BUTTERFLIES OF BHUTAN

Mountains, hills and valleys between 800 and 3000m

Piet van der Poel and Tashi Wangchuk

Author Info

Piet van der Poel has worked for almost 6 years in Bhutan, mostly with the Bumdeling Wildlife Sanctuary. He has cycled and trekked all over the place in search of butterflies, nature and exercise. He was known to stop midway conversations to pursue a passing Painted Lady, Common Leopard or Chocolate Soldier. He is a natural resources manager and an amateur lepidopterist.

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Foreword

The Dzongkha word for butterfly is *chimla*, which means 'small flying thing', something like a small identified flying object. In Dzongkha no names exist for individual species of the estimated 800 to 900 butterfly species of Bhutan. Specification of a butterfly beyond *chimla* refers to colours or sizes. However, this lack of names does not indicate a lack of respect for butterflies.

Most butterflies are beautiful and a few such as the Bhutan Glory and the Kaiser-I-Hind are internationally protected by the Convention on the Inernational Trade in Endangered Species (CITES), to which Bhutan is signatory. These very rare butterflies are not included in this booklet since they are rarely seen. Some butterfly species fly at 5000m while others prefer the lower valleys, some like grasslands, others forests, some prefer hot and dry, others cool and humid areas. Butterflies are excellent indicators of environmental conditions. When habitats are destroyed, butterflies are among the first species to disappear, often because their host plants disappear.

This booklet is a collection of pictures of 136 species found in Bhutan's hills, mountains and mid-altitude valleys. All photographs are of live butterflies. No specimens were collected or killed while making this guide. Its aim is to stimulate interest in butterflies among the people of Bhutan as well as among visitors to this beautiful country. We hope that this booklet will be useful to conservationists, nature clubs and the general public.

Tashi Delek

Acknowledgements

This booklet is the result of being at the right place at the right time with a digital camera when hiking or biking across Bhutan, especially around Trashi Yangtse where I was based for 2 ½ years. The booklet would not have been produced if it was not for the initiative of Tashi Wangchuk, formerly of the Bhutan Natural History Museum and the encouragement of Dr. Sangay Wangchuk, J.D. of the Nature Conservation Divison. A reality-check on my layman's identifications was carried out by Dr. Torben Larsen. Colin Smith confirmed most of the identifications and classified a few as "uncertain for firm identification". I am very grateful to both of them. Thanks also go to the staff of the British Natural History Museum in London for allowing me access to their specimens.

The booklet was supported by Conservation International's Rapid Assessment Program (RAP), USA. I am very grateful to RAP and to Leeanne Alonso for the funding and editing and to Glenda Fabregas for the final layout. I am also grateful to the Royal Society for Protection of Nature (RSPN) for helping to have the booklet printed and taking care of the distribution.

This booklet aims to promote interest in butterflies in Bhutan and neither Conservation International nor the author is making any profit. All photographs were taken by me, except for one photograph for which I have given due credit. No butterflies were collected to produce this booklet.

Piet van der Poel, June 2007.

Beautiful Butterflies of Bhutan

Butterflies often catch people's imagination. They seem to flutter around without any care and our hasty race often envies them. They probably have more care than you imagine as they are often in search of a mate to keep the species going and they may only have a week to achieve this. In addition to being beautiful, butterflies are excellent indicators of changes in environmental conditions since they are dependent on particular species of host plants as food during their caterpillar and adult stages.

Little is known about the butterflies of Bhutan. The British Natural History Museum in London has a large number of specimens from Bhutan, mostly collected by explorers during the first half of the last century, but no systematic studies seem to have been carried out. Bhutan probably has some 800 to 900 species of butterflies (Dr. Torben Larsen, pers. comm.).

800 to 900 species is a huge number for a small country such as Bhutan. There are more butterfly species in Bhutan than in the whole of North America (679 species) or of Europe (440 species). The incredible range of habitats present in Bhutan, from subtropical in the south to alpine in the north presents a vast array of habitat niches for butterflies. Also, both Palaearctic and Indo-Malayan species are found in Bhutan. The largest number of butterflies is found in the subtropical zone, but an amazing number can be found at mid-elevations and in the mountains even at elevations above 5000m. The hardy high-altitude butterflies fly only during the summer.

Butterfly or Moth?

The order Lepidoptera, the scaly winged insects, includes two suborders, the butterflies (Rhopalocera) and the moths (Heterocera). Both are characterised by scaly wings. The scales stay behind on your fingers if you touch the wings. Butterflies have clubbed antennae, while moths have antennae with all kind of weird shapes, but not clubbed. Moths are mostly nocturnal. Most butterflies fly during the day, some (mainly skippers) are nocturnal and a few prefer dusk and dawn. Moths are often hairy, but this is not a distinguishing characteristic.

The suborder of the butterflies can be subdivided into the true butterflies (Papilionoidea) and the skippers (Hesperioidea). Skippers have clubbed antennae that are hooked, they fly fast and have veins starting from the base of the wings. Some people consider them not to be butterflies. The venation pattern of the true butterflies is shown on page 16. Of the 14 families of the true butterflies, 10 are found in the Himalayas. Some lepidopterists consider that there are fewer families by classifying some of them as subfamilies. The skippers consist of only one family (Hesperiidae).

Life Cycle

When a butterfly egg hatches, a tiny caterpillar emerges and begins to feed on its host plant. It eats until it almost bursts out of its skin, sheds its old skin, and then continues to eat. It sheds skins four or five times. Many caterpillars only eat the leaves of one or a few species of plants. During its life, the caterpillar has to stock up most of the energy it needs for its life as a butterfly.

After two to four weeks the caterpillar turns into a pupa, often suspended from a branch or the underside of a leaf. Within the pupa a transformation takes place. The stubby caterpillar legs become long and slender butterfly legs, the mouth is replaced by a proboscis (a sucking tube) and the pupa grows wings. This complete metamorphosis takes one to two weeks, but the pupa may hibernate through winter.

When the butterfly emerges, it first has to let its wrinkled wings get straight and hard before it can fly. Most butterflies only live for one to three weeks. Larger species may live a month or more and a few butterflies have reportedly lived up to a year. Butterflies get additional energy from the nectar of flowers or rotting fruit. Many males suck minerals out of droppings (faeces) of other animals or moist soil, to replace sodium lost during mating. After mating the females lay eggs on or close to host plants of the caterpillar. Eggs hatch after 3 to 4 days, but eggs of some species may survive through winter. Some butterflies have several cycles each year, others complete only one cycle each year.

Behaviour

Butterflies are mostly noticed when they flutter by or when they bask (sunning themselves with their wings open). Basking serves to warm up the wing muscles because butterflies can only fly when their muscles are warm, usually 30 to 38°C. Some butterflies warm up with their wings closed and others reflect sunrays from their half-open wings to their body.

Many Skippers and Punches fly fast, while Sailers and most Browns fly lazily slow. Blues and Browns tend to fly low to the ground and visit low flowers while many Swallowtails visit flowers of tall trees. Some species, such as the Yellow Swallowtail, often fly on windy hills and ridges, which are excellent spots to survey the surrounding area for mates.

Many butterflies, including Indian Tortoiseshells and Chocolate Soldiers, are highly territorial and chase away intruders of any species.

Butterflies locate suitable food plants by chemical signals that they receive through their antennae. Antennae also serve to locate mates, motion, vibrations or to balance during flight. Mates are also recognised by the ultraviolet reflection pattern of their wings, which is often unique for each species.

Males are more often found basking or congregating on moist soil. Females usually live a more hidden life. At night, butterflies also hide, usually on the underside of leaves or in crevasses between rocks.

Enemies

Major threats to butterflies include changes in their environment and habitat destruction which may affect the food plants of the caterpillars or the nectar plants for the adults. Natural enemies of butterflies include birds, spiders and lizards. Butterflies use various methods to protect themselves against predators:

- *Camouflage*. For example, the underside of the Orange Oakleaf looks just like a dead oak leaf.
- *Fake heads.* For example, the Common Map, and many Blues have eyes and antennae-like tails that may confuse predators so that they may catch a piece of wing rather than a whole butterfly.
- *Scary* eye-like *rings*.
- *Bad taste, foul smell, poisonous*. Try for example to eat a Windmill or smell a Coster. The toxins come from the plants that the caterpillars fed upon.
- *Mimicry*. Some species have managed to copy the pattern of other, poisonous species and as such are difficult to distinguish for predators (and also for fresh lepidopterists). Often only the females of a species commit mimicry and males and females of these species may look totally different. For example, female Mormons may look like Common Roses (*Pachliopta* spp.).

Habitats

Within the elevation range of 800 to 3000m(and up to 4200m), the main butterfly habitats in Bhutan (based on Grierson and Long 1983) are:

- *Grasslands*, including alpine and sub-alpine pastures.
- *Broad-leaved forests,* especially sub-tropical (below 1200m) and warm broadleaved forest (1000-2300m). Cool broad-leaved (2000-2900m) and evergreen oak forest (1800-2600m) also harbour many butterfly species.
- *Scrubland* harbours a mixture of butterflies, including grassland and forest species and scrubland specialists. Scrub includes barberry, roses, oak, rhododendron and dry alpine scrub.
- *Agricultural fields* and *habitation.* Here one usually encounters the more common and less specialized species such as the Cabbage Whites, Painted Ladies and Indian Tortoiseshells.
- *Conifer forest.* Butterflies are more often found in chir pine (900-2000m) and blue pine (2100-3100m) forests. Other conifer forests at higher elevations such as spruce, hemlock and fir forest (2500-3800m) appear to support fewer butterfly species.

Within these habitats different butterfly species visit different plants and occupy different niches. For example within forests, butterflies may prefer one of the following niches:

- the undergrowth
- the treetops
- rivers, creeks or standing water
- open areas within the forests
- forest edges

Identification of Butterflies

Butterflies are identified based on:

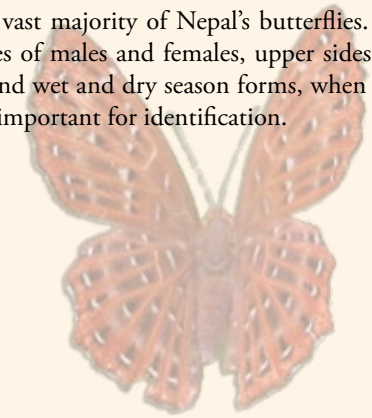
- Patterns and colours of wings
- Shape of wings, including tails
- Venation, especially the the location of the wing pattern with respect to the venation (see page 16)
- Legs, claws, antennae
- Study of scales, genitalia etc. (Blues)
- DNA

For field identification the first three characteristics, together with habitat, elevation, time of the year, flight and behaviour are most important.

For more detailed descriptions and a more complete reference to the butterflies of the region, two guide books and one illustrated checklist are recommended:

– *The Butterflies of the Sikkim Himalaya* by Meena Haribal,
– *Butterflies of Nepal* by Colin Smith,
– *Illustrated checklist of Nepal's butterflies* by Colin Smith (may be out of print).

Both guides are incomplete in the sense that it is impossible to show all species, male and female forms, upper and undersides and seasonal variations. The illustrated checklist shows more than 1300 pictures of the vast majority of Nepal's butterflies. It includes pictures of males and females, upper sides and under sides and wet and dry season forms, when these differ or are important for identification.



References

Grierson, A.J.C. and D.G. Long. 1983. Flora of Bhutan, Vol.1. Royal Botanic Garden, Edinburgh.

Haribal, M. 1992. The Butterflies of Sikkim Himalaya. Sikkim Nature Conservation Foundation. Sikkim, India.

Smith, C. 1993. Illustrated checklist of Nepal's butterflies. Rohit Kumar, Lashkar, M.P., India.

Smith, C. 1994. Butterflies of Nepal. Tecpress Services L.P., Bangkok, Thailand.

Other Publications on Butterflies of the Region

Gay, T., I.D. Kehimkar and J.C. Punetha. 1992. Common butterflies of India. WWF-India, Oxford University Press (ISBN 0 19 563164).

Gupta, I.J. and J.P.N. Shukla. 1988. Studies on the butterflies of Arunachal Pradesh and adjoining areas, India (Lepidoptera: Acraeidae, Satyridae, Nymphalidae, Riondinidae, and Lycaenidae). Occasional Paper No. 109, Records of the Zoological Survey of India.

Smith, C. 1990. Beautiful butterflies. Know Nepal series No. 5. Craftsman Press, Bangkok, Thailand.

The Butterflies in this Booklet

The pictures were taken in 2002 and 2003. Most observations took place between 800 and 3000 m along roads and trails. A few of the mountain species were encountered on treks between 3000 and 4000m. Butterflies at these elevations are mostly found from June to August. However, five shivering species were observed at 3300m on the south slope of Pelela in February. In the area covered by this booklet the number of butterfly species peaks in April-May and in September-October.

Most pictures were taken with a fairly simple digital camera and a lot of patience (sudden movements and vibrations scare butterflies, and some are very skittish). Some of the pictured butterflies aren't coffee-table book examples, but neither are they in reality.

For field identification the two guidebooks indicated on page 11 were used. At a later stage, the illustrated checklist, specimens of the collection at the British Natural History Museum, and some additional documents were consulted. Dr. Torben Larsen reviewed and updated identifications of the more confusing species. Later, Mr. Colin Smith reviewed and confirmed identifications, modifying a few and indicating that from some of the photographs the species could not be identified with certainty.

Because the target audience for this booklet is nature club members and interested laymen, subspecies are not indicated and common names are used more often than scientific names.

Arrangement of Pictures and Butterfly Families

The butterflies are presented according to family. No Beaks (Libythidae) were observed. Within each family the butterflies are ordered by subfamily, with related and similar species together on the plates (P1 – P23). The families featured in this booklet are:

P 1-2:	Swallowtails (Papilionidae)
P 3-5:	Whites and Yellows (Pieridae)
P 6-8:	Blues (Lycaenidae)
P 9-10:	Punches and Judies (Nemeobiidae)
P 10:	Costers (Acreaidae)
P 11-16:	Nymphalids (Nymphalidae)
P 17-20:	Browns (Satyridae): Treebrowns, Woodbrowns, Rings, Bushbrowns, Satyrs, and Forks
P 20:	Tigers and Crows (Danaidae)
P 21:	Skippers (Hesperiidae)
P 22-23:	Extra pictures of species seen in Bhutan, but photographed mainly in Nepal

Nymphalidae is a big family and has been divided into subfamilies:

Argynninae:	Fritillaries, Leopard (P 11)
Biblidinae:	Castor (P 11)
Charaxinae:	Nawabs (P 12)
Nymphalinae:	Pansies (P 12), Tortoiseshells, Painted Lady (P 13), Admirals (P 13, P 14), Jester (P 14)
Apaturinae:	Circe, Prince, Emperor (P 15)
Marpesiinae:	Map (P 15)
Limenitidinae:	Sergeants, Commodore (P 15), Sailers, Dukes (P 16)
Pseudergolinae:	Tabby (P 16)

Species Descriptions

The butterfly pictures are labelled with the common name, and some additional information:

= Identification not fully confirmed. From the photograph alone (upper and/or underside) no "firm confirmation" can be made but this is the most likely species
M = Male
F = Female
d = dry season form (or spring for some)
w = wet season form

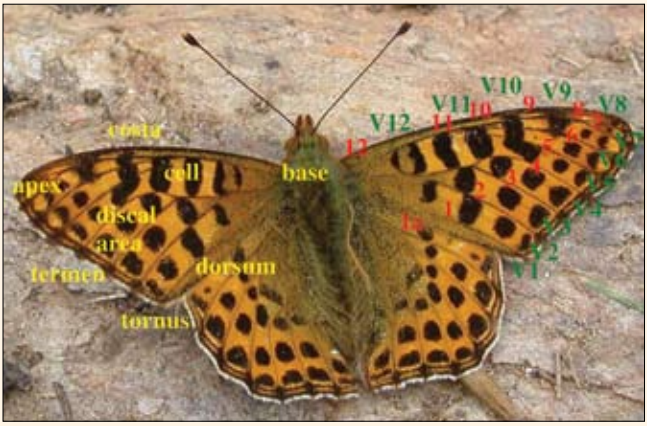
In the species descriptions, the following information is given:

Common name, mostly following Haribal (1992)
* : Identification not fully confirmed. This is the best identification based on the photograph. This could be a very similar but different species.
Scientific name: following Smith (1994)
Average size (cm), altitude range (m), based on literature and field observations
Status, based on literature and field observations
Most common habitats
Similar species

This information can help in the identification, but keep in mind that butterflies can be found outside their common elevation range and in different habitats, and some are very variable in size and in wing patterns. Many butterflies are less colourful during the dry season, when eyes or rings (ocelli) tend to decrease in size or even disappear.

Status categories:
Very common
Common
Fairly common
Uncommon
Rare

Venation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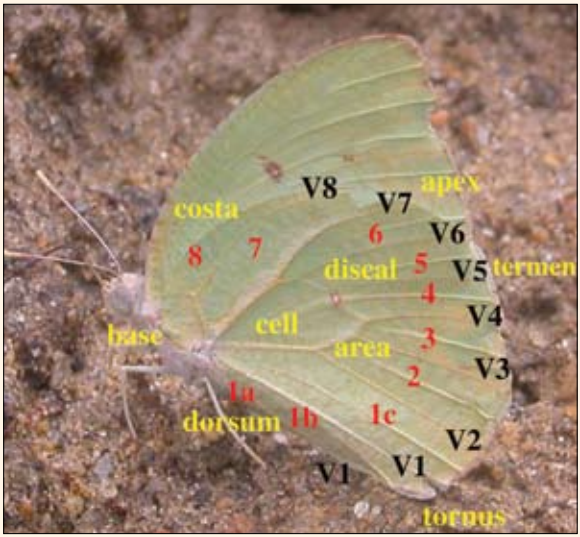
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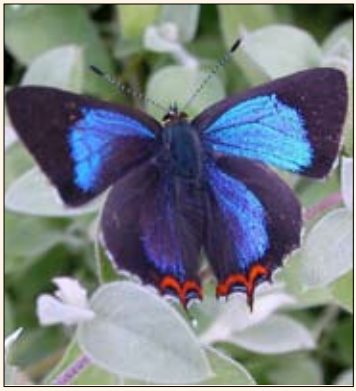
tornus

Contents

Common Peacock

Large Cabbage White



Azure Sapphire

Punchinello

Indian Fritillary

Common Satyr

Dark Blue Tiger

Dusky Yellowbreast Flat

Plate 1

Swallowtails - Papilionidae (1)
Swallowtails are quite variable. Apollos are high altitude butterflies that have no "tail." Swordtails and some Jays and Bluebottles have pointed tails.

1. Common Blue Apollo
Parnassius hardwickii
5 cm; 2700 – 4500m
Common
Grassy areas, alpine meadows, often near cliffs

2. *Sixbar Swordtail
Pazala eurous
6 cm; 1000 – 2800m
Fairly common
Forest clearings, tree tops
Similar to Spectacle Swordtail

3. Glassy Bluebottle
Idaides cloanthus
8 cm; 400 - 2500m
Common
Wet places, fast flying

4. Tailed Jay
Idaides agamemnon
8 cm; < 1800m
Common
Open forest, hovers around food plants, fast flying

5. Veined Jay
Idaides clanis
7cm; 400-1500m
Fairly common
Forest, woodland

6. Common Mormon
Menelaides polytes
9 cm; < 2200m
Very common
Inhabited areas, damp spots
Female may resemble male but also the Common or Crimson Rose

1 M d

1 F d

2#

3

4

4

5

6 F

6 M

6 M

Mountains, hills and valleys between 800 and 3000m

Plate 2

1

1#

2

2#

3

4

5

5

6

6

Swallowtails – Papilionidae (2)
Many swallowtails in Bhutan are big and black. Peacock species are quite similar: the shape of the blue patch is a main distinguishing characteristic.

1. Common Peacock
Achillides polyctor
12 cm; 500 - 2500m
Common
Open forest, gardens, moist or wet places, congregates

2. Paris Peacock
Achillides paris
10 cm; 400 – 1800m
Common
Open forest, gardens, moist or wet places, congregates

3. Blue Peacock
Achillides arcturus
11 cm; 1200 – 2800m
Fairly common
Moist or wet places

4. Spangle
Sainia protenor
11 cm; 800 – 2000m
Uncommon
Forests

5. Redbreast
Sainia rhetenor
11 cm; 1000 – 2400m
Fairly common
Wet soil and mineral spots
Female mimics Common Windmill

6. Red Helen
Menelaides helenus
11 cm; < 2000m
Very common
Forest, near habitations, flowers, wet spots

Plate 3

Whites - Pieridae (1)
Mostly white and yellow, including some of the most common species of Bhutan.

1. Indian Cabbage White
Pieris canidia
5 cm; < 3500m
Very common
Agricultural fields, pastures, gardens

2. Large Cabbage White
Pieris brassicae
7 cm; < 4000m
Very common
Fields and vegetable gardens, relies not just on cabbage plants as it does in Europe, but visits a variety of flowers

3. Green-veined White
Pieris melete
5 cm; 1800 – 3200m
Very common
Open areas in forests, easily confused with *P. melaina* and *Artogeia montanus*

4. Common Gull
Cepora nerissa
5 cm; < 1500m
Fairly common
Open slopes, flowers

5. Lesser Gull
Cepora nadina
5 cm; 400-1500m
Common
Damp forest undergrowth
(See also picture on plate 22)

1 F

1

2 M

2 F

2

3 M

3 F w

3 F

4 F

5

Mountains, hills and valleys between 800 and 3000m

Plate 4

1

2

3

4 w

4 w

4 d

5 F d

5 F

5 M

5 M

Whites – Pieridae (2)

1. Red-spot Jezebel
Anaemorpha descombesi
7 cm; < 1500m
Fairly common
Often visiting flowering trees

2. Hill Jezebel
Delias belladonna
8 cm; 700 – 2700m
Very common
Found in open areas and congregating near water

3. Red-base Jezebel
Delias pasithoe
7 cm; < 1500m
Common
Open country, gardens

4. Mottled Emigrant
Catopsilia pyranthe
6 cm; < 2700m
Common
Flowers and damp spots, open country
Like the Common Emigrant, but no yellow base of wings, and mottled below

5. Yellow Orangetip
Ixias pyrene
6 cm; < 1700m
Very common
Shrubs, forest edges
Females without orange, or white and black

Plate 5

Yellows – Pieridae (3)
Usually sit with wings closed. The Grass Yellow's underside markings are vague or absent in the wet season, making identification difficult.

1. Spotless Grass Yellow
Terias laete
4 cm; 800 – 2400m
Common
Open forest and meadows, in dryer areas

2. *Small Grass Yellow
Terias brigitta
3.5 cm; < 30000m
Fairly common
Open grasslands and low flowers

3. Three Spot Grass Yellow
Terias blanda
4 cm; < 1850m
Common
Open spaces, low flowers
Three spots in under forewing cell-7, but spot at the base of this cell 7 is seldom visible
Resembles Common Grass Yellow, esp. in wet season

4. Common Grass Yellow
Terias hecabe
4 cm; < 2700m
Common
Open areas and forest clearings
Similar to Three Spot Grass Yellow, esp. in wet season

5. Dark Clouded Yellow
Colias fieldii
5 cm; 200 – 4500m
Very common
Alpine, temperate pastures and fields
Upperside picture by Karma Wangdi

1 d

1 d

2 w

2 w

3 d

3 w

3 w

4 d

5

5F

Plate 6

1

2

3

4 #F

4 M

4 #

5 M

5

6

7

Blues – Lycaenidae (1)

1. Bi-spot Royal
Ancema ctesia
4 cm; 1400 – 2000m
Fairly common
Damp areas

2. Common Flash
Rapala nissa
3.5 cm; 800 – 2000m
Fairly common
Open and forested land

3. Blue Tit
Chliaria kina
2.5 cm; 1000 - 1850m
Fairly common
Orchids
Similar to Orchid Tit

4. Azure Sapphire
Heliophorus androcles
3.5 cm; 1300 – 3500m
Very common
Open areas, gardens, flowers including marigolds
Females similar to females of many other Sapphires

5. Purple Sapphire
Heliophorus epicles
3 cm; < 2000m
Common
Open areas, forest trails
Females similar to females of many other Sapphire species

6. Powdery Green Sapphire
Heliophorus tamu
3.5 cm; 1500 – 2500m
Fairly common
Open forest, forest edges
Females similar to females of many other Sapphire species

7. Common Copper
Lycaena phlaeas
3.5; 1500 – 4000m
Fairly common
Pastures, meadows

Plate 7

Blues – Lycaenidae (2)

1. Common Line Blue
Prosotas nora
2 cm; < 1500m
Fairly common
Grassy or open areas

2. Metallic Cerulean
Jamides alecto
3 cm; < 1500m
Fairly common
Fields, pastures

3. Chapman's Cupid
Everes argiades
2.5 cm; 1400 – 2800m
Fairly common
Fields, pastures

4. *Indian Cupid
Everes lacturnus
2.5 cm; < 1500m
Fairly common
Grassy areas
Similar to Gram Blue

5. Gram Blue
Euchrysops cnejus
3 cm; < 2200m
Common
Grassy and shrubby areas
Similar to Indian Cupid

6. Peablue
Lampides boeticus
3 cm; < 3500m
Common
Open shrubland

7. Common Pierrot
Castalius rosimon
3 cm; < 1500m
Common
Open shrubland and woodland

8. Zebra Blue
Syntarucus plinius
2.5 cm; < 2500m
Fairly common
Grassland

1

2

3 M

3 # M

4 #

5

6 F

6

7 M w

8

Mountains, hills and valleys between 800 and 3000m

Plate 8

1

1 d

1 w

2 w

3 F

4 w

5 w

6 w

7

7 # d

Blues – Lycaenidae (3)
Hedge Blues are often found on low flowers near forest streams and congregate in damp areas and on droppings. Blue above and white with black spots below, they are very confusing, especially in the dry season.

1. Common Hedge Blue
Acytolepsis puspa
3cm; < 3000m
Common
Short grassland

2. Margined Hedge Blue
Celatoxia marginata
3 cm; 800 – 2500m
Common
Mostly short, weedy or scrubby pastures

3. Hill Hedge Blue
Celastrina argiolis
3 cm; 1000 - 3500m
Fairly common
Resembles Large and Plain Hedge Blue
Scrubby and weedy grassland

4. Large Hedge Blue
Celastrina huegelii
4 cm; 1400 – 3000m
Common
Resembles Hill and Plain Hedge Blue
Mostly short grassland, habitations, scrub, open forest, often on wet soil

5. Plain Hedge Blue
Celastrina lavendularis
3.5 cm; 1000 – 2500m
Fairly common
Resembles Hill and Large Hedge Blue
Scrub, weeds, pastures

6. Albocerulean
Udara albocaerulea
3 cm; 1400 – 2500m
Common
Grassland, forest edges, often on wet soil

7. Pale Grass Blue
Zizeera maha
2.5; < 2500m
Common
Similar to Dark Grass Blue
Mostly short grassland, flowers (*Bidens pilosa*)

Plate 9

Punches - Nemeobiidae (1)
Punches are found along trails and streams in forests. Punches fly fast but not far.

1. Lesser Punch
Dodona dipoea
4 cm; 1400 – 2800m
Common
Forest edges, scrub

2. Tailed Punch
Dodona eagenes
4 cm; 1500 – 2200m
Fairly common
Forest, along trails and edges
May occasionally lose its tails

3. Mixed Punch
Dodona ouida
4 cm; 1000 – 2700m
Fairly common
Another forest dweller, slightly larger than the preceding two

4. Striped Punch
Dodona adonira
4 cm; 1500 – 2000m
Fairly common
Forest edges
(see also picture on plate 23)

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Plate 10

1 M

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3 M

3 F

3 F

Judies and Punchinellos – Nemeobiidae (2)
Costers – Acraeidae (1)
Judies occur in thicker forest.

1. Dark Judy
Abisara fylla
5 cm; 500 – 1900m
Common
Wary forest dweller

2. Punchinello
Zemoros flegyas
4 cm; < 2000m
Very common
Open country, forest edges, rocks

3. Yellow Coster
Acraea issoria
7 cm; < 2500m
Locally common
Fields and disturbed areas, weak flight, often gregarious

Plate 11

Nymphalids - Nymphalidae (1)

Fritillaries and Castors

1. Indian Fritillary
Argyreus hyperbius
7 cm; 500 – 3000m
Common
Fields and open areas

2. Large Silverstripe
Childrena childreni
8 cm; 1000 – 3400m
Fairly common
Pastures, cultivated and disturbed areas

3. Queen of Spain Fritillary
Issoria issaea
5 cm; 1500 – 4800m
Common
Pastures and forest openings

4. Common Leopard
Phalanta phalanta
5 cm; < 2000m
Common
Open and dryer areas

5. Common Castor
Ariadne merione
5 cm; < 2000m
Common
Open shrub and woodland, often on castor plants
Similar to Angled Castor and Tabby

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Plate 12

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5 M

5 F

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Nymphalids - Nymphalidae (2)

Nawabs and Pansies

1. Common Nawab
Polyura athamas
6 cm; < 1800m
Fairly common
Forest

2. Stately Nawab
Polyura dolon
9 cm; 1000 – 1800m
Uncommon
Forest treetops, mineral spots

3. Grey Pansy
Precis atlites
6cm; < 1400m
Common
Fields, clearings

4. Blue Pansy
Precis orithya
5 cm; < 2500m
Very common
Pastures and open fields
Territorial and usually flies up and settles down again nearby

5. Yellow Pansy
Precis hierta
5 cm; < 2500m
Common
Fields and open grassy areas in forests
Territorial and often flies a short distance before settling down again

6. Chocolate Soldier
Precis iphita
7 cm; < 2400m
Common
Forest edges

Plate 13

Nymphalids - Nymphalidae (3)

Tortoiseshells, Admirals, Painted Lady

1. Indian Red Admiral
Vanessa indica
6 cm; < 3500m
Common
Open areas, gardens

2. Painted Lady
Vanessa cardui
6 cm; < 4400m
Very common
Open areas, settlements, gardens

3. Eastern Comma
Polygonia agnicula
5 cm; 2700 – 4800m
Uncommon
Grassland, open forest
Female has a row of small yellow dots near the lower hind wing edge

4. Indian Tortoiseshell
Aglais cashmirensis
5 cm; 500 – 5000m
Very common, year-round
Pastures, fields, gardens, forest openings
Similar to some other Tortoiseshells

5. Ladak Tortoiseshell
Aglais ladakensis
4 cm; 3900 – 5000m
Uncommon
Alpine pastures
Resembles Indian and Mountain Tortoiseshell

6. Blue Admiral
Female laying eggs
For description see next page

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Plate 14

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Nymphalids - Nymphalidae (4)

Admiral, Jester, Circe, Prince, Emperor, Map

1. Blue Admiral
Kaniska canace
6 cm; 500 – 2500m
Common
Openings, trails in forests, often near water

2. Common Jester
Symbrenthia lilaea
5 cm; < 2000m
Common
Forest openings and fields

3. Circe
Hestina nama
9 cm; 400 – 2400m
Common
Open areas, forest clearings

4. Black Prince
Rohana parisatis
4 cm; < 1000m
Uncommon
Forested areas, basks on rocks

5. Indian Purple Emperor
Apatura ambica
7 cm; 500 – 2300m
Fairly common
Forest, near streams, on sunny rocks

6. Common Map
Cyrestis thyodamas
6 cm; < 2600m
Common
Damp spots, forest

Plate 15

Nymphalids - Nymphalidae (5)

Sergeants and Commodore
Sergeants are a quite similar bunch, requiring at times to see upper and under sides.

1. Bhutan Sergeant
Athyma jina
6 cm; 800 – 1850m
Fairly common
Forest

2. Common Sergeant
Athyma perius
6 cm; < 2200m
Common
Open country

3. Hill Sergeant
Athyma opalina
6 cm; 500 – 2400m
Common
Sunny areas in forests

4. Orange Staff Sergeant
Athyma cama
6 cm; 500 –1500m
Uncommon
Forest clearings, grassland

5. White Commodore
Sumalia dudu
8 cm; 1400 – 2500m
Fairly common
Grassland, sandy river banks

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Plate 16

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Nymphalids - Nymphalidae (6)

Sailers and Dukes
Some Sailers look very similar to other Sailers, especially the upper side, e.g Common, Himalayan, Sullied and Creamy Sailers.

1. Common Sailer
Neptis hylas
5 cm; 300 – 2150m
Very common
Open forest, scrub and gardens, variable in size

2. Plain Sailer
Neptis cartica
6 cm; < 1500m
Uncommon
Open forest, scrub

3. Creamy Sailer
Neptis soma
5 cm; 500 – 2300m
Fairly common
Forest, forest streams

4. Green Duke
Euthalia sahadeva
9 cm; 800 – 2000m
Fairly common
Forest

5. Blue Duke
Euthalia durga
9 cm; < 1400m
Rare
Forest

6. Popinjay
Stibochiona nicea
6 cm; < 1800m
Fairly common
Forest edge, cardamom forests

7. Tabby
Pseudergolis wedah
5 cm; 500 – 2000m
Common
Forest, near shady streams, on rocks or soil
Slow flight

Plate 17

Treebrowns, Woodbrowns and Foresters – Satyridae (1)
Species within these groups are often difficult to tell apart.

1. Common Treebrown
Lethe rhoria
6 cm; < 2500m
Fairly common
Forest, usually with bamboo

2. Straight Banded Treebrown
Lethe verma
5 cm; 1000 – 2500m
Common
Forest

3. Dusky Labyrinth
Patala yama
7 cm; 1000 – 2200m
Fairly common
Forest

4. Yellow Woodbrown
Lethe nicetas
5cm; 1700 – 2600m
Fairly common
Along forest trails, occasionally visiting sweaty shoes

5. Common Woodbrown
Lethe sidonis
5 cm; 1400 – 3100m
Common
Along forest trails, sometimes visiting sweaty legs

6. Blue Forester
Lethe scanda
6 cm; 1500 – 2500m
Rare
Forest

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Plate 18

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Rings – Satyridae (2)
It is often difficult to tell the species within this group apart, especially in the dry season when many lose their rings.

1. Large Threering
Ypthima newara
4 cm; < 2000m
Common
Forest and scrub

2. Himalayan Fouring
Ypthima parasakra
4 cm; 2000 – 2700m
Fairly common
Forest edge, trails

3. Common Fivering
Ypthima baldus
4 cm; < 1600m
Common
Forest edges, trails
Rings may shrink to tiny dots in dry season

4. Himalayan Fivering
Ypthima sakra
5 cm; 1000 – 3000m
Very common
Forest edge, trails
No variation with seasons

Plate 19

Bushbrowns, Satyrs, Arguses and Wall - Satyridae (3)
Bushbrowns are confusing (esp. in dry season)

1. *Moore's Bushbrown
Mycalesis heri
5 cm; 900 – 2000m
Fairly common/local
Forest

2. Common Bushbrown
Mycalesis perseus
4 cm; < 1700m
Fairly common
Thick forest, but this one was in open woodland

3. Lilacine Bushbrown
Mycalesis francisca
5 cm; 1000 - 2000m
Fairly common/local
Forest

4. *Common Satyr
Aulocera swaha
6 cm; 2000 – 4000m
Very common
Openings in forest, fields
Resembles Doherty's Satyr

5. Striated Satyr
Aulocera saraswatti
6 cm; 1400 – 2800m
Common
Open areas, scrub

6. *Hybrid Argus
Callerebia hybrida
6 cm; 600-3500m
Common
Forest trails, road sides
Similar to Pallid and Ringed Argus

7. *Pallid Argus
Callerebia scanda
6 cm; 1900 – 2800m
Farily common
Road sides, forest trails
Similar to Hybrid and Ringed Argus

8. Small Tawny Wall
Raphicera moorei
5 cm; 2400 – 3600m
Common
Scrub, open forest

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Plate 20

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Forks - Satyridae (4)
Tigers and Crows – Danaidae (1)

1. Lilacfork
Zophoessa sura
7 cm; 1800 - 2800m
Uncommon
Forest

2. Small Silverfork
Zophoessa jalaurida
5 cm; 2300 – 3500m
Uncommon
Forest with bamboo, trails

3. Dark Blue Tiger
Tirumala septentrionis
8cm; < 2000m
Uncommon
Open areas, woodland

4. Striped Blue Crow
Euploea mulciber
9 cm; < 2500m
Fairly common
Open areas and scrub near forest
Similar to some other blue crows

5. Glassy Tiger
Parantica aglea
7 cm; < 2000m
Common
Near forests, slow flight

6. Common Tiger
Danaus genutia
7 cm; < 2500m
Common
Open forest, scrub

Plate 21

Skippers - Hesperiidae (1)
Fast flying, often small butterflies; some sit with the front wings up and the hind wings flat. Some are very hard to identify.

1. Dusky Yellowbreast Flat
Gerosis phisara
4 cm; < 1800m
Uncommon
Open country, rocks

2. Fulvous Pied Flat
Pseudocoladenia dan
3.5 cm; 600 – 2000m
Fairly common
Scrub, rocks

3. *Common Indian Dart
Potanthus pseudomaesa
2.5 cm; < 2000m
Common
Scrub, open areas

4. Graham's Ace
Sovia grahami
3 cm; 1700 - 2500m
Uncommon
Trail

5. Himalayan Darter
Ochlodes brahma
3.5 cm; 1500 – 2400m
Uncommon
Grass and trails

6. *Bevans' Swift
Borbo bevani
3 cm; < 2200m
Fairly common
Trails, grass
Similar to some other Swifts

7. Himalayan Grass Dart
Traractrocera danna
2 cm; 1250 – 3000m
Common
Grassland, pastures, trails

8. Restricted Demon
Notocrypta curvifascia
4 cm; < 2100m
Common
Scrub, forest edges
Similar to Spotted Demon

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Plate 22

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7 M

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Other Bhutan butterflies (1)
Pictures mostly from Nepal.

Papilionidae

1. Lime Butterfly
Papilio demoleus
8 cm; < 1300m
Common
Open country, citrus trees, flowers

2. Yellow Swallowtail
Papilio machaon
7.5 cm; 2000 - 4600m
Common
Grassland, scrub, flowers, hilltops

3. Great Mormon
Iliades memnon
12.5 cm; < 1500m
Common
Open land, woodland, flowers, water

Pieridae

4. Bath White
Pontia daplidice
4 cm; <2750m
Fairly common
Grassland, pastures, flowers

5. Lesser Gull (*see also plate 3*)

6. Common Emigrant
Catopsilia pomona
6.5 cm; < 2500m
Common
Open country, flowers, damp spots

7. Great Orangetip
Hebomoia glaucippe
9 cm; <1700m
Common
Open country, woodland, water

Lycaenidae

8. Common Cerulean
Jamides celeno
3.3 cm; < 1800m
Fairly common
Open country, water

Plate 23

Other Bhutan butterflies (2)
Pictures mostly from Nepal

Riodinidae

1. Orange Punch
Dodona egeon
4.5 cm; < 2000m
Fairly common
Forest streams, open country, wet spots

2. Striped Punch (*see also plate 9*)

Nymphalidae

3. Peacock Pansy
Precis almana
5.5 cm; < 1900m
Common
Open country, flowers

4. Lemon Pansy
Junonia lemonias
5 cm; < 1900m
Fairly common
Open country, flowers

5. Orange Oakleaf
Kallima inachus
8.5 cm; < 1800m
Fairly common
Forest, water, rocks

6. Tailed Red Forester
Lethe sinorix
6.5 cm; 1500 – 2000m
Uncommon
Forest clearings, flowers, hill tops

Danaidae

7. Plain Tiger
Danaus chrysippus
7 cm; < 2400m
Common
Open country, scrub, flowers

8. Common Crow
Euploea core
8.5 cm; < 2000m
Common
Open country, scrub, flowers
Similar to Brown King Crow and mimicked

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Index to Common Names

The index refers to the page with the description of each species. Pictures are on the opposite page. Pages of any additional pictures of the same species are indicated in italics.

English names

Index to Scientific (Latin) Names

The index refers to the page with the description of each species. Pictures are on the opposite page. Pages of any additional pictures of the same species are indicated in italics.

RSPN
Thimphu, Bhutan