

*Stannophyllum venosum*, n. sp. (Pl. I. fig. 4).

*Habitat*.—Station 271; depth, 2425 fathoms; bottom, Globigerina ooze.

Sponge with a broad flabelliform or reniform leaf, in the basal incision of which a stout and short pedicle is inserted. Distal margin semicircular, undulate and lobulate. Surface distinctly veined, with numerous thick, whitish, branched ribs, which diverge from the insertion of the pedicle; between them thin, flabby, brown lamellæ. In the ribs the skeleton is composed mainly of calcareous Globigerina ooze, in the lamellæ of siliceous Radiolarian tests; spongin-fibrillæ thick and coarse in the former, thin and fine in the latter.

*Stannophyllum venosum*, represented in Pl. I. fig. 4 half natural size, is the largest of all the Deep-sea Keratosa, the longitudinal diameter of the flabelliform leaf reaching 200 mm. and the transverse diameter 250 mm. It is distinguished at once from the other four species of the genus by the strong, prominent, white ribs or veins arising divergently from the insertion of the thick basal pedicle and tapering towards the thin lobulate margin. The pseudo-skeleton of these thick whitish ribs is composed principally of calcareous Globigerina ooze, while that of the thin yellowish or brown lamellæ between them consists for the most part of siliceous Radiolarian shells. The spongin-fibrillæ are very unequal in size, thicker and rather coarse in the ribs, thinner and finer in the lamellæ between them, the network formed by them being loose and irregular in the former, denser and finer in the latter.

*External Form*.—In the largest specimens there are seven of the peculiar thick veins or branched ribs, which are prominent on the two faces of the thin flaccid leaf. In the middle there is an odd rib, or a prolongation of the thick basal pedicle, and three divergent pairs on each side, each rib being again branched or beset with secondary ribs. The tapering distal ends of the branches pass gradually over into the thin brown web of the distal portion of the leaf, which is very flabby and easily torn. The development of these ribs seems to be produced partly by strong bundles of reticular symbiotic Hydroids, partly by strong bundles of coarser spongin-fibrillæ (0.006 to 0.01 mm. in diameter), strengthened by crowded Globigerina ooze; the thin brownish membrane between the thick whitish ribs is composed mainly of Radiolarian tests and of thinner fibrillæ (0.001 to 0.002 mm. in diameter).

The thick and short basal pedicle which is inserted into the proximal portion of the reniform leaf is 20 to 30 mm. in length and 6 to 8 mm. in thickness. It is attached to the sea-bottom by a basal plate, 15 to 20 mm. in diameter. The thickness of the lamellar leaf diminishes gradually towards the very thin and flabby distal margin, which is slightly undulate and lobulate; sometimes the distal portion of the leaf is pierced by small irregular holes, but neither these perforations nor the marginal lobes are so pronounced as in the closely-allied *Stannophyllum pertusum*.