

it is seen that 25 species are found north of the equator, as against 47 to the south, while of Dictyonina 13 belong to the north, and 20 to the south hemisphere.

And since in the north hemisphere there were 126 dredgings or trawlings, as against 150 in the south, the percentage proportions for 100 dredgings or trawlings are as follows:—The Lyssacina occurred in the north hemisphere in the proportion of 19·8 per cent., as compared with 31·3 per cent. in the south; the Dictyonina are represented in the north hemisphere by 10·3 per cent., as against 13·3 in the south.

The absolute number of Lyssacina found in the north tropics was 11, as compared with 18 in the south. And if the number of dredgings or trawlings in the north and south tropics are taken into consideration, the percentage proportions stand as follows—22 per cent. in the north tropical zone, and 36·7 in the south.

Of Dictyonina 7 species were found in the north tropical zone, as against 14 species in the south. And this expressed in percentages of dredgings and trawlings means 14 per cent. for the north tropics and 28·6 for the south.

If we now pass to the consideration of the several families, it will be seen that most of them are represented in all the three zones, though generally in very varying abundance. It is noteworthy that the Euretidae and Mæandrospongidae are wholly absent from the south temperate zone, while the northern region exhibits a similar absence of Tretodictyidae, and only one representative of all the other families of Dictyonina. The tropics on the other hand include representatives of almost all the families, and one at least from among the Asconematidae and Coscinoporidae.

While the Euplectellidae are represented by several forms in all the three zones, the north temperate zone, which contains the genus *Euplectella* itself, yielded no Holascidae, which occur both in the tropics and in the south temperate zone. It is a striking fact that the Asconematidae, which occur somewhat abundantly in the south temperate zone and likewise in the north, are represented in the tropics only by a single species. The Rossellidae occur in considerable abundance in the tropics, and in especial abundance in the south temperate zone, but are represented only by one species in the northern region.

The Hyalonematidae exhibit a tolerably uniform distribution through all the three zones, with a slight preponderance in the tropics.

The tropics are especially rich in Farreidae and Euretidae, to which have to be added two species of Melittionidae, several Tretodictyidae, and two species of Mæandrospongidae, a distribution in striking contrast to that of the two temperate zones, in which these families either do not occur, or are represented only by a single species.

A more detailed survey of the genera and species shows that the species of *Euplectella* occur only in the north temperate zone and in the tropics, being apparently absent in the southern region. *Euplectella aspergillum* and *Euplectella crassistellata* appear to be tropical, while *Euplectella nodosa* was confined to the north temperate zone, and *Euplectella suberea* occurred in both these regions.