lobes, each of which has four rounded lobules. In the deeper indentations which separate the sixteen lobes, there are sixteen eyes, a circumstance which leads me to suppose that Phacellophora also has the same number of eyes. Morphologically, the tentacles, which are very large, are arranged in sixteen bunches; but as their insertion follows the regular curve of the circular chymiferous tube, and does not form a crescent, as in Phacellophora, and as the lappets of the eyes are not separated from the tentacle-bearing lobes, the tentacles seem to form a continuous row along the whole margin, as in Aurelia, instead of assuming the appearance of bunches, as in Phacellophora.

The affinity of Cyanea with the genus Sthenonia is more remote, even though the indentations of the margin of the disk be more similar to those of Cyanea than those of the genera Phacellophora and Hecœdecoma; for in Sthenonia, the actinostome consists of four diminutive arms, and the resemblance between the two genera results only from the arrangement of the long slender tentacles, hanging in eight bunches from the lower side of the disk, in the intervals between the oculiferous lobes. The evidence that neither Sthenonia, nor Phacellophora, nor Hecœdecoma, can be associated in the same family with Cyanea, appears to me chiefly to rest upon the fact, that while in Cyanea the bunches of tentacles correspond to the deepest indentation in the margin of the disk, in the above-named genera, which I refer to a distinct family, the Sthenonidæ, they correspond to prominent lobes of the margin, and are separated from the lobules of the eyes by deep indentations; and as these outlines are determined by the mode of ramification of the chymiferous system, they must be considered as family characters.

The true characters of the genus Cyanea consist in the deep indentations of the margin, in the radial prolongation of the bunches of tentacles, and in the greater width of the lobes of the margin corresponding to the tentacular pouches, while those of the ocular pouches are small and more closely united with the broad lobes than with each other. The crescent-shaped insertion of the bunches of tentacles, arranged in several rows, the largest of which are on the inside, and the smaller outside, is another generic peculiarity. The division of the concentric lobes into alternately broader and narrower contiguous areas, appears also generic, as well as the division of the radiating folds into a shorter and a longer band.

The other genera which I refer to the family of Cyaneidæ are Stenoptycha *Ag.*, based on the Cyanea rosea *Q.* and *G.*, Couthouyia *Ag.*, Medora *Couth.*, Patera *Less.*, and Donacostoma *Ag.* The genus Stenoptycha is unquestionably a member of the family of Cyaneidæ, as the concentric and radiating folds of its lower floor show; but in this genus the band of concentric folds is very narrow, and the radiating folds alternate with the concentric folds. The tentacles are few, and arranged in a single row. This genus has some affinities to Chrysaora, from which it is, how-