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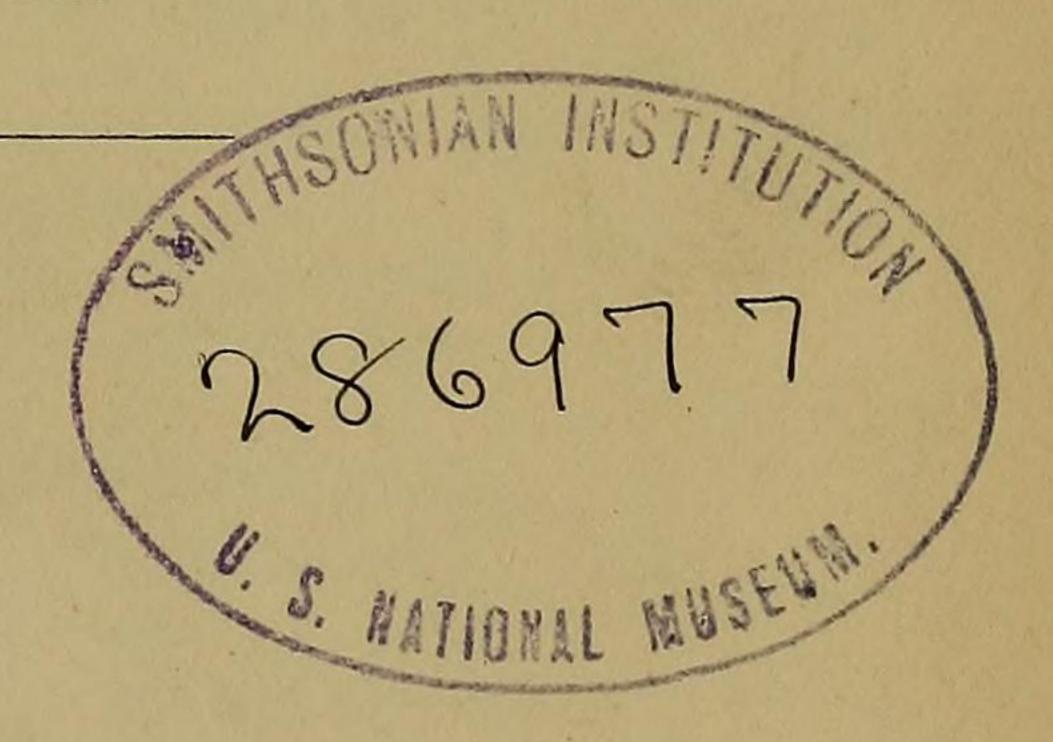
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IX.

DESCRIPTION OF SOME NEW SPECIES OF ACTINIARIA FROM TORRES STRAITS. By PROFESSOR A. C. HADDON AND ALICE M. SHACKLETON, B.A.

[Read December 21; Received for publication December 22, 1892; Published March 25, 1893.]

CIRCUMSTANCES have delayed, and will further delay, the completion of the second part of our Report on the Actiniaria of Torres Straits. This being the case, we think it advisable to put on record a description of those new species which we have already determined. We hope to present our completed and illustrated memoir in about a year's time.

The following is a Table of all the species we have as yet identified in the collection made by one of us. The order in which they are here placed must be regarded as provisional, as we are by no means satisfied with any published classification of the Actiniaria.

ACTINIARIA.

- I. Edwardsiæ. (No specimens collected.)
- II. CERIANTHEÆ.

 Cerianthidæ.

Cerianthus nobilis, n. sp.

III. ZOANTHEÆ.

Zoanthidæ.

Macrocneminæ.

Parazoanthus Howesii, H. & S.; P. Kochii, H. & S.; P. cœsia (?), (Dana).

Brachycneminæ.

Gemmaria Macmurrichi, H. & S.; G. Mutuki, H. & S.

Isaurus asymmetricus, H. & S.

Zoanthus Coppingeri, H. & S.; Z. Jukesii, H. & S.; Z. Macgillivrayi, H. & S.

ERRATUM.

For last eleven lines from bottom of p. 116 read the following:—

III. Zoanthide

Zoanthidæ.

Macrocneminæ.

Parazoanthus dichroicus, H. & S.; P. Douglasi, H. & S.

Brachycneminæ.

Palythoa Howesii, H. & S.; P. Kochii, H. & S.; P. cœsia (?), Dana.

Gemmaria Macmurrichi, H. & S.; G. Mutuki, H. & S.

Isaurus asymmetricus, H. & S.

Zoanthus Coppingeri, H. & S.; Z. Jukesii, H. & S.; Z. Macgillivrayi, H. & S.

IV. HEXACTINIÆ.

A. Stichodactylinæ.

Corynactidæ.

Corynactis hoplites, n. sp.

Discosomidæ.

Discosoma Kenti, n. sp.; D. Malu, n. sp.; D. macrodactylum, n. sp.

Rhodactidæ.

Rhodactis bryoides, n. sp.

Phymanthidæ.

Phymanthus simplex, n. sp.; P. muscosus, n. sp.

Cryptodendridæ.

Cryptodendrum adhæsivum, Klunz.

B. Thalassianthinæ.

Thalassianthidæ.

Actineria dendrophora, n. sp.

Actinodendron alcyonoideum, Q. & G.; A. arboreum, Q. & G.

c. Minyadinæ.

Minyadidæ.

Minyas torpedo (?), Bell.

D. Actininæ.

Actiniidæ (Antheadæ).

Condylactis Gelam, n. sp.; C. Ramsayi, n. sp.; C. aspera, n. sp.

Anemonia citrina, n. sp.; Kwoiam, n. sp.

Actinioides Dixoniana, n. sp.; A. Sesere, n. sp.

Viatrix cincta, n. sp.

Bunodidæ.

Alicia rhadina, n. sp.

Sagartidæ.

Phellia (?) sipunculoides, n.sp.; P. (?) Devisi, n. sp.

Paraphellia Hunti, n. sp.; P. lineata, n. sp.

Thoe (?) Milmani, n. sp.

Adamsia miriam, n. sp.

CERIANTHEÆ.

CERIANTHIDÆ.

Cerianthus nobilis, n. sp.

Form.—Body of great size; presence of a terminal pore not determined; marginal tentacles long, tapering, in three cycles, from about 160 to 170 in number; oral tentacles very numerous.

Colour.—Upper portion of column deep brown, paler below; marginal tentacles, deep flesh colour; oral tentacles, yellowish skin colour. Disc with radial brown lines.

Dimensions.—Length of column probably about 300 mm. (in alcohol 105 mm.); diameter, 26 mm. (in alcohol 19 mm.); length of marginal tentacles, about 80 mm.; length of tube, about 300 mm. (12 inches).

Habitat.—Partially imbedded in the mud on the fringing reef of Thursday Island.

HEXACTINIÆ.

STICHODACTYLINÆ.

CORYNACTIDÆ.

Corynactis hoplites, n. sp.

Form.—Column about twice as high as broad, smooth, pedal disc expanded; tentacles, capitate, of two kinds, (1) marginal and (2) centripetal, situated on the disc, the latter in at least two cycles; mouth can be extended into a short tube, finely ridged internally.

Colour.—Colour, varied; (a) column, burnt sienna-colour, with dark paired marks at the top of the scapus; tentacles, translucent white, with a pink or white core at the swollen tip; mouth-cone, speckled gray; throat, orange; (b) similar, with pinkish-brown tips to tentacles; six pairs of marks on capitulum; (c) transparent grass-green, with brown streaks; tentacles, transparent, green tips.

Dimensions.—Diameter of column, about 8 mm.; height, about 14 mm.

Habitat.—Between Orman's Reef and "The Brothers Island," 6-7 fms., August 18, 1888; also on fringing-reef, Mabuiag, October, 1888.

The various species of Corynactis are difficult to differentiate from each other, so far as the descriptions hitherto published are concerned. This species differs from the type species *C. viridis*, Allm., in possessing a well-marked, diffuse, endodermal sphincter muscle, as well as in other characters which we will particularize in our detailed paper. The specific name is derived from the batteries of large nematocysts in the tentacles.

DISCOSOMIDÆ.

DISCOSOMA.

We place the three following species provisionally under this genus, as they appear to constitute a regular series; but we feel sure that ultimately the genus will require revision, as the type species *D. nummiforme*, Leuck., appears to differ considerably from other species which are commonly associated with it.

Discosoma Kenti, n. sp.

Form.—A very large Actinian; column narrower below than above; oral disc of considerably greater diameter than column, and thrown into well-marked lobes; tentacles very numerous, subulate, in continuous, rapid, irregular, waving movement; mouth, usually with two gonidial grooves.

Colour.—Various; column, usually gray, passing into buff above, or brownish and rusty orange above, upper portion with pale or sometimes dull violet suckers; tentacles, ashy grey with a green tip, or cindery-brown, sometimes the tentacles have a pinkish lilac tip.

Dimensions.—Diameter of corona, over 300 mm. (a foot or more.

Habitat.—On reefs in Torres Straits.

We have the pleasure of naming this fine species in honour of W. Saville Kent, Esq., who has recently done such good scientific and economic work in connexion with the fisheries of Torres Straits and elsewhere round the Australian coasts.

Discosoma Malu, n. sp.

Form.—Column, soft, massive; upper portion with large suckers, to which pieces of shell often adhere; a slight but distinct crenulated parapet; oral disc of much greater diameter than column, and thrown into folds; mouth round, with two well-marked gonidial grooves; tentacles very numerous, contractile, may be reduced to mere filaments—those of the outermost row in two cycles, large, and of the same size; the centripetal tentacles appear to arise anywhere on the disc, they usually occur in short radial rows, of these the tentacle situated nearest to the mouth is the largest.

Colour.—Whole body pale creamy yellow; the tentacles shade off into pink, and have rosy-red tips.

Dimensions.—Column about 100 mm. high; about 750 mm. in diameter; diameter of corona, over 160 mm.; length of tentacles, 11 mm.

Habitat.—(Of single specimen) surface of reef, Mer, February 14, 1889.

We name this species after the hero Malu, about whom there is a legend which evidently embodies the traditional history of the origin of a portion at least of the ancient initiation ceremonies of Mer. (Cf. "Legends from Torres Straits," Folk-lore 1. 1890, p. 181.)

Discosoma macrodactylum, n. sp.

Form.—Salver-shaped, owing to the great expansion of the oral disc, with numerous large suckers on upper portion of column; the long and very contractile tentacles are placed in well-marked linear series, their tips are perforated; mouth with two gonidial grooves.

Colour.—Column, olive-brown, darker above, with pale spots on upper portion; disc, pinkish gray, peripherally passing into pale olive green, which shades into olive brown round the mouth; cesophagus, delicate pink; tentacles, dove-gray, with a yellowish sheen, which is most marked at the tip.

Dimensions.—Diameter of disc, 250-300 mm. or more; mouth, 25 mm. × 57 mm.; tentacles, 40 mm. or more in length.

Habitat.—(Of single specimen) surface of reef, Mer, January 18, 1889.

At first sight this species has very much the appearance of an Anemonia; the specific name refers to the long tentacles.

RHODACTIDÆ.

Rhodactis bryoides, n. sp.

Form.—Body, salver-shaped, with a well-marked crenulated parapet; oral disc expanded, of even contour, concave with prominent oral cone; mouth rounded, stomatodæum with twenty-four furrows, but no gonidial grooves; one or two short, knob-like tentacles on most of the crenulations of the parapet, but the bulk of the tentacles are compound, and are grouped in numerous radial lines, twelve of which run up the oral cone; there is an annular clear space between these centripetal and the peripheral tentacles.

Colour.—Column, buff, grayish-brown or cinder colour; disc burnt-sienna colour; tentacles various shades of bluish-green, some on the disc are brown.

Dimensions.—Diameter of disc, 32 mm.

Habitat.—Surface of reefs, Murray Islands.

This species can readily be distinguished from the only hitherto described species of R. rhodostoma (Ehr.) and R. Sancti-Thomæ (Duch. et Mich). The specific name is derived from its mossy appearance.

PHYMANTHIDÆ.

Phymanthus simplex, n. sp.

Form.—Column, soft, corrugated when contracted; suckers on lower portion increasing in size from below upwards; crenulated parapet; disc flat when fully expanded, never completely retractile; mouth rounded, with two esophageal grooves; tentacles of two kinds, centripetal and peripheral; centripetal tentacles short, conical, arranged in three cycles, the inner cycles consisting of about 48 in number; peripheral tentacles arranged in four or five cycles consist of about 192 tentacles; aboral aspect of each

tentacle smooth, oral aspect flattened with lateral swellings alternately large and small.

Colour.—Column, cream below, passing into gray above, lower portion streaked or spotted with red-lead colour; suckers and marginal crenulations white; disc, central area cream-colour, with dark brown lines; area of the inner cycles of tentacles dark brown, a white spot in front of each tentacle; the inner tentacles have a madder tinge with a green sheen on their oral aspect; marginal tentacles transparent brown aborally, cream colour orally, the swollen portion spotted in the middle.

Dimensions.—Height, about 100-130 mm.; diameter of corona, 250 mm.; largest tentacles, 30 mm. × 6 mm.

Habitat.—Fringing reef, Mer.

Phymanthus muscosus, n. sp.

Form.—Forty-eight rows of small tubercles on upper portion of column; crenulated parapet; flat, completely retractile disc; small round mouth; 96 tentacles, bearing alternately large and small dendritic appendages.

Colour.—Column, various shades of gray, darker above than below; disc green with dark or light spots; tentacles gray with green appendages.

Dimensions. — Height, 250-500 mm. Diameter of corona, 500-750 mm.

Habitat.—Surface of fringing reef, Mer.

This species is allied to the type species of the genus, P. loligo (Ehr.); but the lateral appendages to the marginal tentacles are more dendritic that in the latter species, and the rosette-like disctentacles are absent. It is also very close to Thelaceros rhizophoræ, Mitch. This genus cannot stand, but we believe it is to be a distinct species. Phymanthus simplex is a well-marked species.

¹ P. C. Mitchell, "Thelaceros rhizophoræ, n.g. et sp., an Actinian from Celebes,"
—Quart. Jour. Micr. Sci. xxx., (N.S.), 1890, p. 551.

THALASSIANTHINÆ.

THALASSIANTHIDÆ.

Actineria dendrophora, n. sp.

Form.—Column, soft, smooth; base slightly expanded; oral disc greatly expanded, and irregularly folded or puckered, with its edge produced into lobes some 300 or 400 in number; the aboral aspect of the lobes is closely crowded with globular, pedunculated tentacles, the oral or upper surface being covered with ramified tentacles, these latter extend along the disc, in radial series, to a greater or less extent, but none reach the mouth; alternating with the lobes are comparatively large dendritic tentacles, these are more aborally situated than the lobes; disc, smooth, inclined to be crateriform in the centre, non-contractile; mouth, rounded, on a cone with two gonidial grooves.

Colour.—Column, pinkish; disc, translucent pinkish brown, with a delicate green sheen; mouth pale; capitate tentacles, pink, with a cream-coloured speck on tip (they look just like pink pearls); dendritic tentacles of same colour as disc, but, owing to their round contour, the green sheen is more apparent, and this is especially so on the finer branches, which thus appear decidedly green.

Dimensions. — Column, height about 70 mm.; diameter, 45-50 mm.; diameter of disc, 125 mm.

Habitat.—Surface of reef, Mer.

This species is quite distinct from the only hitherto described species of the genus A. villosa (Quoy et Gaim.). The specific name is derived from the numerous small tree-like tentacles on the disc.

ACTININÆ.

ACTINIIDÆ.

Condylactis Gelam, n. sp.

Form.—Column, smooth, expanded at capitulum, which is furnished with suckers; disc feebly retractile; mouth, circular with two or three gonidial grooves; tentacles long, in six or seven cycles, from about 192 to 240 in number.

Colour.—Column, red-lead colour below, passing into creamy yellow above; underside of capitulum gray, with pale suckers; (a) disc and tentacles olive brown; mouth green; tentacles with a greenish contour, and tipped with magenta; (b) disc gray; tentacles dark gray, with a buff sheen.

Dimensions.—Height of column, 150 mm.; diameter, 44 mm.; diameter of corona, 177 mm.; length of tentacles, 45 mm.

Habitat.—On reefs at Mabuiag and Mer.

We name this species after a legendary hero of Torres Straits who migrated from Moa (a neighbouring island to Mabuiag) to Mer; the main hill of the latter island still bears his name.

Condylactis Ramsayi, n. sp.

Form.—Column, soft, about as high as broad, terminating above in a well-marked parapet, but without marginal spherules or suckers; disc, flat, considerably wider than the column, can be slowly but completely retracted; mouth, circular, with a variable number of gonidial grooves (2-7); tentacles, numerous, relatively short, about one-third of the diameter of the disc.

Colour.—Column, usually olive-brown or green, occasionally pale magenta, pink; disc, translucent olive-brown or cinder-colour; stomatodæum, whitish; tentacles, with a grayish-brown core and a green satin-like sheen, sometimes with a pale ring near the tip, or with the tip of a paler and brighter green.

Dimensions. — Height of column, about 38 mm.; diameter of disc, about 46 mm.

Habitat.—Reef, Waier (Murray Islands).

We would like to associate with this species the name of Dr. E. P. Ramsay, the energetic Curator of the Australian Museum, Sydney.

Condylactis aspera, n. sp.

Form.—Column, cylindrical, skin delicate; the whole of the body except the disc covered with small, very adhesive suckers, so that whenever touched this Actinian adheres to the foreign body like a Synapta; fragments of shells adhere to the body; large suckers occur on the upper portion of the column; mouth, elongated; two gonidial grooves; large tentacles in three or four cycles

(6 + 6 + 12 + 24 = 48), the inner cycle much the largest; usually the tentacles are considerably swollen, but they can become quite slender and flaccid.

Colour.—Body, uniform pale, translucent yellow drab or buff, finely dusted with very minute brown spots; tentacles may be faintly banded and the disc slightly variegated with dark brown.

Dimensions.—Column, height 30 mm., or more; diameter, about 25 mm.; tentacles, 60-75 mm. long; extreme diameter of corona, 175-200 mm.

Habitat. -- Surface of reef, Mer.

Although this species presents some features which are not characteristic of the other species of genus, we do not at present see any good reason for placing it elsewhere. The specific name refers to the adhesive character noted above.

Anemonia citrina, n. sp.

Form.—Column, soft, with parapet of well-defined spherules; disc feebly and imperfectly retractile; mouth round; tentacles of moderate length, about three cycles.

Colour.—Column, uniform pale lemon-yellow; disc and tentacles, burnt-umber brown.

Dimensions.—Height of column, 30-40 mm.; diameter of corona of largest specimen, 50 mm.; tentacles, 15 mm. in length.

Habitat.—Between tides, on seaward side of a mangrove swamp, Mabuiag.

This species is named from its lemon-like appearance.

Anemonia Kwoiam, n. sp.

Form.—Body, salver-shaped; upper portion of column when fully expanded extends beyond the insertion of the tentacles, and forms a distinct crenulated rim; disc, with a wavy margin; mouth, round, no gonidial grooves; no suckers on upper portion of column; tentacles in multiples of six.

Colour.—Column, buff; disc, burnt sienna brown, with white

spots; tentacles, brown, speckled with white proximally.

Dimensions.—Corona, 155 mm., when fully expanded; tentacles, 22 mm. long.

Habitat.—Surface of reef, Mabuiag (Jervis Island).

We have identified this species with the name of Kwoiam, a renowned legendary hero of Mabuiag.

ACTINIOIDES,, n. g.

Actiniidæ (Antheadæ), with more or less prominent suckers on upper portion of column; capitular margin, with conical acrorhagi, which are provided with a well-developed battery of nematocysts.

This new genus bears pretty much the same relation to the genus Actinia that Condylactis does to Anemonia (Anthea).

Actinioides Dixoniana, n. sp.

Form.—Column, covered with vertical rows of sucker-like verrucæ; capitular margin provided with large conical acrorhagi; tentacles in two cycles, not in multiples of six.

Colour.—Column, various shades of greenish grays and browns; disc, dark greenish brown, with white markings; tentacles, olivebrown, banded with greenish white or gray on oral aspect.

Dimensions.—Diameter of corona of largest specimen, 31 mm.

Habitat.—Fringing reef, Mabuiag.

We have carefully studied the anatomy of this form, and find that the irregularities in the arrangement of its mesenteries recall those which were studied by the brothers G. Y. and A. F. Dixon in *Bunodes thallia*, Gosse (cf. Proc. Roy. Dubl. Soc., N. S. VI., 1889, p. 310.) We give ourselves the pleasure of dedicating this species to these investigators.

Actinioides Sesere, n. sp.

Form.—Column, smooth, with about 24 vertical rows of verrucæ, which are small below, in the upper portion of the column these are larger, and somewhat irregular in their arrangement; capitulum, provided with well-defined, conical acrorhagi; disc, flat; mouth, round, raised on small cone, with no gonidial grooves.

Colour.—Column, various shades of brown and gray; verrucæ, bright green; acrorhagi, light green, with dark spots; tentacles, brownish white, sometimes with green sheen.

Dimensions.—Diameter of corona, 30 mm.

Habitat.—In crevices and holes in stones on the shore, Mabuiag, October, 1888.

This species is named after Sesere, the legendary hunter of the dugong, who lived on the neighbouring island of Badu (cf. "Legends from Torres Straits," Folk-lore, 1., 1890, p. 23.

· Viatrix cincta, n. sp.

Form.—Tissues, delicate; column, short, cylindrical; capitulum produced into a very prominent rim, from which project at least six club-shaped enlargements, which may bear secondary tubercles on their aboral aspect; tentacles rather short, in three cycles (12 + 12 + 24 = 48).

Colour.—Ectoderm, colourless; but the endoderm everywhere shines through, with a brown colour; processes, with white ends; secondary tubercles, bright green.

Dimensions.—Height of column, 6 mm.

Habitat.—Surface of reef, Mabuiag, October, 1888.

This is probably an immature form; the specific name is derived from the girdle-like appearance of the capitular rim, beset, as it were, with bosses of emeralds. It appears to us to be allied to *Hoplophoria coralligens*, Wils.¹ Prof. Mac Murrich has, however, informed us that this species is *Viatrix globulifera* (Duch.), but we must confess to seeing but little resemblance between the figures given by Wilson and by Duchassaing and Michelotti.² If Dr. Wilson's species is a *Viatrix*, ours must, we think, be also placed in that genus.

BUNODIDAE.

Alicia rhadina, n. sp.

Form.—Columnar, when fully extended, conical when retracted; basal disc flat, adhering; scapus, delicate, with simple and compound tubercles mainly disposed in vertical series; capitulum, delicate, non-tuberculate; oral disc expanded, often crateriform,

¹ H. V. Wilson, "On a New Actinia, Hoplophoria coralligens." Studies Biol Lab. Johns Hopkins Univ. IV. Pl. xliii.

² "Mémoire sur les Coralliaires des Antilles." Mem. Reale Accad. Torino, (2) x1x. 1860. Pl. vi., figs. 15, 16.

may be flat, or at times even conical; tentacles, 48 in number in two cycles, those of the inner cycle being the longer; mouth, oval, with twelve slight ridges, but no gonidial grooves; the whole animal is extremely delicate in texture.

Colour.—Body, translucent white, almost transparent; six vertical rows of brown, and six of white tubercles, all of which have a greenish gray apex, surrounded by a narrow ring of cream colour; the inner cycle of tentacles transparent and free from colour except a slight tinge of pale pink in some lights, outer cycle similar, but with a bright orange mark at their base, and a dark violet-brown oval spot.

Dimensions.—Column, when fully expanded, 30 mm. high and 17 mm. in diameter.

Habitat.—Albany Pass, Cape York, 10 fms.

The specific name is derived from the latinised form of $\rho a \delta \tilde{\iota} \nu \delta \varsigma$, delicate.

This species is undoubtedly allied to Actinia pretiosa, Dana, from Fiji. J. Y. Johnson (Proc. Zool. Soc. 1861, p. 298, and Ann. Mag. N. H., (3) IX. 1861, p. 177) described a new Actinian from Madeira, under the name of Alicia mirabilis, n. g. and sp. In 1868, Panceri named a Mediterranean Actinian Cladactis Costæ; and in the same year, but quite independently, Verrill erected a genus bearing the same name for his new species, C. grandis. Andres, in his monograph, "Le Attinie" (1884) p. 224, disregards Johnson's priority, although the original account was sufficiently clear, and adopts Panceri's genus, putting the three last-named species under it. He overlooks the relationship of Dana's species to the others, and suggests (p. 233) that it may be a new genus. Unless the name Alicia is pre-occupied; it must take priority of Cladactis, however appropriate the latter may be. The genus Alicia thus has for its type species A. mirabilis, Johns. and embraces A. Costæ (Panc.); A. grandis (Verr.); A. pretiosa . (Dana), and A. rhadina, n. sp.

SAGARTIDÆ.

Phellia (?) sipunculoides, n. sp.

Form.—Body, columnar; pedal disc, flat, adherent; scapus, coriaceous, tesselated; capitulum, extensile, delicate; tentacles of

moderate length and thickness, somewhat longer than diameter of oral disc, inner cycle longer than the outer; oral disc, circular; mouth, oval, on a cone.

Colour.—Scapus, grayish drab, of the same colour as the coral which it inhabits; capitulum, translucent madder brown, with a white mark below each tentacle; tentacle and disc, olive brown, with a longitudinal white streak along their oral aspect, which is continued across the disc to the mouth.

Dimensions.—Length, when extended, 20 mm.; diameter of column, 12 mm.

Habitat.—In crevices of indurated dead coral rock, between tides, Cockburn Reef; N. Queensland.

The specific name is given to this form, on account of its resemblance when retracted to a contracted Sipunculus nudus.

Phellia (?) Devisi.

Form.—Body, short, stout, columnar; pedal disc flat, adherent; scapus, coriaceous, corrugated; capitulum, delicate; tentacles short, with a swollen base, length, about diameter of disc, inner cycles the longer; oral disc, circular; mouth oval, no gonidial grooves apparent.

Colour.—Scapus, buff; capitulum, translucent madder violet, with a ring of small white marks; tentacles, cream, with an interrupted dark line on oral aspect, base, dark brown, edged with bright deep green, the outer cycle without colour on base; oral disc, chestnut colour; lips, dark brown; stomatodæum cream.

Dimensions.—Height and diameter of column, about 7 mm.

Habitat.—Crevices of indurated dead coral rock, between tides, Cockburn Reef; N. Queensland.

We have named this species in honour of Mr. C. W. de Vis, the able Curator of the Queensland Museum, Brisbane.

Paraphellia Hunti, n. sp.

Form.—Body, columnar, very contractile, when fully contracted like a scab; oral disc, but little exceeding the diameter of the column; tentacles in four cycles (6+6+12+24); mouth with two gonidial grooves.

Colour.—Column, mealy pink, with longitudinal gray bands; scien. proc. r.d.s., vol. viii., part i.

tentacles, whitish; disc, mottled with orange, gray, white, and black.

Dimensions.—Height of column, about 10 mm.; average diameter, 8 mm.

Habitat.—Passage between reefs, Murray Islands; 15 fms.

[This species is named after my friend and host, the Rev. A. E. Hunt, of the London Missionary Society.—A. C. H.]

Paraphellia lineata, n. sp.

Form.—Oral and pedal disc, of about the same diameter; mouth, slit-like, on a cone; tentacles, very short in three or four cycles.

Colour.—Pale buff, with slightly darker rings on the tentacles; each radius on the disc is marked by series of fine dots, and a dark line up the oral cone.

Habitat.—Between Orman's Reef and Gaba ("Brothers' Island"), 6-7 fms., August 18, 1888.

The specific name refers both to the linear marking on the oral disc and to the serried appearance of the sphincter muscle as seen in section.

Thoe (?) Milmani, n. sp.

Form.—Body, soft; large pedal disc; oral disc not much exceeding diameter of column; tentacles, numerous, short; mouth, oval.

Colour.—Column of a smoky-yellow colour, sparsely speckled with dark brown; tentacles, pale creamy yellow, with a central broad, ash-coloured band.

Dimensions.—Diameter of corona, 30 mm.

Habitat.—Albany Pass, Cape York, 10 fms., August 29, 1888. [Named after Mr. H. Milman, whose guest I was on board the Government steamer, and who was then acting as Government Resident in Torres Straits.—A. C. H.]

Adamsia miriam, n. sp.

Form.— Base, much expanded; body, columnar, smooth; oral disc, slightly expanded, completely retractile; mouth, linear, two gonidial grooves; numerous short tentacles in at least five cycles.

Colour.—Column, brown, the 24 cinclides yellowish white, base, pale, with six irregular brown blotches; corona, mottled, with six radial patches of dark brown in which all the tentacles have the same colour, whereas in the lighter patches they are annulated.

Dimensions.—Diameter of basal disc, about 40 mm.; height of column, 27 mm.; average diameter, 18 mm.

Habitat.—On shell of Dolium, inhabited by a hermit-crab; from surface of reef, Mer.

The specific name is the native name for anything appertaining to Mer.

There are a few more species in the collection which we have not yet named.