STUDIES ON THE FAUNA OF CURAÇAO AND OTHER CARIBBEAN ISLANDS: No. 166

REDESCRIPTION OF THE SEA ANEMONE BUNODEOPSIS PELAGICA

by

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There are two species of sea anemone occurring on the floating sea weed *Sargassum natans* in the Caribbean: *Bunodeopsis pelagica* (Quoy & Gaimard, 1833) and *Anemonia sargassensis* Hargitt, 1908.

Bunodeopsis pelagica is a small pale brown anemone characterised by a ring of violet colour around the mouth of the animal. It was originally described from the North Atlantic as *Actinia pelagica* (Quoy & Gaimard, 1833) by brief morphological notes and later as *Anemonia pelagica* (Milne Edwards & Haime, 1857). HARGITT (1914) referred to QUOY & GAIMARD's species *A. pelagica*, but failed to recognise that it was distinct from *A. sargassensis*. He noted certain similarities between the two species but thought that the description of *A. pelagica* was vague and noted that ANDRES considered the species doubtful. CARLGREN & HEDGPETH (1952) discussed the possibility of there being two species of anemone regularly inhabiting *Sargassum*: a larger darker form *A. sargassensis* Hargitt, 1908, common in the Gulf of Mexico, and a smaller lighter form common both in the Gulf of Mexico and the Atlantic. CUTRESS (1967, pers. comm.) noted the presence of a *Bunodeopsis* on *Sargassum* and believed it to be a new species. This anemone is here recognized as being QUOY & GAIMARD's *Actinia pelagica* and is now being redescribed and named as *Bunodeopsis pelagica* (Quoy & Gaimard, 1833).

Anemonia sargassensis is a larger brick brown anemone originally described by HARGITT (1908) from the North Atlantic. *Anemonia*

antillensis Pax, 1924, is considered as a synonym. A short description of *A. sargassensis* is given and comparisons made with *B. pelagica* in order to establish the main differences between the two species.

Family and generic definitions are quoted from CARLGREN (1949) with new modifications.

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For histological studies freshly collected material was used. Serial sections were made of individuals and several others were studied for gross morphology. Animals were placed straight into 5% neutral formaldehyde, washed in water, dehydrated in alcohol and cleared in Cedar Wood Oil. Animals were not narcotised as they tended to disintegrate. Sections were embedded in paraffin and stained in Masson's Triple Stain or Haematoxylin and Eosin. Nematocysts were measured from fresh material usually in the discharged state.

Family BOLOCEROIDIDAE Carlgren, 1924

Boloceroidaria with broad pedal disc, without basilar muscles. Column smooth, without outgrows, or with outgrowths in its lower part. Ectodermal longitudinal muscles in the whole column. Margin tentaculate, sphincter absent. Tentacles easily deciduous, each with an endodermal sphincter at its base, with or without stinging spots. Longitudinal muscles of the tentacles and radial muscles of the oral disc ectodermal. Distinct siphonoglyphs in some cases. Six or more perfect pairs of mesenteries. Muscles of mesenteries weak. No differentiation into macro- and microcnemes. Gonads develop from the mesenteries of the first cycle.

Genus **Bunodeopsis** Andres, 1880

Boloceroididae with thin column which in its lower part is provided with simple spheroidal or compound vesicles, sessile or stalked and containing microbasic amastigophors. Upper part of column, capitulum smooth. A weak longitudinal musculature in the column as

well as in the actinopharynx. Sphincter absent or indistinct diffuse. Tentacles long, with long stinging spots, deciduous by the contraction of the endodermal sphincter at their base; their longitudinal muscles endodermal. Number of perfect mesenteries variable, about 4–20 pairs, probably owing to asexual reproduction from the base. Muscles of mesenteries weak.
Cnidom: Spirocysts, basitrichs, microbasic p-mastigophors, microbasic amastigophors.

Bunodeopsis pelagica (Quoy & Gaimard, 1833)

Actinia pelagica QUOY & GAIMARD, 1933, p. 146, pl. 11 fig. 5.
Anemonia pelagica, MILNE EDWARDS & HAIME 1857, p. 235.
Bartholomea annulata?, CARLGREN & HEDGPETH 1952, p. 164.

Material: Morant Point (St Thomas), Rackhams Cay, Lime Cay (Port Royal Cays), Fort Clarence (St Catherine), Jamaica. – Found in large numbers attached to floating *Sargassum natans*.

Diagnosis: *Bunodeopsis* with simple minute protuberances on the scapus only. Protuberances pale creamy yellow, tentacles pale brown, transparent, with batteries of nematocysts along their length. Cnidom: Microbasic amastigophors, microbasic p-mastigophors, basitrichs, spirocysts.

Size: Specimens range between 3–4 mm in length and diameter.

Colour: Tentacles and column pale brown, with the lips of the mouth outlined by a thin violet ring (Fig. 26). The scapus is of a darker brown than the capitulum, with pale patches arranged in longitudinal rows.

Oral disc: Transparent, with the insertions of the mesenteries clearly visible. The mouth is slit-like and raised (Fig. 27). The disc overhangs the column and is approxinately 2 mm in diameter. The margin is tentaculate.

In histological sections the ectodermal layer is narrow, without spirocysts, and with few gland cells. The mesogloea is thin and fibrous. The endoderm is 2/3 the thickness of the ectoderm with very few zooxanthellae.

Tentacles: These are arranged in 2–3 cycles, those of the outer

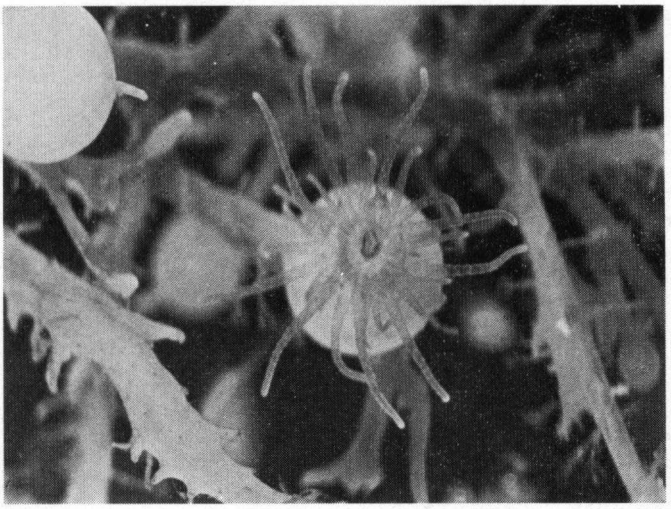

Fig. 26. *Bunodeopsis pelagica*, oral disc and tentacles with the ring of violet colour encircling the mouth.

being shorter than those of the inner. The numbers vary from 12 to 24 or 36. They are long, slender and tapering, with numerous ridges containing batteries of nematocysts along their lengths (Fig. 28). They are deciduous due to an endodermal sphincter at their bases (Fig. 28). The tentacles are retractile and weakly contractile and are usually extended. When in full extention they are approximately 8 mm in length.

The tentacle ectoderm is made up of long ciliated columnar cells. There are several microbasic amastigophors, few basitrichs and several spirocysts. Nematocysts are concentrated in the ridges, that is they form batteries along the entire tentacle length. The longitudinal musculature is weak. The mesogloea is thin and fibrous with a few cells embedded in the matrix. The endoderm is packed with zooxanthellae and is two thirds the thickness of the ectoderm.

Column: This is clearly divisible into scapus and capitulum. It is cylindrical, widening towards the base.

Capitulum: Smooth, transparent, with the insertions of the mesenteries and the outline of the pharynx clearly visible.

The ciliated ectoderm is the same thickness as the endoderm and

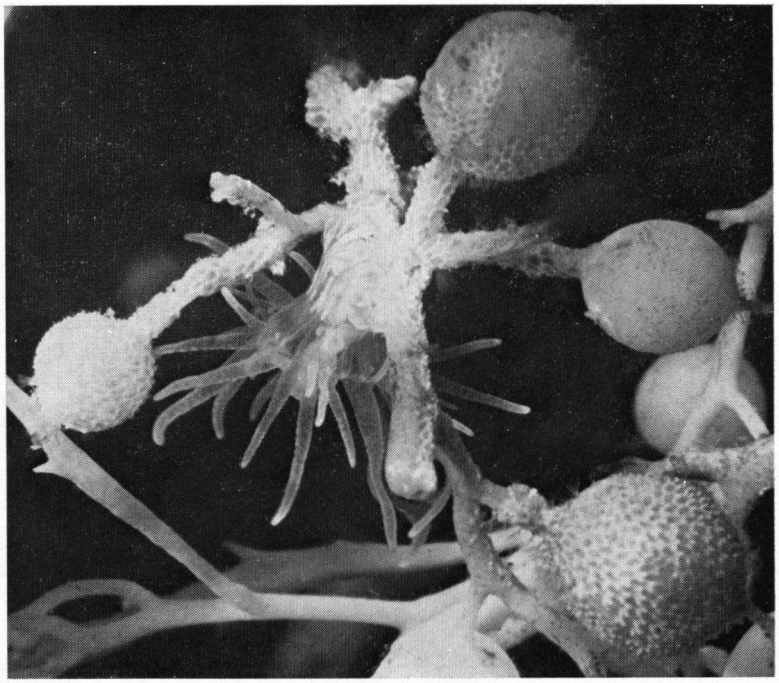

Fig. 27. *Bunodeopsis pelagica*, the entire animal on *Sargassum natans*. Note the batteries of nematocysts on the tentacles and the raised peristome.

is without nematocysts. The mesogloea is as in the tentacles. The endodermal cells are packed with zooxanthellae. There is a weak circular endodermal muscle layer. The sphincter is indistinct diffuse and entodermal.

Scapus: This is broader than the capitulum and of a darker brown colour. There are a few protuberances on the lower half, which are creamy yellow and are arranged in longitudinal rows. The protuberances are thickened portions of the ectoderm only, and are not true vesicles as those of the other members of the genus such as *B. antilliensis* and *B. globulifera* (Fig. 29).

The ectoderm of these protuberances is of long ciliated cells with several microbasic amastigophors. The ectoderm of the rest of the scapus is similar to that of the capitulum. The mesogloea is also as that of the capitulum.

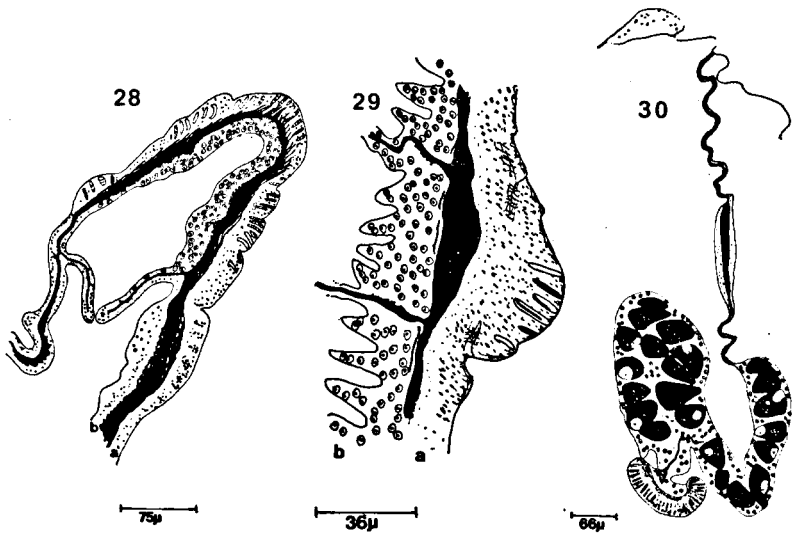

Fig. 28. *Bunodeopsis pelagica*, L.S. of a tentacle showing the endodermal sphincter at the base of the tentacle. The mesogloea and muscle processes are shown as black. The ectoderm (a) contains several nematocysts and the endoderm (b) is crowded with zooxanthellae.

Fig. 29. *Bunodeopsis pelagica*, T.S. of a portion of the column showing thickened portion of the ectoderm (a), forming a protuberance on the column. The mesogloea is shown as black. The endoderm (b) is crowded with zooxanthellae.

Fig. 30. *Bunodeopsis pelagica*, L.S. of a primary mesentery with developing ova. Only the cnidoglandular tract is present in the section and the weak retractor muscle may be seen beyond the gonad. The mesogloea and the ova are shown as black.

The endoderm is packed with zooxanthellae and is thicker than that of the tentacles. There are circular endodermal muscle fibres.

Base: Lobed, weakly adhesive, readily detachable and wider than the column.

The ectoderm is irregular in outline and made up of long ciliated columnar cells. There are few microbasic mastigophors and several mucous cells. The ectoderm is approximately the same thickness as that of the column. The mesogloea is as that of the capitulum. The endoderm has very few zooxanthellae and a weak endodermal musculature.

Actinopharynx: There appear to be two distinct regions. The ectoderm of the upper portion of the actinopharynx, i.e. the mouth,

is of approximately the same thickness as that of the tentacles. Spirocysts are found in the entire region, but are concentrated where the actinopharynx joins the disc. There are also several microbasic amastigophors. The mesogloea is as in the tentacles. The endoderm is half the thickness of the ectoderm and has fewer zooxanthellae than that of the tentacles.

The ectoderm of the actinopharynx proper is made up of longer ciliated supporting cells and numerous secretory cells. This layer is traversed by longitudinal ridges. No siphonoglyphs are present. There are several microbasic amastigophors with an occasional spirocyst. The mesogloea is as in the tentacles and the mouth. The endoderm is one quarter the thickness of the ectoderm and contains numerous zooxanthellae.

Mesenteries: There are 6–7 pairs of primary mesenteries, a number of secondaries and occasionally tertiaries occur. The arrangement is irregular in most animals possibly due to asexual reproduction. No pedal laceration was however observed in this species, but the animal showed remarkable powers of regeneration. The retractor muscles are weak, diffuse and endodermal.

Developing ova were found on the septa in several animals and occur on the primary mesenteries only. Zooxanthellae were seen in the developing ova (Fig. 30). Testes were found in one animal only. The filaments are typical, with a cnidoglandular and two flagellated bands. Zooxanthellae are present in the endoderm of the septa along with a few gland cells.

Distribution: North Atlantic (Quoy & Gaimard 1833, *Actinia pelagica*; Milne Edwards & Haime 1857, *Anemonia pelagica*), Caribbean (Fisher 1973).

This is a fairly active anemone, which when disturbed readily detaches the base from the *Sargassum* and creeps away. After detachment, it moves about by creeping on the tentacles for short distances before re-attaching the base to a new area. Swimming was not observed in *B. pelagica*.

Developing ova were found in several specimens and testes only in one.

Pedal laceration or fission was not observed in this species, but the animals displayed remarkable powers of regeneration. When animals were cut up into pieces each with pieces of oral disc, tentacles and column, the pieces regenerated whole individuals. If only the disc and a part of the column were cut through, leaving the base intact, the animal reassembled itself, i.e. the wound healed.

Living on *Sargassum natans* is an eolid (nudibranchiate mollusc) which feeds on the anemone. It closely resembles another eolid, *Phidiana lynceus* Bergh, which occurs on *Thalassia testudinum* and preys on another anemone *Bunodeopsis antilliensis*. The colour markings are quite different to *Phidiana lynceus*, but it is possible that the two eolids may well be the same species.

Family ACTINIIDAE Gosse, 1858

Thenaria (Endomyaria). Column smooth or provided with projections in the form of verrucae, marginal spherules, pseudospherules or vesicles which never have microbasic amastigophors. Sphincter absent or endodermal, diffuse to circumscribed. Tentacles simple, arranged in cycles. Never more than one tentacle communicating with endo- and exocoel. Mesenteries not divisible into macro- and microcnemes. Perfect pairs of mesenteries rarely 6, as a rule more than 6.

Genus **Anemonia** Risso, 1826

Actiniidae with wide pedal disc and smooth body, which at the margin is provided with marginal spherules, which are sometimes absent in smaller individuals. Sphincter weak, circumscribed or rather well developed, diffuse. Tentacles usually long, not as a rule covered by the upper part of the column, their longitudinal muscles ectodermal. Siphonoglyphs variable in number, not always connected with directives. Perfect mesenteries numerous. Retractors diffuse. Gonads from first cycle of mesenteries onwards. More mesenteries at the base than at the margin.
Cnidom: Spirocysts, atrichs, basitrichs, microbasic p-mastigophors (and possibly some holotrichs).

Anemonia sargassensis Hargitt, 1908

Anemonia sargassensis Hargitt, 1908, p. 117; 1914, p. 239; Field 1949, p. 9; Carlgren & Hedgpeth 1952, p. 151; Hedgpeth 1954, p. 287.
Anemonia antillensis Pax, 1924, p. 99.

Material: Port Royal, Morant Point, Palisadoes; Jamaica. – Found mainly on floating *Sargassum* but occasionally loosely attached to rocks, *Ulva* or *Thalassia testudinum* in shallow water.

Description: For a detailed description see FIELD (1949). There are however certain discrepancies in FIELD's account which have been corrected by CARLGREN & HEDGPETH (1952).

Size: This is a small species. In large specimens the diameter of the oral disc is 8–10 mm, the length of the column 6–8 mm and the diameter of the base 10 mm.

Colour: The entire animal is brick brown with the exception of the base which is pale brown. The disc may have radiating white or yellow bands from the edge of the peristome towards the margin, and the origin of the tentacles may be white or creamy yellow (Fig. 31).

There are approximately 54–60 *tentacles* in large specimens and they are arranged in 4–5 cycles. They are medium length and are of varied sizes, the larger tentacles appear to be confined to the inner cycle but often large and small are found in all cycles. The tentacles are not retractile, and are strongly adhesive. Marginal spherules occur but they are not well defined. The sphincter muscle is weak.

The *disc* is wide, the peristome is pronouncedly raised, the mouth is round (Fig. 32). The insertions of the mesenteries are visible through the disc and on disturbing the animal the actinopharynx is readily everted. No siphonoglyphs were seen.

The *column* is smooth, short and cylindrical with the insertions of the mesenteries visible through it. The base is broader than the column, is irregular in outline and readily detachable.

Distribution: North Atlantic (HARGITT 1908, 1914; FIELD 1949), (CORRÊA 1964); Gulf of Mexico (CARLGREN & HEDGPETH 1952; HEDGPETH 1954); Caribbean Sea (CORRÊA 1964; FISHER 1973).

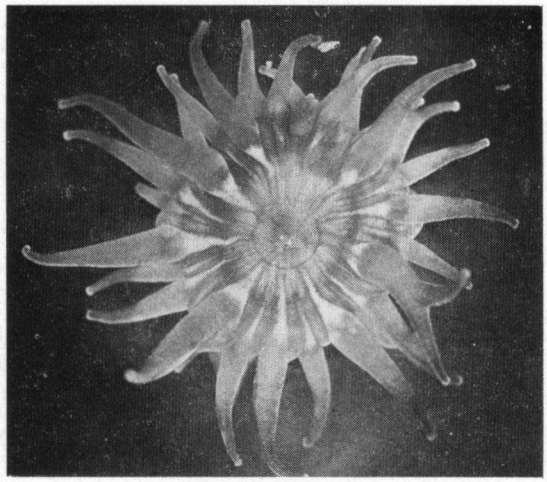

Fig. 31. *Anemonia sargassensis*, oral disc and tentacles showing pattern of radiating lines, creamy yellow or white on the oral disc.

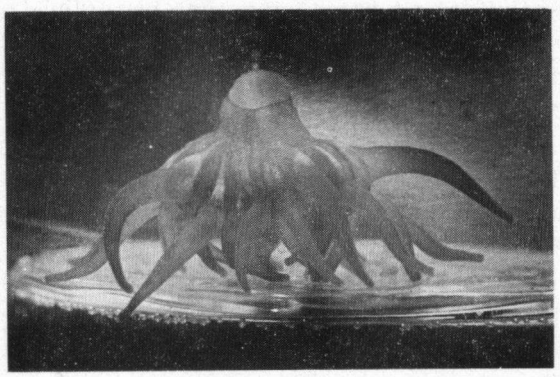

Fig. 32. *Anemonia sargassensis*, entire animal showing raised peristome and base detached.

DISCUSSION

The main features of *B. pelagica*, *A. sargassensis* and PAX's *A. antillensis* are listed in Table 12 to facilitate comparisons between them. The data of HARGITT (1914), FIELD (1949), CARLGREN & HEDGPETH (1952) and CORRÊA (1964) are included for *A. sargassen-*

sis. A. antillensis is treated as a possible synonym of *A. sargassensis* as formerly pointed out by CORRÊA (1964). The accounts of QUOY & GAIMARD (1833) and MILNE EDWARDS & HAIME (1857) are not included for *B. pelagica* as these were only brief morphological notes. In both descriptions however, two significant features for *B. pelagica* were mentioned; 1) its occurrence on *Sargassum natans* and 2) the violet ring of colour around the mouth of the animal.

From the listed data of *A. sargassensis* it is apparent that the main habitat is on *Sargassum*, although FIELD and myself found them occasionally on other substrates. The size of the animal varies little, with the exception of CORRÊA's specimens which were larger. The colour also is much the same in all the descriptions except in the case of CORRÊA's specimens which were vermillion. It is possible that the vermillion to which she refers is a type of reddish brown, or that her specimens are a distinct colour variety.

In all instances the tentacles are irregular in number and arrangement and do not appear to be in multiples of 6. This could well be due to asexual reproduction. FIELD's specimens have only 32 tentacles which corresponds with the smaller specimens of HARGITT, although the actual measurements of FIELD's specimens do not appear to be significantly smaller than those of the others. The non-retractile nature of tentacles was recorded by all authors with the exception of CARLGREN & HEDGPETH; however, since their descriptions correspond to those of FIELD in most respects, one can assume that the tentacles in their specimens were also non-retractile. The presence of bifurcated tentacles was mentioned by HARGITT and CORRÊA. In the specimens examined two tentacles appeared to fuse at their bases only. Their adhesive nature has been noted by all authors with the exception of CARLGREN & HEDGPETH.

All descriptions recorded marginal spherules except HARGITT who stated that there were none. The marginal spherules are very small, and it is possible that he could have overlooked them. The adhesive nature of the base differed in most accounts. I found that the animal detached readily from *Sargassum* when disturbed.

Two siphonoglyphs were mentioned by FIELD and PAX. HARGITT drew two (fig. 13, 1914), CARLGREN & HEDGPETH doubted their presence, CORRÊA found it impossible to determine if there were any

TABLE 12

COMPARISON OF *B. pelagica*, *A. sargassensis* AND *A. antillensis*

	Anemonia antillensis PAX 1924	*Anemonia sargassensis* HARGITT 1914	*Anemonia sargassensis* FIELD 1949	*Anemonia sargassensis* CARLGREN & HEDGPETH 1952	*Anemonia sargassensis* CORRÊA 1964	*Anemonia sargassensis* FISHER 1973	*Bunodeopsis pelagica* FISHER 1973
Habitat	Hydroid colonies(?)	Floating *Sargassum*	*Sargassum*	*Sargassum*	*Sargassum* and other floating substrates	*Sargassum natans*, occasionally *Thalassia testudinum* and rocks	*Sargassum natans*
Diameter:							
Base	10 mm	9 mm	6 mm	5 mm	20–30 mm	8–10 mm	3–4 mm
Oral disc	—	—	10 mm	5 mm	25 mm	10 mm	2 mm
Length of column	3 mm	5–6 mm	7 mm	5 mm (preserved material)	10 mm	6–8 mm	3–4 mm
Colour	Blue grey in the preserved state	Brown (diffused or chestnut), with whitish markings on the disc extending upon the bases of the tentacles	Brown with white markings on the disc; tentacles of the 1st. and 2nd. cycles with yellow markings at their bases	Brown with cream coloured sectors on the disc, brown annulus around the mouth some with tentacle tips pale green	Vermillion except disc which is clear pink with radial bluish or vermillion stripes which may extend to the bases of the 1st. cycle of tentacles	Brick brown, with white markings on the disc which may extend to the origins of the tentacles	Column and tentacles pale brown with the mouth outlined by a violet ring; scapus with pale yellow patches in longitudinal rows

Tentacles	49–52, non-retractile, often bifurcating at the tips, inner ones largest; smooth	50 in larger animals, 25–30 in smaller ones, non-retractile, several cases of bifurcation at the tips; irregularly arranged, strongly adhesive	32, non-retractile, inner ones usually longest, prehensile	40–50 inner ones usually longest, but arrangement irregular; rough	62–65 non-retractile, often bifurcating at the tips, irregularly arranged, strongly adhesive	54–60, non-retractile often fusing at the bases, usually larger ones in the inner cycle; but irregularly arranged, strongly adhesive; smooth	12–36, retractile inner tentacles longest, deciduous; rough
Sphincter	Circumscript-diffuse	Weak	—	Weak, diffuse	Weak, diffuse	Weak	Weak, diffuse
Marginal spherules	Present	None	Present	Present but weak	Present	Present but weak	None
Base	Strong basilar muscles present	Adheres with tenacity to *Sargassum*	Closely adherent	—	Weakly or not adherent	Weakly adherent	Weakly adherent
Siphonoglyphs	Two	Two (from drawing)	Two, well defined	Doubtful	Almost impossible to verify presence	None	None
Directives	Two pairs	Two pairs	None	None	None	—	Difficult to discern if any
Retractors	Weak, circumscript	Weak, circumscript (from drawing)	—	Diffuse	Weak	—	Weak, diffuse

TABLE 13

A COMPARISON OF NEMATOCYST SIZE AND DISTRIBUTION

(classification after WEILL 1934)

	Anemonia sargassensis		*Bunodeopsis pelagica*
	CARLGREN & HEDGPETH 1952	CORRÊA 1964	FISHER 1973
Tentacles			
Basitrichs	15.5–33.8 × 2.2–3 μ	11.9–32.3 × 1.7–3.4 μ	8–9 × 2 μ
Microbasic amstigophois	—	—	19- 28 × 6 μ 28–32 × 4 μ
Column			
Basitrichs	15.5–19.7 × 2.2–2.8 μ	11.9–30.6 × 1.7–2.5 μ	8–9 × 2 μ
Microbasic amastigophors	—	—	19–21 × 4.5 μ 24–28 × 4 μ
Microbasic p-mastigophors	—	—	5 × 3 μ
Marginal spherules			
Atrichs	33.8–39.5 × 5–6.3 μ	28.9–39.1 × 3.4–5.1 μ	—
Basitrichs	15.5–21.1 × 2.2–2.8 μ	11.9–20.4 × 1.7–2.5 μ	—
Actinopharynx			
Basitrichs	19.7–25.4 × 3.5–4.6 μ 15.5–28.2 × 2.2–2.8 μ	18.7–34.0 × 2.5–3.4 μ	—
Microbasic amastigophors	—	—	19–21 × 4–5 μ
Microbasic p-mastigophors	18.3–19.7 × 5–5.6 μ	18.7–22.1 × 5.1 μ	5 × 3 μ
Filaments			
Basitrichs	21.0–36.7 × 4.2 -5.6 μ 15.5–28.2 × 2.5–2.8 μ	8.5–17.0 × 1.7–2.5 μ	8–9 × 2 μ
Microbasic amastigophors	—	—	21 × 5 μ 19–23 × 4 μ 28–30 × 4 μ
Microbasic p-mastigophors	18.3–22.6 × (4.2) 5.6–6.3 μ	17.0–23.8 × 3.4–5.1 μ	5 × 3 μ
Base			
Microbasic amastigophors	—	—	20 × 4 μ

present, and I found none. Directives were only recorded by HARGITT. It is possible that if the animal reproduces asexually, as already mentioned, this would account for some discrepancies such as the absence of siphonoglyphs and directives in some or most of the specimens.

From the five descriptions summarised in Table 12, it seems obvious that all are dealing with the same anemone, *Anemonia sargassensis* Hargitt, 1914.

The data given in Table 12 for PAX's *A. antillensis* (1924), suggest that there is little difference between that species and *A. sargassensis*. The problem of the directives and the siphonoglyphs (as in the case of *A. sargassensis*) could be attributed to asexual reproduction in these animals. One can therefore consider these descriptions to be of the same animal and *A. antillensis* a synonym of *A. sargassensis*.

However *B. pelagica* is a much smaller animal. The diameter of the base is smaller than that of the other specimens described as *A. sargassensis* except those of CARLGREN & HEDGPETH who were dealing with preserved animals. The oral disc is also smaller. The length of the column is shorter except in PAX's and CARLGREN & HEDGPETH's animals and in these cases the short length obtained could be due to their using preserved material. The colour pattern is quite different in *B. pelagica*; the animal is of a paler brown colour with a characteristic violet ring around the mouth. The tentacle cycles are regular and in multiples of six. Along the length of the tentacles the raised batteries of nematocysts are clearly visible as can be seen from Fig. 27. There are no marginal spherules. Siphonoglyphs are absent and it was impossible to discern if there are any directives.

Table 13 shows the sizes and distribution of nematocysts recorded by CARLGREN & HEDGPETH (1952) and CORRÊA (1964) for *A. sargassensis* and by FISHER (1973) for *B. pelagica*. The sizes of the nematocysts vary between CARLGREN & HEDGPETH and CORRÊA's accounts, but the distribution is the same. The distribution of nematocysts is quite different for *B. pelagica*. There are no microbasic amastigophors recorded in the tentacles for *A. sargassensis* (CARLGREN & HEDGPETH 1952, CORRÊA 1964) whereas two size ranges have been noted for *B. pelagica* (FISHER 1973). In the column microbasic amastigophors and microbasic p-mastigophors have been recorded

only for *B. pelagica*. The microbasic p-mastigophors found in the column, actinopharynx and filaments of *B. pelagica* are very short and have relatively wide capsules which appear to be specific to members of the genus *Bunodeopsis* (personal observation). In the actinopharynx, microbasic amastigophors are absent in *A. sargassensis*, microbasic p-mastigophors are present in both species, but those of *B. pelagica* are very much smaller. This would also apply to the filaments.

One can therefore see that there are two species of sea anemone living on *Sargassum natans* in the Caribbean, distinguished from one another by size, colour, nature of the tentacles, presence of marginal spherules in one species (*A. sargassensis*) and in the size and distribution of nematocysts.

SUMMARY

There are two species of sea anemone occurring on the floating sea weed *Sargassum natans* in the Caribbean sea: *Bunodeopsis pelagica* (Quoy & Gaimard) and *Anemonia sargassensis* Hargitt. The anemones are readily distinguished from one another by their colour and the nature of their tentacles. *B. pelagica* is pale brown with a characteristic ring of violet colour around the mouth; the tentacles are long and rough due to the presence of batteries of nematocysts along their lengths. *A. sargassensis* is darker brown, often with white or creamy yellow radiating markings on the oral disc. The tentacles are smooth, medium length and are very adhesive. They are usually irregular in arrangement and are 54–60 in number. In *B. pelagica* they are regularly arranged with the larger ones in the inner cycle, are usually in multiples of 6 and 12–36 in number. The tentacles are retractile in *B. pelagica* but not so in *A. sargassensis*. Both species are found on *Sargassum natans*, but occasionally *A. sargassensis* occurs in shallow water on *Thalassia testudinum* and on rocks along the shoreline.

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