

### **3.45. SAKKARAKOTTAI BIRD SANCTUARY**

❖ **State / Union Territory:** Tamil Nadu

❖ **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:* Sakkarakottai Bird Sanctuary or Sakkarakottai Tank or Sakkarakottai Kanmoi
- 1.2 *Name of the Village (s), Tehsil (s), Municipal area (s):* Sakkarakottai, Rajsuriyamadai, Vannigudi, Palkarai, Achadiparambu, Ramanatapuram
- 1.3 *Name of the District (s) in which Wetlands complex located:* Ramanatapuram
- 1.4 *Geographical coordinates:*
  - ▶ Latitude: 9°21'8" N
  - ▶ Longitude: 78°48'50" 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:* 230.59 ha
- 2.2 *Wetland type:*

| Category           | Subcategory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ✓ Natural (Inland) | <input type="checkbox"/> Permanent lakes<br><input checked="" type="checkbox"/> Seasonal/ intermittent lakes<br><input type="checkbox"/> Permanent streams/ creeks<br><input type="checkbox"/> Seasonal/ intermittent streams/ creeks<br><input type="checkbox"/> Oxbow<br><input type="checkbox"/> River floodplain<br><input type="checkbox"/> Permanent freshwater marshes<br><input type="checkbox"/> Seasonal/ intermittent freshwater marshes<br><input type="checkbox"/> Shrub-dominated Wetlands<br><input type="checkbox"/> Tree-dominated Wetlands<br><input type="checkbox"/> Geothermal Wetlands |

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

2.3 *Depth (m):* Average - 1.5; Maximum - 2.5

2.4 *Elevation (m above mean sea level):* 8

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):* 12245 ha (with an irregular radius of 6.24 km)

2.8 *Major land use within zone of influence*

| Land Use                | Percentage |
|-------------------------|------------|
| Forest                  | : 0%       |
| Vegetation (Plantation) | : 10%      |
| Agriculture             | : 47%      |
| Settlements (Rural)     | : 15%      |
| Settlements (Urban)     | : 0%       |
| Industrial              | : 0%       |
| Waterbody               | : 27%      |

2.9 *Map of Wetland complex and zone of influence:* Enclosed as Annexure 3.45 (Fig. 3.45.1-3.45.2)

### Section 3: Biodiversity

3.1 *Notable plant species present in Wetland:* The Wetland is home to a diverse range of plant species, totaling 47 species. (refer to Table 3.45.1 in Annexure 3.45).

3.2 *Notable animal species present in Wetland:* The Wetland supports a variety of animal species, with a total of 151 recorded species. This includes 8 mammal species, 21 reptile species, 9 amphibian species, 101 bird species, and 12 species of butterflies (refer to Table 3.45.2-3.45.3 in Annexure 3.45).

3.3 *Species of conservation significance:* Highlighted in Table 3.45.1-3.45.3

3.4 *Major plant invasive alien species:* The Wetland supports 9 plant invasive species (refer to Table 3.45.4 in Annexure 3.45).

3.5 *Major animal invasive alien species:* Not Available

#### Section 4: Ecosystem Services

| Importance                                                     | Relevance                                                              | Details                                                                         |
|----------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Source of drinking water for people living and around          | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Source of water for agriculture                                | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Water has been drawn from outflow for agricultural activities                   |
| Fisheries                                                      | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Cultivation of aquatic food plants                             | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| For buffalo wallowing and use of domesticated animals          | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Medicinal plants                                               | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Few Medicinal plants around the Wetland. Listed in Table 3.45.6 (Annexure 3.45) |
| Is a recreational site                                         | <input checked="" type="checkbox"/> Yes<br><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<br><input checked="" type="checkbox"/> No |                                                                                 |
| Groundwater recharge                                           | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Major source of ground water recharge                                           |
| Water purification                                             | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Acts as a sink for sediments                                   | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Has significant cultural and religious values                  | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Is a site for recreation and tourism                           | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Supports noteworthy plant species                              | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Support noteworthy animal species                              | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                                                                 |
| Site of high congregation of migratory water birds             | <input checked="" type="checkbox"/> Yes<br><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<br><input type="checkbox"/> No | Almost 9 variety of amphibians were surviving |
| Mining                                    | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |                                               |
| Any others                                | <input type="checkbox"/> Yes<br><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<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                        |
| Fishing under lease from government department                                 | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                        |
| Harvest of plants (without any lease or permission from government department) | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                        |
| Harvest of plants under lease from government department                       | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                        |
| Agriculture or horticulture within Wetland                                     | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                        |
| Grazing                                                                        | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                        |
| Religious practices                                                            | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><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<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No                                                     |                                                        |

|                                                  |                                                                        |                                                                                                                 |                                                               |
|--------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
|                                                  |                                                                        | <input type="checkbox"/> Not assessed                                                                           |                                                               |
| Withdrawal of water for agriculture or fisheries | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><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<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                               |
| Plying of boats                                  | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><input type="checkbox"/> Not assessed            |                                                               |
| Any other                                        | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes<br><input type="checkbox"/> No<br><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<br><input type="checkbox"/> Medium<br><input type="checkbox"/> Low            | <input type="checkbox"/> Present<br><input type="checkbox"/> Potential            |                                                       |
| Pollution                                     | <input type="checkbox"/> High<br><input type="checkbox"/> Medium<br><input type="checkbox"/> Low            | <input type="checkbox"/> Present<br><input type="checkbox"/> Potential            |                                                       |
| Unsustainable harvest of biological resources | <input type="checkbox"/> High<br><input type="checkbox"/> Medium<br><input type="checkbox"/> Low            | <input type="checkbox"/> Present<br><input type="checkbox"/> Potential            |                                                       |
| Mining                                        | <input type="checkbox"/> High<br><input type="checkbox"/> Medium<br><input type="checkbox"/> Low            | <input type="checkbox"/> Present<br><input type="checkbox"/> Potential            |                                                       |
| Siltation                                     | <input type="checkbox"/> High<br><input type="checkbox"/> Medium<br><input checked="" type="checkbox"/> Low | <input checked="" type="checkbox"/> Present<br><input type="checkbox"/> Potential | Substantial water flow from the surrounding watershed |
| Encroachment                                  | <input type="checkbox"/> High<br><input type="checkbox"/> Medium<br><input type="checkbox"/> Low            | <input type="checkbox"/> Present<br><input type="checkbox"/> Potential            |                                                       |

|                            |                                                                                                             |                                                                                   |                                                |
|----------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------|
| Spread of invasive species | <input type="checkbox"/> High<br><input type="checkbox"/> Medium<br><input checked="" type="checkbox"/> Low | <input type="checkbox"/> Present<br><input checked="" type="checkbox"/> Potential | Listed in Table 3.45.4-3.45.5 in Annexure 3.45 |
| Any other, please list     | <input type="checkbox"/> High<br><input type="checkbox"/> Medium<br><input type="checkbox"/> Low            | <input type="checkbox"/> Present<br><input type="checkbox"/> Potential            |                                                |

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

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

|                                                                                     |  |                                                                                                                      |  |  |  |
|-------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------|--|--|--|
| Construction of boat jetties, and facilities for temporary use, as pantoon bridges  |  | <input type="checkbox"/> Wetland/<br>Wetland<br>complex<br>boundary<br><input type="checkbox"/> Zone of<br>influence |  |  |  |
| Aquaculture, agriculture and horticulture activities within the Wetland boundaries. |  | <input type="checkbox"/> Wetland/<br>Wetland<br>complex<br>boundar<br><input type="checkbox"/> Zone of<br>influence  |  |  |  |
| Any other, please list                                                              |  | <input type="checkbox"/> Wetland/<br>Wetland<br>complex<br>boundary<br><input type="checkbox"/> Zone of<br>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<br>complex boundary<br><input checked="" type="checkbox"/> Zone of influence | May permitted, since the surrounding area is rich in agriculture |

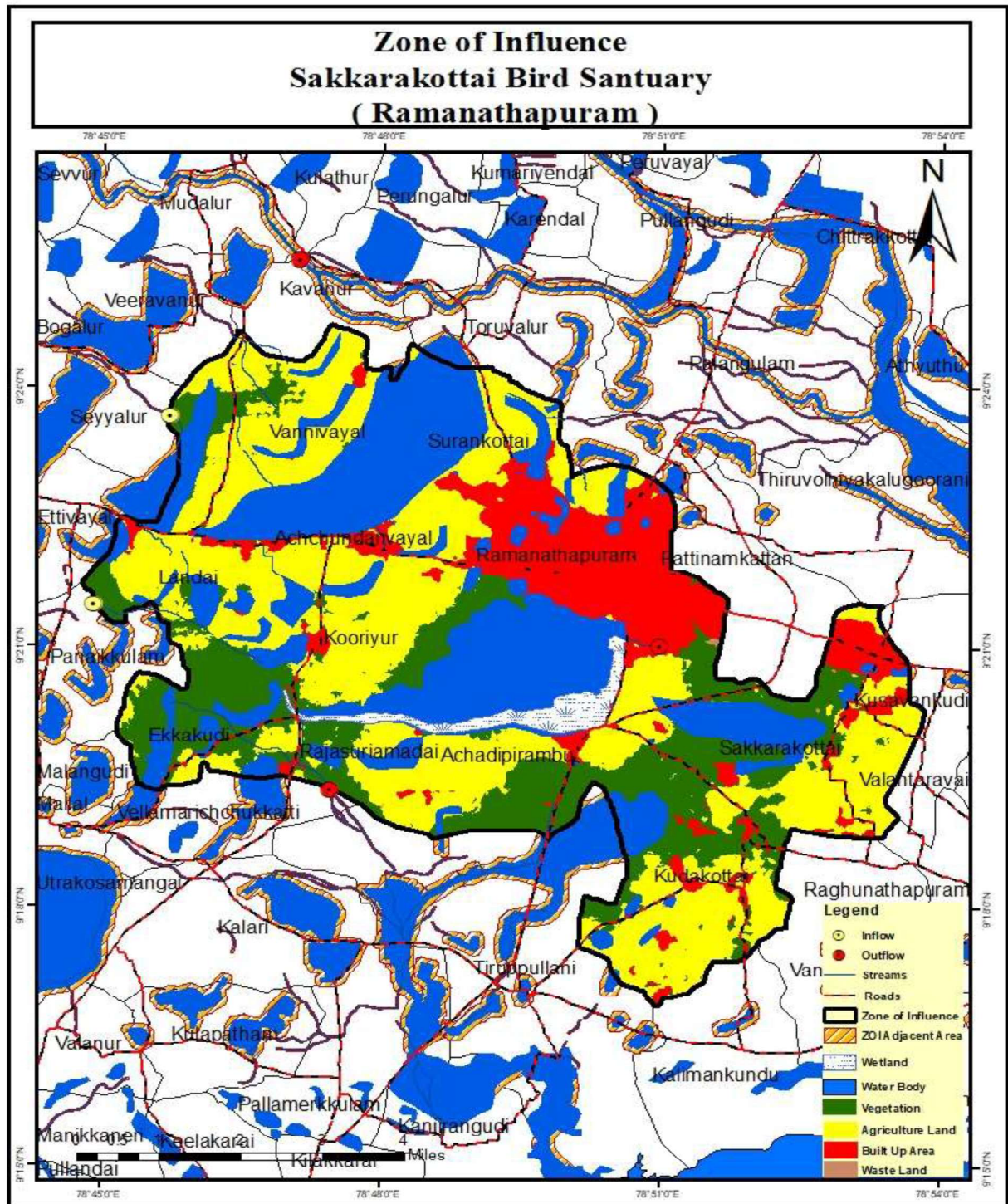
#### Section 9: Listing of Available Scientific Resources Used

1. Aengals, R., Sathish Kumar, V.M., Palot, M.J., & Ganesh, S.R. (2018). *A checklist of reptiles of India* (Version 3.0). 35 pp. Online publication available at [www.zsi.gov.in](http://www.zsi.gov.in) (Last update: May 2018).
2. Ali, S. (2002). *The book of Indian birds* (13th Revised Edition). Oxford University Press, New Delhi.
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4. Henry, A.N., Chithra, V.N., & Balakrishnan, P. (1989). *Flora of Tamil Nadu, India*. Series 1: Analysis, Vol. III. Botanical Survey of India, Coimbatore.

5. 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>
6. Kehimkar, I. (2008). *The book of Indian butterflies*. Bombay Natural History Society.
7. Mathew, K.M. (1981). *The material for the flora of the Tamilnadu Carnatic*. Madras, India.
8. Mathew, K.M. (1982). *Illustrations on the flora of the Tamilnadu Carnatic* (Vol. II). The Diocesan Press, Madras, India.
9. Mathew, K.M. (1983). *The flora of Tamilnadu Carnatic* (Vol. III). The Diocesan Press, Madras, India.
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# ANNEXURE 3.45

Fig 3.45.1 Zone of Influence of Sakkarakottai Bird Sanctuary



**Fig 3.45.2. Map (2014 vs. 2024) and Land Cover of Sakkarakottai Bird Sanctuary**

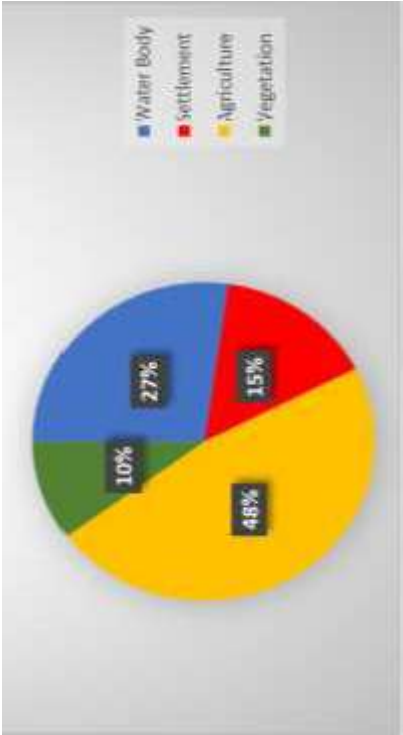
*Map of the Wetland in 2014*



*Map of the Wetland in 2024*



*Land Use/ Land Cover of the Wetland*



**Table 3.45.1. IUCN Status of Floral Species in Sakkarakottai Bird Sanctuary**

| S. No. | Species                          | Family         | Tamil Name         | Habit   | IUCN |
|--------|----------------------------------|----------------|--------------------|---------|------|
| 1.     | <i>Abutilon indicum</i>          | Malvaceae      | Thuthi             | Shrub   | LC   |
| 2.     | <i>Acalypha indica</i>           | Euphorbiaceae  | Kuppaimeni         | Herb    | NE   |
| 3.     | <i>Acanthospermum hispidum</i>   | Compositae     |                    | Herb    | NE   |
| 4.     | <i>Achyranthes aspera</i>        | Amaranthaceae  | Nayurivi           | Herb    | NE   |
| 5.     | <i>Aerva lanata</i>              | Amaranthaceae  | Peelai, Sirupeelai | Herb    | NE   |
| 6.     | <i>Alternanthera pungens</i>     | Amaranthaceae  |                    | Herb    | NE   |
| 7.     | <i>Alternanthera sessilis</i>    | Amaranthaceae  | Ponnanganni        | Herb    | NE   |
| 8.     | <i>Avicennia marina</i>          | Acanthaceae    | Venkandan          | Tree    | LC   |
| 9.     | <i>Boerhavia diffusa</i>         | Nyctaginaceae  | Mookarattai        | Herb    | NE   |
| 10.    | <i>Calotropis gigantea</i>       | Asclepiadaceae | Erukku, Arkkam     | Shrub   | NE   |
| 11.    | <i>Cardiospermum halicacabum</i> | Sapindaceae    | Mudakotthan        | Herb    | NE   |
| 12.    | <i>Chloris barbata</i>           | Poaceae        | Kodaipul           | Grass   | NE   |
| 13.    | <i>Cleome viscosa</i>            | Capparidaceae  | Nai vaelai         | Herb    | NE   |
| 14.    | <i>Cynodon dactylon</i>          | Poaceae        | Aruhampul          | Grass   | NE   |
| 15.    | <i>Datura metal</i>              | Solanaceae     | Karu Oomatthai     | Herb    | NE   |
| 16.    | <i>Digitaria ciliaris</i>        | Poaceae        |                    | Grass   | NE   |
| 17.    | <i>Eragrostis viscosa</i>        | Poaceae        | -                  | Grass   | LC   |
| 18.    | <i>Ipomoea pes-caprae</i>        | Convolvulaceae | Attukkal           | Climber | LC   |
| 19.    | <i>Ischaemum indicum</i>         | Poaceae        | -                  | Grass   | LC   |
| 20.    | <i>Jatropha gossypifolia</i>     | Euphorbiaceae  | Kaatu-amanakku     | Shrub   | NE   |
| 21.    | <i>Justicia prostrata</i>        | Acanthaceae    |                    | Herb    | NE   |
| 22.    | <i>Launaea bellidifolia</i>      | Asteraceae     |                    | Herb    | LC   |
| 23.    | <i>Lantana camara</i>            | Verbenaceae    | Unnichedi          | Shrub   | LC   |
| 24.    | <i>Martynia annua</i>            | Martyniaceae   | Thael Kodukku      | Herb    | NE   |
| 25.    | <i>Mollugo cerviana</i>          | Molluginaceae  | Parpaadagam        | Herb    | NE   |
| 26.    | <i>Parthenium hysterophorus</i>  | Compositae     | Vishachedi         | Herb    | LC   |
| 27.    | <i>Passiflora foetida</i>        | Passifloraceae | Poonaipidukku      | Climber | NE   |

|     |                                   |                 |                  |         |    |
|-----|-----------------------------------|-----------------|------------------|---------|----|
| 28. | <i>Pedaliium murex</i>            | Pedaliaceae     |                  | Herb    | NE |
| 29. | <i>Phyllanthus reticulatus</i>    | Euphorbiaceae   | Inki pazham      | Shrub   | LC |
| 30. | <i>Prosopis julifera</i>          | Fabaceae        | Semai karuvel    | Tree    | LC |
| 31. | <i>Salicornia brachiata</i>       | Chenopodiaceae  | Kattumari        | Herb    | LC |
| 32. | <i>Senna occidentalis</i>         | Caesalpiniaceae | Thagarai         | Shrub   | NE |
| 33. | <i>Senna siamea</i>               | Fabaceae        |                  | Tree    | LC |
| 34. | <i>Senna tora</i>                 | Caesalpiniaceae | Oosi thagarai    | Herb    | NE |
| 35. | <i>Solanum trilobatum</i>         | Solanaceae      | Thoodhuvalai     | Herb    | NE |
| 36. | <i>Spermacoce hispida</i>         | Rubiaceae       | Nathaichoori     | Herb    | NE |
| 37. | <i>Sphaeranthus amaranthoides</i> | Compositae      | Siva karandhai   | Herb    | LC |
| 38. | <i>Rhizophora apiculata</i>       | Rhizophoraceae  |                  | Tree    | LC |
| 39. | <i>Tephrosia purpurea</i>         | Fabaceae        | Kozhinji         | Herb    | NE |
| 40. | <i>Thespesia populnea</i>         | Malvaceae       | Poovarasu        | Tree    | LC |
| 41. | <i>Tinospora cordifolia</i>       | Menispermaceae  | Seendhil         | Climber | NE |
| 42. | <i>Trachys muricata</i>           | Poaceae         | -                | Grass   | LC |
| 43. | <i>Trianthema portulacastrum</i>  | Aizoaceae       |                  | Herb    | NE |
| 44. | <i>Tridax procumbens</i>          | Compositae      | Vettukkaayachedi | Herb    | LC |
| 45. | <i>Tylophora indica</i>           | Asclepiadaceae  | Naippalai        | Climber | NE |
| 46. | <i>Typha angustifolia</i>         | Typhaceae       | Sambu            | Herb    | LC |
| 47. | <i>Xanthium indicum</i>           | Compositae      | Marul oomatham   | Herb    | LC |

**Table 3.45.2. IUCN Status of Selected Fauna Species in Sakkarakottai Bird Sanctuary**

| S. No.           | Scientific Name of the Species | Family           | Common Name    | IUCN | Present study |
|------------------|--------------------------------|------------------|----------------|------|---------------|
| <i>A. Mammal</i> |                                |                  |                |      |               |
| 1.               | <i>Axis axis</i>               | Cervidae         | Spotted deer   | LC   |               |
| 2.               | <i>Macaca radiata</i>          | Cercopithecidae  | Bonnet macaque |      | *             |
| 3.               | <i>Pipistrellus coromandra</i> | Vespertilionidae | Indian         | LC   |               |

|                   |                                   |             |                             |    |   |
|-------------------|-----------------------------------|-------------|-----------------------------|----|---|
|                   |                                   |             | pipistrelle                 |    |   |
| 4.                | <i>Funambulus palmarum</i>        | Sciuridae   | Three-striped palm squirrel | LC | * |
| 5.                | <i>Bandicota bengalensis</i>      | Muridae     | Bandicoot                   | LC |   |
| 6.                | <i>Rattus rattus</i>              | Muridae     | House rat                   | LC | * |
| 7.                | <i>Urva edwardsii</i>             | Herpestidae | Indian grey mongoose        | LC | * |
| 8.                | <i>Canis aureus</i>               | Canidae     | Jackal                      | 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 skink                | LC |   |
| 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 | Falps shell          | VU |   |
| <i>C. Amphibian</i> |                                |              |                      |    |   |
| 1.                  | <i>Euphlyctis hexadactylus</i> | Agamidae     | Indian pond frog     | LC | * |
| 2.                  | <i>Euphlyctis cynophlyctis</i> | Colubridae   | Skipper              | LC | * |
| 3.                  | <i>Tomopterna rolandae</i>     | Agamidae     | Burrowing frog       | LC |   |
| 4.                  | <i>Hoplobatrachus crassus</i>  | Colubridae   | Jerdon's bull frog   | LC |   |
| 5.                  | <i>Limnonectes limnocharis</i> | Lacertidae   | Paddy Field frog     | LC |   |
| 6.                  | <i>Kaloula taprobanica</i>     | Agamidae     | Painted frog         | LC | * |
| 7.                  | <i>Ramanella variegata</i>     | Elapidae     | Marbled frog         | LC |   |
| 8.                  | <i>Bufo melanostictus</i>      | Bufo nidae   | Indian Toad          | LC | * |
| 9.                  | <i>Polypedates maculatus</i>   |              | 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 coster  | LC | * |

LC – Least Concern; \* - Yes

**Table 3.45.3. IUCN Status of Bird Species in Sakkarakottai 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>Acrocephalus dumetorum</i>  | Blyth's Reed Warbler    | T       | LC   | *  |
| 4.     | <i>Alauda gulgula</i>          | Oriental Skylark        | T       | LC   |    |
| 5.     | <i>Alcedo atthis</i>           | Common Kingfisher       | T       | LC   | *  |
| 6.     | <i>Amaurornis phoenicurus</i>  | White-breasted Waterhen | A       | LC   |    |
| 7.     | <i>Anas poecilorhyncha</i>     | Spot-billed Duck        | A       | LC   |    |
| 8.     | <i>Anastomus oscitans</i>      | Asian Openbill          | A       | LC   |    |
| 9.     | <i>Anthus richardi</i>         | Richard's Pipit         | D       | LC   |    |
| 10.    | <i>Anthus rufulus</i>          | Paddy-field Pipit       | D       | LC   | *  |
| 11.    | <i>Apus affinis</i>            | House Swift             | T       | LC   |    |
| 12.    | <i>Ardea cinerea</i>           | Grey Heron              | A       | LC   | *  |
| 13.    | <i>Ardea purpurea</i>          | Purple Heron            | A       | LC   |    |
| 14.    | <i>Ardeola grayii</i>          | Indian Pond Heron       | A       | LC   | *  |
| 15.    | <i>Artamus fuscus</i>          | Ashy Woodswallow        | T       | LC   |    |
| 16.    | <i>Athene brama</i>            | Spotted Owlet           | T       | LC   |    |
| 17.    | <i>Bubulcus ibis</i>           | Cattle Egret            | D       | LC   | *  |
| 18.    | <i>Burhinus oedicnemus</i>     | Eurasian Thick-knee     | A       | LC   |    |
| 19.    | <i>Burhinus recurvirostris</i> | Great Thick-knee        | A       | LC   |    |
| 20.    | <i>Casmerodius albus</i>       | Great Egret             | A       | LC   |    |
| 21.    | <i>Ceryle rudis</i>            | Pied Kingfisher         | D       | LC   | *  |
| 22.    | <i>Charadrius dubius</i>       | Little Ringed Plover    | A       | LC   |    |
| 23.    | <i>Chlidonias hybridus</i>     | Whiskered Tern          | A       | LC   |    |
| 24.    | <i>Chlidonias leucopterus</i>  | White-winged Tern       | A       | LC   |    |

|     |                                  |                           |   |    |   |
|-----|----------------------------------|---------------------------|---|----|---|
| 25. | <i>Ciconia episcopus</i>         | Woolly-necked Stork       | A | LC |   |
| 26. | <i>Circus aeruginosus</i>        | Eurasian Marsh Harrier    | D | LC |   |
| 27. | <i>Circus macrourus</i>          | Pallid Harrier            | T | LC |   |
| 28. | <i>Circus melanoleucos</i>       | Pied Harrier              | T | LC |   |
| 29. | <i>Cisticola juncidis</i>        | Zitting Cisticola         | T | LC |   |
| 30. | <i>Clamator jacobinus</i>        | Pied Cuckoo               | T | LC |   |
| 31. | <i>Columba livia</i>             | Rock Pigeon               | T | LC |   |
| 32. | <i>Copsychus saularis</i>        | Oriental Magpie Robin     | T | LC |   |
| 33. | <i>Coracias benghalensis</i>     | Indian Roller             | T | LC | * |
| 34. | <i>Corvus macrorhynchus</i>      | Large-billed Crow         | T | LC | * |
| 35. | <i>Corvus splendens</i>          | House Crow                | T | LC | * |
| 36. | <i>Cypsiurus balasiensis</i>     | Asian Palm Swift          | T | LC | * |
| 37. | <i>Dendrocitta vagabunda</i>     | Rufous Treepie            | T | LC | * |
| 38. | <i>Dicrurus adsimilis</i>        | Black Drongo              | T | LC | * |
| 39. | <i>Dinopium benghalense</i>      | Black-rumped Flameback    | T | LC |   |
| 40. | <i>Dupetor flavicollis</i>       | Black Bittern             | A | LC |   |
| 41. | <i>Egretta garzetta</i>          | Little Egret              | A | LC | * |
| 42. | <i>Elanus caeruleus</i>          | Black-shouldered Kite     | T | LC | * |
| 43. | <i>Eremopterix grisea</i>        | Ashy-crowned Sparrow Lark | T | LC |   |
| 44. | <i>Eudynamys scolopacea</i>      | Asian Koel                | T | LC | * |
| 45. | <i>Falco tinnunculus</i>         | Common Kestrel            | T | LC |   |
| 46. | <i>Francolinus pondicerianus</i> | Grey Francolin            | T | LC | * |
| 47. | <i>Fulica atra</i>               | Coot                      | A | LC |   |
| 48. | <i>Gallicrex cinerea</i>         | Watercock                 | A | LC |   |
| 49. | <i>Gallinula chloropus</i>       | Common Moorhen            | A | LC | * |
| 50. | <i>Gelochelidon nilotica</i>     | Gull-billed Tern          | A | LC |   |
| 51. | <i>Glareola maldivarum</i>       | Oriental Pratincole       | A | LC |   |
| 52. | <i>Halcyon smyrnensis</i>        | White-throated Kingfisher | D | LC | * |
| 53. | <i>Haliastur indus</i>           | Brahminy Kite             | T | LC | * |
| 54. | <i>Hierococcyx varius</i>        | Common Hawk Cuckoo        | T | LC |   |

|     |                                  |                           |   |    |   |
|-----|----------------------------------|---------------------------|---|----|---|
| 55. | <i>Himantopus himantopus</i>     | Black-winged Stilt        | A | LC |   |
| 56. | <i>Hirundo rustica</i>           | Barn Swallow              | T | LC |   |
| 57. | <i>Hirundo smithii</i>           | Wire-tailed Swallow       | T | LC |   |
| 58. | <i>Hydrophasianus chirurgus</i>  | Pheasant-tailed Jacana    | A | LC |   |
| 59. | <i>Ixobrychus cinnamomeus</i>    | Cinnamon Bittern          | A | LC |   |
| 60. | <i>Ixobrychus sinensis</i>       | Yellow Bittern            | A | LC |   |
| 61. | <i>Limosa limosa</i>             | Black-tailed Godwit       | A | LC |   |
| 62. | <i>Lonchura malacca</i>          | Black-headed Munia        | D | LC |   |
| 63. | <i>Merops orientalis</i>         | Green Bee-eater           | T | LC | * |
| 64. | <i>Merops philippinus</i>        | Blue-tailed Bee-eater     | T | LC |   |
| 65. | <i>Mesophoyx intermedia</i>      | Intermediate Egret        | A | LC |   |
| 66. | <i>Milvus migrans</i>            | Black Kite                | T | LC | * |
| 67. | <i>Motacilla flava</i>           | Yellow Wagtail            | D | LC |   |
| 68. | <i>Motacilla maderaspatensis</i> | White-browed Wagtail      | T | LC |   |
| 69. | <i>Nectarinia lotenia</i>        | Loten's Sunbird           | T | LC |   |
| 70. | <i>Nycticorax nycticorax</i>     | Black-crowned Night Heron | A | LC |   |
| 71. | <i>Oriolus oriolus</i>           | Eurasean Golden Oriole    | T | LC |   |
| 72. | <i>Orthotomus sutorius</i>       | Common Tailorbird         | T | LC |   |
| 73. | <i>Passer domesticus</i>         | House Sparrow             | T | LC | * |
| 74. | <i>Pelecanus philippensis</i>    | Spot-billed Pelican       | A | LC |   |
| 75. | <i>Phalacrocorax carbo</i>       | Great Cormorant           | A | LC |   |
| 76. | <i>Phalacrocorax niger</i>       | Little Cormorant          | A | LC | * |
| 77. | <i>Phalaropus lobatus</i>        | Red-necked Phalarope      | A | LC |   |
| 78. | <i>Plegadis falcinellus</i>      | Glossy Ibis               | A | LC | * |
| 79. | <i>Ploceus manyar</i>            | Streaked Weaver           | T | LC |   |
| 80. | <i>Pluvialis squatarola</i>      | Grey Plover               | A | LC |   |
| 81. | <i>Porphyrio porphyrio</i>       | Purple Swamphen           | A | LC | * |
| 82. | <i>Prinia inornata</i>           | Plain Prinia              | T | LC |   |
| 83. | <i>Prinia socialis</i>           | Ashy Prinia               | T | LC | * |
| 84. | <i>Psittacula krameri</i>        | Rose-ringed Parakeet      | T | LC |   |

|      |                                    |                        |   |    |   |
|------|------------------------------------|------------------------|---|----|---|
| 85.  | <i>Pycnonotus cafer</i>            | Red-vented Bulbul      | T | LC |   |
| 86.  | <i>Pycnonotus jocosus</i>          | Red-whiskered Bulbul   | T | LC |   |
| 87.  | <i>Rostratula benghalensis</i>     | Greater Painted-snipe  | A | LC |   |
| 88.  | <i>Saxicola caprata</i>            | Pied Bush Chat         | T | LC | * |
| 89.  | <i>Sterna aurantia</i>             | River Tern             | A | LC |   |
| 90.  | <i>Streptopelia chinensis</i>      | Spotted Dove           | T | LC | * |
| 91.  | <i>Sturnus pagodarum</i>           | Brahminy Starling      | T | LC |   |
| 92.  | <i>Tachybaptus ruficollis</i>      | Little Grebe           | A | LC |   |
| 93.  | <i>Threskiornis melanocephalus</i> | Black-headed Ibis      | A | NT | * |
| 94.  | <i>Tringa glareola</i>             | Wood Sandpiper         | A | LC | * |
| 95.  | <i>Tringa stagnatilis</i>          | Marsh Sandpiper        | A | LC | * |
| 96.  | <i>Turdoides affinis</i>           | Yellow-billed Babbler  | T | LC |   |
| 97.  | <i>Tyto alba</i>                   | Barn Owl               | T | LC |   |
| 98.  | <i>Upupa epops</i>                 | Hoopoe                 | T | LC |   |
| 99.  | <i>Vanellus indicus</i>            | Red-wattled Lapwing    | D | LC | * |
| 100. | <i>Vanellus malabaricus</i>        | Yellow-wattled Lapwing | D | LC |   |
| 101. | <i>Zoothera citrina</i>            | Orange-headed Thrush   | T | LC |   |

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

**Table 3.45.4. IUCN Status of major plant invasive alien species in Sakkarakottai Bird Sanctuary**

| S. No. | Species                       | Family          | Tamil Name     |
|--------|-------------------------------|-----------------|----------------|
| 1.     | <i>Alternanthera sessilis</i> | Amaranthaceae   | Ponnanganni    |
| 2.     | <i>Lantana camara</i>         | Verbenaceae     | Unnichedi      |
| 3.     | <i>Martynia annua</i>         | Martyniaceae    | Thael Kodukku  |
| 4.     | <i>Prosopis julifera</i>      | Fabaceae        | Semai karuvel  |
| 5.     | <i>Senna occidentalis</i>     | Caesalpiniaceae | Thagarai       |
| 6.     | <i>Senna siamea</i>           | Fabaceae        |                |
| 7.     | <i>Senna tora</i>             | Caesalpiniaceae | Oosithagarai   |
| 8.     | <i>Typha angustifolia</i>     | Typhaceae       | Sambu          |
| 9.     | <i>Xanthium indicum</i>       | Compositae      | Marul oomatham |

**Table 3.45.5. IUCN Status of major medicinal plant species in  
Sakkarakottai Bird Sanctuary**

| S. No. | Species                          | Family         | Tamil Name          | Habit   |
|--------|----------------------------------|----------------|---------------------|---------|
| 1.     | <i>Abrus precatorius</i>         | Fabaceae       | Kundumani           | Climber |
| 2.     | <i>Abutilon indicum</i>          | Malvaceae      | Thuthi              | Shrub   |
| 3.     | <i>Acalypha indica</i>           | Euphorbiaceae  | Kuppaimeni          | Herb    |
| 4.     | <i>Acanthospermum hispidum</i>   | Compositae     |                     | Herb    |
| 5.     | <i>Achyranthes aspera</i>        | Amaranthaceae  | Nayurivi            | Herb    |
| 6.     | <i>Borassus flabellifer</i>      | Arecaceae      | Panai Maram         | Tree    |
| 7.     | <i>Brachiaria ramosa</i>         | Poaceae        |                     | Grass   |
| 8.     | <i>Calotropis gigantea</i>       | Asclepiadaceae | Erukku              | Shrub   |
| 9.     | <i>Cardiospermum halicacabum</i> | Sapindaceae    | Mudakotthan         | Herb    |
| 10.    | <i>Leucas aspera</i>             | Labiatae       | Thumbai             | Herb    |
| 11.    | <i>Mukia leiosperma</i>          | Cucurbitaceae  |                     | Climber |
| 12.    | <i>Pontederia vaginalis</i>      | Pontederiaceae | Karung kuvalai      | Tree    |
| 13.    | <i>Solanum trilobatum</i>        | Solanaceae     | Thoodhuvalai        | Herb    |
| 14.    | <i>Tephrosia purpurea</i>        | Fabaceae       | Kozhinji            | Herb    |
| 15.    | <i>Tinospora cordifolia</i>      | Menispermaceae | Seendhil            | Climber |
| 16.    | <i>Tridax procumbens</i>         | Compositae     | Vettukkaaya-thazhai | Herb    |
| 17.    | <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