

The madreporic canal communicates with the exterior by a pore, situated a little above the crown of tentacles; it is invested by a thick sheath of connective tissue, which increases gradually towards the body-wall. The individual which has been at my disposal has lost the reproductive organ, except the efferent duct, which is surrounded by the same sheath which encloses the madreporic canal. This common efferent duct (Pl. XXXVII. fig. 6) is very remarkable from its dividing into two short and wide canals, which diverge towards the body-wall, where each divides into about eight divergent long and very narrow canals; those canals make some coils in the layer of connective tissue of the body-wall before they reach the apertures by which they open externally and which are placed far apart. Those secondary canals, carrying sometimes one or two branches, diverge greatly from each other, and some of them extend beyond the two dorsal ambulacra, consequently several of their openings lie in the lateral interambulacra.

*Peniagone lugubris*, n. sp. (Pl. X. fig. 1).

Body elongated, three or four times as long as broad. Mouth anterior, ventral. Anus posterior, subdorsal. The terminal part of the tentacles large, provided with small retractile processes. Pedicels about five along each side of the ventral surface; the anterior third of the ventral surface destitute of pedicels. The dorsal surface with an extension of the skin anteriorly constituting a very large, broad, transverse lobe, bearing four rather small processes on its upper margin. Integument rather hard, with a great number of crowded calcareous deposits, composed of a slightly elongated central part, and two arcuated arms, diverging from each of its ends; each arm with a large process, directed outwards.

Colour in alcohol, black-violet; the ends of the tentacles almost black. Length, about 70 or 75 mm. Breadth, about 15 or 20 mm.

*Habitat*.—Station 104. August 23, 1873. Lat. 2° 25' N., long. 20° 1' W. Depth, 2500 fathoms; bottom temperature, 1.7° C.; grey ooze. One incomplete specimen.

The dorsal surface is convex, the ventral, on the contrary, almost flat. Anteriorly, above the tentacles, where the body attains its greatest height, the dorsal surface is provided with a very large, comparatively flat appendage, which measures in length about 40 mm. The free end of this appendage is broad and slightly rounded, and its base seems to be considerably broader than the body itself. This lobe, which has a transverse position, crossing from one side of the body to the other, divides the dorsal surface into a more or less horizontal, posterior part, and an anterior almost vertical part. The appendage carrying four small, obtuse projections or processes on its upper rounded margin, is traversed by four long and very wide canals tapering upwards, and each of them entering one of the above-mentioned projections. As those canals are visible to the naked eye through the walls of the lobe, the whole dorsal appendage gives the