

Kodioides borleyi, n.sp.

By

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IN his Report on the Actiniaria of the Norwegian North-Atlantic Expedition, D. C. Danielssen erected the genus *Kodioides* to receive the remarkable form which he named *K. pedunculata*, a single specimen of which was dredged at Station 35, July 5th, 1876, in 1050 fathoms, Lat. 63° 17' N., Long. 1° 27' W., the bottom being Biloculina Clay. The detailed description will be found in the section "Actinida," Vol. V, pp. 77-82, Pl. VI, Figs. 3-4; XXII, 8-11; and XXIII, 1-4. The genus is there characterized as follows: "The body encrusted, piriform, with a long bare stem terminating in a pedal disc. Two series, containing a few retractile tentacles. 12 pairs of septa, of which 6 pairs perfect. Suckers on the encrusted portion of the body. No gullet-groove. Mesodermal, annular muscles. Acontia."

During a visit to Lowestoft last summer, Mr. J. O. Borley handed to me for examination 2 specimens of an Actinian obtained some time previously by the s.s. *Huxley*, Voyage XXX, Station 23, Lat. 53° 46' N., Long. 4° 52' E., N.N.W. of Terskelling. Depth, 20 fathoms. Bottom, mud. Conical dredge. Two specimens. A very short examination convinced me that I had before me specimens referable to the genus *Kodioides*. The species, however, is evidently distinct, as might be expected, *K. pedunculata* being obtained in the cold area, from 1050 fathoms, between the Farö Islands and Norway; and these from 20 fathoms, and comparatively close to the Dutch coast.

It is unfortunate that no description was made while the animals were living, but Sea Anemones are difficult to deal with; indeed, it is frequently impossible to do so under bad-weather conditions and during the pressure of fishery work. Danielssen mentions the difficulties he experienced with *K. pedunculata*. Further, when I examined the specimens they were by no means in the best condition, being somewhat decayed.

Specimen (a).—Measurements, etc., were as follows: Animal strongly contracted:—

Total length, 48 mm. Length of body, 21 mm.; breadth, 16 mm.

Length of stalk, 25 mm.; breadth, just below body, 5 mm.; lower portion, 3 mm.

Pedal disc irregular in outline, breadth, 15 mm. (on the average); thickness, 3 mm. On the body were remains of a slight coating of mucus and sand grains, and a thick coating of mud adhered to the pedal disc. The ectoderm was much decayed, but remains of what appear to have been suckers could be made out.

The body was considerably wrinkled. Stem bare and smooth. The upper surface of the pedal disc and base of stem showed numerous fine lines. There was a considerable tumid excrescence on the lower portion of the body, much decayed, and probably due to injury received in the dredge. Neither the oral disc nor tentacles were visible.

Specimen (b).—Total length, 32 mm. Body wrinkled and thickly coated with sand at the summit. Pedal disc irregular in outline, much smaller than in (*a*); under surface bare and much ridged and folded. This individual was only partially contracted, and showed the tentacles and portions of the oral disc. Oral disc strongly ridged, but owing to decay the number and details could not be made out; mouth also not visible for the same reason.

Tentacles (partially contracted) short, stout, and obtuse, in 3 or 4 series, about 90 in number; but they were difficult to enumerate, and in several places a number had been injured or destroyed.

Colours.—Mr. Borley informed me that when alive the body was yellowish white, longitudinally striped with dull red. Tentacles, dull red (?). Nothing remained when examined but a dull uniform pinkish shade. Horizontal and vertical section with a razor disclosed a state of decay, amidst which little could be recognized; I can only say that no siphonoglyph could be found in either (*a*) or (*b*), and that the mesenteries in (*a*) were about 24 pairs fully developed, and a similar number incomplete.

The general appearance of both specimens is very similar to Danielssen's figures and description of *K. pedunculata*, as also are the measurements; the features that cause me to consider these examples as a separate species being the marked difference in the number of mesenteries and tentacles. I here repeat the generic characteristics as given by Danielssen, so altered as to include the present species:—

The body encrusted, piriform, with a long bare stem, terminating in a pedal disc. Tentacles few or many, in two or more series, retractile. 12 or more pairs of mesenteries, half of their number perfect.

Suckers on the encrusted portion of the body. No siphonoglyph.

Mesodermal, annular muscles. Acontia.

Specific characters.—*K. pedunculata*: mesenteries, 12 pairs, tentacles 24.

K. borleyi: mesenteries and tentacles numerous.

It is to be hoped that further specimens may be obtained before long, which would enable a thorough anatomical examination to be made and the true affinities of this remarkable genus determined, as the condition of the specimens here described was not sufficiently good to permit of any observations as to acontia and many other points of interest.

In view of the peculiar form of these anemones, it may be of interest to quote Danielssen's remarks concerning *K. pedunculata*: "The weather was very stormy at the time, and the vessel had a constant heaving and rolling movement, which in a great degree obstructed the investigations. I was, however, fortunate enough to obtain the animal drawn in the live state, and to jot down some observations in regard to its exterior; but as it constantly kept itself pretty much shrunk together, although I had had it for several days in the glass vessel for observation, I could determine nothing in respect of the tentacles, only so much did I observe, viz. that the stem sometimes kept itself quite erect and at other times became bent, whilst the body expanded and contracted—movements which were participated in by the stem in such manner that when the body contracted the stem became attenuated, and when the body expanded the stem became tumified."