

Genus 9. *Stannophyllum*, n. gen.<sup>1</sup>

*Definition.*—Stannomidæ with a thin foliaceous or flabelliform body, arising vertically from a simple short pedicle.

The genus *Stannophyllum* is the largest and the most remarkable of all the Deep-sea Keratosa. It comprises by far the greatest part of the Challenger collection of Keratosa, and is represented by very numerous (more than a hundred) specimens, of which more than half are well developed and tolerably well preserved. All these specimens were brought up from a depth of 2425 fathoms, at that most interesting equatorial Station (271) in the Central Pacific, the bottom of which is covered by a deposit of Globigerina ooze containing many Radiolarian remains, and which supplied the richest treasures in the form of numerous Radiolarian species of all the Challenger stations.

The careful examination of this rich material (regarded by previous observers as "large-sized Rhizopods") has yielded most interesting results, especially from a systematic and phylogenetic point of view. The numerous forms in this important collection may be disposed at least into five different species. These are so widely divergent in external form and shape, as well as in internal structure and composition, that every systematic zoologist would accept them as so-called "good species," provided that they were collected at widely-distant localities, and not connected together by intermediate forms. But they were all taken at the same place (Station 271), and there are so many intermediate forms or connecting links, that the zoologists of the pre-Darwinian epoch would have regarded all these forms as mere varieties of one and the same species, *Stannophyllum flabellum* (compare the Synoptical Table on p. 64).

The body in all the specimens of *Stannophyllum* (Pl. I.) is a thin and flat flabelliform leaf, attached at the bottom of the sea by a small basal pedicle. Probably it stands vertically erect, since the two parallel faces of the leaf are identical in structure. The size of the smaller species (diameter of the roundish leaf) is 4 to 8 cm., that of the larger 12 to 24 cm. The general form of the leaf (without pedicle) is sometimes subcircular or subovate, at other times reniform or palmate. The middle part of the proximal margin is attached by the basal pedicle, which is sometimes short and stout, sometimes long and slender. The distal margin is usually integral and semicircular, but sometimes lobulate or undulate. The surface is usually even and integral, but often coarsely arenaceous, and in one species reticular, pierced by numerous holes.

The striking differences which the five species of *Stannophyllum* show in external shape and internal structure are evidently due in the first instance to the composition of the skeleton and the selection of the various xenophya or foreign bodies which compose it. *Stannophyllum zonarium* (Pl. I. fig. 1) is distinguished by the predominant develop-

<sup>1</sup> *Stannophyllum* = Cement leaf; *στάννος* = *Stannum*, cement, solder; *φύλλον* = leaf.