89. *On a Medusophilous Actinian from Mutsu Bay.*

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In 1928 the present writer reported in these proceedings (vol. 4, p. 67) on some actinian larvae parasitic on the leptomedusa, *Aequorea coerulescens*, from Mutsu Bay. At that time he suggested that these actinians are probably identical with *Peachia quinquecapitata* obtained along the coast of British Columbia. Afterwards, through the kindness of Prof. S. Hozawa, Prof. S. Kokubo and Mr. S. Takatsuki several adult forms of *Peachia* and many young actinians attached to *Aequorea coerulescens* and *Catablema multicirrata* from the same locality were sent to the writer. From morphological studies on these specimens, there seems to be no room for doubt to regard them as the American species above mentioned, and moreover, the immature actinian occurring on *Aequorea forskalii* and described by McMurrich¹⁾ as *Bicidium aequoreae* is highly probable to be referred to the species. As the description of young stages of the actinian was given in the former paper, only the adult form will be described here.

The actinian is commonly found burrowing in sand without making any shell-like substance around it. The column is cylindrical terminating in a slightly contracted physa, measuring about 35 mm long and 10 mm wide in the widest portion. The surface is smooth, but when examined under a lens, it is finely granulated. All the examples so far examined have no foreign material adhered. The body wall is very thin and shows clearly the lines of insertion of the perfect mesenteries as 12 opaque lines. The tentacles are 12 in number and bilaterally arranged in a single circlet. They are short, stout, tapering at the tip but not capitate. The oral disc is not particularly wide. The actinopharynx is long and provided with a siphonoglyph. The surface of the stomatodaeum is longitudinally grooved along the lines corresponding to the insertion of the mesenteries. The lips are elevated, representing 10 round elevations, 5 on each side, which correspond with the intervals between the perfect

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1) Proc. Zool. Soc. London, 1913, p. 963-972, pl. 48.

Peachia quinquecapitata McMurrich.

- A. Side view $\times \frac{3}{2}$.
- B. Oral view.
- C. Transverse section of mesenteries.

mesenteries, leaving the conchula on the line of the siphonoglyph. The conchula is surmounted by five nipple-formed processes which consist of two pairs lying on either side of the conchula and a median larger one situated between them in the sagittal plane of the body. The scapus is of the same width, becoming slightly narrower to the physa. The physa is devoid of basal disc but furnished with a central pore, around which several small papillae are radially arranged.

The mesenteries are arranged in ten pairs, six of which are perfect, the other four are imperfect. Two of the perfect are directives. The perfect and imperfect ones are arranged alternately in position except the median perfect one which is located between two perfect. The perfect ones alone are fertile and each provided with a mesenterial filament. They are furnished with a well-developed long muscle band composed of numerous narrow laterally arranged branches which are again repeatedly divided into still smaller ones. The muscle band is almost similar in width along the whole length and nearly of smooth outline, though the inner portion is a little wider than the outer. The gonads develop in the mesentery proximal to the muscle band, eggs and testicular vesicles being in transverse sections arranged in a

row. The imperfect mesenteries are small and almost oval in cross section. They are each provided with an arborescent muscle but destitute of mesenterial filaments. Specimens preserved in formalin retain generally brown colour in the column and several transverse deep brown bands in each tentacle.

Inferring from the description of Verrill¹⁾ it appears probable that the specimens obtained from the east side of Richmond Gulf in 1899 and reported by him as *Bicidiopsis arctica* are referable to the present species, because these two species agree with each other in the number, arrangement and structure of the mesenteries, and moreover in the form of the retractor muscle and the number of the nipple-like processes on the conchula.

1) Report on the Canadian Arctic Expedition 1913-18, vol. VIII. Mollusks, Echinoderms, Coelenterates, etc., pt. G: Alcyonaria and Actinaria, 1922.