no further data] (29) [ex coll. Valletta Museum]
- 35-022 MALTA • [no further data] (62) [ex coll. Valletta Museum]
- 35-023 MALTA • [no further data] (35) [ex coll. Valletta Museum]
- 35-024 MALTA • Kuncizzjoni; Feb. 2003; C. MIFSUD & P. SAMMUT leg. (33)

- 35-025 | MALTA • [no further data] (35) [ex coll. Valletta Museum]
- 35-026 | MALTA • [no further data] (17) [ex coll. Valletta Museum]
- 35-027 | MALTA • [no further data] (68) [ex coll. Valletta Museum]
- 35-028 | MALTA • Wied Gerżuma; 24 Feb. 1992; M. BRIFFA leg. (3)

Lampedusa imitatrix gattoi (Soós, 1933)

- 36-001 | MALTA • Filfla (>150) ['*Delima filfolensis*']
- 36-002 | MALTA • Filfla (39) ['*Cl. Filfolensis*']
- 36-003 | MALTA • Filfla; 25 May 1994; J. SULTANA leg. (1)
- 36-004 | MALTA • Filfla (113) [ex coll. Valletta Museum]
- 36-005 | MALTA • Filfla (20) [ex coll. Valletta Museum]
- 36-006 | MALTA • Filfla; 22 Jul. [19]15 (101) ['*Cl. Filfolensis*', possibly ex coll. A. CARUANA-GATTO]
- 36-007 | MALTA • Filfla; 28 Jul. [19]15] (26) ['*C. Filfolensis*', '*C. Gattoi* Soos', possibly ex coll. A. CARUANA-GATTO, calligraphy of G. DESPOTT]
- 36-008 | MALTA • Filfla; 28 Jul. [19]15] (20) [possibly ex coll. A. CARUANA-GATTO]
- 36-009 | MALTA • Filfla; M. BRIFFA leg. (3)

Lampedusa melitensis (Caruana-Gatto, 1892)

- 37-001 | MALTA • Dingli Cliffs; on large rock; Jan. 2003; P. SAMMUT & C. MIFSUD leg. (78)
- 37-002 | MALTA • Dingli Cliffs; on large rock; Jan. 2003; P. SAMMUT & C. MIFSUD leg. (9) [putative hybrids with *Muticaria macrostoma oscitans* (Charpentier, 1852)]
- 37-003 | MALTA • Dingli Cliffs; on large rock; Nov. 1993; C. MIFSUD leg. (58)
- 37-004 | MALTA • Dingli Cliffs; on large rock; Nov. 1993; C. MIFSUD leg. (10W + PG)
- 37-005 | MALTA • Dingli Cliffs; Sep. 1992; P. SAMMUT leg. (2)
- 37-006 | MALTA • [no further data] (30)
- 37-007 | MALTA • [no further data] (12)
- 37-008 | MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (30)
- 37-009 | MALTA • Dingli Cliffs; on large rock; Jan. 1993; P. SAMMUT & C. MIFSUD leg. (13W)
- 37-010 | MALTA • [no further data] (50) [ex coll. Valletta Museum]
- 37-011 | MALTA • Dingli, Rdum Madliena [458-675]; 11 Sep. 1988; P. SAMMUT leg. (10)
- 37-012 | MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (26W)
- 37-013 | MALTA • [no further data] (12) [ex coll. Valletta Museum]
- 37-014 | MALTA • [no further data] (24) [ex coll. Valletta Museum]
- 37-015 | MALTA • [no further data] (6) [ex coll. Valletta Museum]
- 37-016 | MALTA • [no further data] (57) [ex coll. Valletta Museum]
- 37-017 | MALTA • [no further data] (112) ['*Lampedusa (Imitatrix) sp.*', '*Pseudosyracusia*', possibly ex coll. G. DESPOTT]
- 37-018 | MALTA • [no further data] (117)
- 37-019 | MALTA • Dingli Cliffs; 18 Apr. 1993; M. BRIFFA leg. (9)
- 37-020 | MALTA • Dingli Cliffs; 29 Nov. 1987; M. BRIFFA leg. (10)

Genus *Muticaria* Lindholm, 1925

Muticaria macrostoma macrostoma (Cantraine, 1835)

- 38-001 | MALTA • Tal-Ballut; 22 Sep. 1923 (33) [ex coll. Valletta Museum]
- 38-002 | MALTA • [no further data] (83)
- 38-003 | MALTA • [no further data] (68)

- 38-004 MALTA • Marfa Ridge, Irrazzett ta' Xuxion; 27 Sep. 1936 (290) [*Clausilia pseudosyracusia* Gatto', intermediates]
- 38-005 MALTA • Comino; 22 Mar. 1916 (6) [ex coll. Valletta Museum]
- 38-006 MALTA • [no further data] (6)
- 38-007 MALTA • Ghajn Tuffieħa (29) [ex coll. Valletta Museum]
- 38-008 MALTA • Mellieħa, Il-Prajjiēt [404-797]; 13 Nov. 1988; P. SAMMUT leg. (8W)
- 38-009 MALTA • Wied id-Dis [511-766]; 18 Jan. 2002; P. SAMMUT leg. (12W)
- 38-010 MALTA • [no further data] (12)
- 38-011 MALTA • Bingemma (25)
- 38-012 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (14)
- 38-013 MALTA • [no further data] (6)
- 38-014 MALTA • Gozo [Għawdex], Nadur, Wied San Blas [372-950]; 18 Feb. 2002; P. SAMMUT leg. (10)
- 38-015 MALTA • [no further data] (5)
- 38-016 MALTA • Marfa, Ramla tat-Torri (7) [ex coll. Valletta Museum]
- 38-017 MALTA • middle plains on way to Mellieħa from Ghajn Tuffieħa; 20 Sep. 1923 (39) [ex coll. Valletta Museum]
- 38-018 MALTA • Gozo [Għawdex], road from Ramla to Nadur; in leaf litter; 18 Feb. 2002; C. MIFSUD leg. (13)
- 38-019 MALTA • Mgarr, rubble wall opposite Roman Baths; Oct. 1993; C. MIFSUD leg. (30)
- 38-020 MALTA • St. Paul's Islands (5) [ex coll. Valletta Museum]
- 38-021 MALTA • Ghargħur, Wied id-Dis, right side of valley; in leaf litter; Jan. 2002; C. MIFSUD leg. (21)
- 38-022 MALTA • Mellieħa, Ghajn Hadid. 27 Feb. 2002; C. MIFSUD leg. (40)
- 38-023 MALTA • Mtaħleb, Rfuf; Oct. 1993; C. MIFSUD leg. (4)
- 38-024 MALTA • Migiarro; 21 Mar. [19]17 (21) [ex coll. Valletta Museum]
- 38-025 MALTA • [no further data] (6)
- 38-026 MALTA • [no further data] (1)
- 38-027 MALTA • Bingemma (32) [ex coll. Valletta Museum]
- 38-028 MALTA • [no further data] (48)
- 38-029 MALTA • [no further data]; P. SAMMUT leg. (1)
- 38-030 MALTA • [no further data] (12)
- 38-031 MALTA • [no further data] (5)
- 38-032 MALTA • [no further data] (27)
- 38-033 MALTA • [no further data] (22)
- 38-034 MALTA • [no further data] (10)
- 38-035 MALTA • Anchor Bay; 14 Feb. 1988; P. SAMMUT leg. (18)
- 38-036 MALTA • Mellieħa, Ghajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (5)
- 38-037 MALTA • Wied id-Dis [511-766]; 18 Jan. 2002; P. SAMMUT leg. (24)
- 38-038 MALTA • way from Żebbiegħ to Ghajn Tuffieħa; 9 Nov. 1919 (35) [ex coll. Valletta Museum]
- 38-039 MALTA • Żebbiegħ, near San Martin church [438-769]; 26 Mar. 2002; P. SAMMUT leg. (17)
- 38-040 MALTA • Gozo [Għawdex], Ramla to Nadur (15)
- 38-041 MALTA • Għallies; 6 Feb. 1992; M. BRIFFA leg. (4)

Muticaria macrostoma scalaris (Pfeiffer, 1850)

- 41-001 MALTA • Mistra, Tal-Blata [553-801]; 10 Dec. 1984; P. SAMMUT leg. (10W)
- 41-002 MALTA • Mistra; 17 Mar. 1916 (237) [ex coll. Valletta Museum]
- 41-003 MALTA • Mistra; 17 Nov. 1936 (256) [ex coll. Valletta Museum]
- 41-004 MALTA • Mistra, Tal-Blata; 1 Sep. 1988; P. SAMMUT leg. (26)

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| 41-005 | MALTA • Mistra; on rocks near fish farm quarters; Mar. 2002; C. MIFSUD & P. SAMMUT leg. (49) |
| 41-006 | MALTA • Mistra; Jan. 1987; P. SAMMUT leg. (10) |
| 41-007 | MALTA • Mistra; 4 Jan. 1987; P. SAMMUT leg. (1) |
| 41-008 | MALTA • Mistra, Tal-Blata [453-805]; 26 Mar. 2002; P. SAMMUT leg. (46) |
| 41-009 | MALTA • Mistra, near Pinto Fort, on wall facing north; 5 Nov. 1925 (36) [ex coll. Valletta Museum] |
| 41-010 | MALTA • Mistra, Tal-Blata [453-805]; 26 Mar. 2002; P. SAMMUT leg. (21) |
| 41-011 | MALTA • Pwales; 12 Feb. 1992; M. BRIFFA leg. (1) |
| 41-012 | MALTA • Mistra; 7 Feb. 1992; M. BRIFFA leg. (7) |

Muticaria mamotica (Gulia, 1861)

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| 39-001 | MALTA • Gozo [Għawdex], Munxar, [Xlendi]; 3 Jan. 1997; P. SAMMUT leg. (10) |
| 39-002 | MALTA • Gozo [Għawdex] (21) [ex coll. Valletta Museum] |
| 39-003 | MALTA • Gozo [Għawdex] (3) [<i>Clausilia mamotica</i> Gulia', ex coll. Valletta Museum] |
| 39-004 | MALTA • Gozo [Għawdex], Munxar; Jun. 1987; P. SAMMUT leg. (1) |
| 39-005 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (14) |
| 39-006 | MALTA • Gozo [Għawdex] (8) |
| 39-007 | MALTA • Gozo [Għawdex], Munxar [305-881], 12 Feb. 2002; P. SAMMUT leg. (37) |
| 39-008 | MALTA • Gozo [Għawdex], Munxar, near Wied ix-Xlendi; 23 Dec. 2002; C. MIFSUD & P. SAMMUT leg. (6W) |
| 39-009 | MALTA • Gozo [Għawdex], Xlendi (99) [ex coll. Valletta Museum] |
| 39-010 | MALTA • Gozo [Għawdex], Munxar, near Xlendi Valley [306-881]; 6 Jan. 1990; P. SAMMUT leg. (>100) |
| 39-011 | MALTA • Gozo [Għawdex], Munxar; 12 Feb. 2002; C. MIFSUD & P. SAMMUT (>60) |
| 39-012 | MALTA • Gozo [Għawdex], Munxar, near Wied ix-Xlendi; 23 Dec. 2002; C. MIFSUD & P. SAMMUT leg. (>80) |
| 39-013 | MALTA • Gozo [Għawdex], Munxar, near Wied ix-Xlendi [306-881]; 6 Jan. 1990; P. SAMMUT leg. (12W) |
| 39-014 | MALTA • Gozo [Għawdex], Xlendi Valley; 28 Apr. 1992; M. BRIFFA leg. (11) |

Muticaria oscitans (Charpentier, 1852)

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|--------|---|
| 40-001 | MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-801]; 12 Feb. 2002; P. SAMMUT leg. (8W) |
| 40-002 | MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (24) |
| 40-003 | MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (24) |
| 40-004 | MALTA • Gozo [Għawdex], Dwejra, Il-Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (17) |
| 40-005 | MALTA • Buskett, Ix-Xagħra ta' Laroka [458-683]; 8 Feb. 2002; P. SAMMUT leg. (20) |
| 40-006 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (23) |
| 40-007 | MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-880]; 12 Feb. 2002; P. SAMMUT leg. (12) |
| 40-008 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (21) |
| 40-009 | MALTA • Gozo [Għawdex], Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (8) |
| 40-010 | MALTA • Mġarr, Ta' Falka [462-734] 26 Mar. 2002; P. SAMMUT leg. (4) |
| 40-011 | MALTA • Qawra, Ta' Fra Ben [483-797]; 16 Sep. 1988; P. SAMMUT leg. (16) |
| 40-012 | MALTA • Mdina [462-717]; 30 Jan. 2002; P. SAMMUT leg. (11) |

- 40-013 MALTA • Gozo [Għawdex], Xewkija, Ta' Ċenċ [334-860]; 5 Mar. 2002; P. SAMMUT leg. (21)
- 40-014 MALTA • Għar Hasan [565-629]; 12 Jan. 2002; P. SAMMUT leg. (26)
- 40-015 MALTA • Mtaħleb, Miġra Ferħa [407-704]; 1 Mar. 2002; P. SAMMUT leg. (8)
- 40-016 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (13)
- 40-017 MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (11)
- 40-018 MALTA • Gozo [Għawdex], Xlendi (6) [possibly ex coll. A. CARUANA-GATTO]
- 40-019 MALTA • Rabat, Wied Gerżuma [409-737]; 31 Jan. 1988; P. SAMMUT leg. (9)
- 40-020 MALTA • Mellieħa, Għajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (29)
- 40-021 MALTA • Siġġiewi, Għar Lapsi [35.5N, 14.25E]; 11 Feb. 2002; J.J. BORG & P. SAMMUT leg. (7)
- 40-022 MALTA • (6) [no further data]
- 40-023 MALTA • (8) [no further data]
- 40-024 MALTA • Addolorata Cemetery; 6 Feb. 1926 (21) [ex coll. Valletta Museum]
- 40-025 MALTA • Mellieħa (2) [ex coll. Valletta Museum]
- 40-026 MALTA • [no further data] (20)
- 40-027 MALTA • Bengħajsa, Wied il-Mixta (6) [ex coll. Valletta Museum]
- 40-028 MALTA • Gozo [Għawdex], Dwejra (6) [ex coll. Valletta Museum]
- 40-029 MALTA • Rabat, Lunzjata [447-706]; 15 Jan. 2002; P. SAMMUT leg. (39)
- 40-030 MALTA • Qawra Point; 14 Feb. 1988; P. SAMMUT leg. (19)
- 40-031 MALTA • north of Mtaħleb (6) [ex coll. Valletta Museum]
- 40-032 MALTA • Buskett, Ix-Xagħra ta' Laroka [458-683]; 15 Feb. 2002; P. SAMMUT leg. (26)
- 40-033 MALTA • Mdina; 16 Nov. 1989; P. SAMMUT leg. (12)
- 40-034 MALTA • Birzebbuga; 30 Oct. 1915 (36) [ex coll. Valletta Museum]
- 40-035 MALTA • Kalafrana (5) [ex coll. Valletta Museum]
- 40-036 MALTA • Mgarro (6) [ex coll. Valletta Museum]
- 40-037 MALTA • Għar Hasan; 12 Jan. 2002; P. SAMMUT leg. (12)
- 40-038 MALTA • Bengħajsa] (6) [ex coll. Valletta Museum]
- 40-039 MALTA • Wied Żnuber; Oct. 1915 (21) [ex coll. Valletta Museum]
- 40-040 MALTA • Ħal-Far, Żnuber (6) [ex coll. Valletta Museum]
- 40-041 MALTA • Birzebbugia; 20 Oct. 1914 (79) [ex coll. Valletta Museum]
- 40-042 MALTA • Wied Znuber; 11 Oct. [19]15 (54) [ex coll. Valletta Museum]
- 40-043 MALTA • [no further data] (35)
- 40-044 MALTA • Bugibba; 12 Oct. 1923 (30) [ex coll. Valletta Museum]
- 40-045 MALTA • [no further data] (19) [ex coll. Valletta Museum]
- 40-046 MALTA • Kalet Marcu [Qalet Marku]; Oct. [19]13 (12) [ex coll. Valletta Museum]
- 40-047 MALTA • Bengħajsa; 14 Nov. 1917 (19) [ex coll. Valletta Museum]
- 40-048 MALTA • Valletta (2) ['co-type *Clausilia (Papillifera) scabrida* Mont.', ex coll. Valletta Museum, possibly ex coll. A. CARUANA-GATTO, ex coll. T.M.A. DI MONTEROSATO]
- 40-049 MALTA • Gozo [Għawdex], Xagħra (6) [ex coll. Valletta Museum]
- 40-050 MALTA • Argotti Gardens; in greenhouse; 27 Dec. [19]26 (47) [ex coll. Valletta Museum]
- 40-051 MALTA • Rabat; May 2011; P. SAMMUT leg. (14)
- 40-052 MALTA • [no further data] (2)
- 40-053 MALTA • Wied il-Koton; 30 Oct. [19]26 (40) [ex coll. Valletta Museum]
- 40-054 MALTA • Wied tal-Ħasri / tal-Ħesri; 20 Mar. 1920 (254) [ex coll. Valletta Museum]
- 40-055 MALTA • [no further data] (2)
- 40-056 MALTA • Ghargħur; 20 Oct. [19]15 (40) [2 labels, one partly undecipherable, ex coll. Valletta Museum]

- 40-057 MALTA • U[ied] Zembak; 18 Sep. [19]15 (42) [ex coll. Valletta Museum]
40-058 MALTA • [no further data] (58) [ex coll. G. DESPOTT, material for exchange]
40-059 MALTA • [no further data]; P. SAMMUT leg. (1)
40-060 MALTA • Wardija Heights; Nov. 2002; C. MIFSUD & P. SAMMUT leg. (39W)
40-061 MALTA • Bingemma, near chapel; Oct. 1993; C. MIFSUD leg. (5W)
40-062 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (8)
40-063 MALTA • Dingli Cliffs; Nov. 1993; C. MIFSUD leg. (24)
40-064 MALTA • Salina; Oct. 1993; C. MIFSUD leg. (2W + PG)
40-065 MALTA • Mtaħleb, Rfuf; Nov. 1993; C. MIFSUD leg. (5)
40-066 MALTA • Luqa, near airport; Nov. 1993; C. MIFSUD leg. (6)
40-067 MALTA • Dingli Cliffs; Nov. 1993; C. MIFSUD leg. (1)
40-068 MALTA • Ħaġar Qim; Oct. 1993; C. MIFSUD leg. (21)
40-069 MALTA • Siġġiewi, Għar Lapsi; 14 Oct. 2002; C. MIFSUD leg. (2W)
40-070 MALTA • Tarġa Gap; in leaf litter; Feb. 2002; C. MIFSUD leg. (35)
40-071 MALTA • Żebbiegħ; 31 Oct. 2011 (9)
40-072 MALTA • Birzebbuga, Salini; 20 Nov. [19]26 (4) [ex coll. Valletta Museum]
40-073 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD (5)
40-074 MALTA • Dingli Cliffs; on large rock; Feb. 2002; P. SAMMUT & C. MIFSUD leg. (125)
40-075 MALTA • Wied il-Qoton; 28 Sept. [19]14 (11) [ex coll. Valletta Museum]
40-076 MALTA • Għar Lapsi; 15 Dec. 2011; C. CACHIA leg. (17)
40-077 MALTA • Għar Hasan; on rocks on top of cave; Nov. 2003; C. MIFSUD & P. SAMMUT leg. (11)
40-078 MALTA • Gozo [Għawdex], North of Xlendi Bay, Tar-Riefnu; 12 Feb. 2002; C. MIFSUD leg. (20)
40-079 MALTA • Gozo [Għawdex], Ta Ċenċ Cliffs; 5 Mar. 2002; C. MIFSUD leg. (17)
40-080 MALTA • Mtaħleb, Miġra Ferħa; 1 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (2)
40-081 MALTA • Gozo [Għawdex], San Dimitri; 5 Mar. 2002; C. MIFSUD leg. (9)
40-082 MALTA • Gozo [Għawdex], Xlendi; 30 Nov. 2011 (2)
40-083 MALTA • Birzebbugia, Salini (5) [ex coll. Valletta Museum]
40-084 MALTA • Gozo [Għawdex], Għasri (12)
40-085 MALTA • [no further data] (29)
40-086 MALTA • Gozo [Għawdex], Dwejra, Qattara; 5 Mar. 2002; C. MIFSUD & P. SAMMUT leg. (30)
40-087 MALTA • Dingli Cliffs; Nov. 2002; C. MIFSUD & P. SAMMUT leg. (>20W)
40-088 MALTA • Rdum il-Ġnejna, Tal-Lippija; 8 Dec. 2002; C. MIFSUD & P. SAMMUT leg. (8W + 4D)
40-089 MALTA • [no further data] (6) [ex coll. Valletta Museum]
40-090 MALTA • Għar Lapsi; 15 Dec. 2011 (3W)
40-091 MALTA • Wied tal-Mosta (110) [ex coll. Valletta Museum]
40-092 MALTA • [no further data] (64) [ex coll. Valletta Museum]
40-093 MALTA • Casal Curmi, from a tomb at Bajjada; Nov. 1936 ['*pseudosyracusia Gatto*']
40-094 MALTA • Mtaħleb; Nov. 1922 (48) [ex coll. Valletta Museum]
40-095 MALTA • Ġnejna, Ras il-Pellegrin; 29 Dec. 2019; C. MIFSUD leg. (25)
40-096 MALTA • Għar Dalam (1) [fossil]
40-097 MALTA • Dingli Cliffs; 5 Mar. 1992; M. BRIFFA leg. (11)

Infraorder Helicoidei Rafinesque, 1815

Superfamily Helicoidea Rafinesque, 1815

Family Geomitridae Boettger, 1909

Subfamily Geomitrinae Boettger, 1909

Genus *Cochlicella* Férussac, 1821

Cochlicella acuta (Müller, 1774)

- 63-001 MALTA • Gozo [Għawdex], Għasri (5) [ex coll. Valletta Museum]
 63-002 MALTA • [no further data] (102)
 63-003 MALTA • Ta' Falka; 1 May 1919 (48) [ex coll. Valletta Museum]
 63-004 MALTA • Gozo [Għawdex], Żebbuġ; 28 Jan. 1918 (24) [ex coll. Valletta Museum]
 63-005 MALTA • [no further data] (172) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT]
 63-006 MALTA • Gozo [Għawdex], Wied Hanaq (3) [ex coll. Valletta Museum]
 63-007 MALTA • Gozo [Għawdex], road from Ramla to Nadur [367-897]; in leaf litter; 18 Feb. 2002; P. SAMMUT leg. (17)
 63-008 MALTA • Mtaħleb. Rd. to Miġra Ferħa [423-710]; 1 Mar. 2002; P. SAMMUT leg. (11)
 63-009 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (9)
 63-010 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (8)
 63-011 MALTA • Xagħra tal-Baħrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (11)
 63-012 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (15)
 63-013 MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002; P. SAMMUT leg. (2)
 63-014 MALTA • Mtaħleb, Miġra Ferħa; 1 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (7)
 63-015 MALTA • Gozo [Għawdex], road from Ramla to Nadur; in *Thymbra* leaf litter; 18 Feb. 2002; C. MIFSUD leg. (64)
 63-016 MALTA • Marsaskala; in brackish water; Oct. 1993; C. MIFSUD leg. (38)
 63-017 MALTA • Gozo [Għawdex], Dwejra, Qattara; 5 Mar. 2002; C. MIFSUD & P. SAMMUT leg. (18)
 63-018 MALTA • San Martin, limits of Żebbiegħ; under stone; Mar. 2002; C. MIFSUD leg. (3)
 63-019 MALTA • Kuncizzjoni (38) [ex coll. Valletta Museum]
 63-020 MALTA • Gozo [Għawdex], Għasri (20)
 63-021 MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-880]; 12 Feb. 2002; P. SAMMUT leg. (1)
 63-022 MALTA • Gozo [Għawdex], Nadur, Tal-Bordin, near Hxajma Borehole [350-884]; 18 Feb. 2002; P. SAMMUT leg. (6)
 63-023 MALTA • Maqluba; Nov. 1993; C. MIFSUD leg. (4)
 63-024 MALTA • [no further data]; P. SAMMUT leg. (4)
 63-025 MALTA • Salina, near hotel; on rocks; Oct. 1993; C. MIFSUD leg. (11)
 63-026 MALTA • Gozo [Għawdex], Ramla l-Ħamra; on sand dunes; 12 Feb. 2002; C. MIFSUD leg. (1)
 63-027 MALTA • [no further data] (20)
 63-028 MALTA • [no further data] (10)
 63-029 MALTA • Mellieħa Bay, near Nature Reserve; 9 Apr. 2004 (116) [juvenile]
 63-030 MALTA • Gozo [Għawdex], Żebbuġ; 5 May 1917 (204) [ex coll. Valletta Museum]
 63-031 MALTA • [no further data] (>100) [juveniles attached to twig]
 63-032 MALTA • [no further data]; P. SAMMUT leg. (2)
 63-033 MALTA • Siġġiewi; 14 Dec. 2011 (30W)
 63-034 MALTA • [no further data] (10) [label undecipherable]
 63-035 MALTA • Żnuber Tower; 13 Nov. 1991; M. BRIFFA leg. (6)

Cochlicella barbara (Linné, 1758)

- 65-001 MALTA • Qormi, Zammit Nurseries; in pots; 12 Oct. 2010; P. SAMMUT & C. MIFSUD leg. (4W)

- 65-002 | MALTA • Qormi, Zammit Nurseries; in pots; 3 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (4W)

Cochlicella conoidea (Draparnaud, 1801)

- 64-001 | MALTA • Għadira (99) [ex coll. Valletta Museum]
64-002 | MALTA • Mellieħa, Għadira Nature Reserve [414-811]; 18 Jul. 1988; P. SAMMUT leg. (103)
64-003 | MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002; P. SAMMUT leg. (105)
64-004 | MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002; P. SAMMUT leg. (6W)
64-005 | MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002; C. MIFSUD leg. (95)
64-006 | MALTA • [no further data] (112) [ex coll. Valletta Museum]
64-007 | MALTA • Mellieħa Bay; Oct. 1993; C. MIFSUD leg. (34)
64-008 | MALTA • Mellieħa Nature Reserve; 18 Aug. 1988; P. SAMMUT leg. (38)
64-009 | MALTA • [no further data]; P. SAMMUT leg. (2)
64-010 | MALTA • [no further data] (61)
64-011 | MALTA • Gozo [Għawdex], Xagħra, Ramla dunes [358-912]; 12 Feb. 2002; P. SAMMUT leg. (39)
64-012 | MALTA • [no further data] (73)
64-013 | MALTA • [no further data] (2) [ex coll. Valletta Museum]
64-014 | MALTA • [no further data] (114) [ex coll. Valletta Museum]
64-015 | MALTA • Gozo [Għawdex], Ramla l-Hamra; 18 Sep. 1993; M. BRIFFA leg. (9)
64-016 | MALTA • Għadira; 11 Mar. 1992; M. BRIFFA leg. (22)

Subfamily Helicellinae Ihering, 1909

Tribe Cernuellini Schileyko, 1991

Genus *Cernuella* Schlüter, 1838

Cernuella caruanae (Kobelt, 1888)

- 70-001 | MALTA • [no further data] (50) [ex coll. Valletta Museum]
70-002 | MALTA • Bahrija, Xagħra tal-Bahrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (6)
70-003 | MALTA • Rabat [455-705]; 6 Nov. 1988; P. SAMMUT leg. (2W)
70-004 | MALTA • Gozo [Għawdex], Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (6)
70-005 | MALTA • Gozo [Għawdex], San Dimitri; 5 Mar. 2002; C. MIFSUD leg. (5)
70-006 | MALTA • Gozo [Għawdex], San Dimitri; 5 Mar. 2002; C. MIFSUD leg. (3W)
70-007 | MALTA • Żebbiegħ, near St Martin Church; 26 Mar. 2002; P. SAMMUT leg. (2)
70-008 | MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (4)
70-009 | MALTA • [no further data] (4) [ex coll. Valletta Museum]
70-010 | MALTA • [no further data] (7)
70-011 | MALTA • Kuncizzjoni; Apr. 2003; C. MIFSUD leg. (9)
70-012 | MALTA • Rabat, Nigret road; attached to wall; May 2006; P. SAMMUT leg. (9)
70-013 | MALTA • (?) Mtarfa (4) [ex coll. Valletta Museum]
70-014 | MALTA • Marfa (11) [ex coll. Valletta Museum]
70-015 | MALTA • [no further data] (7)
70-016 | MALTA • [no further data] (15) [ex coll. Valletta Museum]
70-017 | MALTA • [no further data] (9)
70-018 | MALTA • [no further data] (6).

- 70-019 MALTA • [no further data]; [19]29 (15) [label undecipherable, ex coll. Valletta Museum]
- 70-020 MALTA • Ta' Vnezja; March 1936; G. DESPOTT leg. (8)
- 70-021 MALTA • [no further data] (40)
- 70-022 MALTA • Rabat; 6 Jun. 1918; T. ZAMMIT leg. (10)
- 70-023 MALTA • Gozo [Għawdex], Mgarr; 21 Nov. (?) (4) [ex coll. Valletta Museum]
- 70-024 MALTA • Gozo [Għawdex], Marsalforn, Qbajjar; 12 Feb. 2002; P. SAMMUT leg. (2)
- 70-025 MALTA • Ta' Qali; Oct. 1993; C. MIFSUD leg. (2)
- 70-026 MALTA • Rabat; P. SAMMUT leg. (1)
- 70-027 MALTA • [no further data] (1)
- 70-028 MALTA • Mellieħa, Ċirkewwa; 2 Feb. 2002; P. SAMMUT leg. (1)
- 70-029 MALTA • Gozo [Għawdex], Ras in-Newwiela; 35.55N 14.21E.; 10 May 2002; J.J. BORG leg. (2)
- 70-030 MALTA • mouth of Wied Dalam; 20 Nov. 1926 (6) [ex coll. G. DESPOTT]
- 70-031 MALTA • Comino, Santa Maria Bay (2) [ex coll. Valletta Museum]
- 70-032 MALTA • near Dwejra; on *Foeniculum*; May 2002; C. MIFSUD leg. (4)
- 70-033 MALTA • Mtaħleb-Baħrija; 22 Dec. 1917; G. DESPOTT leg. (1)
- 70-034 MALTA • [no further data] (3) [mounted specimens, ex coll. Valletta Museum]
- 70-035 MALTA • Pembroke Rifle Ranges; 9 Feb. 1992; M. BRIFFA leg. (2)

Cernuella* cf. *cisalpina (Rossmässler, 1837)

- 68-001 MALTA • Rabat, Nigret roundabout; Nov. 1993; C. MIFSUD leg. (90)
- 68-002 MALTA • Għarghur; Mar. 1924 (130) [ex coll. Valletta Museum]
- 68-003 MALTA • Gozo [Għawdex], Għasri (56) [ex coll. Valletta Museum]
- 68-004 MALTA • Gozo [Għawdex], Għasri (94) [ex coll. Valletta Museum]
- 68-005 MALTA • Bingemma, limits of Rabat [436-736]; 6 Apr. 1988; P. SAMMUT leg. (20W)
- 68-006 MALTA • [no further data]; 9 Dec. 1918 (39) [label partly undecipherable, ex coll. Valletta Museum]
- 68-007 MALTA • [no further data] (62)
- 68-008 MALTA • [no further data] (30) [ex coll. Valletta Museum]
- 68-009 MALTA • (?) Kuncizzjoni; Feb. 1925 (36) [ex coll. Valletta Museum]
- 68-010 MALTA • Wied Inċita (82) [*Xerophila profuga*], ex coll. Valletta Museum]
- 68-011 MALTA • Kuncizzjoni; 9 Feb. 1918 (74) [*Xerotringa meridionalis* Rss./*profuga*], ex coll. G. DESPOTT]
- 68-012 MALTA • [no further data] (67)
- 68-013 MALTA • Fort Manoel (3) [mounted specimens]
- 68-014 MALTA • Porta Reale; Mar. 1925 (8) [ex coll. Valletta Museum, possibly ex coll. A. CARUANA-GATTO]
- 68-015 MALTA • Xifer iċ-Ċifien (1) [ex coll. Valletta Museum]
- 68-016 MALTA • [no further data] (2)
- 68-017 MALTA • [no further data] (1) [*Xerophila profuga*], ex coll. Valletta Museum]
- 68-018 MALTA • [no further data] (11)
- 68-019 MALTA • [no further data] (12)
- 68-020 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (9)
- 68-021 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (1)
- 68-022 MALTA • Dingli, Rdum Madliena [458-675]; 8 Apr. 1999; P. SAMMUT leg. (6)
- 68-023 MALTA • Dingli Cliffs [450-675]; 16 Jul. 1989; P. SAMMUT leg. (3)
- 68-024 MALTA • Floriana (12) [ex coll. Valletta Museum]
- 68-025 MALTA • [no further data] (5)
- 68-026 MALTA • [no further data] (4)

- 68-027 | MALTA • [no further data]; P. SAMMUT leg. (2)
68-028 | MALTA • Kunc'izzjoni; Jun. 1998; P. SAMMUT leg. (21)
68-029 | MALTA • Ta' Falka / Bingemma Hills; 1 May 1919, 13 Oct. 1936 (22) [ex coll. Valletta Museum]
68-030 | MALTA • [no further data] (12)
68-031 | MALTA • [no further data] (3)
68-032 | MALTA • [no further data] (4) [label undecipherable, ex coll. Valletta Museum]
68-033 | MALTA • [no further data] (40)
68-034 | MALTA • [no further data] (59)
68-035 | MALTA • [no further data] (108)
68-036 | MALTA • Fomm ir-Riħ; 24 Feb. 1992; M. BRIFFA leg. (4)

Cernuella* cf. *virgata (Da Costa, 1778)

- 69-001 | MALTA • Mdina; attached to olive tree trunk from Portugal donated to NMNH from Portugal; Dec. 2002; P. SAMMUT leg. (1W + 1D)

Tribe Helicellini Ihering, 1909

Genus *Xerotricha* Monterosato, 1892

Xerotricha apicina (Lamarck, 1822)

- 66-001 | MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (3)
66-002 | MALTA • Mdina; 7 Nov. 1988; P. SAMMUT leg. (3)
66-003 | MALTA • [no further data] (5) [ex coll. Valletta Museum]
66-004 | MALTA • Filfla; 23 Mar. 2015; J.J. BORG leg. (1)
66-005 | MALTA • Gozo [Għawdex], Xagħra, road from Ramla to Nadur [367-897]; 18 Feb. 2002; P. SAMMUT leg. (4)
66-006 | MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002; P. SAMMUT leg. (27)
66-007 | MALTA • Gozo [Għawdex], Munxar, near Xlendi Valley [306-881]; 6 Jan. 1990; P. SAMMUT leg. (6W)
66-008 | MALTA • [no further data] (3)
66-009 | MALTA • Qawra Point; 14 Feb. 1988; P. SAMMUT leg. (13)
66-010 | MALTA • [no further data]; P. SAMMUT leg. (3)
66-011 | MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (29)
66-012 | MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (15)
66-013 | MALTA • Qawra Point [482-798]; 16 Oct. 1988; P. SAMMUT leg. (44)
66-014 | MALTA • Wied id-Dis [511-766]; 18 Jan. 2002; P. SAMMUT leg. (3W)
66-015 | MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002; P. SAMMUT leg. (10)
66-016 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (20)
66-017 | MALTA • [no further data] (185)
66-018 | MALTA • Qaliet; 10 Feb. 1992; M. BRIFFA leg. (22)

Xerotricha conspurcata (Draparnaud, 1801)

- 67-001 | MALTA • Rabat; 12 Feb. 1988; P. SAMMUT leg. (20)
67-002 | MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (25)
67-003 | MALTA • near Dwejra Chapel; Oct. 1993; C. MIFSUD leg. (22)
67-004 | MALTA • Għargħur, Wied id-Dis; in leaf litter; Jan. 2002; C. MIFSUD leg. (25)
67-005 | MALTA • Rabat, Kunc'izzjoni [413-732]; 16 Oct. 1988; P. SAMMUT leg. (10)

- 67-006 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (5)
 67-007 MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (13)
 67-008 MALTA • [no further data] (20)
 67-009 MALTA • Siġġiewi; 14 Dec. 2011; C. MIFSUD leg. (1W)
 67-010 MALTA • Gozo [Għawdex], Xlendi; 1 Nov. 2011; C. CACHIA leg. (1)
 67-011 MALTA • Bičbičija, road to Mġarr, near quarry; Mar. 2002; C. MIFSUD & P. SAMMUT leg. (7)
 67-012 MALTA • Dingli Cliffs; Sep. 1993; C. MIFSUD leg. (4)
 67-013 MALTA • Gozo [Għawdex], Munxar; 6 Jan. 1990 (15)
 67-014 MALTA • Mtaħleb, road to Miġra Ferħa [423-710]; 1 Mar. 2002; P. SAMMUT leg. (4)
 67-015 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (21)
 67-016 MALTA • Gozo [Għawdex], Munxar; in leaf litter; 12 Feb. 2002; C. MIFSUD leg. (29)
 67-017 MALTA • Gozo [Għawdex], hill on road from Ramla to Nadur; in leaf litter; 18 Feb. 2002; C. MIFSUD leg. (8)
 67-018 MALTA • Gozo [Għawdex], Xaġhra, Ghajn Hosna; in sediment; 18 Feb. 2002; C. MIFSUD leg. (5)
 67-019 MALTA • Rabat; 20 Feb. 1995; P. SAMMUT leg. (1)
 67-020 MALTA • Gozo [Għawdex], Ramla l-Ħamra sand dunes; 12 Feb. 2002; C. MIFSUD leg. (2)
 67-021 MALTA • Wied id-Dis [511-766]; 18 Jan. 2002; P. SAMMUT leg. (10)
 67-022 MALTA • Mġarr, Ta' Falka [462-743]; 26 Mar. 2002; P. SAMMUT leg. (9)
 67-023 MALTA • Gozo [Għawdex], Nadur, Wied San Blas [372-950]; in rubble wall; 18 Feb. 2002; P. SAMMUT leg. (10)
 67-024 MALTA • Gozo [Għawdex], Munxar, near Xlendi Valley [306-881]; 6 Jan. 1990; P. SAMMUT leg. (6W)
 67-025 MALTA • Buskett (7)
 67-026 MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (9)
 67-027 MALTA • Naxxar, Ta' San Pietru [500-763]; 26 Jan. 2002; P. SAMMUT leg. (17)
 67-028 MALTA • Mistra, Tal-Blata [453-805]; 26 Mar. 2002; P. SAMMUT leg. (1)
 67-029 MALTA • Ta' Qali; 2 Dec. 2011 (6)
 67-030 MALTA • Għar Dalam (7) [fossil, ex coll. Valletta Museum]

Tribe Helicopsini Nordsieck, 1987

Genus *Xeromunda* Monterosato, 1892

Xeromunda durieui (Pfeiffer, 1848)

- 86-001 MALTA • Little Armier Quaternary deposit, near restaurant; 20 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (9) [fossil]
 86-002 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 86-003 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 86-004 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 86-005 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 86-006 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 86-007 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 86-008 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]

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| 86-009 | MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil] |
| 86-010 | MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil] |

Tribe Trochoideini Nordsieck, 1987
Genus *Trochoidea* Brown, 1827

Trochoidea caroni (Deshayes, 1830)

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| 88-001 | MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil] |
| 88-002 | MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil] |

Trochoidea cucullus cucullus (von Martens, 1873)

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| 71-001 | MALTA • Fomm ir-Riħ; 9 Feb. 1918 (70) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT] |
| 71-002 | MALTA • Ġebel Aħmar (15) [ex coll. Valletta Museum] |
| 71-003 | MALTA • Ġebel Aħmar; 19 (?) 1918 (55) [ex coll. Valletta Museum] |
| 71-004 | MALTA • Mtaħleb, Miġra Ferħa; 22 Jul. 1988; P. SAMMUT leg. (63) |
| 71-005 | MALTA • Fomm ir-Riħ, off Ġnejna (1) [ex coll. Valletta Museum, possibly ex coll. A. CARUANA-GATTO] |
| 71-006 | MALTA • Fomm ir-Riħ; 23 Mar. 1924 (144) [ex coll. Valletta Museum] |
| 71-007 | MALTA • Fomm ir-Riħ, Ras ir-Raħeb [398-738]; 16 Oct. 1988; P. SAMMUT leg. (107) |
| 71-008 | MALTA • Fomm ir-Riħ/Ras il-Pellegrin; 10 May 19[??] (42) [ex coll. Valletta Museum] |
| 71-009 | MALTA • Ġebel Aħmar; 1918 (28) [ex coll. Valletta Museum] |
| 71-010 | MALTA • [no further data] (6) |
| 71-011 | MALTA • Fomm ir-Riħ (13) [label undecipherable, ex coll. Valletta Museum] |
| 71-012 | MALTA • Mtaħleb, Miġra Ferħa; 1 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (28W + 12D) |
| 71-013 | MALTA • [no further data]; P. SAMMUT leg. (2) [mounted specimens] |
| 71-014 | MALTA • Mtaħleb, Rfuf; 1 Oct. 1993; C. MIFSUD leg. (2) |
| 71-015 | MALTA • Mtaħleb (14) [ex coll. Valletta Museum] |
| 71-016 | MALTA • Fomm ir-Riħ; 9 Feb. 1918 (12) [ex coll. Valletta Museum] |
| 71-017 | MALTA • Fomm ir-Riħ; 9 Feb. 1918 (17) [label partly undecipherable, ex coll. Valletta Museum] |
| 71-018 | MALTA • Miġra Ferħa [406-705]; 8 Nov. 1988; P. SAMMUT leg. (50) |
| 71-019 | MALTA • Ġebel Aħmar (2) [ex coll. Valletta Museum] |
| 71-020 | MALTA • Fomm ir-Riħ (17) [' <i>Trochoidea calcarata</i> Ben.'] |
| 71-021 | MALTA • Mtaħleb, Miġra Ferħa [410-712]; 22 Oct. 1988; P. SAMMUT leg. (11) |
| 71-022 | MALTA • Fomm ir-Riħ, Ras ir-Raħeb [398-738]; 16 Oct. 1988; P. SAMMUT leg. (10W) |
| 71-023 | MALTA • Mtaħleb, Miġra Ferħa [410-712]; 22 Oct. 1988; P. SAMMUT leg. (38W) |
| 71-024 | MALTA • Mtaħleb (4) [ex coll. Valletta Museum] |
| 71-025 | MALTA • Bahrija, Xaġhra tal-Bahrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (24) |
| 71-026 | MALTA • Miġra Ferħa [407-704]; 1 Mar. 2002; P. SAMMUT leg. (32) |
| 71-027 | MALTA • Fomm ir-Riħ; 16 May 1919 (12) [ex coll. Valletta Museum] |
| 71-028 | MALTA • Fomm ir-Riħ; 15 Apr. 1920 (11) [ex coll. Valletta Museum] |

- 71-029 | MALTA • Fomm ir-Riħ (2) [ex coll. Valletta Museum]
 71-030 | MALTA • Fomm ir-Riħ (2) [mounted specimens, ex coll. Valletta Museum]
 71-031 | MALTA • Mtaħleb (2) [mounted specimens, ex coll. Valletta Museum]
 71-032 | MALTA • Mtaħleb (2) [mounted specimens, ex coll. Valletta Museum]
 71-033 | MALTA • Mtaħleb (2) [mounted specimens, ex coll. Valletta Museum]
 71-034 | MALTA • Mtaħleb, Miġra Ferħa [407-704]; 1 Mar. 2002; P. SAMMUT leg. (6W)
 71-035 | MALTA • Fomm ir-Riħ; 24 Feb. 1992; M. BRIFFA leg. (2)
 71-036 | MALTA • Miġra l-Ferħa; 22 Feb. 1992; M. BRIFFA leg. (13)

Trochoidea cucullus despotti (Soós, 1933)

- 72-001 | MALTA • Filfla (22)
 72-002 | MALTA • Filfla; 2 Apr. 2014; J.J. BORG leg. (12W)
 72-003 | MALTA • Filfla (2)
 72-004 | MALTA • Filfla; 23 Oct. 1989; J. SULTANA leg. (2)
 72-005 | MALTA • Filfla (2)
 72-006 | MALTA • Filfla; 19 May 2002 (2)
 72-007 | MALTA • Filfla (14) [ex coll. Valletta Museum]
 72-008 | MALTA • Filfla (12) [mounted specimens, ex coll. Valletta Museum]
 72-009 | MALTA • Filfla; 24 May 1994; J. SULTANA leg. (5)

Trochoidea cucullus soosi Beckmann, 2003

- 73-001 | MALTA • Gozo [Għawdex], Munxar above Wied Xlendi; 30 Mar. 2006; C. MIFSUD leg. (2W + 31D)
 73-002 | MALTA • Gozo [Għawdex] (24)
 73-003 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (10)
 73-004 | MALTA • Gozo [Għawdex] (30) ['ogygiaca']
 73-005 | MALTA • Gozo [Għawdex] (9) ['ogygiaca', ex coll. A. CARUANA-GATTO]
 73-006 | MALTA • Gozo [Għawdex], Munxar, near Xlendi Valley [306-881]; 6 Jan. 1990; P. SAMMUT leg. (18W)

Trochoidea spratti spratti (Pfeiffer, 1846)

- 74-001 | MALTA • Gozo [Għawdex], Salini, Xwejni; 1922 (37) [ex coll. Valletta Museum]
 74-002 | MALTA • [no further data] (175) [label undecipherable, ex coll. Valletta Museum]
 74-003 | MALTA • San Paolo a Mare; Nov. 1901 (52) [ex coll. Valletta Museum]
 74-004 | MALTA • [no further data] (98)
 74-005 | MALTA • Ta' Falka; 1 May 1919 (116) [ex coll. Valletta Museum]
 74-006 | MALTA • Mdawwar; 12 Feb. 1916 (127) [ex coll. Valletta Museum]
 74-007 | MALTA • [no further data] (97)
 74-008 | MALTA • Gozo [Għawdex], Marsalforn, Qbajjar [320-933]; 12 Feb. 2002; P. SAMMUT leg. (51)
 74-009 | MALTA • Gozo [Għawdex], Marsalforn, Qbajjar [320-933]; 12 Feb. 2002; P. SAMMUT leg. (109)
 74-010 | MALTA • id-Delli (83) [label partly undecipherable]
 74-011 | MALTA • Comino, Santa Maria; 25 Nov. 1918 (117) [ex coll. Valletta Museum]
 74-012 | MALTA • Żebbuġija; 10 May 1925; G. DESPOTT leg. (82)
 74-013 | MALTA • Salini (100) [ex coll. Valletta Museum]
 74-014 | MALTA • [no further data] (108) ['*Trochoidea schembrii*']
 74-015 | MALTA • [no further data] (31)
 74-016 | MALTA • [no further data] (194) [label undecipherable, ex coll. Valletta Museum]

- 74-017 MALTA • [no further data] (117) [*Trochoidea schembrii*]
 74-018 MALTA • Ta' Falka; 1 May, 1919 (76) [ex coll. Valletta Museum]
 74-019 MALTA • Gozo [Għawdex], Wied il-Għasri; 25 Nov. 1916 (108) [*Trochoidea schembrii*]
 74-020 MALTA • Gozo [Għawdex], Żebbuġ (41) [ex coll. Valletta Museum]
 74-021 MALTA • Gozo [Għawdex] (39) [*Helicella (Trochoidea) spratti* Pfr.]
 74-022 MALTA • Qawra, Ras il-Qawra [482-798]; 16 Oct. 1988; P. SAMMUT leg. (67)
 74-023 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (81)
 74-024 MALTA • Gozo [Għawdex], Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (23W)
 74-025 MALTA • Gozo [Għawdex], Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (53)
 74-026 MALTA • Gozo [Għawdex], Marsalforn, Qbajjar [320-933]; 6 Jan. 1990; P. SAMMUT leg. (18W)
 74-027 MALTA • Gozo [Għawdex], Marsalforn, Qolla is-Safra, Xwejni; 12 Feb. 2002; C. MIFSUD leg. (145D + 12W)
 74-028 MALTA • Gozo [Għawdex], Tas-Sur Anglu (Piazza); May, 1922; G. DE' CONTI MANDUCA leg. (154) [ex coll. Valletta Museum]
 74-029 MALTA • [no further data] (31)
 74-030 MALTA • L-Mdawwar (128) [ex coll. Valletta Museum]
 74-031 MALTA • Gozo [Għawdex], San Dimitri; 5 Mar. 2002; C. MIFSUD leg. (11)
 74-032 MALTA • Siġġiewi, Wied tal-Buskett; 2 Mar. 2002; C. MIFSUD leg. (5)
 74-033 MALTA • [no further data] (1)
 74-034 MALTA • Gozo [Għawdex], Xagħra, road from Ramla to Nadur [367-897]; under stones; 18 Feb. 2002; P. SAMMUT leg. (21)
 74-035 MALTA • Gozo [Għawdex], Marsalforn, Qbajjar [320-933]; 12 Feb. 2002; P. SAMMUT leg. (26)
 74-036 MALTA • Birżebbuġa, Tal-Papa; 30 Oct. 1915 (39) [ex coll. Valletta Museum]
 74-037 MALTA • Gozo [Għawdex] (21) [*gaulitana nobis* Mamo']
 74-038 MALTA • [no further data] (76)
 74-039 MALTA • [no further data] (47)
 74-040 MALTA • Gozo [Għawdex], Ta' Ċenċ (100) [ex coll. Valletta Museum]
 74-041 MALTA • Gozo [Għawdex], way to Għasri (53) [ex coll. Valletta Museum]
 74-042 MALTA • Gozo [Għawdex], Qbajjar; Mar. 2006; C. MIFSUD leg. (60)
 74-043 MALTA • Gozo [Għawdex], Qbajjar; on clay slopes; 30 Mar. 2006; P. SAMMUT leg. (3)
 74-044 MALTA • Qawra Point; 14 Feb. 1988; P. SAMMUT leg. (20)
 74-045 MALTA • Gozo [Għawdex], Zebbugia (3) [ex coll. Valletta Museum]
 74-046 MALTA • [no further data] (25)
 74-047 MALTA • Cala S.Maria (1) [mounted specimen, ex coll. Valletta Museum]
 74-048 MALTA • Gozo [Għawdex], Wied il-Għasri (2)
 74-049 MALTA • Gozo [Għawdex], Daħlet Qorrot [386-898]; 4 Oct. 1987; P. SAMMUT leg. (10)
 74-050 MALTA • Gozo [Għawdex], Castello; April 1925 (2) [ex coll. Valletta Museum]
 74-051 MALTA • [no further data] (2)
 74-052 MALTA • Mgarr, Ta' Falka [462-743]; 26 Mar. 2002; P. SAMMUT leg. (13)
 74-053 MALTA • Gozo [Għawdex], way to Għasri (42) [ex coll. Valletta Museum]
 74-054 MALTA • Qawra Point; 18 Oct. 1988; P. SAMMUT leg. (20)
 74-055 MALTA • Gozo [Għawdex], Għasri (1) [ex coll. Valletta Museum]
 74-056 MALTA • [no further data] (4)
 74-057 MALTA • Comino (57) [ex coll. Valletta Museum]
 74-058 MALTA • Gozo [Għawdex], Wied il-Mielah; 1975; M.A. THAKE leg. (4)

- 74-059 MALTA • Gozo [Għawdex], Għasri (32) [ex coll. Valletta Museum]
 74-060 MALTA • Gozo [Għawdex], Għasri, near coast; 23 Feb. 1916 (35) [ex coll. Valletta Museum]
 74-061 MALTA • [no further data] (61)
 74-062 MALTA • [no further data] (5)
 74-063 MALTA • Gozo [Għawdex], Għasri (32) [ex coll. Valletta Museum]
 74-064 MALTA • [no further data] (3)
 74-065 MALTA • [no further data] (8)
 74-066 MALTA • [no further data] (7)
 74-067 MALTA • Mistra (4)
 74-068 MALTA • Comino, San Niklaw (2) [ex coll. Valletta Museum]
 74-069 MALTA • Gozo [Għawdex], Għasri (2) [mounted specimens, ex coll. Valletta Museum]
 74-070 MALTA • Gozo [Għawdex], Għasri (2) [ex coll. Valletta Museum]
 74-071 MALTA • Gozo [Għawdex], Marsalforn [320-933]; 12 Feb. 2002; P. SAMMUT leg. (2)
 74-072 MALTA • Mellieħa, Għajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (7)
 74-073 MALTA • Gozo [Għawdex], Għasri Valley; 27 Apr. 1992; M. BRIFFA leg. (20)

Trochoidea spratti calcarata (Benoit, 1860)

- 75-001 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (88)
 75-002 MALTA • Gozo [Għawdex], Żebbuġ, Għajn Melel; May 1922; G. DE' CONTI MANDUCA leg. (139) [ex coll. G. DESPOTT]
 75-003 MALTA • [no further data] (59)
 75-004 MALTA • [no further data] (57)
 75-005 MALTA • [no further data] (61)
 75-006 MALTA • Id-Delli; 9 May [18]25 (51) [ex coll. Valletta Museum]
 75-007 MALTA • Gozo [Għawdex] (118) [ex coll. A. CARUANA-GATTO]
 75-008 MALTA • [no further data] (>50) [juveniles]
 75-009 MALTA • [no further data] (158)
 75-010 MALTA • [no further data] (67) [label undecipherable, ex coll. Valletta Museum]
 75-011 MALTA • Valletta, Hastings (3) [mounted specimens, ex coll. Valletta Museum]
 75-012 MALTA • Pietà, Glacis (177) [ex coll. Valletta Museum]
 75-013 MALTA • Valletta, Hastings [Gardens] (70) [ex coll. G. DESPOTT]
 75-014 MALTA • [no further data] (66) [ex coll. Valletta Museum]
 75-015 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 75-016 MALTA • Wied id-Dis [511-766]; 18 Jan. 2002; P. SAMMUT leg. (25)
 75-017 MALTA • Żebbiegħ, near St Martin Church [438-769]; 26 Mar. 2002; P. SAMMUT leg. (12)
 75-018 MALTA • Baħrija; 15 Jan. 2002; P. SAMMUT & J.J. BORG leg. (39)
 75-019 MALTA • [no further data] (3)
 75-020 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (26)
 75-021 MALTA • Comino, 25/26 Mar. 1918 (6) [ex coll. Valletta Museum]
 75-022 MALTA • near Dwejra Chapel; in leaf litter; Sep. 1993; C. MIFSUD leg. (14)
 75-023 MALTA • Għar Hasan; Nov. 2003; C. MIFSUD & P. SAMMUT leg. (2)
 75-024 MALTA • Fomm ir-Riħ (28) [ex coll. Valletta Museum]
 75-025 MALTA • Gozo [Għawdex], Sannat, San Raflu; 4 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (3)
 75-026 MALTA • Mistra; on rocks near fish farm quarters; Mar. 2002; P. SAMMUT leg. (6)
 75-027 MALTA • Qasam Barrani [418-717]; 14 Nov. 1988; P. SAMMUT leg. (18)
 75-028 MALTA • Valletta, Hastings [Gardens] (15) [ex coll. Valletta Museum]

- 75-029 MALTA • Gozo [Għawdex], Xlendi; P. SAMMUT leg. (3)
 75-030 MALTA • Filfla; 23 May 1995 (1)
 75-031 MALTA • Ricasoli (1) [ex coll. Valletta Museum]
 75-032 MALTA • Gozo [Għawdex], Dwejra, Qattara; 5 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (51)
 75-033 MALTA • Anchor Bay; 14 Nov. 1988; P. SAMMUT leg. (16)
 75-034 MALTA • Wied il-Għasel; 11 Nov. [19]14 (7) [ex coll. Valletta Museum]
 75-035 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (5)
 75-036 MALTA • Siġġiewi, Għar Lapsi; 15 Jan. 2002; P. SAMMUT leg. (44)
 75-037 MALTA • Birżebbuġa (2) [ex coll. Valletta Museum]
 75-038 MALTA • Gozo [Għawdex], hill top on road from Ramla to Nadur; in leaf litter; 18 Feb. 2002; C. MIFSUD leg. (20)
 75-039 MALTA • Buskett, Laroka [458-683]; 8 Feb. 2000; P. SAMMUT leg. (26)
 75-040 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (6)
 75-041 MALTA • Kuncizzjoni; Feb. 2002; C. MIFSUD & P. SAMMUT. (4)
 75-042 MALTA • [no further data] (24)
 75-043 MALTA • Mellieħa, Prajjiet [404-797]; 13 Nov. 1988; P. SAMMUT leg. (10)
 75-044 MALTA • Għar Hasan [565-629]; 12 Jan. 2002; P. SAMMUT leg. (25)
 75-045 MALTA • Ta' Qali; 2 Dec. 2011 (4W)
 75-046 MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-880]; 12 Feb. 2002; P. SAMMUT leg. (2W)
 75-047 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (10W)
 75-048 MALTA • Mellieħa, Prajjiet [404-797]; 13 Nov. 1988; P. SAMMUT leg. (54W)
 75-049 MALTA • Mistra, Tal-Blata [553-801]; 10 Dec. 1984; P. SAMMUT leg. (4)
 75-050 MALTA • Dingli, Rdum Madliena; 16 Jul. 1989; P. SAMMUT leg. (19)
 75-051 MALTA • [no further data] (19) [ex coll. G. DESPOTT]
 75-052 MALTA • Ġnejna (3)
 75-053 MALTA • Gozo [Għawdex], Ta Ċenċ Cliffs; 5 Mar. 2002; C. MIFSUD leg. (15)
 75-054 MALTA • Wied il-Qoton; 30 Oct. 1926 (24) [ex coll. Valletta Museum, possibly ex coll. A. CARUANA-GATTO]
 75-055 MALTA • Gozo [Għawdex], Il-Magun [36.02N, 14.18E]; 9 Feb. 2002; J.J. BORG & P. SAMMUT leg. (4)
 75-056 MALTA • [no further data] (291)
 75-057 MALTA • [no further data] (27)
 75-058 MALTA • [no further data] (1) ['*Helix rugosula*', ex coll. Valletta Museum]
 75-059 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (22)
 75-060 MALTA • Filfla (56) ['*H. filfolensis*', ex coll. Valletta Museum]
 75-061 MALTA • Kuncizzjoni; 8 Feb. 1918 (8) [ex coll. Valletta Museum]
 75-062 MALTA • [no further data] (8) ['*Helix calcarata*']
 75-063 MALTA • St. Paul's Island; 26 Nov. 1926 (52) [ex coll. Valletta Museum]
 75-064 MALTA • [no further data] (15) [ex coll. Valletta Museum]
 75-065 MALTA • Wied Żembaq (2) [ex coll. Valletta Museum]
 75-066 MALTA • [no further data] (15)
 75-067 MALTA • [no further data] (20)
 75-068 MALTA • [no further data] (14) [ex coll. G. DESPOTT]
 75-069 MALTA • Wied il-Ħmar (10) [ex coll. Valletta Museum]
 75-070 MALTA • Tarġa Gap; in leaf litter; 19 Jan. 2002; C. MIFSUD leg. (14)
 75-071 MALTA • Biżbiżija, top of hill on road to Mgarr; Mar. 2002; C. MIFSUD leg. (7)
 75-072 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (1) [subfossil]
 75-073 MALTA • Comino, San Niklaw Bay (10) [ex coll. Valletta Museum]

- 75-074 MALTA • [no further data]; P. SAMMUT leg. (2)
 75-075 MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (16)
 75-076 MALTA • Comino (29) [ex coll. Valletta Museum]
 75-077 MALTA • [no further data] (9) [label undecipherable, ex coll. Valletta Museum]
 75-078 MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (1)
 75-079 MALTA • Gozo [Għawdex], Xewkija, Ta Ċenċ [334-860]; 5 Mar. 2002; P. SAMMUT leg. (38)
 75-080 MALTA • [no further data] (1)
 75-081 MALTA • San Ġorġ, near Wied il-Ghomor; Oct. 1891 (14) [possibly ex coll. A. CARUANA-GATTO]
 75-082 MALTA • San Ġorġ, near Wied il-Ghomor; Oct. 1891 (30) [possibly ex coll. A. CARUANA-GATTO]
 75-083 MALTA • Fort Manoel (2) [mounted specimens, ex coll. Valletta Museum]
 75-084 MALTA • Wied il-Ħmar (2) [mounted specimens, ex coll. Valletta Museum]
 75-085 MALTA • Wied (?) (2) [label undecipherable, mounted specimens]
 75-086 MALTA • Wied Inċita (2) [mounted specimens]
 75-087 MALTA • (?) L-Indawwar (2) [mounted specimens]
 75-088 MALTA • Gozo [Għawdex], Żebbuġ (2) [mounted specimens, ex coll. Valletta Museum]
 75-089 MALTA • Mistra; 30 Nov. 2011 (2)
 75-090 MALTA • Mistra, Tal-Blata [453-805]; 26 Mar. 2002; P. SAMMUT leg. (11)
 75-091 Kemmuna, Blue Lagoon; Torri no.1; 21 Apr. 2004; S. Cardona leg. (66)
 75-092 MALTA • Wied Żnuber (2) [mounted specimens]
 75-093 MALTA • Gozo [Għawdex], Dwejra (2) [mounted specimens, ex coll. Valletta Museum]
 75-094 MALTA • Gozo [Għawdex], Dwejra (2) [mounted specimens, ex coll. Valletta Museum]
 75-095 MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (28)
 75-096 MALTA • Bingemma (2) [mounted specimens, ex coll. Valletta Museum]
 75-097 MALTA • Dingli Cliffs; Nov. 1993; C. MIFSUD leg. (5)
 75-098 MALTA • Dingli Cliffs; Nov. 2002; C. MIFSUD & P. SAMMUT leg. (2W)
 75-099 MALTA • Dingli Cliffs; 6 Feb. 1992; M. BRIFFA leg. (28)
 75-100 MALTA • Rdum il-Bies; 7 Feb. 1992; M. BRIFFA leg. (1)

Genus *Xerocrassa* Monterosato, 1892

Xerocrassa gharlapsi (Beckmann, 1987)

- 76-001 MALTA • Għar Lapsi; 2 Apr. 1986; K.-H. BECKMANN leg. (2) [paratypes of *Trochoidea gharlapsi* Beckmann, 1990]
 76-002 MALTA • Għar Lapsi; Jun. 1988; P. SAMMUT leg. (1)
 76-003 MALTA • Gozo [Għawdex], Xewkija, Ta' Ċenċ [334-860]; 5 Feb. 2002; P. SAMMUT leg. (1)
 76-004 MALTA • Għar Lapsi; Jun. 1987; P. SAMMUT leg. (4)
 76-005 MALTA • Siġġiewi, Għar Lapsi [484-654]; 15 Jan. 2002; P. SAMMUT leg. (11)
 76-006 MALTA • Għar Lapsi heights; 14 Oct. 2002; C. MIFSUD & P. SAMMUT leg. (10W)
 76-007 MALTA • Għar Lapsi; 21 Dec. 2000; C. MIFSUD leg. (111)
 76-008 MALTA • Għar Lapsi; 21 Dec. 2000; C. MIFSUD leg. (12)
 76-009 MALTA • Għar Lapsi; 20 Feb. 1999; C. MIFSUD leg. (3)
 76-010 MALTA • Għar Lapsi; 15 Dec. 2011 (2W)
 76-011 MALTA • Għar Lapsi; 15 Dec. 2011 (33)
 76-012 MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (14W)
 76-013 MALTA • Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (149)

76-014 | MALTA • Ghar Lapsi Cliffs; 16 Mar. 1992; M. BRIFFA leg. (10)

Xerocrassa meda (Porro, 1840)

- 77-001 | MALTA • Rabat [455-706]; 12 Nov. 1988; P. SAMMUT leg. (11W)
77-002 | MALTA • Rabat; 15 Mar. 2003 (3)
77-003 | MALTA • Mdina [463-716]; 7 Nov. 1988; P. SAMMUT leg. (3W)
77-004 | MALTA • [no further data] (19) [coll. Valletta Museum]
77-005 | MALTA • Birkirkara (81) [*Helicella (Xerocrassa) medae* Porro', ex coll. Valletta Museum]
77-006 | MALTA • Floriana, General's Garden; 18 Mar. 1927 (11) [ex coll. Valletta Museum]
77-007 | MALTA • Mdina; 10 Aug. 2007; J.J. BORG leg. (58)
77-008 | MALTA • [no further data] (73)
77-009 | MALTA • [no further data] (31)
77-010 | MALTA • Valletta, St. Elmo; outer wall; 12 Nov. 2010; C. MIFSUD & P. SAMMUT leg. (14W)
77-011 | MALTA • Gozo [Għawdex], Gran Castello (6) [ex coll. Valletta Museum]
77-012 | MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (1)
77-013 | MALTA • Mdina [462-717]; 30 Jan. 2002; P. SAMMUT leg. (8)
77-014 | MALTA • Qormi, Zammit Nurseries; Feb. 2003; C. MIFSUD & P. SAMMUT. (2)
77-015 | MALTA • Rabat; May 2011; P. SAMMUT leg. (6)
77-016 | MALTA • [no further data] (37W)
77-017 | MALTA • Rabat; P. SAMMUT leg. (1)
77-018 | MALTA • Burmarrad, Piscopo Flower Garden Centre; 20 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (1)
77-019 | MALTA • San Anton Gardens; 17 Feb. 2003; C. MIFSUD P. SAMMUT leg. (6)
77-020 | MALTA • Gozo [Għawdex], Għasri (2)
77-021 | MALTA • Fleur-de-Lys, private garden; in leaf litter; 16 Feb. 2002; M. THAKE leg. (37)
77-022 | MALTA • Rabat, roof of private garage; Dec. 1991; C. MIFSUD leg. (10W)
77-023 | MALTA • Rabat; Oct. 1986; P. SAMMUT leg. (5)

Family Helicidae Rafinesque, 1815

Subfamily Murellinae Hesse, 1918

Genus *Murella* Pfeiffer, 1877

Murella melitensis (Férussac, 1821)

- 78-001 | MALTA • [no further data] (30) [ex coll. Valletta Museum, ex coll. G. DESPOTT]
78-002 | MALTA • [no further data] (19) [ex coll. Valletta Museum, ex coll. G. DESPOTT]
78-003 | MALTA • [no further data] (18)
78-004 | MALTA • Rabat, attached to wall on roof of house; Oct. 2011; C. MIFSUD leg. (4W)
78-005 | MALTA • Mdina; 7 Nov. 1988; P. SAMMUT leg. (2W)
78-006 | MALTA • Gozo [Għawdex], Għasri (1)
78-007 | MALTA • Rabat [461-708]; 8 Mar. 2002; P. SAMMUT leg. (3W)
78-008 | MALTA • limits of Rabat, Ta' Gomerino; Jan. 2007 (2)
78-009 | MALTA • Rabat, Tal-Virtù [469-699]; 3 Mar. 2002; P. SAMMUT leg. (2)
78-010 | MALTA • Gozo [Għawdex], Ġnien Xit(?); 24 Mar. 1923 (9) [original label lost, ex coll. G. DESPOTT]
78-011 | MALTA • San Ġusepp Tat-Tarġa; May 19(?) (13)
78-012 | MALTA • [no further data] (9)
78-013 | MALTA • [no further data] (3) [*Helix melitensis*', possibly ex coll. G. MAMO]

- 78-014 MALTA • Mdina [464-736]; 8 Jan. 2002; P. SAMMUT leg. (4)
 78-015 MALTA • Gozo [Għawdex], Qala, near church [380-884]; 20 Jan. 2002; P. SAMMUT leg. (10)
 78-016 MALTA • [no further data] 27 Jan. [18]95 (3)
 78-017 MALTA • [no further data] (10)
 78-018 MALTA • Valletta, St. Elmo; on wall; 12 Nov. 2010; C. MIFSUD & P. SAMMUT leg. (13)
 78-019 MALTA • Gozo [Għawdex], Qala, near church; 13 Jan. 2002 (3)
 78-020 MALTA • Rabat, roof of house; 27 Jan. 1995 (1)
 78-021 MALTA • Rabat, roof of house; 6 Mar. 2002; C. MIFSUD leg. (6DS)
 78-022 MALTA • Qormi; 7 Dec. 2010; C. CACHIA leg. (3W)
 78-023 MALTA • Dingli Cliffs; Nov. 2002; C. MIFSUD & P. SAMMUT leg. (1W)
 78-024 MALTA • Rabat [455-719]; 7 Feb. 2002; P. SAMMUT leg. (4W)
 78-025 MALTA • Mdina [463-736]; 7 Nov. 1988; P. SAMMUT leg. (2)
 78-026 MALTA • [no further data] (1)
 78-027 MALTA • Għajn il-Kbira; 20 Nov. 1991; M. BRIFFA leg. (2)

Genus *Theba* Risso, 1826

Theba pisana (Müller, 1774)

- 79-001 MALTA • [no further data]; 9 Sep. 1923 (20) [label undecipherable, ex coll. A. CARUANA-GATTO]
 79-002 MALTA • Marsa, near Albert Town (5) [ex coll. Valletta Museum]
 79-003 MALTA • Ħas-Saptan (7) [ex coll. Valletta Museum]
 79-004 MALTA • [no further data] (33) [ex coll. Valletta Museum]
 79-005 MALTA • [no further data] (6)
 79-006 MALTA • Mellieħa; 25 May [19]19 (12) [ex coll. Valletta Museum]
 79-007 MALTA • Marsa, near Albert Town (5) [ex coll. Valletta Museum]
 79-008 MALTA • Comino (12) [ex coll. Valletta Museum]
 79-009 MALTA • [no further data] (8) [ex coll. Valletta Museum]
 79-010 MALTA • Salina; 28 Nov. [19]19 (14) [ex coll. Valletta Museum]
 79-011 MALTA • Għajn Tuffieħa; 7 Apr. [19]20 (9) [ex coll. Valletta Museum]
 79-012 MALTA • Ramla ta' Cassita; 25 May [19]19 (16) [ex coll. Valletta Museum]
 79-013 MALTA • Ħas-Saptan (5) [ex coll. Valletta Museum]
 79-014 MALTA • [no further data] (4) [ex coll. Valletta Museum; ex coll. A. CARUANA-GATTO]
 79-015 MALTA • [no further data] (6)
 79-016 MALTA • Rabat, Lunzjata [447-706]; 6 Feb. 2002; P. SAMMUT leg. (5)
 79-017 MALTA • Comino (63) [ex coll. Valletta Museum]
 79-018 MALTA • Marbat; 2 May [19]21 (16) [ex coll. Valletta Museum]
 79-019 MALTA • Gozo [Għawdex], Villa Rundle; 2 Jun. [19]19 (5) [ex coll. Valletta Museum]
 79-020 MALTA • Ramla ta' Cassita; 25 May [19]19 (20) [ex coll. Valletta Museum]
 79-021 MALTA • Gozo [Għawdex], Rundle Gardens; 1 Jun. [19]19 (63) [ex coll. G. DESPOTT]
 79-022 MALTA • Floriana, Ġnien tal-General; 29 May [19]22 (36) [ex coll. (?) Cassar]
 79-023 MALTA • Mellieħa Bay (35) [*Euparypha pisana* Mull. varietas *chambardi*], ex coll. Valletta Museum]
 79-024 MALTA • [no further data] (6W)
 79-025 MALTA • Marbat; 2 May [19]21 [ex coll. Valletta Museum]
 79-026 MALTA • Gozo [Għawdex], Ramla (13)

- 79-027 MALTA • Gozo [Għawdex], Ghajnsielem, road from Qala; on *Foeniculum*; 7 Jun. 2008; C. MIFSUD leg. (10W)
- 79-028 MALTA • Rabat, Lunzjata; 15 Jan. 2002 [447-706]; P. SAMMUT leg. (8)
- 79-029 MALTA • north of Żebbiegħ; Mar. 1927 (14) [ex coll. Valletta Museum]
- 79-030 MALTA • [no further data] (16)
- 79-031 MALTA • Bahrija; Sep. 2003 (14)
- 79-032 MALTA • [no further data] (6)
- 79-033 MALTA • Ghajn Tuffieħa (55) [date undecipherable, ex coll. G. DESPOTT]
- 79-034 MALTA • [no further data] (15) [ex coll. Valletta Museum]
- 79-035 MALTA • Porta Sant Anna, Jun. 1922 (79) [collected by (?) Toni, ex coll. Valletta Museum]
- 79-036 MALTA • Gozo [Għawdex], Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (4)
- 79-037 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (6)
- 79-038 MALTA • Ghajn Tuffieħa; 7 Apr. [19]20 (6).
- 79-039 MALTA • Marbat; 21 May [19]21 (5) [ex coll. Valletta Museum]
- 79-040 MALTA • [no further data] (3) [ex coll. Valletta Museum]
- 79-041 MALTA • Ta' Xbiex, near police station, 4 Mar. 1917 (3) [ex coll. Valletta Museum]
- 79-042 MALTA • Marsa, near Albert Town (5) [ex coll. Valletta Museum]
- 79-043 MALTA • Mellieħa, 1915 (12) [ex coll. Valletta Museum]
- 79-044 MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002; P. SAMMUT leg. (10)
- 79-045 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (10)
- 79-046 MALTA • Rabat [455-719]; 7 Feb. 2002; P. SAMMUT leg. (10)
- 79-047 MALTA • [no further data] (4) [ex coll. Valletta Museum]
- 79-048 MALTA • Għadira Bird Reserve; 10 Sep. 1988; P. SAMMUT leg. (5)
- 79-049 MALTA • Rabat [455-706]; 6 Oct. 1988; P. SAMMUT leg. (2W)
- 79-050 MALTA • Blata l-Bajda; Jun. 1922 (40) [collected by (?) Toni]
- 79-051 MALTA • Gozo [Għawdex], Rundle Gardens (70) [ex coll. Valletta Museum]
- 79-052 MALTA • Marfa, Ramla ta' Cassita/ Ramla tat-Torri; 25 May [19]19 (103) ['*Eup. pisana* Mull., f. *zonata*']
- 79-053 MALTA • Ġnien tal-Ġeneral; May 1922 (65) [ex coll. Valletta Museum]
- 79-054 MALTA • Mellieħa, Marbat; 2 May 1921 (105) [ex coll. Valletta Museum]
- 79-055 MALTA • Mosta, near Cemetery; 10 Jun. 2005; C. MIFSUD leg. (30W)
- 79-056 MALTA • Gozo [Għawdex], Ramla l-Hamra; 12 Feb. 2002; C. MIFSUD leg. (22)
- 79-057 MALTA • [no further data] (39)
- 79-058 MALTA • near Santi; May 2006; C. MIFSUD leg. (26)
- 79-059 MALTA • Mellieħa Bay; Oct. 1993; C. MIFSUD leg. (13W)
- 79-060 MALTA • Gozo [Għawdex], Xagħra, Ramla Dunes [358-912]; 12 Feb. 2002 (9)
- 79-061 MALTA • [no further data] (2)
- 79-062 MALTA • Gozo [Għawdex], Ramla l-Hamra dunes (11W)
- 79-063 MALTA • Għar Dalam (1) [fossil]
- 79-064 MALTA • Manoel Island; 8 Feb. 1992; M. BRIFFA leg. (7)

Subfamily Helicinae Rafinesque, 1815

Tribe Allognathini Westerlund, 1903

Genus *Iberus* Montfort, 1810

Iberus splendidus (Draparnaud, 1801)

- 85-001 MALTA • Qormi, Zammit Nurseries; 28 Sep. 2010; C. MIFSUD & P. SAMMUT leg. (4)

Tribe Thebini Wenz, 1923
Genus *Cantareus* Risso, 1826

Cantareus apertus (Born, 1778)

82-001	MALTA • Mrieħel Bypass; 11 Feb. 2010; P. SAMMUT leg. (8)
82-002	MALTA • Mrieħel Bypass; 11 Feb. 2010; P. SAMMUT leg. (8)
82-003	MALTA • Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (6)
82-004	MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (2)
82-005	MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (2)
82-006	MALTA • Gozo [Għawdex], Xagħra, road from Ramla to Nadur [367-897]; 18 Feb. 2002; P. SAMMUT leg. (2)
82-007	MALTA • Gozo [Għawdex], Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (1)
82-008	MALTA • Rabat, Nigret; Oct. 1993; P. SAMMUT leg. (2 + 6PR)
82-009	MALTA • [no further data] (4)
82-010	MALTA • Mellieħa Ridge, Foresta 2000; 31 Oct. 2008; C. MIFSUD leg. (5)
82-011	MALTA • Ta' Vnezja; Mar. 1936 (5) [ex coll. Valletta Museum]
82-012	MALTA • Rabat; May 2011; P. SAMMUT leg. (3)
82-013	MALTA • Delimara; 3 Mar. 2013; S. CARDONA leg. (2)
82-014	MALTA • Għar Dalam (1) [fossil]
82-015	MALTA • Wied Unda(?); 18 Jan. 1992; M. BRIFFA leg. (1)

Genus *Cornu* Born, 1778

Cornu aspersum (Müller, 1774)

83-001	MALTA • Dwejra, chapel; Oct. 1993 (5W)
83-002	MALTA • Wied iż-Żurrieq, Ħaġar Qim; Oct. 1993; C. MIFSUD leg. (2)
83-003	MALTA • Mgarr, Roman Baths; Oct. 1993; C. MIFSUD leg. (3W)
83-004	MALTA • near Dwejra Chapel; Sep. 1993; C. MIFSUD leg. (1W)
83-005	MALTA • Dingli; Sep. 2008; C. MIFSUD leg. (1W)
83-006	MALTA • Rabat, private garden; Sep. 1993; C. MIFSUD leg. (1)
83-007	MALTA • Gozo [Għawdex], Nadur, Wied San Blas [372-950]; under stones; 18 Feb. 2002; P. SAMMUT leg. (2)
83-008	MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (5)
83-009	MALTA • [no further data] (5)
83-010	MALTA • Gozo [Għawdex], Xagħra, road from Ramla to Nadur [367-897]; 18-2-2002; P. SAMMUT leg. (3)
83-011	MALTA • Gozo [Għawdex], Qbajjar; Feb. 2002; P. SAMMUT leg. (1)
83-012	MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (6)
83-013	MALTA • Gozo [Għawdex], Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (7)
83-014	MALTA • Xagħra tal-Baħrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (7)
83-015	MALTA • Ċirkewwa [405-726]; 2 Feb. 2002; P. SAMMUT leg. (7)
83-016	MALTA • Għar Lapsi [484-653]; 12 Jan. 2002 (7). P. SAMMUT leg. (7)
83-017	MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (4)
83-018	MALTA • Gozo [Għawdex], Nadur, Wied San Blas [372-950]; under stones; 18 Feb. 2002; P. SAMMUT leg. (3)
83-019	MALTA • Baħrija; Sep. 2003 (9)

- 83-020 MALTA • [no further data] (7) [ex coll. Valletta Museum, ex coll. G. DESPOTT]
- 83-021 MALTA • Comino; 10 Jul. 1925 (8) [ex coll. Valletta Museum]
- 83-022 MALTA • Comino; 10 Jul. 1925 (6) [ex coll. Valletta Museum]
- 83-023 MALTA • [no further data] (7)
- 83-024 MALTA • [no further data] (6)
- 83-025 MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (5)
- 83-026 MALTA • Comino (1) [ex coll. Valletta Museum]
- 83-027 MALTA • Rabat, Lunzjata [447-706]; 15 Jan. 2002; P. SAMMUT leg. (4)
- 83-028 MALTA • [no further data] (1)
- 83-029 MALTA • Mqabba; Mar. 2020; S. CARDONA leg. (1)

Genus *Eobania* Hesse, 1913

Eobania vermiculata (Müller, 1774)

- 81-001 MALTA • Filfla; 23 Mar. 2015; J.J. BORG leg. (8)
- 81-002 MALTA • St. Thomas' Bay; Apr. 2013; C. MIFSUD leg. (11)
- 81-003 MALTA • [no further data] (8) [ex coll. Valletta Museum]
- 81-004 MALTA • [no further data] (9)
- 81-005 MALTA • Valletta, Ġnien is-Sultan; Oct. 1920 (8) [ex coll. Valletta Museum]
- 81-006 MALTA • Ta' Vnezja; Mar. 1936 (5) [ex coll. Valletta Museum]
- 81-007 MALTA • [no further data] (6)
- 81-008 MALTA • Id-Delli; 3 May 1924 (3) [ex coll. Valletta Museum]
- 81-009 MALTA • Filfla; 19 May 2000 (3)
- 81-010 MALTA • [no further data] (4) [ex coll. Valletta Museum]
- 81-011 MALTA • Għammieri (6) [ex coll. Valletta Museum]
- 81-012 MALTA • [no further data] (5)
- 81-013 MALTA • Comino; 11 Jul. 1925 (8) [ex coll. Valletta Museum]
- 81-014 MALTA • Flower Power Nursery, Mosta; Sep. 2003; C. MIFSUD leg. (3)
- 81-015 MALTA • Rabat, Sep. 1993; C. MIFSUD leg. (1)
- 81-016 MALTA • Mellieħa, Għajn Ħadid; 27 Feb. 2002; C. MIFSUD leg. (1)
- 81-017 MALTA • Qormi, Zammit Nurseries; 12 Oct. 2010; C. MIFSUD & P. SAMMUT leg. (1)
- 81-018 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (1W)
- 81-019 MALTA • Gozo [Għawdex], Munxar; Feb. 2002; C. MIFSUD leg. (5W + 2D)
- 81-020 MALTA • Kuncizzjoni; Apr. 2003; C. MIFSUD leg. (20)
- 81-021 MALTA • Bahrija; Sep. 2002 (11)
- 81-022 MALTA • Chadwick Lakes; Jan. 2002; C. MIFSUD leg. (2W)
- 81-023 MALTA • Filfla; 24 May 1994; J. Sultana leg. (2)
- 81-024 MALTA • Rabat, Nigret; 1994; P. SAMMUT leg. (3)
- 81-025 MALTA • Filfla (8) [ex coll. Valletta Museum]
- 81-026 MALTA • Filfla; 23 Mar. 2015; J.J. BORG leg. (6W)
- 81-027 MALTA • Filfla; 2 Apr. 2014; J.J. BORG leg. (3W)
- 81-028 MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (3)
- 81-029 MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (3)
- 81-030 MALTA • Gozo [Għawdex], Xagħra, road from Ramla to Nadur [367-897]; 18 Feb. 2002; P. SAMMUT leg. (3)
- 81-031 MALTA • Rabat, Chadwick Lakes [457-730]; 26 Jan. 2002; P. SAMMUT leg. (4)
- 81-032 MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (5)
- 81-033 MALTA • Għar Ħasan [565-629]; 12 Jan. 2002; P. SAMMUT leg. (4)

- 81-034 MALTA • Rabat [455-719]; 7 Feb. 2002; P. SAMMUT leg. (5)
 81-035 MALTA • Buskett, Xagħra ta' Laroka [458-683]; 8 Feb. 2002; P. SAMMUT leg. (5)
 81-036 MALTA • Filfla; 19 May 2002 (5)
 81-037 MALTA • Filfla; 2 Apr. 2014; J.J. BORG leg. (2)
 81-038 MALTA • Filfla; 2 Apr. 2014; J.J. BORG leg. (2W)
 81-039 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (5)
 81-040 MALTA • Bahrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (6)
 81-041 MALTA • Gozo [Ghawdex], Xagħra, Wied il-Hanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (6)
 81-042 MALTA • Gozo [Ghawdex], Għarb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT Leg. (4)
 81-043 MALTA • Mdina, National Museum of Natural History; Aug. 2011; P. SAMMUT leg. (3)
 81-044 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (3) [fossil]
 81-045 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (4)
 81-046 MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (6)
 81-047 MALTA • Siġġiewi, Għar Lapsi; P. SAMMUT leg. (3)
 81-048 MALTA • Gozo [Ghawdex], Munxar, near Xlendi Valley [306-881]; 6 Jan. 1990; P. SAMMUT leg. (5)
 81-049 MALTA • Rabat, Lunzjata [447-706]; 15 Jan. 2002; P. SAMMUT leg. (4)
 81-050 MALTA • Żurrieq, Wied Babu [512-649]; 4 Oct. 1988; P. SAMMUT leg. (4W)
 81-051 MALTA • Filfla, 2 Apr. 2014; J.J. BORG leg. (3W)
 81-052 MALTA • Filfla, 2 Apr. 2014; J.J. BORG leg. (3)
 81-053 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 81-054 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 81-055 MALTA • Mellieħa, Ċirkewwa Quaternary deposit [399-829]; 22 Feb. 2002; P. SAMMUT leg. (1) [fossil]
 81-056 MALTA • Għar Dalam; 1918 to 1919 (14) [subfossil, small form]
 81-057 MALTA • Għar Dalam (5) [fossil]
 81-058 MALTA • Delimara; 6 Nov. 2015; S. CARDONA leg. (11) [subfossil]
 81-059 MALTA • Żnuber Tower; 1 May 1991; M. BRIFFA leg. (2)

Genus *Otala* Schumacher, 1817

Otala punctata (Müller, 1774)

- 80-001 MALTA • Ta' Qali Flower Power Nursery; 11 Nov. 2003; P. SAMMUT leg. (22)
 80-002 MALTA • Ta' Qali Flower Power Nursery; 11 Nov. 2003; P. SAMMUT leg. (21)
 80-003 MALTA • Mosta Cemetery; 10 Jun. 2005; C. MIFSUD leg. (8W)
 80-004 MALTA • Bahrija; Sep. 2003 (4)
 80-005 MALTA • Ta' Qali Flower Power Nursery; 11 Nov. 2003; P. SAMMUT leg. (4W)

Family Sphincterochilidae Zilch, 1960 (1910)

Genus *Sphincterochila* Ancey, 1887

Sphincterochila candidissima (Draparnaud, 1801)

- 59-001 MALTA • Qawra Point [487-797]; 16 Sep. 1988; P. SAMMUT leg. (4W)
 59-002 MALTA • Mellieħa, Għajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (5)
 59-003 MALTA • Għargħur, Wied id-Dis (2)

- 59-004 MALTA • St Paul's Bay, Qawra Point; 16 Sep. 1988; P. SAMMUT leg. (5)
59-005 MALTA • Żebbiegħ, near St. Martin Church [438-769]; 16 Mar. 2002; P. SAMMUT leg. (11)
59-006 MALTA • Mistra, Tal-Blata [453-805]; 26 Mar. 2002; P. SAMMUT leg. (5)
59-007 MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (6)
59-008 MALTA • Mellieħa, Ġhajn Hadid; 27 Feb. 2002; C. MIFSUD leg. (3W + 5D)
59-009 MALTA • Salina, near hotel; on rocks; Oct. 1993; C. MIFSUD leg. (6W)
59-010 MALTA • Wardija Heights; Nov. 2002; C. MIFSUD & P. SAMMUT leg. (5W)
59-011 MALTA • Mistra, on rocks near fish-farm quarters; Mar. 2002; C. MIFSUD & P. SAMMUT leg. (21)
59-012 MALTA • Pembroke; 4 May 1918; G. DESPOTT leg. (17) [ex coll. Valletta Museum]
59-013 MALTA • [no further data]; 10 May 1914 (21) [label undecipherable, ex coll. Valletta Museum]
59-014 MALTA • Manikata; Oct. 1987; P. SAMMUT leg. (5)
59-015 MALTA • Selmun; 11 Apr. 1920; G. DESPOTT leg. (16) [ex coll. Valletta Museum]
59-016 MALTA • [no further data] (12)
59-017 MALTA • rocks before reaching Selmun Palace; 3 Mar. 1917 (6) [ex coll. Valletta Museum]
59-018 MALTA • Mistra; 30 Nov. 2011; C. SAMMUT leg. (9)
59-019 MALTA • [no further data] (12)
59-020 MALTA • Mistra (5) [ex coll. Valletta Museum]
59-021 MALTA • [no further data] (15) [ex coll. Valletta Museum]
59-022 MALTA • Anchor Bay; 14 Nov. 1988; P. SAMMUT leg. (9)
59-023 MALTA • [no further data] (7) [*Helix candidissima*], ex coll. Valletta Museum, possibly ex coll. G. MAMO]
59-024 MALTA • Id-Delli; 3 May 1924 (3) [ex coll. Valletta Museum]
59-025 MALTA • Comino (4) [ex coll. Valletta Museum]
59-026 MALTA • Mellieħa, Ġhajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (4W)
59-027 MALTA • [no further data] (3) [mounted specimens, ex coll. Valletta Museum]
59-028 MALTA • Mġarr, Ta' Falca, near fault (34) [ex coll. Valletta Museum]
59-029 MALTA • Marfa, by old Fort wall near Cessita; 25 May 1919 (47) [ex coll. Valletta Museum, possibly ex coll. G. DESPOTT]
59-030 MALTA • Mistra; 11 Apr. 1920 (44) [ex coll. Valletta Museum]
59-031 MALTA • Ġhallies; 3 Feb. 1992; M. BRIFFA leg. (3)

Family Trissexodontidae Nordsieck, 1987

Subfamily Trissexodontinae Nordsieck, 1987

Tribe Caracollinini Nordsieck, 1987

Genus *Caracollina* Beck, 1837

Caracollina lenticula (Michaud, 1831)

- 58-001 MALTA • Wied il-Buni (6) [ex coll. Valletta Museum]
58-002 MALTA • [no further data] (51)
58-003 MALTA • Siġġiewi, Ġhar Lapsi [484-654]; 15 Jan. 2002; P. SAMMUT leg. (3)
58-004 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (5)
58-005 MALTA • Mistra, Tal-Blata [453-805]; 26 Mar. 2002; P. SAMMUT leg. (6)
58-006 MALTA • Gozo [Ġhawdex], Marsalforn, Qbajjar [320-933]; 12 Feb. 2002; P. SAMMUT leg. (13)
58-007 MALTA • Siġġiewi, Ġhar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (2)
58-008 MALTA • Gozo [Ġhawdex], Ġharb, San Dimitri [280-927]; 5 Mar. 2002; P. SAMMUT leg. (7)
58-009 MALTA • St Thomas Bay; Oct. 1993; C. MIFSUD leg. (1)

- 58-010 MALTA • Ta' Qali; Oct. 1993; C. MIFSUD leg. (6)
- 58-011 MALTA • Gozo [Għawdex], Wied San Blas, Nadur [372-950]; under stones; 18 Feb. 2002; P. SAMMUT leg. (9)
- 58-012 MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (18)
- 58-013 MALTA • Mġarr, Ta' Falka [462-743]; 26 Mar. 2002; P. SAMMUT leg. (7)
- 58-014 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (13)
- 58-015 MALTA • Wied tal-Baħrija; 15 Jan. 2002; P. SAMMUT & J.J. BORG leg. (2)
- 58-016 MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (26)
- 58-017 MALTA • Rabat, Kuncizzjoni [413-732]; 16 Oct. 1988; P. SAMMUT leg. (6)
- 58-018 MALTA • [no further data]; P. SAMMUT leg. (2)
- 58-019 MALTA • Miġra Ferħa; 25 Jan. 2011; C. SAMMUT leg. (1)
- 58-020 MALTA • Mistra; 30 Nov. 2011; C. SAMMUT leg. (1)
- 58-021 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (8)
- 58-022 MALTA • Baħrija, Rdum is-Sarċ [408-715]; 24 Oct. 1988; P. SAMMUT leg. (3)
- 58-023 MALTA • Mtaħleb; Għar Irfuf; Oct. 1993; C. MIFSUD leg. (1)
- 58-024 MALTA • Mġarr, Roman Baths; Oct. 1993; C. MIFSUD leg. (5)
- 58-025 MALTA • Gozo [Għawdex], Munxar; under stones; 12 Feb. 2002; C. MIFSUD leg. (6)
- 58-026 MALTA • Gozo [Għawdex], Nadur, Wied San Blas [372-950]; rubble wall gravel; 18 Feb. 2002; P. SAMMUT leg. (1)
- 58-027 MALTA • Gozo [Għawdex], Xagħra, Ramla to Nadur [367-897]; under stones; 18 Feb. 2002; P. SAMMUT leg. (16)
- 58-028 MALTA • Gozo [Għawdex], Għasri (4)
- 58-029 MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (5)
- 58-030 MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (1)
- 58-031 MALTA • Gharghur, Wied id-Dis; in leaf litter; Jan. 2002; C. MIFSUD leg. (10)
- 58-032 MALTA • [no further data] (38) [ex coll. Valletta Museum]
- 58-033 MALTA • [no further data] (4)
- 58-034 MALTA • Ta' Qali; under stones; 2 Dec. 2011; C. MIFSUD leg. (3W)
- 58-035 MALTA • Siġġiewi; 14 Dec. 2011; C. MIFSUD leg. (6W)
- 58-036 MALTA • Chadwick Lakes; 26 Jan. 2002; C. MIFSUD leg. (3W)
- 58-037 MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq; 18 Feb. 2002; C. MIFSUD leg. (12W)
- 58-038 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (2W)
- 58-039 MALTA • Gharghur, Wied id-Dis; 18 Jan. 2002; P. SAMMUT leg. (4)
- 58-040 MALTA • St Paul's Bay, Qawra Point; 16 Sep. 1988; P. SAMMUT leg. (2)
- 58-041 MALTA • Rabat [455-706]; 12 Nov. 1988; C. SAMMUT leg. (1W)
- 58-042 MALTA • Gozo [Għawdex], Munxar, near Xlendi Valley [306-881]; 6 Jan. 1990; P. SAMMUT leg. (10W)
- 58-043 MALTA • Wied Inċita; Nov. 2019; S. CARDONA leg. (3)
- 58-044 MALTA • Mġarr, limits of Ġnejna Bay; 29 Dec. 2019; C. MIFSUD leg. (1)
- 58-045 MALTA • Ġnien Ingraw; 12 Feb. 1992; M. BRIFFA leg. (3)
- 58-046 MALTA • Qaliet; 10 Feb. 1992; M. BRIFFA leg. (12)

Infraorder Limacoidei Batsch, 1789

Family Milacidae Ellis, 1926

Genus *Milax* Gray, 1855

Milax nigricans (Philippi, 1836)

- 51-001 MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (3)

- 51-002 | MALTA • Rabat, Nigret; Oct. 1993; C. MIFSUD leg. (PG + R + DS)
51-003 | MALTA • Fiddien; 8 Feb. 1988; P. SAMMUT leg. (3DS)
51-004 | MALTA • [no further data] (1)
51-005 | MALTA • Rabat, Nigret; Oct. 1993; C. MIFSUD leg. (2)
51-006 | MALTA • Ta' Qali National Park; under stones; 20 Jan. 2006; C. MIFSUD leg. (6)
51-007 | MALTA • Gozo [Għawdex], Wied il-Ħanaq, limits of Ramla Bay; 18 Feb. 2002; C. MIFSUD leg. (4)
51-008 | MALTA • Buskett Valley; Oct. 1993; C. MIFSUD leg. (4)
51-009 | MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (DS)
51-010 | MALTA • Mellieħa Bay; Oct. 1993; C. MIFSUD leg. (2)
51-011 | MALTA • Ta' Qali; 2 Dec. 2011; C. MIFSUD leg. (6)
51-012 | MALTA • Gozo [Għawdex], Wied ir-Ramla; Mar. 2002; C. MIFSUD & P. SAMMUT leg. (2)
51-013 | MALTA • Rabat; Dec. 1993; P. SAMMUT leg. (4)
51-014 | MALTA • [no further data] (1)
51-015 | MALTA • Mellieħa, Mġiebaħ [444-807]; 26 Feb. 2002; P. SAMMUT leg. (4)
51-016 | MALTA • Siggiewi, end of Wied il-Luq [471-684]; 2 Mar. 2002; P. SAMMUT leg. (3)
51-017 | MALTA • Chadwick Lakes; under stones; Jan. 2002; C. MIFSUD leg. (4)
51-018 | MALTA • Gozo [Għawdex], Wied ir-Ramla; 23 Dec. 2002; C. MIFSUD & P. SAMMUT leg. (6)
51-019 | MALTA • Chadwick Lakes; under stones; Jan. 2002; C. MIFSUD leg. (6)
51-020 | MALTA • Mellieħa, Mġiebaħ; 28 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (4)
51-021 | MALTA • Gozo [Għawdex], Wied ir-Ramla l-Ħamra; under stones; 12 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (3)
51-022 | MALTA • Gozo [Għawdex], Nadur, San Blas; 18 Feb. 2002; C. MIFSUD leg. (5)
51-023 | MALTA • Gozo [Għawdex], Wied il-Ħanaq, limits of Ramla Bay; 18 Feb. 2002; C. MIFSUD leg. (3)
51-024 | MALTA • Rabat, Chadwick Lakes [457-730]; 26 Jan. 2002; P. SAMMUT leg. (10)
51-025 | MALTA • [no further data] (5)
51-026 | MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (2)

Genus *Tandonia* Lessona & Pollonera, 1882

Tandonia sowerbyi (A. Férussac, 1823)

- 52-001 | MALTA • Gozo [Għawdex], Wieq il-Ħanaq; under stones; 18 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (5)

Superfamily Gastrodontoidea Tryon, 1866

Family Oxychilidae Hesse, 1927 (1879)

Subfamily Oxychilinae Hesse, 1927 (1879)

Genus *Oxychilus* Fitzinger, 1833

Oxychilus draparnaudi (Beck, 1837)

- 48-001 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (18)
48-002 | MALTA • Gozo [Għawdex], Nadur, Tal-Bordin, near Ħxajma Borehole [350-884]; 18 Feb. 2002; P. SAMMUT leg. (10)
48-003 | MALTA • Qrendi, Maqluba; 20 Aug. 1988; P. SAMMUT leg. (17)
48-004 | MALTA • Mellieħa, Għajn Hadid; 26 Feb. 2002; P. SAMMUT leg. (1)
48-005 | MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (1)

- 48-006 MALTA • Gozo [Għawdex], Munxar, Tax-Xlendi [308-882]; 12 Feb. 2002; P. SAMMUT leg. (2)
- 48-007 MALTA • Naxxar, Ta' San Pietru [500-763]; 26 Jan. 2002; P. SAMMUT leg. (1)
- 48-008 MALTA • Mrieħel School grounds; 30 Apr. 1989; P. SAMMUT leg. (5)
- 48-009 MALTA • San Anton [Gardens]; 10 Nov. 1989 (6)
- 48-010 MALTA • [no further data] (10)
- 48-011 MALTA • [no further data] (6)
- 48-012 MALTA • [no further data] (3)
- 48-013 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (2)
- 48-014 MALTA • Chadwick Lakes; under stones; Jan. 2002; C. MIFSUD leg. (1W)
- 48-015 MALTA • Gozo [Għawdex], Xagħra, Wied il-Hanaq; under stones; 18 Feb. 2002; C. MIFSUD leg. (5)
- 48-016 MALTA • near Dwejra chapel; in leaf litter; Sep. 1993; C. MIFSUD leg. (9)
- 48-017 MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (6)
- 48-018 MALTA • [no further data] P. SAMMUT leg. (4)
- 48-019 MALTA • Tarġa Gap; under stones; 19 Jan. 2002; C. MIFSUD leg. (2)
- 48-020 MALTA • Roman Baths; Oct. 1993; C. MIFSUD leg. (1)
- 48-021 MALTA • Wied tal-Buskett; Oct. 1995; C. MIFSUD leg. (4W)
- 48-022 MALTA • Għargħur. Wied id-Dis; 18 Jan. 2002; P. SAMMUT leg. (3)
- 48-023 MALTA • Buskett, Wied l-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (3W)
- 48-024 MALTA • Wied tal-Buskett; Oct. 1993; C. MIFSUD leg. (2W)
- 48-025 MALTA • Rabat, Chadwick Lakes [457-730]; 26 Jan. 2002; P. SAMMUT leg. (3)
- 48-026 MALTA • Wied tal-Buskett; Oct. 1993; C. MIFSUD leg. (1W)
- 48-027 MALTA • Gozo [Għawdex], Xagħra, Wied il-Hanaq; 18 Feb. 2002; C. MIFSUD leg. (1W)
- 48-028 MALTA • Gozo [Għawdex], Wied tar-Ramla; under stones; Dec. 2010; C. MIFSUD leg. (10W)
- 48-029 MALTA • San Anton Gardens; 17 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (2)
- 48-030 MALTA • Ras il-Pellegrin, limits of Ġnejna; 29 Dec. 2019; C. MIFSUD leg. (1)
- 48-031 MALTA • Ġnien Ingraw; 12 Feb. 1992; M. BRIFFA leg. (5)
- 48-032 MALTA • Manoel Island; 13 Mar. 1992; M. BRIFFA leg. (3)

Oxychilus navarricus helveticus (Blum, 1881)

- 49-001 MALTA • Qormi, Zammit Nurseries; among leaves of orchid *Cymbidium* from Holland; 3 Feb. 2003; P. SAMMUT leg. (1)

Genus *Mediterranea* Clessin, 1880

Mediterranea hydatina (Rossmässler, 1838)

- 50-001 MALTA • Mtarfa (3)
- 50-002 MALTA • Tarġa Gap; in loose soil beneath *Asparagus aphyllus* [473-750]; 15 Feb. 2002; M. THAKE leg. (7)
- 50-003 MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (11)
- 50-004 MALTA • [no further data] (6) ['*Oxychilus draparnaudi*', ex coll. Valletta Museum]
- 50-005 MALTA • Rabat [455-719]; 7 Feb. 2002; P. SAMMUT leg. (1)
- 50-006 MALTA • Gozo [Għawdex], Xagħra, Għajn Hosna; 18 Feb. 2002; C. MIFSUD leg. (3)
- 50-007 MALTA • Dwejra, near chapel; in leaf litter; Sep. 1993; C. MIFSUD leg. (3)
- 50-008 MALTA • [no further data] (16) ['*Oxychilus cellarius* Mull.']

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| 50-009 | MALTA • Attard, Wied Incita; Nov. 2019; C. CACHIA leg. (3) |
| 50-010 | MALTA • Gozo [Għawdex], Nadur, Wied San Blas [372-950]; under stones; 18 Feb. 2002; P. SAMMUT leg. (1W) |
| 50-011 | MALTA • Għargħur, Wied id-Dis; Jan. 2002; C. MIFSUD leg. (1) |
| 50-012 | MALTA • Rdum il-Bies; 7 Feb. 1992; M. BRIFFA leg. (2) |

Family Pristilomatidae Cockerell, 1891

Vitrea Fitzinger, 1833

Vitrea contracta (Westerlund, 1871)

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| 44-001 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (9) |
| 44-002 | MALTA • Mtarfa [457-724]; 6 Jun. 1988; P. SAMMUT leg. (3) |
| 44-003 | MALTA • Boschetto; 25 Feb. 1992; M. BRIFFA leg. (2) |

Vitrea subrimata (Reinhardt, 1871)

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| 45-001 | MALTA • Mtarfa [456-724]; 11 Apr. 1988; P. SAMMUT leg. (15) |
| 45-002 | MALTA • Roman Baths; Oct. 1993; C. MIFSUD leg. (6) |
| 45-003 | MALTA • Żurrieq, Maqluba; Nov. 1993; C. MIFSUD leg. (8W) |
| 45-004 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (22) |
| 45-005 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (2) |
| 45-006 | MALTA • Mtarfa [457-724]; 6 Jun. 1988; P. SAMMUT leg. (2) |
| 45-007 | MALTA • near Dwejra Chapel; in leaf litter; Sep. 1993; C. MIFSUD leg. (60) |
| 45-008 | MALTA • Żurrieq, Maqluba; in leaf litter; Nov. 1993; C. MIFSUD leg. (30) |

***Vitrea* sp.**

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| 46-001 | MALTA • near Dwejra Chapel; Sep. 1993; C. MIFSUD leg. (7) |
| 46-002 | MALTA • [no further data]; P. SAMMUT leg. (1) |
| 46-003 | MALTA • Gozo [Għawdex], Nadur, Wied San Blas; in carob leaf litter; 18 Feb. 2002; C. MIFSUD leg. (10) |
| 46-004 | MALTA • Wied tal-Baħrija; in gravel; Oct. 1993; C. MIFSUD leg. (5) |
| 46-005 | MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (3) |
| 46-006 | MALTA • Naxxar. Ta' San Pietru [500-763]; 26 Jan. 2002; P. SAMMUT leg. (6) |
| 46-007 | MALTA • Gozo [Għawdex], Għajn Hosna (1) |
| 46-008 | MALTA • Gozo [Għawdex], Nadur, Wied San Blas [372-950]; in carob leaf litter; 18 Feb. 2002; P. SAMMUT leg. (16) |

Superfamily Limacoidea Batsch, 1789

Family Agriolimacidae Wagner, 1935

Subfamily Agriolimacinae Wagner, 1935

Genus *Deroceras* Rafinesque, 1820

Deroceras golcheri van Regteren Altena, 1962

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| 56-001 | MALTA • Qrendi, Maqluba; Nov. 1993; P. SAMMUT leg. (2 + PG) |
| 56-002 | MALTA • Valletta, near Phoenicia Hotel; Mar. 2003; C. MIFSUD leg. (2) |
| 56-003 | MALTA • Valletta, near Phoenicia Hotel; Mar. 2003; C. MIFSUD leg. (2) |

Deroceras panormitanum (Lessona & Pollonera, 1882)

57-001	MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (8)
57-002	MALTA • Gozo [Għawdex], Mellieħa, Mġiebaħ [444-807]; 26 Feb. 2002; P. SAMMUT leg. (2)
57-003	MALTA • Rabat, Wied ta' Liemu [443-698]; 28 Feb. 2002; P. SAMMUT leg. (2)
57-004	MALTA • Mellieħa, Għajn Ħadid; 26 Feb. 2002; P. SAMMUT leg. (9)
57-005	MALTA • Chadwick Lakes; under stones; Jan. 2002; C. MIFSUD leg. (19)
57-006	MALTA • Gozo [Għawdex], Wied il-Ħanaq, Xagħra, leading to Ramla; on side of stream; 18 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (39)
57-007	MALTA • Mellieħa, Għajn Ħadid; 27 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (8)
57-008	MALTA • Gozo [Għawdex], Wied ir-Ramla; 23 Dec. 2002; C. MIFSUD & P. SAMMUT leg. (10)
57-009	MALTA • Bingemma Fort, limits of Rabat; 2 Apr. 2003; C. MIFSUD leg. (13)
57-010	MALTA • Gozo [Għawdex], Wied il-Ħanaq, Xagħra, leading to Ramla; 12 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (8)
57-011	MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (1)
57-012	MALTA • Kuncizzjoni; under stones; Apr. 2002; C. MIFSUD leg. (12)
57-013	MALTA • Ta' Qali; 2 Dec. 2011 (6)
57-014	MALTA • Gozo [Għawdex], Wied il-Ħanaq; under stones; 4 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (11)
57-015	MALTA • Gozo [Għawdex], Wied tar-Ramla; under stone; Dec. 2010; C. MIFSUD leg. (1)

Family Limacidae Batsch, 1789

Subfamily Limacinae Batsch, 1789

Genus *Ambigolimax* Pollonera, 1887

Ambigolimax melitensis (Lessona & Pollonera, 1882)

54-001	MALTA • Siġġiewi, near Dar tal-Providenza; Oct. 1993; C. MIFSUD leg. (6)
54-002	MALTA • Gudja; Dec. 1993; P. SAMMUT leg. (2)
54-003	MALTA • Rabat; in garden; Mar. 1995; C. MIFSUD leg. (2)
54-004	MALTA • Rabat; under flower pots; 7 Oct. 2010; C. MIFSUD leg. (1)
54-005	MALTA • Siġġiewi, near Dar tal-Providenza; Oct. 1993; C. MIFSUD leg. (3PG)
54-006	MALTA • Rabat, Santa Katerina; Oct. 1993; C. MIFSUD leg. (1)
54-007	MALTA • Ta' Qali National Park; under stones by roadside; 20 Jan. 2006; C. MIFSUD leg. (5)
54-008	MALTA • Dingli, cemetery wall; May 2006; C. MIFSUD leg. (1)
54-009	MALTA • Ta' Qali; 20 Jan. 2006; C. MIFSUD leg. (1)
54-010	MALTA • Rabat, Nigret; 10 Jan. 2010; C. MIFSUD leg. (1)

Ambigolimax valentianus (Férussac, 1822)

55-001	MALTA • Santa Venera, in private garden; 21 Apr. 2024; D.P. CILIA leg. (4)
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Genus *Limacus* Lehmann, 1864

Limacus flavus (Linné, 1758)

53-001	MALTA • Rabat, Nigret; Oct. 1993; C. MIFSUD leg. (1)
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53-002	MALTA • Rabat, near Nigret; 18 Oct. 2002; R. TONNA leg. (2)
53-003	MALTA • Rabat [455-708]; 8 Mar. 2002; P. SAMMUT leg. (4)
53-004	MALTA • Rabat, on house roof; 29 Nov. 2007; C. MIFSUD leg. (2)
53-005	MALTA • Lija [500-734]; 6 Mar. 2002; P. SAMMUT leg. (2)
53-006	MALTA • Poala, near Hypogeum; 29 Feb. 2002; A. AGIUS leg. (2)
53-007	MALTA • Rabat; Nov. 1993; C. MIFSUD leg. (4)
53-008	MALTA • Luqa, near church; Mar. 2002; A. AGIUS leg. (1)
53-009	MALTA • Rabat, near St. Paul's Church; 11 Jan. 2011; C. MIFSUD leg. (1)
53-010	MALTA • Rabat, near Nigret; 16 Jun. 2002; R. TONNA leg. (1)
53-011	MALTA • Luqa; May 2002; A. AGIUS leg. (3)
53-012	MALTA • Rabat; in flower pots; Oct. 2011; C. MIFSUD leg. (4)
53-013	MALTA • Rabat; Oct. 1993; C. MIFSUD leg. (PG + DS)
53-014	MALTA • Rabat; Oct. 1993; C. MIFSUD leg. (PG + R + DS)
53-015	MALTA • Rabat; in garden under flower pots; 13 Oct. 2010; C. MIFSUD leg. (2)
53-016	MALTA • Birżebbuġa Bay, playground; 25 Jan. 2008; C. MIFSUD leg. (1)
53-017	MALTA • Rabat; C. MIFSUD leg. (PG + DS)

Infraorder Pupilloidei Turton, 1831

Superfamily Chondrinoidea Steenberg, 1925

Family Chondrinidae Steenberg, 1925

Subfamily Chondrininae Steenberg, 1925

Genus *Rupestrella* Monterosato, 1894

Rupestrella philippii (Cantraine, 1841)

32-001	MALTA • Gozo [Għawdex], Munxar; in leaf litter; 12 Feb. 2002 (7)
32-002	MALTA • Għargħur, Wied id-Dis; 18 Jan. 2002; P. SAMMUT leg. (18)
32-003	MALTA • [no further data] (43) [<i>Granopupa philippii</i>]
32-004	MALTA • Gozo [Għawdex], Munxar; under stones; 12 Feb. 2002; C. MIFSUD leg. (7)
32-005	MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu; on rock faces; 12 Feb. 2002; P. SAMMUT leg. (4)
32-006	MALTA • Għargħur, Wied id-Dis; on rock faces. 1 Jan. 2002; C. MIFSUD leg. (96)
32-007	MALTA • Ġebel San Pietru; on rock faces; 27 Jan. 2002; C. MIFSUD leg. (31W)
32-008	MALTA • Għargħur, Wied id-Dis; 18 Jan. 2002; P. SAMMUT leg. (52W + 55D)
32-009	MALTA • Naxxar, Ġebel San Pietru [500-763]; 26 Jan. 2002; P. SAMMUT leg. (>50W + 4D)
32-010	MALTA • Naxxar, Ġebel San Pietru; 30 Feb. 2002; P. SAMMUT leg. (19)
32-011	MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-880]; 12 Feb. 2002; P. SAMMUT leg. (10W)
32-012	MALTA • Naxxar, Ġebel San Pietru; 8 Feb. 2002; P. SAMMUT leg. (88)
32-013	MALTA • Naxxar, Ġebel San Pietru; 25 Nov. 2002; P. SAMMUT leg. (47)
32-014	MALTA • Għargħur, Wied id-Dis; 20 Feb. 2002; P. SAMMUT leg. (114)

Subfamily Granariinae Kokshoorn & Gittenberger, 2010

Genus *Granopupa* Boettger, 1889

Granopupa granum (Draparnaud, 1801)

31-001	MALTA • Binġemma chapel; in leaf litter; Oct. 1992; C. MIFSUD leg. (8)
31-002	MALTA • Road to Qammieħ; 10 Sep. 1988; P. SAMMUT leg. (6)

- 31-003 MALTA • [no further data] (7) [*Granopupa granum* Drap.?', juvenile, possibly ex coll. Valletta Museum]
- 31-004 MALTA • Gharghur, Wied id-Dis; in leaf litter; Jan. 2002; C. MIFSUD leg. (>50)
- 31-005 MALTA • [no further data] (37) [possibly ex coll. Valletta Museum]
- 31-006 MALTA • Bahrija, Xaghra tal-Bahrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (45)
- 31-007 MALTA • Mosta, Targa Gap [473-570]; in carob tree leaf litter; 15 Feb. 2002; M. Thake leg. (12)
- 31-008 MALTA • Buskett (2)
- 31-009 MALTA • Gozo [Ghawdex], Xaghra, from Ramla to Nadur [367-897]; in leaf litter; 18 Feb. 2002; P. SAMMUT leg. (40)
- 31-010 MALTA • Gozo [Ghawdex], Xaghra, from Ramla to Nadur [367-897]; in leaf litter; 18 Feb. 2002; P. SAMMUT leg. (4)
- 31-011 MALTA • Rabat, Tas-Salib; 16 Mar. 1988; P. SAMMUT leg. (44)
- 31-012 MALTA • Naxxar, Ta' San Pietru [500-763]; 26 Jan. 2002; P. SAMMUT leg. (4)
- 31-013 MALTA • Gharghur, Wied id-Dis [511-765]; 18 Jan. 2002; P. SAMMUT leg. (34)
- 31-014 MALTA • Imtahleb, Miġra Ferħa; 22 Oct. 1988; P. SAMMUT leg. (4)
- 31-015 MALTA • St Paul's Bay, Ta' Fra Ben; 16 Sep. 1988; P. SAMMUT leg. (1)
- 31-016 MALTA • Gozo [Ghawdex], Mgarr ix-Xini; in detritus from -15 m; Aug. 1996; T. SAMMUT leg. (1)
- 31-017 MALTA • Chadwick Lakes; Oct. 1993; C. MIFSUD leg. (2)
- 31-018 MALTA • Wied tal-Bahrija; in gravel; Oct. 1993; C. MIFSUD leg. (6)
- 31-019 MALTA • Fomm ir-Riħ, Ras ir-Raheb; 16 Oct. 1988; P. SAMMUT leg. (1)
- 31-020 MALTA • [no further data] (86) [*Granopupa granum* Drap.', ex coll. Valletta Museum]
- 31-021 MALTA • Mellieħa, Ghajn Hadid [468-807]; 20 Feb. 2002; P. SAMMUT leg. (7)
- 31-022 MALTA • Mellieħa, Ghajn Hadid [468-807]; 20 Feb. 2002; SAMMUT leg. (16)
- 31-023 MALTA • Ta' Vnezja; 1936 (10) [ex coll. G. DESPOTT]
- 31-024 MALTA • Gozo [Ghawdex], Nadur, Wied San Blas [372-950]; in rubble wall gravel; 18 Feb. 2002; P. SAMMUT leg. (13)
- 31-025 MALTA • Ta' Vnezja (3) [ex coll. G. DESPOTT]
- 31-026 MALTA • Bajjada, from a tomb at C[asal] Curmi; Nov. 1936 (16) [ex coll. G. DESPOTT]
- 31-027 MALTA • Miġra Ferħa; 25 Nov. 2011 (4)
- 31-028 MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (10)
- 31-029 MALTA • Dingli Cliffs; Nov. 2003; C. MIFSUD leg. (1)
- 31-030 MALTA • Mtaħleb, Miġra Ferħa [407-704]; 1 Mar. 2002; P. SAMMUT leg. (24)
- 31-031 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (1)
- 31-032 MALTA • Gharghur, Wied id-Dis; in *Erica* leaf litter; 18 Jan. 2002; P. SAMMUT leg. (7)
- 31-033 MALTA • Gozo [Ghawdex], road from Ramla to Nadur; in *Thymbra* leaf litter; 18 Feb. 2002; C. MIFSUD (81)
- 31-034 MALTA • [no further data]; P. SAMMUT leg. (4)
- 31-035 MALTA • Mgarr, near Roman Baths; Oct. 1993; C. MIFSUD (11)
- 31-036 MALTA • Żebbiegħ, near St Martin's Chapel [438-769]; 26 Mar. 2002; P. SAMMUT (14)
- 31-037 MALTA • Luqa, near airport; Sep. 1993; C. MIFSUD leg. (3)
- 31-038 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (15)
- 31-039 MALTA • Bahrija, Xaghra tal-Bahrija; in *Erica* leaf litter; 15 Jan. 2002; J.J. BORG & P. SAMMUT leg. (25)
- 31-040 MALTA • Rabat, Tal-Virtù [460-699]; 3 Mar. 2002; P. SAMMUT leg. (14)
- 31-041 MALTA • Għallies; 3 Feb. 1992; M. BRIFFA leg. (5)

Genus *Truncatellina* Lowe, 1852

Truncatellina callicratis (Scacchi, 1833)

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| 33-001 | MALTA • Rabat, Lunzjata; 18 Jan. 2002; P. SAMMUT leg. (6) |
| 33-002 | MALTA • Gozo [Għawdex], Nadur, San Blas; in leaf litter; 18 Feb. 2002; C. MIFSUD leg. (13) |
| 33-003 | MALTA • Rabat, Lunzjata; 22 Jan. 2002; P. SAMMUT leg. (9) |
| 33-004 | MALTA • Gozo [Għawdex], Nadur, San Blas [372-950]; in leaf litter; 18 Feb. 2002; P. SAMMUT leg. (15) |
| 33-005 | MALTA • Naxxar, Ta' San Pietru [500-763]; 26 Jan. 2002; P. SAMMUT leg. (6W + 19D) |
| 33-006 | MALTA • Gozo [Għawdex], Munxar; in leaf litter; Feb. 2002; C. MIFSUD leg. (5) |
| 33-007 | MALTA • Gharghur, Wied id-Dis; in leaf litter; Jan. 2002; C. MIFSUD leg. (25W + 18D) |
| 33-008 | MALTA • Rabat, Lunzjata [447-706]; 22 Jan. 2002; P. SAMMUT leg. (21) |
| 33-009 | MALTA • Gozo [Għawdex], Nadur, San Blas; in leaf litter [372-950]; 18 Feb. 2002; P. SAMMUT leg. (3) |
| 33-010 | MALTA • Dingli Cliffs; Sep. 1993; C. MIFSUD leg. (1) |
| 33-011 | MALTA • Rabat, Lunzjata [447-706]; 15 Jan. 2002; P. SAMMUT leg. (14) |
| 33-012 | MALTA • Gharghur, Wied id-Dis; 18 Jan. 2002; P. SAMMUT leg. (15) |

Superfamily Pupilloidea Turton, 1831

Family Enidae Woodward, 1903 (1880)

Subfamily Eninae Woodward, 1903 (1880)

Tribe Chondrulini Wenz, 1923

Genus *Mastus* Beck, 1837

Mastus pupa (Linné, 1758)

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| 34-001 | MALTA • Gozo [Għawdex], Għasri (4) |
| 34-002 | MALTA • Bahrija, Xaghra tal-Bahrija; 15 Jan. 2002; P. SAMMUT & J.J. BORG leg. (9) |
| 34-003 | MALTA • Bengħajsa (6) [ex coll. Valletta Museum] |
| 34-004 | MALTA • Mtaħleb (6) [possibly ex coll. A. CARUANA-GATTO] |
| 34-005 | MALTA • Gozo [Għawdex], Munxar; 6 Jan. 1990 (8) |
| 34-006 | MALTA • Qawra, Ta' Fra Ben [483-797]; 16 Sep. 1988; P. SAMMUT leg. (27) |
| 34-007 | MALTA • Filfla; 19 May 2002; J.J. BORG leg. (2) |
| 34-008 | MALTA • Gharghur, Wied id-Dis [511-766]; 18 Jan. 2002; P. SAMMUT leg. (7) |
| 34-009 | MALTA • Gozo [Għawdex], Munxar; 6 Jan. 1981; P. SAMMUT leg. (2W) |
| 34-010 | MALTA • Bahrija, Xaghra tal-Bahrija [405-726]; 15 Jan. 2002; P. SAMMUT leg. (20) |
| 34-011 | MALTA • Mtaħleb, Miġra Ferħa [410-712]; 22 Oct. 1988; P. SAMMUT leg. (2) |
| 34-012 | MALTA • Siġġiewi, Għar Lapsi [484-653]; 12 Jan. 2002; P. SAMMUT leg. (1) |
| 34-013 | MALTA • Mtaħleb, Miġra Ferħa [406-705]; 8 Feb. 1988; P. SAMMUT leg. (6) |
| 34-014 | MALTA • Anchor Bay; 14 Feb. 1988; P. SAMMUT leg. (17) |
| 34-015 | MALTA • Mellieħa, Qasam Barrani [418-797]; 14 Feb. 1988; P. SAMMUT leg. (14) |
| 34-016 | MALTA • Qawra Point; 14 Feb. 1988; P. SAMMUT leg. (11) |
| 34-017 | MALTA • Fomm ir-Riħ, Ras ir-Raħeb; 16 Oct. 1988; P. SAMMUT leg. (19) |
| 34-018 | MALTA • Mellieħa, Ċirkewwa [399-829]; 2 Feb. 2002; P. SAMMUT leg. (11) |
| 34-019 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (9) |
| 34-020 | MALTA • Gozo [Għawdex], Xaghra, Wied il-Ħanaq [354-899]; 12 Feb. 2002; P. SAMMUT leg. (3W) |

- 34-021 MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (7)
- 34-022 MALTA • Mtaħleb, road to Miġra Ferħa; [423-710]; 1 Mar. 2002; P. SAMMUT leg. (4)
- 34-023 MALTA • Buskett, Xagħra tal-Laroka [458-683]; 8 Feb. 2000; P. SAMMUT leg. (11)
- 34-024 MALTA • Filfla; 19 May 2002; J.J. BORG leg. (27)
- 34-025 MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (17)
- 34-026 MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (15)
- 34-027 MALTA • Għargħur, Wied id-Dis; Jan. 2002; C. MIFSUD leg. (6)
- 34-028 MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (1)
- 34-029 MALTA • Mġarr, Roman Baths; Oct. 1993; C. MIFSUD leg. (6)
- 34-030 MALTA • Buskett, Wied tal-Buskett; Oct. 1993; C. MIFSUD leg. (1)
- 34-031 MALTA • Gozo [Għawdex], Marsalforn, Qolla is-Safra; 12 Feb. 2002; C. MIFSUD leg. (4)
- 34-032 MALTA • Gozo [Għawdex], Xewkija, Ta' Ċenċ [334-860]; 5 Mar. 2002; P. SAMMUT leg. (1)
- 34-033 MALTA • Gozo [Għawdex], Nadur, San Blas [372-950]; in rubble wall; 18 Feb. 2002; P. SAMMUT leg. (1)
- 34-034 MALTA • Mellieħa, Għajn Hadid [448-807]; 26 Feb. 2002; P. SAMMUT leg. (6)
- 34-035 MALTA • Gozo [Għawdex], Marsalforn, Qbajjar [320-993]; 12 Feb. 2002; P. SAMMUT leg. (11)
- 34-036 MALTA • Gozo [Għawdex], Munxar; under stones; 12 Feb. 2002; P. MIFSUD leg. (15)
- 34-037 MALTA • Wied tal-Buskett; Dec. 1993; P. SAMMUT leg. (1W)
- 34-038 MALTA • [no further data]; P. SAMMUT leg. (3)
- 34-039 MALTA • Mtaħlep (9) [ex coll. Valletta Museum]
- 34-040 MALTA • Gozo [Għawdex], Dwejra, Qattara; 5 Mar. 2002; C. MIFSUD & P. SAMMUT leg. (1W)
- 34-041 MALTA • Filfla (20) [ex coll. Valletta Museum]
- 34-042 MALTA • Gozo [Għawdex], Xagħra, Wied il-Ħanaq; 18 Feb. 2002; C. MIFSUD leg. (4W)
- 34-043 MALTA • [no further data] (7) ['*Bulimus tuberculatus*', ex coll. Valletta Museum]
- 34-044 MALTA • [no further data] (31) [ex coll. Valletta Museum]
- 34-045 MALTA • [no further data] (31) [ex coll. Valletta Museum]
- 34-046 MALTA • [no further data] (26) [ex coll. Valletta Museum]

Family Lauriidae Steenberg, 1925

Genus *Lauria* Gray, 1840

Lauria cylindracea (Da Costa, 1778)

- 28-001 MALTA • San Martin; watercourse; 10 Sep. 1988; P. SAMMUT leg. (1)
- 28-002 MALTA • Buskett; in leaf litter; Sep. 2002; P. SAMMUT leg. (106)
- 28-003 MALTA • Gozo [Għawdex], Wied tax-Xlendi, below Munxar; 12 Feb. 2002; C. MIFSUD leg. (2)
- 28-004 MALTA • Buskett, Wied il-Luq; 28 Apr. 1989; C. MIFSUD leg. (2)
- 28-005 MALTA • Mġiebaħ; 5 Mar. 1992; M. BRIFFA leg. (38)
- 28-006 MALTA • Boschetto; 25 Feb. 1992; M. BRIFFA leg. (14)

Family Pleurodiscidae Wenz, 1923

Genus *Pleurodiscus* Wenz, 1919

Pleurodiscus balmei (Potiez & Michaud, 1838)

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|--------|---|
| 30-001 | MALTA • Mosta, Tarġa Gap; in leaf litter; 19 Jan. 2002; C. MIFSUD leg. (3) |
| 30-002 | MALTA • Lunzjata [447-706]; 27 Jan. 2002; P. SAMMUT leg. (2) |
| 30-003 | MALTA • Gozo [Għawdex], Xagħra, Għajn Hosna; in spring sediment; 18 Feb. 2002; C. MIFSUD leg. (1) |
| 30-004 | MALTA • Mistra, Tal-Blata [453-805]; 26 Feb. 2002; P. SAMMUT leg. (1) |
| 30-005 | MALTA • Dingli, Rdum Madliena [458-675]; 26 Jan. 2002; P. SAMMUT leg. (1) |
| 30-006 | MALTA • San Anton Gardens; 30 Jan. 1985; P. SAMMUT leg. (9) |
| 30-007 | MALTA • Mġarr, Ta' Falka [462-743]; 26 Mar. 2002; P. SAMMUT leg. (2) |
| 30-008 | MALTA • [no further data] (5) [' <i>Flavida</i> Zeigler', possibly ex coll. G. MAMO] (5) |
| 30-009 | MALTA • Balzan, San Anton Gardens (2) |
| 30-010 | MALTA • Gozo [Għawdex], Xlendi, Tar-Riefnu [294-880]; 12 Feb. 2002; P. SAMMUT leg. (1) |
| 30-011 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (12) |
| 30-012 | MALTA • Gozo [Għawdex], Munxar [305-881]; 12 Feb. 2002; P. SAMMUT leg. (1) |
| 30-013 | MALTA • Gozo [Għawdex], Xagħra, Wied il-Hanaq [354-889]; 12 Feb. 2002; P. SAMMUT leg. (1) |
| 30-014 | MALTA • Wied tal-Buskett; Oct. 1993; C. MIFSUD leg. (2) |
| 30-015 | MALTA • Żurrieq, Maqluba; Sep. 1993; C. MIFSUD leg. (25) |
| 30-016 | MALTA • Mġarr, Roman Baths; Oct. 1993; C. MIFSUD leg. (2) |
| 30-017 | MALTA • Salina, near hotel; Oct. 1993; C. MIFSUD leg. (2) |
| 30-018 | MALTA • Mtarfa [457-724]; 6 Jun. 1988; P. SAMMUT leg. (1) |
| 30-019 | MALTA • Gozo [Għawdex], Wied ix-Xagħra; 23 Dec. 2002; C. MIFSUD & P. SAMMUT leg. (3W) |
| 30-020 | MALTA • Rabat [455-705]; 24 Oct. 1988; P. SAMMUT leg. (2W) |
| 30-021 | Malta, Wied tal-Buskett; Oct. 1993; C. MIFSUD leg. (12W) |
| 30-022 | MALTA • Rabat, Chadwick Lakes [457-730]; 20 Jan. 2002; P. SAMMUT leg. (2W) |
| 30-023 | MALTA • Attard, San Anton Gardens; 17 Feb. 2002; C. MIFSUD & P. SAMMUT leg. (2) |
| 30-024 | MALTA • Miġra Ferħa; 25 Nov. 2011 (20) |
| 30-025 | MALTA • Mtaħleb, Miġra Ferħa [410-712]; 22 Oct. 1988; P. SAMMUT leg. (5) |
| 30-026 | MALTA • [no further data] (92) [ex coll. Valletta Museum] |
| 30-027 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. [20] |
| 30-028 | MALTA • Għajn il-Kbira; 6 Feb. 1992; M. BRIFFA leg. (2) |
| 30-029 | MALTA • Ġnien Ingraw; 12 Feb. 1992; M. BRIFFA leg. (12) |

Family Valloniidae Morse, 1864

Genus *Vallonia* Risso, 1826

Vallonia pulchella (Müller, 1774)

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|--------|--|
| 29-001 | MALTA • off Fomm ir-Riħ; dredged from -100 m; Aug. 1995; C. MIFSUD leg. (2) |
| 29-002 | MALTA • Mqabba, private farmhouse garden; 18 Jun. 2020; S. CARDONA leg. (27) |

Infraorder Succineoidei Beck, 1837

Superfamily Succineoidea Beck, 1837

Family Succineidae Beck, 1837

Subfamily Oxylomatinae Schileyko & Likharev, 1986

Genus *Oxyloma* Westerlund, 1885

Oxyloma elegans (Risso, 1826)

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|--------|---|
| 60-001 | MALTA • Qormi, Zammit Nurseries; in pots; 12 Oct. 2010; C. MIFSUD & P. SAMMUT leg. (2W) |
| 60-002 | MALTA • Qormi, Zammit Nurseries; in pots; 12 Oct. 2010; C. MIFSUD & P. SAMMUT leg. (9) |
| 60-003 | MALTA • Qormi, Zammit Nurseries; in pots; 17 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (2) |
| 60-004 | MALTA • Wied tal-Baħrija (1) [fossil, ex coll. Valletta Museum] |

Genus *Succinea* Draparnaud, 1801

Succinea putris (Linné, 1758)

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|--------|--|
| 61-001 | MALTA • Raħal Ġdid; in pots; 3 Dec. 2010; S. BUSUTTIL leg. (5) |
| 61-002 | MALTA • Qormi, Zammit Nurseries; in pond; 3 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (1) |
| 61-003 | MALTA • Qormi, Zammit Nurseries; in pond; 12 Oct. 2010; C. MIFSUD & P. SAMMUT leg. (22W) |
| 61-004 | MALTA • Qormi, Zammit Nurseries; in pots; 17 Feb. 2003; C. CACHIA leg. (2) |
| 61-005 | MALTA • Qormi, Zammit Nurseries; in pots; 28 Sep. 2010; C. MIFSUD & P. SAMMUT leg. (8W) |
| 61-006 | MALTA • Qormi, Zammit Nurseries; in pots; 17 Feb. 2003; C. MIFSUD & P. SAMMUT leg. (28W) |
| 61-007 | MALTA • Qormi, Zammit Nurseries; in pond; 12 Oct. 2010; C. MIFSUD & P. SAMMUT leg. (15) |

Superorder Hygrophila Férussac, 1822

Superfamily Lymnaeioidea Rafinesque, 1815

Family Bulinidae Fischer & Crosse, 1880

Genus *Bulinus* Müller, 1781

Bulinus truncatus (Audouin, 1827)

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|--------|--|
| 87-001 | MALTA • Baħrija (Quaternary deposit); Mar. 1997; C. MIFSUD leg. (2) [fossil] |
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Family Lymnaeidae Rafinesque, 1815

Subfamily Lymnaeinae Rafinesque, 1815

Genus *Galba* Schrank, 1803

Galba truncatula (Müller, 1774)

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|--------|---|
| 11-001 | MALTA • Rabat, Chadwick Lakes [457-730]; 26 Jan. 2002; P. SAMMUT leg (7) |
| 11-002 | MALTA • Wied tal-Baħrija; in gravel; Dec. 1995; C. MIFSUD leg. (2) |
| 11-003 | MALTA • Fiddien; 24 Dec. [18]89 (6) [<i>Lymnaea</i> del Fiddien', ex coll. A. CARUANA-GATTO] |
| 11-004 | MALTA • [no further data] (7) |
| 11-005 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (10W) |
| 11-006 | MALTA • Wied tal-Baħrija; 1 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (1) |
| 11-007 | MALTA • Wied tal-Baħrija; 18 Feb. 1988; P. SAMMUT leg. (7) |
| 11-008 | MALTA • [?] Ghajn Rihana (68) [original label partly undecipherable] |
| 11-009 | MALTA • Gozo [Għawdex], Dwejra, Qattara; 5 Mar. 2002; C. MIFSUD & P. SAMMUT leg. (1) |

- 11-010 MALTA • Wied tal-Bahrija; in gravel; Oct. 1993; C. MIFSUD leg. (17)
 11-011 MALTA • Rabat, Wied ta' Liemu [443-698]; 28 Feb. 2002; P. SAMMUT leg. (15W)
 11-012 MALTA • Mgarr, San Martin (3)
 11-013 MALTA • Buskett, Wied il-Luq; Oct. 1993; C. MIFSUD leg. (3)
 11-014 MALTA • [no further data] (16)
 11-015 MALTA • Siggiewi, Wied tal-Buskett; Mar. 2002 (15W + 3D)
 11-016 MALTA • Chadwick Lakes, on dam steps; 24 Apr. 2002; C. MIFSUD leg (1).
 11-017 MALTA • [no further data] (5)
 11-018 MALTA • Siggiewi, end of Wied il-Luq [471-684]; 2 Mar. 2002; P. SAMMUT leg. (23)
 11-019 MALTA • Ghajn il-Kbira (30) [*Limnaea melitensis*], ex coll. A. CARUANA-GATTO]
 11-020 MALTA • Qormi, Zammit Nursery; on moss; 12 Oct. 2010; C. MIFSUD & P. SAMMUT leg. (2)
 11-021 MALTA • Ras ir-Raheb; -100 m; Jul. 1994; C. MIFSUD leg. (1)
 11-022 MALTA • limits of C[asal] Curmi, from a tomb at Bajjada; Nov. 1936 (10) [*Limnaea Truncatula* Mull., Ta' Vnezja, Malta', ex coll. G. DESPOTT]
 11-023 MALTA • Gozo [Ghawdex], Dwejra, Qattara [275-894]; 22 Feb. 2002; J.J. BORG leg. (3W)
 11-024 MALTA • [no further data] (>100) [ex coll. G. DESPOTT, material for exchange]
 11-025 MALTA • [no further data] (>50) [ex coll. G. DESPOTT, material for exchange]
 11-026 MALTA • [no further data] (>100) [ex coll. G. DESPOTT, material for exchange]
 11-027 MALTA • [no further data] (32)
 11-028 MALTA • Qormi, Zammit Nursery; 12 Oct. 2000; P. SAMMUT leg. (45W)

Family Physidae Fitzinger, 1833

Genus *Physella* Haldeman, 1843

Physella acuta (Draparnaud, 1805)

- 12-001 MALTA • Msida, Ghajn tal-Hasselin; 17 Apr. 2002; C. MIFSUD leg. (17)
 12-002 MALTA • Gozo [Ghawdex], Wied tal-Lunzjata [307-882]; 24 Feb. 2002; J.J. BORG leg. (10W)
 12-003 MALTA • Buskett, Wied il-Luq; 2 Mar. 2002; C. MIFSUD leg. (15W)
 12-004 MALTA • Gozo [Ghawdex], Dwejra, Qattara [275-894]; 24 Feb. 2002; J.J. BORG leg. (1)
 12-005 MALTA • Ġnien il-Kbir (3) [ex coll. A. CARUANA-GATTO]
 12-006 MALTA • Gozo [Ghawdex], Dwejra, Qattara; 5 Mar. 2002; C. MIFSUD & P. SAMMUT leg. (2)
 12-007 MALTA • Qormi, Zammit Nurseries; 12 Oct. 2010; C. MIFSUD & P. SAMMUT leg. (11)
 12-008 MALTA • Chadwick Lakes [452-726]; 19 Jan. 2002; P. SAMMUT leg. (31)
 12-009 MALTA • Chadwick Lakes; Jan. 2002; C. MIFSUD leg. (>50)
 12-010 MALTA • Gozo [Ghawdex], Xlendi Valley; 12 Feb. 2002; C. MIFSUD leg. (10W + 10D)
 12-011 MALTA • Mtarfa, water reservoir; Sep. 1992; P. SAMMUT leg. (1W)
 12-012 MALTA • [no further data] (2) [*Physa melitensis* Benoit *acuta* di [?] Malta!', ex coll. T.M.A. DI MONTEROSATO]
 12-013 MALTA • Rabat, Wied Liemu [443-698]; 28 Feb. 2002; P. SAMMUT leg. (15W)
 12-014 MALTA • Bahrija, Wied tal-Bahrija; 15 Jan. 2002; P. SAMMUT leg. (1)
 12-015 MALTA • Rabat, Chadwick Lakes [457-730]; 26 Jan. 2002; P. SAMMUT leg. (29)
 12-016 MALTA • Siggiewi, Wied il-Luq [471-684]; 2 Mar. 2002; P. SAMMUT leg. (19)
 12-017 MALTA • Gozo [Ghawdex], Munxar [308-882]; 12 Feb. 2002; P. SAMMUT leg. (4)
 12-018 MALTA • Wied tal-Bahrija; in gravel; Oct. 1993; C. MIFSUD leg. (2)

- 12-019 | MALTA • Ras ir-Raheb; -100 m; Aug. 1993; C. MIFSUD leg. (1)
 12-020 | MALTA • Gozo [Għawdex], Dwejra [275-902]; 5 Mar. 2002; P. SAMMUT leg. (4W + 2D)
 12-021 | MALTA • Gozo [Għawdex], Munxar [308-882]; 12 Feb. 2002; P. SAMMUT leg. (15)
 12-022 | MALTA • Chadwick Lakes; Dec. 1993; P. SAMMUT leg. (2)
 12-023 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (2W)
 12-024 | MALTA • Attard, Wied Inċita; Nov. 2019; S. CARDONA leg. (20)

Family Planorbidae Rafinesque, 1815

Subfamily Ancylinae Rafinesque, 1815

Tribe Ancylini Rafinesque, 1815

Genus *Ancylus* Müller, 1773

Ancylus fluviatilis Müller, 1774

- 17-001 | MALTA • Chadwick Lakes; on stones (13)
 17-002 | MALTA • Chadwick Lakes; 17 Sep. 1987; C. MIFSUD leg. (19)
 17-003 | MALTA • Chadwick Lakes [457-730]; 26 Jan. 2002; P. SAMMUT leg. (10W)
 17-004 | MALTA • Gozo [Għawdex], Wied ix-Xlendi; 12 Feb. 2002; C. MIFSUD leg. (4)
 17-005 | MALTA • Bahrija Valley; P. SAMMUT leg. (1)
 17-006 | MALTA • Gozo [Għawdex], Munxar, Wied tax-Xlendi [308-882]; 12 Feb. 2002; P. SAMMUT leg. (3)
 17-007 | MALTA • Buskett, Wied il-Luq [459-686]; 9 Feb. 2002; P. SAMMUT leg. (7)
 17-008 | MALTA • Gozo [Għawdex], Wied il-Lunzjata; 9 Oct. 2020; C. MIFSUD & S. CARDONA leg. (10)
 17-009 | MALTA • [no further data] (2)
 17-010 | MALTA • Gozo [Għawdex], Dwejra, Qattara [275-902]; 5 Mar. 2002; P. SAMMUT leg. (1)
 17-011 | MALTA • Gozo [Għawdex], Ta' Sarraflu; 4 Apr. 2002; P. SAMMUT leg. (24) [subfossil]
 17-012 | MALTA • Wied tal-Bahrija; 1 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (7W)
 17-013 | MALTA • Chadwick Lakes; under stones in water; 24 Jan. 2002; C. MIFSUD leg. (3)
 17-014 | MALTA • Gozo [Għawdex], Fontana; Jan. 2022; C. MIFSUD leg. (5W)

Genus *Ferrissia* Walker, 1903

Ferrissia californica (Rowell, 1863)

- 18-001 | MALTA • Blata l-Bajda; 30 May 2009; D.P. CILIA & C. SAMMUT (2)
 18-002 | MALTA • Blata l-Bajda, St. Ignatius College; in pond; 28 Mar. 2009; D.P. CILIA & C. SAMMUT (4W)

Subfamily Planorbinae Rafinesque, 1815

Tribe Coretini Gray, 1847

Genus *Planorbarius* Duméril, 1805

Planorbarius corneus (Linné, 1758)

- 15-001 | MALTA • Qormi, Zammit Nurseries; Feb. 2003; C. MIFSUD & P. SAMMUT leg. (18)
 15-002 | MALTA • Qormi, Zammit Nurseries; Feb. 2003; C. CACHIA leg. (6)

Tribe Helisomatini Baker, 1928
Genus *Planorbella* Haldeman, 1843

Planorbella duryi (Wetherby, 1879)

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|--------|---|
| 16-001 | MALTA • San Anton Gardens; Aug. 1987; C. SAMMUT leg. (8) |
| 16-002 | MALTA • Żebbuġ; pond in private garden; 16 Sep. 1989 (18) |
| 16-003 | MALTA • Żebbuġ [497-700]; pond in private garden; 21 Nov. 1995; T. CORTIS leg. (14) |
| 16-004 | MALTA • San Anton Gardens; Aug. 1987; C. SAMMUT leg. (7W) |
| 16-005 | MALTA • Żebbuġ; pond in private garden; 1995 (3) |
| 16-006 | MALTA • [no further data] (>50) [ex coll. Valletta Museum] |
| 16-007 | MALTA • Żebbuġ [497-700]; pond in private garden; 21 Nov. 1995; T. CORTIS leg. (17) |
| 16-008 | MALTA • Mtarfa, water reservoir; 9 Sep. 1993; P. SAMMUT leg. (14) |
| 16-009 | MALTA • Żebbuġ [497-700]; pond in private garden; 21 Nov. 1995; T. CORTIS leg. (5) |
| 16-010 | MALTA • Mosta, Flower Power garden centre; Apr. 2004; C. MIFSUD leg. (2) |
| 16-011 | MALTA • [no further data] (33) [ex coll. Valletta Museum] |
| 16-012 | MALTA • Balzan, San Anton Gardens [504-728]; 8 Jun. 1996; C. SAMMUT leg. (2) |
| 16-013 | MALTA • Mtarfa, water reservoir; Oct. 1993; C. SAMMUT leg. (10GP) |
| 16-014 | MALTA • [no further data] (50) [ex coll. Valletta Museum] |
| 16-015 | MALTA • Attard, Wied Inċita; Nov. 2019; S. CARDONA leg. (10) [subfossil] |

Tribe Planorbini Rafinesque, 1815
Genus *Planorbis* Müller, 1773

Planorbis moquini Requier, 1848

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|--------|--|
| 13-001 | MALTA • Wied tal-Baħrija; 27 Jul. 1988; P. SAMMUT leg. (7W) |
| 13-002 | MALTA • Wied tal-Baħrija; 27 Jul. 1988; P. SAMMUT leg. (7) |
| 13-003 | MALTA • Gozo [Għawdex], Munxar, Wied tax-Xlendi [308-882]; 12 Feb. 2002; P. SAMMUT leg. (2) |
| 13-004 | MALTA • Baħrija, Ras ir-Raħeb; -100 m; Jul. 1994; C. MIFSUD leg. (2) |
| 13-005 | MALTA • Wied tal-Baħrija; Nov. 1993; P. SAMMUT leg. (2) |
| 13-006 | MALTA • Gozo [Għawdex], Wied ix-Xlendi; in mud from stream; 12 Feb. 2002; C. MIFSUD leg. (2) |
| 13-007 | MALTA • Wied tal-Baħrija; 21 Feb. 1988; P. SAMMUT leg. (1) |

Planorbis planorbis (Linné, 1758)

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|--------|---|
| 14-001 | MALTA • Ta' Vnezja (>500) [subfossil] |
| 14-002 | MALTA • Ta' Vnezja (>100) [subfossil] |
| 14-003 | MALTA • Ta' Vnezja (5) [subfossil] |
| 14-004 | MALTA • Gozo [Għawdex], Ta' Sarraflu; fragments in mud; 12 Feb. 2002; P. SAMMUT leg. (1) |
| 14-005 | MALTA • limits of C[asal] Curmi, tomb at Bajjada; Nov. 1926 (>100) [possibly ex coll. G. DESPOTT] |
| 14-006 | MALTA • Gozo [Għawdex], Ta' Sarraflu; from mud wall; 4 Apr. 2002; C. MIFSUD & P. SAMMUT leg. (50) [subfossil] |

Class Bivalvia
Subclass Autobranchia Grobben, 1894

Order Sphaeriida Lemer, Bieler & Giribet, 2019
 Superfamily Sphaerioidea Deshayes, 1855 (1820)
 Family Sphaeriidae Deshayes, 1855 (1820)
 Genus *Euglesa* Jenyns, 1832

Euglesa casertana (Poli, 1791)

84-001	MALTA • Gozo [Għawdex], Wied ix-Xlendi, below Munxar; 12 Feb. 2002; C. MIFSUD leg. (>30)
84-002	MALTA • Gozo [Għawdex], Wied Xlendi; Sep. 2003; C. MIFSUD leg. (>15)
84-003	MALTA • Gozo [Għawdex], Munxar, Wied Xlendi [308-882]; 12 Feb. 2002; P. SAMMUT leg. (>20)
84-004	MALTA • Gozo [Għawdex], Xlendi Valley; Mar. 2020; S. CARDONA leg. (>20)
84-005	MALTA • Gozo [Għawdex], Xlendi; Sep. 1993; C. MIFSUD & P. SAMMUT leg. (4)
84-006	MALTA • Gozo [Għawdex], Munxar, Wied Xlendi [308-882]; 12 Feb. 2002; P. SAMMUT leg. (3)

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AUTHORS' GUIDELINES

The *BNMNHM* publishes two main types of **original** work: *research papers* and *short notes*.

- **Research papers** normally exceed 5 printed pages (including references and illustrations) and should be organized according to the following order (parentheses indicate that the section is not obligatory): TITLE, AUTHOR/S, ABSTRACT, KEYWORDS, INTRODUCTION, MATERIALS & METHODS, (*ABBREVIATIONS*), RESULTS, (SYSTEMATICS), DISCUSSION, (CONCLUSION), ACKNOWLEDGEMENTS, REFERENCES, (FIGURE CAPTIONS), (TABLE CAPTIONS).
- **Short notes**, normally occupying between 3 and 5 printed pages (including references and illustrations), should ideally adhere to the same format, except for the ABSTRACT.
- Exceptions to this formatting are only admissible for very short manuscripts (1 or 2 pages). These should be discussed with the editorial board before submission.
- Manuscripts should be prepared in British English.
- The TITLE should be concise and indicate the higher taxa (in parentheses and separated by a colon) of organisms discussed within. Example: *A note on cave spiders (Arachnida: Araneae) in Malta*.
- AUTHOR/S should be listed in full, together with affiliation, physical address, and email address. In the case of more than one AUTHOR, one correspondent should be indicated with an asterisk, and their physical address and email address should be provided.
- The ABSTRACT should be a concise summarized version of the manuscript, including the results and conclusions achieved. It will appear in English AND Maltese (SINTEZI). If the author/s is/are unable to provide the latter, the editorial team will offer a translation service. Citations within the ABSTRACT should ideally be avoided.
- Up to six KEYWORDS may be chosen. These will appear in English AND Maltese (KLIEM MUFTIEH). If the author/s is/are unable to provide the latter, the editorial team will offer a translation service.
- The INTRODUCTION presents the scientific background, giving context to the paper.
- The MATERIALS AND METHODS section outlines any experimental procedures employed for the research and lists all the resources required for its completion. Please use SI units throughout, with the appropriate symbols or abbreviations. If unconventional abbreviations are used throughout the text, list these in an *ABBREVIATIONS* section following the MATERIALS AND METHODS section. Acronyms for institutions should also be listed as *ABBREVIATIONS*.
- The RESULTS section should list the outcomes of the research. If the scope of the paper is taxonomic or nomenclatural, the heading SYSTEMATICS may be used instead. A list of important synonyms under the currently accepted name is recommended.
- Lists of biological material studied should be included in a paragraph on their own, in the format: [**COUNTRY**] • [**number of specimens**]; [**locality**]; [**depth or altitude**]; [**date of collection**]; [**collector**]; [**repository and registration number**].
- Remarks on the taxon should also be included in a paragraph on their own.
- New records or new species, and preferably any other taxa discussed, **must be accompanied by clear, diagnostically useful, photographs or illustrations**. Include measurements of specimens or a scale bar.
- Figures should preferably be arranged in plates. The standard in-text reference for a figure (alphabetical) on a plate (numerical) is in bold, and does not include a comma, e.g. '**Pl. 1 Fig. A**', and not 'Pl. 1, Fig. A.'. References to figures in other works follows the same format, but without capitalization or bold font, e.g. 'SCILLA, 1670: pl. 1 fig. 2'.
- The DISCUSSION section should explore and build upon the results to negate or confirm hypotheses. The DISCUSSION may be omitted in papers with remarks arranged in the SYSTEMATICS section; likewise, one section for RESULTS and DISCUSSION is sometimes appropriate. A CONCLUSION that encapsulates the DISCUSSION in fewer words may follow.
- Citations in the text should be in 'small caps', and they should be given as in the examples THAKE (1985) or (THAKE, 1985). In cases of two authors, an ampersand is employed, as in the example HUNT & SCHEMBRI (1999). In cases of more than two authors, the abbreviation '*et al.*' following the first author's name should be used.
- All family names or equivalents mentioned in the text, including those in the ACKNOWLEDGEMENTS section, should be typed in SMALL CAPS. Examples: '(C. BONELLO, pers. comm. 1996)', 'photographs were prepared by D. IVANOV', etc. The only exceptions to this are the authorities of taxa.
- First mentions of historical figures and persons of interest to the study must have the name in full (if known) accompanied by the years of birth and death (if known). Example: 'Many biologists are familiar with the works of Agostino SCILLA (1629–1700) and Peter FORSSKÅL (1732–1763)'.
- ACKNOWLEDGEMENTS are due to any person or institution whose assistance or funding was instrumental in completing the research, including peer reviewers (whether anonymous or otherwise).
- The REFERENCES section at the end should include all references listed alphabetically, each including all authors in SMALL CAPS, and formatted in the APA style (<https://apastyle.apa.org/style-grammar-guidelines/references/examples>). Journal names and book titles are *italicized*; journal volume numbers are in **bold**.
Example of paper from journal:
THAKE M.A., 1985. Land snails from the Mellieha Quaternary Deposit. *Potamon*, **2** (14): 93.
Example of a book:
WELTER-SCHULTES F.W., 2012. *European non-marine molluscs, a guide for species identification*. 679 + 78 pp.; Göttingen, Germany: Planet Poster Editions.
Example of a chapter from a book:

HUNT C.O. & SCHEMBRI P.J., 1999. Quaternary environments and biogeography of the Maltese Islands. *In*: MIFSUD A. & SAVONA VENTURA C. (eds.). *Facets of Maltese prehistory*. Malta: The Prehistoric Society of Malta; pp. 41–75.

- Please avoid using footnotes, cross-references, ‘*op. cit.*’, and endnotes at all costs.
- Citations of papers ‘*in press*’ should be clearly indicated as such, and the reference should include the name of the paper in full together with the journal. Wherever possible, please avoid citing manuscripts ‘*in prep.*’ or largely inaccessible ‘*grey literature*’, such as theses, dissertations, academic lecture notes, field journals, internal reports, pamphlets, ephemera, etc.
- Dates should be formatted according to the model ‘01 Jan. 1990’.
- Discriminatory or offensive language and plagiarism are strictly forbidden and will lead to refusal of the manuscript.
- *Book Reviews*, *Obituaries* and other current affairs may appear in the journal from time to time. Submission of these should only be made after consultation with the editorial board.

Electronic submission of manuscripts is highly recommended.

- Please use any of the following formats for text: *.doc*, *.docx*, *.rtf* or *.odt*.
- Photographs and diagrams should be submitted as separate files (i.e. not embedded in the text), titled ‘**Figure 1**’, ‘**Figure 2**’, etc., in any of the following formats: *.tiff*, *.jpg*, *.jpeg* or *.png*. Ensure that images are of sufficiently high quality, i.e. 300 dpi.
- Tables should be submitted as separate documents titled ‘**Table I**’, ‘**Table II**’, etc.
- If electronic submission is not an option, forward your manuscript to: *BNMNHM* Editorial Board, National Museum of Natural History, Vilhena Palace, St. Publius Square, Mdina, MDN 1011, MALTA. In this case, kindly ensure that additional copies of the manuscript exist.

Without exception, nomenclature of animal and plant taxa conforms to the conventional zoological and botanical standards established by the ICZN and the ICBN. Additional use of vernacular names in English or Maltese is at the authors’ discretion.

- The first mention of any taxon in the text should always be in full and include *italicised* generic and specific epithets, with authority/ies. In the case of animals, the year of publication, separated from the author (written in full) by a comma, is required. For plants, it is allowed to use the conventionally accepted abbreviations, without the year of publication. Examples: *Lampedusa melitensis* (Caruana Gatto, 1892); *Cheirolophus crassifolius* (Bertol.) Susanna.
- Subspecies of plants should feature ‘*ssp.*’ or ‘*subsp.*’ in front of the subspecific epithet. Example: *Jacobaea maritima* subsp. *sicula* N.G.Passal., Peruzzi & Pellegrino. This is not necessary for animals. Example: *Potamon fluviatile lanfrancoi* Capolongo & Cilia, 1990.
- First mentions of higher taxa in the text should also state the authority. Example: Hydrobatidae Mathews, 1912.

For zoological or botanical papers, a list of material studied, including types, together with its repository/ies, must be listed in an appropriate section of the manuscript. It is recommended to deposit a sample of *any* material studied in the National Museum of Natural History, Malta. **Holotypes** (and preferably type specimens) **must be deposited in public repositories**, preferably in museums.

In case of the acceptance of a manuscript, the (corresponding) author will receive acknowledgement of receipt.

- Each submission will be refereed by at least two peers, who may choose to remain anonymous or not – in any case, the author will receive a copy of the peers’ comments and a period of two weeks over which to amend the manuscript accordingly.
- Authors may nominate reviewers, although the editorial board is responsible for the final choice.
- The editorial board may occasionally contact past authors to serve as peer reviewers for submissions in their area of expertise. Assistance in this regard is greatly appreciated.
- Publication of the article will feature the submission date and the acceptance date. **Acceptance implies that the recommendations raised through peer review have been implemented, and that the manuscript may be published in its present form** (excluding typesetting and design). Any changes to the manuscript from the authors’ part after acceptance may not be possible.
- Printed copies of each edition of the *BNMNHM* will be distributed to other institutions with the aim of establishing a permanent record.
- Authors will receive a *.pdf* copy of their contribution. They are free to distribute this document to colleagues, researchers, and other interested parties, on the condition that such distribution remains a non-profitable venture.

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