In every case, with a single recorded exception, when the planoblast referable to the type of the Anthomedusæ has been traced to its trophosome, this is found to belong to the Gymnoblastic section of the Hydroida; while in every case—also with a single recorded exception—the trophosome to which the planoblast of Leptomedusal type has been traced belongs to the Calyptoblastic section.

The exception in the former case is found in *Leptoscyphus tenuis*, a minute Campanularian Hydroid to which I believed myself justified in referring a little Medusa found free in the jar in which a specimen of *Leptoscyphus* was confined, and which, though it had not yet attained sexual maturity, was an undoubted Anthomedusa referable to the form to which Edward Forbes gave the name of *Lizzia*.[1]

The exception in the second case occurs in a Tubularian Hydroid described by Claus under the name of *Campanopsis*, the planoblasts of which are referred by him to the form known as *Octorchis*, which is a Leptomedusa bearing otocysts on the margin of the umbrella, and having its gonads or sexual pouches formed in the walls of the radiating canals.[2]

While every planoblast—with the exception of that of *Dicoryne*—is thus a true Craspedote Medusa, it is not among all groups of the Craspedotæ that planoblasts—confining this term to the free sexual buds thrown off from a polypoid trophosome—can be found. There are certain Craspedote Medusæ (Trachomedusæ and Narcomedusæ) which, though possessing like all the Craspedotæ a true Hydroid structure, have not yet been known to give rise in the course of their development to a Hydroid trophosome or polyp stage, and are probably all developed directly from the egg of the parent Medusa.[3] They are distinguished by certain well-marked characters from the other Craspedotæ (Anthomedusæ and Leptomedusæ) among which alone we find the planoblasts. The most important of these characters consists in the ectodermal otocysts of the Leptomedusæ being here replaced by peculiarly modified tentacles in the form of short club-shaped appendages which lie either free on the umbrella margin or are each enclosed (part of the Trachomedusæ) in a special vesicle formed by an ectodermal fold sent off from the epithelial covering of the marginal nerve-ring. They have a solid endodermal axis, in certain cells of which calcareous concretions (otolites) are formed, while the ectoderm carries stiff "auditory bristles." To these marginal clubs an auditory function has accordingly been attributed.

Both Trachomedusæ and Narcomedusæ are also characterised by the comparative rigidity of their marginal tentacles, which are originally always provided with a solid chorda-like axis instead of being hollow as is almost always the case with the marginal tentacles of the Anthomedusæ and Leptomedusæ. The margin of the umbrella is further distinguished by being surrounded by an urticating ring formed by an accumulation of thread-cells.

[1] Allman, *Ann. and Mag. Nat. Hist.*, May 1864.

[2] Claus, *Arb. Zool. Inst. Wien*, Bd. iv.

[3] Unless the fresh-water Medusa, *Linnocodium*, should prove an exception; see A. G. Bourne, *Proc. Roy. Soc. Lond.*, vol. xxxviii. p. 9, 1884.