

DIVERSITY OF TUSSOCK MOTHS BELONGING TO TRIBE NYGMIINI HOLLOWAY, 1999 (LYMANTRIINAE: EREBIDAE: LEPIDOPTERA) FROM CHITTAGONG UNIVERSITY, BANGLADESH WITH THREE NEW RECORDS

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Abstract

A total of 08 Nygmiini species belonging to 06 genera have been recorded from Chittagong University, Bangladesh during 2018-2021. Of them *Arna bipunctapex* (Hampson, 1891); *Sphrageidus xanthorrhoea* (Kollar, 1848) & *Nygmia hanuman* Kishida, 2020 have been reported for the first time from Bangladesh.

Keywords: Chittagong, Bangladesh, Nygmiini, *Nygmia hanuman*

Introduction

Tribe Nygmiini (Lymantriinae: Erebidae) was first erected by Holloway in 1999 which is characterized by the presence of corethrogyne at the abdominal tip of the females which is used to protect the egg mass. Other defining features include the following characteristics: the seventh abdominal segment is expanded and membranous, sometimes with basal margin stiffened as a sclerotised ring, diverse features in male and female genitalia etc. (Holloway, 1999).

The moths are diverse in the Oriental Region and the caterpillars often cause allergic reaction in human (Liao, 2010 & Wang, 2011). Hampson (1892) reported 53 species from erstwhile India, all within the polyphyletic (Liao, 2010) genus *Euproctis* Hübner, [1819] which later has been studied extensively by various authors like Holloway (1999) and many new genera were erected. The tribe has been proven to be not a monophyletic group in cladistic analysis by morphological characteristics (Liao, 2010).

Of the 53 species reported from India by Hampson (1892), only one species, *Euproctis*

rana Moore, [1866] was reported from Bangladesh (Sylhet) and following 08 species may have possible distribution in Bangladesh as they are said to be present throughout erstwhile India (Hampson, 1892): *Artaxa digramma* (Boisduval, 1844), *Artaxa guttata* Walker, 1855, *Euproctis flavinata* Walker, 1865, *Euproctis fraterna* Moore, 1883, *Euproctis lunata* Walker, 1855, *Euproctis semisignata* Walker, 1865, *Euproctis varians* Walker, 1855 and *Somena scintillans* Walker, 1856 respectively.

Previously, one Nygmiini species, *Euproctis* sp. was reported from the Chittagong University campus (Mazumdar, 2021).

Materials and Methods

Moths were observed routinely from various opportunistic locations of the Chittagong University campus, Bangladesh during 2018-2021 both during day and night time. The moths were photographed using a smartphone camera. Identification was based on Hampson (1892), Holloway (1999) & Kishida (2020).

Result and Discussion

A total of 08 species belonging to 06 genera were recorded during the study period. Of them, five moths have been identified up to

species level and three moths have been kept as genus level pending further confirmation.

Table 1. List of the species

Serial Number	Scientific Name	Comment
01	<i>Arna bipunctapex</i> (Hampson,1891)	New Record
02	<i>Artaxa guttata</i> Walker,1855	
03	<i>Artaxa</i> sp. 1	
04	<i>Euproctis</i> sp. 1	
05	<i>Euproctis</i> sp. 2	
06	<i>Somena scintillans</i> (Walker,1856)	
07	<i>Sphrageidus xanthorrhoea</i> (Kollar,1848)	New Record
08	<i>Nygmia hanuman</i> Kishida,2020	New Record

***Arna bipunctapex* (Hampson, 1891)**

Somena bipunctapex Hampson, 1891. *Illust. typical Specimens lepid. Heterocera Colln. Br. Mus.*, 8: 57, pl. 140:13.

The species occurs in China, Myanmar, India (Kangra, Nagas, Nilgiris), Taiwan, Sundaland (Hampson, 1892 & Holloway, 1999). It was first sighted in Chittagong University on 29.iii.2018.

***Sphrageidus xanthorrhoea* (Kollar, [1848])**

Liparis xanthorrhoea Kollar, [1848]. in *Hugel, Kaschmir und das Reich der Siek*, 4(2):470.

The species occurs in China, Indonesia, Java, Nepal, Sri Lanka & India (Jammu & Kashmir, Himachal Pradesh, Uttarakhand) (Kishida, 1993 & Kaleka, 2020). It is found adjacent to paddy field areas in Chittagong University campus.

***Nygmia hanuman* Kishida, 2020**

Nygmia hanuman Kishida, 2020. *Lymantriidae* in Y. Kishida (ed.), 2020 *Moths of Laos Part 1. Tinea Vol.25 (Supplement 2)*:120, pl. 55:10.

An individual was sighted on 10.xii.2019 which was formerly identified as *Nygmia* sp. 1 and has subsequently been identified as *Nygmia hanuman* Kishida, 2020. The species was described from Laos (Luang Prabang, Phou Khoun). The presence of this species outside the type locality will add further to the known distribution of this newly described taxon.

Conclusion

The findings of this study will help in developing the knowledge on Lepidopteran insects from Bangladesh. The newly recorded *Nygmia hanuman* Kishida, 2020 is the first sighting of the species after it's description as well as is the first report of the presence of this moth outside Laos.

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Figs.1-4: 1. *Arna bipunctapex*, 2 - 3. *Sphrageidus xanthorrhoea* and 4. *Nygmia hanuman*