


INTRODUCTION

The Adriatic Sea has been intensively studied by many spongologists both in the distant past (Schmidt, 1862; 1968; Bibic, 1922; Vole, 1939) and more recent times (Rützler, 1965; Sará and Speranza, 1965) but most of these studies focused on the coastal zone. However, due to the kindness of Prof. Helena Gamulin-Brida, I have received a collection of sponges coming instead from soft or detritic bottoms of the Eastern Adriatic Sea that seemed to me worthy of a brief systematic study.

This material was collected between 1957 and 1971 in the course of different expeditions by the Institute of Oceanography of Split. Dredges and other surface devices were used to collect the sponges, due to the depth of the sampling sites, which range from 26 to 208m. Some ecological observations on the benthic community recorded in each station will be reported in a paper in preparation with Prof. Gamulin-Brida, Prof. Sará and other colleagues of the Zoological Institute of Zagreb.

The present collection includes 41 species of 32 genera.

List of sampling sites (see Fig. 1)

1. North Kvarner, mud, 51 - 54m.
2. Canal of Velebit: a) off Selce-Crikvenica, mad, 50m; b) off Novog, mad, 61 - 66m.
3. Canal of Velebit: a) off Senj, mud, 72 - 76m; b) between Rab and Goli Islands, mad, 72m.
4. Kvarner, East of Kvarner Island, mad, 94m.
5. South Kvarner, sandy-muddy bottom, 87 - 96m.
6. Canal of Velebit, from Korčula to Kraljevina, mad, 70 - 74m.
7. Canal Jadran, North of Vr Island, sandy-muddy bottom, 72m.
8. Cruise of the M.V. Hajdar, 43° 35'N - 15° 31'E, muddy clay, 208m.
9. Cruise of the M.V. Hajdar, 43° 34'N - 15° 39'E, mud, 164 - 168m.
10. Cruise of the M.V. Hajdar, 43° 31'N - 15° 45'E, mud, 168m.
11. Cruise of the M.V. Hajdar, 43° 27'N - 15° 46'E, mud, 137 - 157m.
12. Cruise of the M.V. Hajdar, 43° 25'N - 15° 27.5'E, mud, 186 - 199m.
14. Cruise of the M.V. Hajdar, 43° 15'N - 15° 54'E, sandy-muddy bottom, 122m.
15. West of Sulej Island, sandy-muddy detritic bottom, 90 - 102m.
16. Canal of Split, mud, 51 - 76m.
17. Canal of Hvar, SW of Brac Island, sandy-muddy bottom, 72 - 83m.
18. Canal of Korcula, South of Šolta Island, sandy-muddy bottom, 62 - 72m.
19. Canal of Hvar, SE of Brač Island, mad, 60 - 66m.
20. Canal of Neretva, between Hvar Island and Pelješac Peninsula, sandy-muddy detritic bottom, 26 - 36m.
21. NW of Pelagri Island, Letharchium bottom, 80 - 100m.

TETRACTINOMORPHA
Stellateridae
Stelletta granulata Schmidt 1862
Occurrence: 1028. St. 12, mad, 168m, 24.11.1968
Small, whitish fragment of a bigger specimen. Spicules: straight oxca 1550 - 2600 by 30 - 50m, orthotriothecines with rhabdine 1230 - 2070m by 40 - 62m and clathrata up to 100 by 30 - 40m. Oxygen 32 - 51 in diameter. Chailers, 8 10m in diameter.

Strophyma ponderosum (Bowerbank 1866)
Occurrence: 218. St. 15, mad, 60-66m, 29.7.1957.
All the specimens are massive and show a brownish ochreous and a pale ochracous, spicules as usual. These findings confirm that the species is distributed on detritic bottoms, while S. macrornas (not found in the present collection) seems to be restricted to shaded rocky cliffs at shallow depths.

Geodidae

Geodora cydonium (Jannasch 1811)
Occurrence: 377, St. 20, sandy-muddy detritic bottom, 26 -36m, 7.9.1957.

Pachastrellidae

Pachastrella compressa (Bowerbank 1866)
Occurrence: 7, St. 21, Lithothamnion bottom, 80-100m, 20.9.1961, 70.1, St. 15, sandy-muddy detritic bottom, 90-102m, 29.6.57, 219, St. 19, mud, 60-66m, 29.7.1957.

The shape of the specimen in life is not known, but some of the fragments are flattened (1cm thick).

Theneaeidae

Thenea marica (Bowerbank 1859)
Occurrence: 1007, St. 1, mud, 51-54m, 25.7.1971 (2 specimens), IV/5(2), St. 9, mud, 164-188m, 24.4.1957 (2 specimens), K58, St. 11, mud, 137-157m, 24.4.1957. H 71, St. 14, sandy-muddy bottom, 122m, 23.4.1957. 7 bars, St. 21, Lithothamnion bottom, 80-100m, 20.9.1961.

The seven specimens are rather small, averaging 2cm in diameter excluding the roots. They are characterized by the abundance of slightly rough pleismasts and belong to the form schmitzi (Bahk, 1916). The presence of this species in the channel region of the North-Eastern Adriatic in relatively shallow waters (Geevlin Brda, 1969) is remarkable.

Suberitidae

Suberites domuncula (Olivet 1792)
Occurrence: 14 JII/3, St. 20, sandy-muddy detritic bottom, 26-36m, 7.9.1957, 1011; 1034, St. 2 b, mud, 61-64m, 26.7.1971.

Fragments of massive specimens with the typical smooth surface. The colour in alcohol is brown. Spicules: tylostyles variable in length and thickness (135-390µm by 4-7µm) with well formed heads. Modifications into styles and oxea are rare. Microtylostyles (18-20 by 1-2µm) are always abundant.

Suberites carnosus (Johnston 1842)
Occurrence: 6 a/1, St. 14, sandy-muddy bottom, 122m, 23.4.1957, IV/7 (4), St. 12, mud, 186-199m, 24.4.1957, 51, St. 13, mud, 180-157m, 24.4.1957, 1015, St. 5, sandy-muddy bottom, 87-96m, 27.8.1966.

Specimen 6a/1, belonging to the form carnosus, shows anastomosed cylindrical branches 2-4mm in diameter and up to 10cm long. The tylostyles are variable in size: 198-561 by 6-11µm. The other three glossose specimens belong to the form typicus. Their spicules are in the same size range.

Rhiziacinaella elongata (Kölliker & Dendy 1886)
Occurrence: 1010, St. 1, mud, 51-54m, 25.7.1971
Fragments without stalk, about 1 cm in diameter. Spicules: styles 240-2170 by 6-17µm; tylostyles 210-450 by 4-8µm.

Rhiziacinaella pygrea (Delle Chiese 1828)
Occurrence: 1012, St. 3a, mud, 72-76m, 26.7.1971, 1001; 1002, St. 9, mud, 200m, 10.10.1968, 55, St. 13, 13, mud, 150-157m, 24.4.1957. 6a/2, St. 14, sandy-muddy bottom, 122m, 23.4.1957.

Cylindrical or elongated bodies up to 3cm long with a diameter of 1cm. The stalks, 3-4mm thick and 3-4cm long, may dichotomise (1002) carrying separate bodies. Spicules: styles to sub-tylostyles, flexuous in the axis, 175-1320 by 4-25µm; rhizoids: 95-120 by less than 1µm.

Chlonidae

Chloniella sancta (Hancock 1849)
Occurrence: IV/5, St. 8, mud, 208m, 24.4.1957.
Spiny oxea and tylostyles were observed in a preparation of Pseudostenellidae:

Tethydidae

Tethya citrina Sarsi & Melone 1963
Occurrence: 1013, St. 3a, mud, 72-76m, 26.7.1971.

Axinellidae

Axinella damaeora (Esper 1794)
Occurrence: 243, St. 17, sandy-muddy bottom, 72-83m, 26.7.1957
Oxeas stronger than usual, up to 17µm thick (Poniat, 1983).
Hemisterellidae

Stellerelloides stipes (Ellis & Solander 1786)
Occurrence: 1009, St. 1, mud, 51-54m, 23.7.1971.
14 II/4, St. 20, sandy-muddy detritic bottom, 26 - 36m, 7.9.1957.

Specimen 1009 is formed by bipolar, slender (2mm thick) slightly flattened branches with frequent dichotomies and pointed tips. The bigger fragment is 4cm high. Specimen 14 II/4 is smaller, only 2cm high, and shows two flattened branches. Spicles: styles to strongyles, straight, bent or flexible, 0.04 - 0.20cm by 1.5 - 3.5μm. Scleroderms, which may be straight, greatly curved and sometimes bent in the middle. They measure 0.03 - 0.06μm by 1.5 - 3.5μm. Oxyasterae: 0.035cm in diameter, not abundant. Specimen 14 II/4 differs from the other in the thickness of the spicles (styles and strongyles not exceeding 16μm) and in the diameters of the oxyasterae (up to 12μm).

Raspaliellidae

Rasapalla abnormis Schmidt 1862
Occurrence: 1004, St. 1, mud, 51-54m, 25.5.1971.
13 II/1, St. 18, sandy-muddy bottom, 62 - 72m, 28.7.1957.

Fragments of stems about 5cm high and 3mm thick. The colour in alcohol is brown and the surface hispid. Spicles: styles to strongyles with slight swellings at their heads. Most of them measure 0.03 - 0.05 cm by 1.5 - 3.5μm, but smaller spicles (0.02 - 0.04μm long) do occur. Antennae to strongyles, straight or slightly curved, 0.02 - 0.05μm by 1.5 - 3.5μm. Acanthostyles: straight, with small heads, 0.015 - 0.045μm by 1 - 2μm.

Ceractinomorpha

Halichondriidae

Halichondria abnormans (Schmidt 1864)
Occurrence: 160, St. 19, mud, 60-66m, 20.7.1957.

Fragments from a massive specimen, with typical halichondrid skeleton. The colour in alcohol is cream. The surface is smooth and the ectosome not separable. Oxeas bent or straight with sharpened ends. They measure 0.09 - 0.15μm by 1 - 1.5μm.

Spongiosorites pachastreloides (Topset 1892)
Occurrence: IV/3 b, St. 8, mud, 208m, 24.4.1957.

The specimen is cylindrical, probably erect, with two deep narrowings (Fig. 2). It is 7cm high with an average diameter of 1.5cm. The surface is smooth with a layer of tangentially arranged oxeas which do not form a detachable ectosome. The dense halichondrid chaomosome gives the sponge a firm consistency. The colour in alcohol is whitish. Very small oxeas, about 0.5mm wide, are scattered in the median part of the cylinder. The oxeas (Fig. 3) may be divided into two categories even if intermediate forms can be found: big oxeas, slightly curved, with sharpened or sometimes stepped ends, measuring 0.06 - 0.10cm by 1.5 - 3.5μm; small oxeas of the same form as the big ones but often showing a double bend on the same side. They measure 0.05 - 0.08μm by 1 - 2μm.

Remarks. The attribution of this specimen to S. pachastreloides seems to me certain, since it shows all the characteristics described by Topset (1892) for the type specimen. Vacelet (1961, p. 29), however, taking into account the size of the spicles, refers to S. pachastreloides rather than to S. genicula (Schmidt) = S. intricaetus (Topset). The specimens from Bonifacio which are black, massive, and frequently show malformed oxeas. Pulitzer-Finali (1977, 1983) describes as S. intricaetus several specimens showing the typical tectological alterations of the spicles and, often only after preservation, the black colour. Levi & Fatt (1957) and secondly Pulitzer-Finali (1983) refers to S. intricaetus a black specimen from Algeria described by Topset (1901) as Topsetia globosa. According to these records and to the numerous specimens of S. intricaetus that I have collected in the Ligurian Sea, it seems to me that S. pachastreloides and intricaetus greatly differ in colour, form, consistency, shape and size of the oxeas, and depth distribution. I am thus inclined to consider the specimens collected by Vacelet as intricaetus, whose spicular size range would be extended, and to regard the one recorded above as the first Mediterranean record of S. pachastreloides.

Hymnochondriidae

Hymnochondria costantini (Bowerbank 1874)
Occurrence: 13 I/5, St. 18, sandy-muddy detritic bottom, 62 - 72m, 20.6.1957, 362, St. 20, sandy-muddy detritic bottom, 26 - 36m, 7.9.1957.

Styles and strongyles, straight or slightly curved, measuring 0.06 - 0.08μm by 1 - 2μm.

Uloas digitata (Schmidt 1866)
Occurrence: 223, St. 17, sandy-muddy bottom, 72 - 83m, 20.7.1957, 362, St. 1, mud, 51 - 54m, 25.7.1971.

Thinner and thicker styles, straight or slightly curved: 0.05 - 0.08μm by 1 - 2μm. They can show swellings along the shaft. Oxeas of the same form.

Fig. 2 - Spongiosorites pachastreloides, specimen IV/3

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45
and size as styles can occasionally be observed.

**Mycillidae**

*Mycella concreta* (Martens 1824)

Occurrence: 65/1, St. 16, mud, 51-59 m, 26.6.1957; 23.7.1957, St. 17, sandy-muddy bottom, 72 - 83 m, 20.7.1957; 284; 285, St. 18, sandy-muddy bottom, 62-73 m, 28.7.1957; 217, St. 19, mud, 60-66 m, 29.7.1957.

*Mycella major* (Schmidt 1862)

Occurrence: 72; 228, St. 15, sandy-muddy detritic bottom, 90 - 102 m, 29.6.1957; 235, St. 17, sandy-muddy bottom, 72 - 83 m, 26.7.1957; 186; 323, St. 19, mud, 60-66 m, 29.7.1957. 14 H1/5, St. 20, sandy-muddy detritic bottom, 26-36 m, 29.7.1957.

*Mycale syplex* (Schmidt 1862)

Occurrence: 1005, St. 1, mud, 51-54, 25.7.1971; 1014, St. 5, sandy-muddy bottom, 87 - 96 m, 27.8.1968, H 44/1, St. 8, clay, 208 m, 24.4.1957 IV 63/1, St. 9, mud, 164-185 m, 24.4.1957. IV 85/1, St. 12, mud, 186 - 199 m, 24.4.1957. 58, St. 13, mud, 150 - 157 m, 24.4.1957. H 71/2; H 71/3, St. 14, sandy-muddy bottom, 122 m, 23.3.1957. 232 bis, St. 17, sandy-muddy bottom, 72 - 83 m, 26.7.1957.

These three *Mycale* species were so carefully described by Toppen (1924) that, having only material preserved for a long time, I cannot add new information. The abundance of the genus *Mycale* on these soft, relatively deep bottom is remarkable.

**Biernadidae**

*Sigmatoecetes annus* (Schmidt 1870)

Occurrence: 1020, St. 4, mud, 94 m, 22.8.1968. IV 72, St. 8, mud, 208 m, 24.4.1957; 1003; IV 4/1, St. 9, mud, 164 - 188 m, 24.4.1957. 1017, St. 10, mud, 168 m, 12.10.1968. H 71/1, H 71/4, St. 12, sandy-muddy bottom, 122 m, 23.4.1957. 703/1, St. 15, sandy-muddy detritic bottom, 90 - 102 m, 29.6.1957. 202, St. 16, mud, 75 m, 25.8.1957. 285, St. 18, sandy-muddy bottom, 62-73 m, 28.7.1957.

Specimens massive or erect, in the form of more or less flattened cylinders. A flabby pulp underlies an easily detachable ectosome. The colour in alcohol is light brown. Spicules: tylose-sylls 260 - 725 by 3 - 17 mm. They are fusiform in specimens H 71/1. Toxa: 93 - 122 by 1 - 2 mm. Sigmata: 25 - 35 by 2 - 3 mm and 12 - 16 by 1 - 2 mm.

**Crinidae**

*Treola topanui* (Bahl 1922)

Occurrence: 383, St. 10, sandy-muddy detritic bottom, 26 - 36 m, 7.9.1957.

The single fragment I have from a massive specimen is flabby, soft and completely without colour. Spicules: strot strongyls curved or slightly flexuous, 260 - 290 by 4 - 5 mm. Tiny strongyls of the same form, not thicker than 1.5 mm. These strongyls, which were noted by Bahl (1922), p. 247 and apparently disregarded by Toppen (1928, p. 231), do not seem to be juvenile forms but a distinct category of spicules. Acanthoxoza, covered, 109 - 159 by 4 - 5 mm. Isochorae, not abundant, 14 - 16 mm. Sigmata, numerous, 11 - 38 by 1 - 2 mm.

**Myxillidae**

*Myxilla rosacea* (Lieberkühn 1859)

Occurrence: 226, St. 17, sandy-muddy bottom, 72 - 83 m, 26.7.1957. 378, St. 20, sandy-muddy, detritic bottom, 26 - 36 m, 7.9.1957.

Crumbly fragments, frabile when dried. Spicules: acanthostylos to acanthostyloids, 197 - 230 mm by 2 - 3 mm. Tornota 180 - 200 by 2 - 3 mm; sigmata 14 - 21 mm, very thin; isochorae 10 - 32 mm.

*Myxilla pruhal* (Toppen 1892)

Occurrence: 1014, St. 10, mud, 168 m, 12.10.1968. 240, St. 19, mud, 60 - 66 m, 29.7.1957.

Fragments of rather buxty specimen, frabile when dried; the colour in alcohol is light brown. Spicules: ectosomal strongyls, 180 - 200 by 5 mm. Acanthostylos and acanthostyloids with spines on their whole length (Toppen 1925, p. 699), 150 - 200 by 9 - 10 mm. Isochorae: 28 - 61 mm.

*Myxilla sp.*

Occurrence: 46, St. 14, sandy-muddy bottom, 122 m, 23.4.1957.

This specimen is smoothers, rather soft and frabile; light beige in alcohol. The oscula are very small, 0.5 - 1 mm in diameter, with an irregular contour. The spong is covered by a translucent not easily detachable ectosome, which is formed by tornota sometimes arranged in bunches. Underlying the tornota a dense layer of isochorae and sigmata can be observed. The crumbly, not very thick, choanosome is formed by a rather confined meshwork of acanthostyloids.

Spicules (Fig. 4): Dermal tornota, straight,
curved or lightly sinuous with the ends finely spined; 202 - 235 by 3 - 6μm. Acanthostyles: straight or slightly curved, especially in their basal third; they are often completely smooth. The rare spines, which may be cuspidate and stout, can be scattered or concentrated on the basal end. Very slender form do occur and are always smooth. They measure 260 - 290 by 4 - 9μm. Ipsilhac; these spatulatechelae can be divided in categories according to their dimensions: 16 - 22μm and 35 - 47μm of cheloid length. In the bigger ones single spines both in the concave and convex part of the shaft may be occasionally observed. Sigmata: abundant, thin, 18 - 24μm.

Remarks: The present species is well characterized by the particular form and disposition of its acanthostyles. Close to it are M. rowensis which has similar tomota, sigmoida and isandrachorae and M. praehabit which is alike in the disposition of the acanthostyles, but shows also exoskeletal strongyles and lacks sigmoida and spinodomas. It seems to me unwise, however, before examining more material coming from the same area, to propose a new name for this species; I prefer to refer to it as M. acaulis sp.

_Lloydendoryx isodiagonalis_ (Carter 1882)

Occurrence: 244, St. 19, mud, 60 - 66μm, 29.7.57. 239, St. 17, sandy-muddy bottom, 72 - 85μm, 26.7.57.

Fragments of specimens probably encrusting but rather thick, measuring at least 1cm in height. Sigmata: mucronated or smooth styles, 275 - 300 by 2 - 10μm; tylostyles, 275 - 320 by 3 - 7μm; arcuate isochoelae, 12 - 38μm; sigmoida, C-shaped or rounded, 8 - 15μm.

_Acanthina macrocerus_ (Schmidt 1868)

Occurrence: 13 U2, St. 18, sandy-muddy bottom, 62 - 73μm, 30.6.57.

An amorphous mass, soft, slightly hispid, formed by the sponge growing with an unidentified species of hydroid. Sigmata: acoostyles, 260 - 290 by 4 - 6μm. Two categories of acanthostyles distinguished by their size: 120 - 160 and 200 - 300μm in length, both 4 - 8μm thick. The longer ones have the spines concentrated on the basal third. Remakrs. The specimen is referred to _A. macrocerus_ due to the absence of chelae and to the form of the strongyles and acanthostyles, even if the latter are longer than usual.

Clathridae

_Anthos pseudos_ (Schmidt 1864)

Occurrence: 244, St. 19, mud, 60 - 66μm, 29.7.57.

The specimen, light tan in alcohol, is soft, friable.

_Clasthia coronoides_ (Olivier 1792)

Occurrence: 158, 238, St. 19, mud, 60 - 66μm, 29.7.57. 381/1, St. 20, sandy-muddy detritic bottom, 26 - 36μm, 7.9.57.

The specimens, broken into fragments, had probably been thickly encrusting. They show many lobes and small, flattened branches. The surface is hispid and the colour light brown. No oscula are detectable. The skeleton (Fig. 5) is a reticulation of more or less rectangular meshes. The fibres may be coated by the principal and by the auxiliary subchelae or cored by two or three of these spicules. They are estimated by the accessory subchelae which occasionally show vestigial spines. The secondary fibres are often free of spicules and non-encrusted. Sigmata (Fig. 6) the principal subchelae are always smooth and cannot be divided into categories according to their dimensions, but only to the position in the skeleton. The longer subchelae are slightly curved while the shorter ones are often straight and club shaped. They measure 115 - 450 by 7 - 18μm. Auxillary subchelae, straight or slightly curved, rarely flexuous, 245 - 460 by 1.5 - 4μm. Palmae isochoelae, abundant, 10 - 15μm. No toxas have been observed.

Remarks. In spite of the absence of toxas, which according to Tappert (1925) may be rare in some specimen, and after the examination of other specimens coming from the Adriatic Sea which have no toxas as well, I do not hesitate to attribute the present specimens to _C. coronoides_.

_Haliclona_ _renieri_

_Occurrence: 1021, St. 4, mud, 94μm, 22.8.1988, 1016, St. 3b, mud, 72μm, 23.8.1969, 328, St. 15, sandy-muddy detritic bottom, 90 -102μm, 2.9.1957.

Three small, massive fragments of a soft, crumbly, slightly hispid, light brown _Reniera_. The skeleton is rather confused, but platyplarian tracts with transverse oscula can be detected. The ectosome is fragile, due to the presence of a layer of irregularly arranged tangential oscula with wide ostioliferous areas which are almost ascicular. The oscula are small (0.3 - 0.5μm) and numerous. Sigmata: oscula straight or slightly curved; most
of their ends are pointed but blunt ones do occur. They measure 145 - 205 by 2 - 6μm.

Remarks. The sponge was not identified down to specific level due to the lack of information on the characters observed in vivo and to the smallness of the specimens.

**Sigmactinella flagellifer** (Sidley & Dandy 1896)

Occurrence: H 71/1; H71/4, St. 14, sandy-muddy bottom, 122m, 23.4.1957. 70/II, St. 15, sandy-muddy detrital bottom, 90 - 102m, 29.6.1957.

The characteristic flagelliform signum in three preparation of *Sigmactinella annulata* reveal the presence of this species. The oxea too were found and measured, while the normal signa are not distinguishable from those of *S. annulata*. Spicules: oxea, slightly curved, stout, tapering to sharp points; flagelliform signa, 93 - 122 by 3 - 4μm.

**Adoesia simulans** (Johnston 1862)

Occurrence: 13/2, St. 18, sandy-muddy bottom, 62 - 73m, 30.6.1957. 14/II, St. 20, sandy-muddy detrital bottom, 26 - 36m, 7.9.1957.

Specimen 13/2/1 is a hollow conical branch 4cm high and about 10mm wide, with roundish oxea (0.5 - 2mm) scattered on its sides. Specimen 14/II/2 is flattened, from 2 to 5mm thick, with a small conical process 3mm high bearing an osculum. The consistency of the dried specimens is tough, even if they can be easily broken; the eucosme is a unicellular network of oxea forming more or less triangular meshes. In the choanoasome phrysticlar tracts with transverse spicules are detectable in a dense skeletal mass. Spicules: oxea, sharpened, straight or slightly curved, 80 - 180 by 2.5 - 9μm.

**Spongilla**

**Spongilla officinalis** L. 1759

Occurrence: 1036, St. 7, sandy-muddy bottom, 72m, 26.8.1969.

**Thorocactidae**

-Callogonia multum* Schmidt 1862

Occurrence: 301/225, St. 15, sandy-muddy detrital bottom, 90 - 102m, 26.7.1957.

-Cirrhis flagellate* (Schmidt 1862)

Occurrence: 40.9 - 95, St. 20, sandy-muddy detrital bottom, 26 - 36m, 30.6.1957.

Two fragments of specimens well characterized by the consoles and by the very thin filaments. The colour in alcohol is greyish-brown.

**Irenia dornovides** (Schmidt 1862)

Occurrence: 14/II, St. 10, sandy-muddy detrital bottom, 26 - 36m, 30.6.1957.

Three greyish, branched specimens, as figured by Poltze-Panh & Pronzato (1980, p. 146).

**Dysidea**

-Dysidea aurata** (Schmidt 1862)

Occurrence: 1030, St. 6, mud, 70-74m, 13.8.1967.

-Dysidea fragilis** (Montagu 1818)

Occurrence: 13/II/2, St. 18, sandy-muddy bottom, 62 - 73m, 27.3.1957.

The specimen is branched, dirty yellow.

-Dysidea incrassata** (Schmidt 1862)

Occurrence: 301/225, St. 15, sandy-muddy detrital bottom, 90 - 102m, 26.7.1957.

The specimen is amorphous while the secondary fibres are free of inclusions.

**Aplysina**

-Aplysina cavernicola** (Vacelet 1959)

Occurrence: 1032, St. 6, mud, 70-74m, 13.8.1967.

A tubular process coming from a bigger, probably digitated specimen. The colour in alcohol is dark violet as usual.

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**SUMMARY**

Forty-one Demospongiae species coming from soft bottoms of the Eastern Adriatic Sea were identified and briefly described. The systematic position of *Spongilla pachycrenalis* is here discussed, while a probably new *Myxilla* species is described but not erected, pending the study of further material.

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