

PRELIMINARY REPORT ON THE BUTTERFLIES OF KEOLADEO NATIONAL PARK, BHARATPUR, RAJASTHAN, INDIA

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The Keoladeo National Park, Bharatpur is known for its avifaunal diversity and is one of the World Heritage Sites in India. The avifauna of the Park is well documented (Vijayan, 1987) and is the main centre of bird migrational studies in India. There are about 379 species of flowering plants reported from the Park (Anon, 1996). The richness of plant species and varying habitats provide feeding and breeding sites for many insects. But, no detailed study on the insects of the Park is available. Wynter Blyth (1957) dealt in detail with the butterflies of India, including those from Rajasthan. Macpherson (1927) described butterflies of Jodhpur and Mount Abu. Kushawaha (1960) gave an account of Lepidoptera fauna of Udaipur. Mathur and Chempakavalli (1961) studied the butterflies of Pilani, northern Rajasthan. However, there appears to be no studies on butterflies occurring in the Keoladeo National Park, Bharatpur. Hence an attempt was made to study this most noticeable insect group during our limnological survey trip to the Park from 13 April 1999 to 24 April 1999. All the scientific names follow Larsen (1987) and classification is after Wynter Blyth (1957).

A total of 34 species of butterflies was recorded during the period. Maximum number of species was observed in the family Pieridae (15) followed by Nymphalidae (8). The lesser species diversity is probably due to the high temperature during the summer which was hovering around 40°C during the study period. A family-wise description of these fauna is given below

Papilionidae: Three species were represented in this family. The form *Papilio polytes polytes* or Common Mormon butterfly is observed fairly in good number. Common Rose, *P. aristolochiae* is seen very rarely near the Keoladeo temple. Among the Papilionids. The Lime Butterfly *P. demoleus* is the most common species seen near the tourist zone of the Park.

Pieridae: Of the 34 species recorded, 15 were Pierids. The dominance of these white and yellow species indicates the vegetational pattern of the park which is dominated by the

Table 1. Systematic List of Butterflies of Keoladeo Ghana National Park, Bharatpur

Family: Papilionidae	
1. <i>Pachliopta aristolochiae</i>	Common Rose
2. <i>Papilio polytes</i>	Common Mormon
3. <i>Papilio demoleus</i>	Lime Butterfly.
Family: Pieridae	
4. <i>Leptosia nina</i>	Psyche
5. <i>Cepora erissa</i>	Common Gull
6. <i>Anaphaeis aurota</i>	Caper White
7. <i>Colotis amata</i>	Small Salmon Arab
8. <i>Colotis etrida</i>	Little Orange Tip.
9. <i>Colotis eucharis</i>	Plain orange Tip
10. <i>Colotis danae</i>	Crimson Tip
11. <i>Colotis uestalis</i>	White Arab
12. <i>Madais fausta</i>	Great Salmon Arab
13. <i>Ixias marianne</i>	White Orange Tip
14. <i>Ixias pyrene</i>	Yellow Orange Tip
15. <i>Catopsilia pomona</i>	Lemon Emigrant
16. <i>Catopsilia pyranthe</i>	Mottled Emigrant
17. <i>Eurema brigitta</i>	Small Yellow
18. <i>Eurema hecabe</i>	Common Grass Yellow
Family: Danaidae	
19. <i>Danaus chrysippus</i>	Plain Tiger
20. <i>Danus genutia</i>	Striped Tiger
21. <i>Tirumala limniace</i>	Blue Tiger
Family: Lycaenidae	
22. <i>Azarus ubaldus</i>	Bright Babul Blue
23. <i>Zizina otis</i>	Lesser Grass Blue
24. <i>Zizula hylax</i>	Tiny Grass Blue
25. <i>Euchrysops cnejus</i>	Gram Blue
Family: Nymphalidae	
26. <i>Ariadne merione</i>	Common Castor
27. <i>Phalantha phalantha</i>	Common Leopard
28. <i>Junonia hierta</i>	Yellow Pansy
29. <i>Junonia orithya</i>	Blue Pansy
30. <i>Junonia lemonias</i>	Lemon Pansy
31. <i>Junonia almana</i>	Peacock Pansy
32. <i>Junonia atlites</i>	Grey Pansy
33. <i>Hypolimnas misippus</i>	Danaid Eggfly
Family: Hesperidae	
34. <i>Suastus gremius</i>	Indian Palm Bob

species from the family Cappariadaceae and Caesalpiniaceae, which form the major larval food plants of many butterfly species. The Caper White *Anaphaeis aurota*, Common Gull *Cepora nerissa*, Small Arab *Colotis amata*, White Orange Tip *Ixias marianne* are the most abundant species of butterflies in the Park. The small and fast flying White Arab, *C. vestalis* and beautiful large Salmon Arab, *Madais fausta* are mainly seen among the trekpath clearings and open areas near Koladahar and Kadamkunj where, savannah and scrubland occur. The

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slow-flying Psyche, *Leptosia nina* are seen fluttering around the road side bushes, leading from the main gate to the barrier.

Danaidae: Danaids like Plain Tiger, *Danaus chrysippus* and Striped Tiger *D. genutia* are the most common and are frequently seen visiting flowers of Neem, Ageratum and Polygonum plants in the Park. The Blue Tiger, *Tirumala limniace* which seems to be rare was observed thrice near Samanmari within the Park. Absence of common Grow *Euploea core* was noticed during the survey.

Nymphalidae: Eight species represented the family. Among them, the Peacock Pansy, *Junonia almana* and Lemon Pansy, *Junonia lemonias* were seen everywhere in the Park in good numbers. The Grey Pansy, *Precis atlites* was observed once near Kadamkunj and again near Sampanmari. The Yellow Pansy, *Junonia hierta* and the Leopard Butterfly, *Phalantha phalantha* were recorded once within the Park.

Lycaenidae: Four species represented this family. The Bright Babul Blue, *Azanus ubaldus* and the Gram Blue, *Euchrysops cnejus* seem to be the commonest.

Hesperiidae: The Indian Palm Bob, *Suastus gremius* is the only member of the family found here. Only two sightings were recorded, once on Lantana flower near barrier and again near Shanti Kutir Rest House.

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References

- Anonymous (1996).** *Keoladeo National Park, Bharatpur, Rajasthan.* Forest Department, Rajasthan. (Compiled by B.L. Meena and Shruthi Sharma).
- Kushwaha, K.S. (1960).** Common Lepidopateran fauna of Udaipur including several common pests of Rajasthan, together with brief notes on their infestation. *Proc. 47th Indian Sci. Congr. Pt. 3:*455.
- Larsen, T.B. (1987).** The Butterflies of the Nilgiri Mountains of southern India. (Lepidoptera: Rhopalocera). *J. Bombay nat. Hist. Soc.* 84: 26-54; 85: 26-43.
- MacPherson, A.D. (1927).** Notes on collection of butterflies made in Jodhpur and Mount Abu during the years 1924, 1925 and 1926. *J. Bombay nat. Hist. Soc.* 32(1): 222-230.
- Mathur, S.N. and Chempakavalli, K.R. (1961).** Butterflies of Pilani. *Proc. Rajasthan Acad. Sci.* 8(1&2): 135-139.
- Wynter Blyth, M.A. (1957).** *Butterflies of the Indian Region.* Bombay Natural History Society, Bombay 523 Pp.
- Vijayan, V.S. (1987).** *Keoladeo National Park - Ecology Project. Summary Report. 1980-87.* Bombay Natural History Society, Bombay.