

A REPORT ON INTER-GENERIC MATING BETWEEN COMMON CROW *EUPLOEA CORE* AND GREAT EGGFLY *HYPOLIMNAS BOLINA* BUTTERFLIES FROM KHATRA, BANKURA, WEST BENGAL, INDIA

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Since the beginning of life on this planet inter-specific hybridization has been a primary mechanism of evolution in the plant kingdom but successful hybridization in animals has been seen with lots of scepticism (Mallet, 2007). Examples of inter-specific, inter-generic or interfamilial mating are rather rare in nature (Bhakare & Smetacek, 2010).

During a recent field visit in Khatra village of Bankura district on 29 May 2020 at 09:54 hr, the authors observed an inter-generic mating between two butterflies of different subfamilies under the family Nymphalidae. Reviewing the literature on butterfly identification and identification marks based on Evans (1932) and Kehimkar (2016) the species were identified as a Great Eggfly *Hypolimnas bolina* (Linnaeus, 1758) and a Common Crow *Euploea core* (Cramer, 1780). The male specimen was identified as Great Eggfly *H. bolina*, under the subfamily *Nymphalinae* and the female specimen was identified as Common Crow *E. core* which belongs under the subfamily *Danainae* (Kehimkar, 2016). When the authors

reached the study area, they saw the pair was already in copulation and the copulation continued for the next 8-10 minutes. This copulation behaviour was photographed using the mobile camera Redmi note 5pro.

The study area (22.97°N & 86.84°E, with 125m elevation) is a small forest surrounded by large amount of Palash (*Butea monosperma*) & Mahua (*Madhusa longifolia*) trees along with other tree species. It is home to lots of bird, butterfly and plant species.

It is believed that hybridization in the animal kingdom is generally an evolutionary dead end or short-lived mistake (Rhymer & Simberloff, 1996). Though a similar case has been reported by Mahato (2022), where he reported inter-generic mating between Pea Blue *Lampides boeticus* (Linnaeus) & Forget-me-not *Catochrysops strabo* (Fabricius) from a village of Purulia, West Bengal, in that report both of the species were from the same subfamily (Mahato, 2022). In the present case, authors report inter-generic

mating of a Great Eggfly *Hypolimnas bolina* and Common Crow *Euploea core*. Both of the butterflies are not only from different genera but are also from different subfamilies where Great Eggfly *Hypolimnas bolina* belongs to the Nymphalinae and Common Crow *Euploea core* belongs to the Danaeinae.

This type of mating behaviour is often rare in nature. Such observations on breakdown of species reproductive barriers offer important insights into the subject, giving a tough time to taxonomists and evolutionary biologists (Jiggins, 2008). Previously one research on butterfly diversity was published from Bankura which reported 117 species of butterflies under 78 genera from different habitats of Bankura. The species to genera ratio was 1.5 (Mukherjee & Mondal, 2020) which indicates strong intra-generic competition (Elton, 1946). Therefore, our present study is an addition to the existing literature on inter-generic mating behaviour from the district of Bankura, West Bengal.

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Image: Inter-generic mating between Great Eggfly *Hypolimnys bolina* (Linnaeus) of Nymphalinae subfamily and Common Crow *Euploea core* (Cramer) of Danainae subfamily.
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