

*Pelagonemertes* further, in that a series of polygonal areas are marked out on its surface. The spirally wound organ, described as a tube, which is indicated in the figure of *Pterosoma*, can scarcely be anything else than the proboscis of a Nemertine, the mouth, at the extreme end of the body, being probably the aperture of the proboscis-sac, and the fusiform nucleus the sac itself. On the other hand, it is difficult to conceive that Lesson, with a number of specimens available for examination, could have missed seeing the very conspicuously burnt-sienna-coloured ramified intestine of *Pelagonemertes* had such been present in his *Pterosoma*. Further, in *Pterosoma*, a pair of elongate, closely opposed eyes are described and figured, having transparent coloured cornea.

“On the whole, now that a pelagic Nemertine is known to exist, there seems little doubt that the animal seen and figured by Lesson was a Nemertine and not a Mollusc, but it seems to have been a distinct form, with a pair of eyes and an unbranched digestive tract.”

For the sake of facilitating reference to Lesson's two figures of *Pterosoma*, in which Moseley is so strongly inclined to see a second species of pelagic Nemertine from the tropical seas—a supposition in which I entirely concur—I have reproduced these on Pl. VIII. figs. 1, 2.

The single available specimen of *Pelagonemertes*, when it came into my hands in September 1884, was no longer entire, but consisted of two fragments of the body, and of three small fragments of the proboscis. Both body-fragments were slit open on the ventral side, the internal surface of the digestive tract, and partly that of the proboscidian sheath, having thus been laid bare. The terminal portion of the body was missing (*vide* Moseley, *supra*). My friend Professor M'Intosh, who made these incisions and examined the specimen before it came to me to be sectionised, has made the following notes:—

“The structure of the cutis corresponds with that of other forms. In the preparation the transparent gelatinous basis-substance for the most part alone remained, the granular cells and clear mucous or gelatinous contents of these spaces having escaped. Beneath this layer is a remarkable deep investment of basement tissue, which forms an elastic investment all round the body. Numerous ducts, often having a zig-zag appearance, pass through this coat.

“The muscular layers of the body-wall, as Professor Moseley observes, are comparatively thin. The external circular fibres are hardly to be distinguished in ordinary transverse sections, and form a thin layer outside the longitudinal. Such a condition contrasts strongly with the well-marked circular coat in *Amphiporus lactifloreus*. The longitudinal muscular coat is likewise comparatively thin, though it is better developed than the circular.

“*Proboscis*.—In the preparation the proboscis is partly extruded, and issues in the same manner as in the ordinary form. It is streaked by longitudinal lines externally.