

family, the Cœlographida, and differ from the preceding family, the Concharida, in which the siliceous wall of the two valves is much thicker, and perforated by regular circular or roundish pores.

The galea or conical cupola in the apex of the two valves ("der kegelförmige Aufsatz" of the German authors) has in all Cœlodendrida a triangular base and an irregularly conical or nearly three-sided pyramidal form. Its cavity is about one-third or one-fourth as large in diameter as the cavity of the hemispherical valve upon which it rests. The galea is relatively smaller and more irregularly formed than in the Cœlographida, and differs essentially from that of the latter in the constant absence of a rhinocanna; there are also wanting, therefore, the characteristic frenula, which connect the nasal tube with the apex of the galea. The cavity of the galea probably always communicates with that of the valves by pores in the separating siliceous plate, and is besides pierced by irregular pores in its outer wall, very variable in form, size, and number, but it does not communicate with the cavity of the hollow radial tubes, from which it is separated by a thin, solid, siliceous plate.

The hollow radial tubes which arise from the galea in the Cœlodendrida do not seem to possess that constant regularity in number, origin, and disposition, which is found in the following family, and there serves for distinction of genera. In my first description of the Cœlodendrida (1862, *loc. cit.*, p. 362), I pointed out this irregularity, and mentioned that the number of radial tubes arising from each galea varies from three to eight; the total number therefore amounts to from six to sixteen, the same minimum and maximum numbers which we shall encounter also in the radial styles of the following family. But whilst it is easy to determine the position and relation of these hollow tubes in the Cœlographida, owing to the constant sagittal position of their rhinocanna, this task is very difficult in the Cœlodendrida, where the rhinocanna is wanting. In the most frequent cases there arise from each galea three or four tubes, more rarely five or six, and very rarely seven or eight. The simplest and probably the original case is the development of three tubes, two of which are paired (divergent on the right and left), while the third is odd, lying in the sagittal plane. Perhaps these three primary tubes may be compared to the three cortinar feet of the NASELLARIA, so that we may regard the two paired anterior as pectoral, and the odd posterior as a caudal tube. Usually the two paired or pectoral tubes arise from two corners of the triangular base of the galea, whilst the third odd or caudal tube does not arise from the third corner of the base, but more or less above it, and often even from the highest point or the apex of the galea. In the majority of species observed, this odd sagittal tube is forked even at its origin, so that two divergent tubes (an anterior and a posterior) arise from the apex of the galea (Pl. 121, figs. 3, 8). More rarely the two paired or pectoral tubes are also forked at the base, so that three pairs of tubes arise from each galea, and the total number of tubes amounts to twelve. Very rarely