

dichotomously branched. The cylindrical branches are connected by numerous anastomoses and form a loose network, the meshes of which are 2 to 5 mm. in diameter. The thickness of most of the branches is between 2 and 3 mm. The distal ends are rounded or nearly truncate, sometimes club-shaped, not tapering or conical, as in the preceding species. These differences, and especially the reticular shape of the sponge, might perhaps justify its separation as a peculiar genus (*Stannoplegma*).

*Internal Structure.*—Transverse and longitudinal sections through the branches of the coralliform sponge exhibit the same structure as in the preceding species, viz., a loose framework of the symbiotic Hydroid (*Spongoxenia*), and between its meshes are the branches of the canal-system of the sponge, and the skeleton composed of Radiolarian ooze and of spongin-fibrillæ. The anatomical structure of the canal-system here also could not be made out.

*Fibrillæ.*—The fine spongin-fibres are much more numerous, larger and more richly developed, than in the preceding species; they are arranged partly in bundles, partly interwoven in all possible directions, in the cortical as well as in the medullary mass. Most of the fibrillæ are simple and run isolated, but often two to six parallel fibrillæ are found associated; more rarely there are small bundles of ten to twenty or more. Ramifications of the fibrillæ, which I could not find in *Stannoma dendroides*, are not rare in *Stannoma coralloides*. The diameter of the larger fibres is 0·005 to 0·01 mm., that of the smaller fibres 0·001 to 0·004 mm., often less. The firmer consistence of this species is mainly produced by the richer development of the fibrillæ, which surround and connect the xenophya, or the foreign bodies composing the main mass of the sponge; these are, as in the preceding species, almost exclusively Radiolarian shells (figs. 2-4, r).

*Symbiontes.*—The chitinous tubes of the symbiotic Hydroid are in this species less numerous than in the preceding; a transverse section of the branches exhibits usually ten to fifteen tubes, rarely more, often less. The network of the tubes is in *Stannoma coralloides* much looser than in *Stannoma dendroides*; the Hydroid is apparently *Halisiphonia spongicola* (Pl. IV. fig. 9).