

and a predominance of minute acerate spicules. From this point of view the species I am going to describe is of particular interest. In the main features of its organisation it does not differ from *Leuconia multiformis*, *Leuconia typica*, &c., its cortical layer being represented by a thin dermal membrane; but its spicular characters are so strikingly similar to those of *Leuconia* (*Baeria*) *saccharata*, H.,¹ that a close parentage of both these forms is evident; and *Leuconia saccharata*, even in spite of its, I must add, very doubtful subdermal cavities, is one of the most typical representatives of our conjectural genus.

Leuconia ovata is represented in the Challenger collection by one specimen from Christmas Harbour. The specimen is of ovoid form, yet rather compressed, 30 mm. long., 18 mm. broad in the middle, its walls 4–5 mm. thick, in the interior half growing gradually thinner towards the free end. Both the surfaces are smooth. As I remarked before, no deviations are to be noticed with respect to the internal organisation; as in most Leucones, the flagellated chambers are of roundish outline, their diameter 0·06 mm. on an average, the pores and vents (gastric openings) of variable size and irregularly disposed. The specimen proved to be sterile.

Skeleton.—The skeleton consists of minute acerate spicules, coating the gastric and dermal surfaces, of gastric triradiate, of parenchymal triradiate, and of dermal triradiate and quadriradiate spicules.

Minute acerate spicules.—Some of these are just of the same form, and most of the same dimensions, as the corresponding ones in *Leuconia saccharata*, every spicule being composed of two parts—of a shorter spiny and of a longer smooth; but while *Leuconia saccharata* is, according to Hæckel, quite constant to this characteristic form of its minute acerate spicules, those in *Leuconia ovata* show a considerable variability; sometimes they are spiny on their whole surface, sometimes, on the contrary, they are smooth in both their parts, sometimes the shorter is smooth and the longer spiny. Also, with respect to the angle formed by their longer and shorter parts, these acerate spicules are inconstant, there being amongst them all possible intermediate stages between such spicules as drawn by Hæckel for his *Leucandra saccharata* (*loc. cit.*, pl. xxxviii. fig. 13) and common spindle-shaped acerate spicules. Characteristic of both surfaces, the minute acerate spicules lie in the parenchyma perpendicular to the longitudinal axis of the Sponge, the shorter spiny ends of the dermal acerate spicules being directed centrifugally, those of the gastric spicules centripetally.

Gastric triradiate spicules.—These are also of the form and size of the corresponding spicules of *Leuconia saccharata*, but more variable with respect to the length of their rays, that of the lateral varying from 0·15 mm. to 0·3 mm., that of the basal ray from 0·08 mm. to 0·2 mm. In most cases the basal ray is $\frac{1}{2}$ – $\frac{3}{4}$ as long as the lateral, but occasionally its length reaches, and even surpasses, that of the lateral. Some of them—not many—are provided with a short (0·02 mm. to 0·08 mm.) apical ray. The basal ray of the gastric triradiate spicules

¹ Kalkschwämme, Bd. ii. p. 229, Bd. iii. pl. xxxiii. figs. 3a–3e, pl. xxxviii. fig. 13.