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## A NOTE ON THE SPONGES AND OCTOCORALS FROM SHERKIN ISLAND AND LOUGH INE, CO CORK

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Based on the Sherkin Island Field Study Centre a group of Dutch biologists took part in the Roaringwater Bay Survey initiated by the Centre's Director Mr Matt Murphy. In the course of this survey several trips (July and September 1977, August and October 1978) were made to Sherkin Island and neighbouring islands in Roaringwater Bay in order to make a faunal and floral inventory of marine littoral communities. Because of its proximity the unique area of Lough Ine was included in the survey. Apart from the acquisition of many base line data, which will be reported upon elsewhere in the near future, these trips also yielded some records of sponges and octocorals new or rare to the Irish fauna. Next to the presentation of these records, the present note will also provide a list of sponges known from Lough Ine. For the geographic position of the collecting localities one is referred to the map of Fig. 1.

### NEW RECORDS OF SPONGES

This Irish sponge fauna, particularly that of the south and west coasts, has been studied extensively by Stephens (1912, 1914, 1917, 1921). Lilly, *et al.* (1953) provided a list of about 60 species, among which there were 16 new records. Recently, the results of a two year study on the sponges of Kilkieran Bay (Co Galway) have been published by Könnecker (1973), in which there are 10 new records. Unfortunately, both Lilly, *c.s.* and Könnecker failed to provide descriptions of the specimens on which their new records were based. A total of about 210 species, so far is recorded from Irish waters, among which there are 68 species found in the littoral and upper sublittoral. With the nine new records given below the totals become 219 and 77 respectively. Since so many recorded specimens have not been described, it remains to be seen how accurate these figures are.

Class Calcarea, Order Sycettida, Family Sycettidae

*Scypha quadrangulata* (Schmidt, 1868) (Fig. 2)

Fusiform, stiff sponges with the apical oscule naked. Surface smooth to slightly rough; due to short tufts of oxea on the distal cones of the four-sided choanocyte chambers. The wall of the spongocoel is made up of a thick cortex of closely packed triradiates. Spicules: peripheral "oxea" up to 450 by 30-40  $\mu\text{m}$ ; triradiates with rays of up to 70  $\mu\text{m}$  in length. No quadriradiates. Found at Louge Ine at a depth of 6 m; one specimen.

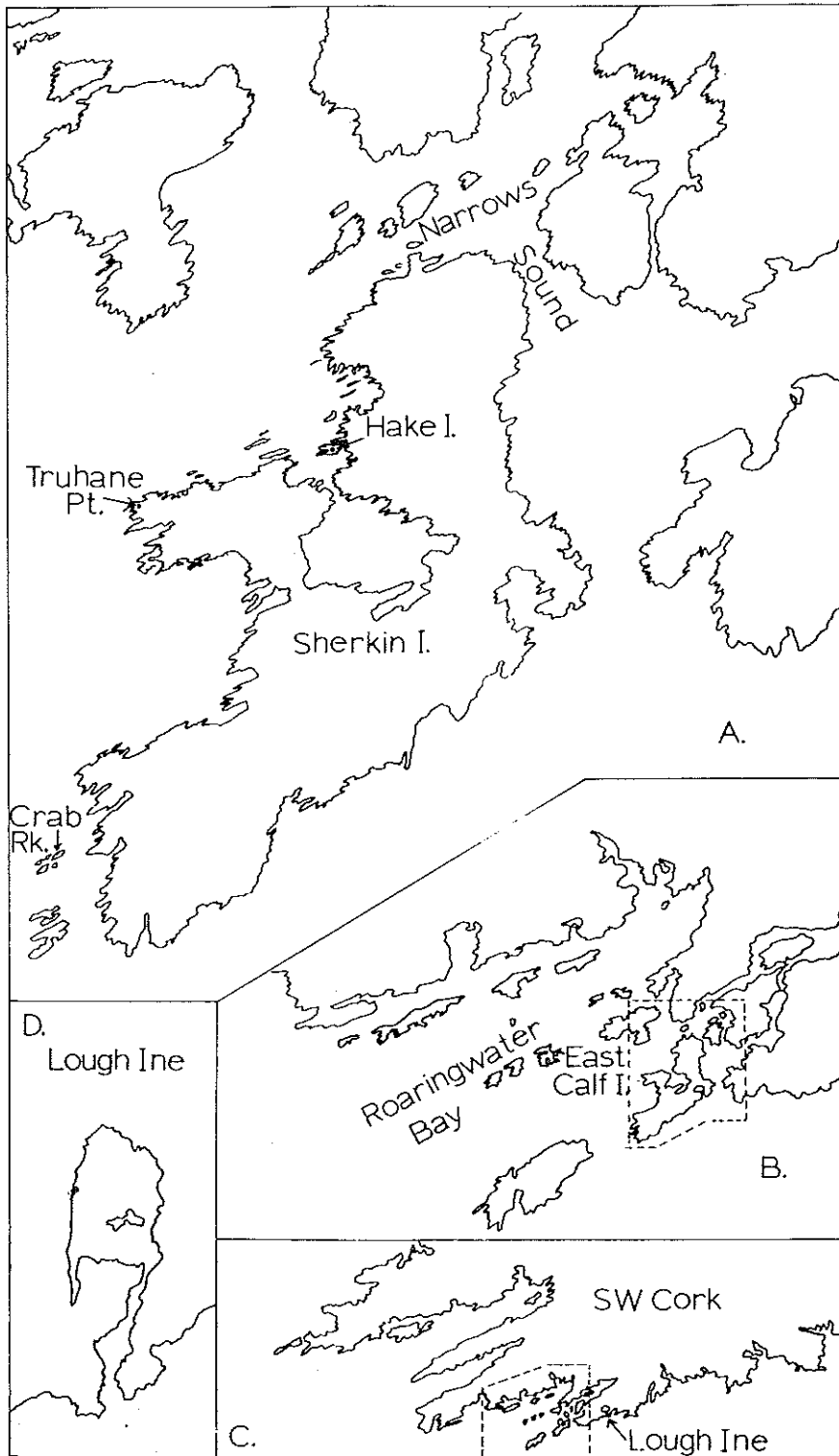


Figure 1. A, Sherkin Island and surrounding parts of Roaring water Bay; B, Roaringwater Bay; C, South west Cork; D, Lough Ine.

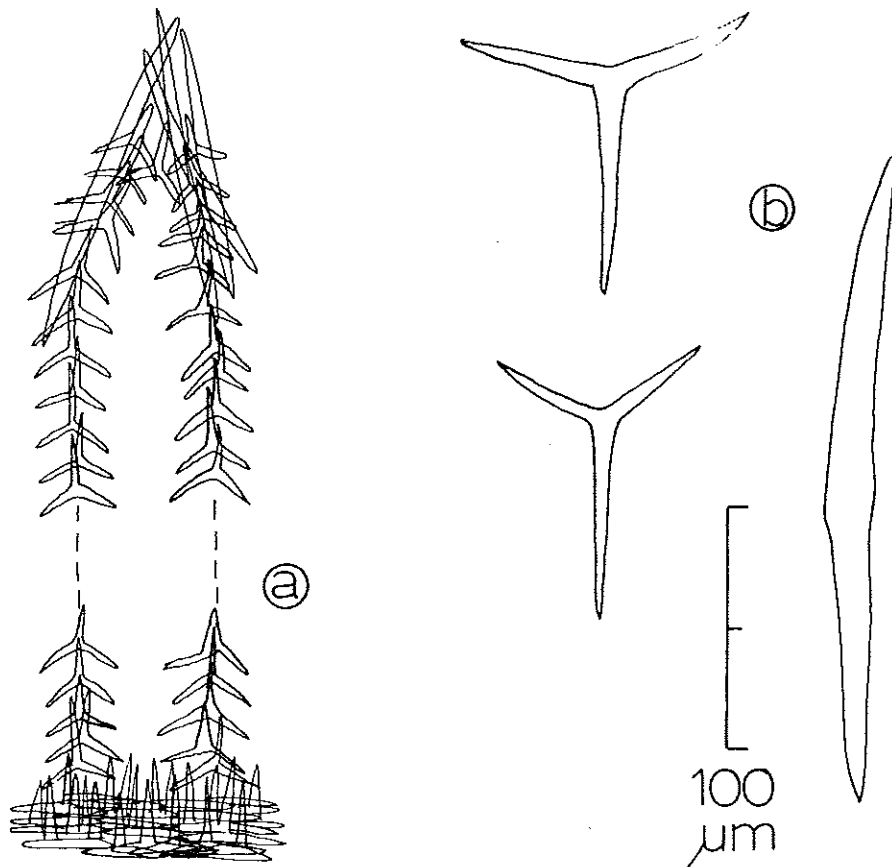


Figure 2. *Scypha quadrangulata*, a. perpendicular section through a choanocyte chamber to show the arrangement of the skeleton, b. spicules.

*Leuconia aspera* (Schmidt, 1862) (Fig. 3)

Small, globular, spinous sponges with apical oscule. Consistency hard and fragile. Spicules: huge ectosomal "oxea" up to 1200 by 50  $\mu\text{m}$ ; triradiates with rays of up to 200  $\mu\text{m}$ ; quadriradiates with rays of up to 380  $\mu\text{m}$ , and apical ray of up to 70  $\mu\text{m}$ . Found at East Calf Island in a crevice between rocks at ELWS/level; one specimen.

Class Demospongea, Order Halichondrida, Family Hymeniacidonidae.

*Rhaphidostyla incisa* (Schmidt, 1880) (Fig. 4)

A wedge-shaped, light yellow-orange sponge with a sticky tuberculate surface and smooth sides. The skeleton consists of tracts of very long styles, 1500-2000 by 10  $\mu\text{m}$  radiating towards the periphery. Collected at 6 m in the narrow tidal channels between Sherkin Island and Sandy Island; one specimen. So far, this species has not been reported outside the Western Mediterranean (e.g. descriptions by Topsent (1925, 1934), Boury-Esnault (1959) as *Stylotella incisa*). The present specimen has been compared with preserved Mediterranean specimens incorporated in the collections of the Zoological Museum of Amsterdam. They were found to agree closely. The genus *Rhaphidostyla* has been erected by Burton (1935) to receive sponges with extremely slender styles, arranged in bundles vertically to the surface. So far there has been one British representative of the genus, e.g. *R. kitchingi* Burton, 1935 (from the Scottish west coast). This species cannot be confused with the present specimen, as it is reported to have unusually small styles (220  $\times$  3  $\mu\text{m}$ ).

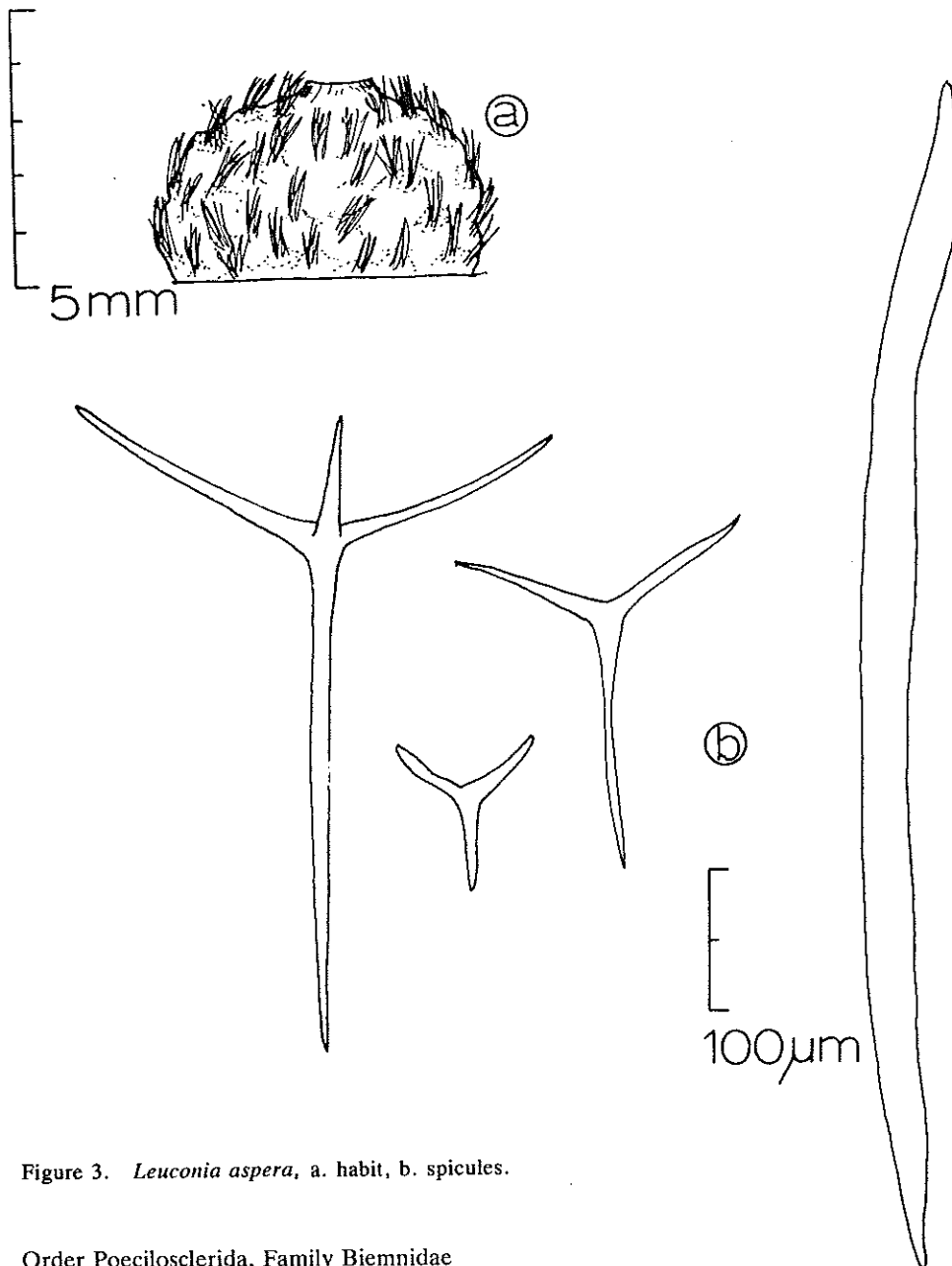


Figure 3. *Leuconia aspera*, a. habit, b. spicules.

Order Poecilosclerida, Family Biemnidae

*Biemna variantia* (Bowerbank, 1858) (Fig. 5)

This species was found encrusting the underside of boulders in Hake Island (Sherkin Island). It is brownish with an irregular, tuberculate surface. Characteristic for this species is the possession of a spicule complement of remarkably curved (tylo-)styles (245-464-597  $\mu\text{m}$  by 7-12.8-17  $\mu\text{m}$ ), packed into tight tracts, numerous sigmata occurring in two size categories, viz. 69-79-87  $\mu\text{m}$  and 12-19-26  $\mu\text{m}$  (the latter ones could perhaps be distinguished as a special "comma" type), and very abundant raphides (125-142-162  $\mu\text{m}$ ) and trichodragmata (41-49-58)  $\mu\text{m}$ ). The species is arctic-boreal in distribution and is mostly known from deeper water (down to 1000 m), although the type locality (Tenby, Wales) was intertidal (cf. Bowerbank 1866).

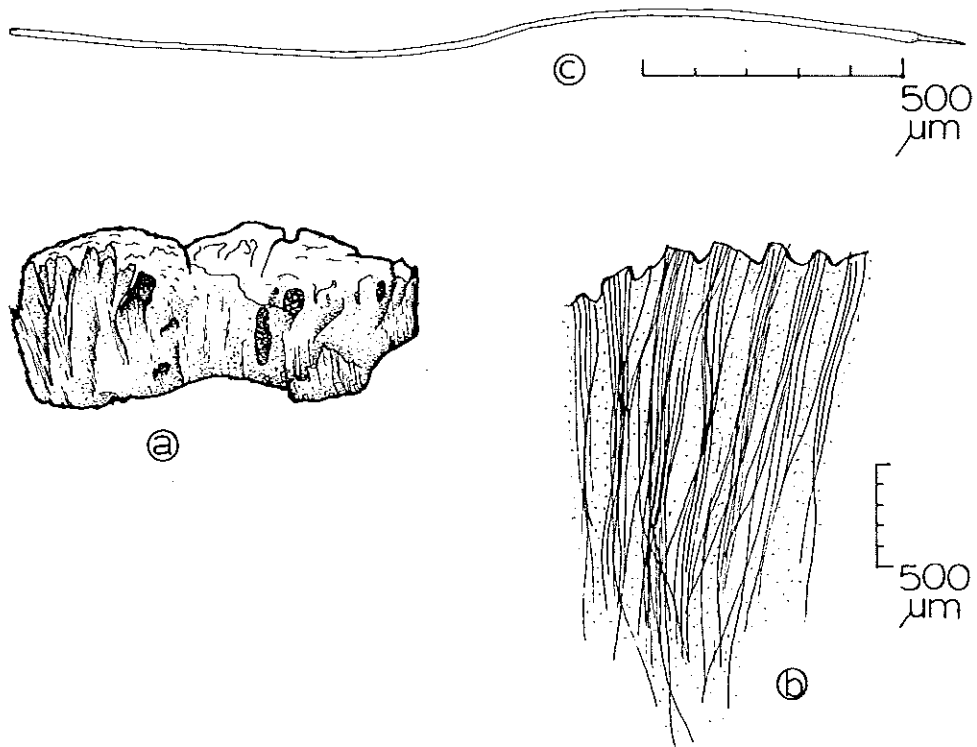


Figure 4. *Rhapsidostyla incisa*. a. habit, b. perpendicular section to show the skeletal plan, c. a skeleton spicule.

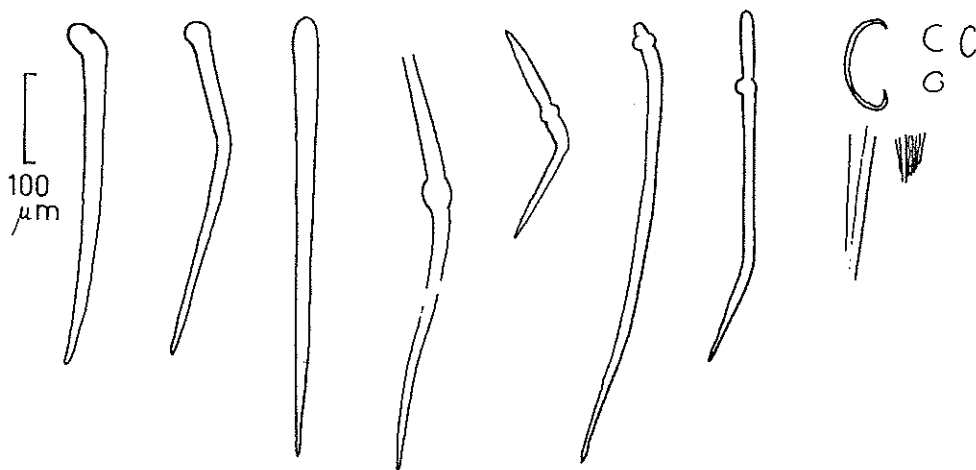


Figure 5. *Biemna variantia*, spicules.

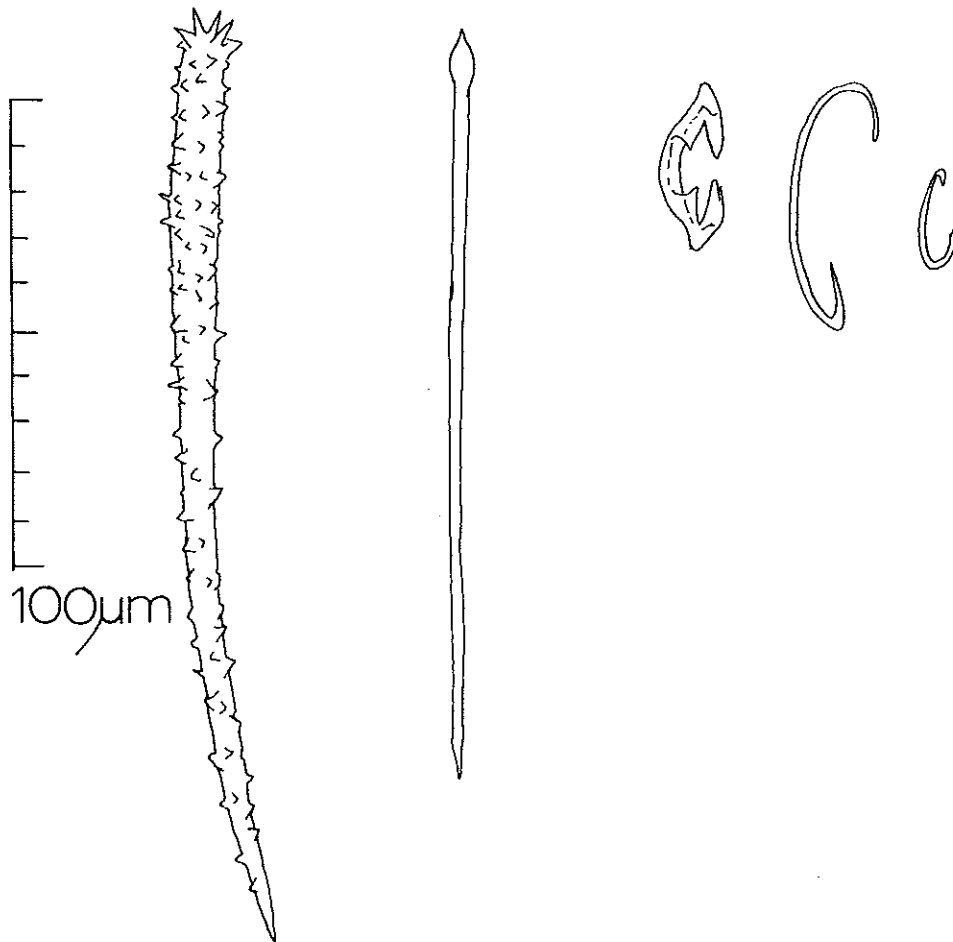


Figure 6. *Pronax dives*, spicules.

Family Anchinoidae

*Pronax dives* (Topsent, 1891) (Fig. 6)

Brownish, massive incrustation with rugose surface. Skeleton: plumose, thick tracts of acanthostyles,  $180-220 \times 8-10 \mu\text{m}$ . The ectosomal skeleton consists of straight tornotes,  $135 \times 2 \mu\text{m}$ . Microscleres: isochelae,  $18-25 \mu\text{m}$ , and sigmata,  $25-45 \mu\text{m}$ . Found on the underside of boulders in Lough Ine. This species needs comparison to *Pronax plumosus* (Montagu, 1818), which was found to be fairly common, especially at Lough Ine. *P. dives* is darker in colour, the ectosomal skeleton contains normal tornotes instead of oxea, and the microscleres include sigmata.

Family Clathriidae

*Microciona strepsitoxa* Hope, 1889 (Fig. 7)

Reddish, smooth incrustations with a characteristic spicule complement of large (tylo-)styles, often terminally acanthose,  $348-444 \times 8-16 \mu\text{m}$ , thin ectosomal tylostyles,  $195-252 \times 2-3 \mu\text{m}$ , echinating acanthostyles in two sizes,  $159-192 \times 3-7 \mu\text{m}$  and  $124-143 \times 3-7 \mu\text{m}$ , isochelae  $15-19 \mu\text{m}$ , and toxa in two categories, viz. small evenly curved ones,  $70 \mu\text{m}$ , and large straight ones, with a spiral twist,  $130-319 \mu\text{m}$ . This species is common in Lough Ine under boulders, but was also found elsewhere in Roaringwater Bay.

*Microciona spinarcus* Carter and Hope, 1889 (Fig. 8)

Yellowish incrustations with irregular surface. The spiculation consists of acanthotylostyles,  $90-380 \times 3-12 \mu\text{m}$ , ectosomal tylostyles,  $150-230 \times 1 \mu\text{m}$ , isochelae,

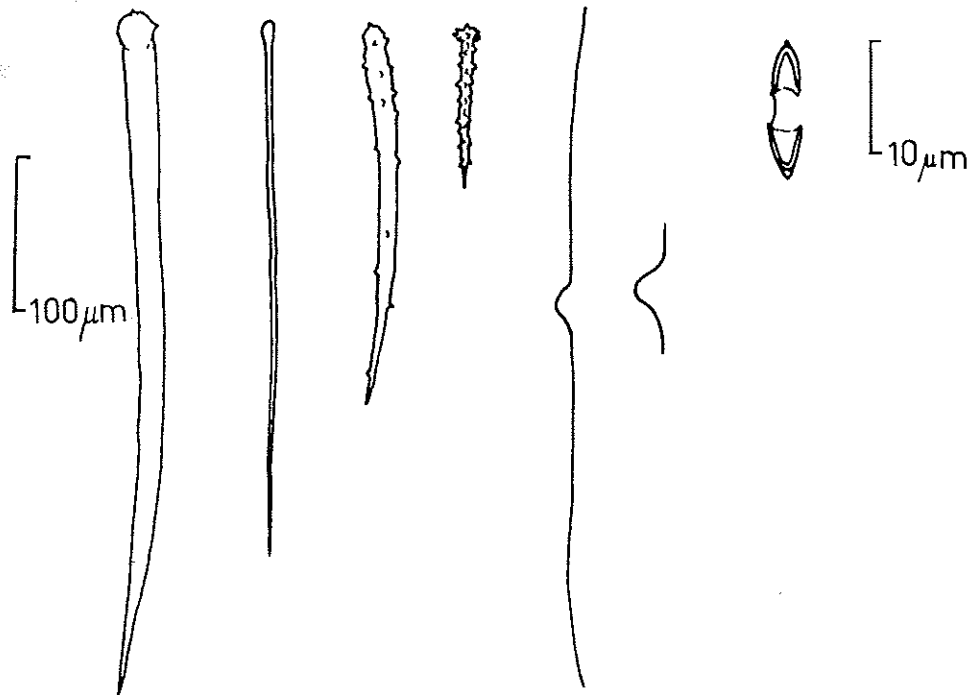


Figure 7. *Microcionia strepsitoxa*, spicules.

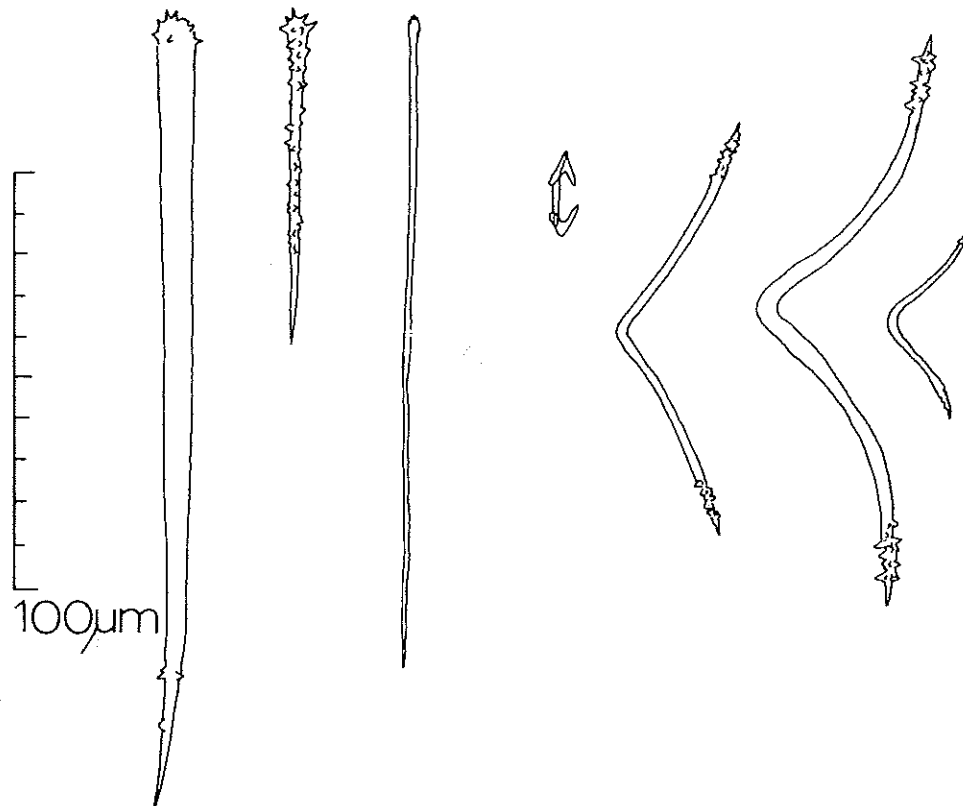


Figure 8. *Microcionia spinarcus*, spicules.



7-12  $\mu\text{m}$  and large thick toxa with heavily acanthose apices, 60-350  $\mu\text{m}$ . Found commonly in Lough Ine under boulders.

Lilly c.s. (1953) list three *Microciona*-species from Lough Ine, of which only one (*M. atrasanguinea* Bowerbank, 1866) was also found by us. The other two species (*M. microchela* Stephens, 1916 and *M. acanthotoxa* Stephens, 1916), if correctly identified, would represent remarkable records, as both are known only from deep waters off the Irish coasts. However, in the case of *M. acanthotoxa* there is a strong possibility of confusion with the very similar intertidal *M. spinarcus*. In our opinion this record is very doubtful and needs re-examination.

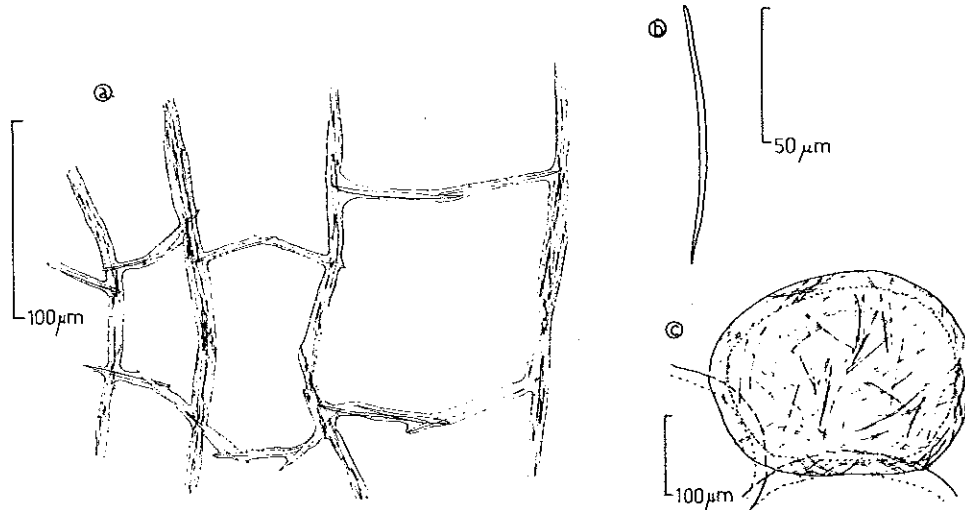


Figure 9. *Haliclona loosanoffi*. a skeletal plan. b. a skeletal spicule. c. gemmule.

Order Haplosclerida, Family Halicltonidae

*Haliclona loosanoffi* Hartman, 1958 (Fig. 9)

A small, thin, brownish incrustation on a dead shell of *Mytilus edulis* was found at low tide among stones in the Rapids of Lough Ine. The species is characterized by having a microhispid surface, a skeleton consisting of weakly developed primary and interconnecting spongin fibres cored by 2-4 and 1 spicule respectively, spicules of small dimensions (60-76-91  $\mu\text{m} \times 1.5-2.6-3 \mu\text{m}$ ), and, very important, the possession of gemmules (diameter 300-350  $\mu\text{m}$ ). Typically this species has a tubular habit, but the present specimen assumed the thinly encrusting shape.

The present find represents the first Irish record and the second European one. Only recently, this species (originally described from the Atlantic coasts of America), was found to occur in Holland (van Soest, 1976). A species with which *H. loosanoffi* might be confused, if gemmules are absent, is *Haliclona limbata* (Montagu, 1815). The latter is more hispid in appearance, and its skeletal fibres are much stronger developed.

*Reniera viscosa* Topsent, 1899 (Fig. 10)

Greyish-rosy, massive sponges with oscules on volcano-shaped elevations. It discolours to violet tinges, when exposed to the air, and produces a thick sticky slime. Consistency friable, firm. Skeleton close meshed, with multispicular primary tracts (up to 8 spicules per cross-section) and single interconnecting spicules. Oxea 150-170 by 6-8  $\mu\text{m}$ . Found once off Sherkin Island (Truhane Point) at 12 m.

This species shows considerable resemblance with *Reniera indistincta* (Bowerbank, 1866), a common species under boulders in Lough Ine. However, *R. indistincta* does not form elevated oscular chimneys and is softer in consistency. The oxea are only 115-130  $\times$  2-6  $\mu\text{m}$ .

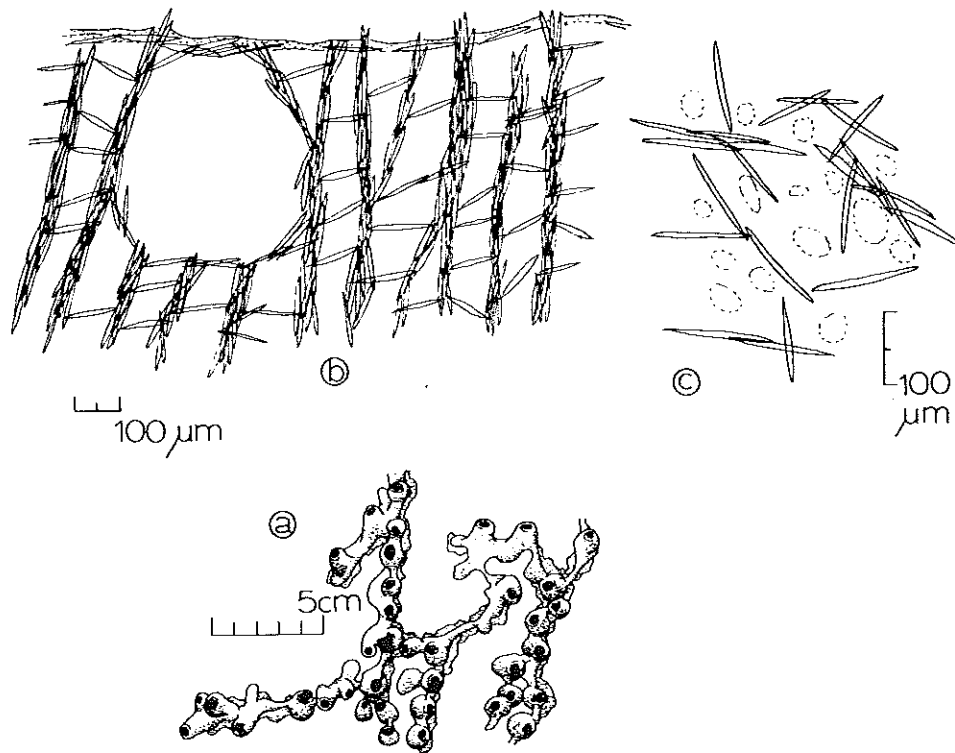


Figure 10. *Reniera viscosa*, a. habit, b. skeletal plan, perpendicular section, c. section of ectosome.

#### THE SPONGES OF LOUGH INE

The list of names of sponges known from Lough Ine now has risen to 79 (cf. papers by Renouf 1935, 1937; Lilly c.s. 1953; Norton c.s. 1977; present data), but without doubt there are a fair amount of synonyms and wrong identifications. During our visits to Lough Ine, we collected about 40 species, which enables us to make some comments on past identifications (and correctness of nomenclature) of other authors. For that purpose we constructed a list of the sponges of Lough Ine (Table 1), which includes literature references and occasionally our comments on the records.

Table 1. Annotated list of the Lough Ine sponges. Species marked by an asterisk were collected by the present authors.

- \**Clathrina coriacea* (Montagu, 1818) (Lilly, c.s., 1953 as *Leucosolenia* c.)
- Clathrina contorta* (Bowerbank, 1866) (Lilly, c.s., 1953 as *Leucosolenia* c.)
- \**Leucosolenia botryoides* (Ellis and Solander, 1786) (Lilly, c.s., 1953)
- Leucosolenia complicata* (Montagu, 1818) (Lilly, c.s., 1953; Norton, c.s., 1977)
- \**Scypha ciliata* (Fabricius, 1780) (Lilly, c.s., 1953; Norton, c.s., 1977, both as *Sycon* c.)
- \**Scypha quadrangulata* (Schmidt, 1868), new record
- \**Scypha coronata* (Ellis and Solander, 1786), new record
- \**Leuconia nivea* (Grant, 1826) (Renouf, 1937 as *Leucandria* n.; Lilly, c.s., 1953; Norton, c.s., 1977)
- Leuconia johnstonii* Carter, 1871 (Lilly, c.s., 1953)
- \**Plakina monolopha* Schulze, 1880 (Renouf, 1935; Lilly, c.s., 1953)
- Oscarella lobularis* (Schmidt, 1862) (Lilly, c.s., 1953)
- Stelletta lactea* (Carter, 1871) (Lilly, c.s., 1953)
- \**Stryphnus ponderosus* (Bowerbank, 1866) (Renouf, 1937)
- Dercitus hucklandi* (Bowerbank, 1857) (Renouf, 1937)
- \**Pachymatisma johnstonia* (Bowerbank in Johnston, 1842) (Renouf, 1937; Lilly, c.s., 1953; Norton, c.s., 1977)

- \**Tethya aurantium* (Pallas, 1766) Renouf, 1937; Norton, c.s., 1977)  
*Polymastia boletiformis* (Lamarck, 1814) (Norton, c.s., 1977)  
 \**Ficulina ficus* (Linnaeus, 1759) (Lilly, c.s., 1953 as *Suberites f.*)  
*Suberites carnosus* (Johnston, 1842) (Lilly, c.s., 1953; Norton, c.s., 1977)  
 \**Prosuberites epiphytum* (Lamarck, 1814), new record  
*Pseudosuberites sulphureus* (Bowerbank, 1866) (Lilly, c.s., 1953). This record needs comparison against *Prosuberites epiphytum*.  
 \**Cliona celata* Grant, 1826 (Renouf, 1937; Norton, c.s., 1977)  
 ? *Raspailia ramosa* (Montagu, 1818) (Norton, c.s., 1977). This record needs comparison with *R. pumila* (Bowerbank, 1866) which is common in Roaringwater Bay.  
 \**Halichondria panicea* (Pallas, 1766) (Renouf, 1937; Lilly, c.s., 1953)  
 \**Halichondria bowerbanki* Burton, 1930 (Renouf, 1935; Lilly, c.s., 1953)  
 \**Halichondria reticulata* (Bowerbank, 1866), new record  
 \**Hymeniacion perlevis* Montagu, 1818) (Lilly, c.s., 1953) (in all probability polytypic)  
*Ulosa tupha* (Pallas, 1766) (Lilly, c.s., 1953) (this remarkable record needs a redescription)  
*Hemimyscale columella* (Bowerbank, 1874) (Lilly, c.s., 1953; Norton, c.s., 1977)  
 \**Mycale contarenii* (Von Martens, 1824) (Lilly, c.s., 1953)  
*Mycale rotalis* (Bowerbank, 1874) (Lilly, c.s., 1953)  
*Mycale macilenta* (Bowerbank, 1866) (Lilly, c.s., 1953)  
*Mycale minima* (Waller, 1880) (Lilly, c.s., 1953)  
 \**Biemna variantia* (Bowerbank, 1858), new record  
 \**Spanioplon armaturum* (Bowerbank, 1866) (Lilly, c.s., 1953)  
*Lissodendoryx diversichela* Lundbeck, 1905 (Lilly, c.s., 1953)  
 \**Myxilla incrustans* (Johnston, 1842) (Lilly, c.s., 1953; Norton, c.s., 1977)  
*Myxilla rosacea* (Lieberkühn, 1859) (Lilly, c.s., 1953)  
*Myxilla perspinosa* Lundbeck, 1902 (Lilly, c.s., 1953)  
 \**Menyllus ingallii* (Bowerbank, 1858) (Lilly, c.s., 1953)  
*Menyllus nigricans* (Bowerbank, 1858) (Lilly, c.s., 1953)  
 \**Hymedesmia pansa* Bowerbank, 1882 (Lilly, c.s., 1953)  
*Hymedesmia paupertas* (Bowerbank, 1866) (Lilly, c.s., 1953)  
*Hymedesmia zetlandica* Bowerbank, 1864 (Lilly, c.s., 1953)  
*Hymedesmia longistyles* Lundbeck, 1902 (Lilly, c.s., 1953)  
*Hymedesmia similis* Lundbeck, 1910 (Lilly, c.s., 1953)  
*Hymedesmia nummulus* Lundbeck, 1910 (Lilly, c.s., 1953)  
*Hymedesmia procumbens* Lundbeck, 1910 (Lilly, c.s., 1953)  
*Hymedesmia lieberkuehni* Burton, 1930 (Lilly, c.s., 1953)  
*Hymedesmia stephensi* Burton, 1930 (Renouf, 1935 as *H. stevensi*)  
*Hymedesmia brondstedti* Burton, 1930 (Renouf, 1935; Lilly, c.s., 1953)  
 \**Pronax plumosus* (Montagu, 1818) (Lilly, c.s., 1953 as *Stylostichon p.*)  
 \**Pronax dives* (Topsent, 1891), new record  
*Pronax bihamigera* (Waller, 1878) (Lilly, c.s., 1953 as *Stylostichon b.*)  
 \**Microciona atrasanguinea* Bowerbank, 1862 (Lilly, c.s., 1953)  
*Microciona microchela* (Stephens, 1916) (Lilly, c.s., 1953)  
 \**Microciona strepsitoxa* Hope, 1889, new record  
 \**Microciona spinarcus* Carter and Hope, 1899 (probably: Lilly, c.s., 1935 as *M. acanthotoxa* (Stephens, 1916))  
 \**Ophlitaspongia seriata* (Grant, 1826) (Lilly, c.s., 1953)  
 \**Plocamilla coriacea* (Bowerbank, 1874) (Lilly, c.s., 1953)  
*Plocamionida ambigua* (Bowerbank, 1866) (Lilly, c.s., 1953)  
 \**Phorbas fictitius* (Bowerbank, 1866) (Lilly, c.s., 1953)  
 \**Amphilectus fucorum* (Esper, 1794) (Lilly, c.s., 1953; Norton, c.s., 1977)  
 \**Adocia simulans* (Johnston, 1842) (Renouf, 1937 as *A. cinerea*)  
 \**Haliclona limbata* (Montagu, 1818) (Renouf, 1937; Lilly, c.s., 1953)  
 \**Haliclona loosanoffi* (Hartman, 1958), new record  
 \**Haliclona montagui* (Bowerbank, 1866), new record  
 \**Reniera indistincta* (Bowerbank, 1866) (Lilly, c.s., 1953 as *Haliclona i.*)  
 \**Reniera macandrewii* (Bowerbank, 1866) (Renouf, 1937 and Lilly, c.s., 1953 as *Haliclona m.*)  
 \**Reniera rosea* (Bowerbank, 1866) (Lilly, c.s., 1953 as *Haliclona r.*)  
*Reniera condensa* (Bowerbank, 1874) (Lilly, c.s., 1953 as *Haliclona c.*). The original description of this species seems unrecognizable.  
*Reniera luteosa* (Bowerbank, 1874) (Lilly, c.s., 1953 as *Haliclona l.*) and Lilly c.s., 1953. The original description of this species is unrecognizable.  
*Reniera cancellata* (Sowerby, 1804) (Lilly, c.s., 1953 as *Haliclona c.*). This species needs comparison with other *Haliclonidae*.  
*Reniera cinerea* (Grant, 1826) (Lilly, c.s., 1953 as *Adocia c.*). This needs comparison with *A. simulans*.  
 \**Reniera peachii* (Bowerbank, 1866), new record  
*Gellius angulatus* (Bowerbank, 1866) (Lilly, c.s., 1953 as *Haliclona a.*)

} all *Hymedesmia* species  
 are in need  
 of critical revision

- \**Aplysilla rosea* (Barrois, 1876) (Lilly, c.s., 1953)  
 \**Aplysilla sulfurea* (Schulze, 1878) (Lilly, c.s., 1953)  
 \**Halisarca dujardini* Johnston, 1842 (Lilly, c.s., 1953)  
*Spongionella carteri* (Burton, 1930) (Lilly, c.s., 1953). This species needs re-examination, as De Laubenfels (1948) considered it a subspecies of *Spongia officinalis*.  
 \**Dysidea fragilis* (Montagu, 1818) (Lilly, c.s., 1953)

#### OCTOCORALLIA

The previously known hard-bottom octocoral fauna of Ireland consisted of four species, *Alcyonium digitatum* (Linnaeus, 1758), *A. glomeratum* (Hassall, 1843), *Sarcodictyon catenata* Forbes, 1847 and *Parerythropodium hibernicum* Renouf, 1931. During the present investigation thick lobate yellow to orange colonies of *A. digitatum* with colourless polyps were encountered at several instances, both in littoral and in sublittoral waters. Digitate brown-red colonies of *A. glomeratum*, also with colourless polyps, were encountered on vertical walls near Crab Rock (Sherkin Island) at depths around 15 m. Near the Rapids of Lough Ine a third octocoral species was found on the underside of stones and boulders, identical with *Parerythropodium hibernicum* Renouf, 1931, the type material of which was examined in the British Museum (Natural History, BMNH reg. nos. 1932.5.24.1 and 1928.5.8.1). However, the specimens can also be referred to the species *Parerythropodium coralloides* (Pallas, 1766), of which *P. hibernicum* is to be considered a junior synonym.

#### *Parerythropodium coralloides* (Pallas, 1766) (Figs. 11 and 12)

In July 1977 several thin pink incrustations of several square mm each were found attached to the underside of stones in the littoral zone of Lough Ine, just north of the rapids. In August 1978, several more specimens were collected, including elevated growth forms of up to 20 mm in height, recalling the genus *Alcyonium* (Fig. 12.A.2). These grew on the underside of boulders at approximately 10 m depth. S.W. identified it as *Parerythropodium coralloides*. It differs from *A. digitatum* in colour and in the absence of small almost isodiametric, very warty sclerites, and in the paucity of cruciate ones. From *A. glomeratum* it differs also in colour and in the absence of very slender spindles with strongly protruding warts, and in the absence of small spindles with smooth warts (cf. Tixier-Durivault and Lafargue 1966). The spiculation of the present species resembles that of *Alcyonium pusillum* Tixier-Durivault and Lafargue 1966, but differs in the colour of the polypean sclerites. According to Tixier-Durivault and Lafargue 1966, *A. pusillum* contains merely pink sclerites; but one of the specimens of *P. coralloides* described by Weinberg (1975) contains white tentacular sclerites, pink sclerites in the distal part of the anthocodia (forming crown and points), white sclerites in the proximal part of the anthocodia, and pink sclerites in the anthostele (calyx) and coenenchyme. The colour of the sclerites in the present specimens is identical with this description. *P. coralloides* is a common Mediterranean species (Weinberg 1975, 1977), found once near Iles de Glénan (Atlantic coast of France) as its northern-most point of occurrence so far (Lafargue 1969).

The original description of *P. hibernicum* by Renouf (1931) confirms its similarity to *P. coralloides*. Habit and colour correspond with one of the colour varieties occurring in the Mediterranean (Weinberg 1975, 1977). Shape and distribution of the sclerites is identical, and the respective sizes of the sclerites from different body regions also fall within the known ranges in *P. coralloides*. It is striking that Renouf (1931) when creating the new species *P. hibernicum* compared his specimens with the deep water species *P. norvegicum* (Koren and Danielssen 1883), but failed to consider the European shallow water species *P. coralloides*, although he quotes Koch (1891) in his bibliography (but not in his text!) and in spite of the fact that Lacaze-Duthiers' (1900) excellent study of the species was already available. The only difference between *P. hibernicum* as described by Renouf (1931) and *P. coralloides* (Pallas, 1766) resides in the size of the polyps. Renouf (1931)

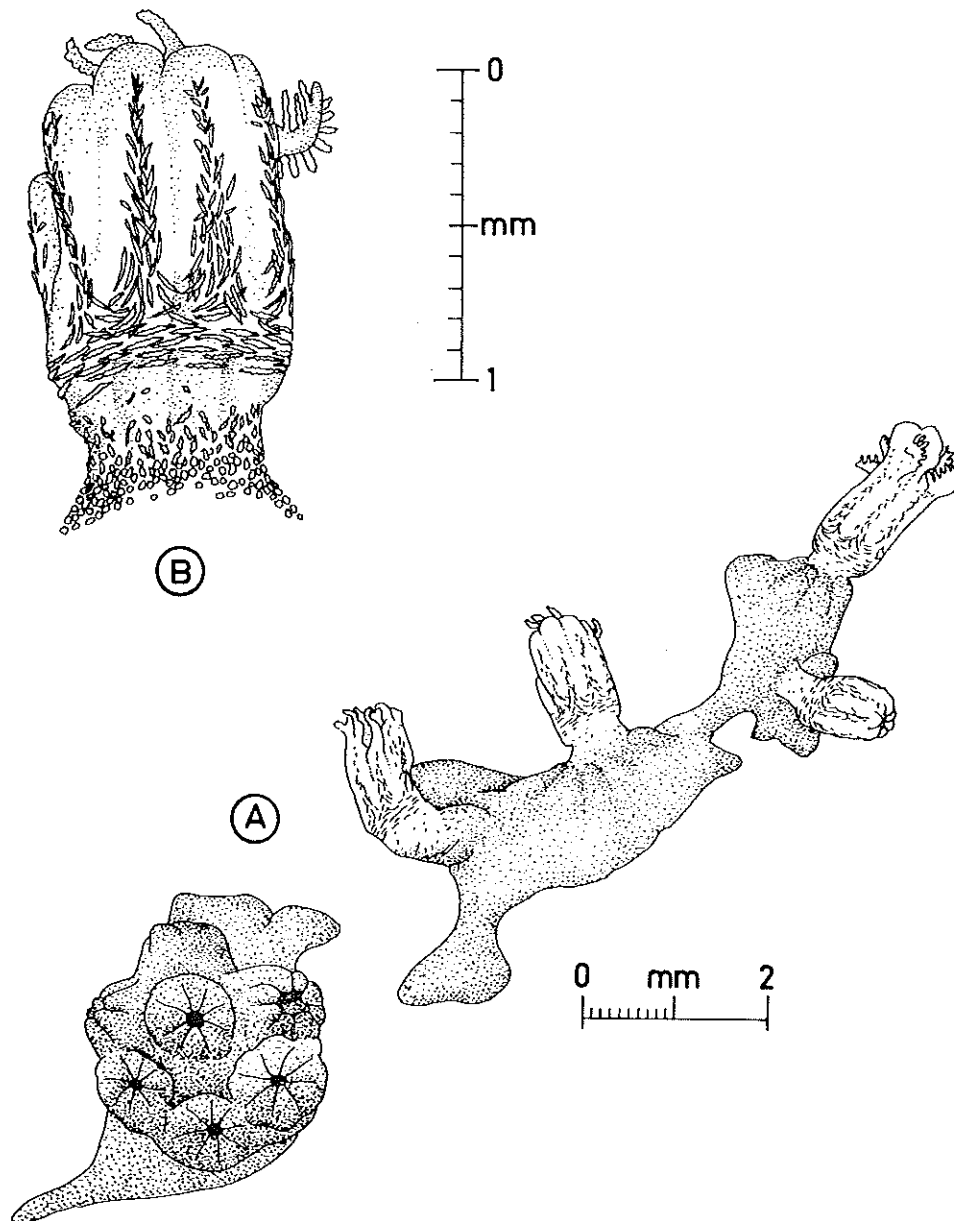


Figure 11. *Parerythropodium coralloides*, A. habit of incrusting colonies, B. polyp with characteristic distribution of sclerites.

states that the polyps are up to 13 mm high when fully extended, but this is in contradiction to his photograph (p. 207) where he shows some polyps enlarged. In this enlarged picture, the tallest polyp measures only 12 mm (tentacles excluded). Although no magnification factor is given, clearly the polyps were smaller than 12 mm. Further, if the largest sclerites are taken as approximately 300  $\mu\text{m}$  long (as stated by Renouf, p. 209-210), it can be deduced from Renouf's fig. 4 that his polyps were some 6 mm high and 2.5 mm wide. This means that the polyps of the Irish specimens are only slightly larger than the 4-5 mm usually attained by Mediterranean specimens in expanded condition, a fact that might be related to the higher latitude and cooler water. Anyhow, our own specimens, which

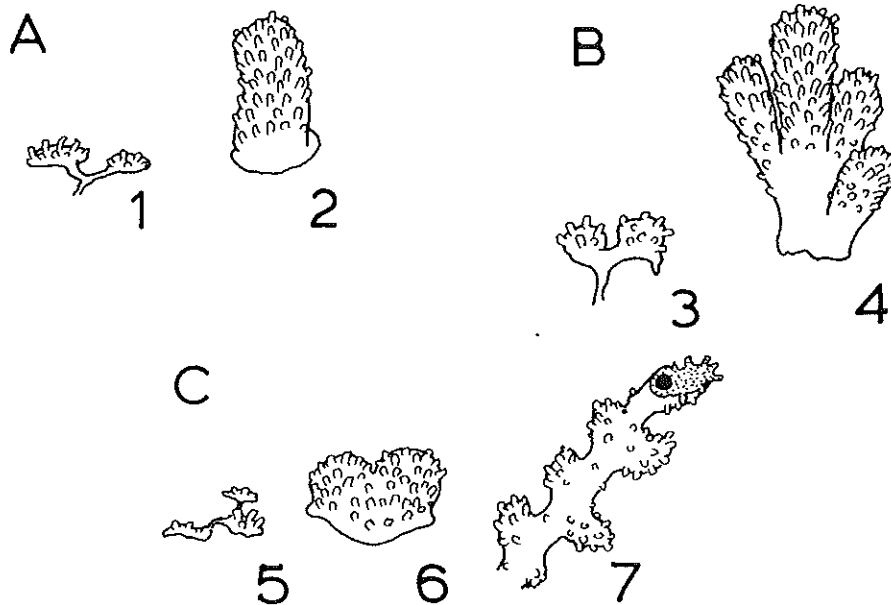


Figure 12. Habit of specimens of *Parerythropodium coralloides* from different localities and habitats. A. Lough Ine. B. Iles de Glénan, Brittany, France. C. Mediterranean. 1. Underside of stone. —1 m; 2. underside of boulder. —10 m; 3. overhanging surface at Laon Egeen Hir. —8 m; 4. vertical side of "San Pietro" shipwreck. —25-30 m; 5. ceiling of cave at Ile de Morgieu, Marseille. —5 m; 6. vertical wall at Iles de Pomègues, Marseille. —6 m; 7. portion of colony incrusting a gorgonian at Cap Rédéris, Banyuls-sur-Mer. —34 m. All drawings natural size.

contain polyps of a size normal for Mediterranean animals, correspond very closely to Renouf's description and come from the same habitat and type locality, so that we agree with the synonymy of *P. hibernicum* and *P. coralloides*, the latter name having priority.

Because of the close resemblance between *A. pusillum* as described by Tixier-Durivault and Lafargue (1966) and our specimens from Lough Ine, we decided to examine specimens of *A. pusillum* from the Glénan Archipelago. We obtained type material from the Muséum National d'Histoire Naturelle (Paris) and several additional specimens from Dr F. Lafargue (Laboratoire Arago, Banyuls-sur-Mer). Contrarily to the original description, we found the sclerites to be pink and white, and distributed in the same way through the different body regions as in the Mediterranean and Irish specimens. Although the habit of *A. pusillum* was originally described as being erect and digitated, with a sterile stalk, we also obtained smaller, lobate specimens and even very small incrustations connected by stolons, that were very similar to the smaller Lough Ine specimens. We therefore conclude to the synonymy of *A. pusillum* and *P. coralloides*, the latter name having priority. The colonies of *P. coralloides* that were already known from the Glénan Archipelago (Lafargue 1969) were small, incrusting, dark red colonies (Lafargue, personal communication).

The species has a Mediterranean-Atlantic distribution, its northern-most point of occurrence being the Isle of Man (Beldam and Robins 1971). Whereas in the Mediterranean dark red, pink and white specimens occur, in Brittany only dark red and pink colonies have been found, while in the British Isles only pink specimens seem to exist. These facts, and the knowledge that in the Mediterranean pink forms occur only below c. 15 m depth, indicate that colouration might be influenced by water temperature. Creeping, stoloniferous growth forms occur in all three areas (fig. 12, A.1, B.3, C.5). In the Mediterranean, lobate

forms occur as well (fig. 12, C.6) although the species is mainly incrusting, with a preference for dead gorgonian axes (fig. 12, C.7). In both the British Isles and Brittany, digitated forms are found (fig. 12, A.2, B.4). A comparison of specimens from these different areas is given in Table 2.

Table 2. Comparison of colonies of *Parerythropodium coralloides* from different localities and habitats.

Locality	Lough Ine, Co Cork, Eire	Glénan Is., Brittany, France	Mediterranean, France
depth range	0-11 m	3-30 m	0-100 m
habitat	underside of stones and boulders	vertical and overhanging walls, ceiling of caves	rock, especially caves, gorgonian axes
habit	incrusting or digitated (max. height: 20 mm)	incrusting or digitated (max. height: 35 mm)	incrusting or lobate (max. height: 15 mm)
colour	pink	pink or dark red	dark red, pink or white
sclerites from crown and points	265-370 $\mu$ m	250-380 $\mu$ m	250-400 $\mu$ m
sclerites from anthostele and coenenchyme	85-125 $\mu$ m	80-125 $\mu$ m	85-130 $\mu$ m

The extreme variability in colony shape leads us to wonder whether the genus *Parerythropodium* is valid. In the generic diagnosis, the incrusting habit is an important point. It is clear now that lobes, and even digitations, may occur under certain circumstances. This fact, together with the shapes and distribution of the sclerites, makes the distinction between *Alcyonium* and *Parerythropodium* a rather artificial one, that deserves close attention. We intend to come back to this matter in a future publication.

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