

### 3.42. KANJIRANKULAM BIRD SANCTUARY

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- ❖ **Name and address of person (s) compiling this information:**
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#### **Section 1: Identification, Location and Jurisdiction**

- 1.1 *Name of the Wetland:* Kanjirankulam Bird Sanctuary or Kanjirankulam Tank or Kanjirankulam Kanmoi
- 1.2 *Name of the Village (s), Tehsil (s), Municipal area (s):* Kanjirankulam, Mudukulathur, Pulvaykulam
- 1.3 *Name of the District (s) in which Wetlands complex located:* Ramanatapuram
- 1.4 *Geographical coordinates:*
  - ▶ Latitude: 9°21'35" N
  - ▶ Longitude: 78°28'44" E
- 1.5 *Name of the Department/ Agency which has jurisdiction over Wetland/ Wetland complex:* Forest Department

#### **Section 2: Site Characteristics**

- 2.1 *Area of Wetland:* 96.99 ha
- 2.2 *Wetland type:*

Category	Subcategory
<ul style="list-style-type: none"> <li>✓ Natural (Inland)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Permanent lakes</li> <li>✓ Seasonal/ intermittent lakes</li> <li><input type="checkbox"/> Permanent streams/ creeks</li> <li><input type="checkbox"/> Seasonal/ intermittent streams/ creeks</li> <li><input type="checkbox"/> Oxbow</li> <li><input type="checkbox"/> River floodplain</li> <li><input type="checkbox"/> Permanent freshwater marshes</li> <li><input type="checkbox"/> Seasonal/ intermittent freshwater marshes</li> <li><input type="checkbox"/> Shrub-dominated Wetlands</li> <li><input type="checkbox"/> Tree-dominated Wetlands</li> <li><input type="checkbox"/> Geothermal Wetlands</li> </ul>

	<input type="checkbox"/> Karst and other subterranean hydrological systems
<input type="checkbox"/> Natural (Coastal)	<input type="checkbox"/> Coastal lagoon <input type="checkbox"/> Estuary <input type="checkbox"/> Intertidal mud, sand or salt flats <input type="checkbox"/> Mangroves <input type="checkbox"/> Coral reefs
<input type="checkbox"/> Human-made	<input type="checkbox"/> Aquaculture pond <input type="checkbox"/> Tank <input type="checkbox"/> Saltpan <input type="checkbox"/> Dam/ Reservoir

2.3 *Depth (m): Average - 2; Maximum - 2.5*

2.4 *Elevation (m above mean sea level): 0*

2.5 *Water regimes*

a) Main source of water

- Rainfall inflow from river
- Groundwater
- Catchment runoff
- Direct/ indirect inflow from the river: *Vaigai River*
- Others, please specify:
- Name of River/ Canal System

b) Water performance

- Mostly permanent
- Mostly intermittent

c) Destination of water from Wetland

- Feeds groundwater river to sea
- To downstream catchment

d) Water pH

- Acid (< 5.5)
- Circumneutral (5.5-7.4)
- Alkaline (> 7.4)

e) Water salinity

- Fresh (< 0.5 g/l)
- Brackish (0.5-30 g/l)
- Euhaline (30-40 g/l)
- Hypersaline (> 40 g/l)
- Not known

- f) Nutrients in water
  - Eutrophic
  - Mesotrophic
  - Oligotrophic
  - Not known

2.6 *Climatic setting*

- a) Annual rainfall/ Snowfall (mm): 70.6
- b) Temperature (°C) Minimum 26.65 ; Maximum 34.45
- c) Humidity (%) Minimum 75.3 ; Maximum 80.8

2.7 *Area of zone of influence (in ha):* 4189.41 ha (with an irregular radius of 3.66 km)

2.8 *Major land use within zone of influence*

<b>Land Use</b>	<b>Percentage</b>
Forest	: 0%
Vegetation (Plantation)	: 19%
Agriculture	: 75%
Settlements (Rural)	: 2%
Settlements (Urban)	: 0%
Industrial	: 0%
Waterbody	: 1%
Waste Land	: 1%

2.9 *Map of Wetland complex and zone of influence:* Enclosed as Annexure 3.42 (Fig. 3.42.1-3.42.2)

**Section 3: Biodiversity**

- 3.1 *Notable plant species present in Wetland:* The Wetland is home to a diverse range of plant species, totaling 65 species. (refer to Table 3.42.1 in Annexure 3.42).
- 3.2 *Notable animal species present in Wetland:* The Wetland supports a variety of animal species, with a total of 148 recorded species. This includes 9 mammal species, 21 reptile species, 9 amphibian species, 96 bird species, and 13 species of butterflies (refer to Table 3.42.2-3.42.3 in Annexure 3.42).
- 3.3 *Species of conservation significance:* Highlighted in Table 3.42.1-3.42.3
- 3.4 *Major plant invasive alien species:* The Wetland supports 9 plant invasive species (refer to Table 3.42.4 in Annexure 3.42).
- 3.5 *Major animal invasive alien species:* The Wetland supports 3 animal invasive species (refer to Table 3.42.5 in Annexure 3.42)

#### Section 4: Ecosystem Services

Importance	Relevance	Details
Source of drinking water for people living and around	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Source of water for agriculture	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water has been drawn from outflow for agricultural activities
Fisheries	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Cultivation of aquatic food plants	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
For buffalo wallowing and use of domesticated animals	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Medicinal plants	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Few Medicinal plants around the Wetland. Listed in Table 3.42.6 (Annexure 3.42)
Is a recreational site	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Receives a good population of nature enthusiasts & Bird watching
Buffering communities from extreme events as floods and storms	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Groundwater recharge	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Major source of ground water recharge
Water purification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Acts as a sink for sediments	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Substantial water flow from the surrounding watershed
Has significant cultural and religious values	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	There is a temple around the embankment of the Wetland
Is a site for recreation and tourism	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Supports noteworthy plant species	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Support noteworthy animal species	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Site of high congregation of migratory water birds	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Provides a suitable site for the high congregation of migratory water birds.
Supports life cycle of fish or amphibians	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Almost 9 variety of amphibians were surviving
Mining	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any others	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

### Section 5: Pre-Existing Rights and Privileges

Nature of right and privilege	Relevant for the site	Does this negatively impact the Wetland's ecological health?	Brief description
Community Fishing (without any lease or permission from government department)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Fishing under lease from government department	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Harvest of plants (without any lease or permission from government department)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Harvest of plants under lease from government department	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Agriculture or horticulture within Wetland	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Grazing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not assessed	Grazing activity is done by cattle
Religious practices	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not assessed	There is a temple around the embankment of the Wetland

Withdrawal of water for domestic use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Withdrawal of water for agriculture or fisheries	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not assessed	Water has been drawn from outflow for agricultural activities
Bathing or wallowing of domestic animals	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Plying of boats	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	
Any other	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed	

#### Section 6: Present and Potential Threats

Threat	Degree	Present/ Potential	Additional info.
Changes in water inflow and outflow	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Present <input type="checkbox"/> Potential	
Pollution	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Potential	Municipal solid wastes has been dumped around the bund
Unsustainable harvest of biological resources	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Present <input type="checkbox"/> Potential	
Mining	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Present <input type="checkbox"/> Potential	
Siltation	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Potential	Substantial water flow from the surrounding watershed
Encroachment	<input type="checkbox"/> High	<input type="checkbox"/> Present	

	<input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> Potential	
Spread of invasive species	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Potential	Listed in Table 3.42.4 in Annexure 3.42
Disruption to Wetland	<input type="checkbox"/> High <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Low	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Potential	Few peoples were playing (cricket) inside the Wetland during summer

**Section 7: Activities Proposed to Be Prohibited (other than those listed in Rule 4 (2) of Wetlands Rules and Regulated**

<b>Activity</b>	<b>Whether prohibited or regulated</b>	<b>Regulation within Wetlands zone of influence</b>	<b>If regulated indicates the level of regulation</b>	<b>Name of department/ agency responsible for regulation/ prohibition</b>	<b>Additional info.</b>
Withdrawal of water / impoundment/diversion or any other hydrological intervention		<input type="checkbox"/> Wetland/ Wetland complex boundary <input type="checkbox"/> Zone of influence			
Harvesting of resources (living / non-living)		<input type="checkbox"/> Wetland/ Wetland complex boundary <input type="checkbox"/> Zone of influence			
Grazing	Regulated	<input checked="" type="checkbox"/> Wetland/ Wetland complex boundary <input type="checkbox"/> Zone of influence	Upto the boundary is well & Observed more in numbers		
Discharge of treated sewage/ effluent / wastewater		<input type="checkbox"/> Wetland/ Wetland complex			

		boundary <input type="checkbox"/> Zone of influence			
Construction of boat jetties, and facilities for temporary use, as pantoon bridges		<input type="checkbox"/> Wetland/ Wetland complex boundary <input type="checkbox"/> Zone of influence			
Aquaculture, agriculture and horticulture activities within the Wetland boundaries.		<input type="checkbox"/> Wetland/ Wetland complex boundar <input type="checkbox"/> Zone of influence			
Any other, please list		<input type="checkbox"/> Wetland/ Wetland complex boundary <input type="checkbox"/> Zone of influence			

### Section 8: Activities Proposed to be permitted

Activity	Relevance	Within Wetlands or zone of influence	Additional info.
Withdrawal of water for agriculture		<input type="checkbox"/> Wetland/ Wetlands complex boundary <input checked="" type="checkbox"/> Zone of influence	May permitted, since the surrounding area is rich in agriculture

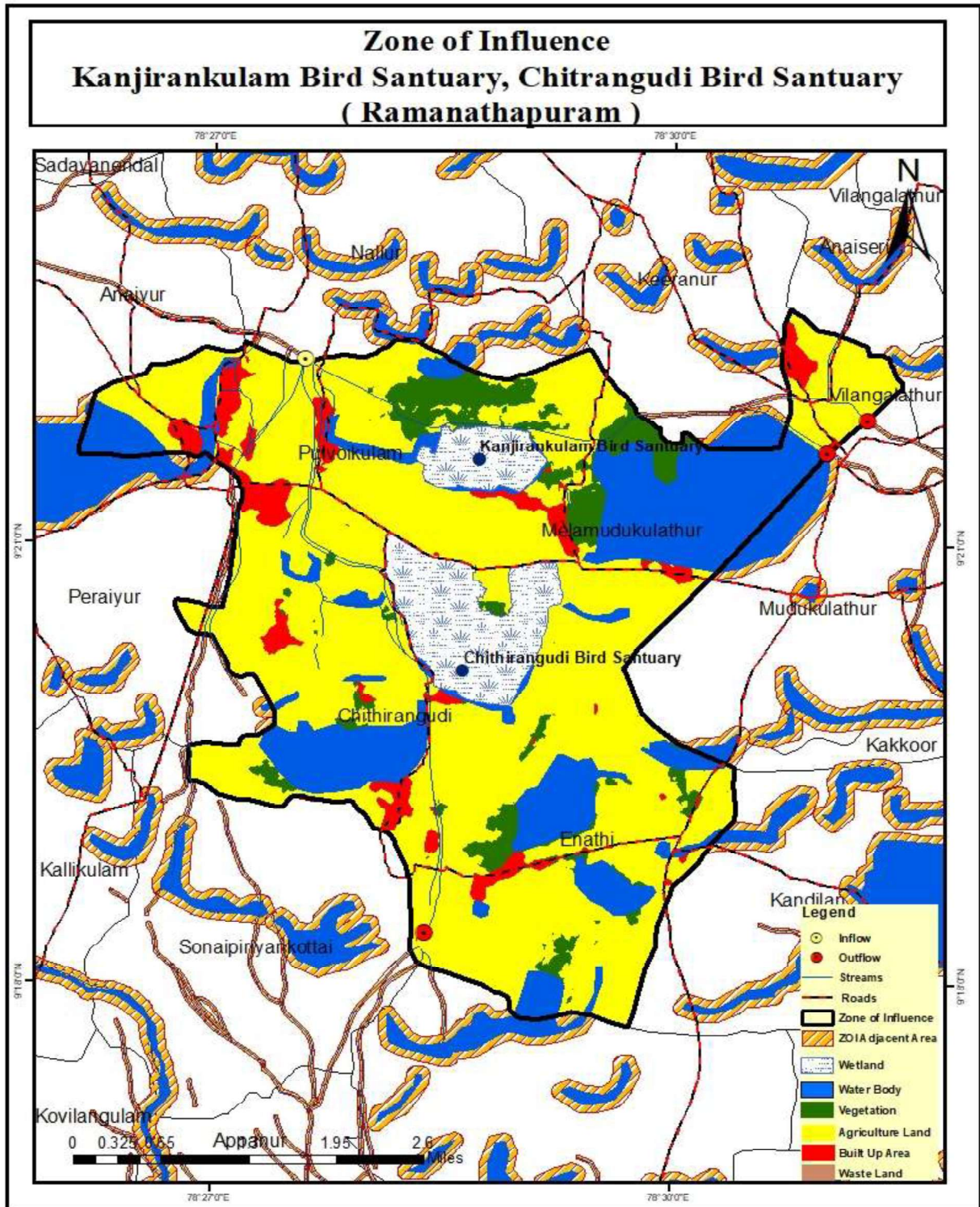
### Section 9: Listing of Available Scientific Resources Used

1. Ali, S. (2002). *The book of Indian birds* (13th Revised Edition). Oxford University Press, New Delhi.
2. Gamble, J.S., & Fischer, C.E.C. (1915–1935). *Flora of the Presidency of Madras*. Adlard and Son, London.
3. Henry, A.N., Chithra, V.N., & Balakrishnan, P. (1989). *Flora of Tamil Nadu, India*. Series 1: Analysis, Vol. III. Botanical Survey of India, Coimbatore.

4. Kamalakannan, M., & Nameer, P.O. (2019). A checklist of mammals of Tamil Nadu, India. *Journal of Threatened Taxa*, 11(8), 13992–14009. <https://doi.org/10.11609/jott.4705.11.8.13992-14009>
5. Kehimkar, I. (2008). *The book of Indian butterflies*. Bombay Natural History Society.
6. Mathew, K.M. (1981). *The material for the flora of the Tamilnadu Carnatic*. Madras, India.
7. Mathew, K.M. (1982). *Illustrations on the flora of the Tamilnadu Carnatic* (Vol. II). The Diocesan Press, Madras, India.
8. Mathew, K.M. (1983). *The flora of Tamilnadu Carnatic* (Vol. III). The Diocesan Press, Madras, India.
9. Mathew, K.M. (1988). *Further illustrations on the flora of the Tamilnadu Carnatic* (Vol. IV). The Diocesan Press, Madras, India.
10. Nair, N.C., & Henry, A.N. (1983). *Flora of Tamil Nadu, India*. Series 1, Vol. 1. Botanical Survey of India, Southern Circle, Coimbatore.
11. Ratnam, K. *Birds of Tamil Nadu*. The Diocesan Press, Madras, India.

ANNEXURE 3.42

Fig. 3.42.1 Zone of Influence of Kanjirankulam Bird Sanctuary



**Fig. 3.42.2. Map (2014 vs. 2023) and Land Use/ Land Cover of Kanjirankulam Bird Sanctuary**

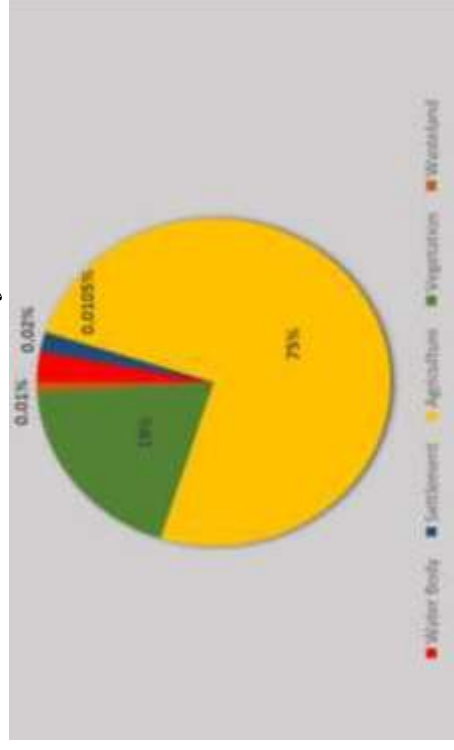
**Map of the Wetland 2014**



**Map of the Wetland 2023**



**Land Use/ Land Cover of the Wetland**



**Table 3.42.1. IUCN Status of Floral Species in Kanjirankulam Bird Sanctuary**

S. No.	Species	Family	Tamil Name	Habit	IUCN
1.	<i>Abrus precatorius</i>	Fabaceae	Kundumani	Climber	NE
2.	<i>Abutilon indicum</i>	Malvaceae	Thuthi	Shrub	LC
3.	<i>Acalypha indica</i>	Euphorbiaceae	Kuppaimeni	Herb	NE
4.	<i>Acanthospermum hispidum</i>	Compositae		Herb	NE
5.	<i>Achyranthes aspera</i>	Amaranthaceae	Nayurivi	Herb	NE
6.	<i>Aerva lanata</i>	Amaranthaceae	Peelai, Sirupeelai	Herb	NE
7.	<i>Aeschynomene indica</i>	Fabaceae	Kothiram	Herb	NE
8.	<i>Azima tetracantha</i>	Salvadoraceae		Shrub	NE
9.	<i>Borassus flabellifer</i>	Arecaceae	Panai	Tree	LC
10.	<i>Boerhavia diffusa</i>	Nyctaginaceae	Mookarattai	Herb	NE
11.	<i>Brachiaria mutica</i>	Poaceae		Grass	NE
12.	<i>Calotropis gigantea</i>	Asclepiadaceae	Erukku, Arkkam	Shrub	NE
13.	<i>Cardiospermum halicacabum</i>	Sapindaceae	Mudakotthan	Herb	NE
14.	<i>Chloris barbata</i>	Poaceae	Kodaipul	Grass	NE
15.	<i>Cleome viscosa</i>	Capparidaceae	Nai vaelai	Herb	NE
16.	<i>Corchorus capsularis</i>	Tiliaceae	Sanal	Herb	NE
17.	<i>Cynodon dactylon</i>	Poaceae	Aruhampul	Grass	NE
18.	<i>Cyperus alternifolius</i>	Cyperaceae		Sedge	NE
19.	<i>Cyperus squarrosus</i>	Cyperaceae		Sedge	NE
20.	<i>Datura metal</i>	Solanaceae	Karu Oomatthai	Herb	NE
21.	<i>Digitaria ciliaris</i>	Poaceae		Grass	NE
22.	<i>Emilia sonchifolia</i>	Astereceae	Muyalceevi	Herb	NE
23.	<i>Eragrostis viscosa</i>	Poaceae	-	Grass	LC
24.	<i>Geniosporum tenuiflorum</i>	Laminaceae	Nallathulasi	Herb	NE
25.	<i>Gisekia pharnaceoides</i>	Gisekiaceae	Kolikkirai	Herb	NE
26.	<i>Glinus lotoides</i>	Molluginaceae	Cerupattai	Herb	NE
27.	<i>Glinus oppositifolius</i>	Molluginaceae	Thurapundu	Herb	NE
28.	<i>Heliotropium curassavicum</i>	Boraginaceae		Herb	LC

29.	<i>Ipomoea carnea</i>	Convolvulaceae		Shrub	NE
30.	<i>Ipomoea pes-caprae</i>	Convolvulaceae	Attukkal	Climber	LC
31.	<i>Ischaemum indicum</i>	Poaceae	-	Grass	LC
32.	<i>Jatropha gossypifolia</i>	Euphorbiaceae	Kaatu-amanakku	Shrub	NE
33.	<i>Justicia prostrata</i>	Acanthaceae		Herb	NE
34.	<i>Launaea bellidifolia</i>	Asteraceae		Herb	LC
35.	<i>Lantana camara</i>	Verbenaceae	Unnichedi	Shrub	LC
36.	<i>Lepisanthes tetraphylla</i>	Sapindaceae	Neykkoddaan	Tree	LC
37.	<i>Martynia annua</i>	Martyniaceae	Thael Kodukku	Herb	NE
38.	<i>Mollugo cerviana</i>	Molluginaceae	Parpaadagam	Herb	NE
39.	<i>Mukia leiosperma</i>	Cucurbitaceae		Climber	NE
40.	<i>Parthenium hysterophorus</i>	Compositae	Vishachedi	Herb	LC
41.	<i>Passiflora foetida</i>	Passifloraceae	Poonaipidukku	Climber	NE
42.	<i>Pedaliium murex</i>	Pedaliaceae		Herb	NE
43.	<i>Phyllanthus reticulatus</i>	Euphorbiaceae	Inki pazham	Shrub	LC
44.	<i>Pongamia pinnata</i>	Fabaceae	Pungam	Tree	LC
45.	<i>Prosopis cineraria</i>	Fabaceae	Vani	Tree	LC
46.	<i>Prosopis julifera</i>	Fabaceae	Semai karuvel	Tree	LC
47.	<i>Salacia chinensis</i>	Celastraceae		Tree	LC
48.	<i>Salvadora persica</i>	Salvadaraceae	Peruvilla	Tree	LC
49.	<i>Salicornia brachiata</i>	Chenopodiaceae	Kattumari	Herb	LC
50.	<i>Senna occidentalis</i>	Caesalpiniaceae	Thagarai	Shrub	NE
51.	<i>Senna siamea</i>	Fabaceae		Tree	LC
52.	<i>Senna tora</i>	Caesalpiniaceae	Oosi thagarai	Herb	NE
53.	<i>Solanum trilobatum</i>	Solanaceae	Thoodhuvalai	Herb	NE
54.	<i>Spermacoce hispida</i>	Rubiaceae	Nathaichoori	Herb	NE
55.	<i>Sphaeranthus amaranthoides</i>	Compositae	Siva karandhai	Herb	LC
56.	<i>Suaeda maritima</i>	Amaranthaceae		Herb	LC
57.	<i>Tephrosia purpurea</i>	Fabaceae	Kozhinji	Herb	NE
58.	<i>Thespesia populnea</i>	Malvaceae	Poovarasu	Tree	LC

59.	<i>Tinospora cordifolia</i>	Menispermaceae	Seendhil	Climber	NE
60.	<i>Trachys muricata</i>	Poaceae	-	Grass	LC
61.	<i>Trianthema portulacastrum</i>	Aizoaceae		Herb	NE
62.	<i>Tridax procumbens</i>	Compositae	Vettukkaaya poondu	Herb	LC
63.	<i>Tylophora indica</i>	Asclepiadaceae	Naippalai	Climber	NE
64.	<i>Typha angustifolia</i>	Typhaceae	Sambu	Herb	LC
65.	<i>Xanthium indicum</i>	Compositae	Marul oomatham	Herb	LC

**Table 3.42.2. IUCN Status of Selected Fauna Species in Kanjirankulam Bird Sanctuary**

S. No.	Scientific Name of the Species	Family	Common Name	IUCN	Present study
<i>A. Mammal</i>					
1.	<i>Antilope cervicapra</i>	Bovidae	Blackbuck	NT	*
2.	<i>Bandicota bengalensis</i>	Muridae	Bandicoot	LC	
3.	<i>Canis aureus</i>	Canidae	Golden Jackal	LC	
4.	<i>Canis aureus</i>	Canidae	Jackal	LC	
5.	<i>Funambulus palmarum</i>	Sciuridae	Three-striped palm squirrel	LC	*
6.	<i>Macaca radiata</i>	Cercopithecidae	Bonnet macaque	LC	*
7.	<i>Pipistrellus coromandra</i>	Vespertilionidae	Indian pipistrelle	LC	
8.	<i>Rattus rattus</i>	Muridae	House rat	LC	*
9.	<i>Urva edwardsii</i>	Herpestidae	Indian grey mongoose	LC	*
<i>B. Reptile</i>					
1.	<i>Calotes versicolor</i>	Agamidae	Garden lizard	LC	*
2.	<i>Sitana ponticeriana</i>	Agamidae	Fan-throated lizard	LC	*
3.	<i>Mabuya carinata</i>	Scincidae	Common	LC	

			skink		
4.	<i>Lygosoma punctata</i>	Scincidae	Garden skink	LC	
5.	<i>Lygosoma albopunctata</i>	Scincidae	White-spotted garden skink	LC	
6.	<i>Varanus bengalensis</i>	Varanidae	Indian monitor lizard	NT	*
7.	<i>Hemidactylus brookii</i>	Gekkonidae	Spotted gecko	LC	
8.	<i>Hemidactylus triedrus</i>	Gekkonidae	Termite-hill gecko	LC	
9.	<i>Hemidactylus frenatus</i>	Gekkonidae	House gecko	LC	*
10.	<i>Hemidactylus leschenaultia</i>	Gekkonidae	Bark gecko	LC	
11.	<i>Ramphotyphlops braminus</i>	Typhlopidae	Blind snake	LC	
12.	<i>Amphiesma stolata</i>	Colubridae	Striped keel back	NE	
13.	<i>Atretium schistosum</i>	Colubridae	Olive keel back	LC	
14.	<i>Xenochrophis piscator</i>	Colubridae	Checkered keel back	LC	
15.	<i>Ptyas mucosus</i>	Colubridae	Rat snake	NE	*
16.	<i>Ahaetulla nasuta</i>	Colubridae	Green vine snake	LC	*
17.	<i>Naja naja</i>	Elapidae	Cobra	LC	
18.	<i>Bungarus caeruleus</i>	Elapidae	Krait	LC	
19.	<i>Vipera russelli</i>	Viperidae	Russell's viper	LC	
20.	<i>Melanochelys trijuga</i>	Geoemydidae	Pond turtle	LC	
21.	<i>Lissemys punctata</i>	Trionychidae	Falpsshell	VU	
<i>C. Amphibian</i>					
1.	<i>Euphlyctis hexadactylus</i>	Dicroglossidae	Indian pond frog	LC	*
2.	<i>Euphlyctis cynophlyctis</i>	Dicroglossidae	Skipper	LC	*

3.	<i>Sphaerotheca rolandae</i>	Dicroglossidae	Burrowing frog	LC	
4.	<i>Hoplobatrachus crassus</i>	Dicroglossidae	Jerdon's bull frog	LC	
5.	<i>Limnonectes limnocharis</i>	Dicroglossidae	Paddy Field frog	LC	
6.	<i>Uperodon taprobanicus</i>	Microhylidae	Painted frog	LC	*
7.	<i>Ramanella variegata</i>	Microhylidae	Marbled frog	LC	
8.	<i>Duttaphrynus melanostictus</i>	Bufo	Indian Toad	LC	*
9.	<i>Polypedates maculatus</i>	Rhacophoridae	Common tree frog	LC	*
<i>D. Butterfly</i>					
1.	<i>Euploea core</i>	Nymphalidae	Common crow	LC	*
2.	<i>Catopsilia pomona</i>	Pieridae	Common Emigrant	NE	*
3.	<i>Melanitis leda</i>	Nymphalidae	Common evening brown	LC	*
4.	<i>Eurema hecabe</i>	Pieridae	Common grass yellow	LC	*
5.	<i>Papilio demoleus</i>	Papilionidae	Common lime	NE	*
6.	<i>Papilio polytes</i>	Papilionidae	Common mormon	NE	*
7.	<i>Junonia lemonias</i>	Nymphalidae	Lemon pansy	NE	*
8.	<i>Catopsilia pyranthe</i>	Pieridae	Mottled Emigrant	NE	*
9.	<i>Pseudozizeeria maha</i>	Lycaenidae	Pale Grass Blue	NE	*
10.	<i>Junonia almana</i>	Nymphalidae	Peacock pansy	LC	*
11.	<i>Danaus chrysippus</i>	Nymphalidae	Plain tiger	LC	*
12.	<i>Acraea violae</i>	Nymphalidae	Tawny	LC	*

			coster		
13.	<i>Pachliopta aristolochiae</i>	<i>Pachliopta aristolochiae</i>	Common Rose	NE	*

LC – Least Concern; \* - Yes

**Table 3.42.3. IUCN Status of Bird Species in Kanjirankulam Bird Sanctuary**

S. No.	Scientific Name of the Species	Common name	Habitat	IUCN	PS
1.	<i>Accipiter badius</i>	Shikra	T	LC	*
2.	<i>Acridotheres tristis</i>	Common Myna	T	LC	*
3.	<i>Actitis hypoleucos</i>	Common Sandpiper	A	LC	
4.	<i>Aegithina tiphia</i>	Common Iora	T	LC	
5.	<i>Alauda gulgula</i>	Oriental Skylark	T	LC	
6.	<i>Alcedo atthis</i>	Common Kingfisher	T	LC	*
7.	<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	A	LC	
8.	<i>Anas acuta</i>	Northern Pintail	A	LC	
9.	<i>Anas clypeata</i>	Northern Shoveller	A	LC	
10.	<i>Anas crecca</i>	Common Teal	A	LC	*
11.	<i>Anas penelope</i>	Eurasian Wigeon	A	LC	
12.	<i>Anas poecilorhyncha</i>	Spot-billed Duck	A	LC	
13.	<i>Anastomus oscitans</i>	Asian Openbill	A	LC	*
14.	<i>Anhinga melanogaster</i>	Darter	A	LC	
15.	<i>Anthus rufulus</i>	Paddy-field Pipit	D	LC	*
16.	<i>Apus affinis</i>	House Swift	T	LC	
17.	<i>Arenaria interpres</i>	Ruddy turn stone	A	LC	
18.	<i>Ardea cinerea</i>	Grey Heron	A	LC	*
19.	<i>Ardea purpurea</i>	Purple Heron	A	LC	
20.	<i>Ardeola grayii</i>	Indian Pond Heron	A	LC	*
21.	<i>Artamus fuscus</i>	Ashy Woodswallow	T	LC	
22.	<i>Athene brama</i>	Spotted Owlet	T	LC	*
23.	<i>Bubulcus ibis</i>	Cattle Egret	D	LC	*
24.	<i>Burhinus oediacnemus</i>	Eurasian Thick-knee	A	LC	
25.	<i>Burhinus recurvirostris</i>	Great Thick-knee	A	LC	

26.	<i>Calidris ferruginea</i>	Curllew sandpiper	A	LC	
27.	<i>Calidris minuta</i>	Little Stint	A	LC	*
28.	<i>Calidris tenuirostris</i>	Great Knot	A	LC	
29.	<i>Centropus sinensis</i>	Greater Coucal	T	LC	
30.	<i>Ceryle rudis</i>	Pied Kingfisher	D	LC	*
31.	<i>Charadrius alexandrinus</i>	Kentish Plover	A	LC	
32.	<i>Charadrius dubius</i>	Little Ringed Plover	A	LC	
33.	<i>Chlidonias hybridus</i>	Whiskered Tern	A	LC	
34.	<i>Chlidonias leucopterus</i>	White-winged Tern	A	LC	
35.	<i>Chroicocephalus brunnicephalus</i>	Brown-headed Gull	A	LC	
36.	<i>Chroicocephalus genei</i>	Slender-billed Gull	T	LC	
37.	<i>Chroicocephalus ridibundus</i>	Black-headed gull	A	LC	
38.	<i>Ciconia episcopus</i>	Woolly-necked Stork	A	LC	
39.	<i>Circus aeruginosus</i>	Eurasian Marsh Harrier	D	LC	
40.	<i>Clamator jacobinus</i>	Pied Cuckoo	T	LC	
41.	<i>Columba livia</i>	Rock Pigeon	T	LC	
42.	<i>Copsychus saularis</i>	Oriental Magpie Robin	T	LC	
43.	<i>Coracias benghalensis</i>	Indian Roller	T	LC	*
44.	<i>Corvus macrorhynchus</i>	Large-billed Crow	T	LC	*
45.	<i>Corvus splendens</i>	House Crow	T	LC	*
46.	<i>Cypsiurus balasiensis</i>	Asian Palm Swift	T	LC	*
47.	<i>Dendrocitta vagabunda</i>	Rufous Treepie	T	LC	*
48.	<i>Dicrurus adsimilis</i>	Black Drongo	T	LC	*
49.	<i>Dupetor flavicollis</i>	Black Bittern	A	LC	
50.	<i>Egretta garzetta</i>	Little Egret	A	LC	*
51.	<i>Elanus caeruleus</i>	Black-shouldered Kite	T	LC	*
52.	<i>Eudynamys scolopacea</i>	Asian Koel	T	LC	*
53.	<i>Francolinus pondicerianus</i>	Grey Francolin	T	LC	*
54.	<i>Glareola lactea</i>	Small pratincole	T	LC	
55.	<i>Gallinula chloropus</i>	Common Moorhen	A	LC	*
56.	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	D	LC	*

57.	<i>Haliastur indus</i>	Brahminy Kite	T	LC	*
58.	<i>Hirundo smithii</i>	Wire-tailed Swallow	T	LC	
59.	<i>Hydrophasianus chirurgus</i>	Pheasant-tailed Jacana	A	LC	
60.	<i>Ixobrychus cinnamomeus</i>	Cinnamon Bittern	A	LC	
61.	<i>Lonchura malacca</i>	Black-headed Munia	D	LC	
62.	<i>Merops orientalis</i>	Green Bee-eater	T	LC	*
63.	<i>Mesophoyx intermedia</i>	Intermediate Egret	A	LC	
64.	<i>Milvus migrans</i>	Black Kite	T	LC	*
65.	<i>Motacilla flava</i>	Yellow Wagtail	D	LC	
66.	<i>Motacilla maderaspatensis</i>	White-browed Wagtail	T	LC	
67.	<i>Mycteria leucocephala</i>	Painted Stork	A	NT	*
68.	<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	A	LC	*
69.	<i>Numenius minutus</i>	Little curlew	A	LC	
70.	<i>Oriolus oriolus</i>	Eurasean Golden Oriole	T	LC	
71.	<i>Orthotomus sutorius</i>	Common Tailorbird	T	LC	*
72.	<i>Passer domesticus</i>	House Sparrow	T	LC	*
73.	<i>Phalacrocorax carbo</i>	Great Cormorant	A	LC	
74.	<i>Phalacrocorax niger</i>	Little Cormorant	A	LC	*
75.	<i>Plegadis falcinellus</i>	Glossy Ibis	A	LC	*
76.	<i>Ploceus manyar</i>	Streaked Weaver	T	LC	
77.	<i>Porphyrio porphyrio</i>	Purple Swamphen	A	LC	*
78.	<i>Prinia inornata</i>	Plain Prinia	T	LC	*
79.	<i>Prinia socialis</i>	Ashy Prinia	T	LC	*
80.	<i>Pycnonotus cafer</i>	Red-vented Bulbul	T	LC	*
81.	<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	T	LC	
82.	<i>Saxicola caprata</i>	Pied Bush Chat	T	LC	*
83.	<i>Saxicoloides fulicata</i>	Indian Robin	T	LC	*
84.	<i>Sterna albifrons</i>	Little Tern	A	LC	*
85.	<i>Sterna anaethetus</i>	Bridled Tern	A	LC	
86.	<i>Sterna aurantia</i>	River Tern	A	LC	*

87.	<i>Streptopelia chinensis</i>	Spotted Dove	T	LC	*
88.	<i>Tachybaptus ruficollis</i>	Little Grebe	A	LC	*
89.	<i>Tachymarptis melba</i>	Alpine Swift	T	LC	
90.	<i>Terpsiphone paradisi</i>	AsianParadise-Flycatcher	T	LC	
91.	<i>Threskiornis melanocephalus</i>	Black-headed Ibis	A	NT	*
92.	<i>Tringa ochropus</i>	Green Sandpiper	A	LC	*
93.	<i>Tringa stagnatilis</i>	Marsh Sandpiper	A	LC	*
94.	<i>Turdoides affinis</i>	Yellow-billed Babbler	T	LC	
95.	<i>Vanellus indicus</i>	Red-wattled Lapwing	D	LC	*
96.	<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing	D	LC	*

LC – Least Concern; \* - Yes; T – Terrestrial; A – Aquatic; D – Dry/ desert; NT – Near Threatened

**Table 3.42.4. IUCN Status of major plant invasive alien species in Kanjirankulam Bird Sanctuary**

S. No.	Species	Family	Tamil Name
1.	<i>Ipomoea carnea</i>	Convolvulaceae	
2.	<i>Lantana camara</i>	Verbenaceae	Unnichedi
3.	<i>Martynia annua</i>	Martyniaceae	Thael Kodukku
4.	<i>Parthenium hysterophorus</i>	Compositae	Vishachedi
5.	<i>Prosopis julifera</i>	Fabaceae	Semai karuvel
6.	<i>Senna occidentalis</i>	Caesalpinaceae	Thagarai
7.	<i>Senna siamea</i>	Fabaceae	
8.	<i>Typha angustifolia</i>	Typhaceae	Sambu
9.	<i>Xanthium indicum</i>	Compositae	Marul oomatham

**Table 3.42.5. IUCN Status of major animal invasive alien species in Kanjirankulam Bird Sanctuary**

S. No.	Species	Family	Common name	IUCN
A. Mammal				
1.	<i>Rattus rattus</i>	Muridae	House Rat	LC
B. Reptile				

2.	<i>Hemidactylus Frenatus</i>	Gekkonidae	House gecko	LC
C. Fish				
3.	<i>Clarias gariepinus</i>	Clariidae	African Catfish	LC

**Table 3.42.6. IUCN Status of major medicinal plant species in Kanjirankulam Bird Sanctuary**

S.No	Species	Family	Tamil Name	Habit
1.	<i>Abrus precatorius</i>	Fabaceae	Kundumani	Climber
2.	<i>Cardiospermum halicacabum</i>	Sapindaceae	Mudakotthan	Herb
3.	<i>Cynodon dactylon</i>	Poaceae	Aruhampul	Grass
4.	<i>Mukia leiosperma</i>	Cucurbitaceae		Climber
5.	<i>Solanum trilobatum</i>	Solanaceae	Thoodhuvalai	Herb
6.	<i>Tephrosia purpurea</i>	Fabaceae	Kozhinji	Herb
7.	<i>Tinospora cordifolia</i>	Menispermaceae	Seendhil	Climber
8.	<i>Tridax procumbens</i>	Compositae	Vettukkaaya-thazhai	Herb
9.	<i>Tylophora indica</i>	Asclepiadaceae	Naippalai	Climber

### **CHECK LIST**

- ✓ Responsible agency has been clearly identified and details of contact person included
- ✓ Wetland/Wetlands complex boundary has been delineated using GIS and firmed up by adequate ground truthing
- ✓ Wetland/Wetlands complex map has been provided at required scale
- ✓ Zone of influence has been delineated and included in Wetland map or a separate map
- ✓ Wetland zone of influence is sufficient to manage all activities
- ✓ Site's importance have been listed, and for major categories, justification provided
- ✓ Site's biodiversity values are listed, and for major categories, justification provided
- ✓ List of pre-existing rights and privileges provided
- ✓ Consistency or, inconsistency of pre-existing rights and privileges indicated to be best of available knowledge
- ✓ Threats to site listed, and for major categories details provided
- ✓ Activities prohibited, beyond those already listed in Rule 4 (2) have been mentioned
- ✓ List of activities to be regulated within Wetlands and zone of influence is provided
- ✓ List of activities to be permitted is provided