

DISTRIBUTIONAL REPORT OF *GOMPHIDIA T-NIGRUM* SELYS, 1854 (INSECTA: ODONATA) ALONG WITH ITS FIRST RECORD FROM WEST BENGAL, INDIA

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ABSTRACT

This paper presents the first sighting report and breeding ecology of *Gomphidia t-nigrum* Selys, 1854, from West Bengal, India. This study encompasses the brief identification, habitat preferences and distribution of this elusive species.

KEYWORDS

New record, West Bengal, Odonata, *Gomphidia t-nigrum*, ecology

Gomphidia t-nigrum Selys, 1854 commonly known as Indian Tiger, is a large and robust dragonfly belonging to the family Gomphidae Rambur, 1842. In India, the genus *Gomphidia* Selys, 1854 is represented by seven species (Subramanian & Babu, 2017) and in West Bengal, only two species viz., *Gomphidia leonora* Mitra, 1994 and *Gomphidia williamsoni* Fraser, 1923 were found till date (Dawn, 2021). *G. t-nigrum* is reported from India, Pakistan and Nepal (Kalkman *et al.*, 2020). In India, it has been reported from Andaman and Nicobar Island, Assam, Himachal Pradesh, Maharashtra,

Odisha, Rajasthan, Tamil Nadu and Uttar Pradesh (Singh, 2022). There is no previous record of the occurrence of this species from West Bengal (Dawn, 2021; Roy *et al.*, 2022). Hence this present report is the first record from the state of West Bengal, India.

During an opportunistic survey, on 1 June 2023, the author AS found a large adult dragonfly of Gomphidae family while it was resting; the next day, AS found a better view of an individual teneral of the same species (Figs. 1-2). The first observation was made on the river bank of Silabati River (22°59'22.2" N, 86°59'56.0" E; 76m asl) (study site S1) and the teneral of the same species was observed inside the village of Kadma (22°59'09.7" N, 87°00'22.8" E; 95m asl), Bankura district, West Bengal, India (study site S2). Photographs were taken by using Nikon D5300 and Nikkor Af-P 70-300mm lens. The study site S1 is a riverine habitat with rocky riverbed and the flow of the river is slow in summer and study site S2 is a rural village habitat with agricultural fields,

mixed vegetation along with ponds and an irrigation canal.

With the help of Fraser (1934) and the members of the 'iNaturalist' web portal, authors concluded from the images of the adult and teneral that it was a *Gomphidia t-nigrum* dragonfly. *G. t-nigrum* is a large dragonfly with abdominal size 53 mm (both the sexes), male hindwing 38 mm and female hindwing 43 mm (Fraser, 1934). Field characteristics for male include bluish eyes with bright yellow lips, face and frons, upper surface of the frons marked with a black line which forms a 'T'; vertex black and occiput yellow; black thorax with a broad yellow bar interrupted at the mid-dorsal part; sides yellow with broad black stripes; legs black; wings transparent with a pale yellowish brown spot, pterostigma yellow bordered with black; abdomen black, broadly marked with yellow as follows – segment 4 to 6 with broad yellow dorsal spots, segments 7 and 8 largely yellow, segments 9 and 10 are unmarked, segments 7 to 9 without leaf-like dilations as in Tigertails (Fraser, 1934; Singh, 2022). Females are similar to males in colouration and markings (Singh, 2022). *G. t-nigrum* prefers slow-moving river habitats, where it is usually found perched on vegetation along the riverbanks, lakes or dam and is known to patrol the borders of water bodies for long distances (Subramanian *et al.*, 2018).

The present communication not only reports a new species for the state of West Bengal, but also reports an observation of teneral of the same, from the nearby area indicates its breeding distribution in the region.

ACKNOWLEDGEMENTS

Authors thankfully acknowledge kind cooperation and encouragement of Mr. Subhajit Roy and are also thankful to Mr. Amila Sumanapala, Mr. Swarochi Tathagath and Mr. Tejas Mehendale, members of the 'iNaturalist' web portal for their help in identification.

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Fig 1: Adult female *Gomphidia t-nigrum* from Study site S1 on 1st June 2023



Fig 2: Teneral *Gomphidia t-nigrum* from Study site S2 on 2nd June 2023