

ART. LV.—*Notes on a Collection of Sea-anemones.*

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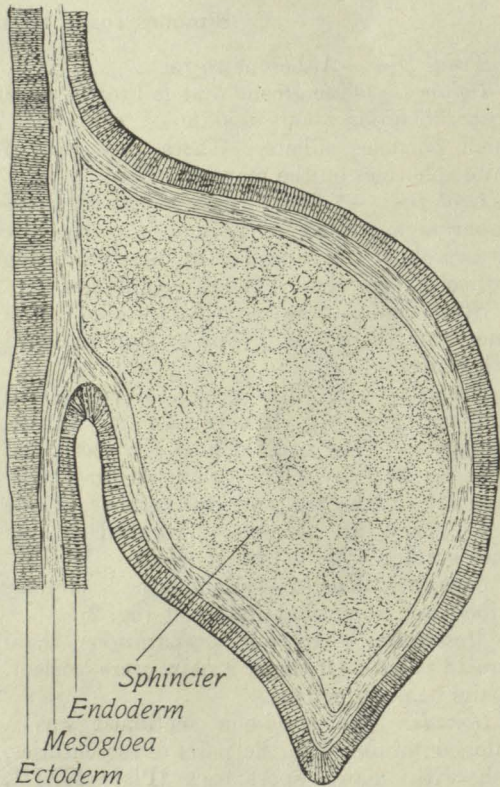
THE specimens were collected by Mr. Walton; chiefly on the shores of Manukau Harbour. We find that ten species are represented, of which seven have been previously described. These seven are,—

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| 1. <i>Actinia tenebrosa</i> (Farquhar). | 5. <i>Paractis jerax</i> (Stuckey).     |
| 2. <i>Anemonia olivacea</i> (Hutton).   | 6. <i>Bunodes inconspicua</i> (Hutton). |
| 3. <i>Sagartia albocincta</i> (Hutton). | 7. <i>Cradactis magna</i> (Stuckey).    |
| 4. <i>Sagartia vagrans</i> (Stuckey).   |   |

The three new species are,—

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|------------------------------|-----------------------------|
| 8. <i>Paractis fleurei</i> . | 10. <i>Bunodes minima</i> . |
| 9. <i>Bunodes rosea</i> .    |                             |

A peculiar phenomenon of companionship was observed between *Cradactis magna* and a small crab (*Halicarcinus planatus*). The crab rested, apparently quite at ease, among the expanded tentacles of the anemone, or clung to the warts on the column. If removed, the crabs immediately scuttled back to the anemone, climbed the column, and settled down again among the tentacles or even on the disc. The anemone made no attempt to close its tentacles over this crab, but if crabs of other species were placed among the tentacles they showed great fear, and attempted to escape. The tentacles closed over the crab, and if any appendages were lost by the latter they were immediately devoured. Three specimens of the *Halicarcinus* sent to Dr. Chilton for identification all proved to be females.

FIG. 1.—*PARACTIS FLEUREI*.

*Paractis fleurei*, sp. nov.

*Pedal Disc*.—Adherent; margin irregular and crenated. Usually imbedded in crevices in the rock.

*Column*.—Lower part hyaline. Pale at the base, olivaceous above. The upper can be inverted within the lower. It is whitish, with faint-yellow lines.

*Oral Disc*.—Transparent, with markings that vary in different individuals. These markings may be white lines or a pattern of scarlet, yellow, and white. There are scarlet spots at the bases of the primary tentacles.

*Tentacles*.—These are slender, of a semi-transparent white, opaque at the bases. They are from 70 to 80 in number.

*Sphincter Muscle*.—This is imbedded in the mesogloea, and is somewhat pendulous. In transverse section it resembles the profile of a chick's head (fig. 1).

*Stomodæum*.—White, slightly ribbed.

*Mesenteries*.—There are 24 pairs, evenly arranged; 12 pairs are perfect, 2 of these pairs being directives (Plate XLIII, fig. 1).

*Gonads*.—None were present in the specimens from which our preparations were made.

*Locality, &c.*—Pukeroa. Occurs well up between the tide-marks, and expands in full sunlight.

*Bunodes rosea*, sp. nov.

*Pedal Disc*.—Adherent to rocks.

*Column*.—Olive-green, orange-brown, or umber. Covered with warts; most numerous about middle of column. The warts have suckers, to which particles adhere. There is a row of white spherules on the margin.

*Oral Disc*.—Yellowish-white, with 12 dark-umber rays, united in the middle of the disc by a circle of the same colour, thus producing a wheel-like pattern. The rays bifurcate.

*Stomodæum*.—The mouth is raised on a cone, and there are 2 siphonoglyphs, edged with white.

*Tentacles*.—In three cycles, 40 to 50 in number; probably 12 + 12 + 24 in normal specimens. They are thick at the base, and taper to a point. The colour is rosy red, brightest at the tip and dull umber at the base. They are irregularly marked on the inner surface with bars and spots.

*Sphincter Muscle*.—Endodermal, circumscribed and somewhat flattened (fig. 2).

*Mesenteries*.—In our preparations there were 18 pairs. Of these, 9 pairs were perfect, 2 pairs being directives.

*Gonads*.—The specimen sectioned was a male, containing 4 fertile pairs of mesenteries, each with many spermaries (Plate XLIII, fig. 2, and Plate XLIV).

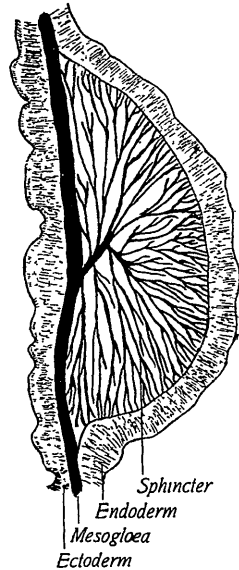
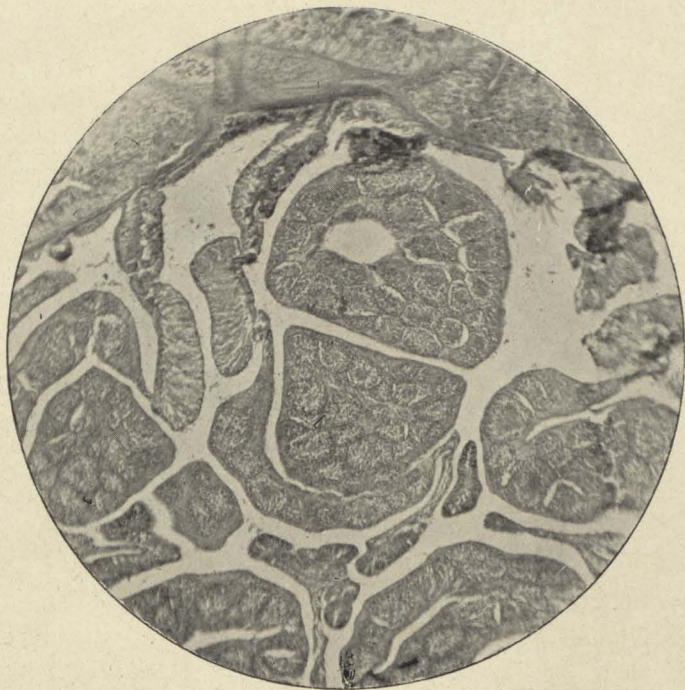


FIG. 2.—*BUNODES ROSEA*.



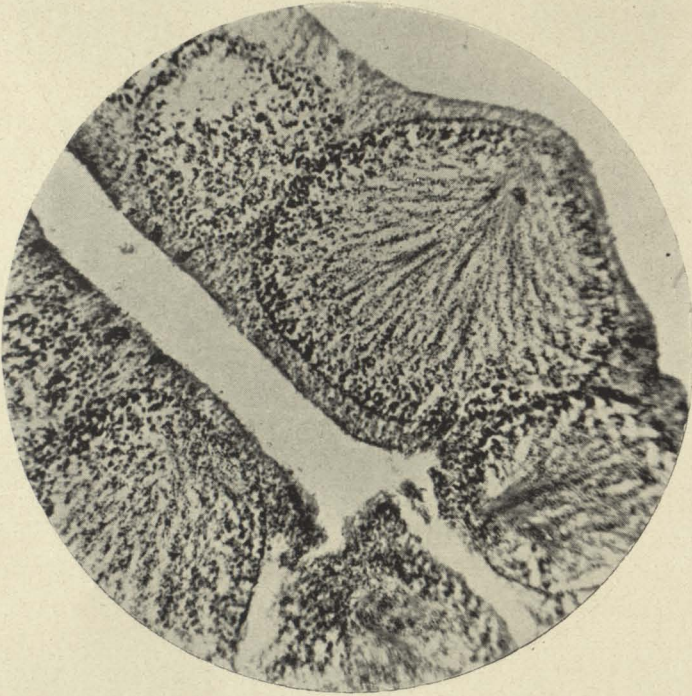


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SEA-ANEMONES.—STUCKEY AND WALTON.



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This species has been observed by us to increase by fission.

*Dimensions.*—Height of column, 5 mm. ; diameter when fully expanded, 18 mm. ; diameter of oral disc, 7 mm. ; longest tentacle, 6 mm.

*Locality.*—Pukeroa and neighbourhood.

***Bunodes minima*, sp. nov.**

*Pedal Disc.*—Adherent to rocks ; irregular in outline.

*Column.*—Rosy pink, or light orange. Slightly higher than broad. Wrinkled. Warts few. Marginal beads white or pink.

*Oral Disc.*—Centre rose-colour. Between this and bases of tentacles is a complicated pattern of light and dark olive-green and grey.

*Tentacles.*—36 in number. As long as diameter of disc, or slightly more. Fairly stout, tapering gently. Semi-transparent, with white bars and dots. There is a white area round the base, then a few dark lines.

*Sphincter Muscle.*—Of the typical endodermal type, somewhat rounded (fig. 3).

*Mesenteries.*—Our preparations showed 14 pairs, unevenly distributed—9 on one side and 5 on the other. Two pairs are directives.

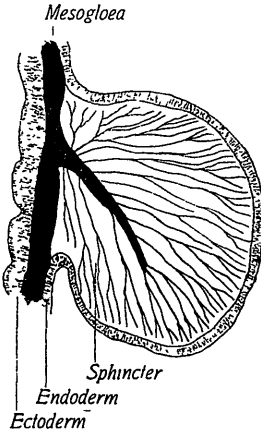


FIG. 3.—*BUNODES MINIMA*.

*Dimensions.*—We did not record the exact dimensions, but the species is smaller than *B. inconspicua*.

EXPLANATION OF PLATES XLIII and XLIV.

PLATE XLIII.

Fig. 1. *Paractis fleurei*: directive mesenteries.

Fig. 2. *Bunodes rosea*: spermaries.

PLATE XLIV.

*Bunodes rosea*: part of a spermary, very highly magnified.