

303-308 right, as well as 448-485 left and 450-485 right) being unmistakably opposite. The duplicity of these deferent ductules, as figured on Pl. VII. fig. 5, is the exception; it was only noticed in this one case, all the other ductules being single.

As to the generative cæca I find in this specimen (which is a male) that they are very full, and that dorsally and ventrally they assume a conspicuously lobed and arborescent appearance.

The integument offers many points of interest which will not be detailed here as they will be more fully described in the paragraph devoted to it.

Eupolia australis, n. sp. (Pl. I. fig. 6; Pl. VII. figs. 1-3, 7).

From M'Intosh's notes on this specimen I copy the following:—

“Another type of a whitish colour, measuring about 19 mm. in length and about 2 mm. in its widest part in front. The body is tapered from the wide anterior region to the fractured posterior end. It is rounded in front, somewhat flattened towards the posterior region. The head having been retracted forms a short blunt cone projecting from the folds of the wider nuchal region. No trace of furrows exists, but the mouth seems to be at the bottom of the transverse dimple at the base ventrally. . . . The inner longitudinal (muscular) layer is peculiar, for its fibres are somewhat regularly arranged, in long, parallel, and occasionally pennate fasciculi, which in transverse section run inward from the former coat. There is a slight hiatus in the dorsal middle line above the proboscidian sheath. . . . The proboscidian canal is somewhat thin. . . . The specimen is a male and the sperm-cells form large masses.”

The sections showed that the species was distinct from *Eupolia giardii*, which comes from the same locality, as also from the Japanese *Eupolia nipponensis*, which will be described below. They furnish the following data which it may be of use to recapitulate, in order to facilitate identification of the species when it is again captured in the same waters, and may then be described with its external coloration, of which no indication can here be given.

The primary difference between every section of *Eupolia australis* and all the other species of *Eupolia* here described is found in its integument. That portion of the integument which lies outside of the secondary basement membrane, *B* (Pl. VII. figs. 1-3), is by far the most prominent and the thickest portion, whereas in the other *Eupolias* it attains only half or even less of the thickness of the whole integumentary layers that are found outside the primary basement layer, *Bct* (Pl. VII. figs. 5, 9). In correspondence with this the secondary basement membrane is much thinner in these latter species than it is in *Eupolia australis*.

The regular distribution of the blood-spaces round the œsophagus, and just behind it, is such that in addition to the medio-dorsal and the two ventral blood-vessels (*br*) it