

Report

Bhutan's First National Moth Week



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National Biodiversity Centre
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Introduction

National Moth Week is commemorated on last full week of every July to appreciate the beauty and the life cycle of moths. It is a worldwide citizen science project where people are encouraged to observe, learn and document moths within their vicinity. National Moth Week also aims to encourage people to become a citizen scientist by contributing the scientific data to the citizen science effort such as *iNaturalist* and *Bhutan Biodiversity Portal*. Bhutan participated the country's first ever worldwide citizen science project "*National Moth Week*" in 2022 along with 69 other countries around the globe to sensitize the public on importance of the moths which are often misidentified as their sister order, Butterfly.

Moths share the same order "Lepidoptera" with butterfly. Although moths outnumber butterflies by a ratio of 9 to 1, they are least acknowledged by the public as many of them are nocturnal. However, there are countless day-flying moths which are yet again misidentified as butterflies. People who have diminutive familiarity with moths have impression that moths are small and overly drab, thus they are considered as a nuisance. Regardless of the misconception about them, moths are diverse with varying sizes and colors. Moths and their caterpillar play a preeminent role in an ecosystem as a nutrient recycler and a diet for birds, animals, and other insects. They also help in pollinating the flower that opens at night. It is apparent that moths are the most misunderstood species despite their ecological importance.

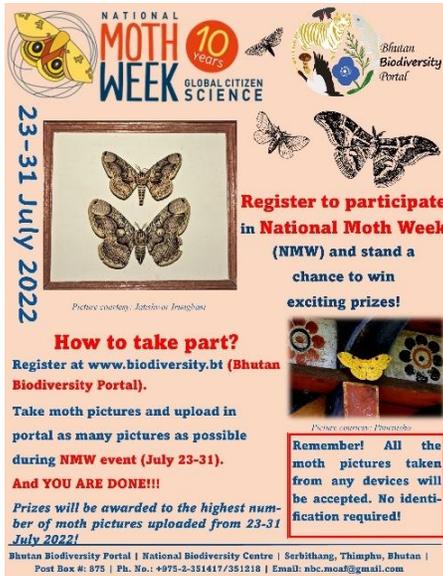
The 11th Annual National Moth Week for the year 2022 was observed from 23rd July to 31st July 2022. As a citizen science effort, Bhutan Biodiversity Portal organized *National Moth Week* event with an aim to create awareness on the existence and importance of moths.

Materials and Methods

The single most important ingredient in producing successful event are the people, especially in a citizen science effort like National Moth Week which requires citizen scientist's contribution to citizen science platform such as *iNaturalist* and *Bhutan Biodiversity Portal*. To make this event a huge success, awareness on National Moth Week were instituted by following actions;

1. Sensitization of National Moth Week by circulating a poster on Bhutan Biodiversity Portal Facebook page and both the official website and Facebook page of National Biodiversity Centre. The poster was also shared to "Butterfly and Moths of Bhutan" and "Bhutan Biodiversity Portal (BBP) User Community" group in Facebook to reach wider audience.

- Digital citizens were encouraged to sign up on Bhutan Biodiversity Portal and National Moth Week's official page to register their event for moth observation.



Poster was uploaded on 4th July 2022, more than two weeks prior to actual National Moth Week to acquaint public on the event and to kick start the moth observations.

<https://www.facebook.com/bhutanbiodiversityportal/photos/a.266858316824099/2225323454310899/>

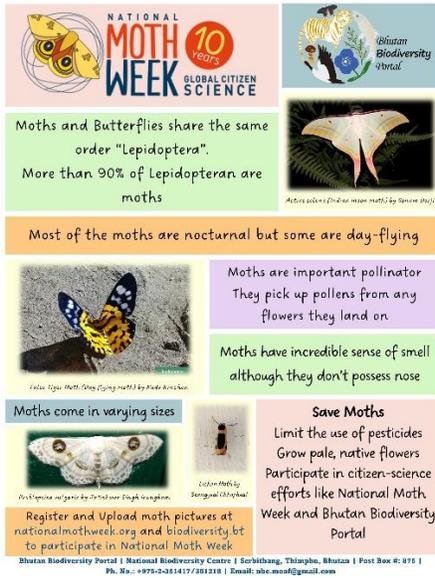
- Digital Citizens were provided suggestions on how to attract, observe and photograph moths.



To facilitate a smooth observation of moths by interested individuals, poster on “How to find moths” were generated and uploaded on facebook pages on 12th July 2022.

<https://www.facebook.com/bhutanbiodiversityportal/photos/a.296550430521554/2231926063650638/>

4. Digital citizens were sensitized on facts and importance of moths in official pages.



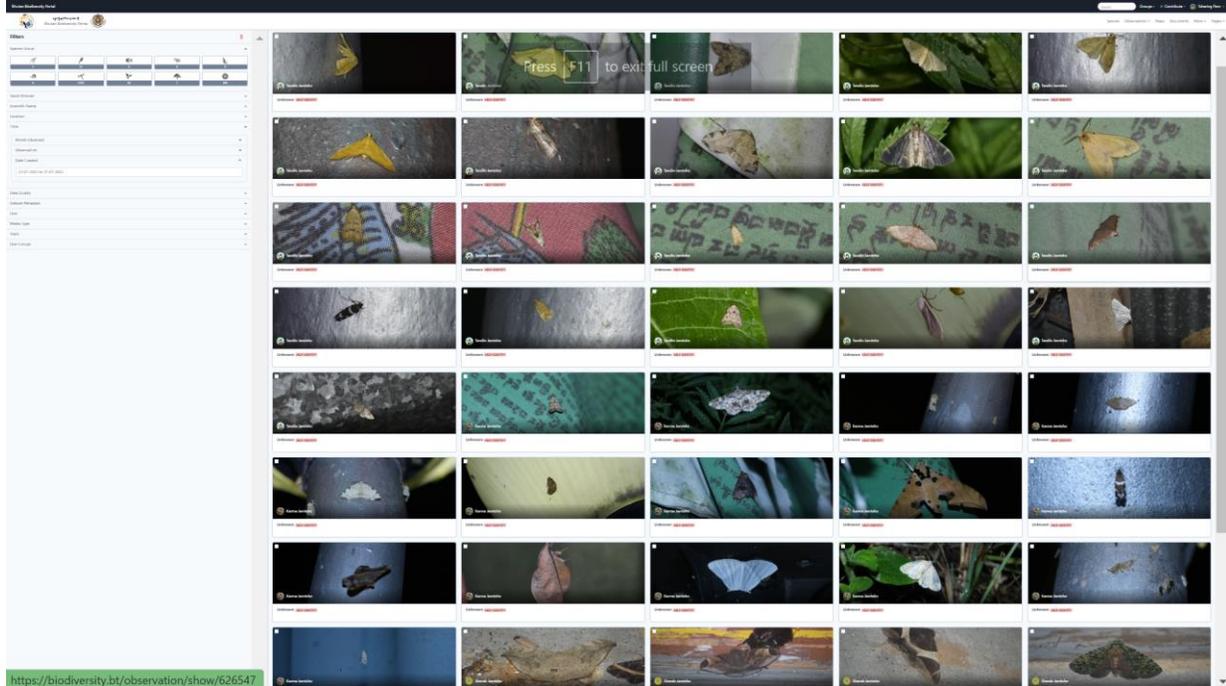
National Moth Week does not only aim to enable the individual to become a citizen scientist through contribution of data, but it also aims to make the individual aware of the importance of the said species. Therefore, on National Moth Week, facts and importance of moths were made aware to the public through poster.

The poster was uploaded on 23rd July 2022.

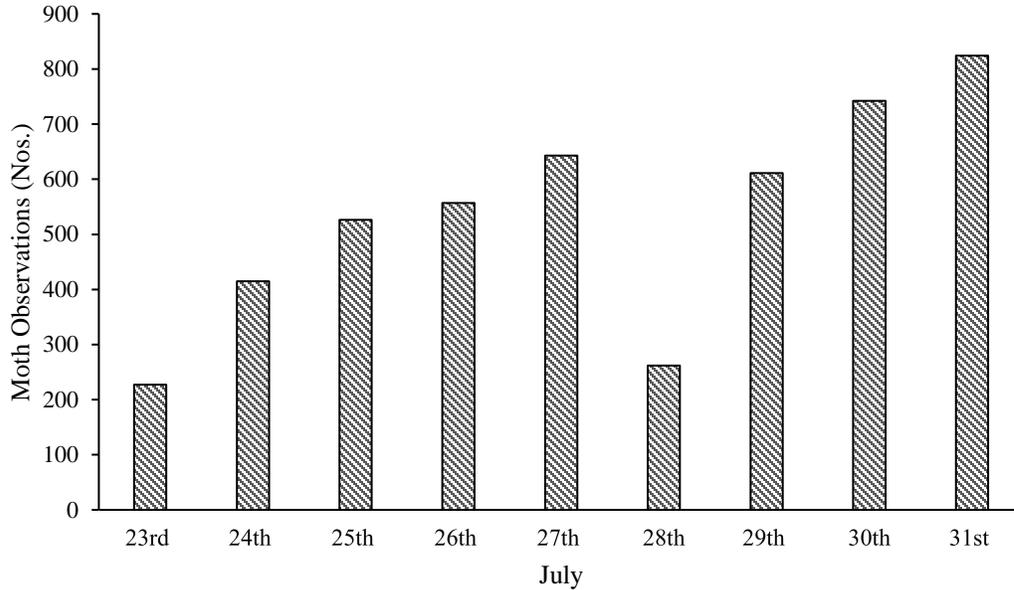
<https://www.facebook.com/bhutanbiodiversityportal/photos/a.296550430521554/2240488572794387/>

Results

A total of 71 participants registered their event at official website of National Moth Week.



An estimated total of 4,722 observations were made in Bhutan Biodiversity Portal from all around the country, 1,191 observations being the highest moth observation contributed by a single individual.

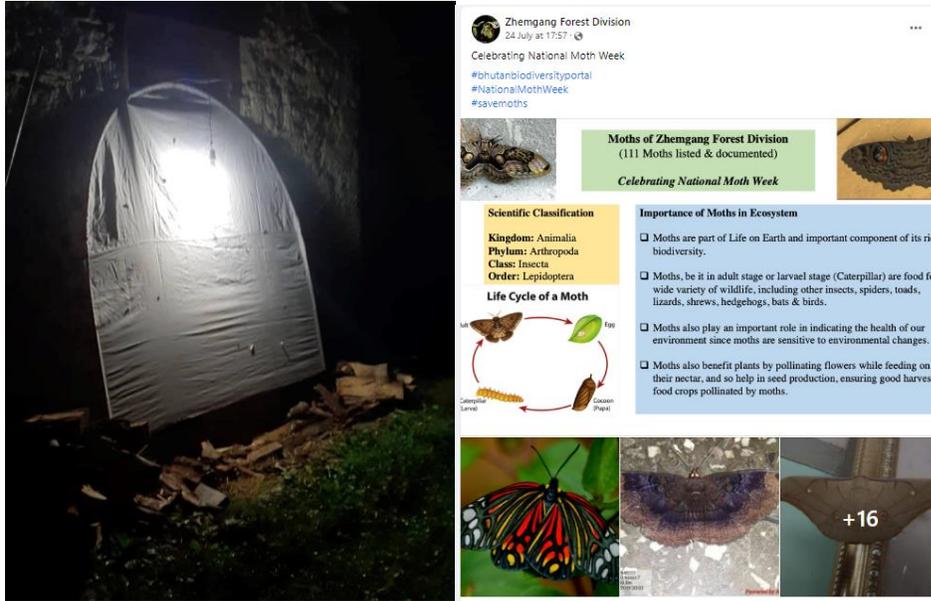


The highest moth observations were uploaded on last day of the National Moth Week on 31st July 2022. The Bhutan Biodiversity portal observed average of 534 moth observations uploaded each day of National Moth Week.



Picture courtesy: Tandin Jamtsho, Sherab Jamtsho

Participants included individuals from various background from students to government working officials, nature guide and NGO officials. Various institutions and offices were also observed to conduct their own moth observation in their office backyard.



Observation of Moths by Mr. Karma Wangdi (UWICER) (left) and Zhemgang Forest Division (right).

In recognition to participants contribution towards citizen-science data, the top three leading contributors of moth observations were awarded with monetary reward and a statistics book. In addition, top five leading contributors were also awarded with certificates of recognition for their outstanding and active participation during the event.

Conclusion

Bhutan's first National Moth Week proved to be a huge success with estimated total moth observations of 4,722 during the last week of July 2022. Posters were uploaded prior to actual National Moth Week to kick start the event, reach wider participants, and sensitize the public on importance of moths. The participants included officials from various government agency as well as students, teachers and nature guides. The top three leading moth observation contributors were awarded with cash prizes for their outstanding and active participation during National Moth Week. In addition, top five participants were also awarded with certificate and a book as a token of appreciation.