

*Lucernaria bathyphila*, therefore, furnishes the first example in the order of Stauro-medusæ of a complicated reproductive gland with lobed sacs and branched hollow spaces; and this, and other peculiarities already mentioned of our deep-sea species, justify its being raised to the type of a separate species, *Lucernosa*. Both the separate sacs and the follicles of which they are composed are enclosed in a thin structureless "membrana propria," a direct process of the gelatinous fulcral plate of the subumbrella. The sacs (figs. 17, 18, *sk*) project freely from the subumbral wall of the radial pouches, on whose endodermal surface they are placed, into the hollow space of the pouches; their free abaxial surface is covered by the ciliated endodermal pouch epithelium, whilst their fixed axial surface is divided from the ectodermal pouch epithelium (*qw*) by the thick gelatinous plate of the subumbrella (figs. 17, 18, *ug*). There is, therefore, no doubt that the ova are developed from the endodermal cells of the sacs, which has no connection with the subumbral ectoderm.

#### Order VI. PEROMEDUSÆ, Hæckel, 1877.

Acraspedæ with four interradial rhopalia, containing an auditory club with an endodermal otolite sac and one or more eyes, four perradial tentacles or twelve tentacles (four perradial and eight adradial), eight adradial or sixteen subradial marginal lobes. Stomach surrounded by a subumbral coronal sinus, whose division into four radial gastral pouches is only indicated by four small interradial septal nodes; eight or sixteen coronal pouches on the distal margin of the coronal sinus; two lateral lobe pouches from each coronal pouch, and in the middle between the lobe pouches, a pouch for the tentacle or the rhopalium. Genitalia, eight adradial horseshoe-shaped swellings which lie in the subumbral wall of the coronal sinus, are developed from its endoderm and partly project into its cavity.

#### Family, PERIPHYLLIDÆ, Hæckel, 1877.

PERIPHYLLIDÆ, Hæckel, *System der Medusen*, 1879, p. 415, plate xxiv.

Peromedusæ with twelve tentacles (four perradial and eight adradial), with four interradial rhopalia and sixteen subradial marginal lobes (eight tentacular and eight ocular). Exumbrella with sixteen pedalia, and a coronal muscle with sixteen coronal areæ (four perradial, four interradial and eight adradial), a coronal pouch between each pedaliolum and each coronal area. Marginal festoon canal formed of thirty-two lobe pouches.

#### Sub-family, PERIPHEMIDÆ, Hæckel, 1880.

Periphyllidæ whose four interradial funnel cavities are not limited to the central stomach but also traverse the basal stomach, wholly or partially.