This animal bears so strong a resemblance to Benthodytes sanguinolenta that I am undecided as to whether I am authorised in referring it to a variety or not. The characteristics which distinguish them from one another seem to be of very little import-The specimens at my disposal are, however, in such a state of maceration and incompleteness as to make a closer examination impossible, all traces of calcareous matter being completely dissolved. The largest specimen reaches a length of 260 to 270 mm. and a breadth of about 40 to 45 mm. In some individuals the brim round the body is much more considerable and distinct than in others. The head-part of the body is rather depressed. The large discoidal terminal part of the tentacles as well as its retractile processes are covered with small papillæ; three to four of the ventral tentacles are considerably smaller than the others. The odd ambulacrum is provided with about a hundred small cylindrical pedicels; its foremost and hindmost parts however have none. The papilla-like prominences or pedicels round the brim are minute, and estimated in number at about two hundred in all; the canals which connect them with the ambulacral system are wide, and are plainly visible in consequence of their walls being full of a dark pigment (Pl. XL. fig. 8). The dorsal ambulacra give off a great abundance of longer and shorter canals which run into a corresponding number of minute thread-like completely retractile processes (Pl. XL. fig. 6); these processes are scattered all over the lateral interambulacra and also over those parts of the odd interambulacrum which border on both of the dorsal ambulacra. The integument is very much macerated, and presents only very indistinct traces of four-armed deposits, of which the calcareous substances have been almost entirely dissolved. The pedicels and tentacles are strengthened by small transverse spicula. The colour is light grey inclining to blue or violet; the tentacles as well as the integument surrounding the mouth and along the middle of the ventral surface are of a dark violet almost black. All the interior organs closely resemble those of Benthodytes sanguinolenta, excepting the reproductive organ, which is smaller, from 110 to 120 mm. in length in the largest specimens, and much thinner; each of its fascicles is composed of a long, wide canal carrying a small number of thin bundles of cæca, which are long and thread-like in the females and oval and much shorter in the males.

Benthodytes abyssicola, n. sp.

Body elongated, almost cylindrical, six to seven times as long as broad. Tentacles fifteen, with their large discoidal terminal part provided with about twelve digitiform retractile processes round its edge. Each of the dorsal ambulacra with about eight to ten minute scattered processes. Integument rather thin and pliable, with scattered, cruciform calcareous deposits, the calcareous substances of which are completely dissolved.

Colour in alcohol blackish- or brownish-violet, here and there considerably lighter; in some individuals the coloration is uniform, light dirty violet. Length, about 280 mm. Breadth, about 40 mm.