

The cœnostea of several species of the family have been known to science from early times. The earliest known species, according to MM. Milne-Edwards and Haime, seems to have been *Stylaster flabelliformis*, the *Corail blanc* of Seba (Thesaurus, iii. 204, pl. cx. fig. 10, 1758), while *Stylaster roseus* and *Distichopora violacea* were described under the general genus *Madrepora*, by Pallas, in 1766.

Gray gave the name *Stylaster* to the genus in 1831 (Zool. Miscell., p. 36), and described the genus *Errina* in 1835 (Proc. Zool. Soc., 1835, p. 35). *Distichopora* was named by Lamarck, *Allopora* by Ehrenberg in 1834, and *Cryptohelia* was described by MM. Milne-Edwards and Haime in 1849.

Pourtalès has added a new genus to the family, viz., *Pliobothrus*, as one of the results of the United States' deep-sea dredging operations, and Saville Kent another, *Stenohelia*, whilst I have added five genera, viz., *Sporadopora*, *Spinopora*, *Conopora*, and *Astylus*, dredged by H.M.S. Challenger, and *Labiopora*, wrongly described by Gray as a Bryozoon under the name *Porella*.

Dr Edward Gräffe of Zurich found a species of *Distichopora* living at Fiji. It grows only on the outermost reef border of Ovalau Island, close to the surf, attaching itself in dark hollows in old dead Madrepore blocks. It never grows in the light, and is rapidly bleached by the action of sunlight. Gräffe observed the large round cells in the ampullæ, and conjectured that they were ova, but he could not obtain a view of the zooids, although he examined specimens brought fresh from the sea. He concluded that *Distichopora* was probably a Bryozoon.¹

The only extant account of the soft parts of any Stylasterid is that of the animals of *Allopora norvegica* by G. O. Sars.²

Sars kept a succession of living specimens of the coral in fresh sea water, but never got the animals to expand so as to raise themselves above the level of the stellate openings. Nevertheless he saw clearly with lenses the tips of the opaque white tentacles in the angles between the so-called incomplete septa, which tips were usually more or less bent inwards towards the centre. He also saw deep down in the bottom of the calicle a similarly opaque white knot-shaped projection. This was all that could be seen in the fresh living animals. Specimens were, however, preserved in spirit and subsequently examined, and the conclusion was come to that the animal was essentially different from the rest of corals, and probably did not belong to the Anthozoa at all, but rather to the Hydrozoa.

By means of lucky breakings through of the stony-hard but nevertheless porous coral, Sars was able to obtain some little view of the general form of the polyps and their

¹ Dr E. Gräffe, Notizen über die Faune der Viti Inseln. Verh. und der K.K. Zool. Bot. Gesell. in Wien, xvi. Bd., 1866, 1585.

² G. O. Sars, Bidrag til Kundskaben om Dyrelivet paa vore Havbanker. Forh. i Videnskabs Selskabet, i Christiania, 1872, p. 115.