

either form a simple ring of eight or sixteen gonostyles around the central siphon, or they occupy a broader gonostylar zone, often the whole subumbrella between the central siphon and the submarginal corona of tentacles. At first there is a corona of eight gonostyles only, regularly placed around the central siphon, and this state is permanent in some species of *Porpalia* (Pl. XLVIII.). In *Porpitella* (Pl. XLVI.) there is a girdle of sixteen gonostyles. But usually their number is soon increased, and they form several concentric circles, more or less regular. Finally, in the largest Porpitidæ their number amounts to several hundreds, and they are densely crowded. Their form and structure have been described above (p. 36).

Tentacles.—The corona of submarginal tentacles in all Porpitidæ is originally regularly octoradial. In all young larvæ of this family there occurs a stage in which the umbrella-margin bears only eight tentacles regularly disposed at equal intervals (Pl. L. figs. 9, 10), as permanently in *Discalia* (Pl. XLIX. figs. 1–4). But their number is soon increased either by interpolation of eight secondary interradial tentacles (in the middle between the former), or by budding of several secondary tentacles at the base of each primary one, so that eight regular bunches arise (*Porpalia*, Pl. XLVIII.). Sometimes sixteen bunches are formed (*Porpitella*, Pl. XLVI.). Usually the number is so increased that hundreds or thousands of tentacles, densely crowded, cover the whole zone beyond the margin of the disc. Often three to nine or more concentric circles may be discerned, and then the uppermost are the smallest, the lowermost the longest. Sometimes their bases are so densely crowded in the tentacular area, that after removing the tentacles there appears an elegant reticulated girdle beyond the margin; each rhomboidal dimple of the reticulum is the place of the basal insertion of a lost tentacle (Pl. XLVII. fig. 3, *tu*; Pl. XLVIII. fig. 2, *tu*).

The *general structure of the tentacles* is the same in the Porpitidæ as in the other Discinectæ; but they differ from those of the Velellidæ in their peculiar constant form and structure. The youngest larvæ of the Porpitidæ bear eight simple radial tentacles with a terminal cnidosphere (Pl. L. fig. 9) like those of *Discalia*. The next larval stage exhibits four pediculate cnidospheres at the distal end of each tentacle, one of which is the primary terminal knob, the three others basal branches of it (fig. 10). The number of the latter is soon multiplied, and the older and longer tentacles, which are club-shaped and thickened at the rounded distal end, bear always three longitudinal rows of pedunculated cnidospheres; one odd inferior series in the middle line of the lower or distal face, and two paired (lateral) series on the two lateral faces; the upper or proximal face is always smooth.¹ Each cnidosphere is a thin lateral branch of the tentacle, having the same structure as the latter, and bearing a terminal sphere composed of radially crowded cnidoblasts. The peduncles of the latter are sometimes shorter, at other times longer. Their length often increases towards the distal end of the tentacle. Their number is very variable in different

¹ 57, pls. ix., x.