

RESEARCH ARTICLE

FLORISTIC DIVERSITY OF KOLLERU LAKE (RAMSAR SITE), ANDHRA PRADESH, INDIA

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Received-01.10.2025, Revised-14.10.2025, Accepted-29.10.2025

Abstract: The present study focusses on the current status of the floristic diversity (Angiosperms) of Kolleru lake, Andhra Pradesh, India. The Kolleru Lake is a dynamic freshwater ecosystem with high ecological value and socio-economic importance for the region. It faces threats from anthropological activities but remains a critical site for biodiversity and a source of sustenance for its surrounding communities. In this contest the floristic studies have been conducted past few years during the filed explorations a total of 256 species plants belonging to 191 genera and 55 families were reported of these 167 herbs, 14 climbers, 15 twiners, 26 shrubs 26, and 34 trees were reported. According to IUCN criteria, Endangered 1, Data Deficient 2, and Least Concern 109. The present documentation will help to better understand the botanical diversity in this unique protected area for further conservation and management of the sanctuary.

Keywords: Wetland ecosystem, Kolleru Lake, Ramsar Site, Floristic Diversity, Conservation, Management.

INTRODUCTION

Wetlands are areas that serve as a bridge between land and water ecosystems, typically characterized by their water table being close to the surface or having shallow water cover (Mitsch & Gosselink, 1986). These ecosystems play a vital role in supporting various aquatic, semi-aquatic, and moisture-loving plants and animals. Particularly in tropical and subtropical regions, wetlands are known for the abundant growth of aquatic vegetation. This vegetation functions as a natural biofilter, absorbing significant amounts of both organic and inorganic nutrients from nutrient-rich waters. As a result, wetlands are often referred to by experts as the 'Kidney of the Landscape' or the 'Biological Supermarket.' These areas, where the soil remains saturated with water, are vital incubators that foster high levels of species diversity (Allen-Diaz *et al.*, 2004). The value of the world's wetlands is increasingly receiving due attention as they contribute to a healthy environment in many ways. They retain water during dry periods, thus keeping the water table high and relatively stable. During periods of flooding, they mitigate floods and trap suspended solids and attached nutrients. Thus, streams flowing into lakes by way of wetland areas will transport fewer suspended solids and nutrients to the lakes than if they flow directly into the lakes. The wetlands are also important for their role in birds'

migratory routes, as well as for providing habitat for resident birds. The removal of wetland systems due to urbanization or other factors typically causes lake water quality to deteriorate. In addition, wetlands are important feeding and breeding areas for wildlife and provide a stopping place and refuge for waterfowl. As with any natural habitat, wetlands are important in supporting species diversity and have a complex of wetland values. This study provides a comprehensive account of the current floristic diversity within the Kolleru Lake wetland ecosystem. Earlier, a few related studies have been conducted on Kolleru Lake by (Rasingam & Harikrishna 2024), and (Vijayalakshmi *et al.*, 2018).

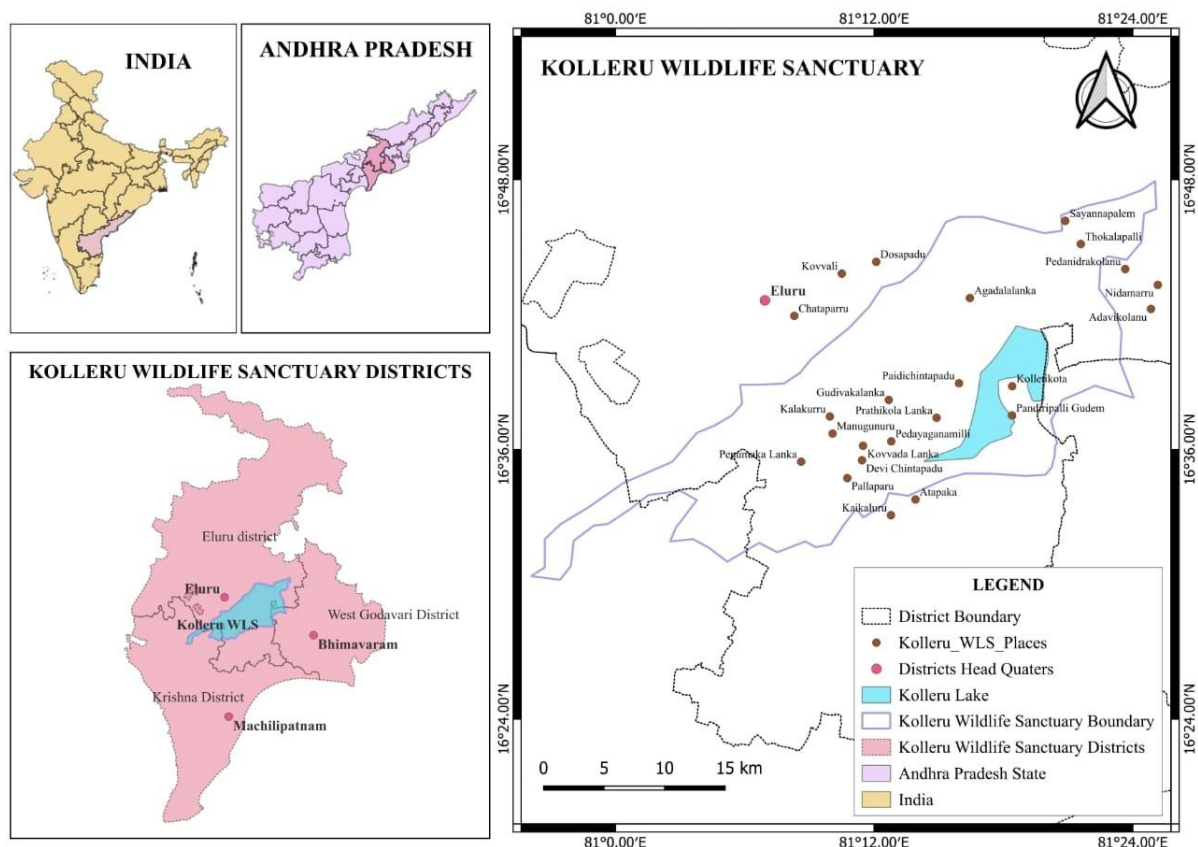
Study area

Kolleru lake (Fig- 1) is an important freshwater body located in the state of Andhra Pradesh, India. It is positioned between the Krishna River to the west and the Godavari River to the east, encompassing the Krishna, Eluru, and West Godavari districts of Andhra Pradesh. The lake comprises around 904 km² and has 144 villages, with 308 km² officially declared as a wildlife sanctuary. The area covers 260 km² in Krishna District's Kaikaluru and Gudivada taluks and the rest in Eluru, Bhimavaram, and Tadepalligudem taluks of West Godavari and Eluru Districts (Seshavatharam *et al.*, 1982). The geographical coordinates of the lake range from 16°24'14" to 16°48'40" N latitude and 80°55'17" to 81°27'32" E

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longitude, with an elevation ranging from 0 to 5 meters above mean sea level. Functioning as a natural flood-balancing reservoir for the Krishna and Godavari delta systems, Kolleru receives inflows from approximately 30 natural drains and channels, in addition to being fed primarily by two seasonal rivers, the Budameru and the Tammileru. The lake is connected to the Bay of Bengal via the Upputeru River, located approximately 32 km downstream, which facilitates the periodic drainage of excess water. The Kolleru wetland ecosystem comprises diverse habitats, including coastal freshwater lagoons and seasonal freshwater marshes or pools. The vegetation of the sanctuary mainly consists of emergent, submerged, and free-floating aquatic plants. Kolleru is recognized as a critical habitat for avifauna, supporting more than 200 species of resident and migratory birds, including notable species such as the grey pelican (*Pelecanus philippensis*), painted stork (*Mycteria leucocephala*), black-headed ibis (*Threskiornis melanocephalus*), and the spot-billed pelican

(*Pelecanus philippensis*). Due to its ecological significance, Kolleru Lake was designated as a Wildlife Sanctuary in 1999 and Ramsar site (Site No. 1209) on 19 August 2002, under the criteria outlined in Recommendation 4.7 of the Conference of the Contracting Parties (Anonymous, 2023). The establishment of the Kolleru Bird Sanctuary and the Atapaka Bird Sanctuary by the Government of Andhra Pradesh within the Ramsar site boundaries provides partial protection to both migratory and native avifauna. In addition to its ecological functions, the lake also plays a vital role in sustaining the livelihoods of the local population, serving as a source for fishing, agriculture, and ecotourism. The purpose of this research article is to explore and document the floristic diversity of the Kolleru Lake, Andhra Pradesh. It aims to analyze the spatial distribution of aquatic and terrestrial plant species, assess the influence of human activities on the Lake's ecosystem, and also assess human impacts and suggest conservation measures for sustainable wetland management.



METHODOLOGY

Extensive and systematic field explorations were carried out from 2023 to 2025 to assess the floristic diversity of the Kolleru Lake (Fig. 2), a significant freshwater wetland in Andhra Pradesh, India. Plants were photographed using a Nikon camera during the data collection and prepared as a digital herbarium. The collected specimens were processed

and mounted following the standard herbarium techniques outlined by Jain & Rao (1977), and Tomar (2024). These authenticated specimens were subsequently deposited in the Herbarium of Yogi Vemana University (YVU) for long-term preservation and future reference. The identification of plant species was carried out using the floristic literature, including Hooker's "The Flora of British India" (1872–1897), "The Flora of

the Madras Presidency" by Gamble & Fischer, (1915–1935), and "Flora of Andhra Pradesh" by Pullaiah *et al.*, (2018). The updated binomial nomenclature and author citations of all species

were validated using online taxonomic databases such as Plants of the World Online (POWO) and the International Plant Names Index (IPNI).



Figure 2: Different views of Kolleru Wildlife Sanctuary

RESULTS AND DISCUSSIONS

The present work enumerates 256 taxa (**Fig: 3-5**), representing 191 genera and 56 families. Dicotyledons are represented by 216 species belonging to 151 genera under 46 families, while monocotyledons are represented by 10 families, 40 genera, and 45 species. Out of the total **256** species, dicotyledons represented 82.75 % and monocotyledons 17.24 % respectively. An analysis of floristic composition reveals that Fabaceae is represented by the highest number of species 41 followed by Poaceae 20, Malvaceae 17,

Euphorbiaceae 17, Convolvulaceae 16, Amaranthaceae 13, Asteraceae 10, Acanthaceae 9, Apocynaceae 8, and Lamiaceae 8. According to IUCN criteria, 1 Endangered species, Data Deficient 2, and Least Concern 109. Of these 256, herbs represent 167, climbers 14, twiners 15, shrubs 26, and Trees 34. Among these 256 species, 190 are native to India, while 66 are from outside the country. A detailed description, common name, habitat, distribution, and IUCN status were provided for all species from the study area. Families have been arranged alphabetically in the list to facilitate ease of reference.

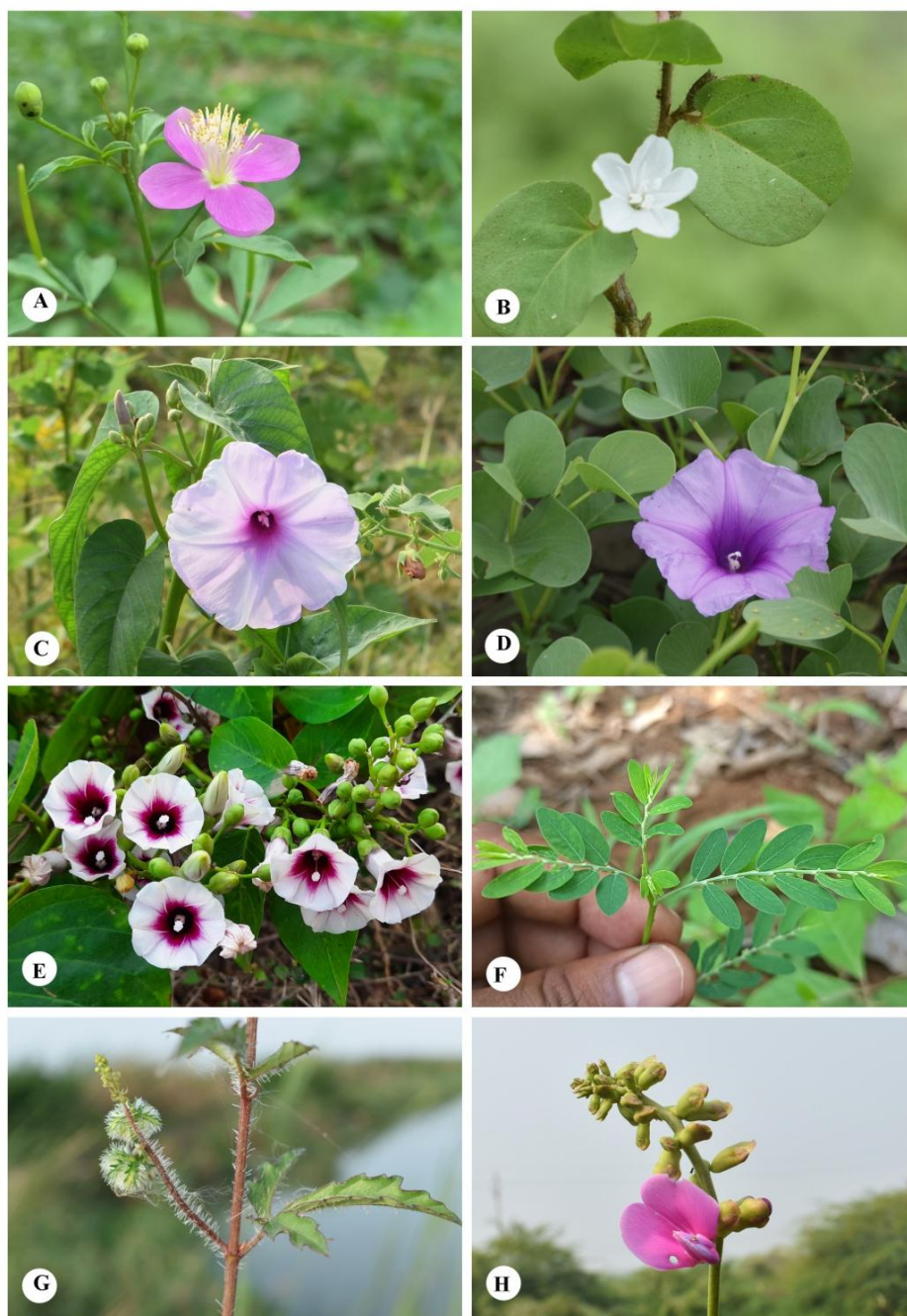


Figure 4: A. *Cleome chelidoni*; B. *Evolvulus nummularius*; C. *Ipomoea carnea*; D. *Ipomoea pes-tigridis*; E. *Ipomoea staphylinia*; F. *Phyllanthus debilis*; G. *Tragia gallabatensis*; H. *Canavalia gladiata*

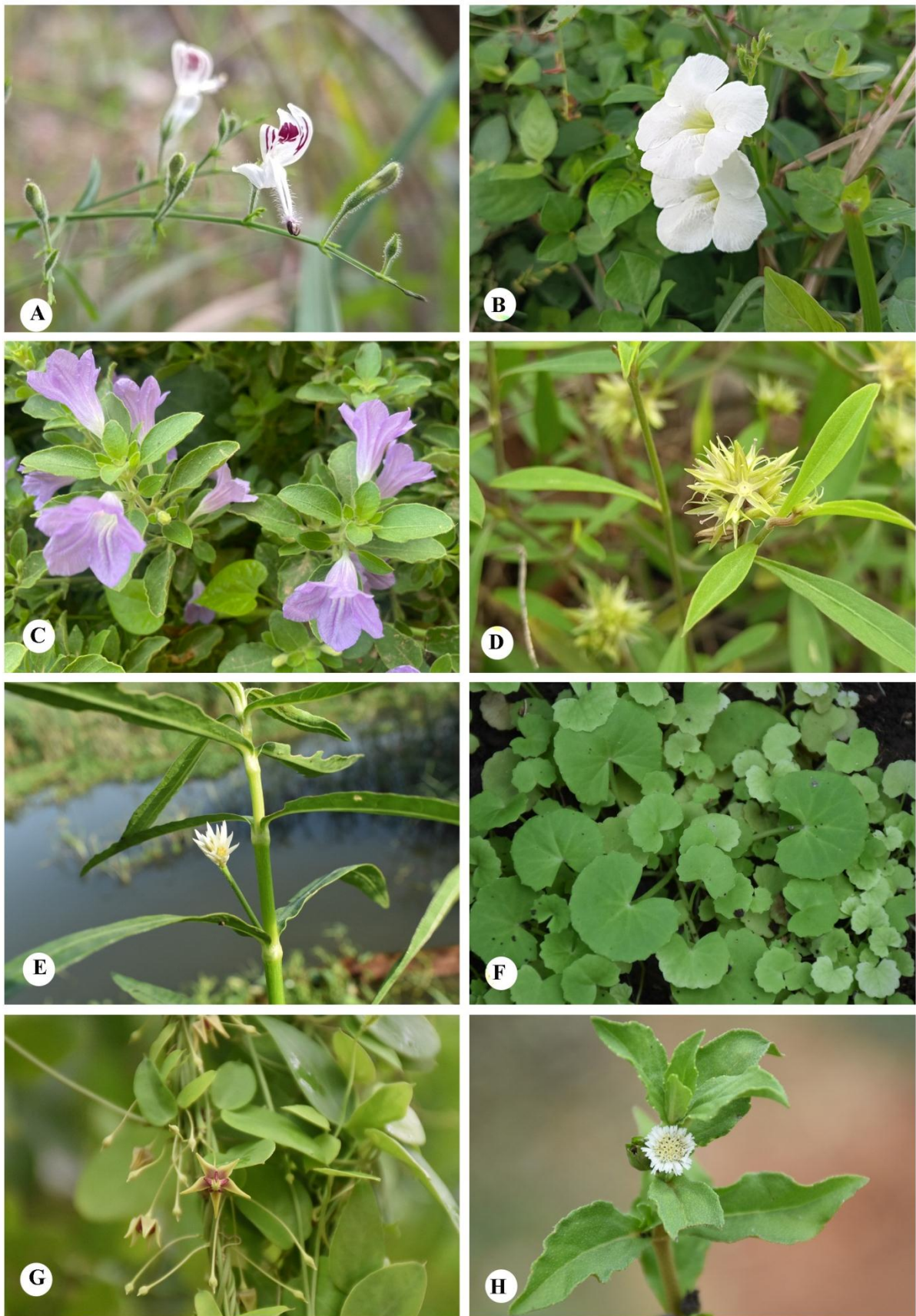


Figure 3: A. *Andrographis paniculata*; B. *Asystasia gangetica*; C. *Ruellia patula*; D. *Allmania nodiflora*; E. *Alternanthera philoxeroides*; F. *Centella asiatica*; G. *Pentatropis capensis*; H. *Eclipta prostrata*

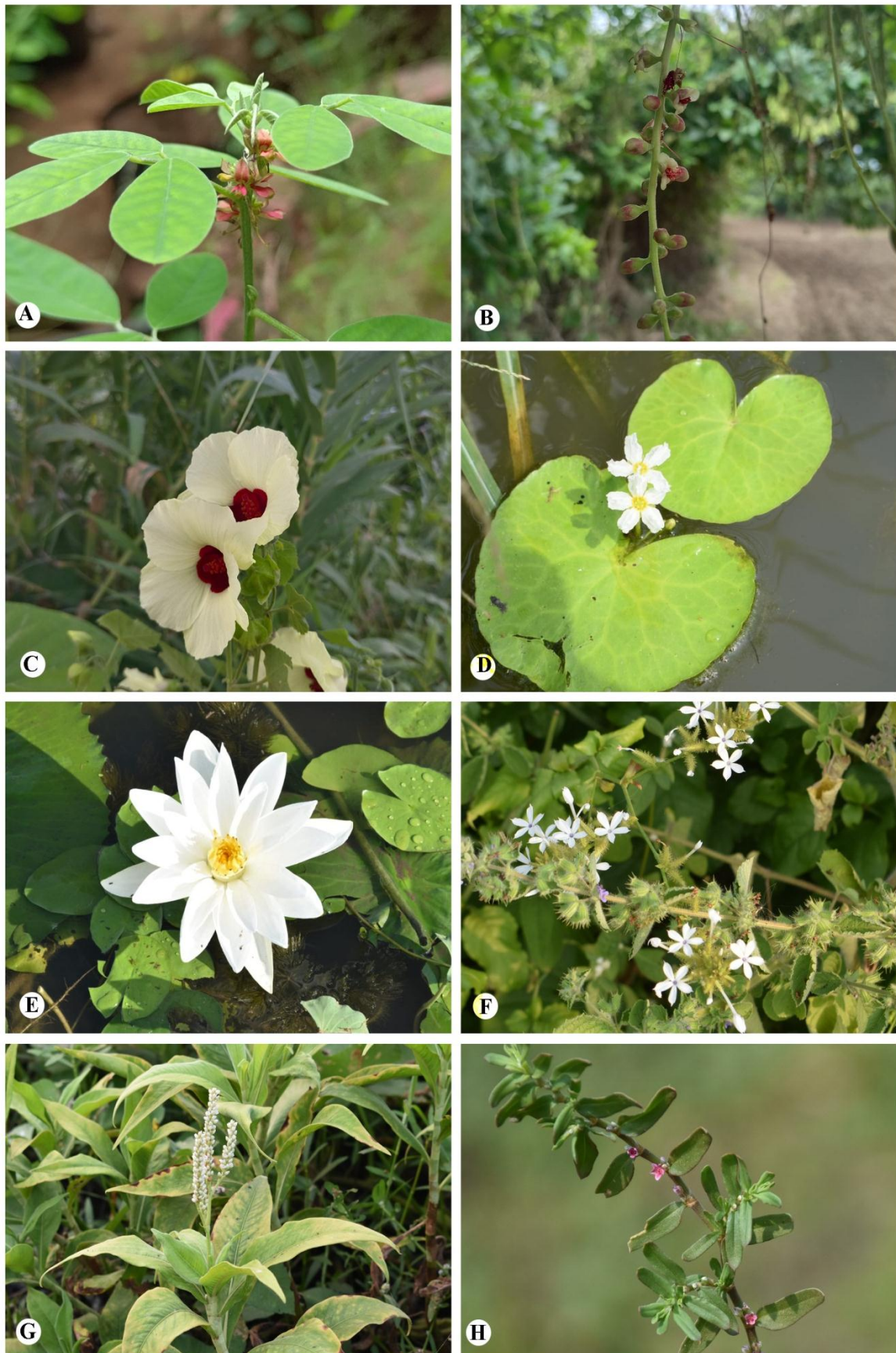


Figure 5: A. *Indigofera trifoliata*; B. *Barringtonia acutangula*; C. *Hibiscus vitifolius*; D. *Nymphoides indica*; E. *Nymphaea alba*; F. *Plumbago zeylanica*; G. *Persicaria barbata*; H. *Polygonum plebeium*

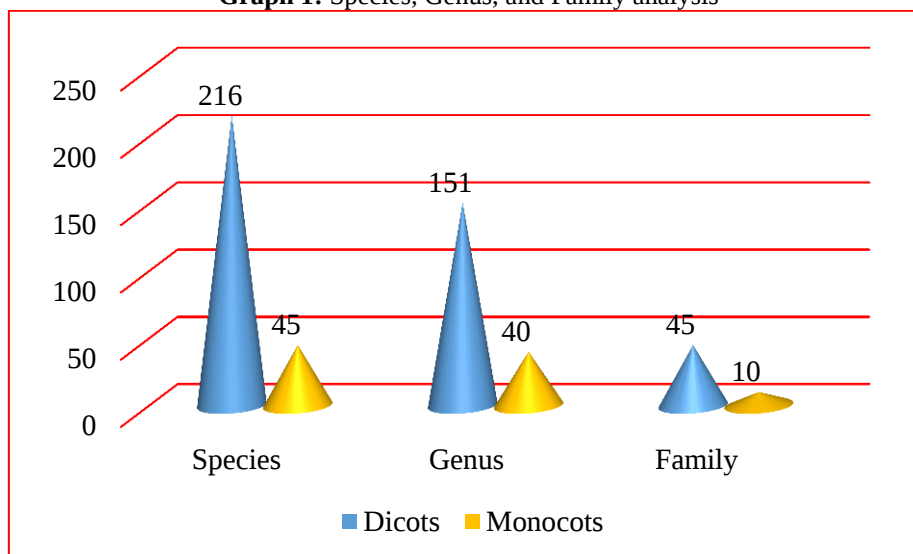
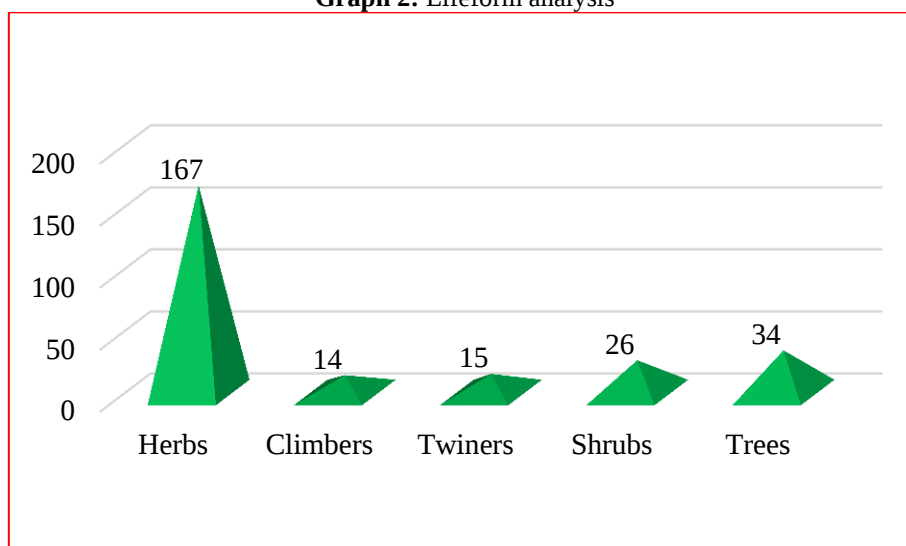
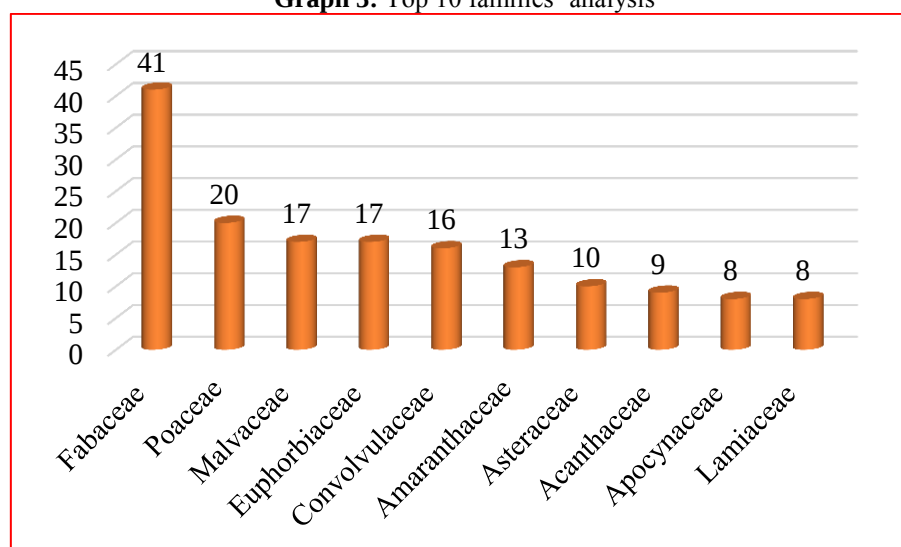
Graph 1: Species, Genus, and Family analysis**Graph 2: Lifeform analysis****Graph 3: Top 10 families' analysis**

Table 1: Representing the floristic diversity of Kolleru Lake.

S.No	Name of the species	Habit	Common name	Native/ Introduced	IUCN status	Voucher No
Dicots						
Acanthaceae						
1	<i>Andrographis echiioides</i> (L.) Nees	Herb	Aku pootha	Native		5606
2	<i>Andrographis paniculata</i> (Burm.f.) Wall. ex Nees	Herb	Nela vemu	Native		5681
3	<i>Asystasia gangetica</i> (L.) T.Anderson	Herb	Poda beera	Native		5455
4	<i>Barleria prionitis</i> L.	Herb	Mulla gorinta	Native		5623
5	<i>Elytraria acaulis</i> (L.f.) Lindau	Herb	Nelamarri	Native		5682
6	<i>Hygrophila auriculata</i> (Schumach.) Heine	Herb	Guddi Kamanchi	Native	LC	5697
7	<i>Ruellia patula</i> Jacq.	Herb	Vedichchedi	Native	LC	5671
8	<i>Ruellia prostrata</i> Poir.	Herb	Nela Neelambaram	Native		5431
9	<i>Ruellia tuberosa</i> L.	Herb	Jurbula gadda	Introduced		5473
Aizoaceae						
10	<i>Trianthema portulacastrum</i> L.	Herb	Galijeru	Native		5412
Amaranthaceae						
11	<i>Achyranthes aspera</i> L.	Herb	Uttareni	Native		5468
12	<i>Aerva javanica</i> (Burm.f.) Juss. ex Schult.	Herb	Pedda pindi	Native		5512
13	<i>Allmania nodiflora</i> (L.) R.Br. ex Wight	Herb	Gurugu Koora	Native		5696
14	<i>Alternanthera ficoidea</i> (L.) P.Beauv.	Herb	Adavi ponnaganti	Introduced		5411
15	<i>Alternanthera paronychioides</i> A.St.-Hil.	Herb	Ponnaganti kura	Introduced		5402
16	<i>Alternanthera philoxeroides</i> (Mart.) Griseb.	Herb	Neeru ponnaganti	Introduced		5501
17	<i>Alternanthera sessilis</i> (L.) DC.	Herb	Ponnaganti kura	Native	LC	5459
18	<i>Amaranthus hybridus</i> L.	Herb	Dhantukura	Introduced		5672
19	<i>Amaranthus viridis</i> L.	Herb	Chilaka thotakura	Introduced		5502
20	<i>Digera muricata</i> (L.) Mart.	Herb	Chenchalaku	Native		5439
21	<i>Gomphrena celosioides</i> Mart.	Herb	Nela Rudraksha	Introduced		5532
22	<i>Oureta lanata</i> (L.) Kuntze	Herb	Kondapindi	Native		5474
23	<i>Suaeda maritima</i> (L.) Dumort.	Herb	Revu kadalu	Native		5543
Anacardiaceae						
24	<i>Mangifera indica</i> L.	Tree	Mamidi	Introduced	DD	5607
Apiaceae						
25	<i>Centella asiatica</i> (L.) Urb.	Herb	Saraswathi	Native	LC	5622
Apocyanaceae						
26	<i>Calotropis gigantea</i> (L.) W.T.Aiton	Shrub	Tella jilledu	Native		5600
27	<i>Calotropis procera</i> (Aiton) W.T.Aiton	Shrub	Erra Jilledu	Native	LC	5599
28	<i>Catharanthus roseus</i> (L.) G.Don	Herb	Billa ganneru	Native		5624
29	<i>Hemidesmus indicus</i> (L.) R.Br.	Twiner	Sugandipala	Native		5505

30	<i>Oxystelma esculentum</i> (L.f.) Sm.	Twiner	Dudhi Pala	Native	LC	5410
31	<i>Pentatropis capensis</i> (L.f.) Bullock	Twiner	Chitapataku	Native		5585
32	<i>Pergularia daemia</i> (Forssk.) Chiov.	Twiner	Dustapuchettu	Native	LC	5492
33	<i>Stephanotis volubilis</i> (L.f.) S.Reuss, Liede & Meve	Twiner	Dudipala	Native		5577
Asteraceae						
34	<i>Ageratum conyzoides</i> L.	Herb	Pumpullu	Introduced	LC	5548
35	<i>Blumea obliqua</i> (L.) Druce	Herb	Makadmari	Native		5560
36	<i>Chromolaena odorata</i> (L.) R.M.King & H.Rob.	Shrub	Gandhuri	Introduced		5578
37	<i>Cyanthillium cinereum</i> (L.) H.Rob.	Herb	Gariti Kamma	Native		5418
38	<i>Eclipta prostrata</i> (L.) L.	Herb	Gunta galagara	Introduced	LC	5417
39	<i>Grangea maderaspatana</i> (L.) Desf.	Herb	Machi-patri	Native	LC	5594
40	<i>Parthenium hysterophorus</i> L.	Herb	Vayyari bhama	Introduced		5670
41	<i>Sphagneticola trilobata</i> (L.) Pruski	Herb	Galagara	Introduced		5542
42	<i>Tridax procumbens</i> L.	Herb	Gaddi chamanti	Introduced		5506
43	<i>Xanthium strumarium</i> L.	Herb	Marulutige	Native		5533
Boraginaceae						
44	<i>Cordia sebestena</i> L.	Tree	Virigi	Introduced	LC	5556
45	<i>Heliotropium curassavicum</i> L.	Herb	Nugu danti	Introduced	LC	5654
46	<i>Heliotropium indicum</i> L.	Herb	Nagadanti	Introduced		5442
Cleomaceae						
47	<i>Cleome chelidonii</i> L.f.	Herb	Kukkavavinta	Native		5463
48	<i>Cleome gynandra</i> L.	Herb	Tella vaminta	Native		5588
49	<i>Cleome viscosa</i> L.	Herb	Vaminta	Native		5541
Ceratophyllaceae						
50	<i>Ceratophyllum demersum</i> L.	Herb	Neeti Sambraani	Native	LC	5507
Combretaceae						
51	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Tree	Tella maddi	Native	LC	5669
52	<i>Terminalia catappa</i> L.	Tree	Badam	Native	LC	5621
Convolvulaceae						
53	<i>Cressa cretica</i> L.	Herb	Uppu Gaddi	Native	LC	5568
54	<i>Cuscuta chinensis</i> Lam.	Twiner	Amaravalli	Native		5582
55	<i>Evolvulus alsinoides</i> (L.) L.	Herb	Vishnukranthamu	Native		5683
56	<i>Evolvulus nummularius</i> (L.) L.	Herb	Eluka chevi	Introduced		5428
57	<i>Ipomoea aquatica</i> Forssk.	Herb	Thutikura	Native	LC	5508
58	<i>Ipomoea carnea</i> Jacq.	Shrub	Pedda thutaaku	Introduced		5461
59	<i>Ipomoea obscura</i> (L.) Ker Gawl.	Twiner	Nalla teega	Native		5435
60	<i>Ipomoea pes- carprae</i> (L.) R.Br	Twiner	Balabantatige	Native		5684
61	<i>Ipomoea pes-tigridis</i> L.	Twiner	Puritikada	Native		5695
62	<i>Ipomoea sagittifolia</i> Burm.f.	Twiner	Tellatuti	Native		5537
63	<i>Ipomoea staphylina</i> Roem. & Schult.	Twiner	Theendra Teega	Native		5608

64	<i>Ipomoea cairica</i> (L.) Sweet	Twiner	Kosta teega	Native	LC	5685
65	<i>Merremia emarginata</i> (Burm.f.) Hallier f.	Herb	Elikajemudu	Native	LC	5509
66	<i>Operculina turpethum</i> (L.) Silva Manso	Twiner	Tegada	Native		5579
67	<i>Xenostegia tridentata</i> (L.) D.F.Austin & Staples	Herb	Seetamma savaram	Native		5587
Cucurbitaceae						
68	<i>Coccinia grandis</i> (L.) Voigt	Climber	Dhonda	Native		5558
69	<i>Cucumis maderaspatanus</i> L.	Climber	Nugudosa	Native		5546
70	<i>Cucumis melo</i> L.	Climber	Karbuja	Native		5642
71	<i>Trichosanthes pilosa</i> Lour.	Climber	Adavi Potla	Introduced		5451
Elatinaceae						
72	<i>Bergia capensis</i> L.	Herb	Neeru Paavila	Native	LC	5540
Euphorbiaceae						
73	<i>Acalypha indica</i> L.	Herb	Kuppintaku	Native		5510
74	<i>Acalypha malabarica</i> Müll.Arg.	Herb	Nugu Kuppinta	Native		5429
75	<i>Chrozophora rottleri</i> (Geiseler) Spreng.	Herb	Erra miriyamu	Native		5496
76	<i>Croton bonplandianus</i> Baill.	Herb	Galivana chettu	Introduced		5433
77	<i>Euphorbia hirta</i> L.	Herb	Reddivari nanubalu	Introduced		5436
78	<i>Euphorbia hypericifolia</i> L.	Herb	Dudhi	Introduced		5476
79	<i>Euphorbia prostrata</i> Aiton	Herb	Nanabala	Introduced		5610
80	<i>Euphorbia serpens</i> Kunth	Herb	Matted Sandmat	Introduced		5511
81	<i>Euphorbia thymifolia</i> L.	Herb	Nelaparimalamu	Introduced		5525
82	<i>Ricinus communis</i> L.	Shrub	Amudamu	Native		5516
83	<i>Tragia gallabatensis</i> Prain	Herb	Duradaguntaku	Native		5406
84	<i>Jatropha gossypifolia</i> L.	Shrub	Verri Amudamu	Introduced	LC	5454
Phyllanthaceae						
85	<i>Phyllanthus amarus</i> Schumach. & Thonn.	Herb	Nela usiri	Introduced		5551
86	<i>Phyllanthus debilis</i> J.G.Klein ex Willd.	Herb	Uchiny usirika	Native		5566
87	<i>Phyllanthus maderaspatensis</i> L.	Herb	Rcha usiri	Native	LC	5586
88	<i>Phyllanthus reticulatus</i> Poir.	Herb	Nalla purugudu	Native	LC	5598
89	<i>Phyllanthus virgatus</i> G.Frost.	Herb	Uchi usirika	Native	LC	5513
Fabaceae						
90	<i>Abrus precatorius</i> L.	Climber	Gurivinda	Native		5527
91	<i>Aeschynomene indica</i> L.	Herb	Jeeluga	Native	LC	5514
92	<i>Albizia lebbeck</i> (L.) Benth.	Tree	Chinduga	Native		5499
93	<i>Albizia lebbeck</i> (L.) Benth.	Tree	Dirisenamu	Native	LC	5562
94	<i>Alysicarpus monilifer</i> (L.) DC.	Herb	Amera	Native		5611
95	<i>Alysicarpus vaginalis</i> (L.) DC.	Herb	Baramatal-chettu	Native		5494
96	<i>Canavalia gladiata</i> (Jacq.) DC.	Climber	Thamba	Native		5456
97	<i>Chamaecrista absus</i> (L.) H.S.Irwin & Barneby	Herb	Thamba	Native	LC	5657

98	<i>Chamaecrista mimosoides</i> (L.) Greene	Herb	Chanupala-vittulu	Native	LC	5497
99	<i>Chamaecrista pumila</i> (Lam.) V.Singh	Herb	Nela ponna	Native		5641
100	<i>Clitoria ternatea</i> L.	Twiner	Sankupuvvu	Introduced		5471
101	<i>Crotalaria hebecarpa</i> (D.C) Rudd.	Herb	Majjiginta	Native		5686
102	<i>Crotalaria ramosissima</i> Roxb.	Herb	Potti-Gilligicha	Native		5693
103	<i>Desmanthus virgatus</i> (L.) Willd.	Shrub	Konda mamidi	Introduced	LC	5584
104	<i>Guilandina bonduc</i> L.	Shrub	Gachchakaya	Native	LC	5667
105	<i>Indigofera tinctoria</i> L.	Shrub	Neelimandu	Native		5619
106	<i>Indigofera trifoliata</i> L.	Herb	Baragadam	Native		5650
107	<i>Indigofera tsiangiana</i> Metcalf	Herb	Erra palleru	Native		5569
108	<i>Leucaena leucocephala</i> (Lam.) de Wit	Tree	Kainti	Introduced		5515
109	<i>Mimosa hamata</i> Willd.	Shrub	Undrakampa	Native		5528
110	<i>Mimosa pudica</i> L.	Herb	Attapatti	Introduced	LC	5529
111	<i>Neltuma juliflora</i> (Sw.) Raf.	Tree	Karra tumma	Introduced	LC	5625
112	<i>Neptunia oleracea</i> Lour.	Herb	Niru thalavapu	Native	LC	5581
113	<i>Parkinsonia aculeata</i> L.	Tree	Simatumma	Native	LC	5446
114	<i>Peltophorum pterocarpum</i> (DC.) Backer ex K.Heyne	Tree	Konda Chinta	Introduced	LC	5545
115	<i>Pithecellobium dulce</i> (Roxb.) Benth.	Tree	Sima chinta	Introduced	LC	5552
116	<i>Polhillides velutina</i> (Willd.) H.Ohashi & K.Ohashi	Shrub	Chiva-madu	Native		5595
117	<i>Pongamia pinnata</i> (L.) Pierre	Tree	Kanuga	Native	LC	5596
118	<i>Prosopis cineraria</i> (L.) Druce	Tree	Jammi	Native		5651
119	<i>Rhynchosia minima</i> (L.) DC.	Herb	Adavi chikkudu	Native	LC	5493
120	<i>Senna alata</i> (L.) Roxb.	Shrub	Seema Tangedu	Introduced	LC	5465
121	<i>Senna occidentalis</i> (L.) Link	Shrub	Kasindha	Introduced	LC	5458
122	<i>Senna uniflora</i> (Mill.) H.S.Irwin & Barneby	Herb	Oneleaf Senna	Introduced		5431
123	<i>Sesbania bispinosa</i> (Jacq.) W.Wight	Shrub	Errajiluga	Native	LC	5640
124	<i>Sesbania sesban</i> (L.) Merr.	Herb	Samintha	Native	LC	5549
125	<i>Tephrosia purpurea</i> (L.) Pers.	Herb	Vempali	Native		5570
126	<i>Tephrosia villosa</i> (L.) Pers.	Herb	Nugu vempali	Native	LC	5517
127	<i>Teramnus mollis</i> Benth.	Twiner	Karu minumullu	Native		5557
128	<i>Vachellia nilotica</i> (L.) P.J.H.Hurter & Mabb.	Tree	Nalla Tumma	Native	LC	5453
129	<i>Vigna stipulacea</i> (Lam.) Kuntze	Herb	Nelavankuda	Native		5413
130	<i>Vigna trilobata</i> (L.) Verdc.	Climber	Pilli pesara	Native		5495
Lamiaceae						
131	<i>Leucas aspera</i> (Willd.) Link	Herb	Tummi	Native		5658
132	<i>Mesosphaerum suaveolens</i>	Shrub	Sima tulasi	Introduced		5467

	(L.) Kuntze					
133	<i>Ocimum gratissimum</i> L.	Herb	Nimma tulasi	Native		5504
134	<i>Ocimum tenuiflorum</i> L.	Herb	Krishna tulasi	Native		5441
135	<i>Tectona grandis</i> L.f.	Tree	Teku	Native	EN	5674
136	<i>Vitex negundo</i> L.	Tree	Vavili	Native	LC	5635
137	<i>Vitex trifolia</i> L.	Tree	Chiruvavil	Native	LC	5667
138	<i>Volkameria inermis</i> L.	Shrub	Takkolamu	Native		5648
Lecythidaceae						
139	<i>Barringtonia acutangula</i> (L.) Gaertn.	Tree	Kanapa	Native	LC	5520
Lentibulariaceae						
140	<i>Utricularia aurea</i> Lour.	Herb	Golden Bladderwort	Native	LC	5659
141	<i>Utricularia stellaris</i> L.f.	Herb	Nakshatrapu Budaga Mokka	Native		5639
Malvaceae						
142	<i>Abelmoschus ficulneus</i> (L.) Wight & Arn.	Shrub	Parupu benda	Native	LC	5524
143	<i>Abutilon indicum</i> (L.) Sweet	Shrub	Tuttura benda	Native		5443
144	<i>Abutilon pannosum</i> (G.Forst.) Schltdl.	Shrub	Indian mallow	Native		5534
145	<i>Ceiba pentandra</i> (L.) Gaertn.	Tree	Buruga	Introduced	LC	5665
146	<i>Corchorus aestuans</i> L.	Herb	Nela beera	Native		5535
147	<i>Corchorus olitorius</i> L.	Herb	Goninara	Native		5660
148	<i>Guazuma ulmifolia</i> Lam.	Tree	Bhadraksha	Introduced	LC	5627
149	<i>Hibiscus tiliaceus</i> L.	Tree	Yetagogu	Native	LC	5547
150	<i>Hibiscus vitifolius</i> L.	Shrub	Adavi patthi	Native		5550
151	<i>Malachra capitata</i> (L.) L.	Herb	Konda mamidi	Introduced		5475
152	<i>Malvastrum coromandelianum</i> (L.) Garcke	Herb	Garugudu	Introduced		5521
153	<i>Sida acuta</i> Burm.f.	Herb	Nela benda	Native		5447
154	<i>Sida cordata</i> (Burm.f.) Borss.Waalk.	Herb	Naga bala	Native		5536
155	<i>Thespesia populnea</i> (L.) Sol. ex Corrêa	Tree	Gangareni	Native	LC	5638
156	<i>Triumfetta rotundifolia</i> Lam.	Herb	Banki-tuthuru	Native		5491
157	<i>Urena lobata</i> L.	Shrub	Nalla Benda	Native	LC	5539
158	<i>Waltheria indica</i> L.	Herb	Nalla benda	Introduced	LC	5523
Martyniaceae						
159	<i>Martynia annua</i> L.	Herb	Garuda mukku	Introduced		5538
Meliaceae						
160	<i>Azadirachta indica</i> A.Juss.	Tree	Vepa	Introduced	LC	5628
Menispermaceae						
161	<i>Tinospora sinensis</i> (Lour.) Merr.	Climber	Tippatiga	Native		5661
Menyanthaceae						
162	<i>Nymphoides hydrophyllum</i> (Lour.) Kuntze	Herb	Anthara thaamara	Native	LC	5437
Molluginaceae						
163	<i>Glinus lotoides</i> L.	Herb	Chandrasi koora	Native	LC	5522
164	<i>Muntingia calabura</i> L.	Tree	Cherry chettu	Introduced	LC	5553
165	<i>Paramollugo</i>	Herb	Nakedstem	Native		5637

	<i>nudicaulis</i> (Lam.) Thulin		Carpetweed			
166	<i>Trigastrotheca pentaphylla</i> (L.) Thulin	Herb	Verri chatarasi	Native		5675
Moraceae						
167	<i>Ficus arnottiana</i> (Miq.) Miq.	Tree	Kallaravi	Native		5617
168	<i>Ficus benjamina</i> L.	Tree	Konda golugu	Native	LC	5662
169	<i>Ficus hispida</i> L.f.	Tree	Bomma-medi	Native	LC	5629
170	<i>Ficus virens</i> Aiton	Tree	Adavi juvvi	Native	LC	5647
Nyctaginaceae						
171	<i>Boerhavia diffusa</i> L.	Herb	Atika mamidi	Native		5489
172	<i>Boerhavia erecta</i> L.	Herb	Punarnava	Introduced		5497
Nymphaeaceae						
173	<i>Nymphaea alba</i> L.	Herb	Nalla kaluva	Introduced	LC	5555
174	<i>Nymphaea nouchali</i> Burm.f.	Herb	Neeti Tamara	Native	LC	5554
175	<i>Nymphaea pubescens</i> Willd.	Herb	Kaluva	Native	LC	5567
Nelumbonaceae						
176	<i>Nelumbo nucifera</i> Gaertn.	Herb	Tamara	Native	DD	5559
Onagraceae						
177	<i>Ludwigia adscendens</i> (L.) H.Hara	Herb	Neeru bachhali	Native	LC	5416
178	<i>Ludwigia hyssopifolia</i> (G.Don) Exell	Herb	Nirubaccala	Introduced	LC	5464
Passifloraceae						
179	<i>Passiflora foetida</i> L.	Climber	Tellajumiki	Introduced		5427
180	<i>Turnera ulmifolia</i> L.	Herb	Cheravathali	Introduced	LC	5563
Plantaginaceae						
181	<i>Bacopa monnieri</i> (L.) Wettst.	Herb	Brahmi	Native	LC	5571
182	<i>Limnophila indica</i> (L.) Druce	Herb	Ambujam	Native	LC	5612
Plumbaginaceae						
183	<i>Plumbago zeylanica</i> L.	Herb	Chitramulam	Native		5440
Pedaliaceae						
184	<i>Pedaliium murex</i> L.	Herb	Enugu palleru	Introduced		5630
Portulacaceae						
185	<i>Portulaca oleracea</i> L.	Herb	Pedda payali	Introduced	LC	5526
Polygonaceae						
186	<i>Antigonon leptopus</i> Hook. & Arn.	Climber	Teega roja	Introduced		5470
187	<i>Persicaria barbata</i> (L.) H.Hara	Herb	Kondamalle	Native	LC	5503
188	<i>Persicaria pulchra</i> Soják	Herb	Knotweed	Native	LC	5409
189	<i>Polygonum plebeium</i> R.Br.	Herb	Chimati Kura	Native	LC	5500
Rubiaceae						
190	<i>Dentella repens</i> (L.) J.R.Forst. & G.Forst.	Herb	Tella karaka	Native	LC	5572
191	<i>Leptopetalum biflorum</i> (L.) Neupane & N.Wikstr.	Herb	Rendu Pula Gaddi	Native		5430
192	<i>Morinda pubescens</i> Sm.	Tree	Maddi	Native		5573
193	<i>Oldenlandia umbellata</i> L.	Herb	Chiru vepa	Native		5583
194	<i>Spermacoce latifolia</i> Aubl.	Herb	Madana	Introduced		5576
Rhamnaceae						
195	<i>Ziziphus mauritiana</i> Lam.	Tree	Regu	Native	LC	5589
Sapindaceae						
196	<i>Cardiospermum</i>	Climber	Jyotishmati	Native		5575

	<i>corindum</i> L.					
197	<i>Cardiospermum halicacabum</i> L.	Climber	Budda kakara	Native	LC	5591
	Sapotaceae					
198	<i>Mimusops elengi</i> L.	Tree	Bogada-manu	Native	LC	5645
	Solanaceae					
199	<i>Datura metel</i> L.	Shrub	Nalla ummetta	Introduced		5614
200	<i>Datura stramonium</i> L.	Shrub	Tella Ummetta	Introduced		5444
201	<i>Physalis angulata</i> L.	Herb	Budda busada	Introduced	LC	5593
202	<i>Physalis peruviana</i> L.	Herb	Busarakaaya	Introduced	LC	5597
203	<i>Solanum nigrum</i> L.	Herb	Kakamachi	Native		5644
204	<i>Solanum trilobatum</i> L.	Shrub	Kondavuchinta	Native		5488
	Urticaceae					
205	<i>Pouzolzia zeylanica</i> (L.) Benn.	Shrub	Eddu-mutte dumpa	Native		5574
	Verbinaceae					
206	<i>Lantana camara</i> L.	Shrub	Akshinta pulu	Introduced		5601
207	<i>Lippia alba</i> (Mill.) N.E.Br. ex Britton & P.Wilson	Herb	juanilama	Introduced		5432
208	<i>Phyla nodiflora</i> (L.) Greene	Herb	Jala pippali	Native	LC	5604
	Vitaceae					
209	<i>Causonis trifolia</i> (L.) Mabb. & J.Wen	Climber	Kanupu Tige	Native		5632
210	<i>Cissus vitiginea</i> L.	Climber	Adavi Draksha	Native		5590
	Zygophyllaceae					
211	<i>Tribulus terrestris</i> L.	Herb	Palleru	Native	LC	5615
	Monocots					
	Alismataceae					
212	<i>Limnophyton obtusifolium</i> (L.) Miq.	Herb	Gurrapu dekka chettu	Native	LC	5634
	Aponogetonaceae					
213	<i>Aponogeton crispus</i> Thunb.	Herb	Wavy Aponogeton	Native	LC	5655
	Araceae					
214	<i>Lemna perpusilla</i> Torr.	Herb	Neela bendu	Introduced	LC	5564
215	<i>Pistia stratiotes</i> L.	Herb	Antara thamara	Native	LC	5565
	Arecaceae					
216	<i>Borassus flabellifer</i> L.	Tree	Thati	Native	LC	5580
217	<i>Cocos nucifera</i> L.	Tree	Kobbari	Introduced		5643
218	<i>Phoenix sylvestris</i> (L.) Roxb.	Tree	Eetha	Native		5544
	Commelinaceae					
219	<i>Commelina benghalensis</i> L.	Herb	Amruta kaada	Native	LC	5418
220	<i>Commelina clavata</i> C.B.Clarke	Herb	Jalapippali	Native	LC	5472
221	<i>Cyanotis axillaris</i> (L.) D.Don ex Sweet	Herb	Golla Gundi	Native	LC	5530
222	<i>Cyanotis cristata</i> (L.) D.Don	Herb	Netha kina	Native	LC	5653
	Cyperaceae					
223	<i>Abildgaardia ovata</i> (Burm.f.) Kral	Herb	Flatspike Rush	Native		5609
224	<i>Bulbostylis barbata</i> (Rottb.) C.B.Clarke	Herb	Hairsedge	Native	LC	5620
225	<i>Cyperus</i>	Herb	Green Water Sedge	Native	LC	5673

	<i>brevifolius</i> (Rottb.) Hassk.					
226	<i>Cyperus rotundus</i> L.	Herb	Tunga	Native	LC	5656
227	<i>Fimbristylis quinquangularis</i> (Vahl) Kunth	Herb	Konda gaddi	Native	LC	5633
228	<i>Schoenoplectiella articulata</i> (L.) Lye	Herb	Nalla gaddi	Native	LC	5652
229	<i>Schoenoplectus litoralis</i> (Schrud.) Palla	Herb	Nameru	Native	LC	5668
Hydrocharitaceae						
230	<i>Blyxa octandra</i> (Roxb.) Planch. ex Thwaites	Herb	Eight-Stamen Blyxa	Native	LC	5626
231	<i>Hydrilla verticillata</i> (L.f.) Royle	Herb	Punachu	Native	LC	5519
232	<i>Nechamandra alternifolia</i> (Roxb. ex Wight)	Herb	Indian Oxygen-Weed.	Native	LC	5649
233	<i>Ottelia alismoides</i> (L.) Pers.	Herb	Neeru veniki.	Native	LC	5666
234	<i>Vallisneria spiralis</i> L.	Herb	Nara mokka	Native	LC	5618
Poaceae						
235	<i>Acrachne racemosa</i> (B.Heyne ex Roth) Ohwi	Herb	Tella karaka	Native		5616
236	<i>Apluda mutica</i> L.	Herb	Morum gaddi	Native		5692
237	<i>Arundo donax</i> L.	Herb	Kakiveduru	Native	LC	5663
238	<i>Chloris barbata</i> Sw.	Herb	Uppu Gaddi	Native		5636
239	<i>Cynodon dactylon</i> (L.) Pers.	Herb	Garika	Native		5676
240	<i>Dactyloctenium aegyptium</i> (L.) Willd.	Herb	Ganuku gaddi	Native		5680
241	<i>Dichanthium annulatum</i> (Forssk.) Stapf	Herb	Marvel grass	Native		5691
242	<i>Digitaria bicornis</i> (Lam.) Roem. & Schult.	Herb	Asian crabgrass	Native		5613
243	<i>Digitaria ciliaris</i> (Retz.) Koeler	Herb	Carb grass	Native		5687
244	<i>Echinochloa colona</i> (L.) Link	Herb	Othagaddi	Native	LC	5646
245	<i>Enteropogon dolichostachyus</i> (Lag.) Keng	Herb	Tikativva	Native		5679
246	<i>Eragrostiella bifaria</i> (Vahl) Bor	Herb	Indian love grass	Native		5698
247	<i>Eragrostis viscosa</i> (Retz.) Trin.	Herb	Sticky love grass	Native		5690
248	<i>Panicum repens</i> L.	Herb	Torpedo grass	Native	LC	5688
249	<i>Paspalum distichum</i> L.	Herb	Rellugaddi	Introduced	LC	5401
250	<i>Saccharum spontaneum</i> L.	Herb	Kaki ceruku	Native	LC	5678
251	<i>Setaria pumila</i> (Poir.) Roem. & Schult.	Herb	Yellow foxtail	Native		5699
252	<i>Sporobolus coromandelianus</i> (Retz.) Kunth	Herb	Medagascar dropseed	Native		5689
253	<i>Urochloa distachyos</i> (L.) T.Q.Nguyen	Herb	Arm-grass millet	Native		5677
254	<i>Urochloa ramosa</i> (L.) T.Q.Nguyen	Herb	Eduru gaddi	Native	LC	5631

	Pontederiaceae					
255	<i>Pontederia crassipes</i> Mart.	Herb	Pisachi tamara	Introduced		5664
	Typhaceae					
256	<i>Typha angustifolia</i> L.	Herb	Dabbu Jammu	Native	LC	5407

CONCLUSION

Kolleru Lake is a harbor for a diverse floristic assemblage, encompassing luxuriant aquatic hydrophytes, extensive reed beds, and a variety of medicinal aquatic and terrestrial plants along its margins. This rich vegetation forms the ecological backbone of the lake, sustaining high biodiversity and providing critical habitat for waterfowl, fish species, and other wildlife. However, its ecological integrity is increasingly threatened by anthropogenic pressures. Habitat degradation, unsustainable resource use, and the rapid encroachment of invasive alien species—such as *Neltuma juliflora*, *Parthenium hysterophorus*, *Typha angustifolia*, and *Pontederia crassipes*, particularly along bunds and banks, pose serious risks to native plant communities. Given Kolleru Lake's status as a Ramsar-designated wetland, immediate and effective conservation measures are essential. Prioritizing habitat protection, controlling invasive species, and promoting sustainable management practices will be crucial to preserving the lake's biodiversity and ecological function.

ACKNOWLEDGEMENT

Authors' special thanks to the Forest Department of Andhra Pradesh and the Kolleru Lake Wildlife Sanctuary authorities for permitting field visits, and also thankful to RUSA 2.0 Research Project: NO. RUSA- ANU/YVU/Research Project-09/Sanction order/2024 Date: 01-06-2024.

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