

As I remarked before, the peduncle is solid, the endodermic cavities of the adjacent tubes not extending deeper than its superior part. Its cellular elements consist of amœboid cells, distinguished by very large granules (Pl. III. fig. 3); there are also amongst them common amœboid cells, such, for instance, as F. E. Schulze¹ describes in *Sycandra raphanus*. The same elements are also to be found in the mesoderm of the tubes, but much more sparsely than in the peduncle. The outer epithelium of the tubes proved also to be coarse-grained; that of the peduncle could not be discerned. I regard these coarse-grained mesodermic cells as carrying nutritious elements, and explain their predominance in the peduncle by its solidity.

The larger Challenger specimen is represented in Pl. I. fig. 2.

To the habitat of *Leucosolenia blanca*, as given by Hæckel (*loc. cit.*, p. 39), must be added the Mediterranean Sea. The Sponge has been found in the Gulf of Naples (Vosmaer²), and there are also at the Institute in Graz some specimens from the Adriatic.

Colour.—Pale yellowish.

Habitat.—Station 75, July 2, 1873; lat. 38° 37' N., long. 28° 30' W.; off the Azores; depth, 450 fathoms; sand.

Leucosolenia challengerii, n. sp. (Pl. I. fig. 1; Pl. III. fig. 4).

This form can be distinguished from other species of *Ascetta*, in the sense of Hæckel, by the presence of a special set of triradiate spicules covering the outer surface of the colony, these spicules being all sagittal, while the triradiate spicules of the interior are all regular. The only specimen I find in the Challenger collection presents the soleniscus-form, the diameter of the tubes, *i.e.*, individuals of the colony, varying from 0·3 to 0·8 mm.; the pseudopores are still narrower, rarely exceeding 0·28 mm. in diameter; the oscula, sparsely scattered here and there, possess the same dimensions, or are rather larger. The whole forms an irregularly oval body 30 mm. long and 20 mm. broad in its thickest part, presenting a compact web of minute tubes and terminating in a short (2 mm.) peduncle. This latter is solid, at least in its interior part, and so far as the state of preservation permits one to judge, contains cellular elements like those in the peduncle of *Leucosolenia blanca*.

Skeleton.—Two forms of spicules are to be distinguished,—regular and sagittal triradiate.

The regular spicules are very like those of *Leucosolenia coriacea*, John., var. *multicavata*, H. (Kalkschwämme, Bd. ii. p. 25); their rays (0·18 mm. long) are slender (16 to 20 times

¹ Ueb. d. Bau. u. Entw. v. *Sycandra raphanus*, *Zeitschr. f. wiss., Zool.*, Bd. xxv., Suppl. p. 253, 1875.

² Voorloopig bericht omtrent h. onderzoek aan de Nederl. werktafel in h. Zool. St. te Napels, Haag, 1881, p. 5.