

Disk and ambulacra naked; sacculi fairly abundant, especially on the outer pinnules. Colour in spirit,—the skeleton white, with the perisome brownish.

Disk 4 mm.; spread probably 5 cm.

*Localities.*—Station 169, July 10, 1874; lat.  $37^{\circ} 34'$  S., long.  $179^{\circ} 22'$  E.; 700 fathoms; blue mud; bottom temperature,  $40^{\circ}$  F. One specimen.

Station 170A, July 14, 1874; near the Kermadec Islands; lat.  $29^{\circ} 45'$  S., long.  $178^{\circ} 11'$  W.; 630 fathoms; volcanic mud; bottom temperature,  $39^{\circ} \cdot 5$  F. Two specimens.

Station 218, March 1, 1875; lat.  $2^{\circ} 33'$  S., long.  $144^{\circ} 4'$  E.; 1070 fathoms; blue mud; bottom temperature,  $36^{\circ} \cdot 4$  F. One specimen.

Station 236, June 5, 1875; lat.  $34^{\circ} 58'$  N., long.  $139^{\circ} 29'$  E.; 775 fathoms; green mud; bottom temperature,  $37^{\circ} \cdot 6$  F. Four specimens (two of them young) with *Myzostoma cornutum*.

*Remarks.*—This is another of those very interesting species which are widely distributed in the abyssal region. I was at first inclined to separate the two varieties from the South and the North Pacific respectively (Pl. XVIII. fig. 1; Pl. XXXII. fig. 8), but the additional experience of variable specific characters gained between 1879 and 1887 has led me to abandon this idea. The axillaries and second brachials of the more northern forms have sharper proximal angles than in the southern variety; while the joints both of the cirri (Pl. XXXII. fig. 9) and of the pinnules (Pl. XXXII. figs. 5, 7) are relatively longer. Sometimes also the first two or three syzygial intervals after the twelfth brachial consist of two joints (Pl. XXXII. fig. 8), instead of one only as in the southern variety (Pl. XVIII. fig. 1); though in the outer parts of the arms syzygial and simple joints alternate with great regularity (Pl. XXXII. figs. 5, 7).

The two young individuals obtained at Station 236 chiefly differ from the more mature form in the relatively greater length of the joints composing the cirri, arms, and pinnules, and in showing more of the first radials externally; this is especially the case in the youngest specimen, which has not yet developed its genital glands, and is only about 30 mm. in diameter. The appearance of the first radials externally gives the calyx a considerable amount of resemblance to that of *Antedon abyssicola* from Station 244 (2900 fathoms), but this, though absolutely larger, shows more of the radials than appears in the young *Antedon alternata*, and has fewer joints in its cirri (Pl. XXXIII. fig. 1), while the syzygial interval in the outer parts of the arms usually consists of more than one joint.

The single individual of *Antedon alternata* which was dredged at Station 218 is peculiar in having four radials on one ray (Pl. XXXII. fig. 6). So far as it is possible to judge from the characters of the other rays, the third of these seems to be the intercalated joint.

*Antedon alternata* is readily distinguished from *Antedon tenella* and from *Antedon exigua* by the presence of only one joint between every two successive syzygies in the