

**SIGHTINGS OF *JAMIDES BOCHUS* (STOLL, [1782])
AND *PROSOTAS NORA* (C. FELDER, 1860)
(INSECTA: LEPIDOPTERA: LYCAENIDAE)
FROM URBANIZED PARTS OF NEW DELHI, INDIA**

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The population of Delhi has increased seventy fold during the last century, with concurrent expansion of urban or concretized landscape (Anonymous, 1912; Anonymous, 2011). Presently, the urbanized portion of Delhi is dotted with numerous parks and gardens harbouring domesticated flora. An evident effect of urbanization of a geographical area is change in the species composition of plants and animals, and, in fact, urbanization introduces novel ecosystems (Lepczyk *et al.*, 2017; Donahue & Lambert, 2015). Insects such as butterflies, which require larval host plants for their survival and are sensitive to the effect of urbanization, can act as an indicator of biodiversity in urban settings (Clark *et al.*, 2007; Fontaine *et al.*, 2016; Dennis *et al.*, 2017). Also, butterflies are well documented and surveyed, they are relatively easy to identify and there is a wealth of information about their life histories.

The first partial list of butterflies of Delhi was prepared by Longstaff (1912), mentioning 21 species. An elaborate list of 62 butterflies was made by Jandu (1942, 1943) and Donahue (1967) listed 77 species of butterflies. The list was expanded to include 86 species by Larsen (2002). Recently, a checklist of 115 species of butterflies seen in Delhi was published by Biswas *et al.* (2017). The increase in the butterfly count over time, as evident from these lists, could be the effects of gradual changes in the pattern of floral diversity and habitat due to horticultural practices and urbanization. Alternatively, it may merely be the result of increased observation.

Here, we report the recent sightings of two species of butterflies, *Jamides bochus* (Dark Cerulean) and *Prosotas nora* (Common Lineblue) from the urbanized areas of Delhi. Both the species of butterflies have been reported to be sighted rarely in Delhi by earlier workers (Donahue, 1967; Larsen, 2002).

Jamides bochus was sighted on three occasions between October, 2018 and February, 2019. All the individuals sighted were males as was evident from the iridescent blue coloration of the upperside of their wings. The first sighting took place during the afternoon of October 2, 2018. The butterfly was fluttering around hedges in bright sunlight at District Park, Pitam Pura, Northwest Delhi. The second and third sightings were on the campus of Acharya Narendra Dev College, Govindpuri, Kalkaji in Southeast Delhi, on November 12, 2018 and February 5, 2019. Individuals were observed for more than one minute and the underside of the wings was photographed with digital SLR (Nikon D 500) and cell phone (Motorola G5S Plus) cameras, after the butterflies briefly settled on foliage.

A male *Prosotas nora* was sighted on one occasion on August 14, 2018 in Shalimar Bagh Garden, Shalimar Bagh, Northwest Delhi. The butterfly was found puddling on the ground. It was observed for about two minutes and photographs of the upperside and underside of wings were taken with a digital SLR camera (Nikon D 500).

Three sightings of *Jamides bochus* and one of *Prosotas nora* in urbanized parts of Delhi

as reported here, may be of significance. These Lycaenids are common along the foothills of Himalayas. They have been infrequently recorded from Delhi. One specimen of *Jamides bochus* was recorded in the year 1985 from Hauz Khas Park (Larsen, 2002)- a large green area with semi-natural vegetation and in late 1990s, from Sanjay Van- a forested area (Dr. Surya Prakash *pers. comm.*). There is only one record of *Prosotas nora* from 1962 of three male butterflies (Donahue, 1967; Larsen, 2002). Our recent sightings may reflect gradually changing floristic pattern of Delhi, particularly in the urbanized areas, favouring the existence of both these Lycaenids. It would be useful to encourage the host plants of *Jamides bochus*, i.e. *Pongamia pinnata* and *Millettia peguensis* and that of *Prosotas nora* i.e. *Pithecellobium dulce* in urbanized Delhi; in fact, the increased presence of these plants could be the reason for the recent, relatively frequent sightings of these two butterflies species (Palot, 2012). Another explanation for the increased sightings of *Jamides bochus* could be its facultative migration into Delhi, as this butterfly is known to migrate (Palot, 2012; Ravikantachari *et al.*, 2018). These speculations, however, need to be validated by long-term studies.

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