

0.4 (rarely shorter) to 0.6 mm.; basal ray straight, tapering from the base to an approximately sharp point, forming with each of the lateral rays an angle of 105° to 110° ; lateral rays either straight or slightly curved inwards, sharp-pointed; apical ray straight, tapering from the base to a sharp point, never projecting from the inner surface, length varying from 0.4 to 1.2 mm.

Dermal acerate spicules.—Straight, fine, linear, sharp-pointed, surface smooth, length not exceeding 0.4 mm., with a diameter of 0.0025 mm.; not numerous; projecting from the outer surface.

Colour.—White and yellowish.

Habitat.—Station 36, April 23, 1873; off Bermudas; depth, 32 fathoms. Station 209, January 22, 1875; lat. $10^{\circ} 10' N.$, long. $123^{\circ} 55' E.$; Philippine Islands; depth, 95 to 100 fathoms.

Leuconia, Bowerbank.

Leuconidæ with an irregular disposition of the spicules of the parenchyma throughout; with roundish flagellated chambers.

Leuconia multiformis, n. sp. (Pl. I. fig. 8; Pl. II. fig. 1; Pl. VI. figs. 3a–3c; Pl. VII. figs. 1a–1h).

There are in the Challenger collection more than fifteen specimens, which, however different with regard to their external shape, are to be all referred to this species; two of the most typical representatives may be seen drawn in their natural size on Pl. I. fig. 8, and Pl. II. fig. 1. The chief character distinguishing this form from all the species of *Leuconia* hitherto known—so far at least as the existing descriptions permit us to form a judgment—is to be found in its subgastric triradiate spicules, which are of the same shape as those in *Amphoriscus* and *Leucilla*. It is for the last time that we meet with this interesting shape, and here in *Leuconia multiformis* they are in most cases so slender, in comparison with other constituent parts of the skeleton of the parenchyma, that their phylogenetic signification seems to be beyond all doubt. At any rate, together with peculiarities in form and size of other spicules of the skeleton, they present a character allowing of a distinct definition of the species.

According to the greater or less predominance of the large acerate, and to the presence or absence of minute acerate spicules, I subdivide the species into three varieties with the following diagnoses:—

Leuconia multiformis, var. *goliath*.

Outer surface naked, acerate spicules either not projecting at all from the cortex or standing isolated at greater or less distances from one another. On the gastric surface triradiate spicules more numerous than quadriradiate.