

B. Palmar series developed above the distichals.

I. Two palmars, the axillary not a syzygy.

a. The joints of the lower pinnules have lateral processes at their ends, . . . . . 3. *variipinna*,<sup>1</sup> Carpenter.

b. The joints of the lower pinnules have no lateral processes.

1. Twenty-five to thirty-five cirrus-joints.

a. Twenty cirri, the later joints not spinous; second syzygy not beyond the fourteenth brachial. Tolerably equal pinnules on second distichal and second brachial, . . . . . 4. *quinduplicava*, n. sp.

β. Twenty-five to thirty cirri with strong spines on the later joints; second syzygy about the eighteenth brachial. Distichal pinnule smaller than that of second brachial, . . . . . *savignyi*, Müll., sp.

2. Forty-five to fifty-five cirrus-joints.

a. Cirrus-joints smooth and longer than wide; no spine on penultimate, . . . . . *acuticirra*, Carpenter.

β. Cirrus-joints wider than long; the later ones with faint tubercles, and the penultimate with a spine, . . . . . *ludovici*, Carpenter.

II. Three palmars, the axillary a syzygy.

a. Forty-five cirrus-joints; the later ones short and spiny, . . . . . *philiberti*, Müll., sp.

b. Nearly sixty cirrus-joints, the later ones longer than wide and quite smooth. The terminal joints of the lower pinnules much smaller than the basal ones, . . . . . *bipartipinna*, Carpenter.

1. *Antedon angustiradia*, n. sp. (Pl. XLV. fig. 4).

*Specific formula*— $A.3.\frac{c}{c}$ .

*Description of an Individual.*—Centro-dorsal columnar, its sides bearing ten vertical rows of cirri, usually four in each row, which alternate more or less with those of adjoining rows. They are long and slender, reaching 25 mm. in length, with sixty or seventy joints, a few of which are longer than wide. The distal edges of the outer half have a forward projecting spine which becomes more marked in the shorter terminal joints. Three radials visible; the first short, and depressed at their lateral edges, the second oblong, twice their length, quite free laterally, rather convex, and rising to the middle of their junction with the pentagonal axillaries. The rays are quite free and may divide a second time; three distichals, the axillary with a syzygy. The first distichals (or brachials) nearly oblong and quite free laterally; the second quadrate, with a slightly angular base.

Fourteen arms, of about one hundred joints, at first triangular and then quadrate, the later ones becoming narrow and elongated. A syzygy in the third, and then between the twelfth and fifteenth brachials, with others at intervals of one to six, usually four or five, joints.

<sup>1</sup> This species may have only ten arms; see p. 194.