

ceasing to be covered by the peripheral tubes towards the distal parts of the colony. Hydrothecæ tubiform, with entire margin, destitute of operculum, sessile or pedunculate, with their walls never adnate to the hydrocaulus, and with the cavity uninterruptedly continued into that of the peduncles or of the parts of the stem from which they directly spring. Hydranths with a conical hypostome.

*Gonosome* not known.

The genus *Lafoëa* was founded by Lamouroux in 1821, and since then has been more exactly defined by Sars, and further limited by Hincks. Our increased knowledge of the species, however, and the detection of the perisiphonic nature of the fascicled stem, render necessary a still further amendment of the definition, and the diagnosis here given will, I believe, mark out the true limits of the genus.

The most important characters of this diagnosis will be found in the perisiphonic fasciculation of the stem, the complete freedom of the hydrotheca walls from the hydrocaulus, and the uninterrupted continuity of the cavity of the hydrotheca with that of the peduncle, or, where no peduncle is present, with that of the axial tube from which it springs. By this last character among others it is distinguished from such forms as *Campanularia*, in which the cavity of the hydrotheca is differentiated from that of the supporting peduncle by a basal constriction, forming a more or less pronounced perforated diaphragm.

The distal parts of the colony are always free from the peripheral tubes, a character which *Lafoëa* possesses in common with *Cryptolaria*. In *Lafoëa* the hydrothecæ are never adnate to the axial tubes in any part of the colony; in *Cryptolaria* they are so adnate where the axial tube ceases to be covered by the peripheral.

It is a remarkable fact that, notwithstanding the great abundance of some of the species, no trace of the gonosome has as yet been detected in any true *Lafoëa*.

Hincks has united under *Lafoëa* a number of minute Campanularian Hydroids which the definition here given will exclude, not only on account of their non-fascicled stem, but of the distinct differentiation of the cavities of their pedunculated hydrothecæ. Though we know nothing of their gonosome, while our knowledge of them is in other respects also imperfect, we shall I believe be justified in uniting these little cup-bearing species under a separate genus, to which I have assigned the name of *Hebella*. Their separation from *Campanularia* (as limited above, p. 18) may possibly appear arbitrary, but the more cylindrical cup-shaped form of their hydrothecæ contrasts with the campanulate form of *Campanularia*, and in our very imperfect knowledge of the species will justify the provisional allocation here suggested.

A form with tubiform hydrothecæ but with creeping non-fascicled stem is regarded by Hincks as a variety of *Lafoëa dumosa*, Fleming. I am unable to accept this view, for I regard the perisiphonic stem as an essential character of every true *Lafoëa*. I have accordingly united in a separate genus the monosiphonic Campanularians with tubiform