



Short Communication

New record of *Hydaticus (Prodaticus) Bipunctatus Bipunctatus* Wehncke, 1876 (Coleoptera: Dytiscidae) from Meghalaya

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Abstract

Hydaticus (Prodaticus) bipunctatus bipunctatus has previously been reported from two other States of North East India - Sikkim (Mukherjee and Sengupta, 1986) and Manipur (Mukhopadhyay and Ghosh, 2003). Therefore, the present report of the species from Meghalaya makes it the 3rd state in this region where the distribution of this species has been confirmed.

Keywords: Coleoptera, Dytiscidae, *Hydaticus*, Meghalaya

Introduction

Hydaticus Leach, 1817 is a large genus under the family Dytiscidae which comprises of predatory water beetles. These beetles generally occupy clean and fresh macrophytic leaves near bottom along littoral zone of both lentic and lotic freshwater habitats. *Hydaticus (Prodaticus) bipunctatus bipunctatus* Wehncke, 1876 was originally described from the Philippines. In India, it was first reported from the Andaman Islands (Wewalka 1982). Thereafter, the species has been reported from Kerala (Mukherjee & Sengupta, 1986), Sikkim (Mukhopadhyay & Ghosh, 2003) and Manipur (Mukhopadhyay & Ghosh, 2004). So far, from Meghalaya only two species of *Hydaticus* Leach, 1817 have been reported: *Hydaticus luczonicus* Aube, 1838, and *Hydaticus vittatus vittatus* (Fabricius, 1775) (Mukhopadhyay *et al.*, 2000).

In the course of study of aquatic beetles collected from Jaiñtia Hills, one of the least explored and ecologically threatened part of Meghalaya, the author came across two specimens of *Hydaticus* collected from Wah Kongong in East Jaiñtia Hills District, Meghalaya. These specimens are identified as *Hydaticus (Prodaticus) bipunctatus bipunctatus* Wehncke, 1876, based on observed diagnostic characters and confirmed with available literatures on

the species (Ghosh and Nilsson, 2012; Wewalka, 1975b; Vazirani, 1969; 1973; 1977). *Hydaticus (Prodaticus) bipunctatus bipunctatus* Wehncke, 1876, has not yet been reported from Meghalaya. Therefore, the present paper forms the first confirmed report on the availability of this species in Meghalaya.

Systematic Accounts

Order	COLEOPTERA
Suborder	ADEPHAGA
Family	DYTISCIDAE
Subfamily	DYTISCINAE
Tribe	HYDITICINI

Hydaticus (Prodaticus) bipunctatus bipunctatus WEHNCKE, 1876

1876. *Hydaticus bipunctatus* Wehncke *Stett.Ent. Zeit.*, 47: 196 (T.L.- Philippines).

Material examined: 2 specimens (1 male and 1 female) collected from Wah ('Wah' is local term for 'river') Kongong, Kongong village, East Jaiñtia Hills District, Meghalaya (Lat. 25°25'04.8", Long. 092°17'06.5", 1304 meters ASL) and Collected by Mrs Jennifer Lyngdoh on 24.01.2006.

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Diagnosis : Length: male: 15 mm, female: 12 mm; Form oval and moderately convex; Head black; Pronotum black with sides blending into yellow along the anterior margin behind eyes; Elytra black in colour with two humeral and submarginal bright/golden-yellow longitudinal lateral stripes not joined posteriorly on both side, humeral stripe running from the base to the apex slightly curved inwards and ending in the form of crochet whereas submarginal stripe comparatively broader than humeral stripe ending before the middle of the elytra; three basal segment of protarsi largely dilated and provided with 'sucker pallettes', mesotarsi with two rows of 'sessile pallettes' on the basal three segments in male.

Distribution: India: Andaman and Nicobar Islands, Kerala, Sikkim, Manipur and Meghalaya. *Elsewhere:* Indonesia, Philippines, Vietnam.

Remarks: First report from Meghalaya.



Figure 1. Dorsum of the *Hydaticus (Prodaticus) bipunctatus bipunctatus* Wehncke, 1876 specimen from Meghalaya.

Discussion

Although the species *Hydaticus (Prodaticus) bipunctatus bipunctatus* Wehncke, 1876 is one of the most widely distributed species of aquatic beetle in India, the first

report from Meghalaya is of significance since the specimens concerned were collected from Wah Kongong in East Jaiñtia Hills. Kongong village is one of the many villages in the area that has felt the detrimental impact of the unscientific 'rat-hole mining' and dumping of coal that is practiced in the State. In fact, the East Jaiñtia Hills area of Meghalaya, as a whole, is environmentally disturbed/degraded due to large-scale unscientific mining of coal and limestone. This anthropogenic activity has resulted in the pollution of all major rivers and numerous other streams and rivulets flowing through this part of the State. It is a well-established fact that pollution poses threats to the continued existence of diverse plants and animals (Anonymous 2013; 2014; 2015; 2017) and to the sustainability of the river itself. Pollution of freshwater habitats in the Jaiñtia Hills area is mainly from acid mine drainage due to coal mining activity and the resultant land-use change patterns. Acid mine drainage lowers the pH of the water, making it highly acidic, and rendering the river effectively 'dead' since no aquatic life forms can tolerate such an acidic environment. There are a number of such 'dead' rivers criss-crossing the East and West Jaiñtia Hills of Meghalaya, where not even a single life form can be found. That, the specimens of *Hydaticus (Prodaticus) bipunctatus bipunctatus*, forming the first record of the species from Meghalaya, was found in an ecologically threatened water body, is a positive indication that there is still hope for Meghalaya's rivers. But timely protective measures are to be taken up to protect this and other aquatic habitats in the region, to ensure the continued survival of the rich biota that these rivers and streams support.

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