

First record of the rare Anomalous Nawab *Polyura* (=*Charaxes*) *agrarius* (Swinhoe, 1887) (Lepidoptera: Nymphalidae: Charaxinae) from Purulia, West Bengal, India



Anomalous Nawab showing the identifying character of two small pale yellow dots in the sub-apical region of the forewing. © Supriya Samanta.

The butterfly Anomalous Nawab *Polyura agrarius* (Swinhoe, 1887) has a localized distribution in India with records from southern to central (including Gujarat and Rajasthan), northern (Uttarakhand, Punjab, and Himachal Pradesh), and north eastern parts of the country (Kehimkar 2016; Mehra et al. 2017; Smetacek 2017). This species is considered as uncommon or rare due its specialized habitat, patchy distribution and low population density (Kehimkar 2016; Smetacek 2017) though its status has not yet been evaluated by the International Union for Conservation of Nature and Natural Resources (IUCN). The present study reports a new distribution record for this species from Purulia in West Bengal, eastern India, which expands its distribution range in the country.

Butterflies commonly known as Nawabs are included in the genus *Polyura*. They



belong to the brush-footed butterflies of the subfamily Charaxinae under the family Nymphalidae. Distribution of *Polyura*, which contains 26 species (Smile 1982), is restricted to the Indo-Malayan and Australasian ecozones (Toussaint et al. 2015).

The taxonomic status of *Polyura agrarius* has been a matter of argument among lepidopterists. The species was first



*Helictres isora* (Linneaus), the tree on which Anomalous Nawab was perching at the time of observation. © Supriya Samanta.

reported by Swinhoe (1887) from Mhow and Assirghur in Madhya Pradesh, India. Swinhoe (1887) placed this species under the genus *Charaxes*. Its species status was questioned by several lepidopterists such as Rothschild & Jordan (1899), Bingham (1905), Evans (1932), and Wynter-Blyth (1957). They preferred to treat *P. agrarius* as a subspecies of *P. bharata* Felder, 1867 (then *P. athamas* Drury, 1773). The taxonomic puzzle continued for more than a century until recent molecular studies by Toussaint et al. (2015) confirmed the species status of *P. agrarius*.

During a recent field study on 06 December 2017, one specimen of *P. agrarius* was recorded from Joychandi Pahar situated in the Purulia District of West Bengal, India. The butterfly was photographed using Canon EOS 750D with Canon 55–250 mm lens at 12.08h. The butterfly was perching on a leaf of a *Helictres isora* (Linneaus) tree. The specimen was not collected. It was identified on the basis of two small pale yellow dots present in the sub-apical region of the forewing. The image was uploaded in the Butterflies of India website with media code cr233 (Lovalekar et al. 2018).

Joychandi Pahar in Purulia is located at 23.55°N & 86.67°E. It has an average elevation of 155m. The area forms the





Distribution of Anomalous Nawab in the Indian subcontinent including the present report from Joychandi Pahar in Purulia, West Bengal (green circle). (Captured on 07.11.2018 from the Butterflies of India website; Lovalekar et al. 2018).

lowest step of the Chota Nagpur Plateau. The published records of the butterfly diversity of Purulia District in recent times by Samanta et al. 2017 and Das 2018 documented 54 and 71 species respectively including Common Nawab (*P. athamas* Drury, 1773), the closest relative of *P. agrarius*.

The present observation is the first record of *P. agrarius* from West Bengal as well as from the eastern part of India. As this is a single observation record, more intensive field surveys are necessary to find out the population status of the species in this part of India. *Polyura agrarius* is known to be sympatric with *P. athamas* and prefers similar habitats (Mehra et al. 2017). During the present observation, three specimens of *P. athamas* were found to be perching on the same tree with *P. agrarius*. As suggested by Mehra et al. (2017), competition for available resources between these two sympatric species might be limiting the population size of *P. agrarius*.

Incorporating the present observation the updated distribution range of the *P. agrarius* is from southern to central India (including Gujarat, Rajasthan), northern India (Uttarakhand, Punjab and Himachal Pradesh), northeastern India and Eastern India (West Bengal).

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