



THE COCHIN COLLEGE CAMPUS BIODIVERSITY REGISTER



Under the aegis of Department of Zoology and Department of Botany, The Cochin College
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TROPICAL INSTITUTE OF ECOLOGICAL SCIENCES

TIES - *ties Mind & Nature*

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1. ABOUT THE COLLEGE

The Cochin College was founded on July 15, 1967, in response to increasing demand for higher education in western Kochi. The college symbolizes the hopes and aspirations of the public of western Kochi and is a milestone in the crowded history of this commercial town. Slowly and steadily the institution grew into a post graduate college in 1995 from its humble beginning as a junior college in 1967. The college was started by the erstwhile Municipality of Kochi and the Indian Chamber of Commerce, Kochi. The college has been an abode for many generations of students and has a rich heritage of dedicated staff and teachers as well as an enterprising team of management, affiliated to Mahatma Gandhi University, boasting a history of five decades.

The Cochin College, located in the west Kochi of Ernakulum District. Cochin College situated at Mattancherry, Kochi and has an area of 31 acres land. The college is affiliated to MG University and offers various courses in both Science and Humanities at the degree level such as Physics, Chemistry, Zoology, Botany, Commerce, Economics, English Literature and Mathematics and self-financing courses offered at degree level are commerce, mathematics, computer application and business administration.

2. BIODIVERSITY REGISTER, 2023

The biodiversity register serves as a comprehensive tool designed to analyze the current biodiversity status of the college campus and, subsequently, to formulate plans aimed at enhancing the existing biodiversity. The process involves a biodiversity audit, which entails a thorough assessment of both flora and fauna through spot surveys. This approach not only contributes valuable data but also offers students a unique opportunity for hands-on learning experiences beyond the confines of a traditional classroom setting. Engaging in observational and identification exercises during the audit helps students refine their skills in recognizing and categorizing various plant and animal species.

The biodiversity audit employed a systematic approach, including random transect and quadrant observation walks. These activities allowed the student community to actively participate in classifying the rich biodiversity within the campus. This immersive learning experience creates an environment that is conducive to improving observational skills and deepening understanding. It also provides students with a tangible connection to the natural world, fostering a sense of appreciation and responsibility for the environment.

The results of the biodiversity audit indicate that there is room for improvement in both faunal and floral diversity on the campus. In response to these findings, a planned greening program is proposed. This program aims to enrich the campus environment by introducing more native organisms, thereby enhancing the overall biodiversity. Through these initiatives, the college not only contributes to the preservation of local ecosystems but also offers students a holistic educational experience that extends beyond textbooks, promoting a sense of ecological stewardship and sustainability.

3. AIM

To document the list of flora and fauna of the Cochin college campus and prepare a Campus Biodiversity register.

4. OBJECTIVES

- To identify the floral and faunal diversity of the college.
- To estimate the density of the selected taxon and prepare a biodiversity register for the college

5. METHODOLOGY

Spot survey method was employed to assess diversity of selected taxon in the college campus. An expert from TIES and selected volunteer students from the college conducted a walk through survey and enumerated biodiversity, covering nook and corners of the campus. The surveyed taxa includes trees, shrubs and herbs; birds, butterflies and odonates (dragonflies & damselflies). The field survey was conducted during the period April 2023. Data was recorded, analyzed and prepared the reports.

6. RESULTS AND OBSERVATION

Cochin College has very limited land (31 acres), and the campus is mainly occupied with buildings, ground and roads. Hence, at present relatively low biodiversity is existing in the campus.



Fig. 1. Blue tailed bee- eater

6.1 Floral diversity of the campus

The campus has diverse plant life. A significant contributor to this botanical richness is the Herbal Garden, which stands as a focal point for the campus's overall floral diversity. Within this cultivated space, particular attention is drawn to the noteworthy density of key species such as *Polyalthia longifolia*, *Mangifera indica*, *Swietenia macrophylla*, *Syzygium cumini*, *Tectona grandis*, and *Samanea saman*, which exhibit the highest numbers in terms of population. In totality, a remarkable total of 123 distinct plant species flourish across the campus, contributing to a vibrant and dynamic ecological landscape. For a comprehensive understanding of the campus's botanical makeup, detailed information regarding the diversity and density of each individual plant species is meticulously provided below. This comprehensive documentation underscores the richness and importance of the diverse plant life that enhances the environmental quality of the campus.

Similar to the majority of college campuses in Kerala, almost all the trees found in the campus are planted during various years. A concerted effort is required to improve the biodiversity of the campus. Thematic biodiversity gardens like bamboo fence, native fruit trees, native shade trees, shall be installed in the campus. This will definitely improve the biodiversity of the campus.

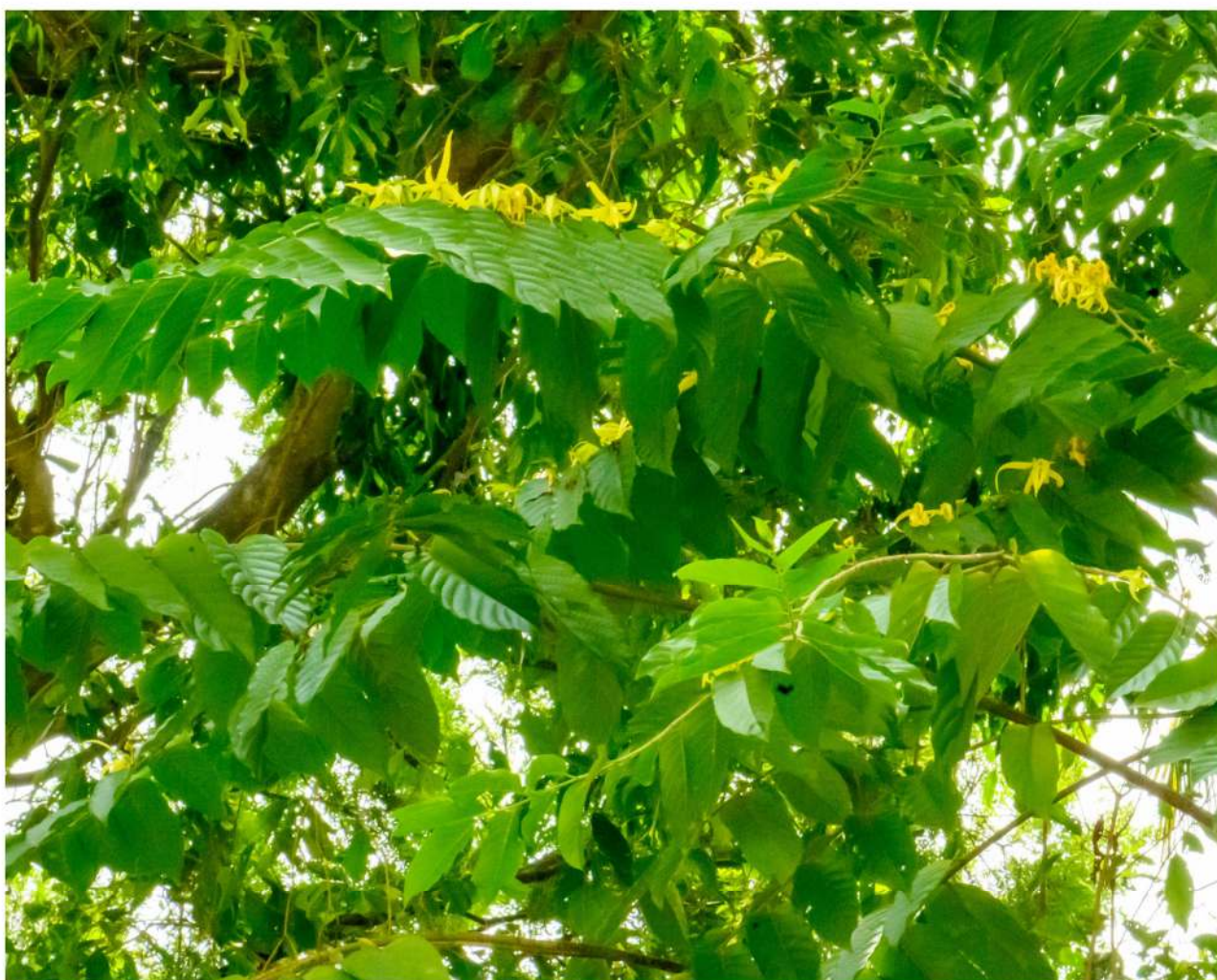


Fig. 2. *Cananga odorata*

Table 1. Checklist of plants found in the Cochin College campus

Sl.No.	Scientific Name	Malayalam Name	English Name	Number
1.	<i>Acacia auriculoformis</i>	അക്കേഷ്യ	NORTHERN BLACK WATTLE	1
2.	<i>Acacia catechu</i>	കരിങ്ങാലി	BLACK CUTCH	1
3.	<i>Acorus calamus</i>	വയമ്പ്	SWEET FLAG	1
4.	<i>Adenanthera pavonina</i>	മഞ്ചാടി	CIRASSIAN TREE	1
5.	<i>Adhatoda vasica</i>	ആടലോടകം	MALABAR NUT	1
6.	<i>Aegle marmelos</i>	കുവളം	INDIAN BAELE	1
7.	<i>Aerva lanata</i>	ചെറുള	MOUNTAIN KNOT	1
8.	<i>Alangium salviifolium</i>	അങ്കോലം	SAGE LEAVED ALANGIUM	1
9.	<i>Aloe vera</i>	കറ്റാർവാഴ	ALOE	1
10.	<i>Alpinia calcarata</i>	ചിറ്റുരത്ത	INDIAN GINGER	1
11.	<i>Anacardium occidentale</i>	കശുമാവ്	CASHEW	1
12.	<i>Anthocephalus cadamba</i>	കടമ്പ്	BURFLOWER TREE	1
13.	<i>Aporosa lindleyana</i>	വെട്ടി	APOROSA	1
14.	<i>Artocarpus hirsutus</i>	ആഞ്ഞിലി	WILD JACK	2
15.	<i>Asparagus racemosus</i>	ശതാവതി	ASPARAGUS	1
16.	<i>Averrhoa bilimbi</i>	ഇരുമ്പൻ പുളി	BILIMBI	1
17.	<i>Azdirachta indica</i>	ആര്യവേപ്പ്	NEEM	1
18.	<i>Bacopa monnieri</i>	ബ്രഹ്മി	WATER HYSSOP	1
19.	<i>Barringtonia acutangula</i>	നീർപേഴ്	BARRINGTONIA	1
20.	<i>Bauhinia variegata</i>	ചുവന്ന മന്ദാരം	ORCHID TREE	1
21.	<i>Beloperone plumbaginifolia</i>	വിഷമൂലി	SNAKE GRASS	1
22.	<i>Butea monosperma</i>	പ്ലാശ്	FLAME OF THE FOREST	1
23.	<i>Calotropis gigantea</i>	എരിക്ക്	GAINT MILK WEED	1
24.	<i>Cananga odorata</i>	കനകമരം	LANGI LANGI	1
25.	<i>Capsicum frutescens</i>	മുളക്	CHILLY	1
26.	<i>Carica papaya</i>	പപ്പായ	PAPAYA	1
27.	<i>Caryota urens</i>	ചുപ്പന	TODDY PALM	3
28.	<i>Cassia fistula</i>	കണിക്കൊന്ന	GOLDEN SHOWER TREE	2
29.	<i>Casuarina equisetifolia</i>	കാറ്റാടി	CASUARINA	1
30.	<i>Catharanthus roseus</i>	ശവനാറി	MADAGASCAR PERIWINKLE	1
31.	<i>Chrysophyllum oliviforme</i>	സ്വർണ്ണപത്രി	STAR APPLE	1
32.	<i>Cinnamomum camphora</i>	കർപ്പൂരം	CAMPHOR	1
33.	<i>Cinnamomum verum</i>	കറുവ	CINNAMON	3
34.	<i>Cinnamomum verum</i>	വയന	CINNAMON	1
35.	<i>Cissus quadrangularis</i>	ചങ്ങലംപരണ്ട	VELDT GRAPE	1
36.	<i>Citrus limon</i>	ചെറുനാരകം	LEMON	4
37.	<i>Clitoria ternatea</i>	ശംഖ് പൂഷ്പം	ASIAN PIGEONWINGS	1
38.	<i>Cocos nucifera</i>	തെങ്ങ്	COCONUT	1
39.	<i>Coriandrum sativum</i>	മല്ലി	CORIANDER	1
40.	<i>Costus igneus</i>	ഇൻസുലിൻ ചെടി	INSULIN PLANT	1
41.	<i>Couroupita guianensis</i>	നാഗലിംഗമരം	CANNON BALL TREE	1

Table 2. Checklist of plants found in the Cochin College campus

Sl.No.	Scientific Name	Malayalam Name	English Name	Number
42.	<i>Curculigo orchioides</i>	നിലപ്പന	BLACK MUSALE	1
43.	<i>Curcuma longa</i>	മഞ്ഞൾ	TURMERIC	1
44.	<i>Cycas circinalis</i>	ഇരന്ത്	CYCAS	1
45.	<i>Cynodon dactylon</i>	കറുക	BERMUDA GRASS	1
46.	<i>Cyrtostachys renda</i>	ചുവന്നപന	RED PALM	2
47.	<i>Dalbergia latifolia</i>	ഇരട്ടി	ROSE WOOD	1
48.	<i>Datura stramonium</i>	ഉമ്മം	DATURA	1
49.	<i>Delonix regia</i>	പുമരം	GULMOHAR	1
50.	<i>Diospyros buxifolia</i>	മലമുരിങ്ങ	BOX LEAVED PERSIMMON	1
51.	<i>Diospyros ebenum</i>	കരിമരം	EBONY	1
52.	<i>Duranta erecta</i>	ചെമ്പഴുക്ക	GOLDEN SPOT	1
53.	<i>Eclipta alba</i>	കയ്യുന്നൂം	FALSE DAISY	1
54.	<i>Eryngium foetidum</i>	ആഫ്രിക്കൻ മല്ലി	LONG CORIANDER	1
55.	<i>Eupatorium triplinerve</i>	അയ്യപ്പാന	AYAPANA	1
56.	<i>Ficus benjamina</i>	വെള്ളആൽ	WEeping FIG	1
57.	<i>Ficus elastica</i>	ശീമയാൽ	RUBBER FIG	1
58.	<i>Ficus microcarpa</i>	ഇത്തി	INDIAN LAURAL	1
59.	<i>Ficus recemosa</i>	അത്തി	CLUSTER FIG TREE	1
60.	<i>Ficus religiosa</i>	അരയാൽ	PEEPAL TREE	1
61.	<i>Flacourtia jangomas</i>	വയംഗത	COFFEE PLUM	1
62.	<i>Garcinia gummi-gutta</i>	കുടംപുളി	MALABAR TAMARIND	1
63.	<i>Grevillea robusta</i>	സിൾവർഓക്ക്	SILVER OAK	1
64.	<i>Hemidesmus indicus</i>	നറുനീണ്ടി	INDIAN SARSAPARILLA	1
65.	<i>Hibiscus rosa sinensis</i>	ചെമ്പരത്തി	HIBISCUS	1
66.	<i>Holoptelea integrifolia</i>	ആവൽ	INDIAN ELM	1
67.	<i>Ixora coccinea</i>	ചെത്തി	IXORA	1
68.	<i>Justicia gendarussa</i>	ഒടിച്ചുകുത്തി	BLACK MALABAR NUT	1
69.	<i>Kaempferia galanga</i>	കച്ചോലം	AROMATIC GINGER	1
70.	<i>Lannea coromandelica</i>	കലശ്	INDIAN ASH TREE	1
71.	<i>Leucas aspera</i>	തുമ്പ	COMMON LEUCAS	1
72.	<i>Madhuca longifolia</i>	ഇലിപ്പ	INDIAN BUTTER TREE	6
73.	<i>Mangifera indica</i>	മാവ്	MANGO TREE	14
74.	<i>Mentha arvensis</i>	പുതിന	WILD MINT	1
75.	<i>Mentha piperita</i>	കർപ്പൂര തുള്ളസി	PEPPER MINT	1
76.	<i>Mesua nagassarium</i>	നാഗപ്പുമരം	CEYLON IRONWOOD	1
77.	<i>Michelia champaca</i>	ചെമ്പകം	CHAMPAK	1
78.	<i>Mimusops elengi</i>	ഇലഞ്ഞി	BULLET WOOD	1
79.	<i>Morinda citrifolia</i>	നോഹി	INDIAN MULBERRY	1
80.	<i>Muntingia calabura</i>	പഞ്ചസാരപ്പഴം	JAMAICAN CHERRY	1
81.	<i>Murraya koenigii</i>	കറിവേപ്പ്	CURRY LEAF	1

Table 3. Checklist of plants found in the Cochin College campus

Sl.No.	Scientific Name	Malayalam Name	English Name	Number
82.	<i>Mussaenda philippica</i>	മുസാണ്ട	MUSSANDA	1
83.	<i>Myristica fragrans</i>	ജാതി	NUTMEG	1
84.	<i>Nerium oleander</i>	അരളി	OLEANDER	1
85.	<i>Ocimum basiicum</i>	കൃഷ്ണതുളസി	HOLY BASIL	1
86.	<i>Ocimum tenuiflorum</i>	തുളസി	OCIMUM	1
87.	<i>Peltophorum pterocarpum</i>	മഞ്ഞക്കൊന്ന	COPPER POD	6
88.	<i>Phyllanthus embilica</i>	നെല്ലി	INDIAN GOOSEBERRY	1
89.	<i>Pimenta dioica</i>	സർപ്പസുഗന്ധി	ALLSPICE	1
90.	<i>Piper longum</i>	തിപ്പല്ലി	INDIAN LONG PEPPER	1
91.	<i>Piper nigrum</i>	കുരുമുളക്	BLACK PEPPER	1
92.	<i>Plumbago rosea</i>	ചുവന്ന കൊടുവേലി	INDIAN LEADWORT	1
93.	<i>Polyalthia longifolia</i>	അരണമരം	INDIAN MAST TREE	26
94.	<i>Pongamia pinnata</i>	ഉങ്ങ്	INDIAN BEECH TREE	2
95.	<i>Premna integrifolia</i>	മുഞ്ഞ	PREMNA	1
96.	<i>Psidium guajava</i>	പേരക്ക	GUAVA	7
97.	<i>Pterocarpus santalinus</i>	രക്തചന്ദനം	RED SANDAL	1
98.	<i>Punica granatum</i>	മാതളം	POMEGRANATE	1
99.	<i>Quassia amara</i>	ക്വാസിയ	BITTER WOOD	1
100.	<i>Rauwolfia tetraphylla</i>	പാമ്പുംകൊല്ലി	WILD SNAKE ROOT	1
101.	<i>Rauwolfia serpentina</i>	സർപ്പഗന്ധി	INDIAN SNAKE ROOT	1
102.	<i>Samanea saman</i>	മഴമരം	RAIN TREE	15
103.	<i>Sansevieria roxburghiana</i>	സ്നേക്ക് പ്ലാന്റ്	INDIAN BOWSTRING HEMP	1
104.	<i>Saraca asoca</i>	അശോകം	ASOKA TREE	1
105.	<i>Sauropus androgynus</i>	വേലിച്ചീര	SWEET LEAF	1
106.	<i>Spondias pinnata</i>	അമ്പഴം	WILD MANGO	1
107.	<i>Swietenia macrophylla</i>	മഹാഗണി	MAHOGANY	10
108.	<i>Syzhygium aqueum</i>	ചാമ്പ	ROSE APPLE	3
109.	<i>Syzygium cumini</i>	ഞാവൽ	BLACK PLUM	20
110.	<i>Tamarindus indica</i>	പുളി	TAMARIND	1
111.	<i>Tectona grandis</i>	തേക്ക്	TEAK	12
112.	<i>Terminalia arjuna</i>	നീർമരുത്	ARJUN TREE	1
113.	<i>Terminalia catappa</i>	ബദാം	INDIAN ALMOND	7
114.	<i>Thespesia populnea</i>	പുവരൾ	INDIAN TULIP	1
115.	<i>Tinospora cordifolia</i>	ചിറ്റുമുത്	HEART LEAVED MOONSEED	1
116.	<i>Tylophora indica</i>	വള്ളിപ്പാല	INDIAN IPECAC	1
117.	<i>Vanilla planifolia</i>	വാനില	FLAT –LEAVED VANILA	1
118.	<i>Vernonia cinerea</i>	പുവാം കുറന്തൽ	LITTLE IRON WEED	1
119.	<i>Vitex negundo</i>	കരിനോച്ചി	CHASTE TREE	1
120.	<i>Woodfordia fruticosa</i>	താതിരി	FIRE FLAME BUSH	1
121.	<i>Zingiber officinale</i>	ഇഞ്ചി	GINGER	1

Faunal diversity of the campus

The faunal diversity within the campus is relatively low, primarily influenced by the geographical characteristics of the area and a relatively sparse floral variety. The present survey enumerated the status of birds, butterflies, and odonates in the campus. Unfortunately, the findings indicate that both butterfly and odonate diversity are relatively quite low. This can be attributed, in part, to the unique landscape of coastal area, where campus is located. Coastal areas typically exhibit lower species diversity when compared to midland and highland regions. Adding to the challenges, the presence of a canal surrounding the college compounds the issue. The water in the canal is heavily polluted, primarily due to waste discharge from households and shops. This pollution is anticipated to have a detrimental impact on the diversity of water birds and odonates, further contributing to the overall limitation of faunal diversity within the campus. Efforts to address these environmental factors could potentially enhance the campus's ecological balance and foster a more diverse and sustainable faunal community.

More thematic garden like butterfly garden, a small pond of good quality water and aquatic plants for egg laying of odonates will certainly improve the biodiversity of the campus.



Fig. 3. Polluted canal near the college



Fig.4. Common Myna

Birds of the Cochin college campus

The avian (bird) diversity of the campus is moderate, characterized by the presence of only a limited number of common bird species. The observed bird species in the campus are given in Table 2. However, the diversity of water birds (aquatic birds) is particularly scarce, a consequence of the highly polluted water body encircling the campus. This pollution has a discernible impact on the water bird population, contributing to the overall reduction in avian diversity. Notwithstanding the overall lower diversity, certain bird species exhibit a notable prevalence within the campus. The House crow, Black kite, Brahminy kite, and Rock pigeon, in particular, demonstrate a high density, making them prominent residents in the area. These observations shed light on the nuanced interplay between environmental factors, specifically the water quality, and the distribution and abundance of bird species in the study area. Addressing water pollution and implementing conservation measures could potentially improve the conditions for avian diversity in the campus.

Over the course of the survey conducted in the campus, a total of 26 bird species were identified. While this figure may seem relatively modest, it represents a more robust avian diversity in comparison to the observed diversity of butterflies and odonates in the same area. The disparity highlights that, despite the apparent limitation in the number of bird species, the campus serves as a more conducive habitat for avian life as opposed to certain other insect groups. This contrast may be attributed to various ecological factors, such as vegetation types, food sources, and nesting opportunities that are more favorable for birds. Understanding these nuances in species distribution across different taxa is crucial for a comprehensive assessment of the campus's ecological dynamics, providing valuable insights into the biodiversity and ecological balance within the study area.



Fig. 5. Black kite

Table 4. Checklist of birds of Cochin College campus (2023)

Sl.No.	Scientific Name	Malayalam Name	English Name
1.	<i>Eudynamys scolopaceus</i>	കുയിൽ	ASIAN KOEL
2.	<i>Dicrurus macrocerus</i>	ആനറാഞ്ചി പക്ഷി	BLACK DRONGO
3.	<i>Oriolus xanthornus</i>	മഞ്ഞക്കറുപ്പൻ	BLACK HOODED ORIOLE
4.	<i>Milvus migrans</i>	ചക്കി പരുന്ത്	BLACK KITE
5.	<i>Dinopium benghalense</i>	നാട്ടുമരംകൊത്തി	BLACK RUMPED FLAMEBACK
6.	<i>Merops philippinus</i>	വേലിത്തത്ത	BLUE TAILED BEE EATER
7.	<i>Haliastur indus</i>	കൃഷ്ണപ്പരുന്ത്	BRAHMINY KITE
8.	<i>Bubulcus ibis</i>	കാലിമുണ്ടി	CATTLE EGRET
9.	<i>Acridotheres tristis</i>	നാട്ടുമൈന	COMMON MYNA
10.	<i>Orthotomus sutorius</i>	തുന്നാരൻ	COMMON TAILER BIRD
11.	<i>Centropus sinensis</i>	ചെമ്പോത്ത്	GREATER COUCAL
12.	<i>Corvus splendens</i>	പേനക്കാക്ക	HOUSE CROW
13.	<i>Ardeola grayii</i>	കുളക്കൊക്ക്	INDIAN POND HERON
14.	<i>Turdoides striata</i>	കരിയിലക്കിളി	JUNGLE BABBLER
15.	<i>Egretta garzetta</i>	ചിന്നമുണ്ടി	LITTLE EGRET
16.	<i>Cinnyris lotenius</i>	കൊക്കൻതേൻകിളി	LOTEN'S SUNBIRD
17.	<i>Copsychus saularis</i>	മണ്ണാത്തിപ്പുള്ളി	ORIENTAL MAGPIE ROBIN
18.	<i>Pycnonotus cafer</i>	നാട്ടു ബുൾബുൾ	RED VENTED BULBUL
19.	<i>Vanellus indicus</i>	ചെങ്കണ്ണി തിത്തിരി	RED WATTLED LAPWING
20.	<i>Pycnonotus jocosus</i>	ഇരട്ടത്തലച്ചി	RED WISKERD BULBUL
21.	<i>Columba livia</i>	മാടപ്രാവ്	ROCK PIGEON
22.	<i>Psittacula krameri</i>	മോതിരത്തത്ത	ROSE RINGED PARAKEET
23.	<i>Pelargopsis capensis</i>	കാക്ക മീൻകൊത്തി	STOCK BILLED KINGFISHER
24.	<i>Amaurornis phoenicurus</i>	കുളക്കോഴി	WHITE BREASTED WATERHEN
25.	<i>Psilopogon viridis</i>	ചിന്നകുട്ടുറുവൻ	WHITE CHEEKED BARBET
26.	<i>Halcyon smyrnesis</i>	മീൻകൊത്തിച്ചാത്തൻ	WHITE THROTED KINGFISHER



Fig.6. Cattle Egret

Butterfly Diversity of the campus

The butterfly diversity within the campus is notably limited, and this is primarily attributed to the insufficient presence of both nectarine and host plants essential for attracting and sustaining butterflies. Nectarine plants provide a crucial food source for adult butterflies, while host plants serve as habitats for their eggs and caterpillars. The scarcity of these specific plant types in the campus creates a less-than-ideal environment for butterflies to thrive. Additionally, the overall lack of herbs and shrubs further diminishes the available habitat and resources for these delicate insects.

The survey identified a mere nine species of butterflies in the campus, and all of them are characterized as common. This further underscores the impact of the limited plant diversity on the butterfly population. Enhancing the variety and abundance of nectarine and host plants, as well as promoting the growth of herbs and shrubs, could potentially provide a more hospitable environment for a greater diversity of butterflies, fostering a healthier and more vibrant ecosystem within the campus. Addressing these ecological aspects is crucial for promoting biodiversity and supporting the various species that contribute to the overall ecological balance.



Fig. 7. Plain Tiger

Table 5. List of Butterflies

Scientific Name	Malayalam Name	English Name
<i>Tirumala limniace</i>	നീലക്കടുവ	BLUE TIGER
<i>Ariadane merione</i>	ആവണച്ചോപ്പൻ	CASTOR
<i>Jamides celeno</i>	പൊട്ടുവാലാട്ടി	COMMON CERULEAN
<i>Euploea core</i>	അരളിശലഭം	COMMON CROW
<i>Captopsilia pomona</i>	മഞ്ഞത്തകരമുത്തി	COMMON EMIGRENT
<i>Danaus chrysippus</i>	എരികുതപ്പി	PLAIN TIGER
<i>Leptosia nina</i>	പൊട്ടുവെള്ളാട്ടി	PSYCHE
<i>Eurema hecabe</i>	മഞ്ഞപ്പാപ്പാത്തി	SMALL GRASS YELLOW
<i>Acraea violae</i>	തീച്ചിറകൻ	TOWNY COSTER



Fig. 8. Blue tiger

Odonate Diversity of the campus

The campus exhibits notably low odonate diversity, and this deficiency extends to the scarcity of individuals within each species. The survey identified merely four species of odonates, and the numbers of individuals within each species were found to be less than three. This paucity is indicative of a constrained and less favorable environment for these dragonflies and damselflies. The presence of a canal encircling the campus and a pond within it adds an aquatic dimension to the habitat.

Unfortunately, the water quality in the canal is a significant factor contributing to the limited odonate diversity. The canal water is highly polluted, primarily due to the discharge of waste from households and shops. This pollution is starkly evident in the dragonfly species observed, specifically the Ditch Jewel (*Brachythemis contaminata*), which is known to thrive in contaminated water. The dominance of this particular species reflects the compromised water quality in the canal around the campus.

This situation underscores the crucial interplay between environmental conditions, specifically water quality, and the health of odonate populations. Addressing the pollution in the water body could potentially improve the habitat for odonates, fostering a more diverse and resilient population in the campus ecosystem.

Table 6. List of Odonates

Scientific Name	Malayalam Name	English Name
<i>Brachythemis contaminata</i>	ചങ്ങാതിത്തുമ്പി	DITCH JEWEL
<i>Orthetrum sabina</i>	പച്ചവൃാളി	GREEN MARSH HAWK
<i>Diplacodes trivialis</i>	നാട്ടു നിലത്തൻ	GROUND SKIMMER
<i>Ceriagrion coromandelianum</i>	നാട്ടു ചതുപ്പൻ	YELLOW WAX-TAIL



Fig. 9. *Brachythemis contaminata*



Fig. 10. *Ceriagrion coromandelianum*



Fig. 11. *Orthetrum sabina* and *Diplacodes trivialis*

7. CONCLUSION

The survey results revealed that the campus currently exhibits a relatively low level of biodiversity. Among the identified species, there were 123 plant species, 9 butterfly species, 4 odonate species, and 26 bird species. The limited diversity observed in these categories indicated the need for focused conservation efforts to enrich and sustain the ecosystem.

The biodiversity survey usually serves as a critical tool for understanding and improving the biological richness of an area. This will help to implement necessary management and conservation strategies in a sustainable manner, with the ultimate goal of enhancing biodiversity within the campus. The findings from the survey provided valuable insights on the current state of floral and faunal diversity.

One notable observation was the low diversity of odonate sightings during the survey, suggesting a potential concern regarding water quality. Odonates are often sensitive indicators of environmental health, and their absence could be attributed to high pollution levels in and around the campus. This emphasizes the importance of addressing pollution issues, particularly in water bodies such as ponds and canals, to create a more conducive and sustainable environment for a diverse range of species.

Biodiversity contributes significantly towards various ecological services and provides aesthetics to the campus. College shall formulate a Biodiversity policy for the campus with a thrust to the promotion of native local species. An action plan also may be drafted and implemented in a phase wise manner in order to enhance the campus biodiversity, surpassing all kinds of limitations.



Fig. 12. Brahminy kite



Oriental Magpie robin



Red Wattled lapwing



Jungle babbler



White-cheeked barbet



Red Vented Bulbul



Rock Pigeon



Black-hooded oriole



Red whiskered bulbul



Common myna



Black Rumped Flameback



Asian Koel



Rose-ringed parakeet



White-throated kingfisher



Black drongo



Greater coucal



Cattle Egret



Tailor bird



Indian Pond Heron



Brahminy Kite



White breasted Waterhen



Blue tiger



Common cerulean



Common crow



Common emigrant



Plain tiger



Peltophorum pterocarpum



Artocarpus hirsutus



Magnolia champaca



Mangifera indica



Canaga odorata



Casuarina equisetifolia

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