

CHECKLIST OF BUTTERFLIES (LEPIDOPTERA: PAPILIONOIDEA) IN AND AROUND LAKE TOWN, KOLKATA

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This study was carried out to ascertain the butterfly fauna in the urban settlement of Lake Town and adjoining areas and discover the flowers and other resources used by adults.

The study was conducted in four areas, viz. Site 1: Forest Office and adjoining area at Dum Dum Park, VIP Road; Site 2: Lake Town Park area (Third Lake); Site 3: East Calcutta Girls' College Campus and Site 4: Kestopur Canal side garden, VIP Road stretching from Bangur to Lake Town. Butterflies were recorded by opportunistic surveys throughout the year from July 2018 to August 2021, excluding the period of March 2020 to August 2020 and in May 2021 due to restrictions for COVID – 19 pandemics. The field trips were undertaken from 8.30 to 11.30 am and in the afternoon from 2.30 to 4.30 pm. A binocular (Nikon Action EX 10X50 CF) and Fieldscope (Nikon Prostaff SEP 25) were used to spot the butterflies. The specimens were identified according to Evans (1932), Haribal (1992), Kehimkar (2008), Kunte (2000), Smetacek (2017), Varshney (2010) and Varshney and Smetacek (2015).

A total of 28 species belonging to 5 families were recorded during the study period. Out of five families, Nymphalidae represented by 10 species, was the most

dominant, followed by Pieridae and Papilionidae (each represented by 7 species) and Lycaenidae, represented by 3 species. Family Hesperidae was represented by a single species (Table 1). Based on the frequency of observation, butterflies were classified as abundant (observed more than 75%), regular (30% to <75%) and rare (< 30%).

A detailed checklist of the butterflies including their status in the study area is presented in Table 1. Several authors have reported the diversity of butterfly fauna in and around Kolkata. Ghosh & Siddique (2005) reported 68 species, Mukherjee et al. (2015) reported 96 species in and around urban Kolkata. 33 species of butterfly fauna were reported from the Mudialy Ecological Park by Chowdhury & Chowdhury (2007). Mukherjee et al. (2016) found 54 species in Kolkata metropolis. In the present study, 28 species of butterflies were recorded in a comparatively small study area (Table 1). Findings are very significant as the study area is situated mostly beside the very busy VIP road amidst the urban settlement. An earlier study supports Nymphalidae as the most dominant family in the semi urban areas of Howrah and Haldia (Pahari et al., 2018). But contrary to findings in the present study, Mukherjee et al, (2015) reported Lycaenidae as the most dominant

family in the suburban areas of Kolkata. It was observed that the quantity and diversity of butterflies was reducing throughout the study period. It may be due to the constantly increasing anthropogenic activity, pollution or reduction in vegetation, or else a combination of these and other factors. Rapid and constant urbanization in this area leads to habitat destruction which has an adverse impact

on butterfly diversity. This check list is intended to serve as base line data for what was present during this period in a rapidly changing landscape and this report will provide important information to develop effective conservation measures like creation of butterfly gardens etc. in the study area.

Table 1. Butterfly diversity at Lake Town, South Dum Dum Municipality, Kolkata.

Sl. No.	Common Name	Scientific Name	Family	Observed on flowers / Organic matter	Remarks
1.	Common Rose	<i>Pachliopta aristolochiae</i> Fabricius, 1775	Papilionidae	<i>Lantana camara</i> (L.)	Regular
2.	Crimson Rose	<i>Pachliopta hector</i> (Linnaeus, 1758)	Papilionidae	<i>Lantana camara</i> (L.)	Regular
3.	Common Mime	<i>Papilio clytia</i> (Linnaeus, 1758)	Papilionidae	<i>Ixora coccinea</i> L.	Regular
4.	Common Banded Peacock	<i>Papilio crino</i> Fabricius, 1792	Papilionidae	<i>Hibiscus rosa-sinensis</i> L.	Rare
5.	Lime Butterfly	<i>Papilio demoleus</i> Linnaeus, 1758	Papilionidae	<i>Catharanthus roseus</i> (L.)	Regular
6.	Common Mormon	<i>Papilio polytes</i> Linnaeus, 1758	Papilionidae	<i>Citrus limon</i> (L.)	Abundant
7.	Common Jay	<i>Graphium doson</i> C. & R. Felder, 1864	Papilionidae	<i>Magnolia champaca</i> (L.)	Rare
8.	Grass Demon	<i>Udaspes folus</i> (Cramer, 1775)	Hesperiidae	<i>Lantana camara</i> (L.)	Abundant

9.	Common Emigrant	<i>Catopsilia pomona</i> (Fabricius, 1775)	Pieridae	<i>Lantana camara</i> (L.)	Abundant
10.	Mottled Emigrant	<i>Catopsilia pyranthe</i> (Linnaeus, 1758)	Pieridae	<i>Lantana camara</i> (L.)	Abundant
11.	Common Grass Yellow	<i>Eurema hecabe</i> (Linnaeus, 1758)	Pieridae	<i>Tridax procumbens</i> L.	Abundant
12.	Psyche	<i>Leptosia nina</i> (Fabricius, 1793)	Pieridae	<i>Cleome viscosa</i> L.	Abundant
13.	Striped Albatross	<i>Appias libythea olferna</i> C. Swinhoe, 1890	Pieridae	<i>Catharanthus roseus</i> (L.)	Rare
14.	Common Gull	<i>Cepora nerissa</i> Fabricius, 1775	Pieridae	<i>Ixora coccinea</i> L.	Abundant
15.	Common Jezaebel	<i>Delias eucharis</i> (Drury, 1773)	Pieridae	<i>Vitex negundo</i> L.	Abundant
16.	Apefly	<i>Spalgis epius</i> (Westwood, 1851)	Lycaenidae	<i>Murraya koenigii</i> (L.)	Rare
17.	Common Pierrot	<i>Castalius rosimon</i> (Fabricius, 1775)	Lycaenidae	<i>Cynodon dactylon</i> (L.)	Rare
18.	Quaker	<i>Neopithecops zalmora</i> (Butler, 1870)	Lycaenidae	<i>Glycosmis pentaphylla</i> (Retz.)	Regular
19.	Plain Tiger	<i>Danaus chrysippus</i> Linnaeus, 1758	Nymphalidae	<i>Cosmos bipinnatus</i> Cav.	Abundant
20.	Common Tiger	<i>Danaus genutia</i> (Cramer, 1779)	Nymphalidae	<i>Zinnia elegans</i> Jacq.	Regular
21.	Common Crow	<i>Euploea core</i> (Cramer, 1780)	Nymphalidae	<i>Lantana camara</i> (L.)	Abundant

22.	Common Evening Brown	<i>Melanitis leda</i> (Linnaeus, 1758)	Nymphalidae	Cow dung	Abundant
23.	Common Bushbrown	<i>Mycalesis perseus</i> (Fabricius, 1775)	Nymphalidae	Cow dung	Abundant
24.	Angled Castor	<i>Ariadne ariadne</i> (Linnaeus, 1763)	Nymphalidae	<i>Tragia involucrate</i> L.	Regular
25.	Tawny Coster	<i>Acraea terpsicore</i> (Linnaeus, 1758)	Nymphalidae	<i>Hybanthus enneaspermus</i> (L.)	Rare
26.	Peacock Pansy	<i>Junonia almana</i> (Linnaeus, 1758)	Nymphalidae	<i>Hygrophila auriculata</i> Schumacher	Abundant
27.	Grey Pansy	<i>Junonia atlites</i> (Linnaeus, 1763)	Nymphalidae	<i>Hygrophila auriculata</i> Schumacher	Abundant
28.	Great Eggfly	<i>Hypolimnas bolina</i> (Linnaeus, 1758)	Nymphalidae	<i>Portulaca oleracea</i> L.	Regular

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