

# Moths – The First Cousins of Butterflies

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(Photographs identified by Dr. Kailash Chandra, ZSI)



*Diaphania indica*



*Sinna dohertyi*



*Macrauzata fenestraria*

The State of Sikkim is a blessed haven for floral and faunal diversity. Its varying altitudinal zonation from near sea level to the third highest destination of the world creates a unique habitat for numerous life forms. Moths, being one of them, are found in abundance in the state. Moths are more abundant in and around the hot and humid valleys of the state.



*Boarmia sp*



*Abraxas sp.*



*Dysphania militaris*

Their abundance and diversity decreases with the increase in elevation. About 1500 species have already been identified and classified. Another 500 new species could possibly be added to the list as well. The diversity of moths in sikkim is almost three times to that of the butterflies in the state, the number of which has been pegged at 650 species. Moths, alike the butterflies, belong to the same order of Lepidoptera. In Sikkim, most of the families of moths are well represented. There are about 500 species alone in the family Geometridae. The majority of the moths of the state are rather small in size, but several are amongst the largest of the insect race. The largest of them all is the Atlas Moth (*Attacus atlas*) which could grow as big as a foot across.



*Fascellina chromatoria*



*Callospistria maillardi*

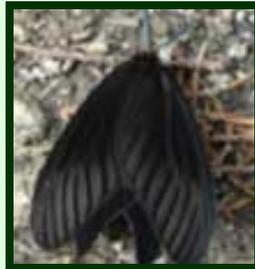


*Ganisa plana*

Moths, much like butterflies, play an important ecological role in pollination. They also serve as a food base for birds, reptiles, spiders and predatory insects. Moths are easily affected by slightest disturbances in climate and also by pollution. A sudden variance in the abundance or decline in moth population is often a clear indicator of climatic upheavals or increased levels of pollutants in the environment.



*Loepa sikkima*



*Histia flabellicornis*



*Erebus caprimulgus*

Moths are often mistaken for butterflies. To an untrained eye, both these scaly winged insects look one and the same. Moths can be equally colorful and attractive to look at. There are however, some simple methods to distinguish both these insects. While butterflies can be seen flitting during day time, most moths with exception of a few, are nocturnal in nature. Butterflies sit with their wings closed over their back or fully open, while as moths sit with their wings spread out horizontally and their forewing partly covering the hindwings. While butterflies have clubbed or hooked antennae, moths have antennae of various shape, sizes and sometimes hairy in nature. Observing moths is a simple and pleasurable exercise.



*Archaeobalbis sp.*



*Gazalina chrysolopha*



*Trabala sp.*

Since moths are attracted towards sources of bright light, lighting a bulb or a CFL tube in the courtyard/balcony would attract quite a few of them. The best season for observing or photographing moths is during the monsoons. One can expect moths of various colours, shapes and sizes during the rains. For the more adventurous, a CFL tube can be lit more towards the wilderness and a white piece cloth can be placed underneath to see more interesting varieties of moths. For some reasons, it has been noticed that there is an increased number of moths at sources of light near bamboo grooves. Moths in Sikkim can best be observed in places like Namprikthang, Dikchu, Labarphotay, Legship Sirwani and other low lying areas.



*Ourapteryx picticaudata*



*Heterostegane subtessellata*



*Rhomborista monosticta*

A more detailed and exhaustive inventORIZATION of moths is the need of the hour for us foresters and wild lifers alike. These insects deserve equal importance as that of its more glamorous cousin-the butterfly. For this, a general awareness needs to be created about its existence and its role in the ecological cycle.



*Phalera sp.*



*Ischya manlia*



*Corymica spatiosa*