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An Updated List Of Butterfly Fauna From Dapoli Tehsil Of Ratnagiri District, Western Ghats, Maharashtra, India

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Abstract

The current study aimed to document the variety of butterfly species in the vicinity of Dapoli tehsil during the months of August 2021 to July 2022. It is located in the Ratnagiri district of the Kokan region in the Western Ghats of Maharashtra. Butterflies and moths belong to the class insect and order lepidoptera. It is second largest order class insecta. Its body is covered with scaly wings. It play important role in pollination. Only larva of butterflies are pest of various crops and vegetables and adults deeding on nectar and pollen as their food. It is widely recognized that insects play a crucial role in maintaining the essential life support systems within natural habitats. Among all insects, butterflies play a crucial ecological role, as they feed on nectar and serve as vital pollinators for flowering plants. Butterflies are evaluate as the good indicators of the terrestrial ecosystem. This paper includes 78 different species and subspecies, belonging to seven families that can be found in the Dapoli tehsil of Ratnagiri district in the Western Ghats of Maharashtra. Family nymphalidae represented 25 species followed by families lycaenidae, pieridae, papilionidae, hesperiidae, satyridae and danaidae with 18, 09, 08, 07, 07 and 04 species respectively.

Key words: Update list, butterfly species, Dapoli tehsil, Western Ghats, Maharashtra. etc.

Introduction

Butterflies are one of the stunning creatures belonging to the largest phylum of arthropods, which is a part of the animal kingdom. Butterflies are classified under the order lepidoptera. It is widely recognized that insects play a crucial role in maintaining the essential life support systems within natural habitats. Among all insects, butterflies play crucial ecological role, as they rely on nectar as their primary food source and contribute significantly to the pollination of flowering plants. The caterpillars of butterflies are the main herbivores in the ecosystem and play a crucial role in the transfer of radiant energy that is captured by plants and made accessible to other organisms. Insects serve as valuable indicators of the environmental quality within any ecosystem. Rephrase Butterflies have specific habitat requirements based on their feeding and reproduction needs, and the loss of these requirements can lead to the extinction of local butterfly populations. As a result, the conservation value of a habitat could be evaluated by the presence of different species of butterflies in that area. The lepidoptera, which includes butterflies and moths, are a diverse and abundant group of insects found in various ecosystems. They serve as herbivores, pollinators, and prey. In India, the entire Western Ghats region is considered a mega biodiversity center, with an estimated 800,000 insect species reported from the country (Ray and Ray, 2006). The world is home to approximately 17,280 butterfly species, with 1641 of them belonging to 394 genera that have been documented in the Indian subcontinent (Varshney, 2006).Rephrase India has documented 1,500 species of butterfly, predominantly found in the northern regions of the Eastern Ghats, due to its significant biodiversity value. Maharashtra has documented 162 different species of butterflies, belonging to seven distinct families.

Materials and Methods:

The aim of the investigation was to produce report of butterflies species observed one year from august 2021 to July 2022 in Dapoli tehsil of Ratnagiri district, Western Ghats Maharashtra. The butterflies were observed using the pollard walk method, which involves walking along fixed paths and recording and counting the different species. The observation width was restricted to approximately 5 meters. Butterflies were spotted during sunny days from 8:00 a. m. to 12:00 p. m. once a week. The butterflies were carefully observed, photographed, and collected using the Swip net method. After identification, the butterflies were set free at the exact location where they were found. The identification was done with the help of appropriate literature (Gunathigalraj et. al. 1998, Gaonkar, 1996, Kunte, 2000, Lefroy, 1909, Marshall, 1990, Haribal, 1992, Varshney, 2006, wynter-blyth, 1957). The butterflies were classified based on their family.

Results and Discussion:

The present paper incorporates 78 species and sub species of butterflies distributed over 7 families from Dapoli Tehsil of Ratnagiri District Western Ghats Maharashtra. Family Nymphalidae represented 25 species followed by families Lycaenidae, Pieridae, Papiionidae Satyridae and Danaidae with 18, 08, 07 and 07 species respectively. In future concentrated efforts will be made to enlist maximum number of butterfly species so as to achieve total biodiversity of butterflies in Dapoli tehsil of Ratnagiri District, Maharashtra India. Basistha *et al.*, (1999) reported 56 species of butterflies from Orang Wildlife Sanctuary, Assam. Ali and Basistha (2000) reported 79 species of butterflies from Assam State Zoo-Cum-Botanical garden. Sonia and Pallot (2003) recorded 43 species of butterflies from paddy field ecosystem of Palakkad District, Kerala. Raut and Pendharkar (2010) reported 53 species of butterflies belonging to five families in Nature Park, Mumbai, and Maharashtra, India. Patil and Shende (2014) reported total 92 species of butterflies belonging to 59 genera and 5 families from Gorewada International Bio-Park, Nagpur of Vidarbha region of Maharashtra. Gajbe (2016) reported 53 species of butterflies belonging to 34 genera of 5 families from Karhandle region of Umred Karhandla Wildlife Sanctuary of Vidarbha region of Maharashtra.

Tingare (2021) recorded 60 species and sub species distributed over 5 families of butterflies from Dapoli Taluka of Ratnagiri District. Murudkar and Jagtap (2022) recorded total 35 species of butterflies belong to 5 families from Nandgaon Village and Gulmohar Park in Khed Tehsil, Ratnagiri District (M.S.) India. Chavan *et.al.* (2024) ciated 28 species of butterflies belonging to 24 genera and four families from Rajaram College Campus, Kolhapur, Maharashtra, India. Jagtap (2024) reported total 36 species of butterflies belong to 5 families from Dapoli Tehsil of Ratnagiri district.

An Updated List of Butterfly Fauna from Dapoli Tehsil Ratnagiri District of Western Ghats Maharashtra, India.

Sr. No	Name Of Family	Common Name	Scientific Name
a)	Pieridae	Pioneer White	1. <i>Belenois aurota</i>
		Common Emigrant	2. <i>Catopsilia pomona</i>
		Common Gull	3. <i>Cepora nerissa</i>
		Great Orange tip	4. <i>Hebomoia glaucippe</i>
		Spotless Grass Yellow	5. <i>Euerema laeta</i>
		Psyche	6. <i>Leptosia nina</i>
		White Orange Tip	7. <i>Ixias marianne</i>
		Common Wanderer	8. <i>Pareronia valeria</i>
		Mimosa Yellow	9. <i>Pyrisitia nise</i>
b)	Satyridae	Evening Brown	1. <i>Melanitis leda</i>
		Dark Evening Brown	2. <i>Melanitis phedima</i>
		Common Palm fly	3. <i>Elymnias hypermnestra</i>
		Common Treebrown	4. <i>Lethe rohria</i>
		Bamboo Treebrown	5. <i>Lethe europa</i>
		Common Fourring	6. <i>Ypthima huebneri</i>
		Common Five ring	7. <i>Ypthima baldus</i>
c)	Nymphalidae	Angled Castor	1. <i>Ariadne ariadne</i>
		Common Castor	2. <i>Ariadne merione</i>
		Blackvein Sergeant	3. <i>Athyma ranga</i>
		Common Sergeant	4. <i>Athyma perius</i>
		Painted Lady	5. <i>Cynthia cardui</i>
		Black Rajah	6. <i>Charaxes solon</i>
		Common Baron	7. <i>Euthalia aconthea</i>
		Gaudy Baron	8. <i>Euthalia lubentina</i>
		Peacock Pancy	9. <i>Junonia almana</i>
		Yellow Pansy	10. <i>Jononia hierta</i>
		Blue Pansy	11. <i>Junonia orithya</i>
		Lemon Pansy	12. <i>Junonia lemonias</i>
		Grey Pansy	13. <i>Junonia atlites</i>
		Great Egg Fly	14. <i>Hypolimnas bolina</i>
		Commander	15. <i>Moduza procris</i>
		Common sailor	16. <i>Neptis hylas</i>
		Chestnut-streaked sailer	17. <i>Neptis jumbah</i>
		Common Lascar	18. <i>Pantoporia hordonia</i>
		Chocolate Pansy	19. <i>Precis iphita iphita</i>
		Common Leopard	20. <i>Phalanta phalantha</i>
		Common Nawab	21. <i>Polyura athamas</i>
		Sahyadri Blue Oakleaf	22. <i>Kallima horsfieldi</i>

		Blue Tiger	23. <i>Tirumala linniae</i>
		Painted Lady	24. <i>Vanessa cardui</i>
		Common Crow	25. <i>Euploea core</i>
d)	Lycaenidae	Purple leaf blue	1. <i>Amblypodia anita</i>
		Common hedge blue	2. <i>Acetolepis puspa</i>
		Angled Pierrot	3. <i>Caleta decidia</i>
		Forget Me Not	4. <i>Catochrysops strabo</i>
		Bright babul Blue	5. <i>Azonus ubaldus</i>
		Plain hedge blue	6. <i>Cilastrina lavendularis</i>
		Angled Sunbeam	7. <i>Curetis acuta</i>
		Grass Jewel	8. <i>Freyeria trochilus</i>
		Dark Cerulean	9. <i>Jamides bochus</i>
		Common Cerulean	10. <i>Jamides celeno</i>
		Metallic Cerulean	11. <i>Jamides alecto</i>
		Zebra Blue	12. <i>Leptotes plinius</i>
		Forest Quaker	13. <i>Pithecopis corvus</i>
		Pale Grass Blue	14. <i>Pseudozizeeria maha</i>
		Striped Pierrot	15. <i>Tarucus nara</i>
		Dark Pierrot	16. <i>Tarucus ananda</i>
		Dark Grass Blue	17. <i>Zizeeria karsandra</i>
		Indian Lesser grass Blue	18. <i>Zizinia otis</i>
e)	Hesperiidae	Common Small Flat	1. <i>Sarangesa darsahara</i>
		Conjoined Swift	2. <i>Pelopidas conjuncta</i>
		Malabar Sotted Flat	3. <i>Celaenorrhinus ambareesa</i>
		Painted Brush Swift	4. <i>Baoris farri</i>
		Pale Palm dart	5. <i>Telicota colon</i>
		Small Branded Swift	6. <i>Pelopidas mathias</i>
		Common Redeye	7. <i>Matapa aria</i>
f)	Danaiidae	Blue Tiger	1. <i>Tirumala linniae</i>
		Common Crow	2. <i>Euploea core</i>
		Glassy Tiger	3. <i>Parantica aglea</i>
		Plain Tiger	4. <i>Danaus Chrysipus</i>
g)	Papilionidae	Common Blue bottle	1. <i>Graphium sarpedon</i>
		Common Jay	2. <i>Graphium doson</i>
		Tailed Jay	3. <i>Graphium agammemnon</i>
		Lime Butterfly	4. <i>Papilio demoleus</i>
		Blue Mormon	5. <i>Papilio polymnestor</i>
		Common Mormon	6. <i>Papilio polytes</i>
		Red Helen	7. <i>Princeps helenus</i>
		Common Rose	8. <i>Pachliopta aristolochiae</i>

Conclusion:

In the present investigation total 78 species and sub species of butterflies distributed over 7 families from Dapoli Tehsil of Ratnagiri District Western Ghats Maharashtra. Family Nymphalidae represented 25 species followed by families Lycaenidae, Pieridae, Papiionidae Satyridae and Danaidae with 18, 09, 08, 07, 07 and 04 species respectively. In future concentrated efforts will be made to enlist maximum number of butterfly species so as to achieve total biodiversity of butterflies in Dapoli Tehsil of Ratnagiri District, Maharashtra, India.

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Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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