Tamil Nadu Wetlands Mission Newsletter
Volume: (I) Issue: 1 - Month of July - 2025

AN OVERVIEW OF THE UNIQUE ENVIRONMENTAL AND ECOLOGICAL IMPORTANCE OF KARAIVETTI BIRDS SANCTUARY, ARIYALUR DISTRICT (RAMSAR SITE)

Tamil Nadu Wetlands Mission

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INTRODUCTION

Wetlands are transitional zones between permanently aquatic and dry terrestrial ecosystems. Covering roughly 6% of the Earth's land area, wetlands encompass various types including marshes, lagoons, bogs, fens, open water bodies and mangroves. According to the Ramsar Convention of the IUCN held in Iran in 1981, a wetland is defined as an “area of marsh, fen, peatland or water whether natural or artificial, permanent or temporary with water, that is static or flowing, fresh, brackish or salt including areas of marine water, the depth of which does not exceed 6 meters” (Ramsar Convention, 2004). Wetlands are the second most productive ecosystems after tropical rainforests and support migratory and resident avian species, enhancing biodiversity and ecosystem productivity. They serve as crucial bird habitats, providing essential areas for feeding, roosting and breeding. The Karaivetti Bird Sanctuary, located in the Ariyalur District of Tamil Nadu is a designated Ramsar site recognized for its rich biodiversity, particularly its significance as a wetland ecosystem supporting a variety of plant and bird species. As a crucial freshwater feeding ground and breeding habitat for both resident and migratory birds along the Central Asian Flyway, it plays a vital role in maintaining the ecological balance of the region. This document provides a checklist of the diverse IUCN flora and fauna found within the sanctuary, highlighting the unique ecological importance of Karaivetti Bird Sanctuary.

STUDY AREA

The Karaivetti Bird Sanctuary, located in the Ariyalur District of Tamil Nadu, India was designated as a protected area in 1999. It is situated at coordinates between 10°58'12.19"N and 10°58' 50"N latitude and 79°02'6.56"E and 79°03'26.2"E longitude. It is situated 50 km from Trichy and 35 km from Thanjavur with the nearest town, Ariyalur being 12 km away. The sanctuary covers an area of 453.72 hectares. This sanctuary is a crucial habitat for a diverse range of bird species.

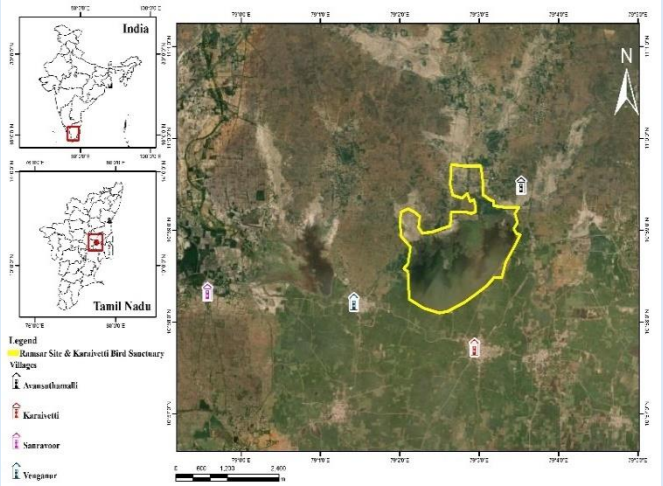

Fig.1.Study Area Map

TOPOGRAPHY AND HYDROLOGY

Karaivetti is a natural freshwater irrigation tank situated on the northern alluvial plains of the Kaveri River basin. It receives inflows via canals (Pullambadi and Kattalai) from the Mettur Dam during the northeast monsoon (September–January) and direct rainfall. The depth of standing water averages around 3 m at peak capacity but significantly reduces between April and August, The Rainfall ranges from 800 to 2000 mm.

GEOLOGY

Karaivetti Bird Sanctuary is situated within the Ariyalur District, a region known for its Cretaceous and Tertiary sedimentary formations. The deeper geological formations in the area consist of hard rock and sedimentary formations at depths beyond 3 meters.

SOIL AND VEGETATION

The soil within the lake is predominantly black cotton soil with alluvial soil depositing annually during the water release from the Mettur Dam. However, the humus content of the soil is low. Hard rock and sedimentary formations are present at depths exceeding 3 meters. The natural and planted vegetation within and around the lake includes *Acacia nilotica, Prosopis chilensis, Azadirachta indica and Tamarindus indica. Acacia nilotica* specifically serves as a significant nesting site for various birds. Additionally, wetland plants like *Typha angustata* and *Fimbristylis sp.* are found along with weeds such as *Ipomoea aquatica* and submerged plants like *Elodea, Hydrilla, Salvinia* and *Spirodella sp*. The surrounding farmland, irrigated by the lake waters, cultivates crops such as paddy, sugarcane, cotton, castor and maize.

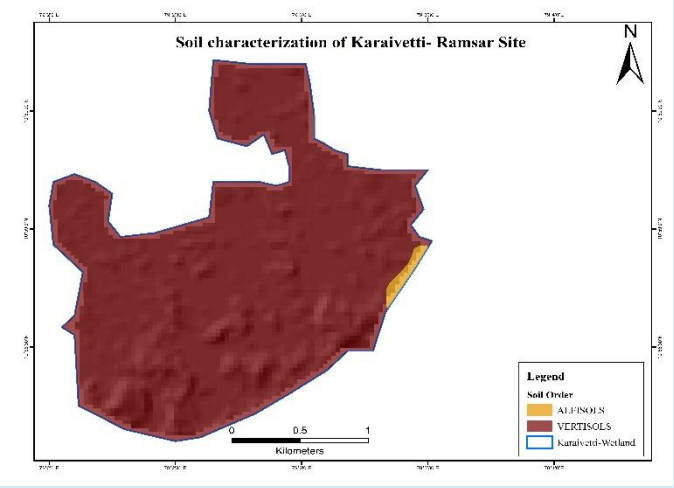

Fig.2.Soil Characterization of Karaivetti Map

GROUNDWATER SIGNIFICANCE

Groundwater plays a crucial role in the ecological integrity and functioning of the Karaivetti Bird Sanctuary in Tamil Nadu.

- ✓ *Maintaining the Wetland Ecosystem:* The sanctuary is a one of the large inland freshwater lakes is fed by canals and monsoon rainfall and groundwater contributes to maintaining water levels, especially during dry periods.
- ✓ *Supporting Biodiversity:* The water availability, influenced by groundwater levels, sustains the diverse flora and fauna of the wetland, including numerous bird species, the vulnerable Indian flap-shelled turtle and the bonnet macaque.
- ✓ *Groundwater Recharge for the Region:* The sanctuary, essentially a large irrigation tank, receives water from the Mettur Dam and the northeast monsoon, which helps maintain groundwater levels and support the surrounding agricultural areas, providing water for cultivating crops like paddy, sugarcane and cotton. This water then percolates into the ground, replenishing the local aquifer.
- ✓ *Irrigation:* The water from the sanctuary is used to irrigate approximately 4,000 hectares of farmland, primarily for crops like paddy, sugarcane, cotton, and corn.

In essence, groundwater ensures the continuous supply of water to the Sanctuary, directly supporting its rich biodiversity

Fulfilling its role as a crucial avian habitat and contributing to the local agricultural economy through groundwater recharge.

ECOLOGICAL SIGNIFICANCE

The Karaivetti Bird Sanctuary is a significant inland wetland in Tamil Nadu, recognized for its importance as an ecological significance particularly due to its role as a crucial wetland ecosystem and its location along a vital migratory bird flyway.

- ✓ *Ramsar Site Recognition:* The sanctuary is recognized as a Ramsar site (No. 2537) on 24.05.2023, a wetland of international importance designated under the Ramsar Convention. This highlights its critical role in maintaining global biodiversity and ecological processes. Karaivetti Bird Sanctuary qualifies as a Ramsar Site of international importance based on the following Ramsar criteria:

  Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

  Criterion 3: A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.

  Criterion 4: A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.

  Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.

  Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

- ✓ *Biodiversity Hotspot:* Karaivetti is home to a rich diversity of flora and fauna, including over 500 species in total. This includes a remarkable 198 species of birds, 10 mammal species, 82 butterfly species, 19 reptile species, 10 amphibian species and 165 plant species.

- ✓ *Central Asian Flyway:* The sanctuary's geographical location places it within the Central Asian Flyway, making it a critical stopover and foraging ground for migratory birds traveling vast distances. It regularly hosts over 20,000 migratory birds.

- ✓ *Habitat for Threatened Species:* Karaivetti provides essential nesting and roosting habitats for threatened and near-threatened species, including the Spot-billed Pelican, Oriental White Ibis, Painted Stork, and Darter. The vulnerable Indian flap-shelled turtle also utilizes the sanctuary for breeding.

- ✓ *Ecosystem Services:* Karaivetti provides several valuable ecosystem services, including freshwater provisioning, maintenance of hydrological regimes, erosion protection, climate regulation, hazard reduction, and biological control of pests and diseases.

BIODIVERSITY ASSESSMENT

A systematic approach was employed to evaluate the Karaivetti Bird Sanctuary, consistent with the Wetlands (Conservation and Management) Rules, 2017. Flora was assessed using quadrat sampling, transect studies and remote sensing-based vegetation mapping, allowing for the documentation of species composition, richness and the presence of endangered or invasive plant species. Fauna assessment involved point count surveys for bird species, camera trapping for terrestrial mammals, and netting techniques for capturing aquatic species. Light traps were also used to document the diversity of insects. To supplement the field data and ensure a comprehensive understanding, secondary data from authoritative sources such as the Zoological Survey of India (ZSI), Botanical Survey of India (BSI), National Biodiversity Authority (NBA) and Ramsar site documentation were integrated.

KEY FINDINGS

Karaivetti Bird Sanctuary is known to attract birds and a variety of plant species. A total of 70 plant species belonging to 30 families observed in the sanctuary. Among the plant species the family of *Poaceae* dominant with 9 species.

Of the 70 plant species documented, 57 are classified as least concern according to the IUCN Red List, while the remaining 13 species fall under the Not Evaluated category.

Fig.3.Crateva magna

Fig.4. Ficus tinctoria

More than, 100 bird species belonging to 20 orders and 43 families were observed in the Karaivetti Bird Sanctuary. Most of the bird species are classified under the Least Concern category of the IUCN Red List, while 6 species are categorized as Near Threatened. The winter, 95 species were recorded while 49 species were observed in summer within the sanctuary. During the winter water is available in the Karaivetti Lake that facilitates a diversity of wetland and migratory bird species, the migratory birds mostly visit the sanctuary for nesting. During the month of May, the water dried up in the sanctuary lake resulting in minimum number and diversity of birds in the Karaivetti bird sanctuary. The avifaunal diversity includes both resident and migratory birds, several of which are globally significant under IUCN classifications.

Fig.5.Amaurornis phoenicurus

Fig.6. Lanius cristatus

Fig.7. Francolinus pondicerianus

The list of observed birds and their details are presented in following Table 1 & 2.

Table.1. Checklist of Plant species observed in Karaivetti Bird Sanctuary, Ariyalur District

S. No.	Scientific Name of the Species	Family	Tamil Name	Habit	IUCN
1	*Amorphophallus paeoniifolius*	Araceae	-	Herb	LC
2	*Brachiaria ramosa*	Poaceae	-	Grass	NE
3	*Boswellia serrate*	Burseraceae	-	Tree	LC
4	*Cassia fistula*	Caesalpiniaceae	-	Tree	LC
5	*Caryota urens*	Arecaceae	Koonthapanai	Tree	LC
6	*Commelina benghalensis*	Commelinaceae	Kanaangozhai	Herb	LC
7	*Cordia domestica*	Cordiaceae	-	Tree	LC
8	*Corallocarpus epigaeus*	Cucurbitaceae	Akasha karuden	Climber	Lc
9	*Crateva magna*	Capparaceae	-	Tree	LC
10	*Cyperus alternifolius*	Cyperaceae	-	Sedge	NE
11	*Cyperus iria*	Cyperaceae	-	Sedge	NE
12	*Dolichandrone atrovirens*	Bignoniaceae	-	Tree	LC
13	*Diospyros montana*	Ebenaceae	-	Tree	LC
14	*Diospyros malabarica*	Ebenaceae	-	Tree	LC
15	*Drosera burmannii*	Droseracae	Alukanni	Herb	LC
16	*Drymaria cordata*	Caryophyllaceae	Puliarai	Herb	LC
17	*Eragrostis viscosa*	Poaceae	-	Grass	LC
18	*Erythrina suberosa*	Papilionaceae	-	Tree	LC
19	*Ficus tinctoria*	Moraceae	Kallathi	Tree	LC
20	*Isachne miliacea*	Poaceae	-	Grass	LC
21	*Ischaemum indicum*	Poaceae	-	Grass	LC
22	*Ludwigia adscendens*	Onagraceae	-	Herb	NE
23	*Mallotus nudifiorus*	Euphorbiaceae	-	Tree	LC
24	*Mitragyna parvifolia*	Rubiaceae	-	Tree	LC
25	*Pandanus amaryllifolius*	Pandanaceae	-	Tree	LC
26	*Pongamia pinnata*	Papilionaceae	Pungai	Tree	LC
27	*Phyllanthus reticulatus*	Euphorbiaceae	Inkipazham	Shrub	LC
28	*Ruta graveolans*	Rutaceae	Aruvathampatch	Shrub	LC
29	*Syzygium cumini*	Myrtaceae	Naval	Tree	LC
30	*Terminalia arjuna*	Combretaceae	-	Tree	LC
31	*Terminalia chebula*	Combretaceae	-	Tree	LC
32	*Tinospora cordifolia*	Menispermaceae	Seendhil	Climber	NE
33	*Tridax procumbens*	Compositae	Vettukkaaya - thazhai	Herb	LC
34	*Tylophora indica*	Asclepiadaceae	Naippalai	Climber	NE
35	*Amorphophallus paeoniifolius*	Araceae	-	Herb	LC

36	*Brachiaria ramosa*	Poaceae	-	Grass	NE
37	*Boswellia serrata*	Burseraceae	-	Tree	LC
38	*Cassia fistula*	Caesalpiniaceae	-	Tree	LC
39	*Caryota urens*	Arecaceae	Koonthapanai	Tree	LC
40	*Commelina benghalensis*	Commelinaceae	Kanaangozhai	Herb	LC
41	*Cordia domestica*	Cordiaceae	-	Tree	LC
42	*Corallocarpus epigaeus*	Cucurbitaceae	Akasha karuden	Climber	LC
43	*Crateva magna*	Capparaceae	-	Tree	LC
44	*Cyperus alternifolius*	Cyperaceae	-	Sedge	NE
45	*Cyperus iria*	Cyperaceae	-	Sedge	NE
46	*Dolichandrone atrovirens*	Bignoniaceae	-	Tree	LC
47	*Diospyros montana*	Ebenaceae	-	Tree	LC
48	*Diospyros malabarica*	Ebenaceae	-	Tree	LC
49	*Drosera burmannii*	Droseracae	Alukanni	Herb	LC
50	*Drymaria cordata*	Caryophyllaceae	Puliarai	Herb	LC
51	*Eragrostis viscosa*	Poaceae	-	Grass	LC
52	*Erythrina suberosa*	Papilionaceae	-	Tree	LC
53	*Ficus tinctoria*	Moraceae	Kallathi	Tree	LC
54	*Isachne miliacea*	Poaceae	-	Grass	LC
55	*Ischaemum indicum*	Poaceae	-	Grass	LC
56	*Ludwigia adscendens*	Onagraceae	-	Herb	NE
57	*Mallotus nudifiorus*	Euphorbiaceae	-	Tree	LC
58	*Mitragyna parvifolia*	Mitragyna parvifolia	-	Tree	LC
59	*Pandanus amaryllifolius*	Pandanaceae	-	Tree	LC
60	*Pongamia pinnata*	Papilionaceae	Pungai	Tree	LC
61	*Phyllanthus reticulatus*	Euphorbiaceae	Inkipazham	Shrub	LC
62	*Ruta graveolans*	Rutaceae	Aruvathampatch	Shrub	LC
63	*Syzygium cumini*	Myrtaceae	Naval	Tree	LC
64	*Terminalia arjuna*	Combretaceae	-	Tree	LC
65	*Terminalia chebula*	Combretaceae	-	Tree	LC
66	*Tinospora cordifolia*	Menispermaceae	Seendhil	Climber	NE
67	*Tridax procumbens*	Compositae	Vettukkaaya – thazhai	Herb	LC
68	*Tylophora indica*	Asclepiadaceae	Naippalai	Climber	NE
69	*Amorphophallus paeoniifolius*	Araceae	-	Herb	LC
70	*Brachiaria ramosa*	Poaceae	-	Grass	NE

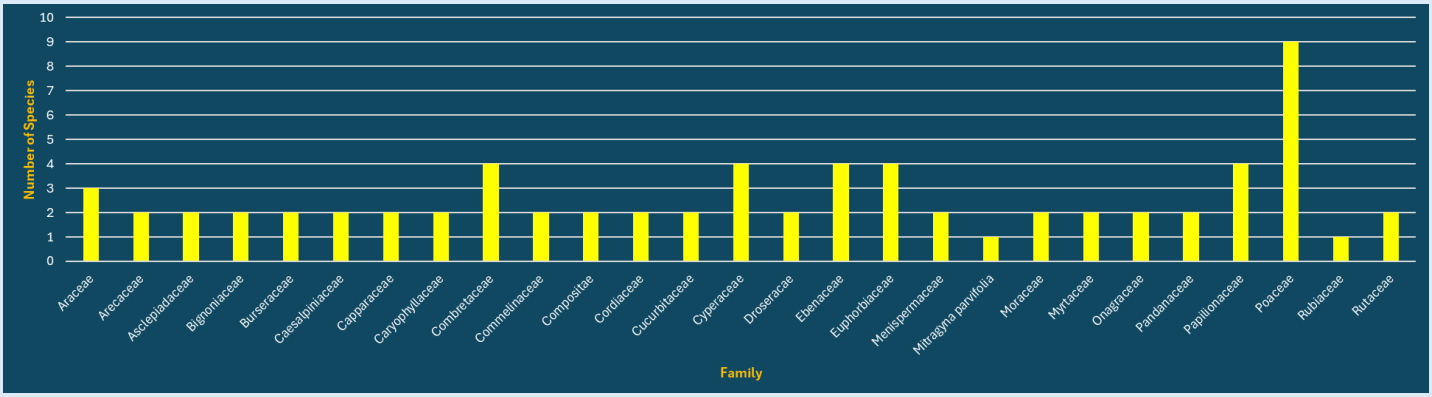

Fig.8.Total number of Plant Species family observed in the Karaivetti Bird Sanctuary

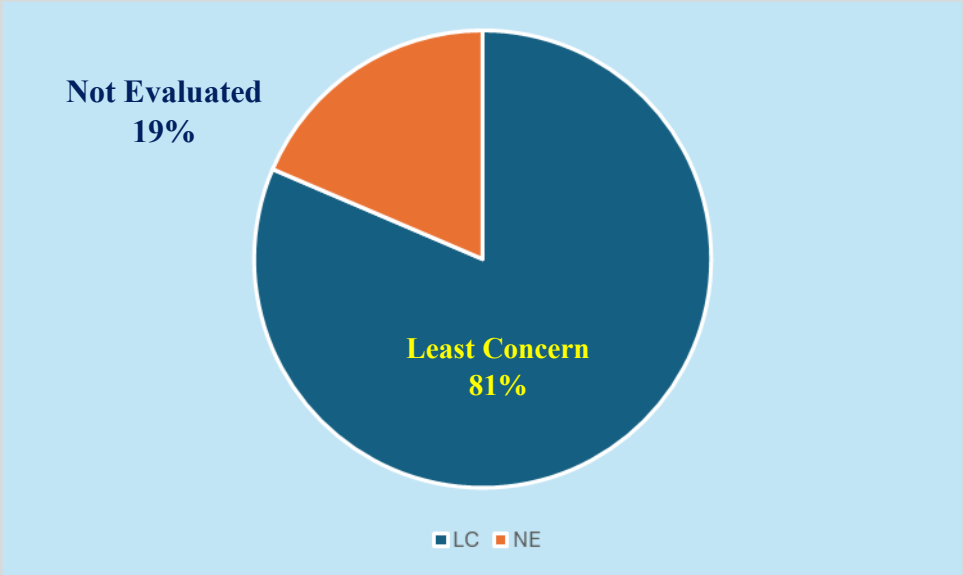

Fig.9. IUCN Red list plant percentage in Karaivetti bird Sanctuary

Fig.10. dolichandrone atrovirens

Fig.11. Ludwigia adscendens

Table.2. Checklist of Bird species observed in Karaivetti Bird Sanctuary, Ariyalur District

S. No.	Scientific Name of the Species	Common name	Family	Migratory Status	IUCN
1	*Anser indicus*	Bar-headed Goose	Anatidae	WM	LC
2	*Nettapus coromandelianus*	Cotton Pygmy-goose	Anatidae	RE	LC
3	*Anas querquedula*	Garganey	Anatidae	WM	LC
4	*Anas clypeata*	Northern Shoveler	Anatidae	WM	LC
5	*Anas poecilorhyncha*	Indian Spot-billed Duck	Anatidae	RE	LC
6	*Anas acuta*	Northern Pintail	Anatidae	WM	LC
7	*Aythya fuligula*	Tufted Duck	Anatidae	WM	LC
8	*Francolinus pondicerianus*	Grey Francolin	Phasianidae	RE	LC
9	*Pavo cristatus*	Indian Peafowl	Phasianidae	RE	LC
10	*Tachybaptus ruficollis*	Little Grebe	Podicipedidae	RE	LC
11	*Phoenicoparrus roseus*	Greater flamingo	Phoenicopteridae	WM	LC
12	*Anastomus oscitans*	Asian Openbill	Ciconiidae	RE	LC
13	*Mycteria leucocephala*	Painted Stork	Ciconiidae	RE	LC
14	*Anhinga melanogaster*	Oriental Darter	Anhingidae	RE	LC
15	*Phalacrocorax carbo*	Great Cormorant	Phalacrocoracidae	RE	LC
16	*Phalacrocorax fuscicollis*	Indian Cormorant	Phalacrocoracidae	RE	LC
17	*Phalacrocorax niger*	Little Cormorant	Phalacrocoracidae	RE	LC
18	*Pelecanus philippensis*	Spot-billed Pelican	Pelecanidae	RE	NT
19	*Ardea cinerea*	Grey Heron	Ardeidae	RE	LC
20	*Ardea purpurea*	Purple Heron	Ardeidae	RE	LC
21	*Casmerodius albus*	Great Egret	Ardeidae	RE	LC
22	*Mesophoyx intermedia*	Intermediate Egret	Ardeidae	RE	LC
23	*Egretta garzetta*	Little Egret	Ardeidae	RE	LC
24	*Bubulcus ibis*	Cattle Egret	Ardeidae	RE	LC
25	*Ardeola grayii*	Indian Pond Heron	Ardeidae	RE	LC
26	*Nycticorax nycticorax*	Black-crowned Night-Heron	Ardeidae	RE	LC
27	*Plegadis falcinellus*	Glossy Ibis	Threskiornithidae	RE	LC
28	*Threskiornis melanocephalus*	Black-headed Ibis	Threskiornithidae	RE	LC
29	*Accipiter badius*	Shikra	Accipitridae	RE	LC
30	*Milvus migrans*	Black Kite	Accipitridae	RE	LC
31	*Haliastur indus*	Brahminy Kite	Accipitridae	RE	LC
32	*Amaurornis phoenicurus*	White-breasted Waterhen	Rallidae	RE	LC
33	*Porphyrio porphyrio*	Grey-headed Swamphen	Rallidae	RE	LC
34	*Fulica atra*	Eurasian Coot	Rallidae	RE	LC

35	*Himantopus himantopus*	Black-winged Stilt	Recurvirostridae	RE	LC
36	*Vanellus indicus*	Red-wattled Lapwing	Charadriidae	RE	LC
37	*Charadrius dubius*	Little Ringed Plover	Charadriidae	RE	LC
38	*Hydrophasianus chirurgus*	Pheasant-tailed Jacana	Jacanidae	RE	LC
39	*Gallinago gallinago*	Common Snipe	Scolopacidae	WM	LC
40	*Actitis hypoleucos*	Common Sandpiper	Scolopacidae	WM	LC
41	*Tringa ochropus*	Green Sandpiper	Scolopacidae	WM	LC
42	*Tringa glareola*	Wood Sandpiper	Scolopacidae	WM	LC
43	*Tringa stagnatilis*	Marsh Sandpiper	Scolopacidae	WM	LC
44	*Hydroprogne caspia*	Caspian Tern	Laridae	WM	LC
45	*Chlidonias hybrida*	Whiskered Tern	Laridae	WM	LC
46	*Sterna aurantia*	River Tern	Laridae	WM	VU
47	*Columba livia*	Common Pigeon	Columbidae	RE	LC
48	*Streptopelia decaocto*	Eurasian Collared-Dove	Columbidae	RE	LC
49	*Stigmatopelia chinensis*	Spotted Dove	Columbidae	RE	LC
50	*Stigmatopelia senegalensis*	Laughing Dove	Columbidae	RE	LC
51	*Centropus sinensis*	Greater Coucal	Cuculidae	RE	LC
52	*Clamator jacobinus*	Pied Cuckoo	Cuculidae	RE	LC
53	*Rhopodytes viridirostris*	Blue-faced Malkoha	Cuculidae	RE	LC
54	*Eudynamys scolopaceus*	Asian Koel	Cuculidae	RE	LC
55	*Hierococcyx varius*	Common Hawk Cuckoo	Cuculidae	RE	LC
56	*Upupa epops*	Eurasian Hoopoe	Upupidae	RE	LC
57	*Cypsiurus balasiensis*	Asian Palm Swift	Apodidae	RE	LC
58	*Alcedo atthis*	Common Kingfisher	Alcedinidae	RE	LC
59	*Halcyon smyrnensis*	White-throated Kingfisher	Alcedinidae	RE	LC
60	*Ceryle rudis*	Pied Kingfisher	Alcedinidae	RE	LC
61	*Merops orientalis*	Green Bee-eater	Meropidae	RE	LC
62	*Merops philippinus*	Blue-tailed Bee-eater	Meropidae	WM	LC
63	*Megalaima haemacephalus*	Coppersmith Barbet	Megalaimidae	RE	LC
64	*Falco peregrinus*	Peregrine Falcon	Falconidae	WM	LC
65	*Coracias benghalensis*	Indian Roller	Coraciidae	RE	LC
66	*Psittacula krameri*	Rose-ringed Parakeet	Psittacidae	RE	LC
67	*Lanius cristatus*	Brown Shrike	Laniidae	WM	LC
68	*Lanius vittatus*	Bay-backed Shrike	Laniidae	RE	LC
69	*Dicrurus macrocercus*	Black Drongo	Dicruridae	RE	LC
70	*Dendrocitta vagabunda*	RufousTreepie	Corvidae	RE	LC
71	*Corvus splendens*	House Crow	Corvidae	RE	LC
72	*Corvus macrorhynchos culminatus*	Large-billed Crow	Corvidae	RE	LC

73	*Eremopterix griseus*	Ashy-crowned Sparrow Lark	Alaudidae	RE	LC
74	*Mirafra affinis*	Jerdon'sBushlark	Alaudidae	RE	LC
75	*Hirundo rustica*	Barn Swallow	Hirundinidae	LM	LC
76	*Pycnonotus cafer*	Red-vented Bulbul	Pycnonotidae	RE	LC
77	*Pycnonotus luteolus*	White-browed Bulbul	Pycnonotidae	RE	LC
78	*Acrocephalus dumetorum*	Blyth's Reed Warbler	Acrocephalidae	WM	LC
79	*Acrocephalus stentoreus*	Clamorous Reed Warbler	Acrocephalidae	WM	LC
80	*Cisticola juncidis*	ZittingCisticola	Cisticolidae	RE	LC
81	*Orthotomus sutorius*	Common Tailorbird	Cisticolidae	RE	LC
82	*Prinia socialis*	Ashy Prinia	Cisticolidae	RE	LC
83	*Prinia inornata*	Plain Prinia	Cisticolidae	RE	LC
84	*Turdoides affinis*	Yellow-billed Babbler	Leiothrichidae	RE	LC
85	*Saxicoloides fulicatus*	Indian Robin	Muscicapidae	RE	LC
86	*Saxicola caprata*	Pied Bushchat	Muscicapidae	RE	LC
87	*Pastor roseus*	Rosy Starling	Sturnidae	WM	LC
88	*Sturnia pagodarum*	Brahminy Starling	Sturnidae	RE	LC
89	*Acridotheres tristis*	Common Myna	Sturnidae	RE	LC
90	*Leptocoma zeylonica*	Purple-rumped Sunbird	Nectariniidae	RE	LC
91	*Cinnyris asiaticus*	Purple Sunbird	Nectariniidae	RE	LC
92	*Cinnyris lotenius*	Long-billed Sunbird	Nectariniidae	RE	LC
93	*Motacilla flava*	Western Yellow Wagtail	Motacillidae	WM	LC
94	*Motacilla citreola*	Citrine Wagtail	Motacillidae	WM	LC
95	*Motacilla maderaspatensis*	White-browed Wagtail	Motacillidae	RE	LC
96	*Anthus rufulus*	Paddyfield Pipit	Motacillidae	RE	LC
97	*Gymnoris xanthocollis*	Chestnut-shouldered Petronia	Passeridae	RE	LC
98	*Ploceus manyar*	Streaked Weaver	Ploceidae	RE	LC
99	*Tringa glareola*	Wood Sandpiper	Scolopacidae	WM	LC

RE – Resident, LM – Local Migrant, WM – Winter Migrant

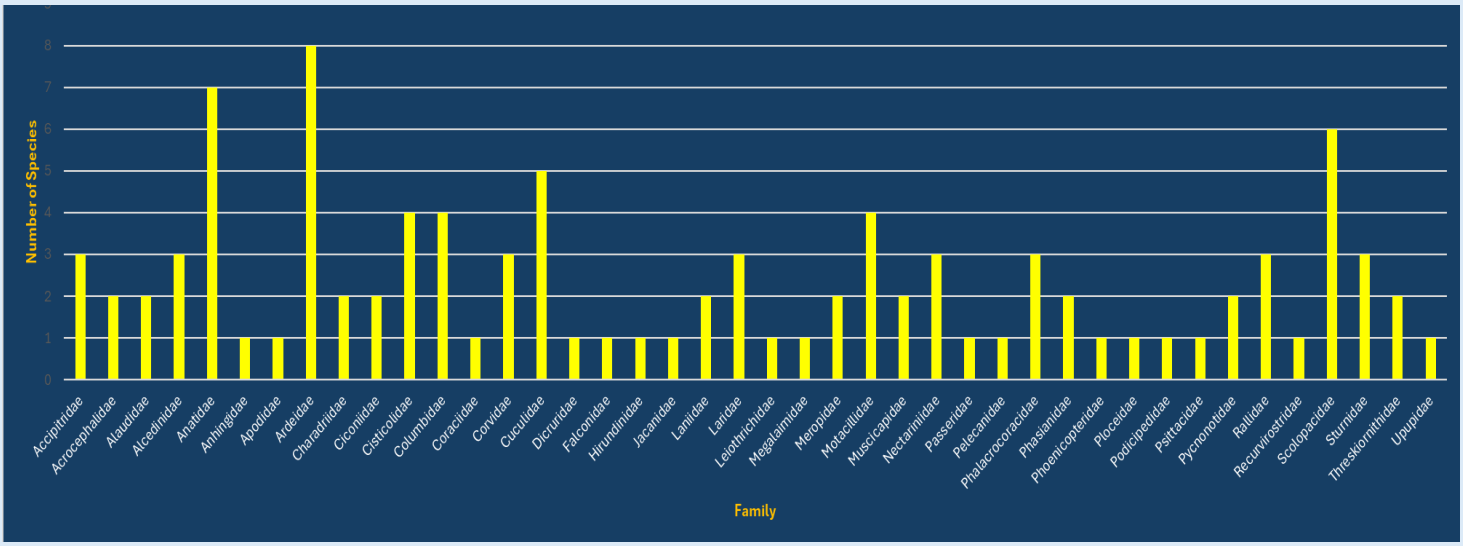

Fig.12.Total number of Bird Species family observed in the Karaivetti Bird Sanctuary

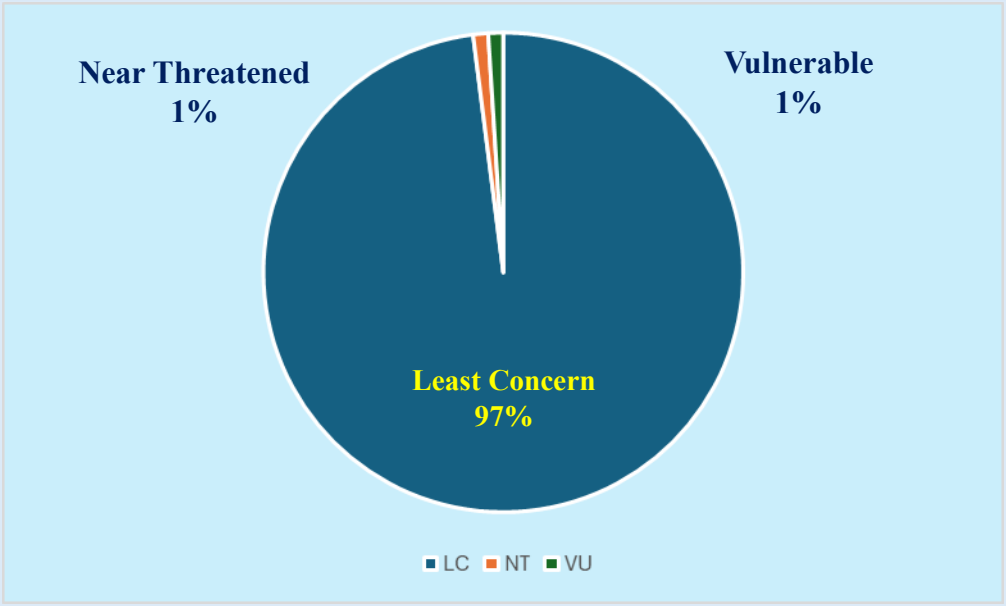

Fig.13. IUCN Red list bird species percentage observed in Karaivetti bird Sanctuary

Fig.14. Anthus rufulus

Fig.15. Phalacrocorax niger

SUMMARY & CONCLUSION

- The Karaivetti Bird Sanctuary in Ariyalur District, Tamil Nadu, stands as a vital freshwater wetland ecosystem of ecological, biological, and socio-economic significance. Internationally recognized biodiversity hotspot, it supports over 70 plant species and more than 100 bird species, underscoring its national and international conservation importance.
- Beyond its rich biodiversity, the sanctuary also plays a crucial role in ecosystem services such as groundwater recharge, flood regulation, and climate moderation. The presence of natural recharge zones within the wetland contributes significantly to sustaining the regional groundwater table, which is essential for agriculture and local water security.
- The identification of species with various conservation statuses highlights the need for ongoing ecological monitoring, habitat protection, and sustainable management practices. These efforts are vital not only for maintaining the sanctuary's ecological integrity but also for supporting the livelihoods of surrounding communities.
- This Newsletter serves as a foundational resource for future ecological assessments, biodiversity conservation planning, and wetland management policies, including the protection of groundwater recharge functions. A holistic approach to conservation will ensure the long-term resilience and sustainability of the Karaivetti wetland ecosystem.

WETLANDS HEALTH CONSERVATION

DO's

Adopt Wetland Positive Behaviour

Conserving wetlands can be facilitated by adopting sustainable lifestyle practices that do not harm them

Engage and Support Site-based Conservation

Wetlands conservation is a 'whole-of-society' endeavour and requires active participation of all.

Be Aware and Informed of the Diverse Values of Wetlands

Awareness of the diverse values and roles wetland play in human well-being and supporting biodiversity can help make informed choices for wetland conservation

Maintain Natural Regime

Wetlands can benefit society only when their natural water flow, ecological balance and connections to other water bodies are maintained.

DONT's

Don't Pollute and Litter

Discharging untreated wastewater and disposing of solid waste significantly harm aquatic life

Don't Disturb the Natural Habitat

Human disturbances in wetlands, especially in sensitive areas like bird breeding grounds can make the habitat unfit for wildlife

Don't Introduce Invasive Species

Introduction of invasive species can disrupt native species and the overall species composition of the wetland.

Don't Forget that You are Part of Nature

Our survival depends on healthy wetlands they supply clean water, stabilise climate and provide a buffer from extreme events.

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Published by

Tamil Nadu Wetlands Mission
Panagal Maligai, Saidapet,
Chennai – 600015.

tnswa18@gmail.com

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