

BUTTERFLIES OF PENCH TIGER RESERVE, MADHYA PRADESH

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Pench Tiger Reserve is one among the five declared Tiger Reserves in Madhya Pradesh. It provides protected habitat to diverse forms of plants and animals. The Tiger Reserve derives its name from Pench river, which flows through it. It has a total area of 757.907 sq km traversing the Seoni and Chhindwara districts and falls between the longitude 79° 9' to 79°22' E and latitude 21° 38' to 21°50'30" N. It comprises the Pench Sanctuary, notified in the year 1977, and the Pench National Park, notified in the year 1983. These two were brought under Project Tiger, in the year 1992.

As per the available literature and information in the draft Management Plan of the Pench Tiger Reserve, almost nothing is known about the insects occurring in the Pench Tiger Reserve (PTR), Seoni. Insects represent more than 70% of the fauna in a terrestrial ecosystem and also play an important role in food chain for the natural balance. A systematic study of invertebrates particularly butterflies has not been carried out from most of the wildlife reserves in Madhya Pradesh including PTR. A consultancy service to conduct the faunal survey in seven sites has been assigned to the Zoological Survey of India under the GEF sponsored "India Eco-development project". PTR is one of the seven sites of this ambitious project that has been under implementation since the year 1997.

The study on faunal diversity of PTR has commenced from May 2001, and the samples of almost all groups of insects were collected during May-July 2001. More than 2000 insects of different groups were collected from more than 20 localities which included 119 specimens of butterflies. The butterflies represented 38 species in eight families (Table 1). Study on their abundance showed that 11 species were common and 13 species very common. Whereas 14 species were recorded to be rare in PTR. All 38 species are first records from PTR. The common names are according to Evans (1932) and Varshney (1983). The recent names are after Varshney (1993, 1994).

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Table 1. List of number of genera and species in different families of butterflies occurring in Pench Tiger Reserve

Family	Genera	Species
Papilionidae	4	5
Pieridae	4	7
Danaidae	3	4
Satyride	3	3
Nymphalidae	5	10
Acraeidae	1	1
Lycaenidae	6	6
Hesperiidae	2	2

Table 2. List of butterflies from Pench Tiger Reserve

Scientific name	Common name	Status
<u>Papilionidae</u>		
<i>Pathysa nomius nomius</i> Eper., 1785	Spot Swordtail	C
<i>Papilio demoleus demoleus</i> Linn., 1758	Lime Butterfly	VC
<i>Papilio polytes romulus</i> Cramer, 1775	Common Mormon	VC
<i>Pachliopta hector</i> Linn., 1758	Crimson Rose	R
<i>Chilasa clytia clytia</i> Linn., 1758	Common Mime	R
<u>Pteridae</u>		
<i>Belenois aurota aurota</i> Fab., 1793	Pioneer	R
<i>Ceporna nerissa phryne</i> Fab., 1775	Common Gull	R
<i>Catopsilia pomona</i> Fab., 1775	Lemon Emigrant	VC
<i>Catopsilia pyranthe pyranthe</i> Linn., 1758	Mottled Emigrant	VC
<i>Earema brigittarubella</i> Wallace, 1867	Small Grass Yellow	C
<i>Earema laeta laeta</i> Boisduvanil, 1836	Spotless Grass yellow	VC
<i>Earema hecabe simulata</i> Moore, 1881	Common Grass Yellow	VC
<u>Danaidae</u>		
<i>Danaus chrysippus</i> Linn., 1758	Plain Tiger	VC
<i>Danaus genutia</i> Cramer, 1779	Common Tiger	VC
<i>Tirumala limniace leopards</i> Butler, 1866	Blue Tiger	C
<i>Euploea core core</i> Cramer, 1780	Common Indian Crow	C
<u>Satyride</u>		
<i>Melanitis leda ismene</i> Cramer, 1775	Common Evening Brown	C
<i>Mycalesis mineus</i> Linn., 1767	Dark-Brand Bushbrown	R
<i>Ypthima asterope</i> Klug, 1832	Common Three-ring	C
<u>Nymphalidae</u>		
<i>Phalanta phalantha phalantha</i> Drury, 1770	Common Leopard	C
<i>Cynthia cardui</i> Linn., 1758	Painted Lady	R
<i>Junonia almana almana</i> Linn., 1758	Peacock Pansy	R
<i>Junonia atlites</i> Linn., 1763	Grey Pansy	R
<i>Junonia hierta hierta</i> Fab., 1798	Yellow Pansy	R
<i>Junonia lemonias vaisya</i> Fruhstorfer, 1912	Lemon Pansy	C
<i>Junonia orithya swinhoef</i> Butler, 1885	Blue Pansy	R
<i>Hypolimnas bolina</i> Linn., 1758	Great Eggfly	R
<i>Hypolimnas misippus</i> Linn., 1764	Danaid Eggfly	C
<i>Symphaedra nais</i> Forster, 1771	Baronet	C
<u>Acraeidae</u>		
<i>Acraea violae</i> Fab., 1775	Twany Coster	VC
<u>Lycaenidae</u>		
<i>Catochrysops starbo strabo</i> Fab., 1793	Forget-me-not	VC
<i>Castalius rosimon rosimon</i> Fab., 1775	Common Pierrot	C
<i>Tarucus theophrastus</i> Fab., 1793	Pointed Pierrot	VC
<i>Zizeeria gaika</i> Trimen, 1862	Tiny Grass Blue	VC
<i>Chilades pandava</i> Horsfield, 1829	Plains Cupied	VC
<i>Rapala melampus</i> Cramer, 1781	Small Branded Swift	R
<u>Hesperiidae</u>		
<i>Pelopidas mathias</i> Fab., 1798	Small Branded Swift	R
<i>Telicota ancilla</i> Herrich-Schaffer, 1869	Pale Palm Dart	R

VC- Very Common in Pench Tiger Reserve, C- Common in Pench Tiger Reserve, R- Rare in Pench Tiger Reserve.

BUTTERFLIES OF KALATOP-KHAJJAR WILDLIFE SANCTUARY, HIMACHAL PRADESH

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Kalatop-Khajjar Wildlife Sanctuary in Himachal Pradesh is situated at an altitude of 1185-2768m. It extends between 31°31'-32°37'N and 75°58'-76°07'E in the foothills of Kailash Parvat (western Himalaya). The Sanctuary is spread over 20.69km² area, and lies in the catchment of river Ravi. The area contains a good number of coniferous and oak forest patches. A lovely bowl-shaped meadow at Khajjar, with a lake and a floating island is a popular tourist spot. The Sanctuary has alluvial soil that is a substrate to plants like mixed Blue Pine and *Cedrus deodara*, Green Oak and *Rhododendron arboreum*. Average rainfall is 2647.68mm and average snowfall is 672.3mm. Temperature ranges between between -10°C in winter and 35°C in summer.

Kalatop-Khajjar Wildlife Sanctuary has no consolidated and authentic record of butterflies. A number of surveys were made from September 2000 to August 2001, which resulted in the enumeration of 49 species belonging to 38 genera in nine families (Table 1). After referring publications of butterflies of the region (Philip de Rhe, 1936; Wynter-Blyth, 1940, 1945, 1946, 1957; Mani, 1986), *Lethe scanda* Moore, *Ypthima lycus* deN. and *Ypthima ceylonica hubneri* Kirby turned out to be first records for Himachal Pradesh.

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