

# First record of *Euchariomyia dives* Bigot, 1888 (Diptera, Bombyliidae) from Jessore Sloth Bear Sanctuary, Gujarat, India

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**Abstract:** *Euchariomyia dives*, Bigot 1888 belonging to the family Bombyliidae is recorded from Jessore Sloth Bear Sanctuary in Gujarat State, India for the first time. The species has not been reported from Gujarat or any other dry-deciduous regions of India earlier.

**Key words:** *Euchariomyia*, Bombyliinae, *Euchariomyia dives*, dry-deciduous forest, Jessore Sloth Bear Sanctuary.

The subfamily Bombyliinae constitutes 72 genus comprising 1155 species (Catalogue of Life, 2021). India is home to 138 species assigned under 36 genera, 11 tribes and 8 subfamilies (Banerjee and Mitra, 2006). Bombyliinae is one of the largest subfamilies of bee flies with diversity higher in southern hemisphere than in the northern hemisphere (Li and Yeates, 2019). The parasitoid larvae of Bombyliinae feeds on immature stages of Orthoptera, Coleoptera and Hymenoptera (Yeates and Greathead, 1997). Bombyliinae subfamily includes a monotypic genus *Euchariomyia* (Hull, 1973). The genus exhibits sexual dimorphism with high variation in coloration of same sex specimens (Evenhuis and Gang, 2016). *Euchariomyia dives* is only species listed under *Euchariomyia* genus making it monotypic (COL, 2021).

## Results and Discussion:

### Systematics

Phylum: Arthropoda

Class: Insecta

Order: Diptera

Family: Bombyliidae

Subfamily: Bombyliinae

Tribe: Bombyliini

Genus: *Euchariomyia*

Species: *Euchariomyia dives* Bigot, 1888

### Diagnosis:

Based on the description by Evenhuis and Gang, 2016 we have listed a few identical morphological features that are readily noticeable in the photographs captured. Head: black with sparse hairs, male eyes are holoptic whereas female eyes are dichoptic. Presence of white scales above antennae on both sexes. Proboscis: black in both male and female with size three times the head. Wing: infuscated or dark brown, alula and lobe present with base of brown hair on edges. Thorax: scutellum brown pollinose; hairs and tomentum on thorax mostly orange yellow, postpronotal lobe with orange yellow long hairs, mesonotum with orange yellow long hairs anteriorly; scutellum is metallic blue shiny and almost bare, with orange yellow tomentum and opalescent scales anteriorly and laterally; scutellum with black bristles and thinner black hairs on posterior edge. Abdomen: black with hairs; female dorsum with dense fiery red or orange recumbent tomentum and few erect black



Fig 1. Mating behavior of *Eucharionomyia dives* at Jessore Sloth Bear Sanctuary. Photographs by Anuj D. Raina.

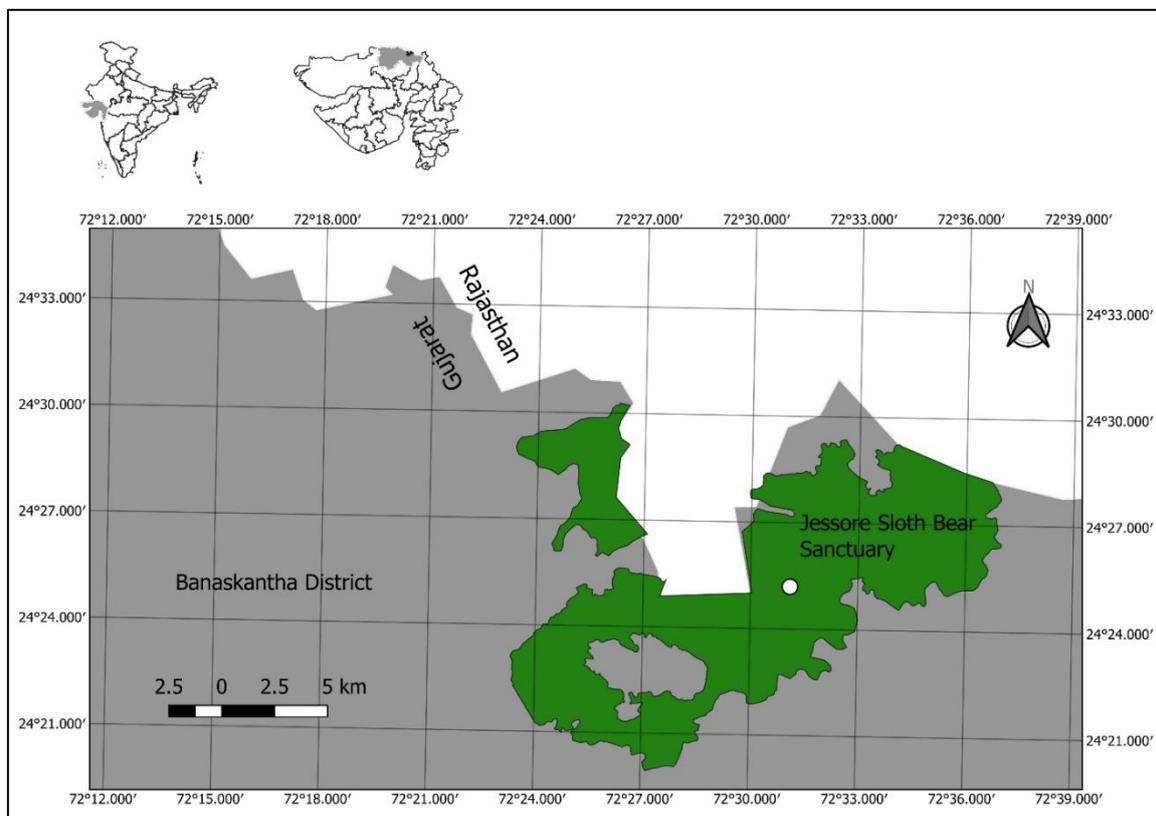


Fig 2. Map showing Jessore Sloth Bear Sanctuary on Gujarat-Rajasthan border and white point of *Eucharionomyia dives* sighting.

hairs on most tergites, whereas male has black abdomen having white silvery dense scales. Both sexes having sternites with black hairs and broad oval abdomen. Legs: long slender, dark brown; coxae with all hairs black, setae on legs black; femora with long sparse black hairs; tibiae and tarsi with short black hairs.

### **Distribution:**

Yao *et al.* (2009), describes its distribution in oriental regions of India (Kerala, Orissa, Tamil Nadu, Uttar Pradesh), Indonesia (Java), Laos, Sri Lanka, Thailand and Palearctic Region of China. Dhamorikar 2017 has listed the species from Mumbai Metropolitan Region, Maharashtra. So far, no published record from Gujarat exists.

### **Remarks:**

*Euchariomyia dives*, Bigot 1888 was sighted mating in Jessore Sloth Bear Sanctuary for first time on 24<sup>th</sup> June 2017 6:50 PM IST (coordinate 24.419862, 72.518392; altitude 645m asl).

During trekking and passing through grass vegetation, the *Euchariomyia dives* duo got disturbed and took slow swift flight shifting to safe point. The species was well photographed from all directions to note morphological features. The identification of photographs and characters were done using available literature (Yao *et al.*, 2009).

The forest has witnessed early shower, while the maximum rainfall of monsoon occurs during the month of July-August. The protected area of Sanctuary has hilly terrain covered with rocks. The Sanctuary lies in western region of Aravali range sharing close proximity with Mt Abu Wildlife Sanctuary of Rajasthan (Mt Abu: Highest peak of Aravali) and Balaram Ambaji

Wildlife Sanctuary of Gujarat. The dry deciduous forest type of ecosystem consists of arid to semi-arid and dry deciduous thorny scrub vegetation. The aerial distance as shown in Google map for *Euchariomyia dives* sighting and Rajasthan state is 1.06 km (approximate).

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