

gradually from 21 to 3 per cent. It is therefore evident that in general the Dictyonina live at much less depths than do the Lyssacina, which are distributed with much greater uniformity over the entire bathymetrical range of the Hexactinellida.

If the consideration of these relations be extended to the several families (subdivisions in the case of the Dictyonina), very remarkable differences obtain in regard to the four families of Lyssacina. In spite of the absolute smallness of the numbers, the differences seem striking enough to merit notice here.

In regard to the Euplectellidæ, including *Euplectella aspergillum*, which lives at a depth of 95 fathoms, the following table shows the distribution in regions of 500 fathoms:—

Depth in Fathoms.	Number of Euplectellids.	Percentage in the Dredgings or Trawlings.
95-100	1	20
101-500
501-1000	3	13·5
1001-1500	5	16·1
1501-2000	3	8·6
2001-2500	3	7·9
2501-3000	4	12·1

Euplectellids are thus widely represented from a depth of 95 fathoms (*Euplectella aspergillum*) down to 3000 fathoms, and so far as an estimate with intervals of 500 fathoms is a guide they appear to be distributed with tolerable uniformity at all depths. That no Euplectellids were found on the Challenger Expedition between 100 and 500 fathoms is probably accidental. It is an interesting fact that the only Euplectellid occurring at a depth of less than 100 fathoms, viz., *Euplectella aspergillum*, belongs to those forms which, like the Dictyonina, exhibit a connected latticed framework.

Like the Euplectellidæ, the Asconematidæ are represented down to the lowest zone. The largest number of species occurs at depths between 1501 and 2000 fathoms, and from that region the number decreases both upwards and downwards, as is shown in the following scale:—

Depth in Fathoms.	Number of Asconematidæ.	Percentage in the Dredgings or Trawlings.
101-500	1	1·7
501-1000
1001-1500	1	3·2
1501-2000	3	8·6
2001-2500	2	5·3
2501-3000	1	3·3