

zooid-like individuals on that part of the margin which runs out upon the rachis. Polyp-cells of the larger polyps united inferiorly, free at their ends, which are surrounded by short spines.

Ventral zooids, three in number, longitudinally disposed at the base of each pinnule. Lateral zooids, three to four, at the dorsal side of the ventral zooids along the base of the pinnules. All the zooids are small, white, and surrounded by red spicules.

Rachis small, thicker than the stem. Colour of pinnules and rachis pale red, polyps white. Stem white, with a small enlargement at each end. Calcareous needles of the common type; the red needles of the feather measure 0.53 mm. by 0.028 mm. Colourless needles of 0.15 to 0.20 mm. in length, and 0.020 to 0.026 mm. in breadth, are situated in the cutaneous layer of the upper part of the stalk, and the end bulb contains minute oblong and round calcareous corpuscles of 3 to 12 μ . The Challenger collection contains two specimens of this Pennatulid, one pretty well preserved and a second in a fragmentary state.

	A.	B.
Length of the feather,	44 mm.	51
Length of the stalk,	21	20.5
Length of the pinnules,	11	
Breadth,	2.5-3.0	
Breadth of the rachis,	1.5	

Habitat.—Station 235, south of Japan, lat. 34° 7' N., long. 138° 0' E. Depth, 565 fathoms. Bottom temperature, 3° 3 C. June 4, 1875.

3. *Pennatula murrayi*, n. sp. (Pl. II. figs. 6, 7).

Small, yellow and red in colour. Pen twice and a half as long as the stalk. Pinnules lanceolate, triangular, transparent, with nine to ten polyps on their margin; calyces with well developed spines. Zooids ventral and lateral, the ventral of two kinds, two large at the base of each pinnule and many smaller, forming one longitudinal row on each side.

Pinnules lanceolate, thin, transparent, yellow, with a vermilion-coloured ventral border; twenty-one to twenty-two in number, attached nearly parallel to the longitudinal axis of the rachis, but so that the dorsal upper end of their base reaches the dorsal middle line.

Polyps nine to ten on the more developed pinnules, placed in one single row on the dorsal margin; calyces the colour of minium, with eight well-developed spines.

Rachis yellow, with ventral and lateral zooids. The ventral zooids are of two kinds. Larger spiny and reddish zooids, two in number, are situated at the base of each pinnule just opposite the middle part; smaller and whitish rudimentary polyps are disposed in one single row on each side between the larger ones. Zooids of the same kind are also placed laterally between the pinnules in a single or partly double row, so that they are only visible from the ventral side of the feather. The lower part of the rachis of the only