

morphological evidence. We have seen some South American species like *Nyceryx hyposticta* (Felder, 1874) and *Pachylia ficus* (L., 1758), showing two (or more) very distinct barcodes, but so far, we haven't been able to find any morphological difference justifying the split of *Nyceryx hyposticta* into different species. And last but not least, when the new technique was developed, my hope was that it could help clarify the status of species in some very complex genera, like *Perigonia* or *Neogene*. Unfortunately, this has not been the case; I am sorry to say that it is worse than before.

Now that the novelty has worn off and the confusion has set in, we have to consider the limitations of the barcode approach and recognize it as only one more approach, supplementing traditional approaches to distinguishing taxa within the species concept. It cannot be ignored, it helps a lot with cryptic species, sympatric twin species, but failed to clarify some very difficult genera, and in such cases, it can be misleading if overly relied upon. It has also been used to inflate the number of known species of some families, but that situation will be clarified in due course, with probably a lot of new synonymies being recognized among species described on the basis of over-reliance upon or the misinterpretation of DNA barcode data.

**FIRST REPORT OF *SATURNIA CIDOSA* MOORE, 1865
(LEPIDOPTERA: SATURNIIDAE) FROM ARUNACHAL
PRADESH AND NAGALAND, INDIA**

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Reviewer: Stefan Naumann

The saturniid moth *Saturnia cidosa* is hitherto reported only from "N.E. India" (Type Locality), Nepal (Moore 1865; Naumann & Loffler, 2005) and Bhutan (Irungbam &

Irungbam, 2019). Although Hampson (1892) synonymised *S. cidosa* with *S. pyretorum* Westwood, [1847], Naumann & Loffler (2005) revised the genus *Saturnia* Schrank,

1802 and recognised *S. cidosa* as a valid species distinguished from *S. pyretorum* by the wing pattern, size and male genitalia. Naumann & Loffler (2005) speculated that Moore's type locality, "N.E. India", might refer to present day Sikkim.

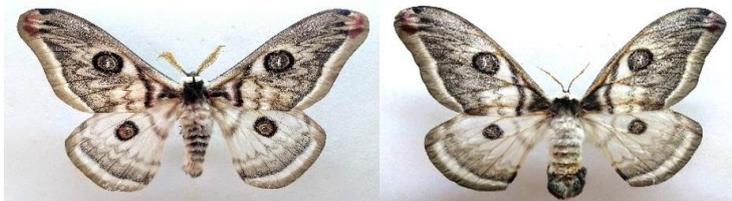
On 4 March, 2013, a moth of this species was photographed by AV sitting on a wall at Mayodia (95°54'36"E; 28°14'01"N) in the Mishmi Hills, Lower Dibang Valley district, Arunachal Pradesh at an elevation of around 2400 m.

On 27 March, 2014, AV photographed a male specimen of *S. cidosa* at Chizami (1000 m elevation)(25°59'18"N; 94°38'25" E), Phek district, Nagaland.

During regular surveys for collection of Lepidoptera across India by AJD, SH, and JMS, 24 specimens of Saturniidae (16 males and 8 females) were collected from the same location at Basar village (27°58'59.99" N and 94°41'59.99" E & 1,625 m elevation), West Siang District of Arunachal Pradesh. Basar is a blessed valley with fertile soil and undulating topography located at the confluence of three rivers and surrounded by tropical evergreen mixed forest that receives rainfall in both South West monsoon and North East monsoon.

The moths were attracted to the moth screen

made of white kada cloth with an incandescent lamp of 160 W suspended in front of it. The lamp was switched on at around 8 pm. Subsequently, in another half an hour, moths were attracted to the light. All 24 specimens (16 males and 8 females) that were collected from that location between 22.00 to 23.00 hrs. were identified as *S. cidosa*. The specimens were identified by consulting Moore (1865). The identified specimens were labelled, photographed, registered and deposited at the Parasitoid Taxonomy and Biocontrol Laboratory, Faculty of Agriculture, Annamalai University, Chidambaram. Although Moore (1865) and Naumann & Loffler (2005) reported this species from India (Sikkim) and Nepal, but the distribution of this species in India was not clear until now, since no subsequent reports or collections were made to confirm the distribution in India. Irungbam & Irungbam (2019) reported the species from several localities in Bhutan. The present study confirms the distribution of *Saturnia cidosa* from the extreme east and extreme west of Arunachal Pradesh as well as in Chizami, Nagaland.. Presumably, it is also found in suitable localities in Sikkim and the hill districts of West Bengal, since the distribution extends westwards as far as Pokhara in Nepal.



Male and female of *S. cidosa* Moore, 1865

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ADDITION OF COMMON JAY (*GRAPHIUM DOSON* (C. & R. FELDER, 1864)) TO THE BUTTERFLY FAUNA OF PAKISTAN

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Reviewer: Peter Smetacek

Abstract

The Common Jay butterfly (*Graphium doson*) is reported for the first time from Pakistan.

Introduction

In Pakistan, butterflies have not been well documented. So far, two major works have been published on the butterfly fauna of Pakistan: Roberts (2001), who listed 320 species and Tshikolovets & Pages (2016) who recorded 436 species. In the second publication, several new records of typically Indo-Malayan species were reported which were previously known from as far west as Jammu and Kashmir, Himachal Pradesh or even Kumaon in India. The extension of the known distribution westwards and the

substantial increase in the number of species between 2001 and 2016 is probably because most of the area had not been explored. Also, some species are expanding their range westwards.

In the present study, the newly recorded species, Common Jay (*Graphium doson* (C. & R. Felder, 1864)) has expanded its range from India towards the plains of Punjab (Pakistan) in the west.

Methodology

No specimens were collected. Muhammad Babar photographed this species on a Lime tree (*Citrus* sp.) at his home at Doctor's Housing Society, Lahore, Northeastern