

BUTTERFLIES OF THE TIGER-LION SAFARI, THYAVAREKOPPA, SHIMOGA, KARNATAKA

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Tiger-Lion Safari, Thyavarekoppa was established in 1988, covers an area of 195ha, located at 14°56'N-75°45'E and is situated 10km away from the Shimoga city. It is under the administration of Karnataka Zoo Authority. The Safari is in dry deciduous forest in the Western Ghats and is one of the most important tourism spots in Shimoga district.

Field observations were made once in a week for a period of one year from June 2005 to May 2006. Butterflies were recorded by direct visual observations and collections were by using insect collecting net. The butterflies collected were narcotized with crystals of methanol and after air drying of specimens, identification was carried out using standard references (Talbot, 1939, 1947; Wynter-Blyth, 1957; Gay *et al.*, 1992; Gunathilagaraj *et al.*, 1998; Kunte, 2000).

The line transect method developed by The Institution of Terrestrial Ecology (Pollard, 1979) was followed to monitor the diversity. The butterflies were encountered along a fixed transect route of 2km and were recorded regularly at an interval of 15 days in the study period. Based on the specimens collected and the visual observations made during the entire study period the status of various butterflies of the area was prepared. The status was scored using presence-absence scoring method and then percentage of occurrence was calculated to determine the status. The score classes used were 1-6% = rare, 7-18% = common, >18% = very common.

The study reveals the presence of 57 species of butterflies, representing five families; Papilionidae is represented by five genera and 10 species; Lycaenidae by eight genera each with one species; Nymphalidae by 21 genera with 28 species; Pieridae by seven genera and eight species; and Hesperidae by three genera each with one species. Nymphalidae was best represented with maximum number of species and the least number was observed in Hesperidae. The checklist of all the species observed with their status is given in Table 1.

Butterflies are sensitive to changes in the habitat and climate, which influence their distribution and abundance (Wynter-Blyth, 1957). Analysis on the status shows that 22 species are rare, 19 species common and 16 species very common in the Tiger-Lion Safari, Thyavarekoppa in the study year (Table 1).

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Table 1. List of butterflies along with their status in the Tiger-Lion Safari, Thyavarekoppa

Scientific name	Common name	Status
Family: Papilionidae		
1. <i>Graphium agamemnon</i> (Linnaeus)	Tailed Jay	C
2. <i>Graphium nomius</i> (Esper)	Spot Swordtail	C
3. <i>Graphium sarpedon</i> (Linnaeus)	Common Blue Bottle	R
4. <i>Pachliopta aristolochiae</i> (Fabricius)	Common Rose	R
5. <i>Pachliopta hector</i> (Linnaeus)	Crimson Rose*	VC
6. <i>Pachliopta pandiyana</i> (Moore)	Malabar Rose*	R
7. <i>Papilio demoleus</i> (Linnaeus)	Lime Butterfly	VC
8. <i>Papilio polymnestor</i> (Cramer)	Blue Mormon**	R
9. <i>Papilio polytes</i> (Linnaeus)	Common Mormon	C
10. <i>Troides minos</i> (Cramer)	Southern Birdwing*	R
Family: Lycaenidae		
11. <i>Alphnaeus vulcanus</i> (Fabricius)	Common Silverline	R
12. <i>Arhopala amantes</i> (Hewitson)	Large Oak Blue	R
13. <i>Castalius rosimon</i> (Fabricius)	Common Pierrot	VC
14. <i>Discolampa ethion</i> (Westwood)	Banded Blue Pierrot	C
15. <i>Jamides bochus</i> (Stoll)	Dark Cerulean	C
16. <i>Lampides boeticus</i> (Linnaeus)	Pea blue	C
17. <i>Talicerca nyseus</i> (Guerin-Meneville)	Red Pierrot	C
18. <i>Zizeeria karsandra</i> (Moore)	Common dark Grass Blue	VC
Family: Nymphalidae		
19. <i>Acraea violae</i> (Fabricius)	Tawny Coster	VC
20. <i>Ariadne merione</i> (Cramer)	Common Castor	R
21. <i>Byblia lithyia</i> (Drury)	Jocker	C
22. <i>Cupha erymanthis</i> (Drury)	Rustic	C
23. <i>Danaus chrysipus</i> (Linnaeus)	Plain Tiger	R
24. <i>Danaus genutia</i> (Cramer)	Striped Tiger	C
25. <i>Euploea core</i> (Cramer)	Common Indian Crow	VC
26. <i>Hypolimnas bolina</i> (Linnaeus)	Great Eggfly	R
27. <i>Hypolimnas misippus</i> (Linnaeus)	Danaid eggfly**	C
28. <i>Junonia almana</i> (Linnaeus)	Peacock Pansy	R
29. <i>Junonia atlites</i> (Linnaeus)	Gray Pansy	R
30. <i>Junonia hierta</i> (Fabricius)	Yellow Pansy	C
31. <i>Junonia iphita</i> (Cramer)	Chocolate Pansy	C
32. <i>Junonia lemonias</i> (Linnaeus)	Lemon Pansy	VC
33. <i>Junonia orithya</i> (Linnaeus)	Blue Pansy	C
34. <i>Lethe rohria</i> (Fabricius)	Common tree brown	R
35. <i>Melanitis leda</i> (Linnaeus)	Common Evening Brown	VC
36. <i>Moduza procris</i> (Cramer)	Commander	R
37. <i>Mycalesis patnia</i> (Moore)	Glade eye Bush brown**	R
38. <i>Mycalesis perseus</i> (Fabricius)	Common Bush Brown	C
39. <i>Neptis hylas</i> (Moore)	Common Sailer	VC
40. <i>Orsotrioena medus</i> (Fabricius)	Nigger	C
41. <i>Phalanta phalantha</i> (Drury)	Common Leopard	VC
42. <i>Polyura athamas</i> (Drury)	Common Nawab	R
43. <i>Symphhaedta nais</i> (Forster)	Baronet**	VC
44. <i>Tanaecia lepidea</i> (Butler)	Grey Count	R
45. <i>Tellewa limniace</i> (Cramer)	Blue Tiger	VC
46. <i>Ypthima baldus</i> (Fabricius)	Common Four Ring	VC
Family: Pieridae		
47. <i>Anaphaeis aurota</i> (Fabricius)	Pioneer	VC
48. <i>Catopsilia pomona</i> (Fabricius)	Common Emigrant	C
49. <i>Catopsilia pyranthe</i> (Linnaeus)	Mottled Emigrant	VC
50. <i>Colotis danae</i> (Fabricius)	Crimson Tip	R
51. <i>Delias eucharis</i> (Drury)	Common Jezebel**	R
52. <i>Eurema hecabe</i> (Linnaeus)	Common Grass Yellow	VC
53. <i>Hebomoia glaucippe</i> (Linnaeus)	Great Orange Tip	R
54. <i>Valeria valeria</i> (Joicey & Talbot)	Common Wanderer	C
Family: Hesperidae		
55. <i>Borbo cinnara</i> (Wallace)	Rice Swift	C
56. <i>Gangara thyrus</i> (Fabricius)	Gaint Red Eye	R
57. <i>Spialia galba</i> (Fabricius)	Indian Skipper	R

VC - Very Common; C - Common; R - Rare

* - Endemic to Western Ghats; ** - Endemic to Peninsular India and Sri Lanka.

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