

IX ON THE OCCURRENCE OF *PLACOCEPHALUS JAVANUS* (LOMAN) IN SIAM.

By TOKIO KABURAKI, *Zoological Laboratory, the Museums, Cambridge.*

Owing to Loman¹ and v. Graff's² works, it was made out clearly that *Placocephalus javanus* (Loman) is fairly common in the Malay Archipelago. It has hitherto been recorded from Java, Sumatra and Singapore. This fact is of some interest from the point of view of geographical distribution, though its distribution might have been brought about through the agency of man.

The purpose of the present report is to record the occurrence of the species, which I identify with *Plac. javanus*, in Siam. Owing to the kindness of Dr. N. Annandale of the Indian Museum, I was able to observe one individual only of this species, which was obtained by Mr. W. N. Dunn in a certain garden in the town of Singgora, Siam. To the gentlemen named I beg to express my thanks for the opportunity of observing the planarian.

The specimen was preserved in planarian fixitive³ and was in fairly good condition, except that it was torn near the middle of the body. In shape the animal conforms to the typical *Placocephalus* outline, with the head, which is of a semi-lunar shape, not a great deal wider than the trunk, and only marked off from the trunk by a constriction. The greater part of the trunk, rather stoutly built, is of almost similar breadth, though the body tapers extremely gradually to a rather pointed posterior end. The dorsal surface is slightly convex and the ventral nearly flat; the ambulacral surface forms a scarcely raised ridge, rather less than one eighth the width of the body, and extending the whole length.

¹ Loman, J. C. C., Zwei neue Arten von Bipalium. *Zool. Anz.*, VI Jahrg. 1883, p. 168. Über den Bau von Bipalium Stimpson, nebst Beschreibung neuer Arten aus dem indischen Archipel. *Bijdragen tot de Dierkunde*, 14 Afl., 1888, pp. 64-85. Über neue Landplanarien von den Sunda-Inseln. *Zoologische Ergebnisse einer Reise in Niederländisch Ost-Indien* herausgeg. von M. Weber, I Heft, 1890, pp. 138, 145, 151. On some Landplanarians of the genus Bipalium from the Leyden Museum of Natural History. *Notes from the Leyden Museum*, Vol. XVII, 1895, p. 30. Hallez, P., Catalogue des Turbellariés du Nord de la France et de la côte Boulonnaise. *Revue biol du Nord de la France*, T. II, 1889-90 (1893), p. 110. Bleeker, P., Bijdrage tot de geneeskundige topographie van Batavia. *Natuur- en Geneeskundig Archief voor Nederlandsch Indië*, I, 1844, p. 523.

² Graff, L. v., Bestimmungsschlüssel für die Indo-Malayischen Landplanarien. *Annales du Jardin Botanique de Buitenzorg*, Suppl. II, 1898, p. 124. Monographie der Turbellarien. II. Tricladida terricola (Landplanarien), 1899, pp. 465-467.

³ 30 c.c. Nitric acid, 30 c.c. Corrosive sublimate and 40 c.c. Distilled water.

This specimen attains in the preserved state a length of 87.5 mm. and the greatest breadth, a little behind the neck, of 4 mm.

According to Dr. Annandale's note, taken while the worm was living, the dorsal surface of the body is of a blackish colour with a broad brown median dorsal band, which is divided longitudinally by a fine black line, and is bounded on either side by a black line of about twice the width of the fine one. These three lines extend from the head to the caudal extremity, much as in the form reported from Singapore. The mid-dorsal line widens quite extraordinarily above the pharyngeal region, revealing a spindle-like marking, and as it approaches the hind end becomes gradually indistinct. The present specimen varies in the colouration of the broad dorsal band from the examples previously recorded. According to v. Graff, however, this, not being constant, must be regarded as a variation. Further, in the present worm there exists just a suspicion of a lateral dark line at the edge of the body, as has been described by v. Graff in some forms from Java as well as from Singapore. The head is almost uniformly blackish, without any sign of marking, but gets slightly lighter towards the frontal margin. Ventrally, the ambulacral surface is as usual of a much paler colour than the rest of the surface. On either side the colour may be described as a dark grey shade, getting much lighter laterally.

It is not easy to assign the distribution of the eyes in the head, but they surround as usual its entire fringe and are continued round to the sides of the neck.

The mouth is placed slightly in front of the commencement of the middle third of the body. I could make out its position by a slight protrusion of the pharynx.

According to Loman,¹ *Plac. javanus* is protandrous, the male genital organs being mature in July and August, and the egg-cocoons not being deposited till October or November. In the present specimen, secured on the 24th of January, 1916, the genital organs were not developed. Like other forms, this species may to some extent reproduce asexually by transverse fission, as mentioned by v. Graff.

¹ Loman, J. C. C., Over den bouw van de Land-Planariën. *Tijdschr. Nederl. Dierk. Ver.*, Deel I, p. 130. Shipley, A. E., On the Occurrence of *Bipalium kewense*, Moseley, in a new Locality; with a Note upon the Urticating Organs. *Proc. of the Camb. Philos. Soc.*, Vol. VII, Pt. IV, 1891, p. 144.