

dorsal surface has a more or less marked triangular shape, and is compressed from the sides as to form a more or less flattened lobe; its broad base is in the direction of the medio-dorsal line of the body, while the contrary takes place in *Peniagone lugubris* and *Peniagone wyvillii*. A glance at the figure will give an idea of its form and position, as I have thought them to be. The anterior side of the lobe is more or less curved, and almost vertical, and passes immediately into the anterior downwardly directed part of the dorsal surface. Its posterior side, on the contrary, which inclines obliquely downwards and backwards, is significantly dilated and considerably depressed along its middle so as to form two margins, of which the right one sends out four flat, obtuse projections, the uppermost of these forms the top of the lobe. The height of the appendage is about 35 mm. Posteriorly, almost at the base of the lobe are to be observed one or several very small processes, the correct number of which it is difficult to determine. The tentacles, of which but few remain, seem to be almost equally large; when extended, they are very long, measuring about 22 mm. Their large terminal part recalls the preceding species by having, especially round the edge, some branched retractile processes, of which two on the outer margin are largest. The inner side of the processes, as well as a great part of the ends of the tentacles, carry a number of small, retractile, papilla-like projections. Only the posterior half of the ventral surface is provided with eight or nine pairs of pedicels, the posterior ones attaining a comparatively inconsiderable size. The calcareous deposits (Pl. XXXIII. fig. 9), which are visible in great abundance within the perisoma, seem to resemble in form those of *Peniagone lugubris*, though varying generally more than those in shape as well as in size. The largest deposits have the arms measuring about 0.1 mm. in length and often considerably arcuated; sometimes the arms seem to exceed four in number. The processes are generally very long, and vary between two and four; in the former case the deposits seem to be slightly smaller, and their processes issue from the ends of their more or less elongated central part; in the latter case one process proceeds from each of the four arms, near their attachment to the central part. The ends of the pedicels as well as of the tentacles contain partly simple or branched more or less arcuated spicula, partly four-armed deposits without processes, and with the arms often unequal and more or less irregularly curved (Pl. XXXIII. fig. 8). It has been impossible to subject the calcareous ring to a closer examination, but, judging from what I have seen, it does not differ in any striking manner from the ordinary form in this family. Two polian vesicles, measuring from 10 to 15 mm. are present. The reproductive organ consists of a number of large, thick bundles of cæca, which open into two particularly wide tubes, which communicate with a single, very wide efferent duct narrowing anteriorly. The alimentary canal is retained in its proper position by elastic bands or threads; a mesenteric membrane only occurs anteriorly, uniting the foremost part of the alimentary canal and the duct of the reproductive organ with the medio-dorsal line of the body-wall.