

ON SOME PREVIOUSLY UNRECORDED BLENNIDAE AND GOBIIDAE FROM
MALTESE WATERS (Pisces - Osteichthyes - Perciformes)

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ABSTRACT

Two species of Blennidae, *Scartella cristata* Linne and *Parablennius incognitus* Bath, and a species of Gobiidae, *Gobius geniporus* Val. are recorded for the first time from Maltese coastal waters. Previously recorded species of Blennidae and Gobiidae are also listed with some comments.

INTRODUCTION

At present, the Maltese fish fauna consists of over 300 recorded species out of some 500 fishes known to occur in the Mediterranean (Tortonese 1963). The first records of Maltese fishes appeared as early as 1775, when Locano published a list of 117 fishes (in Forskaal 1775). Since then other workers have continued adding to the number of species. Notable works on Maltese fishes are those of Gulia Gav. (1861), Despott (1919), and Lanfranco (1958). Of these only Lanfranco has attempted to illustrate the species and give some kind of guide to identification. Recently published major revision of the taxonomy of Mediterranean fishes (Hureau & Monod eds. 1973; Tortonese & Hureau eds. 1979 and Whitehead et al eds. 1984-1986) necessitate the revision and updating of all records relating to the Maltese Islands. The present note lists three previously unrecorded species of fishes collected from Maltese coastal waters. These species were identified using published keys and descriptions mainly Soljan (1975); Tortonese (1975); Bath (1977); Miller (in Whitehead et al 1986) and Zander (in Whitehead et al 1986). The specimens are deposited in the author's collection. The nomenclature used in this paper follows Zander (in Whitehead et al 1986) for the Blennidae and Miller (in Hureau & Monod 1973) and Miller (in Whitehead et al 1986) for the Gobiidae.

BLENNIDAE

Scartella cristata Linnaeus 1758 (fig 1)

This species was first noticed at Xgħajra in August 1982 when a specimen was observed in an angler's catch. Another specimen was collected from Delimara on 25th October 1987 in water less than 1 metre deep.

Measurements of the Delimara specimen (mm)

Total Length	81.1
Standard Length	65.2
Head Length	19.0
Head Height	15.9
Snout Length	3.8
Inter-orbital space	3.1
Eye Diameter	4.5

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Indices

Total Length/ Head length	4.26
Standard length/ Head length	3.43
Head length/ Head height	1.19
Head length/ eye diameter	4.20

Characters (l = left, r = right)

Number of nasal tentacles (l/r)	6/6
Number of orbital tentacles (l/r)	9/9
Number of Nucal tentacles	21
Dorsal fin rays	xii - 15
Anal fin rays	ii - 16
Pectoral fin rays	14

Coloration:

Overall yellowish/grey green with dark brown markings distributed as in fig 1; Small white spots at base of dorsal fin; anal fin rays edged with white.

Comparing the morphometric and morphological characteristics of the Maltese specimens with those in Bath (1970) and Balma-Delmastro (1984) for Ligurian specimens, no appreciable differences are evident.

Parablennius incognitus Bath 1968 (figs. 3a and 4)

This species was first taken from Ras il-Fekruna (St. Paul's Bay) in August 1972. After photographing, the specimen was released in the same locality. Final identification was only made in 1986. A similar species *Parablennius zvonimiri* Kolombatovic 1892, was reported for Malta by Jennings (1979). It is possible that Jennings' record actually refers to *P. incognitus* Bath, since his identifications are entirely based on Lythgoe & Lythgoe (1971) and these authors only cite *Blennius zvonimiri* Kolomb. The two species can be separated since the tentacles present above the eye are more complex in *P. zvonimiri*. As figs 3 & 4 indicate the Maltese specimen should be assigned to *P. incognitus* Bath 1968.

Other Blennidae recorded from Maltese waters include:

Blennius ocellaris Linnaeus 1758 - First recorded by Trapani (1838) and cited by almost all subsequent authors. This species is common in local waters and especially around Grand Harbour.

Lipophrys pavo (Risso 1810) - First recorded by Gulia (Gav) (1861) as *Ichthyocoris pavo* (Bon.), and cited by other workers. Very common in rock pools and salt pans. (salini).

Lipophrys trigloides (Valenciennes 1836) - This species replaces all previous local references to *Blennius pholis* Linnaeus and *Pholis laevis* (Val.) as recorded by Trapani (1838), Gulia (Gav) (1861), Adams (1870), Gulia (Giov) (1889-90); Despott (1919) and Lanfranco (1958). In the Mediterranean true *B. pholis* Linn., have only been reported from Terremolinos in southern Spain. (Bath (1971) as cited in Tortonese (1975)). *P. trigloides* Val. is frequent in shallow water at Delimara.

Lipophrys basilicus (Valenciennes 1836) - First recorded by Jennings (1979). No material has been examined by the author.

Parablennius gattorugine (Brunnich 1768) - First recorded by Gulia (Gav.) (1861) as *Blennius gattorugine* (Linn) and cited by other workers. Frequent in shallow water.

Parablennius tentacularis (Brunnich 1768) - First recorded by Trapani (1838) as *Blennius tentacularis* Linn. Also recorded by Despott (1919) and Lanfranco (1958). No material has been examined by the author.

Parablennius sanguinolentus (Pallas 1811) - First recorded by Baldacchino (1935) and also mentioned by Lanfranco (1958). Barbara (1961) coined a Maltese name for this species which was later reproduced in Bini (1965) and Aquilina (1969)

Aidablennius sphyinx (Valenciennes 1836) - First recorded by Lanfranco (1958). Quite common in the various creeks and inlets of Grand Harbour.

Coryphoblennius galerita Linnaeus 1758 - First reported by Forskaal (1775) and by Trapani (1838), but not by later workers. This easily recognisable species is characterised by having a simple median erect appendage on top of the head followed by a longitudinal series of filiform appendages. It is a common species all around the Mediterranean, Black Sea and the Atlantic from the Gulf of Guinea to England (Tortonese 1975).

Blennius sp. (nov.)? - Jennings (1979) reports this blenny saying 'closely resembling *B. pavo*; is common in S.E. Maltese waters. Body and fins similar to *B. pavo*; no orbital tentacles at all. The typical black spot behind the eye of *B. pavo* is absent; the body hump less pronounced or absent'. No material agreeing with this description has as yet been observed. It should be noted that *B. pavo* (= *Lipophrys pavo* Risso 1819), *Lipophrys basilicus* Val. 1836, and *Lipophrys fluviatilis* Asso 1801, are somewhat similar species. In *L. basilicus* the head crest ('body hump') is low and almost absent and the black spot behind the eye is absent. *L. basilicus* has already been recorded only by the same author. *L. fluviatilis* has a very oblique profile, no dark spot behind the eye, the crest is low and truncated and no bluish lines appear on the flanks.

L. fluviatilis is found in brackish water lagoons, estuaries and fresh water courses, (Tortonese 1975, Cottiglia 1980)

Aquilina (1987) in his Maltese-English Dictionary, under the word BUDAKKRA writes " VJ says that *budakkra* and *bużullieqa* are used to describe various species of the genus *Blennius*, and gives *budakkra tar-rig* (*Blennius rouxi*)".

In this respect Aquilina is referring to an unpublished 'List of Fish names with their Scientific Nomenclature' compiled for the author by V. Jaccarini. It is here assumed that V. Jaccarini, a marine biologist, coined this new Maltese name for *B.rouxi* (= *Parablennius rouxi* Cocco 1833) since he must have met with it in his investigations. This fish is easily recognised by the black-brown longitudinal line from head to caudal fin over a whitish or pale yellowish background. No other published records of this species from the Maltese Islands are known to the author.

GOBIIDAE

Gobius geniporus Valenciennes, 1837 (figs. 2a & b)

In his original description of this species Valenciennes (1837) gave the type locality as "Naples, Sicilie et Malte" (Miller in Hureau-Monod, 1973), thus giving the first record of this species from the Maltese Islands. Subsequent workers on the Maltese Ichthyofauna have not included this species. In August 1985 the author collected two specimens from Birżebbuġa on a sand bottom at the edge of *Posidonia* meadows.

Measurements of the Birżebbuġa specimens (mm)

	I	II
Total Length	76.3	87.2
Standard Length	62.7	73.0
Head Length	18.9	20.1
Head Height	13.0	9.9
Snout Length	3.9	4.5
Interorbital space	1.1	1.3
Eye Diameter	4.0	4.7
Maximum height	12.5	10.5

Indices

Total Length/ Head length	4.04	4.34
Standard Length/ Head length	3.32	3.63
Head height/Head Length	1.45	2.03
Head Length/ eye diameter	4.72	4.28
Total Length/ Max. height	6.10	8.30

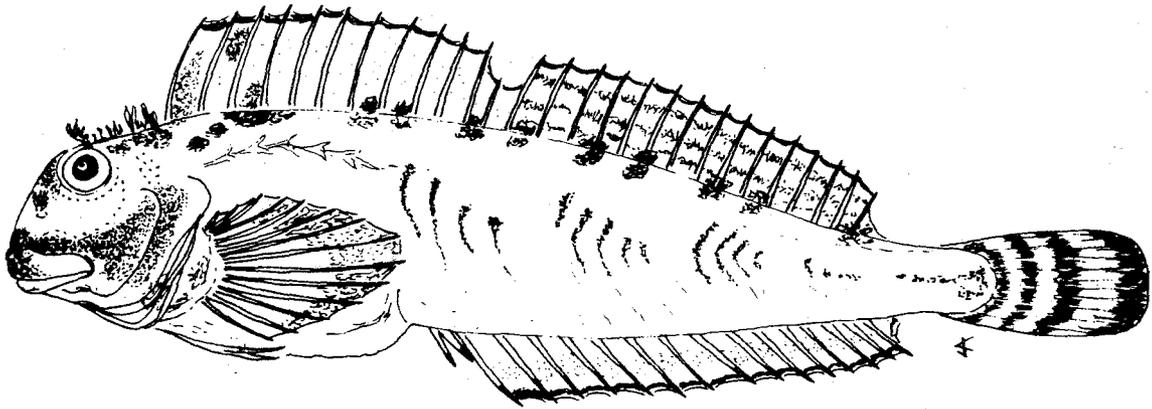
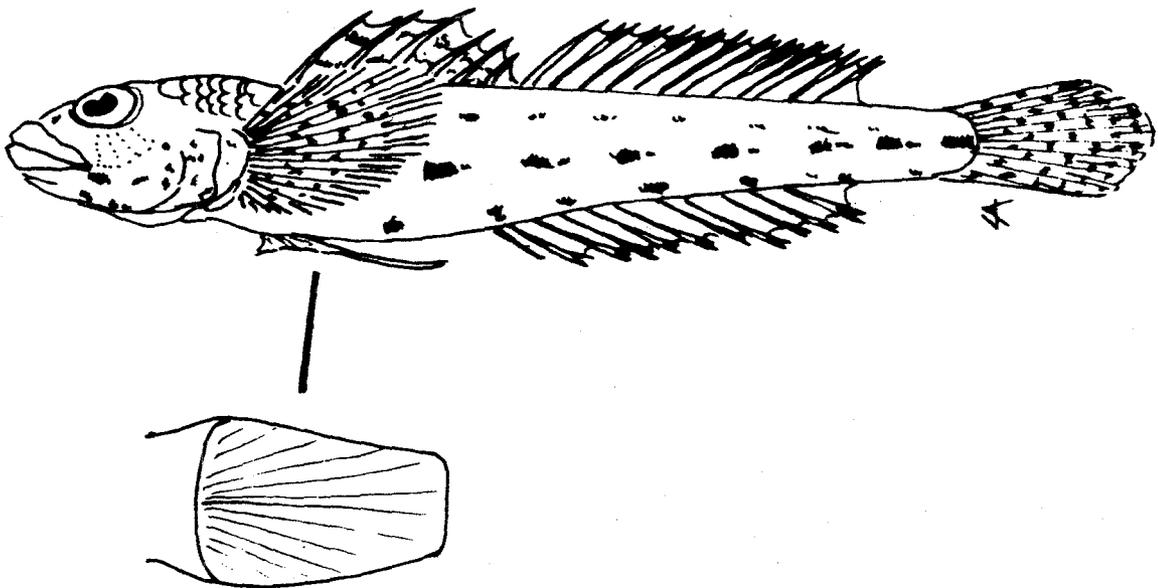


Fig. 1 *Scartella cristata* Linnaeus 1758 (81.8 mm)



**Fig 2. (a) *Gobioides geniporus* Valenciennes 1837 (76.3 mm)
(b) *G. geniporus* — pelvic fin.**

Characters	I	II
First dorsal fin rays	vi	vi
Second dorsal fin rays	12	12
Anal fin rays	i-11	i-11
Pectoral fin rays	18	18
Lateral scales	53	54

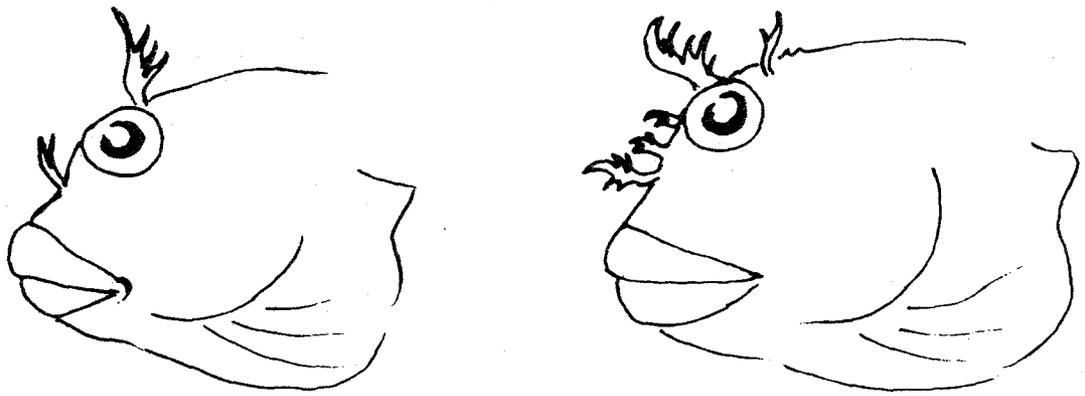
Coloration: light brown with dark spots and markings; a series of larger spots appear along flanks as in fig 2a; Pelvic fin anterior membrane well developed; pelvic disc posterior edge truncate. (fig 2b)

The Mediterranean Gobiid fauna includes some 50 species divided into 22 genera, most of which are monotypic. At present the Maltese Gobiidae are represented by seven species of the Genus *Gobius* (out of a total of 15 Mediterranean species). Of these, *G. niger* Linneaus 1758 *G. cobitis* Pallas 1811, *G. cruentatus* Gmelin 1789 and *G. paganellus* Linneaus 1758, are very common and have been reported in most local lists. *G. auratus* Risso, 1810, has been recorded by Despott (1919) and Lanfranco (1958). However this species is not well defined and is often confused with *G. luteus* Kolombatovic 1891, (Tortonese 1975). *G. buccichi* Steindachner 1870 seems to occur on the Northern coast of Malta, however a specimen in the author's collection which may belong to this species is not in a good state of preservation so positive identification is still pending.

Other Maltese Gobiidae are: *Aphia minuta* (Risso 1810), recorded by most authors. *Deltenosteus quadrimaculatus* (Valenciennes 1837), recorded by Lanfranco (1958), as is also *Zosterisessor ophiocephalus* (Pallas 1811). The Genus *Pseudaphia* is represented by *P. ferreri* (de Buen & Fage 1908), recorded only by Despott (1932). Of the eight Mediterranean species of *Pomatoschistus* only *P. minutus* (Pallas 1770), has been recorded (Despott 1919, Lanfranco 1958) as *G. minutus* Lin. This last species is probably a doubtful identification as true *P. minutus* occur only in the Northern Adriatic (Gulf of Venice), Gulf of Genoa and Gulf of Lions (Miller in Whitehead et al, 1986). *P. marmoratus* (Risso 1810), which occurs all around the Mediterranean, would have been a more likely identification. The species of *Pomatoschistus* are very similar and frequent confusion between species occurred in earlier works.

References:

- ADAMS A.L. (1870) Fishes of Malta in *Notes of a Naturalist in the Nile Valley and Malta* Edmondton & Douglas, Edinburgh pp. 274-279.
- AQUILINA J. (1969) *Nomi Maltesi di Pesci, Molluschi e Crostacei del Mediterraneo* Malta University Press — Malta 180 pp.
- AQUILINA J. (1987) *Maltese English Dictionary* Vol. 1 (A-L) Midsea Books — Malta: xliii + 764 pp.
- BALDACCHINO J.D. (1935) *Annual Report on the Working of the Museum Department 1934-1935* Govt. Print. Off. — Malta: xx
- BALMA G.A.C. & DELMASTRO G.B. (1984) *Scartella cristata* (L. 1758) Blennide nuovo per la fauna del mar Ligure (Osteichthyes, Blennidae) *Doriana*, 5 (254): 1-5.



**Fig. 3 (a) Head of *Parablennius incognitus* Bath 1968
(b) Head of *P. zvonimiri* Kolomb 1892.
(Both after Tortorese 1975. Redrawn).**



**Fig. 4 *Parablennius incognitus* Bath 1968
(photo J.L. Cilia)**

- BATH H. (1970) Vergleichend, morphologische, taxonomische und Zoogeographische Untersuchungen an den Schleimfischarten *Blennius cristatus*, *crinitus*, und *nuchifilis* (Pisces: Blennoidea: Blennidae) *Senckenbergiana. Biol.* 51 (5/6): 287-306; 22 fig.
- BATH H. (1977) Revision der Blennini (Pisces: Blennidae) *Senckenbergiana. Biol.*, 57 (4/6) : 167-234, 78 figs.
- BARBARA J. (1961) *Isimijiet tal-Hut tal-Mediterran* (Nomenclature Standard of Mediterranean Fishes) Dept. of Fisheries — Malta 20 pp.
- BINI G. (1965) *Catalogo dei nomi dei pesci dei molluschi e dei crostacei di importanza commerciale nel Mediterraneo*. Vito Bianco Editore — F.A.O. Rome xv + 407pp., 587 fig.
- COTTIGLIA M. (1980) *Pesci Lagunari* (Guide per il riconoscimento delle specie animali delle acque lagunari e costiere italiane. AQ/1/90, I) Cons. Naz. delle Ricerche 140 pp.
- DESPOTT G. (1919) *Ichthyology of Malta* Critiens Press — Valletta 59 pp.
- DESPOTT G. (1932) *Annual Report on the Working of the Museum Department 1931-1932*. Govt. Print. Off. — Malta: vi-vii
- FORSKAAL P. 1775 *Descriptiones animalium; avium; amphibiorum; piscium; insectorum vermium, quae in itinere orientali observavit* Hauniae, 20+xxiv + 164pp., 1map.
- GULIA GAV. (1861) *Tentamen Ichthyologiae melitensis sistens methodo naturali stripum objectis nonnullis observationibus genera ac species, a recentioribus de re zoologica scriptoribus admissas piscium insularis Melitae*. Tipographia Anglica — Melitae 71 pp +viii.
- GULIA GIOV. (1889-90) *Prontuario di Storia Naturale contenente la Nomenclatura Scientifica coi corrispondenti vocaboli italiani ed inglesi degli animali e delle piante che sono conosciuti sotto una denominazione Maltese* A. Puglisevich — Malta 71 pp.
- HUREAU J.C. & MONOD T. (1973) *Check list of Fishes of the North Eastern Atlantic and the Mediterranean* (CLOFNAM) Vol. 1 U.N.E.S.C.O. — Paris 681 pp.
- JENNINGS G.H. (1979) *Mediterranean Fishes* Calypso Publications — London.
- LANFRANCO G. (1958) *A complete guide to the fishes of Malta* (Central Mediterranean) Dept. of Information, Malta 74 pp, 41 pl.

- LYTHGOE J. & LYTHGOE G. (1971) *Fishes of the Sea — the Coastal waters of the British Isles, Northern Europe and the Mediterranean*. Blandford, London 320 pp., Illust.
- SOLJAN T. (1975) *I pesci dell'Adriatico* Ed. A. Mondadori — Verona 522 pp., Illust.
- TORTONESE E (1963) Elenco riveduto dei Leptocardi, Ciclostomi, Pesci Cartilaginei e Ossei del Mare Mediterraneo. *Ann. Mus. Civ. Storia. Nat. Genova* 74: 156-185.
- TORTONESE E (1975) *Osteichthys Pesci Ossei II Fauna d'Italia* — xi Ed. Calderini — Milano 636 pp Illust.
- TORTONESE E. & HUREAU J.C. (1979) *Clofnam*, Supplement 1978 Unesco; *Cybium*, 3° serie 1979 (5) : 5 (333) - 66 (394).
- TRAPANI G. (1838) *A catalogue of the different kinds of fishes of Malta and Gozo, with their Maltese, Latin, Italian, English and French names as well as their season*. Government Press — Malta 23 pp (un-numbered)
- VALENCIENNES (1837) *Histoire naturelle des Poissons* Paris — Strasbourg, 12:xxix +507pp.
- WHITEHEAD P.J.P., BAUCHOT M L, HUREAU J. C, NIELSEN J., & TORTONESE E (Eds) (1986) *Fishes of the North Eastern Atlantic and the Mediterranean* Vol III Unesco — London. (Gobiidae — pp. 1019-1085 & Blennidae pp. 1096-1112).

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