



## New record of the earthworm *Drawida papillifer papillifer* Stephenson from West Bengal, India

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Perrier (1872) was first to report of an earthworm species *Perichaeta houletti* from West Bengal. Thereafter Beddard (1883, 1900, 1901, 1902), Michaelsen (1907, 1910), Stephenson (1916, 1917, 1920, 1923) had contributed to the taxonomic studies of earthworm from West Bengal. Later a considerable work has been done by Gates' (1937, 1938 a, b, 1951, 1958), Halder & Julka (1967), Julka (1975), Soota & Halder (1977, 1981), Halder (1998), Chowdhury & Hazra (2008, in press), Chowdhury et al. (2008, in press). So far, 64 species of earthworm under 26 genera were reported from West Bengal. During the studies on earthworm, the present species was collected from north 24 parganas District (23°15'2"-22°11'6"N & 89°05'-88°20'E) of West Bengal. The species *Drawida papillifer papillifer* hitherto not recorded from West Bengal. Details of the species discussed herewith.

### Diagnostic characters:

**External:** Length 70-125mm; diameter 3-5mm. Segments 120-170. Clitellum red, ix-xiv. Colour bluish or purplish. Setae lumbricine. Setae,  $aa < bc$ ,  $dd = or > \frac{1}{2} c$ . Male pores very small, superficial without protrusible porophores, paired, in x, at or just lateral to *b* or nearer to middle of *bc*, each in a whitened semicircular area with base at 10/11. Spermathecal pores paired in 7/8, very small, at or slightly median to *c*. Genital markings small, circular to shortly elliptical and transverse translucent area, in vii-viii and x-xi near spermathecal and

male pores, occasionally in other positions on vii-xii. Female pores paired at or just behind 11/12. Nephropores at or near *d*, somewhat more dorsal in viii (Image 1 & Fig. 1).

**Internal:** Septa all present from 4/5, 5/6-9/10 muscular. Gizzards 2-4, in xiii-xx. Intestinal origin in xxiii. Intestinal caeca and supra-intestinal glands absent. Holonephridia in iii and posterior segments. Nephridia of x, present in adults. Sperm ducts short, 5-10 mm long. Capsular prostates paired, in x. Prostates 2-3 mm long. Spermathecal diverticula saccular, with a short stalk, 2-3 mm long in vii. Genital marking glands small, spheroidal to ellipsoidal, beneath longitudinal musculature.

**Earlier Records:** Gates (1972) recorded this species from Meghalaya.

**Remarks:** In India, so far, this species was known to occur only in Meghalaya. Therefore, this study indicates the species *Drawida papillifer papillifer* recorded for the first time from West Bengal. Its' present record from West Bengal of great significance as its range is now extended to Gangetic plain. No appreciable variation observed in this studied species from the earlier observations of Gates (1972). In this survey, this species were recorded near muddy canal with high amount of decomposed and semi decomposed organic matter in an orchard. Sub soil temperature 25.5 to 29.5°C, sub soil relative humidity 74 to 93.5%, soil organic carbon 1.08 to 1.92% and soil pH 6.4 to 6.75 were recorded in this site during this study period.

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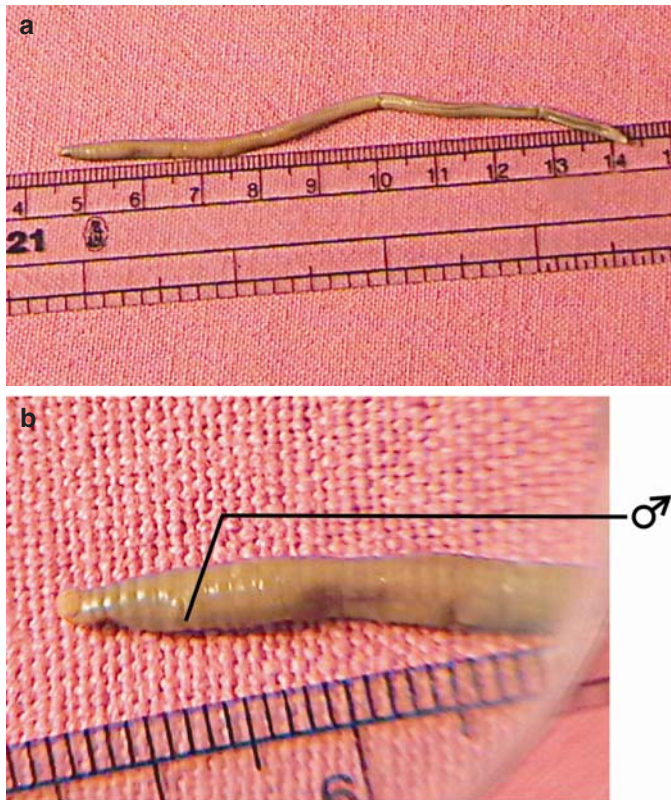
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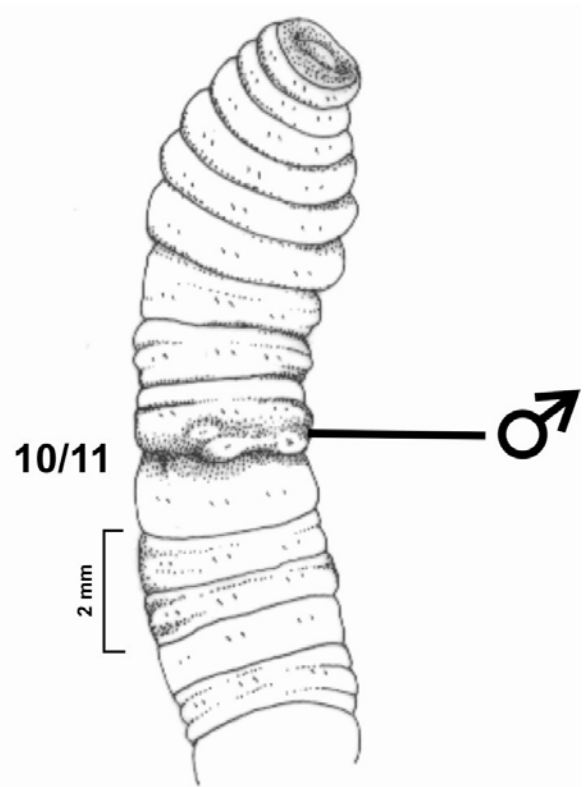
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**Image 1.** *Drawida papillifer papillifer* Stephenson. a - Entire worm, ventro-lateral view; b - Anterior end showing male genital region.



**Figure 1.** Anterior end of *Drawida papillifer papillifer* Stephenson, ventral view.

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