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On the report of a new world millipede (*Rhinotus purpureus*) from India

The Indian millipede fauna is diverse with many families and genera but remains seriously underexplored (Golovatch & Wesener 2016). Among the families of the order polyzoniida, Siphonotidae is the only family to have reports from the southern hemisphere (Enghoff *et al*. 2015, Anilkumar *et al*. 2022). The tropical tramp species of this family, *Rhinotus purpureus* (Pocock, 1894) shows a cosmopolitan distribution. It has been repeatedly described as a new species leading to more than a dozen synonyms (Hoffman 1980). It is designated as a common tramp species as it is frequently found in green houses and other synanthropic habitats from many different parts of the world including Kew Gardens in England (Read 2008), green houses in Germany (Decker *et al*. 2014), Central America and Southern USA (Mauriès 1980), Comoro Islands, Madagascar and Indian Ocean Islands (Vandenspiegel & Golovatch 2007). The present study provides the first record of *R. purpureus*, from the Indian subcontinent.

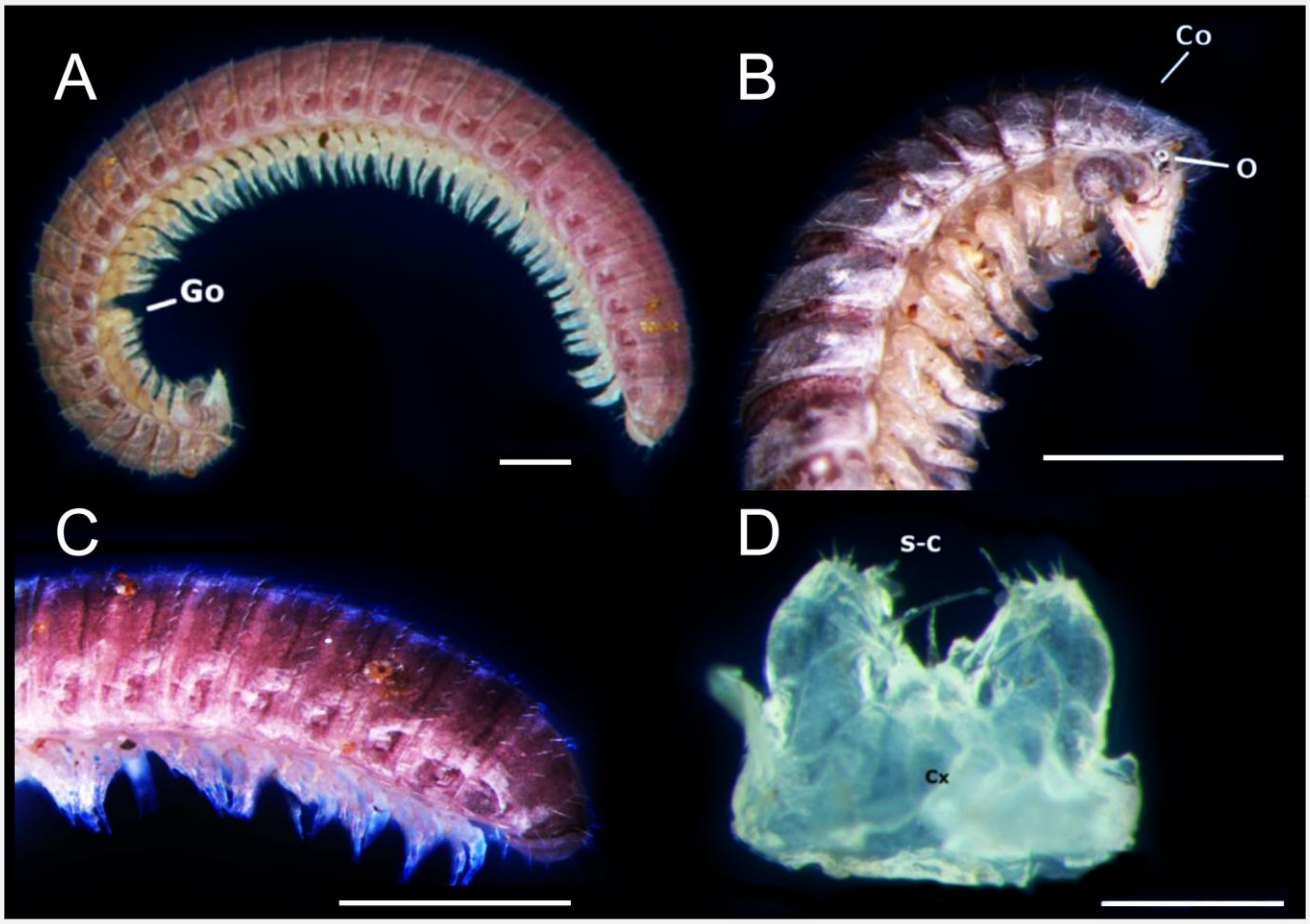
Specimens were hand collected from a sacred grove in the Kannur district of Kerala, India. The local name of the grove is Thekkumbadu Koolom—Thazhekkavu, which is located on an inland island bordered by thick mangroves. The samples were collected in October 2021 (post monsoon season) and are preserved in 96% ethanol. The specimens are deposited in the Diplopoda collection of the Centre for Animal Taxonomy and Ecology (CATE), Christ College, Irinjalakuda, Kerala, India, with ID numbers: CATE 12031A (male) CATE 12031B (female). Multifocal photographs of specimens were taken in the laboratory with a Leica DMC4500 digital camera mounted on a Leica M205C stereo microscope. Photographs were fixed, and the measurements taken, using Leica Application Suite (LAS) version 4.3.0 software. The final images were processed with GNU Image Manipulation Program (GIMP 2.8.22) software.

The male millipedes were 1.6 cm in length and 0.66 mm wide, females were 1.5–2.3 cm in length and 0.57–0.84 mm wide. Male with 31 body rings + 1 telson, females up to 35 + 1 telson. Body pinkish purple color with pale pink legs, after preserving for 6 months in 96% ethanol (Fig. 1A). The millipede has a triangular head with a single large ocellus on each side. A macrosetae is located along the bottom of each ocellus. Antennae stout, slightly broader at the end (Fig 1B). Collum large, faintly convex and partially extending forward to head covering initial half of ocelli. Collum is sparsely setaceous with short setae. Body slightly convex and flat. Circular ozopores, located at mesozonite. Tergites smooth with two lateral rows of short setae. Legs short without any tarsal brushes, tarsi of legs arranged as thick tufts of hair (Fig. 1C). Slight extension of tarsi commonly referred as an accessory claw present on walking legs. Preanal ring slightly pointed downwards and hardly extending the telson (Fig. 1C). Telson is much shorter than preanal ring. Three pairs of setae on anal valves and a single pair of anal setae present on telson. Gonopods clearly resemble the previous descriptions and illustrations (e.g., Golovatch & Korsos 1992, Wesener 2014) (Figs. 1E, 1F).

Anterior gonopod has a huge coxa (cx) and the sternite (st) of the anterior gonopod has bilobulated extensions with each lobe carrying a long seta on the telopodite (post femoral segments) region of the anterior gonopod. Telopodite massive, bulbous and stout with around 4 setae at the terminal (Fig. 1D, 1E). Posterior gonopod also with a huge coxa (cx) and indistinguishable (slightly fused) podomeres with a long and slender tarsus. The sternite is separate with rectangular lobes carrying 4 or 5 setae (Figs. 1D, 1F).

This species was originally described from the high-altitude mountain forests of St. Vincent in the West Indies (Pocock 1894) but it shows an abnormal distribution by being present all across the world. This makes it thought to be an introduced species in the non-tropical parts of the

Plate 25



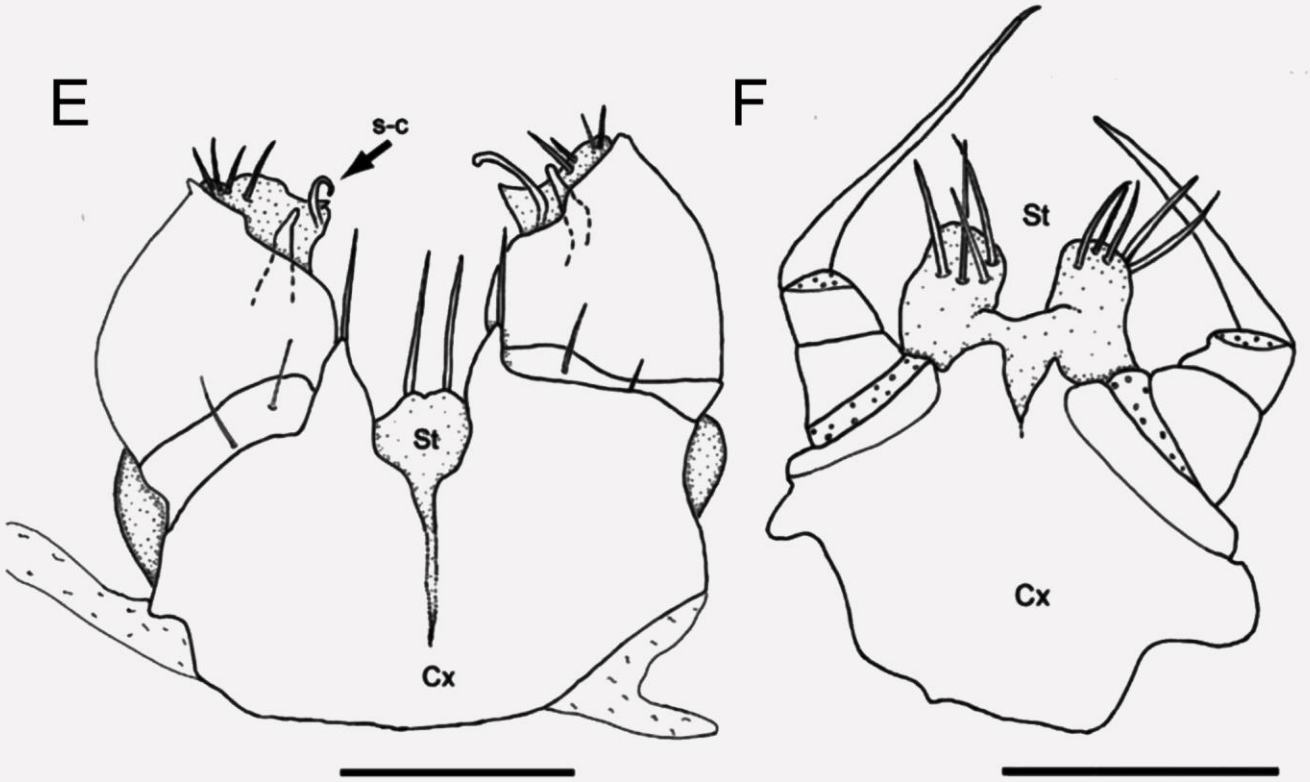


Figure 1. *Rhinotus purpureus* **(A)** male full body, lateral view (scale: 0.2 mm); **(B)** female anterior body, lateral view (scale: 0.5 mm); **(C)** anal segments (scale: 0.5 mm), lateral view; **(D)** anterior and posterior gonopods (scale: 0.1 mm); **(E, F)** line drawings of gonopods, after Wesener (2014); **Co**, collum; **cx**, coxa; **Go**, gonopod; **O**, ocellus; **st**, sternum; **s-c**, apical end canal of posterior gonopod

world. However, Enghoff *et al*. (2015) notes that there could be perhaps five species within this genus. The distribution and origin of this species can only properly be understood by extensive molecular phylogenetic studies.

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