

Storthosphæra albida, Schulze (Pl. XXV. figs. 15-17).

Storthosphæra albida, Schulze, 1874, II. Jahresberichte d. Komm. Untersuch. d. deutsch. Meere, p. 113, pl. ii. fig. 9, a.-d.

„ „ Norman, 1880, Report Brit. Assoc., Swansea Meeting, p. 390.

Test free, roundish ; walls relatively somewhat thick and soft, composed of fine sand only slightly cemented ; interior surface smooth ; exterior exceedingly irregular, beset with ridges or with tooth-like or sometimes cervicorn outgrowths. No visible aperture. Colour light-grey or greyish-brown. Diameter, $\frac{1}{2}$ th to $\frac{1}{8}$ th inch (2 to 3 mm.).

Prof. F. E. Schulze has accurately described this singular type in his Report on North-Sea Rhizopoda above referred to, and there is little to add to the details which he has given.

Storthosphæra is closely allied to *Astrorhiza*, especially to such forms as *Astrorhiza arenaria*, from which it differs chiefly in contour and size. The test is composed of fine grey sand ; it is somewhat soft and crumbly owing to the comparative absence of cement, and is of a consistence easily cut with a sharp knife. As the interior is rounded and smooth, the thickness of the wall varies a good deal at different parts of the surface. There is no visible orifice, and Schulze has surmised that fine interstitial pores serve the purpose of a general aperture. This view is perfectly reasonable ; and, though it is not easily demonstrated, there is collateral evidence that renders the explanation exceedingly probable. In some specimens the summit of the superficial protuberances appears to be of looser texture than the remainder of the test, a circumstance that suggests that these are the parts permeated by the sarcode. A similar condition has already been described in certain varieties of *Astrorhiza*, in which the ends of the rays or branches have no visible orifice, but are found on dissection to be closed only by loosely aggregated sand, leaving ample interstitial space for the passage of the sarcode. In other species of the same genus, of which the habits of the living animal have been observed, the pseudopodia are emitted from the ends of the rays, leaving no doubt as to the normal position of the apertures. The sarcode filling the cavity of the test is described as a greyish-brown mass, appearing granular under high magnifying powers, and containing a multitude of transparent brownish fat globules, similar to those found in *Gromia* and other Foraminifera.

Storthosphæra albida is a rare species ; and for the figured specimens I am indebted to my friends Prof. Schulze and the Rev. A. M. Norman. It occurs on the coast of Norway, Bukkenfiord, 365 fathoms (Schulze), and Kors Fiord, 180 fathoms (Norman) ; in the warm area of the Farøe Channel, 530 fathoms, a single specimen (Murray), and in the Bay of Biscay (Norman). An arenaceous organism of similar size and texture but without superficial excrescences, possibly a worn example, occurred in material from Station 323, South Atlantic, 1900 fathoms ; but no satisfactory representative of the type has been met with in the Challenger collections.