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## AN ACCOUNT OF THE MARINE FAUNA OF PAG ISLAND (ADRIATIC SEA, CROATIA)

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In the Pag Island marine environments 552 benthic and pelagic taxa have been compiled from literature sources and our own field research. Some typical offshore pelagic fish and mammals also were recorded in the island's shallow neritic area. Local protection for the bittersweet shellfish (genus *Glycimeris*) is proposed.

**Key words:** marine fauna, Pag Island, Adriatic Sea

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Prema navodima objavljenih izvora i rezultata naših istraživanja na području otoka Paga zabilježene su 552 svoje bentoske i pelagičke faune mora. Uz obale Paga su nađene i neke vrste riba i sisavaca stanovnika otvorenog mora. Preporuča se lokalna zaštita konjina, tj. školjkaša iz roda *Glycimeris*.

**Ključne riječi:** morska fauna, otok Pag, Jadransko more

### INTRODUCTION

Pag is one of the largest islands in the north-eastern part of the Adriatic Sea. It is about 52 km long, a maximum of 7 km wide, with a land area of about 285 km<sup>2</sup>. The southern and south-western landscape of the coast is gently sloping while at

the north-east it is characterised by steep rocks and vertical cliffs fifty metres or more high. The maximal sea depth in the area (101 m) was measured in the Velebit Channel. The island is built of Cretaceous limestone marked by karst phenomena (SCHUBERT, 1909; MAMUŽIĆ & SOKAČ, 1973; SOKAČ *et al.*, 1976). It is hilly and the highest peaks are 348 and 799 m. The seabed consists of bedrock and sandy and silty deposits which in some sites are rich in organogenic detritus (ALFIREVIĆ, 1968; JURAIĆ *et al.*, 1999).

The area has a typical Mediterranean climatic regime but it is handicapped by a strong north-eastern wind (in Croatian »bura«), gusts of which can reach 43 m/sec (OPPITZ, 1963; ANONYMOUS, 1971). Under storm conditions, aerosol salt can rise to high ground about 100 m high. Comprehensive information on the land flora and vegetation was provided by HORVATIĆ (1934, 1963).

Pag Island has been inhabited continuously since the Early Stone Age (SUIĆ, 1953). Currently it is home to about 9000 inhabitants living in the small towns Pag and Novalja, and the numerous villages and hamlets dispersed all round. Their main occupation is agriculture, sheep-breeding, fisheries, and tourism (OPPITZ, 1963; BASIOLI, 1984). Sea salt harvesting has been maintained continuously since 1215 (OPPITZ, 1963).

In old past the island's marine environments were poorly known. Only papers by BRUSINA (1865, 1866, 1907) and ILIJANIĆ & STOŠIĆ (1972) indicate successful malacological research at that time. On the other hand, in papers by HELLER (1864), STOSSICH (1880–1885), FABER (1883), BABIĆ (1898, 1902, 1910), and others, for a few species only the names of Pag Island, and Pag town were noted as collection sites. An important contribution to the marine fauna was provided by CAR & HADŽI (1914a,b), reporting on seasonal surveys of the school boat »Vila Velebita« in 1913–1914 under the auspices of the former Yugoslav Academy of Sciences and Arts. A few years later BABIĆ (1921) reported on sponges collected in the Ljubač strait by the Hungarian 'Najade' voyages performed just before the beginning of the First World War (LEIDENFROST, 1914; STILLER-RÜDIGER & ZAVODNIK, 1990).

In the 1930s, the Oceanographic Institute in Split organized ichthyological surveys in the Croatian Littoral. Valuable data on fish assemblages at seven bottom trawl stations located in the environs of Pag Island were presented by KOTTHAUS & ZEI (1938). Three decades later CRNKOVIĆ (1970) studied fish assemblages in the Velebit channel: three bottom trawl stations were located in the vicinity of Pag Island. The Institute continued research during the Norway lobster (*Nephrops norvegicus*) project (ALFIREVIĆ, 1968, 1980; ALFIREVIĆ *et al.*, 1969; GAMULIN-BRIDA *et al.*, 1971). Bottom trawl catches were analysed by CRNKOVIĆ (unpublished field data). The invertebrate material collected by bottom trawl and grab was only partly studied. Results from stations located in the Pag Island sea were published elsewhere (LEGAC, 1974b; ZAVODNIK & MURINA, 1975; BELLAN, 1976; ZAVODNIK, 1980, 1994; LEGAC & HRS-BRENKO, 1982; MURINA & ZAVODNIK, 1985/86; CAROZZA, 1987; ŠTEVČIĆ, 1998). Incidentally, ZAVODNIK *et al.* (1991) and LEGAC & FABIJANIĆ (1994) reported on some shellfish species from Pag Bay. PETRICIOLI (1983) collected echinoderms while diving along the Pag Island southern coast.

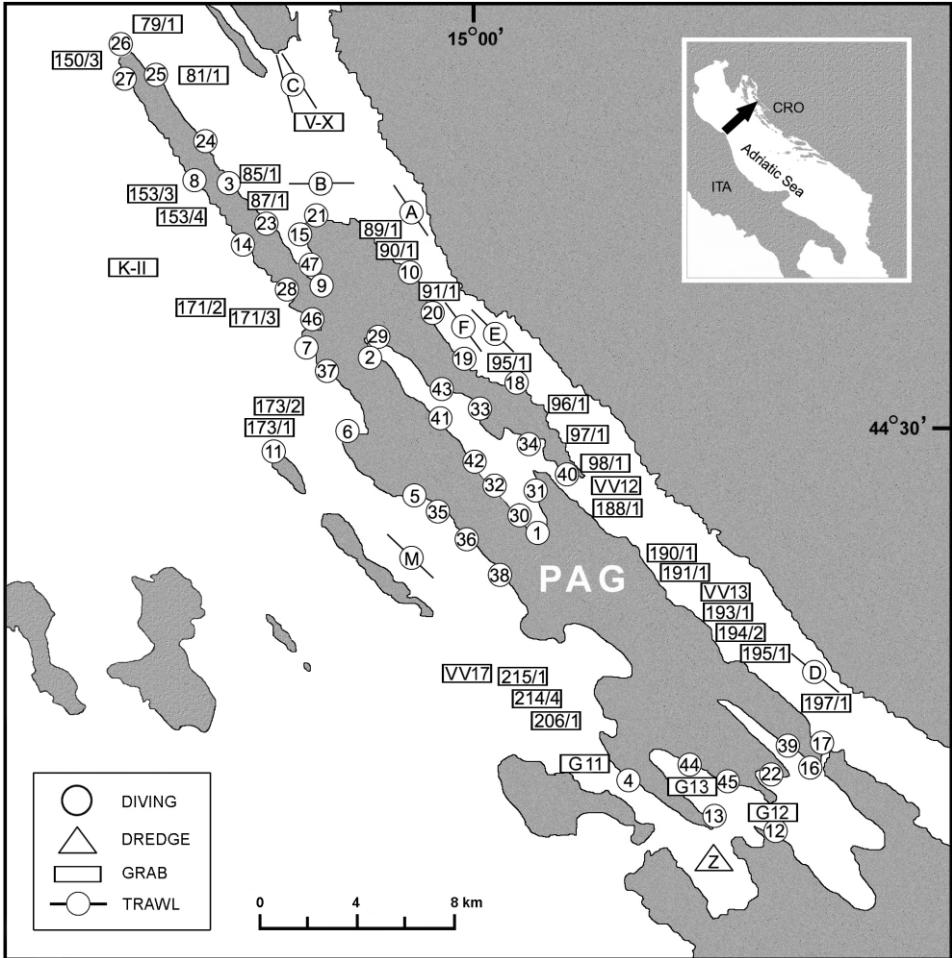


Fig. 1. Study area and benthic stations surveyed. Acronyms: CRO = Croatia, ITA = Italy.

In 1973–74, the Center for Marine Research, Rovinj and Zagreb, of the 'Ruder Bošković' Institute, undertook jubilee seasonal voyages of the RV Vila Velebita tracking the route and seasonal time from 60 years ago (ZAVODNIK, 1979a). Most of biological results were presented in the journal *Thalassia Jugoslavica*, vol. 15 (1979), in papers provided by AMOUREUX, BENOVIĆ, HURE, KATAVIĆ, KRŠINIĆ, MURINA, SCHMIDT, SKARAMUCA, SOKAČ, ŠTEVČIĆ, and ZAVODNIK (see References Chapter).

Consequently, records on the occurrence in the Pag Island area of particular marine taxa appeared in the literature occasionally because, at the most, taxonomic research was not focused on the island's coastal sea, and the results were not compiled so as to present an overview. Furthermore, many records noted in scientists' notebooks have never been published, or have become available only by recent

studies of museum and institute collections (PALLAORO & JARDAS, 1996; KOVAČIĆ, 1998). Rarely have the name of Pag Island and particular record sites appeared in monographic works and manuals (CARUS, 1885; MURINA, 1977; ANDRIĆ, 1999).

The current needs for the protection and sustainable management of marine environments in Croatia induced us to collect and summarize the data available on marine fauna of the Pag Island coastal sea, and to compare them with nearby areas studied previously (LEGAC, 1974a; ZAVODNIK, 1977; ZAVODNIK *et al.*, 2005).

## METHODS

Previous literature records were critically consulted and adjusted to modern scientific nomenclature. Records of expert divers and local fishermen were also evaluated. The field diaries of the late D. CRNKOVIĆ have been consulted.

Coastal research was undertaken from time to time between 1972 and 2005. In total, 96 sites were surveyed (Fig. 1, Tab. 1). Most information on shallow water fauna was collected by skin diving. At a few localities only, the authors had the opportunity to practice SCUBA research methods. At some sites (Fig. 2, Tab. 2) small scale fishery gear was used, *i.e.* fishing spear, crab pot, beach seine, and troll. Catches of local fishermen were also considered.

Two of the authors (M.L. and D.Z.) took part in seasonal cruises of the research vessels Bios and Vila Velebita, in 1968–1972 and 1973–1974, respectively (ALFIREVIĆ, 1968, 1980; ZAVODNIK, 1979a). At sites surveyed (Fig. 2), plankton was collected by means of an Indian Ocean Standard Net, 113 cm in diameter and 250  $\mu\text{m}$  mesh netting. Two vertical hauls per station were made (SCHMIDT & BENOVIĆ, 1979). The material was fixed in a 2.5 % buffered formaldehyde solution. Plankton was studied at the Biological Institute Dubrovnik and the Institute of Oceanography and Fisheries Split.

Fish and large invertebrates were collected by a commercial bottom trawl at a 1.5 Nm/hour speed (Figs 1, 2). At station Z a dredge of the »mušular« type was applied. For deposit sampling bottom grabs Petersen 0.2 m<sup>2</sup>, or Van Veen 0.1 m<sup>2</sup> were used. Three to five hauls per station were made. Organisms were processed through 2 mm mesh sieves and preserved in 80 % alcohol, or 4.5 % buffered formaldehyde solution. Laboratory treatment and identifications were performed at the Center for Marine Research, Rovinj, and the Natural History Museum Rijeka. Reference specimens are deposited in the study collections of both Institutions, *i.e.* CMRR and NHMR. Deposit samples for sediment living ostracods were preserved entirely and processed at the Faculty of Mining, Geology and Petroleum Engineering, Zagreb University (SOKAČ, 1979).

In the present paper the scientific nomenclature of taxa follows that proposed by ERMS (COSTELLO *et al.*, 2001) or else different suggestions by taxonomy experts (*e.g.* FISCHER-PIETTE & MÉTIVIER, 1971; SABELLI *et al.*, 1990; ŠTEVČIĆ, 1990; JARDAS, 1996; HAYWARD & MCKINNEY, 2002; H. H. DIJKSTRA, personal comm.). Within higher systematic units, families, genera, and species were ordered alphabetically.

**Tab. 1.** Coastal collection sites. Bottom type codes: G – gravel, pebbles; L – loose stones, cobbles; R – rock; S – sand.

Station	Locality	Energy range	Site orientation	Bottom type	Depth (m)
1	Pag port	low	NW	S	
2	Zrće beach	low	NE	GRS	0-5
3	Trimalj	high	NE	LR	0-3
4	Prutna	moderate	SW	LR	0-8
5	Šimuni	low	E	GLRS	0-6
6	Slatina	low	W	RS	0-4
7	Straško	low	SW	LRS	0-6
8	Jakišnica	low	W	RS	0-15
9	Stara Novalja	low	N	GLS	0-3
10	Žigljen	high	NE	LR	0-10
11	Sadina (Škrda Island)	high	NE-NW	GRS	0-35
12	Zečevo	high	NE	RS	2-11
13	Prutna Cape	high	NE	LRS	1-21
14	Dubac	low	SW	GRS	0-5
15	Stara Novalja port	low	W	RS	0-5
16	Fortica W	high	SW	R	0-5
17	Ljubačka vrata	high	S	R	10-16
18	Tri brata	high	NE	R	3-12
19	Veliko Lukovišće	high	NE	R	12-15
20	Gešća	high	NE	R	3-15
21	Triget Rock	high	N	R	14-23
22	Vlašić	low	SW	RS	0-10
23	Vidonjica	high	NE	R	7-12
24	Konobe	high	NE	R	8-15
25	Gižnjak	high	NE	R	7
26	Lun	high	N	RS	4-12
27	Tovarnele	moderate	W	R	4-10
28	Mihovilje	low	W	S	1-11
29	Caska beach	low	S	RS	0-4
30	Pag Bay	high	NE	RS	0-6
31	Veli bok	low	W	RS	0-4
32	Bašana	high	NE	RS	0-5
33	Metajna	low	W	R	1
34	Slana	low	SW	S	1-4
35	Zamorašnji bok	low	SW	S	6-12
36	Tri boka	high-low	SW	S	4-7
37	Rogoza	low	SW	S	2
38	Dumboka	low	SW	S	6
39	Dinjiška	low	SW	R	2-4
40	Pag Bay (Slana)	moderate	SW	R	0-5
41	Pag Bay	high	NE	S	2-3
42	Pag Bay	high	NE	S	8-10
43	Pag Bay (Dražica)	low	S	S	9-10
44	Jezerine	low	S	S	1-12
45	Smokvica	low	S	R	6-10
46	Novalja	low	W	RS	0-5
47	Stara Novalja Bay	low	-	RS	2-14

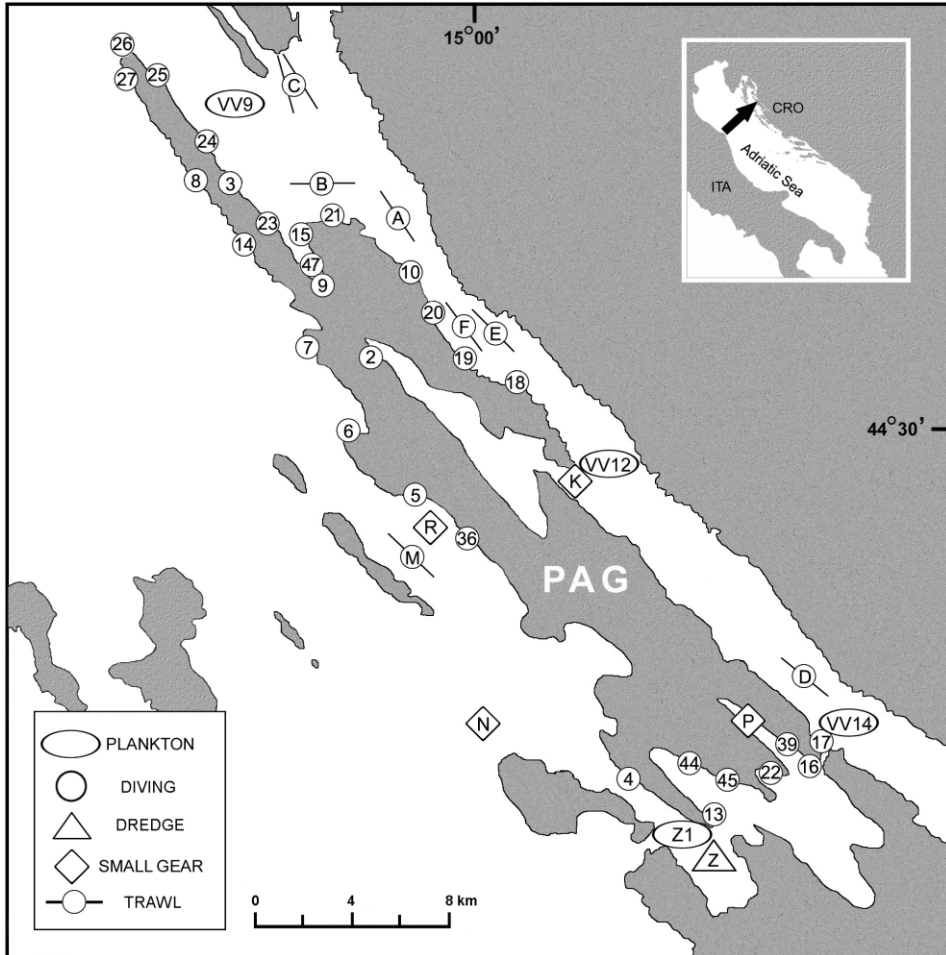


Fig. 2. Plankton and ichthyological stations surveyed. Acronyms: see Fig. 1.

## RESULTS AND DISCUSSION

In the course of our field benthic surveys 326 invertebrate and 88 fish species were identified. Laboratory studies of plankton and benthic collections added many meiofaunal taxa to the list. After a critical evaluation of records published previously, a total of 552 taxa were recorded in the coastal sea off Pag Island. 245 species had not been noted hitherto in the area of interest. With regard to their habitat and behaviour, 476 taxa occurred in benthic environments (106 sessile), 60 were planktonic creatures, and 16 were typical pelagic species (11 fish, 3 cephalopods, and 2 mammals). However, most of the benthic fish recorded have a hyperbenthic, or epibenthic mode of life (M. KOVAČIĆ, personal comm.).

The review of our taxonomic list presented in the Addendum indicate that in the area of interest many taxocoenes were surveyed only occasionally, or they were not studied at all. Evident examples are microfauna and meiofauna inhabiting sandy and silty deposits and phytal environments, sponges, turbellarians, nemerteans, hydrozoans, tiny gastropods, many crustaceans (Copepoda Harpacticoida, Amphipoda, Isopoda, etc.), and ascidians. Unfortunately, data on Hydromedusae and planktonic Chaetognatha were mislaid and are no longer available (A. BENOVIĆ, personal comm.). One can assume that, from the biogeographical point of view, this part of the Adriatic Sea will remain a white spot for many taxa until targeted taxonomical studies become feasible in the future. The situation with respect to marine flora is quite similar (VOUK, 1914a,b; ERCEGOVIĆ, 1952; ŠPAN, 2005).

Some of the records noted refer to guest species which occurred exceptionally or rarely in Pag Island waters: the fish *Lophotes lacepedei* and *Mola mola*, the loggerhead turtle (*Caretta caretta*), and the fin whale (*Balaenoptera physalus*). One should note that the environ of Novalja is the type locality of the bivalve *Nuculana illirica* described by CAROZZA (1987).

Most taxa identified belong to stocks of the Mediterranean and Atlantic-Mediterranean biogeographical province. No species of marine fauna endemic to the Adriatic Sea was recorded. However, some species rarely noticed previously in the northern Adriatic were collected, such as the decapod crustacean *Anapagurus brevicarpus* and the fish *Callionymus pusillus*. According to information provided by J. DULČIĆ the *Lophotes lacepedei* specimen he has collected was the second one noticed in the Adriatic Sea.

A rare species in the area is perhaps the giant tun (*Tonna galea*) protected by law. Its presence in the area was established only by two empty but fresh shells collected by I. LEGAC. The first one, 170 mm long, was collected near Stara Povljana at the locality named Jezerine, at 12 m depth. The second, slightly damaged, shell is 230 mm long and was collected at Lun Cape, at 8 m depth.

It seems strange that no notice has previously appeared in the scientific literature on the presence in the Pag area of the loggerhead turtle (*Caretta caretta*)

**Tab. 2.** Fishing gear stations.

Station	Fishing gear	Bottom type	Depth (m)
A	Bottom trawl	silty sand	80–90
B	Bottom trawl	sandy silt	61–78
C	Bottom trawl	silty sand	78–102
D	Bottom trawl	clayey silt	61–68
E	Bottom trawl	clayey silt	70–74
F	Bottom trawl	clayey sand	68–74
K	Various	rock, clayey sand	60
M	Bottom trawl	clayey sand	90
N	Troll	—	?
P	Beach seine	gravel-sandy mud	2
R	Crab pot	rock	30–45

**Tab. 3.** Basic data on the bottom grab, dredge and plankton stations surveyed.

Station	Distance from the Pag Island coast (m)	Depth (m)	Sediment
79/1	1800	94	sand
81/1	1800	87	sand
85/1	500	79	clayey silt
87/1	500	50	sand
89/1	500	79	clayey silt
90/1	500	72	sand
91/1	500	76	sandy silt
95/1	900	72	sand
96/1	900	72	sandy silt
97/1	900	72	sandy silt
98/1	900	72	sandy silt
150/3	1800	91	sand
153/3	1600	85	clayey silt
153/4	1000	81	clayey silt
171/2	1800	87	sandy silt
171/3	1200	72	sand
173/1	1800	78	clayey silt
173/2	1800	81	clayey silt
188/1	900	67	clayey silt
190/1	500	69	clayey silt
191/1	500	69	clayey silt
193/1	900	69	clayey silt
194/1	500	69	clayey silt
194/2	900	61	clayey silt
195/1	200	65	clayey silt
197/1	500	60	clayey silt
206/1	1300	65	sand
206/2	600	67	clayey silt
214/4	1600	72	clayey silt
215/1	900	72	clayey silt
G11	500	30	detrital sand
G12	800	40	clayey silt
G13	850	26	detrital sand
K-II	2200	80	sandy silt
V-X	1500	91	sandy silt
VV9	2850	94	silty sand
VV12	1600	68	sandy silt
VV13	1600	67	clayey silt
VV14	1600	60	clayey silt
VV17	5000	67	clayey silt
Z	1600	12	detrital sand
Z1	1300	13	clayey silt



(LAZAR & TVRTKOVIĆ, 1995; LAZAR *et al.*, 2004). In 1975, in Pag Bay an unnamed local fisherman caught one turtle specimen with a fishing spear. The second specimen was found last winter while stranded frozen in ice at Bašana beach (VULETA, 2005).

In the collection of the Natural History Museum Zagreb two specimens of the fin whale (*Balaenoptera physalis*) are deposited which were forwarded from Pag Island. The skeleton of the first specimen is dated 1892 (V. ŠTAMOL, personal comm.). The second one was a 12 m long female caught on 23 Jan. 1953 (ANON. P., 1953). Its skeleton and skin were stuffed (MAGERLE, 1969). In 1889 Brusina noticed a fin whale he had seen at Pag in 1862. Recently, one fin whale was seen around Pag Bridge and in Ljubač Bay (H. GOMERČIĆ, personal comm.).

There are also records of the presence of the Mediterranean monk seal (*Monachus monachus*) in the Karin Sea *i.e.* at the nearby inlet south of Pag Island (BRUSINA, 1889), and in Ljubač Bay and Povljana passage on the south and south-western shore but it has not been seen here since 1992 (GOMERČIĆ, 1998; GOMERČIĆ *et al.*, 2004).

Besides the turtle and all the mammals, the only marine species strongly protected by Croatian law in the area studied are the giant tun (*Tonna galea*) and the pen shell (*Pinna nobilis*). It seems that the fate of *Pinna* is similar here to that in other parts of the Adriatic Sea. Yet twenty years ago the pen shell was a common species all over the eastern Adriatic shallow littoral (ZAVODNIK *et al.*, 1991). Since then shellfish populations have continuously declined because of tourism. Amateur divers and bathers harvest pen shell specimens of all sizes for souvenir purposes thus eliminating mainly the reproductive specimens. The phenomenon is also observed in Pag Bay where *Pinna nobilis* previously was abundant in the wide meadows of the seagrass *Cymodocea nodosa*.

In the same area SCUBA divers have reduced stocks of the thorny oyster (*Spondylus gaederopus*) appreciated by many. Other shellfish menaced by fishermen's dredging and skin- and SCUBA-divers collecting are the bittersweet (*Glycymeris bimaculata*), brown venus (*Callista chione*), and warty venus (*Venus verrucosa*), all inhabiting shallow sandy deposits.

The first records in the area of *Glycymeris* were provided by DANILO & SANDRI (1855) and BRUSINA (1866, 1891). A few years later BRUSINA (1907) suggested that the northern part of Pag Bay was the *locus classicus* of glycymerid shells. A rather complicated identification of shells led to an enduring confusion of glycymerid records in the northeastern part of the Adriatic Sea (LEGAC & HRS-BRENKO, 1999). Morphologic studies by one of the authors (M.L.) of many shells collected in the Pag Bay and in the environs of Šimuni village resulted in the identification of three *Glycymeris* species in the area studied, *i.e.* *G. bimaculata*, *G. glycymeris* (syn. *G. pilosa*) and *G. violascens* (syn. *G. insubrica*) (LEGAC & FABIJANIĆ, 1994). Let us quote a curious note by BRUSINA (1866: 102): »...I was told that in Kolan (village, our note) the *Axinea* (= *Glycymeris*) shells are used to pave house entrances... the shellfish is consumed too«. This practice has continued.

Perhaps the most appreciated shellfish along the Croatian littoral is the date shell (*Lithophaga lithophaga*). Due to the great demand for it, it is often run as

contraband. Because the harvesting of date shell-inhabiting rocks inevitably results in the total devastation of indigenous communities, Croatian laws prohibited commercial treatment and forbade this shellfish to be offered in restaurants (HRS-BRENKO *et al.*, 1991). Due to these acts of prevention, the date shell is theoretically also a protected species, in spite of the counter practice in reality. Let us note that in the Pag Bay date shell populations were recorded in limestone and sandy silt stone rocks (Č. BENAC, personal comm.).

In Pag Island, in addition to fish and squids, about 40 edible invertebrates were consumed in the past (PAX, 1962; BAKIĆ, 1967; GRUBIŠIĆ, 1982; BAKIĆ & POPOVIĆ, 1983; MILIŠIĆ, 1991; ZAVODNIK, 1997). Nowadays, however, only about ten molluscs and four crustaceans are appreciated by local people. Only a few species are commercially valued, such as the European and spiny lobster (*Homarus gammarus* and *Palinurus elephas*), Norway lobster (*Nephrops norvegicus*), octopus (*Octopus vulgaris*), and cuttlefish (*Sepia officinalis*).

In 1891 efforts were undertaken to promote oyster rearing in Dinjiška cove located at the south western part of Pag Island (*i.e.* in the environs of our station Nr. 39, Fig. 1) (Basioli, 1968). Unfortunately, the enterprise failed. The rearing was re-established in 1932 without success again. Yet more than half a century ago, new efforts were made to rear oysters (*Ostrea edulis*) and mussels (*Mytilus galloprovincialis*) in Dinjiška Bay but this endeavour also failed. In present times Pag inhabitants are not engaged in rearing shellfish (BASIOLI, 1984).

## CONCLUSIONS

1. The compilation of published records from about 150 years ago until the present and our data resulted in a total of 552 taxa: 438 benthic and pelagic invertebrates, 110 fish, one turtle and three mammals. A few of them were casual guests in the Pag Island sea. In the area studied, 245 marine taxa were found that had not been recorded previously.

2. For reasons beyond our influence some taxocoenes were insufficiently studied or were not studied at all. Complementary taxonomic and ecological research is indispensable.

3. In general, the Pag Island marine fauna conforms to the fauna of other northern Adriatic islands and mainland coast.

4. Local protection for the bittersweet shellfish, *i.e.* the genus *Glycymeris* (Croatian: konjina), is proposed.

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## SAŽETAK

### Prikaz morske faune otoka Paga (Jadransko more, Hrvatska)

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Stariji literaturni podaci dopunjeni su rezultatima naših povremenih istraživanja tijekom protekla tri desetljeća na 96 postaja u akvatoriju otoka Paga. Biološki materijal je uzorkovan ronjenjem, grabilom, planktonskim mrežama i raznim ribolovnim alatima. Zabilježeni su nalazi 552 svoje morske makrofaune, od toga 438 planktonskih i bentoskih beskralježnjaka, 110 vrsta riba, jedne morske kornjače i tri vrste sisavaca. Pretežito se radi o stanovnicima obalnog mora. Nalazi tipičnih vrsta pučine su vrlo rijetki, posebno nekih riba i morskih sisavaca. U sakupljenom materijalu je nađeno i nekoliko vrsta koje se općenito drže rijetkima u sjevernom Jadranu kao, na primjer, *Anapagurus brevicarpus* i *Callionymus pusillus*.

Rezultati istraživanja upućuju na visoku biološku raznolikost i primjernu očuvanost morskih staništa toga područja. Ipak smatramo svrsishodnim poduzimanje lokalnih mjera zaštite školjkaša konjina (rod *Glycimeris*).



## A D D E N D U M

Checklist of species recorded in the Pag Island area.

CODES. Lit: Previous records (for No. see REFERENCES). Stn(s):  
Present paper station(s) of records.

## P O R I F E R A

## CALCISPONGIAE

**Homocoelida**

## CLATHRINIDAE

*Clathrina clathrus* (O. Schmidt, 1864). Lit: 5.

## DEMOSPONGIAE

**Astrophorida**

## CHONDROSIIDAE

*Chondrilla nucula* O. Schmidt, 1862. Stns: 11,12.

## GEODIIDAE

*Geodia cydonium* (Jameson, 1811). Lit: 100. Stns: 12,C,Z.

## THENEIDAE

*Thenea muricata* (Bowerbank, 1858). Lit: 31,38. Stns: C,F.

**Hadromerida**

## CLIONIDAE

*Cliona celata* (Grant, 1826). Stns: 2,5,6,11.

*Cliona viridis* (O. Schmidt, 1862). Stns: 2,6,8,9,10,11.

## SUBERITIDAE

*Suberites domuncula* (Olivi, 1792). Lit: 31,38,100. Stns: 12,Z.

## TETHYIDAE

*Tethya aurantium* (Pallas, 1766). Lit: 31,100. Stns: 12,Z.

## TIMEIDAE

*Timea* sp. Lit: 100.

**Axinellida**

## AXINELLIDAE

*Acanthella acuta* O. Schmidt, 1862. Lit: 5. Stn: 11.

*Axinella cannabina* (Esper, 1794). Lit: 38. Stn: 11.

*Axinella damicornis* (Esper, 1794). Stn: 11

**Poecilosclerida**

## HYMEDESMIIDAE

*Hemimycale columella* (Bowerbank, 1866). Lit: 5. Stn: 4.

*Hymedesmia simillima* Lundbeck, 1910. Lit: 12.

## MYCALIDAE

*Mycale contarenii* (Martens, 1824). Lit: 12.

**Haplosclerida**

## PETROSIIDAE

*Petrosia ficiformis* (Poiret, 1798). Stn: 4.

**Dictyoceratida**

## DYSIDEIDAE

*Dysidea tupha* (Martens, 1824). Stns: 5,12.

## SPONGIIDAE

*Ircinia* sp. Stn: 7.

*Spongia officinalis* Linnaeus, 1759. Stn: 8.

**Verongida**

## APLYSINIDAE

*Aplysina aerophoba* Nardo, 1843. Lit: 100. Stns: 3,5,6,8,9,10,11–16,Z.

*Aplysina cavernicola* (Vacelet, 1959). Stn: 11.

**C N I D A R I A****HYDROZOA****H y d r o i d a**

## AEQUORIDAE

*Aequorea aequorea* (Forskål, 1775). Lit: 25.

## BOUGAINVILLIDAE

*Bougainvillia muscus* (Allman, 1863). Lit:10.

## CAMPANULARIIDAE

*Clytia johnstoni* (Alder, 1856). Lit:10.

*Laomedea angulata* (Hincks, 1859). Lit:10.

*Obelia dichotoma* (Linnaeus, 1758). Lit:10.

## PLUMULARIIDAE

*Aglaophenia* sp. (erron. *pluma* /Linnaeus, 1758). Lit:10.

*Nemertesia antennina* (Linnaeus, 1758). Stns: 79/1, 91/1, 195/1.

**ANTHOZOA****Hexacorallia****Ceriantharia**

## CERIANTHIDAE

*Cerianthus membranaceus* (Spallanzani, 1784). Stns: 8,12,13.

**Actiniaria**

## ACTINIDAE

*Actinia cari* Delle Chiaje, 1825. Lit: 77.

*Actinia equina* (Linnaeus, 1766). Stn: 10,46.

*Anemonia viridis* (Forskål, 1775). Stns: 2,3,5,6,8,9,15,16,46.

## AIPTASIIDAE

*Aiptasia mutabilis* (Gravenhorst, 1831). Stns: 5,6,8,9,10.

## EDWARDSIIDAE

*Edwardsia claparedei* Panceri, 1869. Stn: VV13.

## HORMATHIIDAE

*Adamsia palliata* (Bohadsch, 1761). Lit: 77.

*Calliactis parasitica* (Couch, 1838). Lit: 77,100. Stns: 12,Z.

## SAGARTIIDAE

*Cereus pedunculatus* (Pennant, 1777). Stn: 12.

**Scleractinia**

## CARYOPHYLLIDAE

*Caryophyllia smithi* Stokes & Broderip, 1828. Stn: 87/1.

*Cladocora caespitosa* (Linnaeus, 1767). Stns: 11,12.

## DENDROPHYLLIDAE

*Balanophyllia europaea* (Risso, 1826). Stns: 4,12.

**Octocorallia****Alcyonacea**

## ALCYONIIDAE

*Alcyonium coralloides* (Pallas, 1766). Stn: 11.

*Alcyonium palmatum* Pallas, 1766. Lit: 31.

**Gorgonacea**

## GORGONIIDAE

*Eunicella cavolinii* (Koch, 1887). Stn: 11.

*Eunicella singularis* (Esper, 1794). Lit: 100. Stns: 13,21.

## PLEXAURIDAE

*Paramuricea clavata* (Risso, 1826). Stn: 13.

**Pennatulacea**

## FUNICULINIDAE

*Funiculina quadrangularis* (Pallas, 1766). Lit: 77.

**SCYPHOZOA****Semaeostomae**

## PELAGIIDAE

*Chrysaora hysoscella* Linnaeus, 1767. Lit:11,26.

*Pelagia noctiluca* (Forskål, 1775). Lit: 102. Stn: 11

**Rhizostomae**

## RHIZOSTOMATIDAE

*Cotylorhiza tuberculata* (Macri, 1778). Lit: 11.

*Rhizostoma pulmo* (Macri, 1778). Lit: 25. Stn: 10.

**C T E N O P H O R A****Lobata**

## BOLINOPSIDAE

*Leucothea multicornis* (Quoy & Gaimard, 1824). Lit: 26.

**K A M P T O Z O A****Solitaria**

## LOXOSOMATIDAE

*Loxosomella atkinsae* Bobin & Prenant, 1953. Stn: G12.

**M O L L U S C A****POLYPLACOPHORA****Neoloricata**

## CHITONIDAE

*Chiton olivaceus* Spengler, 1797. Lit: 34. Stn: 2.

**GASTROPODA****Docoglossa**

## PATELLIDAE

*Patella caerulea* Linnaeus, 1758. Stns: 2,4,5,6,7,8,10,11,14.

*Patella rustica* Linnaeus, 1758. Stn: 4.

*Patella ulyssiponensis* Gmelin, 1791. Stns: 2,5,7,10,14.

### **Vestigastropoda**

#### FISSURELLIDAE

*Diodora graeca* (Linnaeus, 1758). Stn: 8.

*Diodora italica* (DeFrance, 1820). Lit: 100. Stn: 13.

#### HALIOTIDAE

*Haliotis tuberculata lamellosa* Lamarck, 1822. Stns: 2,4,11,15,47.

#### TROCHIDAE

*Gibbula albida* (Gmelin, 1791). Stns: 5,7.

*Monodonta articulata* Lamarck, 1822. Stns: 2,5,6.

*Monodonta tuberculata* (v. Born, 1778). Stns: 2,5,6,8,10,14.

#### TURBINIDAE

*Bolma rugosa* (Linnaeus, 1767). Stns: 2,7,8.

### **Neotaenioglossa**

#### APORRHAIIDAE

*Aporrhais pespelecani* (Linnaeus, 1758). Lit: 100. Stns: 22,42,44,M,Z1.

#### CASSIDAE

*Galeodea echinophora* (Linnaeus, 1758). Stns: K,M.

#### CERITHIIDAE

*Bittium reticulatum* (Da Costa, 1778). Stns: 4,5,6,7,8,9,10,46.

*Cerithium rupestre* Risso, 1826. Stns: 2,6,7,29.

*Cerithium vulgatum* Bruguière, 1792. Stns: 5,6,7,9,10,29.

#### LITTORINIDAE

*Melaraphe neritoides* (Linnaeus, 1758). Stns: 2,6,7,10,16,46.

#### NATICIDAE

*Euspira guillemini* (Payraudeau, 1826). Stn: 7,G11.

*Natica hebraea* (Martyn, 1784). Stn: 29.

#### OVULIDAE

*Aperiovula adriatica* (G.B. Sowerby I, 1828). Lit: 31.

#### RISSOIDAE

*Alvania cimex* (Linnaeus, 1758). Stn: 7.

*Pusilina parva* (Da Costa, 1778). Stn: 7.

*Rissoa guerinii* Récluz, 1843. Stns: 6,7.

*Rissoina bruguieri* (Payraudeau, 1826). Stn: 7.

*Rudolphosetia fusca* (Philippi, 1841). Lit: 22.

#### TONNIDAE

*Tonna galea* (Linnaeus, 1758). Lit: 31. Stns: 26,44.

#### TURRITELLIDAE

*Turritella communis* Risso, 1826. Lit: 31,100. Stns: 12,199/1,G12.

*Turritella turbona* Monterosato, 1877. Stn: G11.

**VERMETIDAE**

*Serpulorbis arenaria* (Linnaeus, 1767). Stn: 8.

*Vermetus triquetrus* Bivona Ant., 1832. Stns: 5,6,7,9,10.

**Neogastropoda****COLUMBELLIDAE**

*Columbella rustica* (Linnaeus, 1758). Stns: 6,9.

*Mitrella gervillei* (Payraudeau, 1826). Stn: 5.

**CONIDAE**

*Conus mediterraneus* Hwass in Bruguière, 1792. Stns: 2,6.

**COSTELLARIIDAE**

*Vexillum ebenus* (Lamarck, 1811). Lit: 100. Stn: VV17.

*Vexillum tricolor* (Gmelin, 1790). Stns: 5,6.

**MURICIDAE**

*Bolinus brandaris* (Linnaeus, 1758). Lit: 31,100. Stns: 6,29,Z1.

*Hexaplex trunculus* (Linnaeus, 1758). Lit: 100. Stns: 5,9,46,Z1.

*Muricopsis cristata* (Brocchi, 1814). Stns: 5,6,7,9,10.

*Nassarius incrassatus* (Ström, 1768). Stns: 6,10.

*Pisania striata* (Gmelin, 1791). Stns: 6,9,10.

**SCAPHOPODA****Dentaliida****DENTALIIDAE**

*Dentalium panormum* Chenu, 1858. Stn: 87/1.

**BIVALVIA****Nuculoida****NUCULIDAE**

*Nucula nitidosa* Winckworth, 1930. Stn: G12.

*Nucula nucleus* (Linnaeus, 1758). Lit: 48. Stn: 191/1.

*Nucula sulcata* Bronn, 1831. Lit: 65,100. Stns: VV13,VV17.

**NUCULANIDAE**

*Nuculana comutata* (Philippi, 1844). Lit: 48, 65. Stn: 206/1.

*Nuculana illirica* Carozza, 1987. Lit: 27.

**Arcoida****ARCIDAE**

*Arca noae* Linnaeus, 1758. Lit: 26,49,100. Stns: 5,9,13,15,16,31,39,46,Z.

*Arca tetragona* Poli, 1795. Lit: 49.

*Barbatia barbata* (Linnaeus, 1758). Lit: 49.

**GLYCIMERIDAE**

*Glycimeris bimaculata* (Poli, 1795). Lit: 64. Stns: 5,30,34,35,40,41.

*Glycimeris glycimeris* (Linnaeus, 1758). Stns: 2,5.

*Glycimeris violascens* (Lamarck, 1819). Stns: 2,5.

**Mytiloidea****MYTILIDAE**

*Lithophaga lithophaga* (Linnaeus, 1758). Stns: 5,6,8,9,10,32.

*Modiolus adriaticus* (Lamarck, 1819). Stn: 9.

*Modiolus barbatus* (Linnaeus, 1758). Lit: 100. Stn: Z.

*Musculus costulatus* (Risso, 1826). Stn: 6.

*Mytilaster minimus* (Poli, 1795). Stns: 2,5,10.

*Mytilus galloprovincialis* Lamarck, 1819. Stns: 2,10,14,30,40,46.

**PINNIDAE**

*Pinna nobilis* Linnaeus, 1758. Stns: 6,14,40,42,43,44.

**Pterioidea****ANOMIIDAE**

*Anomia ephippium* Linnaeus, 1758. Lit: 65. Stn: F.

**LIMIDAE**

*Lima lima* (Linnaeus, 1758). Stn: 9.

*Mantellum inflatum* (Chemnitz, 1784). Stn: Z.

**PECTINIDAE**

*Aequipecten opercularis* (Linnaeus, 1758). Lit: 65. Stns: 6,87/1.

*Chlamys glabra* (Linnaeus, 1758). Stns: 9,30.

*Chlamys varia* (Linnaeus, 1758). Lit: 65. Stns: 2,5,F.

*Pecten jacobaeus* (Linnaeus, 1758). Lit: 31. Stns: 14,28,32,40,87/1.

**SPONDYLIDAE**

*Spondylus gaederopus* Linnaeus, 1758. Stns: 9,11,40.

**Ostreoida****OSTREIDAE**

*Ostrea edulis* Linnaeus, 1758. Lit: 16. Stns: 5,8,9,33.

**Veneroida****CARDIIDAE**

*Acanthocardia aculeata* (Linnaeus, 1758). Stns: 35,36,38.

*Acanthocardia echinata* (Linnaeus, 1758). Lit: 65. Stns: 11,B,G11.

*Acanthocardia paucicostata* Sowerby G.B.II, 1841. Lit: 100. Stn: Z.

*Acanthocardia tuberculata* (Linnaeus, 1758). Stns: 2,3,7,28,29,34,87/1.

*Laevicardium oblongum* (Gmelin, 1791). Stns: 6,29.

*Parvicardium minimum* (Philippi, 1836). Stn: 36.

*Plagiocardium papillosum* (Poli, 1795). Lit: 65. Stns: 9,87/1.

## CHAMIDAE

*Chama gryphoides* Linnaeus, 1758. Stns: 8,9.

## DONACIDAE

*Donax venustus* Poli, 1795. Stn: 7.

## GLOSSIDAE

*Glossus humanus* (Linnaeus, 1758). Lit: 31,65. Stns: B,M.

## LUCINIDAE

*Loripes lacteus* (Linnaeus, 1758). Stn: 7.

## MESODESMATIDAE

*Donacilla cornea* (Poli, 1795). Stn: 29.

## PSAMMOBIIDAE

*Gari depressa* (Pennant, 1777). Stns: 7,9.

## PHARELLIDAE

*Ensis ensis* (Linnaeus, 1758). Stns: 6,29.

*Phaxas pellucidus* (Pennant, 1777). Lit: 65,100. Stns: 190/1,VV13,VV17.

## SOLENIDAE

*Solen marginatus* Pulteney, 1799. Stn: 22.

## SOLECURTIDAE

*Solecurtus strigillatus* (Scacchi, 1834). Stns: 6,7,8,31,37.

## VENERIDAE

*Callista chione* (Linnaeus, 1758). Stns: 6,7,10,14,28,29,32,46.

*Chamelea gallina* (Linnaeus, 1758). Stn: 7.

*Clausinella fasciata* (da Costa, 1778). Lit: 65. Stn: 87/1.

*Dosinia lupinus* (Linnaeus, 1758). Stn: 7.

*Pitar rudis* (Poli, 1795). Lit: 65,100. Stns: 87/1,VV17.

*Tapes decussata* (Linnaeus, 1758). Stns: 28,29.

*Timoclea ovata* (Pennant, 1777). Stn: 7.

*Venerupis aurea* Gmelin, 1791. Stn: 9.

*Venus verrucosa* Linnaeus, 1758. Lit: 24,65. Stns: 1,7,9,22, 31,32,44,46,87/1,Z.

## TELLINIDAE

*Tellina distorta* Poli, 1791. Lit: 65. Stn: 87/1.

*Tellina serrata* Brocchi, 1814. Lit: 65. Stn: G11.

**Myoida**

## CORBULIDAE

*Corbula gibba* (Olivi, 1792). Lit: 65. Stns: G11,G12,Z.

## GASTROCHAENIDAE

*Gastrochaena dubia* (Pennant, 1777). Stns: 2,5,6,8,9,10,11,12.

## HIATELLIDAE

*Hiatella arctica* (Linnaeus, 1767). Stn: 5.



**CEPHALOPODA****Sepioidea**

## SEPIIDAE

*Sepia elegans* de Blainville, 1827. Lit: 31,63.

*Sepia officinalis* Linnaeus, 1758. Lit: 29,31. Stns: 6 (ova),9,24.

## SEPIOLIDAE

*Sepiola rondeleti* Leach, 1817. Lit: 31,63.

**Teuthoidea**

## LOLIGINIDAE

*Alloteuthis medius* (Linnaeus, 1758). Lit: 31,63.

*Loligo vulgaris* Lamarck, 1798. Lit: 31,63.

## OMMASTREPHIDAE

*Illex coindetii* (Vérany, 1839). Lit: 63.

**Octopoda**

## OCTOPODIDAE

*Eledone moschata* (Lamarck, 1798). Lit: 31,63.

*Octopus vulgaris* Cuvier, 1797. Stns: 7,14,18,20,24,28,45.

**S I P U N C U L A****SIPUNCULIDEA****Sipunculiformes**

## GOLFINGIIDAE

*Golfingia elongata* Keferstein, 1863. Lit: 73.

## PHASCOLIONIDAE

*Phascolion strombus* (Montagu, 1804). Lit: 72,73,100. Stn: VV13.

**PHASCOLOSOMATIDEA****Phascolosomatiformes**

## PHASCOLOSOMATIDAE

*Phascolosoma granulatum* Leuckart, 1828. Stns: 5,6,7.

**Aspidosiphoniformes**

## ASPIDOSIPHONIDAE

*Aspidosiphon muelleri kovalevskii* Diesing, 1851. Lit: 72,100. Stns: 87/1,199/1,G12,VV13, VV17.

**E C H I U R A****BONELLIDAE**

*Bonellia viridis* Rolando, 1821. Lit: 103. Stn: 11.

**A N N E L I D A****POLYCHAETA****AMPHARETIDAE**

*Melinna palmata* Grube, 1870. Lit: 4,100. Stns: VV13,VV17.

**APHRODITIDAE**

*Aphrodita aculeata* Linnaeus, 1761. Lit: 26,31,100. Stn: Z.

*Harmothoe imbricata* (Linnaeus, 1767). Stn: 5.

*Hermonia hystrix* (Savigny, 1820). Lit: 100. Stns: 87/1,Z.

**CAPITELLIDAE**

*Notomastus latericeus* Sars, 1851. Lit: 4,100. Stns: 150/3,194/1,VV13,VV17.

**CIRRATULIDAE**

*Dodecaceria concharum* Ørsted, 1843. Lit: 4,100. Stn: VV12.

**EUNICIDAE**

*Lysidice ninetta* Audouin & H.Milne-Edwards, 1833. Stns: 5,6,8.

*Marphysa kinbergi* McIntosh, 1910. Lit: 4,100. Stns: 188/1,190/1,191/1,194/1,194/2, 195/1, 197/1,215/1,VV13,VV17.

**GLYCERIDAE**

*Glycera rouxi* Audouin & H.Milne-Edwards, 1833. Lit: 4,100. Stns:150/3,188/1,191/1, 197/1, 206/1,215/1,VV13,VV17.

**GONIADIDAE**

*Glycinde nordmanni* (Malmgren, 1866). Stn: 90/1.

*Goniada norvegica* Ørsted, 1844. Stn: 98/1.

**HESIONIDAE**

*Ophiodromus flexuosus* (Delle Chiaje, 1825). Lit: 4,100. Stns: VV13,VV17.

**LUMBRINERIDAE**

*Lumbrineris latreillei* (Audouin & H.Milne-Edwards, 1834). Stns: 91/1,95/1.

*Lumbrineris* sp. Stns: 96/1,97/1.

*Ninoe armoricana* Glémarec, 1968. Lit: 4,100. Stns: VV13,VV17.

*Scoletoma impatiens* (Claparède, 1868). Stn: 214/4.

**MALDANIDAE**

*Maldane glebifex* Grube, 1860. Lit: 4, 100. Stn: Z.

**MYZOSTOMIDAE**

*Myzostoma glabrum* Leuckart, 1827. Stn: 12.

**NEPHTYIDAE**

*Nephtys hystricis* McIntosh, 1900. Lit: 4,100. Stns: 206/1,VV13,VV17.

*Nephtys incisa* Malmgren, 1865. Stn: 153/4.

## NEREIDAE

*Ceratonereis costae* (Grube, 1860). Stn: 8.

*Eunereis longissima* (Johnston, 1840). Stn: 98/1.

*Nereis rava* Ehlers, 1868. Stn: 5.

## ONUPHIDAE

*Hyalinoecia tubicola* (O.F.Müller, 1776). Stn: 87/1.

*Paradiopatra lepta* Chamberlin, 1919. Lit: 4,100. Stns: K-II,VV13.

## OPHELIIDAE

*Ophelina aulogaster* (Rathke, 1843). Lit: 4,100. Stns: 153/4,VV17.

## ORBINIIDAE

*Phylo grubei* (McIntosh, 1910). Lit: 4,100. Stn: VV17.

## POECILOCHAETIDAE

*Poecilochaetes serpens* Allen, 1904. Lit: 4,100. Stn: VV17.

## PHYLLODOCIDAE

*Eulalia* sp. Lit: 100. Stn: VV13.

## SABELLIDAE

*Bispira mariae* Lo Bianco, 1893. Stn: 5.

*Myxicola infundibulum* (Renier, 1804). Stns: 2,3,7,9.

*Sabella pavonina* (Savigny, 1820). Stns: 5,7,9.

*Sabella spallanzanii* (Gmelin, 1791). Stns: 6,7,8,9,10,12.

## SCALIBREGMIDAE

*Scalibregma inflatum* Rathke, 1843. Lit: 4,100. Stns: VV12,VV13.

## SERPULIDAE

*Ditrupa arietina* (O.F.Müller, 1776). Lit: 38. Stn: 90/1.

*Pomatoceros triqueter* (Linnaeus, 1767). Stns: 2,4,5,9,11.

*Protula tubularia* (Montagu, 1803). Stns: 8,10,16.

*Serpula vermicularis* Linnaeus, 1767. Lit: 31.

## SIGALIONIDAE

*Labioleanira yhleni* (Malmgren, 1867). Lit: 4,100. Stns: VV13,VV17.

## SPIONIDAE

*Laonice cirrata* (M.Sars, 1851). Stn: 190/1.

*Spiophanes kroyeri reyssi* Laubier, 1964. Lit: 4,100. Stn: VV13.

## STERNASPIDAE

*Sternaspis scutata* (Ranzani, 1817). Lit: 4,100. Stn: VV17.

## TEREBELLIDAE

*Eupolymnia nebulosa* (Montagu, 1818). Stns: 6,7,8.

## TRICHOBRANCHIDAE

*Terebellides stroemi* Sars, 1835. Lit: 4,100. Stns: 206/1, VV17, Z.

## A R T H R O P O D A

### ARACHNIDA

#### Acarina

##### HALACARIDAE

*Copidognathus magnipalpus magnipalpus* (Police, 1909). Stn: V–X.

##### PONTARACHNIDAE

*Litarachna communis* Walter, 1925. Stn: V–X.

### CRUSTACEA

#### O s t r a c o d a

##### Myodocopida

##### POLYCOPIDAE

*Polycope reticulata* G.W.Müller, 1894. Lit: 84. Stn: VV10.

*Polycope strongila* Barbeito-González, 1971. Lit: 84. Stn: VV10.

##### Platycopida

##### CYTHERELLIDAE

*Cytherella alvearium* Bonaduce, Ciampio & Masoli, 1975. Lit: 84. Stn: VV10.

*Cytherella vulgata* Ruggieri, 1962. Lit: 84. Stns: VV10, VV12, VV14.

##### Podocopida

##### BAIRDIIDAE

*Bairdia conformis* (Terquem, 1878). Lit: 84. Stn: VV12.

##### BYTHOCYTHERIDAE

*Bythocythere turgida* Sars, 1866. Lit: 84. Stns: VV10, VV14.

##### CUNEOCYTHERIDAE

*Cuneocythere semipunctata* (Brady, 1868). Lit: 84. Stn: VV12.

##### CYTHERIDEIDAE

*Cytheridea neapolitana* Kollman, 1960. Lit: 84. Stns: VV12, VV14, Z1.

##### CYTHERURIDAE

*Cytheropteron alatum* Sars, 1866. Lit: 84. Stns: VV10, VV12, VV14.

*Cytheropteron monoceros* Bonaduce, Ciampio & Masoli, 1975. Lit: 84. Stn: VV10.

*Cytheropteron rotundatum* (G.W.Müller, 1894). Lit: 84. Stns: VV10, VV14.

*Cytheropteron ruggierii* Pucci, 1955. Lit: 84. Stn: VV10.

*Eucytherura mistrettai* Sissingh, 1972. Lit: 84. Stns: VV10, VV12.

*Pseudocytherura calcarata* (Seguenza, 1880). Lit: 84. Stn: VV10.

*Semicytherura acuticostata ventricosa* (G.W.Müller, 1894). Lit: 84. Stns: VV10, VV12.

*Semicytherura diafora* Barbeito-González, 1971. Lit: 84. Stn: VV12.

*Semicytherura paradoxa* (G.W.Müller, 1894). Lit: 84. Stn: VV10.

*Semicytherura ruggierii* (Pucci, 1955). Lit: 84. Stns: VV10,VV12.

#### EUCYTHERIDAE

*Eucythere curta* Ruggieri, 1975. Lit: 84. Stns: VV10,VV14.

#### HEMICYTHERIDAE

*Aurila convexa* (Baird, 1850). Lit: 84. Strn: Z1.

#### KRITHIDAE

*Krithe praetexta* (Sars, 1866). Lit: 84. Stns: VV12,VV14.

#### LEPTOCYTHERIDAE

*Callistocythere adriatica* Masoli, 1968. Lit: 84. Stns: VV10,VV12,VV14.

*Leptocythere bacescoi* (Rome, 1942). Lit: 84. Stns: VV10,Z1.

*Leptocythere ramosa* (Rome, 1942). Lit: 84. Stns: VV12,VV14,Z1.

#### LOXOCOONCHIDAE

*Loxocauda decipiens* (G.W.Müller, 1894). Strn: V–X.

*Loxococoncha agilis* Ruggieri, 1967. Lit: 84. Stns: VV10,VV14,Z1.

*Palmococoncha turbida* (G.W.Müller, 1894). Lit: 84. Strn: Z1.

*Sagmatocythere versicolor* (G.W.Müller, 1894). Lit: 84. Stns: VV10,VV12,VV14.

#### PONTOCYPRIDIDAE

*Propontocypris setosa* (G.W.Müller, 1894). Lit: 84. Stns: VV10,VV12.

#### TRACHYLEBERIDIDAE

*Bosquetina dentata* (G.W.Müller, 1894). Lit: 84. Stns: VV10,VV12,VV14,Z1.

*Buntonia sublatissima* (Neviani, 1906). Lit: 84. Stns: VV10,VV12,VV14.

*Carinocythereis antiquata* (Baird, 1850). Lit: 84. Stns: VV10,VV14,Z1.

*Carinocythereis antiquata bairdi* (Uliczny, 1969). Lit: 84. Stns: VV12,Z1.

*Carinocythereis* aff. *cnistum* Uliczny, 1969. Lit: 84. Strn: Z1.

*Costa edwardsii* (Roemer, 1838). Lit: 84. Stns: VV10,VV14.

*Henryhowella sarsi* (G.W.Müller, 1894). Lit: 84. Stns: VV10,VV12,VV14.

*Hiltermannicythere turbida* (G.W.Müller, 1894). Lit: 84. Stns: VV12,VV14,Z1.

*Pterygocythereis ceratoptera* (Bosquet, 1852). Lit: 84. Stns: VV12,VV14.

*Pterygocythereis jonesi* (Baird, 1850). Lit: 84. Stns: V–X,VV10,VV12,VV14.

#### XESTOLEBERIDIDAE

*Xestoleberis communis* G.W.Müller, 1894. Lit: 84. Stns: VV12,Z1.

*Xestoleberis dispar* G.W.Müller, 1894. Lit: 84. Stns: VV14,Z1.

## C o p e p o d a

### Calanoida

#### ACARTIIDAE

*Acartia clausi* Giesbrecht, 1889. Lit: 51. Stns: VV9,VV12,VV14,Z1.

#### CALANIDAE

*Calanus helgolandicus* Claus, 1863. Lit: 51. Stns: VV9,VV12,VV14,Z1.

*Mesocalanus tenuicornis* (Dana, 1849). Lit: 51. Stns: VV9,VV12,VV14.

*Nannocalanus minor* (Claus, 1863). Lit: 51. Stns: VV9,VV12.

## CANDACIIDAE

*Candacia armata* Boeck, 1873. Lit: 51. Stns: VV9, VV12, VV14.

## CENTROPAGIDAE

*Centropages kroeyeri* Giesbrecht, 1892. Lit: 51. Stns: VV12, VV14, Z1.

*Centropages typicus* Krøyer, 1849. Lit: 51. Stns: VV9, VV12, VV14, Z1.

*Centropages violaceus* (Claus, 1863). Lit: 51. Stn: VV9.

*Isias clavipes* Boeck, 1865. Lit: 51. Stns: VV9, VV14, Z1.

## CLAUSOCALANIDAE

*Clausocalanus arcuicornis* (Dana, 1849). Lit: 51. Stns: VV9, VV12, VV14, Z1.

*Clausocalanus furcatus* (Brady, 1883). Lit: 51. Stns: VV9, VV12, VV14, Z1.

*Clausocalanus jobei* Frost & Fleminger, 1968. Lit: 51. Stns: VV9, VV12, VV14, Z1.

*Clausocalanus paululus* Farran, 1926. Lit: 51. Stn: VV9.

*Clausocalanus pergens* Farran, 1926. Lit: 51. Stns: VV9, VV12, VV14.

*Ctenocalanus vanus* Giesbrecht, 1888. Lit: 51. Stns: VV9, VV12, VV14, Z1.

*Pseudocalanus elongatus* (Boeck, 1865). Lit: 51. Stns: VV9, VV12, VV14, Z1.

## DIAIXIDAE

*Diaixis pigmaea* (T. Scott, 1899). Lit: 51. Stns: VV9, VV12, VV14, Z1.

## EUCHAETIDAE

*Pareuchaeta hebes* (Giesbrecht, 1888). Lit: 51. Stn: VV12.

## LUCICUTIIDAE

*Lucicutia flavicornis* (Claus, 1863). Lit: 51. Stns: VV9, VV12.

## MECYNOCERIDAE

*Mecynocera clausi* I.C.Thompson, 1888. Lit: 51. Stns: VV9, VV12, Z1.

## PONTELLIDAE

*Labidocera wollastoni* (Lubbock, 1857). Lit: 51. Stns: VV9, VV12, VV14, Z1.

*Pontella mediterranea* (Claus, 1863). Lit: 51. Stn: Z1.

## TEMORIDAE

*Temora longicornis* (O. F. Müller, 1792). Lit: 51. Stns: VV9, VV12, VV14, Z1.

*Temora stylifera* (Dana, 1849). Lit: 51. Stns: VV9, VV12, VV14, Z1.

**Harpacticoida**

## AMEIRIDAE

*Pseudameira mixta* ssp. *mixta* Sars, 1920. Stn: K-II.

## CERVINIIDAE

*Cerviniopsis* cf. *langi* Soyer, 1970. Stn: K-II.

## DIOSACCIDAE

*Metamphiascopsis hirsutus* Thompson & A.Scott, 1903. Stn: V-X.

## EUTERPINIDAE

*Euterpina acutifons* (Dana, 1847). Lit: 51. Stn: Z1.

## PELTIDIIDAE

*Alteutha interrupta* (Goodsir, 1845). Stn: K-II.

**Cyclopoida**

## OITHONIDAE

*Oithona helgolandica* Claus, 1863. Lit: 51. Stns: VV9,VV12,VV14,Z1.

*Oithona nana* Giesbrecht, 1892. Lit: 51. Stns: VV9,VV12,VV14,Z1.

*Oithona plumifera* Baird, 1843. Lit: 51. Stns: VV9,VV12,VV14,Z1.

**Poecilostomatoida**

## ONCAEIDAE

*Oncaea media* Giesbrecht, 1891. Lit: 51. Stn: Z1.

*Oncaea mediterranea* (Claus, 1863). Lit.: 51. Stns: VV9,VV12,VV14.

*Oncaea subtilis* Giesbrecht, 1892. Lit.: 51. Stn: VV17.

*Triconia dentipes* Giesbrecht, 1891. Lit: 51. Stn: Z1.

## CORYCAEIDAE

*Agetus flaccus* (Giesbrecht, 1891). Lit: 51. Stn: VV9.

*Agetus typicus* (Krøyer, 1849). Lit: 51. Stns: VV9,VV12.

*Corycaeus clausi* (F. Dahl, 1894). Lit: 51. Stns: VV9,VV12,Z1.

*Ditrichocorycaeus brehmi* (Steuer, 1910). Lit: 51. Stns:VV9,VV12,VV14,Z1.

*Farranula rostrata* (Claus, 1863). Lit: 51. Stns: VV9,VV12,VV14,Z1.

*Onychocorycaeus giesbrechti* (F.Dahl, 1894). Lit: 51. Stns: VV9,VV12,VV14,Z1.

## SAPPHIRINIDAE

*Sapphirina nigromaculata* Claus, 1863. Lit: 51. Stns: VV9,VV12,Z1.

**C i r r i p e d i a****Sessilia**

## CHTHAMALIDAE

*Chthamalus montagui* Southward, 1976. Stns: 1,14,16,46.

*Chthamalus stellatus* (Poli, 1791). Stns: 2,4,5,6,7,8,10,11,14,16,22,46.

*Euraphia depressa* (Poli, 1791). Stns: 4,10.

## BALANIDAE

*Balanus perforatus* Bruguière, 1789. Stns: 4,7,8.

**Akentrogonida**

SACCULINIDAE indet. Lit: 100. Stn: Z.

**M a l a c o s t r a c a****Decapoda**

## ALPHEIDAE

*Alpheus dentipes* Guérin-Méneville, 1832. Stns: 5,6,8.

## CALLIANASSIDAE

*Callianassa subterranea* (Montagu, 1808). Lit: 90,92,100. Stns: 12,79/1,84/1,85/1,91/1,98/1,153/3,153/4,172/1,188/1,190/1,191/1,193/1,194/1,195/1,197/1,206/1,214/1, G12, VV9, VV13, VV17.

#### CALOCARIDIDAE

*Calocaris macandreae* Bell, 1846. Lit: 90,92,100. Stns: 172/1, VV13, VV17.

#### CRANGONIDAE

*Pontophilus spinosus* (Leach, 1815). Lit: 92. Stns: C,D.

#### DIOGENIDAE

*Clibanarius erythropus* (Latreille, 1818). Stns: 6,9,10.

*Paguristes eremita* (Linnaeus, 1767). Lit: 90,92,100. Stns: 12,Z.

#### DORIPPIDAE

*Ethusa mascarone* (Herbst, 1785). Lit: 90,100. Stn: Z.

#### ERIPHIDAE

*Eriphia verrucosa* (Forskål, 1775). Stns: 6,8,10,11.

#### GALATHEIDAE

*Galathea bolivari* Zariquiey Alvarez, 1950. Stns: 5,8.

*Galathea intermedia* Lilljeborg, 1851. Lit: 90,100. Stns: G11, Z.

*Galathea strigosa* (Linnaeus, 1761). Lit: 92. Stn: 13.

*Munida rugosa* (Fabricius, 1775). Lit: 31,92.

#### GRAPSIDAE

*Pachygrapsus marmoratus* (Fabricius, 1787). Stns: 4,5,7,14,22,46.

#### LAOMEDIIDAE

*Jaxea nocturna* Nardo, 1847. Lit: 90,92,100. Stns: 191/1,197/1,215/1, VV17.

#### LEUCOSIIDAE

*Ebalia cranchi* Leach, 1818. Lit: 90,100. Stn: VV17.

#### MAJIDAE

*Acanthonyx lunulatus* (Risso, 1816). Stn: 7.

*Eurynome aspera* (Pennant, 1777). Lit: 90,100. Stn: Z.

*Inachus comunissimus* Rizza, 1839. Lit: 90,100. Stns: 7,Z.

*Lissa chiragra* (Fabricius, 1775). Lit: 90,100. Stn: Z.

*Macropodia longipes* (A.Milne Edwards & Bouvier, 1899). Lit: 92. Stn: C.

*Macropodia longirostris* (Fabricius, 1775). Lit: 92. Stn: D.

*Macropodia rostrata* (Linnaeus, 1761). Lit: 90,100. Stns: 6,7,Z.

*Maja crispata* Risso, 1827. Stns: 5,6,8.

*Maja squinado* (Herbst, 1788). Stns: 10,16,22,F.

*Pisa tetraodon* (Pennant, 1777). Stns: 7,8.

#### NEPHROPSIDAE

*Homarus gammarus* (Linnaeus, 1758). Fishermen' records. Stns: 14,26,35,K,R.

*Nephrops norvegicus* (Linnaeus, 1758). Lit: 31,38,90,92,100. Stns: C,D,F.

#### PALINURIDAE

*Palinurus elephas* (Fabricius, 1787). Fishermen' records.

#### PAGURIDAE

*Anapagurus brevicarpus* A.Milne Edwards & Bouvier, 1892. Lit: 90,100. Stns: G11,Z.



*Cestopagurus timidus* (Roux, 1830). Stns: 6,7.

*Pagurus alatus* Fabricius, 1775. Lit: 92. Stn: C.

*Pagurus anachoretus* Risso, 1827. Stns: 5,7.

*Pagurus prideaux* Leach, 1815. Stns: 12,13.

#### PALAEEMONIDAE

*Palaemon elegans* Rathke, 1837. Stn: 6.

#### PENAEIDAE

*Parapenaeus longirostris* (H. Lucas, 1846). Lit: 31,92. Stn: C.

#### PILUMNIDAE

*Pilumnus spinifer* H. Milne Edwards, 1834. Lit: 90,100. Stns: 6,7,8,Z.

#### PORCELLANIDAE

*Pisidia longimana* (Risso, 1816). Lit: 90,100. Stns: 6,9,Z.

*Porcellana platycheles* (Pennant, 1777). Stns: 5,6.

#### PORTUNIDAE

*Liocarcinus depurator* (Linnaeus, 1758). Lit: 31,78. Stns: 87/1, D.

*Liocarcinus maculatus* (Risso, 1827). Lit: 100. Stn: Z.

#### PROCESSIDAE

*Processa noveli* Al-Adhub & Williamson, 1975. Lit: 90,100. Stn: VV17.

#### SOLENO CERIDAE

*Solenocera membranacea* (Risso, 1816). Lit: 90, 100. Stn: VV17.

#### UPOGEBIIDAE

*Upogebia deltaura* (Leach, 1815). Lit: 92. Stns: 81/1,95/1,97/1,150/3,171/3.

#### XANTHIDAE

*Xantho poressa* (Olivi, 1792). Stns: 5,6,9.

### Isopoda

#### LIGIIDAE

*Ligia italica* Fabricius, 1798. Stns: 4,7,10,14,22,46.

### Amphipoda

#### HYALIDAE

*Hyale camptonyx* (Heller, 1866). Precise location not noted.

#### MELITIDAE

*Elasmopus pocillimanus* (Bate, 1862). Stns: 5,6,7,8.

## B R Y O Z O A

### GYMNOLAEMATA

#### Ctenostomata

#### VESICULARIIDAE

*Amathia lendigera* (Linnaeus, 1758). Stns: 6,14.

**Cheilostomata**

## ADEONIDAE

*Reptadeonella violacea* (Johnston, 1847). Stns: 1,2,4,9,16.

## AETEIDAE

*Aetea longicollis* (Jullien, 1903). Stn: 3.

*Aetea sica* (Couch, 1844). Stns: 5,7,10,14,15,16.

*Aetea truncata* (Landsborough, 1852). Stns: 3,5,6,15,16.

## BEANIIDAE

*Beania cylindrica* (Hincks, 1886). Stn: 5.

*Beania hirtissima* (Heller, 1867). Stn: 3.

*Beania mirabilis* Johnston, 1840. Stn: 15.

## BITECTIPORIDAE

*Metroperiella lepralioides* (Calvet, 1903). Stns: 5,16.

*Schizomavella rudis* (Manzoni, 1869). Stn: 16.

## CALLOPORIDAE

*Copidozoum tenuirostre* (Hincks, 1880). Stn: 3.

## CANDIDAE

*Scrupocellaria bertholleti* (Audouin, 1826). Stns: 3,14,15.

*Scrupocellaria delilii* (Audouin, 1826). Stn: 3.

*Scrupocellaria scruposa* (Linnaeus, 1758). Stn: 14.

## CELLEPORIDAE

*Celleporina caminata* (Waters, 1879). Stns: 10,16.

## CHORIZOPORIDAE

*Chorizopora brongniartii* (Audouin, 1826). Stns: 3,5,10,14,15,16.

## CRIBRILINIDAE

*Collarina balzaci* (Audouin, 1826). Stns: 5,6,7,8,9,10,14,15,16.

## CRYPTOSULIDAE

*Cryptosula pallasiana* (Moll, 1803). Stns: 2,5,7,15.

## ELECTRIDAE

*Electra posidoniae* Gautier, 1954. Stns: 7,14.

## HIPPOPORIDRIDAE

*Hagiosynodos kirchenpaueri* ssp. *tregoubovii* Gautier, 1962. Stn: 3.

## MICROPORELLIDAE

*Microporella ciliata* (Pallas, 1766). Stn: 3.

## MICROPORIDAE

*Mollia circumcincta* (Heller, 1867). Stn: 3.

## MYRIAPORIDAE

*Myriapora truncata* (Pallas, 1766). Stn: 11.

## PHIDOLOPORIDAE

*Rhynchozoon bispinosum* (Johnston, 1847). Stns: 1,8,14.

## SAVIGNYELLIDAE

*Savignyella lafontii* (Audouin, 1826). Stn: 15.

**SCHIZOPORELLIDAE**

*Schizobrachiella sanguinea* (Norman, 1868). Stns: 1,2,3,5,6,7,9,10,14,15,16.

*Schizoporella dunkeri* (Reuss, 1848). Stns: 1,2,3,5,10,14,15,16.

*Schizoporella errata* (Waters, 1878). Stn: 15.

*Schizoporella* cf. *tetragona* (Reuss, 1848). Stn: 1.

*Schizoporella unicornis* (Johnston in Wood, 1844). Stn: 15.

**SMITTINIDAE**

*Smittina cervicornis* (Pallas, 1766). Stn: 11.

**UMBONULIDAE**

*Umbonula oviceolata* Hastings, 1944. Stn: 16.

**STENOLAEMATA****Cyclostomata****CRISIIDAE**

*Crisia ramosa* Harmer, 1891. Stns: 10,14.

*Filicrisia geniculata* (H.Milne Edwards, 1838). Stn: 14.

**HORNERIDAE**

*Hornera frondiculata* Lamouroux, 1821. Stn: 91/1.

**LICHENOPORIDAE**

*Patinella radiata* (Audouin, 1826). Stns: 3,14,16.

**TUBULIPORIDAE**

*Tubulipora liliacea* (Pallas, 1766). Stn: 14.

**E C H I N O D E R M A T A****CRINOIDEA****Comatulida****ANTEDONIDAE**

*Antedon mediterranea* (Lamarck, 1816). Lit: 25,31,99,100,101. Stns: 12,13,Z.

**HOLOTHUROIDEA****Aspidochirotida****HOLOTHURIIDAE**

*Holothuria forskali* Delle Chiaje, 1823. Lit: 99,100,101. Stns: 5,12,13,87/1,Z1,A,B,C,D,E,F.

*Holothuria polii* Delle Chiaje, 1823. Lit: 101. Stns: 5,6.

*Holothuria stellati* Delle Chiaje, 1823. Stn: 6.

*Holothuria tubulosa* Gmelin, 1788. Lit: 99,100,101. Stns: 1,3,5,6,7,8,9,10,11,12,13,14,15,16,46.

**STICHOPODIDAE**

*Eostichopus regalis* Cuvier, 1817. Lit: 31,101. Stns: A,B,C,D,E,F.

**Dendrochirotida**

## CUCUMARIIDAE

*Leptopentacta elongata* (Düben & Koren, 1844). Stns: 11,95/1,G11.

*Leptopentacta tergestina* (M.Sars, 1857). Lit : 99,100. Stns: 12,13,D,G12,Z.

*Ocnus planci* (Brandt, 1835). Lit: 99,100,101. Stns: 13,D,Z.

**Apodida**

## SYNAPTIDAE

*Labidoplax digitata* (Montagu, 1815). Lit: 99,100,101. Stns: 12,89/1,191/1,215/1,G12,VV17.

**ASTEROIDEA****Paxillosida**

## ASTROPECTENIDAE

*Astropecten aranciacus* (Linnaeus, 1758). Lit: 31,99,100,101. Stns: 12,13,F, Z.

*Astropecten bispinosus* (Otto, 1823). Lit: 99,100. Stns: 2,13,Z.

*Astropecten irregularis pentacanthus* (Delle Chiaje, 1825). Lit: 99,100,101. Stns:12,13, A,B,C,D,E,F,Z.

*Astropecten platyacanthus* (Philippi, 1837). Stn: 2.

**Valvatida**

## ASTERINIDAE

*Anseropoda placenta* (Pennant, 1777). Lit: 31, 101. Stns: E,F.

**Spinulosida**

## ECHINASTERIDAE

*Echinaster sepositus* (Retzius, 1783). Lit: 31,99,100,101. Stns: 3,8,13,A.

**Forcipulatida**

## ASTERIIDAE

*Coscinasterias tenuispina* (Lamarck, 1816). Stn: 10.

*Marthasterias glacialis* (Linnaeus, 1758). Lit: 31,101. Stns: 5,10,12,15,16,46,A,C,D,E,F.

**OPHIUROIDEA****Ophiurae**

## AMPHIURIDAE

*Amphiura chiajei* Forbes, 1843. Lit: 99,100,101. Stns: 11,87/1,G11,Z.

*Amphiura filiformis* (O.F.Müller, 1776). Lit: 99,100,101. Stns: 12,VV9,VV13,VV17.

*Amphiura mediterranea* Lyman, 1882. Stn: 33.

*Amphipholis squamata* (Delle Chiaje, 1828). Stns: 5,11,G11.

## OPHIODERMATIDAE

*Ophioderma longicaudum* (Retzius, 1805). Lit: 99,100,101. Stns: 4,12,13,16.

**OPHIOMYXIDAE**

*Ophiomyxa pentagona* (Lamarck, 1816). Lit: 99,100. Stn: Z.

**OPHIOTHRICIDAE**

*Ophiothrix fragilis* (Abildgaard in O.F. Müller, 1789). Lit:99,100,101. Stns:2,3,6,7,9,10,11, Z.

*Ophiothrix fragilis quinquemaculata* (Delle Chiaje, 1828). Lit: 38,99,100,101. Stns: 12,13, A,D,E,F.

**OPHIURIDAE**

*Ophiura albida* Forbes, 1839. Lit: 99,100,101. Stns: 13,G11,Z.

*Ophiura grubei* Heller, 1863. Lit: 99,101. Stn: G11.

*Ophiura ophiura* (Linnaeus, 1758). Lit: 99,100,101. Stns: 12,13,G11,Z.

**ECHINOIDEA****Diadematoida****ARBACIIDAE**

*Arbacia lixula* (Linnaeus, 1758). Lit: 101. Stns: 3,10,16.

**ECHINIDAE**

*Echinus acutus* Lamarck, 1816. Lit: 99,100,101. Stns: 9,13,B,C,F.

*Echinus melo* Lamarck, 1816. Lit: 31.

*Psammechinus microtuberculatus* (Blainville, 1815). Lit: 25,99,100,101. Stns: 8,12,13, G11, Z.

*Paracentrotus lividus* (Lamarck, 1816). Lit: 99,100,101. Stns: 1,2,3,4,9,10,11,12,13,15,46,Z.

**Spatangoida****BRISSIDAE**

*Brissopsis lyrifera* Forbes, 1841. Lit: 99,100,101. Stns: 79/1,193/1,A,C,D,E,VV13,VV14, VV17.

**LOVENIIDAE**

*Echinocardium fenauxi* Péquignat, 1963. Stns: 2,8,27,29,33,39.

*Echinocardium mediterraneum* (Forbes, 1844). Lit: 101. Stn: 22.

**SCHIZASTERIDAE**

*Schizaster canaliferus* (Lamarck, 1816). Lit: 101. Stn: 45.

**T U N I C A T A****APPENDICULARIA****FRITILLARIIDAE**

*Appendicularia sicula* Fol, 1874. Lit: 83. Stn: VV9.

*Fritillaria borealis* Lohmann, 1896. Lit: 83. Stns: VV9,VV12,VV14,Z1.

*Fritillaria formica* Fol, 1872. Lit: 83. Stn: VV14.

*Fritillaria haplostoma* Fol, 1872. Lit: 83. Stns: VV9,VV12,VV14.

*Fritillaria pellucida* (Busch, 1851). Lit: 83. Stns: VV9,VV12,VV14,Z1.

**OIKOPLEURIDAE**

*Oikopleura dioica* Fol, 1872. Lit: 83. Stns: VV9,VV12,VV14,Z1.

*Oikopleura graciloides* Lohmann & Bückmann, 1924. Lit: 83. Stns: VV9,VV12,VV14,Z1.

*Oikopleura longicauda* (Vogt, 1854). Lit: 83. Stns: VV9,VV12,VV14,Z1.

**THALIACEA****Doliolida****DOLIOLIDAE**

*Doliolina muelleri* Krohn, 1853. Lit: 56. Stns: VV9,VV12,VV14,Z1.

*Doliolina nationalis* Borgert, 1894. Lit: 56. Stns: VV9,VV12,VV14,Z1.

**ASCIDIACEA****Aplousobranchia****DIDEMNIDAE**

*Didemnum maculosum* (H.Milne Edwards, 1841). Stn: A.

*Didemnum spongiforme* (Giard, 1872). Stn: E.

**Phlebobranchia****ASCIDIIDAE**

*Ascidia conchilega* (O.F.Müller, 1776). Stn: 9.

*Ascidia mentula* O.F.Müller, 1774. Lit: 38. Stns: C,E.

*Ascidia obliqua* Alder, 1863. Stns: 87/1,A,E,F.

*Ascidia virginea* O.F.Müller, 1776. Lit: 31. Stns: A,B,F.

*Ascidella aspersa* (O.F.Müller, 1776). Lit: 100. Stns: A,E,D,F,Z.

*Ascidella scabra* (O.F.Müller, 1776). Stn: E.

*Phallusia mammillata* (Cuvier, 1815). Lit: 31, 100. Stns: 12,C,E,Z.

**CORELLIDAE**

*Corella parallelograma* (O.F.Müller, 1776). Stns: E,F.

**Stolidobranchia****MOLGULIDAE**

*Molgula* sp. Stn: 87/1.

**PYURIDAE**

*Halocynthia papillosa* (Linnaeus, 1767). Stns: 3,5.

*Microcosmus claudicans* (Savigny, 1816). Stn: 87/1.

*Microcosmus sabatieri* Roule, 1885. Stn: 12.

*Microcosmus* sp. Lit: 31 (sub *M. sulcatus*).

**STYELIDAE**

*Botryllus leachi* (Savignyi, 1816). Stn: B.

*Botryllus schlosseri* Pallas, 1766. Lit: 31,38,100. Stns: A,B,C,E,F,Z.

*Polycarpa pomaria* (Savignyi, 1816). Stn: E.

## V E R T E B R A T A

## SELACHII (CHONDRYCHTHYES)

**Pleurotremata (Squaliformes)**

## SCYLIORHINIDAE

*Scyliorhinus canicula* (Linnaeus, 1758). Lit: 31,53,57. Stns: A,E,F.

*Scyliorhinus stellaris* (Linnaeus, 1758). Lit: 57,31.

## TRIAKIDAE

*Mustelus asterias* Cloquet, 1821. Lit: 31. Stn: F.

*Mustelus mustelus* (Linnaeus, 1758). Lit: 31,57.

## SQUALIDAE

*Squalus acanthias* Linnaeus, 1758. Lit: 31,53,57. Stn: F.

**Hypotremata (Rajiformes)**

## RAJIDAE

*Raja asterias* Delaroche, 1809. Lit: 57.

*Raja clavata* Linnaeus, 1758. Lit: 31,53,57. Stn: A.

*Raja miraletus* Linnaeus, 1758. Lit: 31,53,57. Stn: F.

*Dipterus batis* Linnaeus, 1758. Lit: 31. Stn: F.

*Dipterus oxyrinchus* Linnaeus, 1758. Lit: 31,53.

## OSTEICHTHYES

**Isospondyli (Clupeiformes)**

## ARGENTINIDAE

*Argentina sphyraena* Linnaeus, 1758. Lit: 31. Stns: A,E,F.

## CLUPEIDAE

*Sardina pilchardus* (Walbaum, 1792). Lit: 15,17,26.

*Sprattus sprattus phalericus* (Linnaeus, 1758). Lit: 31. Stns: A,E,F.

## ENGRAULIDAE

*Engraulis encrasicolus* (Linnaeus, 1758). Lit: 15.

**Apodes (Anguilliformes)**

## ANGUILLIDAE

*Anguilla anguilla* (Linnaeus, 1758). Lit: 15.

## CONGRIDAE

*Conger conger* (/Artedi, 1738/ Linnaeus, 1758). Stns: 14,25,26.

**Synentognathi (Beloniformes)**

## BELONIDAE

*Belone belone* (Linnaeus, 1758). Stn: N.

**Solenichthyes (Syngnathiformes)**

## SYNGNATHIDAE

*Hippocampus ramulosus* Leach, 1814. Lit: 58.

**Allotrignathi (Lampriformes)**

## LOPHOTIDAE

*Lophotes lacepedei* Giorna, 1809. Proboj cove (J. Dulčić, personal comm.).

**Anacanthini (Gadiformes)**

## GADIDAE

*Merlangius merlangus euxinus* (Nordmann, 1840). Lit: 31,57.

*Micromesistius poutassou* (Risso, 1826). Lit: 31.

*Trisopterus minutus capelanus* (Lacepède, 1800). Lit: 31,57. Stns:A,E,F.

## LOTIDAE

*Molva macrophthalma* (Rafinesque, 1810). Stn: A.

## MERLUCCIIDAE

*Merluccius merluccius* (Linnaeus, 1758). Lit: 31,57. Stns: A,E,F.

**Zeomorphi (Zeiformes)**

## ZEIDAE

*Zeus faber* Linnaeus, 1758. Lit: 31. Stn: F.

**Percomorphi (Perciformes)**

## BLENNIIDAE

*Aidablennius sphyinx* (Valenciennes, 1836). Stns: 6,9,10.

*Blennius ocellaris* Linnaeus, 1758. Lit: 31. Stns: A,F.

*Coryphoblennius galerita* (Linnaeus, 1758). Stn: 8.

*Knipowitschia caucasica* (Kawrajski in Berg, 1916). Stn: P.

*Lipophrys canevae* (Vinciguerra, 1880). Stn: 10.

*Lipophrys dalmatinus* (Steindachner & Kolombatović, 1883). Stns: 7,10.

*Lipophrys nigriceps nigriceps* (Vinciguerra, 1883). Stns: 7,10.

*Lipophrys pavo* (Risso, 1810). Stns: 5,7.

*Parablennius gattorugine* (Brünnich, 1768). Stns: 2,3,9.

*Parablennius rouxi* (Cocco, 1833). Stns: 4,8,14.

*Parablennius sanguinolentus* (Pallas, 1811). Stns: 6,7,46.

*Parablennius tentacularis* (Brünnich, 1768). Lit: 75.

*Parablennius zvonimiri* (Kolombatović, 1892). Stn: 7.

## CALLIONYMIDAE

*Callionymus maculatus* Rafinesque, 1810. Lit: 31. Stns: A,E,F.

*Callionymus pusillus* Delaroche, 1809. Stn: 7.

## CARANGIDAE

*Seriola dumerili* (Risso, 1810). Stn: N.

*Trachurus mediterraneus* (Steindachner, 1868). Lit: 31. Stn: N.



*Trachurus trachurus* (Linnaeus, 1758). Lit: 17,57. Stn: N.

#### CENTRACANTHIDAE

*Spicara maena* (Linnaeus, 1758). Lit: 29,31,57.

*Spicara flexuosa* (Rafinesque, 1810). Lit: 31.

*Spicara smaris* (Linnaeus, 1758). Lit: 57. Stns: A,E,F.

#### CEPOLIDAE

*Cepola rubescens* Linnaeus, 1766. Lit: 31. Stns: A,E,F.

#### GOBIIDAE

*Crystallogobius linearis* (v. Düben, 1845). Stn: F.

*Gobius buccichi* Steindachner, 1870. Stns: 2,3,5,7.

*Gobius cobitis* Pallas, 1811. Stns: 2,3,5,8,10.

*Gobius cruentatus* Gmelin, 1789. Stn: 8.

*Gobius paganellus* Linnaeus, 1758. Lit: 57.

*Gobius roulei* de Buen, 1928. Lit: 75.

*Lesueurigobius suerii* (Risso, 1810). Lit: 31. Stns: A,E,F.

*Pomatoschistus marmoratus* (Risso, 1810). Stn: P.

*Zosterisessor ophiocephalus* (Pallas, 1814). Stn: P.

#### LABRIDAE

*Acantholabrus palloni* (Risso, 1810). Lit: 31,75. Stns: A,E.

*Coris julis* (Linnaeus, 1758). Stns: 3,5,6,7,8,9,10,14,15,26.

*Labrus bimaculatus* Linnaeus, 1758. Stn: 26.

*Labrus merula* Linnaeus, 1758. Stns: 2,7,14,17,19,20,26,45.

*Symphodus cinereus* (Bonnaterre, 1788). Stns: 2,5,6,7,8,9.

*Symphodus doderleini* Jordan, 1891. Stns: 5,6,7,8,9.

*Symphodus roissali* (Risso, 1810). Stns: 6,7,8,9,10.

*Symphodus rostratus* (Bloch, 1797). Stn: 8.

*Symphodus tinca* (Linnaeus, 1758). Stns: 8,26.

#### MUGILIDAE

*Liza ramada* (Risso, 1826). Stns: 22,39.

*Liza saliens* (Risso, 1810). Stns: 21,22,26,27,36,39.

#### MULLIDAE

*Mullus barbatus* Linnaeus, 1758. Lit: 31,57. Stns: 13,A,E,F.

*Mullus surmuletus* Linnaeus, 1758. Lit: 57. Stns: 7,9.

#### POLYPRIONIDAE

*Polyprion americanus* (Bloch & Schneider, 1801). Stn: 15.

#### POMACENTRIDAE

*Chromis chromis* (Linnaeus, 1758). Stns: 3,14.

#### SCIAENIDAE

*Sciaena umbra* Linnaeus, 1758. Stns: 10,15,17,18,19,21,23,47.

#### SCOMBRIDAE

*Scomber japonicus* Hottuyn, 1782. Lit: 15. Stn: N.

*Scomber scombrus* Linnaeus, 1758. Lit: 15,17,31.

*Thunnus thynnus* (Linnaeus, 1758). Lit: 15.

#### SERRANIDAE

*Dicentrarchus labrax* (Linnaeus, 1758). Lit: 29. Stns: 21,22,26,27,36,39,45.

*Serranus cabrilla* (Linnaeus, 1758). Stn: 8.

*Serranus hepatus* (Linnaeus, 1758). Lit: 31,57. Stns: 8,13,A,E,F.

*Serranus scriba* (Linnaeus, 1758). Stns: 3,8,10,14,16,26.

#### SPARIDAE

*Boops boops* (Linnaeus, 1758). Lit: 29,31. Stns: E,P.

*Dentex dentex* (Linnaeus, 1758). Lit: 29. Stns: 10,15,17,18,20,21,27,47.

*Diplodus annularis* (Linnaeus, 1758). Lit: 29. Stns: 2,3,4,5,6,8,9,10,14,26.

*Diplodus puntazzo* (Cetti, 1777). Lit: 29. Stns: 10,15,20,26,45,P.

*Diplodus sargus sargus* (Linnaeus, 1758). Stns: 9,10,15,17,18,19,21,23,24,47.

*Diplodus vulgaris* (E.Geoffroy Saint-Hilaire, 1817). Lit: 29. Stns: 4,5,6,7,8,9,10,14,15, 17,19,24,26,27,45,46,47.

*Lithognathus mormyrus* (Linnaeus, 1758). Lit: 29. Stn: 36.

*Oblada melanura* (Linnaeus, 1758). Lit: 29. Stns: 5,6,8,9,10,15,19,26,27,46.

*Pagellus acarne* (Risso, 1826). Stn: F.

*Pagellus erythrinus* (Linnaeus, 1758). Lit: 29,31,57. Stn: A.

*Sarpa salpa* (Linnaeus, 1758). Lit: 29. Stns: 5,6,9,10,36.

*Sparus aurata* (Linnaeus, 1758). Lit: 29. Stns: 15,21,22,39,44,45,47.

*Spondyllosoma cantharus* (Linnaeus, 1758). Lit: 29. Stn: 21.

#### TRACHINIDAE

*Trachinus draco* Linnaeus, 1758. Lit: 31,57. Stn: F.

#### TRIPTERYGIIDAE

*Tripterygion tripteronotus* (Risso, 1810). Stns: 5,6,9.

#### URANOSCOPIDAE

*Uranoscopus scaber* Linnaeus, 1758. Lit: 57.

### **Atheriniformes**

#### ATHERINIIDAE

*Atherina* (*Hepsetia*) *boyeri* Risso, 1810. Stns: 8,9,46.

### **Cyprinodontiformes**

#### CYPRINODONTIDAE

*Aphanius fasciatus* Nardo, 1827. Lit: 75.

### **Scleroparei (Scorpaeniformes)**

#### SCORPAENIDAE

*Scorpaena notata* Rafinesque, 1810. Lit: 31.

*Scorpaena porcus* Linnaeus, 1758. Stns: 6,9.

*Scorpaena scrofa* Linnaeus, 1758. Stn: 3.

#### TRIGLIDAE

*Eutrigla gurnardus* (Linnaeus, 1758). Lit: 31, 57. Stns: A,E,F.

*Lepidotrigla cavillone* (Lacepède, 1801). Lit: 31. Stns: A,E,F.

*Trigla lyra* Linnaeus, 1758. Lit: 57.

*Trigloporus lastovitzza* (Brünnich, 1768). Lit: 31. Stn: E.

### **Heterosomata (Pleuronectiformes)**

#### **BOTHIDAE**

*Arnoglossus laterna* (Walbaum, 1792). Lit: 31,57,100. Stns: A,E,F,Z.

#### **SOLEIDAE**

*Solea solea* Quensel, 1806. Lit: 31,57.

### **Plectognathi (Tetraodontiformes)**

#### **BALISTIDAE**

*Balistes carolinensis* Gmelin, 1879. Stn: K.

#### **MOLIDAE**

*Mola mola* (Linnaeus, 1758). Stn: K.

### **Pediculati (Lophiiformes)**

#### **LOPHIIDAE**

*Lophius budegassa* Spinola, 1807. Lit: 31,57. Stns: A,E.

*Lophius piscatorius* Linnaeus, 1758. Stn: F.

## **REPTILIA**

### **Testudines**

#### **CHELONIIDAE**

*Caretta caretta* Linnaeus, 1758. Lit: 95. Stns: 31,32.

## **MAMMALIA**

### **Cetacea**

#### **BALAENOPTERIDAE**

*Balaenoptera physalus* (Linnaeus, 1758). Lit: 7,22,68.

#### **DELPHINIDAE**

*Tursiops truncatus* (Montagu, 1821). Lit: 40,41.

### **Carnivora**

#### **PHOCIDAE**

*Monachus monachus* (Hermann, 1779). Lit: 39,42.

