

First report *Libythea* Fabricius, 1807 from Similipal Biosphere Reserve, Odisha, India



Underwing view of Libythea Fabricius, 1807

Libythea Fabricius, 1807, commonly known as beak is characterized by enormous prolongation of the palpi giving an appearance of a beak in front of head has small and angular fore wings (Sharma et al., 2013). Genus *Libythea* is represented by 12 species throughout the world (Varshney, 2010). The different species of *Libythea* are generally uniform in size, in their peculiar and strong falcated outline, and in colouration except the specific distinction in the markings of the upperside. The upperside of their wings is brown with some tawny or whitish markings, the variations in which distinguishable one from the other of their species. The underside is clouded and striated with similar protective colouration, varying in tone in each species but uniform in style throughout the genus (Sharma et al., 2013). Genus *Libythea* Fabricius, 1807 was previously recorded from places ranging from Jammu and Kashmir to Arunachal Pradesh





Similipal Biosphere Reserve, Odisha, India.

and foothills from 400m to 3000m (Singh, 2011) while Gupta and Majumdar, 2012 claims to have sighted this genus in the areas of Arunachal Pradesh, Assam, Himachal Pradesh, Meghalaya, Sikkim and South India. Kehimkar, 2016 recorded it in the North East India, Southern India upto Maharastra and Karnataka southwards, Northern part of West Bengal and Western Himalaya whereas Smetacek, 2017 reported its presence in the forests of ascending Himalaya to more than 2400m. There is only one record of this genus namely Common beak (Libythea lepita) from Sunabeda Wildlife Sanctuary, which is situated at the farthest western part of Odisha (Palei and Rath, 2014). But Libythea Fabricius, 1807 has never been recorded from Similipal Biosphere Reserve so far (Sahu et al., 2006; Nair, 2007; Sethy and Jena, 2009; Payra et al., 2016).

Material Methods and Study Area

Sample was photographed through opportunistic survey Method (Williams, 2015) at some stage in documentation of butterflies of Similipal Biosphere Reserve, Odisha, India. On the day of 2019 (03.06.19) at around 02.24 hrs (2:24:32 AM) during the field of survey we photographed one individuals of dull greyish brown butterfly on the ground during puddling, which is situated Devkund area of Similipal Biosphere Reserve, Odisha (extends between 21.705997°N latitude and 86.450532°E longitude). Information on this species is based on observation



Place of record Similipal Biosphere Reserve, Odisha, India through Google map with Latitude and longitude.



from 02.05 PM to 02.54 PM. Specimen was photographed for further identification process with the help of High Resolution Digital Camera (Cannon 550 D with EOS 18- 55mm lens) and the identification was identified and confirmed by several field guide books (Singh, 2011; Kehimkar, 2016; Smetacek, 2017).

Results

Description

Prolonged palpi giving an appearance of a beak in front of head, dull greyish brown in Underwing view with small and angular fore wings and crenulated hindwings.

Systematic position of *Libythea* Fabricius, 1807

Class: Insecta Order: Lepidoptera Family: Nymphalidae Sub Family: Libytheinae Genus: Libythea Fabricius, 1807

Discussion

Early distributional range

Libythea Fabricius, 1807 previously recorded from Jammu and Kashmir to Arunachal Pradesh (Singh, 2011); Arunachal Pradesh, Assam, Himachal Pradesh, Meghalaya, Sikkim, South India (Gupta and Majumdar, 2012); North East India, Southern India upto Maharastra and Karnataka southwards, Northern part of West Bengal, Western Himalaya (Kehimkar, 2016); forest of ascending Himalaya to more than 2400m (Smetacek, 2017). There is only one record of from Odisha. This is Common beak (*Libythea lepita*) from Sunabeda Wildlife Sanctuary, which is situated far western part Odisha (Palei and Rath, 2014). It is the second record of *Libythea* Fabricius, 1807 from the state Odisha. But *Libythea* Fabricius, 1807 never recorded from Similipal Biosphere Reserve (Sahu et al., 2006; Nair, 2007; Sethy and Jena, 2009; Payra et al., 2016).

Habitat structure of new locality

Similipal Biosphere reserve is situated in Mayurbhanj District of the State Odisha. The Similipal Biosphere Reserve (Latitude 20°10' to 22°12' N and Longitude 85°5' to 86°' E) with an area of 5569 km² is located in the central part of Mayurbhanj district of Odisha. The two neighboring states West Bengal, Jharkhand and two neighboring districts Balasore, Keonjhar surrounded this biosphere reserve its North-East, North-West, East and South-West border respectively. It falls under the biotic province of Chotanagpur plateau. The altitude of the Biosphere Reserve varies from 40 m to 1200 m. Humidity also varies from 70% to 100%. It experienced the tropical climate with temperatures ranging from 5°-15°C in winter and 30°-45°C in summer. The annual rainfall is about 2200mm. Similipal with its unique and diverse forest type such as dry deciduous, moist deciduous and semi evergreen forest



harbours rich and endemic faunal diversity. The specimen was photographed at Devkund of Mayurbhani District. The place of record lays 21.705997°N latitude and 86.450532°E longitude. The place is sixty km from Baripada and eighty five km from Balasore.

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