

(Pls. 120–128) have been developed from the Cœlodendrida by the formation of a basal nasal tube (rhinocanna) from each galea, and the formation of a median or paired frenulum, which connects the opening of the nasal tube with the apex of the galea. In the Cœlodendrida, as well as in the Cœlographida, there are two different subfamilies, of which the more primitive (Cœlororida, Cœlotholida) have free branches from the hollow radial tubes, whilst the more recent (Cœlodrymida, Cœloplegmida) form an outer bivalved shell by anastomosis of the branches of the tubes.

200. *The Fundamental Biogenetic Law.*—The causal connection between ontogeny and phylogeny, which finds its most precise statement in the fundamental biogenetic law, holds in general for the Radiolaria as for all other organisms. In order to furnish direct proof of this, however, a complete empirical knowledge both of individual and of palæontological development would be necessary. In both these directions, as has been shown in the foregoing chapters, our knowledge of the Radiolaria is very incomplete and fragmentary, but still we are able to convince ourselves indirectly of the validity of the law as applied to Radiolaria by the aid of comparative anatomy. This is now so fully known to us (§§ 1–140) that we are able not only to draw a complete and satisfactory picture of their morphology, but also to arrive at most important conclusions regarding the ontogeny and phylogeny of the individual groups. As regards the formation of the multiform skeleton of the Radiolaria, most of the ontogenetic series of forms, with which we have become acquainted by comparative anatomy, are of *palingenetic* nature; that is, they are primarily due to inheritance and thus of direct phylogenetic significance. On the other hand, among the ontogenetic phenomena of the Radiolaria, as far as they have yet been investigated, only very few are *cenogenetic*, that is, brought about by adaptive modification and without direct significance as regards phylogeny.