

THE BOOK ON

DZONGU BUTTERFLIES

NORTH SIKKIM

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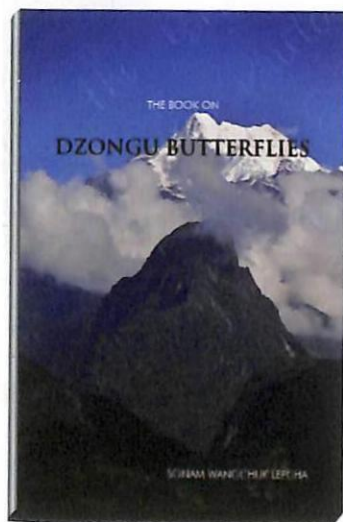
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CONTENTS



Foreword	4
Message	5
Preface	6-7
Acknowledgments	8-9
Introduction	10
The Butterflies Atatomy	11-12
Butterflies and Moths	13
About Butterflies	14
Life-Cycle of butterflies	14

The Name of Butterflies in Lepcha	135-139
Photographs of Butterflies with Scientific Names	
Photographs of Butterfly Photographers Meet	
Bibliography	
Websites	

INTRODUCTION

Dzongu in the north district of Sikkim, although small in terms of area hold special historical and cultural significance for the indigenous Lepchas. Lepchas are the original inhabitant of Sikkim, Mayel-lyang. Dzongu is one of the beautiful geographical locales in north Sikkim and is encompassed by high mountains, hills, valleys and rivers owing to which it boasts of rich flora and fauna. Such regions prove to be suitable for hosting butterflies, and it is primarily because of this that there are numerous fascinating species found here in Dzongu.

I believe that in future, places like Dzongu can prove to be important geographical habitats for promoting conservation and protection measures for various butterfly species. It will be equally potent to build awareness about these precious habitants with the help of eco-tourism and by means of informative guided tours for nature enthusiasts that are aimed at sharing and broadening the knowledge base about the species. Before such plans are implemented, it is equally vital that proper measures and stringent laws are in place to curb any illegal practices, such as trapping of butterflies; as such incidents have occurred in the past. Focus should be maintained for conservation policies.

I understand that everyone is responsible for preserving the environment and government departments like Forest Environment and Wildlife Management, Biodiversity Management Committee, Joint Forest Management Committee, can play pivotal roles in coordinating special conservation policies to safeguard the biodiversity of Dzongu. This, I have no doubt, will be beneficial for everyone, man or beast.

Let us make it our individual aim to serve and protect our ecosystems for the children of tomorrow.



The Butterfly Anatomy

1. Antennae – they have two antennae with small in a circle on the tops and are used for the sense of smell and balance.
2. Compound Eye – it is made up many hexagonal lenses and they are good for spotting colour and activities.
3. Head – the head is the important part of the insect that contains two antennae, compound eyes, brain to work, the proboscis and the pharynx for the start of the digestive system.
4. Proboscis – is straw like pipe, they used to taste nectar. Normally coiled when not in use.
5. Thorax – it is the body part between the head and the abdomen where the legs and wings of a butterfly are attached and contains the muscles that activate the butterfly.
6. Abdomen – it is segmented tail area of the butterfly that contains vital organs such as heart, reproductive organs and digestive system etc.
7. Hindwings – the hindwings are the two lower wings.
8. Forewings – the forewings are the two upper wings.
9. Veins – these rib-like support and strengthen the wings and take nourishment to them.
10. Underside – when a butterfly closes its wings, what you see is the underside of the butterfly.
11. Upperside – when a butterfly opens its wings, what you can see is the upperside of the butterfly.
12. Cell – this is an area enclosed by the veins. The arrangement of the veins around the cell is help in the identification of the different groups of butterflies.
13. Legs – they have six segmented legs. A butterfly's feet also have sense organs to taste food and detect their host plants.

BUTTERFLIES AND MOTHS

Both butterflies and moths are same insect group called Lepidoptera. Generally, butterflies are made up from 3 main parts – Head, Thorax and Abdomen. They mostly have clubbed antennae and active during the day time. They rest with its wings held upright over its body and brightly colourful and beautiful than the moths.

Whereas, moths have feathery antennae and very active at the night time 'Light' and they rest with their wings spread out flat at walls and trees. They also have a bright, dull and dark colours and terrible designs at their flats.



ABOUT BUTTERFLY

1. Butterflies are beautiful.
2. They are flying insects with large scaly wings, 3 body parts, a pair of antennae, compound eyes, and an exoskeleton.
3. Their body is covered by tiny sensory hairs.
4. Butterfly attached with thorax have four wings and six legs. The thorax contains the muscles that make the legs and wings move.
5. They are very good fliers.
6. They have large two pairs of wings covered with beautiful colours and overlapping rows.
7. Butterflies can only fly if their body temperature is about 86 degrees.



LIFE-CYCLE OF A BUTTERFLY

Butterflies undergo complete metamorphosis in which they go through four different life stages.

1. EGG: A butterfly starts its life as an egg, often laid on a leaf of trees.
2. LARVA: The larva 'caterpillar' hatches from an egg and eats leaves constantly.
3. PUPA: It turns into pupa 'chrysalis' at resting stage.
4. ADULT: A beautiful, colourful flying creature adult emerges and this will again continue the cycle.

