

Research Notes

RANGE EXTENSION OF THE BENGAL SPOTTED FLAT BUTTERFLY, *CELAENORRHINUS PUTRA* IN MUMBAI, MAHARASHTRA

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The author hereby reports the occurrence and range extension of the Bengal Spotted Flat *Celaenorrhinus putra* (Moore, [1866]) in Mumbai, Maharashtra. The butterfly was seen many times in the butterfly garden of the BNHS Nature Reserve. Here is a list of dates on which the species was photographed nectaring in the butterfly garden in the BNHS Nature Reserve in Goregaon, Mumbai:

08 November 2016 (2 individuals, 09.30 am), 21 September 2017 (2 individuals, 10.18 am, 06.45 pm), 8 October 2017 (one individual, 9.35 am), 9 October 2017 (two individuals, 11.10 am), 13 October 2017 (one individual, 12.45 pm), 16 October 2017 (one individual, 9.45 am) and 10 October 2018 (3 individuals, 4 pm till 06.30 pm).

Some of the best pictures of the species have been uploaded on Wikipedia commons website (<https://en.wikipedia.org>) and available for review. The species can be identified from the two big semi-transparent spots on the upperside of forewings which are loosely connected, but the top most spot does not touch the leading edge of the fore wing. Whereas in Common Spotted Flat *Celaenorrhinus leucocera* (Kollar, [1844]) the semi-transparent white spots on the upperside of forewings are joined together and the top most spot touches the leading edge of the fore wing.

Bengal Spotted Flat was observed nectaring in the mornings or evenings. On all occasions it was nectaring on the Indian Snakeweed *Stachytarpheta indica*. Only once it was seen patrolling a small area of less than 10 square metres in the evening. The flight was swift and hovered in circles around a forest path. All the observations were taken during the three months of September, October and November. There is another similar looking species of skipper, namely, the Common Spotted Flat *Celaenorrhinus leucocera* (Kollar, [1844]). The photographs were segregated using the field guides mentioned in the references.

BNHS Nature Reserve is a 33 acres dense forest land where the Conservation Education Centre of BNHS is situated. It lies nestled between the Sanjay Gandhi National Park and the Dadasaheb Phalke Film City in Mumbai.

Bengal Spotted Flat was reported from only Sikkim to North-east India (Kehimkar, 2008 and 2016); Varshney & Smetacek (eds.) (2015). It is also found beyond Nepal, Bhutan and Myanmar.

It was not reported in South India in these older publications. Publications related to butterflies of Mumbai area also did not mention any sightings of the species (Gaonkar, 1996; Sharma & Chaturvedi, 2006; Patwardhan, 2010; Kasambe, 2012; Rodrigues, 2012; Patwardhan, 2014).

However the website (Bhakare et al. 2018) has many photographic records of the species from South India, most taken after 2008. There are photographic records from Amboli, (district Sindhudurg, Maharashtra), Dandeli in Uttara Kannada District of northern Karnataka southward to central Kerala in the Western Ghats, ca 1,500 to 2,000 km away from the previously known range of the species (Bhakare et al. 2018). Now there are many records of the species from Goa, Karnataka and Kerala. The website also has three photographs by Vikrant Jathar taken on 17 October 2014 and by Abhijit Jagtap taken on 18 October 2014, in Yeoor range of Sanjay Gandhi National Park, district Thane.

The *BNHS Field Guide—Butterflies of India* by Kehimkar (2016) also mentions the updated distribution of the species in south India as "Western Ghats (Maharashtra southwards)". These observations by the author clearly indicate range extension of the species upto Mumbai where as it was reported in Western Ghats.

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RECORD OF CHOCOLATE ALBATROSS BUTTERFLY, *APPIAS LYNCIDA* IN THANE CREEK FLAMINGO SANCTUARY, MUMBAI (MAHARASHTRA)

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On 27th October 2012, the author visited Bhandup Pumping Station area for survey of birds and butterflies. The area has been declared as Thane Creek Flamingo Sanctuary in 2015. During the survey the author found a butterfly which was photographed by his friend Mr. Nandish Songire. It had the underside of hind wing bright yellow with outer border chocolate in colour. It was later identified as Chocolate Albatross *Appias lyncida* (Boisduval, 1836) from the photograph.

There are only few records of the species from Mumbai area. Patwardhan (2010) recorded a specimen on 29th October 2006 and a second on 02nd November 2009 in Sanjay Gandhi National Park (SGNP).

The website www.ifoundbutterflies.org (Saji et al. 2018) has two photographic records from SGNP, one by Sarvesh Abhyankar of an individual on 01st May 2015 and another by Yuwaraj Gurjar on 02nd November 2008. There are two records by Swapnil Lokhande 10th December 2011 and 13th

January 2014 from IIT Powai campus, Mumbai. There is one record from Pelhar dam, Vasai in Palghar district, which is northwards.

Another nearest record is from Kihim in Raigad district. The species was photographed by Salman Abdulali here. There are more records from farther south, i.e. Ratnagiri and Sindhudurg districts in Maharashtra and down south in www.ifoundbutterflies.org (Saji et al. 2018).

Wynter-Blyth (1957) mentions the distribution of the species as "along the foot of the Western Ghats and in the Nilgiris". Kehimkar (2016) gives the updated distribution as "South India up to Mumbai, Uttarakhand, Arunachal Pradesh, Northeast, Odisha & Nicobar Islands".

Chocolate Albatross is a rare butterfly in Mumbai area and only above few records of sightings are available. This one is from Thane Creek Flamingo Sanctuary where the habitat is mostly mangroves, littoral forest, mudflats and salt pans, thus very different from SGNP and the Western Ghats. Sighting of the rare species in such an open habitat is an important record. The record quoted in the note might reveal the northernmost limit of distribution of the species in South India.

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[Other references are as given in the above research note

—Ed.]