

We then get the following expressions to denote the eight forms of this specific type, five of which have been regarded as representing different species:—

Name.	Characters.	Locality.
1. <i>Antedon variipinna</i> ,	ABCDeF.	Canton.
2. „ <i>crenulata</i> ,	ABCDef.	Borneo.
3. „ <i>decipiens</i> , type (“Alert”),	aBCdef.	Arafura Sea.
4. „ <i>decipiens</i> , var. (“Alert”),	Abcdef.	Prince of Wales Channel.
5. „ <i>decipiens</i> , var. (Challenger),	ABcdeF.	Prince of Wales Channel.
6. „ <i>irregularis</i> (Challenger),	AbcdEF.	Prince of Wales Channel.
7. „ <i>irregularis</i> (“Alert”),	AbcDEF.	Torres Strait and Prince of Wales Channel.
8. „ <i>dubia</i> (Challenger),	AbCdEF.	Arrou Islands.

With these facts before us it is difficult to avoid the conclusion that we are dealing with but one specific type; and this conclusion is confirmed by the fact that in all these different forms the general shape of the arm-joints and the characters of the pinnules are respectively identical, though the latter vary considerably in the degree of their development. The distal arm-joints have the same shape throughout the whole series, as shown in the Challenger examples from the Arrou Islands and from Torres Strait (Pl. XXXVI. fig. 3; Pl. XLVIII. fig. 5). On the other hand, the alternating lateral projections of the joints in the lower parts of the arms is very marked in the form from Torres Strait, which Bell called *Antedon irregularis* (Pl. XLIX. fig. 1), and it is fairly distinct in those from the Arafura Sea and from the adjacent Arrou Islands (Pl. XXXVI. fig. 1). But it is comparatively insignificant in the other form from Torres Strait (Pl. XLVIII. fig. 5), which has much less convex radial and distichal series than the *irregularis*-form from the same locality (Pl. XLIX. fig. 1).

Another universal character of all the different varieties which I have referred to this species is the large size of the pinnules on the fourth and the two or three following brachials, and the lateral projections at the distal ends of their component joints (Pl. XXXVI. figs. 1, 4, 5, 6; Pl. XLVIII. fig. 3; Pl. XLIX. fig. 2). The distichal pinnule, when present, is comparatively small; but its successor on the second brachial is somewhat larger, though that on the next joint is smaller again. Beyond this point, however, there is much variation. The pinnules of the next three or four brachials are considerably longer and stouter than that of the second, being the largest pinnules on the arm (Pl. XXXVI. figs. 4–6; Pl. XLVIII. fig. 3). In those arms which spring directly from the radial axillary, so that there is no distichal pinnule, the largest pinnules are generally those of the sixth and seventh brachials. When, however, a distichal axillary is present, the arm borne on its inner face usually has its largest pinnules on the fifth and sixth brachials; while on the outer arm they are on the fourth and fifth. But this arrangement is very far from being a constant one. The next two pinnules after the large pair may also be of considerable size and composed of somewhat elongated joints