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### RESEARCH ARTICLE

#### EREBID MOTHS REPORTED FROM JAMMU DISTRICT (JAMMU AND KASHMIR STATE), INDIA.

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#### Abstract

Erebidae is the largest family of the order Lepidoptera and well-defined group of moths. Moths of family Erebidae were investigated during May 2012 to April 2013 to determine their diversity and occurrence. All species of moths were collected by using simple light traps operated from dusk to dawn. Total 23 species under 22 genera were recorded from the study area.

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#### Introduction:-

The order Lepidoptera including moths and butterflies is one of the largest and important insect groups. The Erebidae are a family of moths, most of which were formerly classified in the family Noctuidae, plus all the former members of the families Arctiidae and Lymantriidae. Globally, it is known by approximately 24,569 belonging to eighteen subfamilies (Nieukerken *et al.* 2011). Family Erebidae is of massive economic importance as it includes a large number of major and minor pest species. The caterpillar of various species attack different agricultural crops, forest trees and ornamental plants. The adult moths and their immature stages occupy wide variety of habitats such as external foliage feeders on trees, forbs or grasses and are known by different names such as sugarcane looper, castor semilooper, boll worms, stem borers, bud feeders etc. The huge losses caused by their larvae are counted in terms of millions of rupees every year which farmers pay out for their control. Thus, distributional knowledge of such an economically important group of insects is essential for the economy of any country, agriculture sector and for mankind as a whole. The main objective of the present communication was to know the diversity of erebid moths fauna and their occurrence in Jammu district.

#### Material and Methods:-

- 1) The moth fauna of family Erebidae in Jammu district was surveyed from May 2012 to April 2013. Sampling was conducted at sites dominated by the most representative vegetation types of the region. Moths collection was carried out from evening onwards till morning on next day by using light trap. The moths collected were killed by ethyl acetate and later pinned in insect stretching board. All specimens were preserved in airtight insect box, having naphthalene balls as fumigant. Each specimen was provided with a label indicating the locality and date of collection.
- 2) Identification of moths was carried out in the Indian Agricultural Research Institute (IARI) with the help of identified specimens and available literature Hampson (1892, 1894, 1895 and 1896), Bell and Scott (1937) and other published literatures.

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### Results and Discussion:-






The current communication documents 23 species under 22 genera of family Erebidae from Jammu district during May 2012 to April 2013 (Table-1). Among 23 species, 05 species of moths are uncommon, 11 species are common and 07 species are very common. The activity of moths was found higher in month of June to September. The larval stages of all the collected species are recognized pests of different agricultural, horticultural and ornamental plants but some species of them cause considerable damage in their adult stage which includes *Achaea janta*, *Grammodes geometrica*, *Mocis frugalis* and *Othreis fullonica*. Among these *Othreis fullonica* which is commonly called as fruit-piercing moth is a significant pest of fruit crops throughout tropical and subtropical belt. The adult stage of this moth cause serious damage to any kind of fruit by piercing it with its strong proboscis in order to suck the juice. *Achaea janta*, *Grammodes geometrica* and *Mocis frugalis* are secondary fruit-piercer moths.






Recently, Kirti *et al.*, (2017) recorded eight new species of family Erebidae from India.

**Table 1:-** List of moths of family Erebidae reported in Jammu region.





Family-Erebidae				
S. No.	Scientific name	Common name	Status	Visuals
1	<i>Achaea janta</i>	Castor semilooper	C	
2	<i>Amata cyssea</i>	Handmaiden moth	VC	
3	<i>Amsacta lactinea</i>	Red costate tiger moth	VC	
4	<i>Asota ficus</i>	-	C	

5	<i>Argina cribraria</i>	Crotolaria pod borer	UC	
6	<i>Creatanotus gangis</i>	Hairy caterpillar	VC	
7	<i>Cyana. perornata</i>	Red striped tiger moth	VC	
8	<i>Eressa confinis</i>	-	VC	
9	<i>Euproctis scintillans</i>	The yellow tail tussock moth	C	

10	<i>Euproctis similis</i>	The gold tail moth	C	
11	<i>Fodina pallula</i>	-	UC	
12	<i>Grammodes geometrica</i>	-	C	
13	<i>Lymantria dispar</i>	Gypsy moth	UC	
14	<i>Macroborchis gigas</i>	Footman moth	UC	

15	<i>Mocis frugalis</i>	Sugarcane looper	C	
16	<i>Pericallia ricini</i>	Darth maul moth	C	
17	<i>Phoberia atomaris</i>	Common oak moth	C	
18	<i>Orgyia leucostigma</i>	White-marked tussock moth	C	
19	<i>Othreis fullonica</i>	Common fruit piercing Moth	UC	



20	<i>Pericyma atrifusa</i>	-	C	
21	<i>Spilarctia obiqua</i>	Bihar hairy caterpillar	VC	
22	<i>Spirama helicina</i>	-	C	
23	<i>Utetheisa pulchella</i>	Crimson-speckled moth	VC	

Abbreviation\* VC=Very common, UC=Uncommon, C=Common

### Conclusion:-

During the course of study a total 23 species of family Erebidae belonging to 22 genera were recorded. The members of family Erebidae are major and minor pest which damage huge number of agricultural, horticultural and ornamental plants. The present communication is preliminary and generalized report on the moths of family Erebidae in Jammu region with an aim to appraise the reader about the diversity in this region. It is likely that many more species could be added to the list on further exploration of the remote areas of Jammu region.

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