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XVII. *Description of a new Species of Annelide belonging to the Family Amphinomidæ.*

By W. BAIRD, M.D., F.L.S.

(Plate XLV.)

Read January 21st, 1864.

AMPHINOME DIDYMOBRANCHIATA.

CHAR. *A. caruncula* grossa, lobata, rubra; setis pedum numerosissimis, longissimis, albis; branchiis in fasciculis duobus, arbusculiformibus, rubris.

The genus *Amphinome*, first established by Bruguière, and afterwards more strictly defined by Blainville, contains some elegant and curious species of worms. The number now known and described is considerable, but none have as yet been discovered natives of the British seas. They are chiefly found in hot climates, and many of them are adorned with brilliant colours. The species which I have now to describe is, however, perhaps the most beautiful of all. In length it is about 5 or 6 inches, and, including the setæ on the feet, fully $1\frac{1}{2}$ inch in breadth. The dorsal surface of the body in some specimens is of a light olive-green, in others a light greenish brown; the ventral surface is of a light yellow colour, the caruncle and branchiæ of a bright carmine, and the long setæ of the feet pure white. It is somewhat narrower at the anterior, and considerably so at the posterior extremity. The number of segments into which the body is divided is about eighty-four; the first four or five are very small, and the last eight or ten equally so. The surface of the back is irregularly striated across, and marked with numerous flat granulations. The segments of the body are rather narrow and separated from each other by a fine, nearly black line. The proboscis (Pl. XLV. fig. 2 *a*, fig. 3) when protruded is very large, terminating in a circular thick fleshy pad, the surface of which is sculptured with circular waved grooved lines. The antennæ are all short, but the median is longer than the others; they are smooth, not articulated, and of a white colour. The eyes are very distinct; two pairs; the anterior larger than the posterior. The caruncle (fig. 1 *a*, fig. 4) is large and fleshy, covering nearly five of the first segments; it is composed of a number of small lobes, and is of a fine carmine hue. The branchiæ (fig. 1 *b*, fig. 5) exist on all the feet, small on the anterior segments, but becoming gradually larger as they descend, and at about the third part of the length of the body, and from that to the posterior extremity, are of a moderate size. They consist of two separate branches (fig. 5 *a*, *b*), not arising from the same stem, but at a short distance from each other—a disposition of these organs which none of the described species exhibit, and which might almost be sufficient to constitute a subgenus. They differ in size, the one nearest the base of the foot (fig. 5 *a*) being only half the size of the other; but both are arbuscular in form, and are composed of three branches, each branch consisting of several twigs, and each twig being divided into two or three branchlets.

They are all of a brilliant carmine-red colour, which, however, fades much by keeping in spirits. The setæ on the feet are in two separate tufts. The dorsal tuft (fig. 1 *c*) issues from a stout peduncle, the edge of which is tinged with the same colour as the branchiæ, to which it is attached. These setæ are extremely numerous, of very considerable length, of a pure white colour, and are straight, sharp-pointed, and slightly serrate on the outer edge (fig. 6). The ventral tuft (fig. 2 *b*) consists also of very numerous white setæ, of considerable length, but of a somewhat different structure. Each seta is stouter than those of the dorsal tuft, rather blunt and slightly curved at the extremity, and is slightly toothed or bluntly serrate near the point, and exhibiting at a short distance from the extremity a small projection or tooth (fig. 7). These setæ, especially those of the dorsal tuft, are so numerous and fine that, along with their pure white colour, they resemble tufts of fine cotton-wool. It is difficult, however, to keep them from falling off; and the specimens now preserved in spirits do not show half the beauty they had when fresh. The cirri (fig. 5 *c*) are rather slender, and slightly tinged with carmine near the free extremity; they are considerably shorter than the setæ, which completely envelope them and conceal them from view, unless pulled aside.

The specimens of this worm now in the British Museum were brought by Mr. Watson from the Island of Ascension, where they are collected by the boatmen and sold as curiosities. They pretend that they are of a venomous nature, and are able to inflict serious wounds upon those who incautiously handle them. This idea no doubt takes its origin from the numerous setæ with which their feet are clothed, but which, though (to judge from their appearance, as shown figs. 6 & 7) in reality powerful weapons for offence and defence against those animals which prey upon or are fitted for food for these, are in fact powerless for harm to human beings.

A similar-looking and brilliant-coloured species was taken by Bory St. Vincent amongst the rocks and lava off the coast of Metana in the Morea; and it is curious that this bright-hued species should be taken also on the coast of a volcanic island.

DESCRIPTION OF THE PLATE.

PLATE XLV.

- Fig. 1. *Amphinome didymobranchiata*, dorsal aspect, natural size (in spirits, and rather contracted):
a, caruncle; *b, b, b*, branchiæ; *c*, dorsal tuft of setæ.
- Fig. 2. Ventral aspect of animal, natural size: *a*, proboscis extruded; *b*, ventral tuft of setæ.
- Fig. 3. Extremity or fleshy pad of proboscis, slightly enlarged.
- Fig. 4. Caruncle, with five or six anterior segments of body ($1\frac{1}{2}$ -inch power).
- Fig. 5. Branchiæ, magnified: *a*, smaller branch; *b*, larger branch; *c*, cirrus.
- Fig. 6. Seta of dorsal tuft ($\frac{4}{10}$ ths power).
- Fig. 7. Seta of ventral tuft ($\frac{4}{10}$ ths power).

