

CHAPTER FOURTH.

THE GENUS PELAGIA AND ALLIED GENERA.

SECTION I.

THE FAMILY OF PELAGIDÆ.

THE genus *Pelagia*, as defined by Péron and LeSueur, embraces species which, in my estimation, belong, unquestionably, to different genera, if the differences noticed between the other genera allied to *Pelagia*, thus far admitted by naturalists, afford any standard of appreciation of generic differences. Be this, however, as it may, *Pelagia* and *Chrysaora* constitute a natural family, first recognized by Gegenbaur, and characterized by him, in the "Zeitschrift für wissenschaftliche Zoologie," Vol. 8, p. 210, as distinguished from the other families of *Acraspeda*, by the pouch-like appendages of the stomach or main cavity, to which he adds the more or less bulging form of the disk and the oral appendages, varying from the simplest form to that of four-lobed arms. Correctly as the family is circumscribed here, the characters assigned to it are insufficient to distinguish it from the *Cyaneidæ*, in which there are also radiating pouches, and in which the other structural characters vary in the manner ascribed by Gegenbaur to *Pelagidæ*. It is my opinion that the essential structural characteristics of the *Pelagidæ*, in their adult condition, consist in a combination of spheromeres peculiar to them, there being four ambulacral pouches in the prolongation of the four corners of the mouth, between the marginal indentations of which there is an eye, and four interambulacra, each one of which consists of three pouches, similar in dimensions to those of the ambulacra; the central one of these pouches has an eye, in the indentation between its lobes, while the other two have single tentacles, or sets of tentacles, variously combined. The genital organs consist each of three lobes, the middle of which (Pl. XII. *Fig. 2, b b*) is in the radial prolongation of the middle interambulacral pouch, while the two others