

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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Designation date

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Site Reference Number

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2. Date this sheet was completed/updated:

27 March 2010

3. Country:

Sri Lanka

4. Name of the Ramsar site:

Vankalai Sanctuary (Sinhala: Vankalai Tamil: Vankalai)

5. Designation of new Ramsar site or update of existing site:

This RIS is for:

- a) Designation of a new Ramsar site X
b) Updated information on an existing Ramsar site

(6. For RIS updates only, changes to the site since its designation or earlier update)

7. Map of site:

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List): XX
ii) an electronic format (e.g. a JPEG or ArcView image) XX
iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

See Annexes 1 and 2.

b) Describe briefly the type of boundary delineation applied:

The boundary entails existing coastal islands, roads, sea-shore and part of the marine area, in the north-west of Sri Lanka, belonging to the Mannar District. The proposed area is bounded by Vankalai, Puliyantivu Island and Tiruketiswaram (and includes the causeway between the mainland and the Mannar island).

8. Geographical coordinates:

8° 56' 15.17"N, 79°55' 24.3" E (8.937546N, 79.92346E)

9. General location:

In the north-west of Sri Lanka, belonging to the Mannar District, and close to the town of Mannar.

10. Elevation:

Elevation of 0-5 meters above sea level

11. Area:

4,838.95 ha

12. General overview of the site:

Vankalai Sanctuary consists of several habitats and vegetation types: arid-zone thorn

scrubland, arid-zone pastures and maritime grasslands, sand dunes, mangroves, waterholes and tanks, salt marshes, lagoons, tidal flats and sea-grass beds. It also includes part of the shallow marine region. The site provides excellent feeding and living habitats for a large number of waterbird species, including annual migrants, which use this area also for landfall (on arrival in Sri Lanka) in the Mannar region, and a last staging point (during their exit from Sri Lanka). A total of 149 species of birds have been recorded from this region. According to the annual waterbird census carried out by the Ceylon Bird Club, the site harbours much more than 20,000 waterbirds during a migration season. The recent civil war has managed to keep away detrimental human activities from this area, which in turn has contributed to a high bird diversity. A breeding colony of the Indian Spot-billed Duck *Anas poecilorhyncha*, which was known as a rare migrant in Sri Lanka, was recently found in this site.

13. Ramsar Criteria:

1 • 2 • 3 • 4 • 5 • 6 • 7 8 • 9
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14. Justification for the application of each Criterion listed in 13 above:

Criterion 1: A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region

The area harbours a mixture of coastal and marine integrated wetlands and coastal landscapes, e.g. sand dunes. Due to the integrated nature of shallow wetland and terrestrial coastal habitats, Vankalai Sanctuary constitutes a highly productive natural area that sustains diverse food chains. The latter fact makes this region an important wetland type in the Gulf-of-Mannar region of the Indian Ocean, which is located along a migratory flyway of birds.

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

Vankalai Sanctuary harbours a number of threatened species, including the Indian Spot-billed Duck *Anas poecilorhyncha*, marine turtles, namely Green Turtle *Chelonia mydas*, Olive Ridley Turtle *Lepidochelys olivacea* and the marine mammal Dugong *Dugong dugon*. The marine turtles are listed in CITES Appendix 1.

Scientific name	English name	National Status	International status		
			IUCN	CITES	CMS
Indian Spot-billed Duck	<i>Anas poecilorhyncha</i>	CR	LC	-	Appendix 2
Green Turtle	<i>Chelonia mydas</i>	-	En	Appendix 1	Appendix 1
Olive Ridley Turtle	<i>Lepidochelys olivacea</i>	-	Vu	Appendix 1	Appendix 1
Dugong	<i>Dugong dugon</i>	-	Vu	Appendix 1	Appendix 2

(Legend: IUCN categories, En = Endangered, Vu = Vulnerable, LC = Least Concern)

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

Vankalai Sanctuary has high ecosystem and species diversity (especially in relation to avifauna and marine and brackish water fish). The coastal and marine ecosystems include sea-grass beds, lagoons, mangrove, salt marsh, sand dunes and coastal scrubland. These ecosystems have in turn contributed to a variety of animals and plants. The vertebrate animals are dominated by fish (>60 species) and birds (>100 species, including several winter migrants).

The sea grasses, consisting of about eight different species, play a significant role as primary producers, and sustain a diversity of other species in this area. This is clearly evident in the high species richness of fish and avifauna concentrated in a relatively small area. These sea grasses also sustain other rare non-fish vertebrate species such as the Dugong and marine turtles that inhabit or visit this area. See Annex 3.

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:

The sea-grass beds and mangrove provide refuge for larval stages of fish and crustaceans, while the area also supports breeding colonies of several waterbirds.

Among the shellfish species, prawns such as *Penaeus monodon*, *P. indicus*, *P. merguensis*, *P. semisulcatus*, and *Metapenaeus dobsoni* spend their juvenile stages among the sea grass beds and mangroves in this area. Similarly, the shallow brackish water lagoons harbours the juvenile stages of marine fish species such as the Trevally (*Caranx* spp, and *Carangoides* spp.), Milk fish (*Chanos* spp.), and Snappers (*Lutjanus* spp.). See Annex 4.

This wetland functions as a landing and feeding site of migrant waterbird species travelling on the Central Asian Flyway, and as the wintering site of large numbers of these birds which remain here. See Annex 5.

The Indian Spot-billed Duck *Anas poecilorhyncha* had formerly been considered a rare migrant to Sri Lanka but in 2003 was discovered breeding at this site and hence added as a new resident species in the Sri Lanka list, an extremely rare occurrence.

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

The site regularly supports well over 20,000 waterbirds (Source: Ceylon Bird Club annual waterbird census). Below is an example of the most numerous species during sample counting undertaken during 2-4 days between 2002 and 2010. These figures provide an indicative sample of bird numbers in one part of the wetland and only over limited times. It can therefore be extrapolated that the whole site would regularly support well over 20,000 waterbirds during the year. See also Annex 6.

	2002	2003	2004	2005	2006	2007	2010
Greater Flamingo <i>Phoenicopterus roseus</i>	4,000	5,000	-	2,000	550	200	1,500
Eurasian Wigeon <i>Anas penelope</i>	12	450	5,000	12	-	-	56,000
Northern Pintail <i>Anas acuta</i>	50	95,000	5,000	90,000	46	300	24,000
Black-tailed Godwit <i>Limosa limosa</i>	-	3,000	50	16	432	73	-
Total of all waterbirds counted at the site	11,395	120,134	12,658	92,223	2,626	2,204	82,653
Remarks	Part of site only	-	-	Heavy rain at site: water level very high			

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.

The site supports well over 1% of the relevant population of at least three species of waterbird: Greater Flamingo *Phoenicopterus roseus*, Eurasian Wigeon *Anas penelope* and Black-tailed Godwit *Limosa limosa*. The annual Ceylon Bird Club waterbird census records such numbers in February, the time of the census, in years when conditions are not adverse while the census is carried out. See also Annex 7. (Source: Ceylon Bird Club waterbird census).

Species	Population / Subspecies	2002-2010 Count (Min-Max)	1% Threshold ¹
Greater Flamingo <i>Phoenicopterus roseus</i>	South and South West Asia	0 – 5,000	2,400
Eurasian Wigeon <i>Anas penelope</i>	South Asia	0 – 56,000	2,500
Black-tailed Godwit <i>Limosa limosa</i>	South Asia	0 – 3,000	1,500

(¹ Wetlands International 2006).

Criterion 8: A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend

The shallow brackish water lagoons and the sea-grass have contributed to a highly productive near-shore marine area, which is used as a spawning and feeding ground of a diverse fish fauna.

The mix of marine and coastal wetland habitats provide important breeding, feeding and resting areas for a variety of fish species which contribute to the livelihoods of fisheries-dependent local communities in the vicinity. Seagrass beds and mangroves areas in particular generate nutrients for other marine organisms and support diverse food webs which in turn benefit the rich array of avifauna.

Among the harvestable main food fish species inhabiting this area, the sustenance of the populations of Milkfish (*Chanos chanos*), Trevally (*Caranx* spp, *Carangoides* spp.), Snappers

T: Iyanku) *Azima tetracantha*, (S: Ranawara T: Avari) *Cassia auriculata*, (S: Andara T: Vindatallai) *Dichrostachys cinerea*, and (S: Hin Katupila T: Mudpulanti) *Flueggea leucopyros*. The open areas consist of arid zone pastures and grasslands, which are dominated by grasses, e.g. Bermuda Grass (S: Ruha T: Arugam-pillu) *Cynodon dactylon* and sedges, e.g. (S: Kalanduru T: Korai) *Cyperus rotundus*. These open areas are a dynamic ecosystem, which convert into seasonal water bodies during the rainy season. The shallow seasonal water holes contain algal species and submerged vegetation such as *Najas Najas marina*. The single perennial reservoir in the area harbours floating plants such as Water Lily (S: Olu T: Ambal) *Nymphaea stellata* and Lotus (S: Nelum T: Tamarai) *Nelumbo nucifera*. The patches of degraded fringing mangrove in this area is dominated by species adapted to high-saline conditions, e.g., Grey Mangrove (T: Kannamaram) *Avicennia marina*. The shallow margins of lagoons and seasonal water bodies are covered with patches of salt-marsh vegetation consisting of (T: Kotanai) *Halosarcia indica*, *Salicornia brachiata* and (T: Umiri) *Suaeda* spp. The sand dunes and sandy sea-shore adjoining the lagoon support a sparse (S: Maha Ravana Revula T: Ravana-misai) *Spinifex littoreus* and East Indian Waterbluet (S: Muhudu Getakola) *Hydrophylax maritima* -dominated vegetation. The shallow lagoon harbour patches of sea-grass beds. The tidal effect in the shallow lagoons results in the exposure of tidal flats (mudflats), consisting of very rich organic matter that favors a high richness of invertebrates, which in turn attracts a diversity of water birds. A total of 149 bird species have been recorded from this area, including a large number of migratory species, amounting to more than 20,000 individuals annually.

21. Noteworthy flora:

The patches of fringing mangrove in the area consist of Grey Mangrove (*Avicennia marina*), River Mangrove (S: Hin Kadol T: Vitlikanna) *Aegiceras corniculatum*, Milky Mangrove (S: Telakiriya T: Tilai) *Excoecaria agallocha*, Seaside Clerodendrum (S: Val Gurenda T: Dangamkuppi) *Clerodendrum inerme*, Asiatic Mangrove (S: Maha Kadol T: Kandal) *Rhizophora mucronata*, Black Mangrove (S: Beriya T: Tipparutin) *Lumnitzera racemosa* and (T: Kiri-maram) *Pemphis asidula*. The patches of sea grass beds scattered in the lagoon include *Enhalus acoroides*, *Thalassia hermprichii*, *Halophila ovata* and *Halodule uninervis*.

22. Noteworthy fauna:

The site harbours an array of migratory waders and waterbird species. Large population of Greater Flamingo (S: Siyakkaraya) *Phoenicopterus roseus*, Eurasian Wigeon (S: Ranpata Tarava) *Anas penelope*, Northern Pintail (S: Ulpenda Tarava) *Anas acuta* and Black-tailed Godwit (S: Pendakalu Mahavatuva) *Limosa limosa* have been observed in the site. A notable species in this site is the nationally endangered (CR) Indian Spot-billed Duck (S: Detit Tarava) *Anas poecilorhyncha*, where a breeding population was discovered recently. Until 2003 this species was known as a very rare migrant. Two species of rare migratory waterfowl that visit the site include Gadwall (S: Alu Tarava) *Anas strepera* and Comb Duck (S: Kebalitiya) *Sarkidiornis melanotos*. The migrant Red Knot (S: Ratu Mahasilivatuva) *Calidris canutus* is common here but rare elsewhere in Sri Lanka, and the migrant Pied Avocet (S: Avasetta) *Recurvirostra avosetta* is regular here but very rare elsewhere in Sri Lanka. Among the other aquatic animals, two species of reptiles, Indian Black Turtle (S: Gal Ibba T: Kal Amai) *Melanochelys trijuga* and Saltwater Crocodile (S: Geta Kimbula T: Semmukhan Mutalai) *Crocodylus porosus*, have been observed from this area, and both these species are globally threatened. The Jungle Cat (*Felis chaus*) which is nationally vulnerable was sighted in 2003.

23. Social and cultural values:

Coastal and near-shore marine fisheries covers part of the archaeological site of Mantai or Mahatittha, the major port of ancient Sri Lanka from the 1st, possibly 6th, century BC to 13th century AD. Excavations have yielded many historical objects. It is believed much more investigation still needs to be done.

24. Land tenure/ownership:

a) Within the Ramsar site:

State-owned

b) In the surrounding area:

State and private owned

25. Current land (including water) use:

a) Within the Ramsar site: Except for a few permanent settlements in the Tiruketiswaram area, the rest of the area is devoid of human settlements. An army camp is present in the area. Collection of fuelwood and livestock grazing occurs in a small scale. The civil war has kept human activity from this area for nearly two decades. Locals in the surrounding areas carry out subsistence fishing in the shallow lagoons.

b) In the surroundings/catchment: Few human settlements. Subsistence and commercial fishing is being practiced on a small scale.

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) Within the Ramsar site:

Past: Illegal hunting of waterbirds

Present: Spread of alien invasive Mesquite (*Prosopis juliflora*) and Prickly Pear Cactus (*Opuntia dillenii*) clearing of vegetation (due to the civil conflict).

b) In the surrounding area:

Presently as above for within the Ramsar site.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site

Declared a Sanctuary in Government Gazette no.1566/3, 9 Sep, 2008 by the Minister of Environment and Natural Resources under the Fauna and Flora Protection Ordinance.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site
The site would qualify for this section after the designation only.

c) Does an officially approved management plan exist; and is it being implemented?: No

d) Describe any other current management practices: None

28. Conservation measures proposed but not yet implemented:

29. Current scientific research and facilities:

The Ceylon Bird Club conducts annual censuses of waterbirds in this area (subject to the constraints of the security situation) and its members at irregular intervals carry out observations of birds in the area.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

None

31. Current recreation and tourism:

Low-scale tourism (tourism is hindered due to the current security situation)

32. Jurisdiction:

Falls within the legal jurisdiction of the Coast Conservation Department of the State. Declared as a Sanctuary on 21-04-2008, under the Department of Wildlife Conservation of the State.

33. Management authority:

Overall Management:

W.A.D.A. Wijesuriya
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Department of Wildlife Conservation,
382, New Kandy Rd, Malambe, Sri Lanka.
Email: director@dwc.gov.lk
Telephone: 0094-11-256-0380

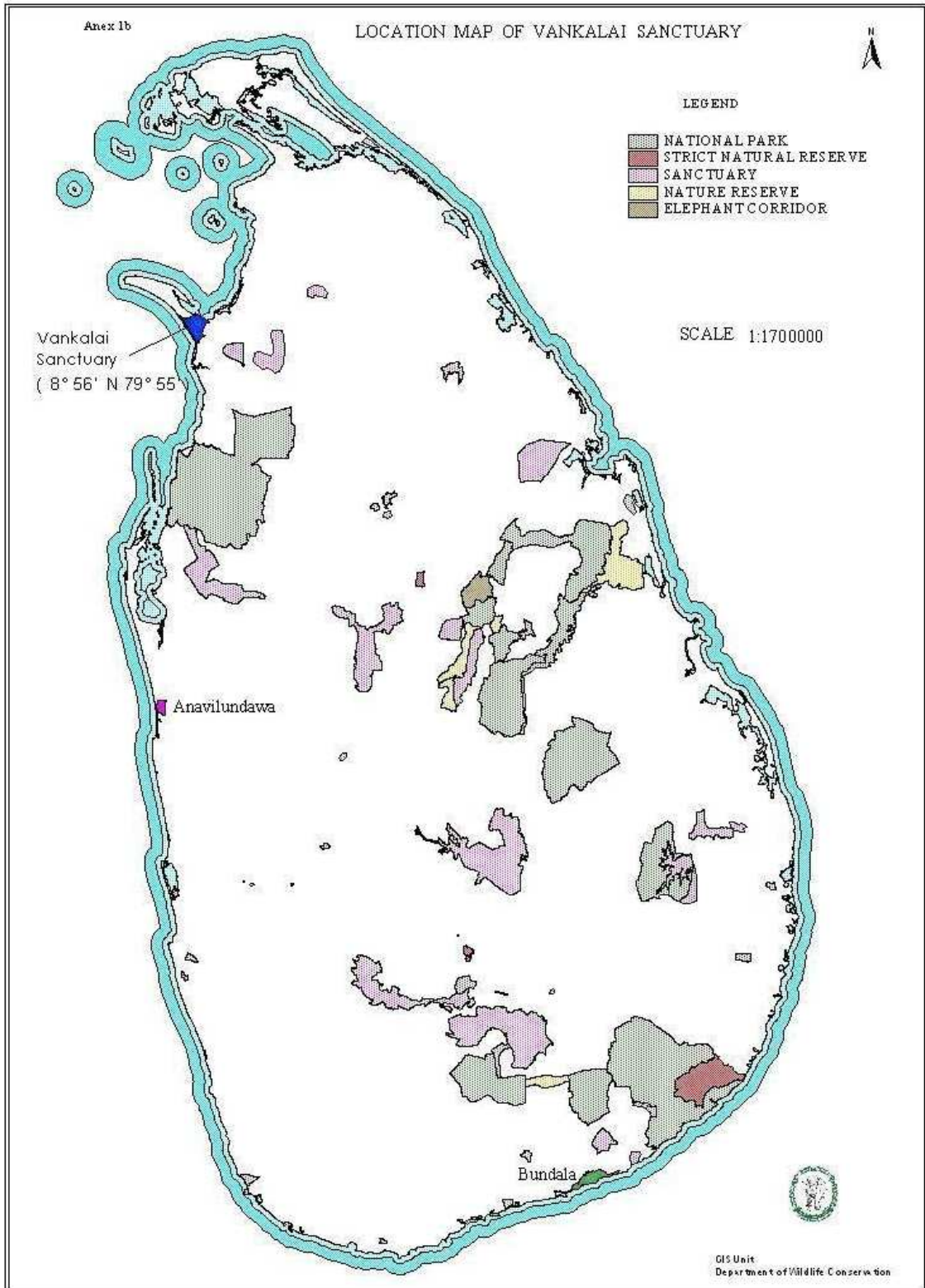
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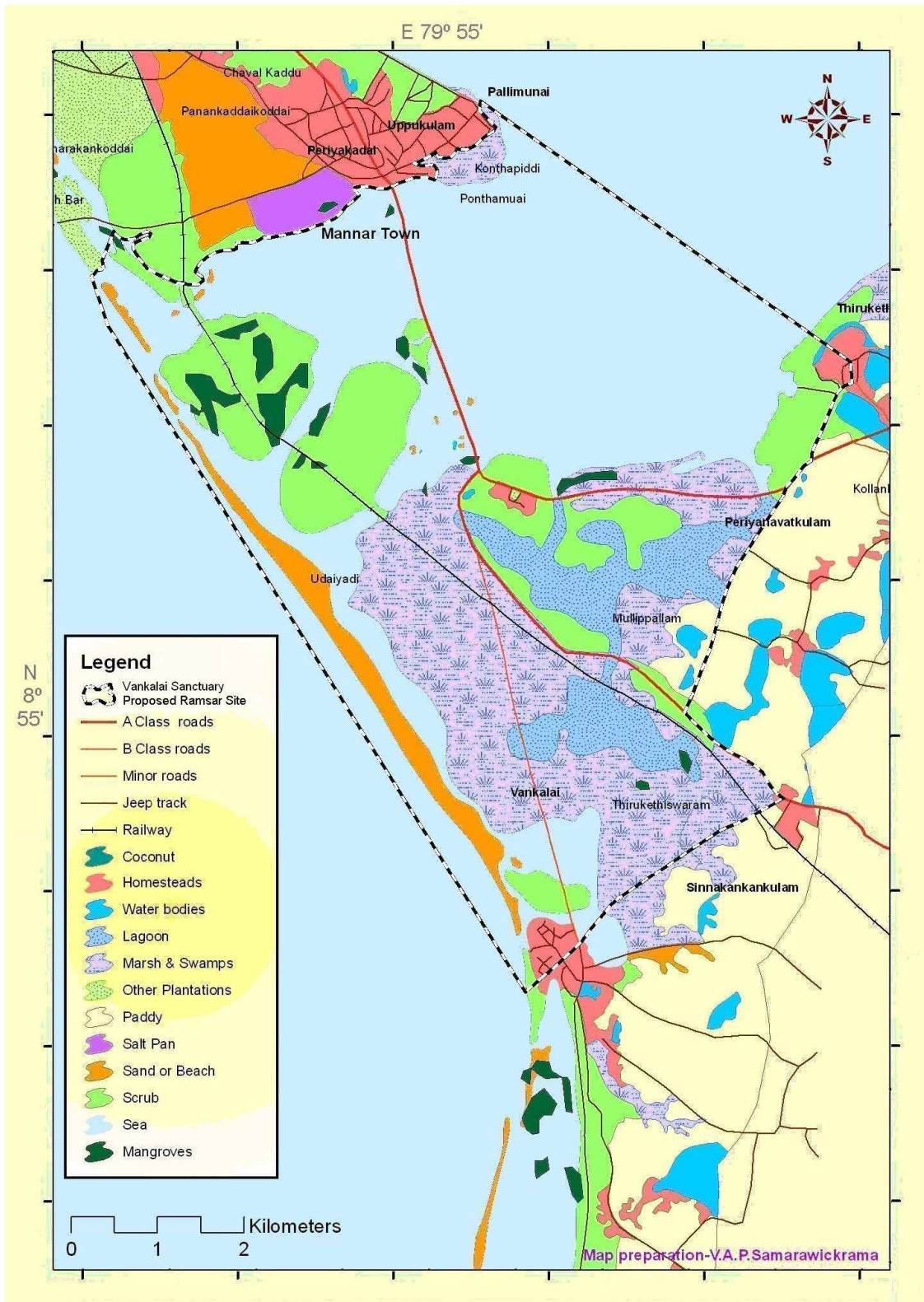
34. Bibliographical references:

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IUCN and CEA (2006). National Wetland Directory, Sri Lanka. The World Conservation Union & Central Environmental Authority. Colombo.
IUCN Sri Lanka and the Ministry of Environment and Natural Resources (2007) The 2007 Red List of Threatened Fauna and Flora of Sri Lanka, Colombo, Sri Lanka.
Sirivardana, U. (2003). The 2003 waterbird census in Sri Lanka. *Loris* 23 (3&4): 32-35.
Wetlands International. (2006). Waterbird Population Estimates – Fourth Edition. Wetlands International, Wageningen, The Netherlands.

Annex 1: LOCATION OF VANKALAI SANCTUARY PROPOSED RAMSAR SITE



Annex 2: DETAILED MAP OF VANKALAI SANCTUARY PROPOSED RAMSAR SITE



Annex 3: SEAGRASS SPECIES IN THE AREA

Species
<i>Enhalus acaroides</i>
<i>Thalassia hemprichii</i>
<i>Halodule uninervis</i>
<i>Siringodium isoetifolium</i>
<i>Cymodocea rotundata</i>
<i>Cymodocea serrulata</i>
<i>Halophila ovalis</i>
<i>Halophila decipiens</i>

Annex 4: FISH AND CRUSTACEAN SPECIES

Fish species inhabiting the coastal and marine wetlands of the proposed site

Family	Species	Common name
Hemiscyllidae	<i>Chiloscyllium griseum</i>	Grey bamboo shark
Carcharhinidae	<i>Carcharhinus sp.</i>	Shark species
Myliobatidae	<i>Aetobatus narinari</i>	Spotted eagle ray
	<i>Rhinoptera javanica</i>	Javanese cownose ray
Dasyatidae	<i>Himantura sp.</i>	Stingray species
Aplocheilidae	<i>Aplocheilus parvus</i>	Dwarf panchax
Belontiidae	<i>Strongular strongular</i>	spottail needlefish
Chanidae	<i>Chanos chanos</i>	Milkfish
Charangidae	<i>Alectis ciliaris</i>	African pompano
	<i>Caranx sexfasciatus</i>	Bigeye Travally
	<i>Carangoides sp.</i>	Travally species
	<i>Scomberoides sp.</i>	Queenfish species
Chiclidae	<i>Etroplus suratensis</i>	Pearl Spot
Clupidae	<i>Nematolosa nasus</i>	Bloch's gizzard shad
		Bleeker's smoothbelly
	<i>Amblygaster clupeioides</i>	Sardinella
	<i>Sardinella gibbosa</i>	Goldstripe sardinella
Drepanidae	<i>Drepane punctata</i>	Spotted sicklefish
Engraulidae	<i>Thryssa hamiltoni</i>	Hamilton's thryssa
	<i>Stolephorus indicus</i>	Indian anchovy
Gerridae	<i>Gerrus abbreviatus</i>	Deepbody silverbidy
Hemiramphidae	<i>Hemiramphus sp.</i>	
Hippocampidae	<i>Hippocampus sp.</i>	Sea Horse sp.
Leiognathidae	<i>Leiognathus equulus</i>	Common Ponyfish
	<i>Leiognathus berbis</i>	Berber Ponyfish
	<i>Gazza minuta</i>	Toothpony
Lutjanidae	<i>Lutjanus argentimaculatus</i>	Mangrove red snapper
	<i>Lutjanus ehrenbergii</i>	Ehrenberg's snapper

Mullidae	<i>Parupeneus indicus</i>	Indian Goatfish
Muraenidae	<i>Uropterygius marmoratus</i>	Marbled moray
Scatophagidae	<i>Scatophagus argus</i>	Spotted scat
Siganidae	<i>Siganus javus</i>	Streaked spinefoot
Sillaginidae	<i>Sillago sihama</i>	Silver sillago
Soleidae	<i>Solea elongata</i>	Elongate sole
	<i>Zebrias sp.</i>	Zebra sole species
Sphyraenidae	<i>Sphyraena barracuda</i>	Great barracuda
Stromateidae	<i>Pampus chinensis</i>	Chinese silver pompret
Teraponidae	<i>Terapon jarbua</i>	Jarbua Terapon
	<i>Terapon puta</i>	Smallscaled terapon
Triacanthidae	<i>Triacanthus biaculeatus</i>	Shortnosed tripodfish

Crustaceans inhabiting the coastal and marine wetlands of the site include:

Prawns: *Penaeus monodon*, *P. indicus*, *P. merguensis*, *P. semisulcatus*, *Metapenaeus dobsoni*

Crabs: *Scylla serrata*, *Portunus pelagicus*, *Thalassina anomala*

Annex 5: SOME MIGRANT WATERBIRDS INHABITING THE COASTAL AND MARINE WETLANDS OF THE SITE

Geese and ducks : Anatidae

Comb Duck *Sarkidiornis melanotos* Very rare migrant

Gadwall *Anas strepera* Very rare vagrant

Eurasian Wigeon *Anas penelope* Migrant, common to very common here and in the Jaffna area, very rare elsewhere in Sri Lanka

Indian Spot-billed Duck *Anas poecilorhyncha*^{LC} Until 2003 known as a very rare migrant to Sri Lanka, then discovered to be a breeding resident and common here, not known to breed elsewhere in Sri Lanka.

Northern Shoveller *Anas clypeata* Migrant, common in the Mannar and Jaffna areas, rare elsewhere in Sri Lanka

Northern Pintail *Anas acuta* Very common migrant

Garganey *Anas querquedula* Very common migrant

Common Teal *Anas crecca* Migrant, common here and in the Jaffna area, very rare elsewhere in Sri Lanka

Plovers : Charadriidae

Pacific Golden Plover *Pluvialis fulva* Common migrant

Grey Plover *Pluvialis squatarola* Common migrant

Common Ringed Plover *Charadrius hiaticula* Uncommon migrant

Little Ringed Plover *Charadrius dubius* Common breeding resident and migrant

Kentish Plover *Charadrius alexandrinus* Common breeding resident

Lesser Sand Plover *Charadrius mongolus* Very common migrant

Greater Sand Plover *Charadrius leschenaultii* Uncommon migrant

Sandpipers and allies : Scolopacidae

'Western' Black-tailed Godwit *Limosa limosa* Very common migrant
 'Eastern' Black-tailed Godwit *Limosa [limosa] melanuroides* Migrant, very rarely recorded
 Bar-tailed Godwit *Limosa lapponica* Migrant, common in the Mannar area, uncommon elsewhere in Sri Lanka
 Whimbrel *Numenius phaeopus* Common migrant
 Eurasian Curlew *Numenius arquata* Migrant, common in the Mannar and Jaffna areas, uncommon elsewhere in Sri Lanka
 Common Redshank *Tringa totanus* Very common migrant
 Common Greenshank *Tringa nebularia* Common migrant
 Marsh Sandpiper *Tringa stagnatilis* Very common migrant
 Green Sandpiper *Tringa ochropus* Uncommon migrant
 Wood Sandpiper *Tringa glareola* Common migrant
 Terek Sandpiper *Xenus cinereus* Migrant, common here, uncommon elsewhere in Sri Lanka
 Common Sandpiper *Actitis hypoleucos* Common migrant
 Ruddy Turnstone *Arenaria interpres* Common migrant
 Great Knot *Calidris tenuirostris* Migrant, common here and in the Puttalam area, rare elsewhere in Sri Lanka
 Red Knot *Calidris canutus* Migrant, common here, rare elsewhere in Sri Lanka
 Little Stint *Calidris minuta* Very common migrant
 Temminck's Stint *Calidris temminckii* Uncommon migrant
 Long-toed Stint *Calidris subminuta* Rare migrant
 Curlew Sandpiper *Calidris ferruginea* Very common migrant
 Broad-billed Sandpiper *Limicola falcinellus* Migrant, common in the Mannar and Puttalam areas, uncommon elsewhere in Sri Lanka
 Ruff *Philomachus pugnax* Uncommon migrant
Stilts and avocets : Recurvirostridae
 Black-winged Stilt *Himantopus himantopus* Very common breeding resident and common migrant
 Pied Avocet *Recurvirostra avosetta* Migrant, regular here, very rare elsewhere in Sri Lanka
Phalaropes : Phalaropodidae
 Red-necked Phalarope *Phalaropus lobatus* Uncommon migrant
Gulls : Laridae
 Heuglin's Gull *Larus heuglini* Migrant, common in the Mannar and Jaffna areas, uncommon elsewhere in Sri Lanka
 Great Black-headed Gull *Larus ichthyaetus* Migrant, very common in the Mannar and Jaffna areas, rare elsewhere in Sri Lanka
 Brown-headed Gull *Larus brunnicephalus* Very common migrant
 Common Black-headed Gull *Larus ridibundus* Uncommon migrant
Terns : Sternidae
 Gull-billed Tern *Gelochelidon nilotica* Very common migrant

Roseate Tern *Sterna dougalli* Migrant, uncommon in the Mannar area, rare elsewhere in Sri Lanka

Common Tern *Sterna hirundo* Very common migrant

Whiskered Tern *Chlidonias hybrida* Very common migrant

Annex 6: LIST OF BIRDS RECORDED IN VANKALAI SANCTUARY

(Source: Ceylon Bird Club)

CR - Critically Endangered , VU – Vulnerable (Source: 2007 National Redlist of Sri Lanka)

Note: Words such as ‘common’ and ‘resident’ without further description refer to the status in the whole of Sri Lanka. The word ‘here’ refers to the Vankalai Sanctuary.

Grebes : Podicipedidae

Little Grebe *Tachybaptus ruficollis* Common breeding resident

Cormorants and shags : Phalacrocoracidae

Little Cormorant *Phalacrocorax niger* Very common breeding resident

Indian Shag *Phalacrocorax fuscicollis* Very common breeding resident

Pelicans : Pelecanidae

Spot-billed Pelican *Pelecanus philippensis* Common breeding resident

Darters : Anhingidae

Oriental Darter *Anhinga melanogaster* Common breeding resident

Herons and egrets : Ardeidae

Little Egret *Egretta garzetta* Very common breeding resident

Western Reef-heron *Egretta gularis* Uncommon migrant

Great Egret *Egretta alba* Common breeding resident

Intermediate Egret *Egretta intermedia* Common breeding resident

Grey Heron *Ardea cinerea* Common breeding resident

Purple Heron *Ardea purpurea* Common breeding resident

Eastern Cattle Egret *Bubulcus coromandus* Very common breeding resident

Indian Pond-heron *Ardeola grayii* Very common breeding resident

Striated Heron *Butorides striatus* Uncommon breeding resident

Black-crowned Night-heron *Nycticorax nycticorax* Common breeding resident

Storks : Ciconiidae

Painted Stork *Mycteria leucocephala* Common breeding resident

Asian Openbill *Anastomus oscitans* Common breeding resident

Ibises and spoonbills : Threskiornithidae

Glossy Ibis *Plegadis falcinellus* Rare migrant

Black-headed Ibis *Threskiornis melanocephalus* Very common breeding resident

Eurasian Spoonbill *Platalea leucorodia* Common breeding resident

Flamingos : Phoenicopteridae

Greater Flamingo *Phoenicopterus roseus* Migrant, regular in large numbers in the Mannar and Jaffna areas, in lesser numbers in the southeast, very rare elsewhere in Sri Lanka

Geese and ducks : Anatidae

Lesser Whistling-duck *Dendrocygna javanica* Very common breeding resident

Comb Duck *Sarkidiornis melanotos* Very rare migrant

Gadwall *Anas strepera* Very rare vagrant

Eurasian Wigeon *Anas penelope* Migrant, common to very common here and in the Jaffna area, very rare elsewhere in Sri Lanka

Indian Spot-billed Duck *Anas poecilorhyncha*^{CR} Until 2003 known as a very rare migrant to Sri Lanka, then discovered to be a breeding resident and common here, not known to breed elsewhere in Sri Lanka.

Northern Shoveller *Anas chrypeata* Migrant, common in the Mannar and Jaffna areas, rare elsewhere in Sri Lanka

Northern Pintail *Anas acuta* Very common migrant

Garganey *Anas querquedula* Very common migrant

Common Teal *Anas crecca* Migrant, common here and in the Jaffna area, very rare elsewhere in Sri Lanka

Hawks, kites, eagles : Accipitridae

Oriental Honey-Buzzard *Pernis ptilorhynchus* Common breeding resident and migrant

Black-winged Kite *Elanus caeruleus* Common breeding resident

Black Kite *Milvus migrans* Resident and migrant, common in the Mannar and Jaffna areas, rare elsewhere in Sri Lanka

Brahminy Kite *Haliastur Indus* Very common breeding resident

White-bellied Sea-eagle *Haliaeetus leucogaster* Common breeding resident

Crested Serpent-eagle *Spilornis cheela* Common breeding resident

Pallid Harrier *Circus macrourus* Migrant, common here, uncommon elsewhere in Sri Lanka

Montagu's Harrier *Circus pygargus* Common migrant

Shikra *Accipiter badius* Very common breeding resident

Common Kestrel *Falco tinnunculus* Common migrant

Amur Falcon *Falco amurensis* Rare migrant

Falcons : Falconidae

Peregrine Falcon *Falco peregrinus*^{VU} Uncommon migrant.

Partridges : Phasianidae

Grey Francolin *Francolinus pondicerianus* Very common breeding resident in the north of, and not found elsewhere in, Sri Lanka

Rails, gallinules, coots : Rallidae

White-breasted Waterhen *Amaurornis phoenicurus* Very common breeding resident

Purple Swampphen *Porphyrio [porphyrio] poliocephalus* Very common breeding resident

Common Moorhen *Gallinula chloropus* Common breeding resident

Eurasian Coot *Fulica atra* Common breeding resident and migrant

Jacanas : Jacanidae

Pheasant-tailed Jacana *Hydrophasianus chirurgus* Very common breeding resident

Oystercatchers : Haematopodidae

Eurasian Oystercatcher *Haematopus ostralegus* Migrant, regular here, very rare elsewhere in Sri Lanka

Plovers : Charadriidae

Pacific Golden Plover *Pluvialis fulva* Common migrant

Grey Plover *Pluvialis squatarola* Common migrant

Common Ringed Plover *Charadrius hiaticula* Uncommon migrant

Little Ringed Plover *Charadrius dubius* Common breeding resident and migrant

Kentish Plover *Charadrius alexandrinus* Common breeding resident

Lesser Sand Plover *Charadrius mongolus* Very common migrant

Greater Sand Plover *Charadrius leschenaultii* Uncommon migrant

Yellow-wattled Lapwing *Vanellus malabaricus* Common breeding resident

Red-wattled Lapwing *Vanellus indicus* Very common breeding resident

Sandpipers and allies : Scolopacidae

'Western' Black-tailed Godwit *Limosa limosa* Very common migrant

'Eastern' Black-tailed Godwit *Limosa [limosa] melanuroides* Migrant, very rarely recorded

Bar-tailed Godwit *Limosa lapponica* Migrant, common in the Mannar area, uncommon elsewhere in Sri Lanka

Whimbrel *Numenius phaeopus* Common migrant

Eurasian Curlew *Numenius arquata* Migrant, common in the Mannar and Jaffna areas, uncommon elsewhere in Sri Lanka

Common Redshank *Tringa totanus* Very common migrant

Common Greenshank *Tringa nebularia* Common migrant

Marsh Sandpiper *Tringa stagnatilis* Very common migrant

Green Sandpiper *Tringa ochropus* Uncommon migrant

Wood Sandpiper *Tringa glareola* Common migrant

Terek Sandpiper *Xenus cinereus* Migrant, common here, uncommon elsewhere in Sri Lanka
Common Sandpiper *Actitis hypoleucos* Common migrant
Ruddy Turnstone *Arenaria interpres* Common migrant
Great Knot *Calidris tenuirostris* Migrant, common here and in the Puttalam area, rare elsewhere in Sri Lanka
Red Knot *Calidris canutus* Migrant, common here, rare elsewhere in Sri Lanka
Little Stint *Calidris minuta* Very common migrant
Temminck's Stint *Calidris temminckii* Uncommon migrant
Long-toed Stint *Calidris subminuta* Rare migrant
Curlew Sandpiper *Calidris ferruginea* Very common migrant
Broad-billed Sandpiper *Limicola falcinellus* Migrant, common in the Mannar and Puttalam areas, uncommon elsewhere in Sri Lanka
Ruff *Philomachus pugnax* Uncommon migrant

Stilts and avocets : Recurvirostridae

Black-winged Stilt *Himantopus himantopus* Very common breeding resident and common migrant
Pied Avocet *Recurvirostra avosetta* Migrant, regular here, very rare elsewhere in Sri Lanka

Phalaropes : Phalaropodidae

Red-necked Phalarope *Phalaropus lobatus* Uncommon migrant

Crab-plover : Dromadidae

Crab-plover *Dromas ardeola* Uncommon breeding resident, and regularly seen, in the Mannar and Jaffna areas, very rare elsewhere in Sri Lanka

Stone-curlews and thick-knees : Burhinidae

Indian Stone-curlew *Burhinus oedicephalus* Common breeding resident
Great Thick-knee *Esacus recurvirostris* Common breeding resident

Gulls : Laridae

Heuglin's Gull *Larus heuglini* Migrant, common in the Mannar and Jaffna areas, uncommon elsewhere in Sri Lanka
Great Black-headed Gull *Larus ichthyaetus* Migrant, very common in the Mannar and Jaffna areas, rare elsewhere in Sri Lanka
Brown-headed Gull *Larus brunnicephalus* Very common migrant
Common Black-headed Gull *Larus ridibundus* Uncommon migrant

Terns : Sternidae

Gull-billed Tern *Gelochelidon nilotica* Very common migrant
Caspian Tern *Sterna caspia* Common breeding resident

Roseate Tern *Sterna dougalli* Migrant, uncommon in the Mannar area, rare elsewhere in Sri Lanka

Common Tern *Sterna hirundo* Very common migrant

Little Tern *Sterna albifrons* Very common breeding resident

Whiskered Tern *Chlidonias hybrida* Very common migrant

Doves : Columbidae

Spotted Dove *Streptopelia chinensis* Very common breeding resident

Eurasian Collared-dove *Streptopelia decaocto* Very common breeding resident in the north of, and not found elsewhere in, Sri Lanka

Parrots : Psittacidae

Rose-ringed Parakeet *Psittacula krameri* Very common breeding resident

Cuckoos : Cuculidae

'Southern' Coucal *Centropus sinensis* [parroti] Very common breeding resident

Blue-faced Malkoha *Phaenicophaeus viridirostris* Common breeding resident

Jacobin Cuckoo *Clamator jacobinus* Common breeding resident

Grey-bellied Cuckoo *Cacomantis passerinus* Common migrant.

Asian Koel *Eudynamys scolopaceus* Very common breeding resident

Barn-owls : Tytonidae

Barn Owl *Tyto alba* Uncommon breeding resident

Swifts : Apodidae

Asian Palm-swift *Cypsiurus balasiensis* Very common breeding resident

Kingfishers : Alcedinidae

Common Kingfisher *Alcedo atthis* Common breeding resident

White-throated Kingfisher *Halcyon smyrnensis* Very common breeding resident

Lesser Pied Kingfisher *Ceryle rudis* Common breeding resident

Bee-eaters : Meropidae

Little Green Bee-eater *Merops orientalis* Very common breeding resident

Blue-tailed Bee-eater *Merops philippinus* Very common migrant

Rollers : Coraciidae

Indian Roller *Coracias benghalensis* Very common breeding resident

Hoopoes : Upupidae

Common Hoopoe *Upupa epops* Common breeding resident

Barbets : Capitonidae

Brown-headed Barbet *Megalaima zeylanica* Very common breeding resident

Coppersmith Barbet *Megalaima haemacephala* Very common breeding resident

Larks : Alaudidae

Jerdon's Bushlark *Mirafra affinis* Very common breeding resident

Ashy-crowned Finch-Lark *Eremopterix griseus* Very common migrant

Oriental Skylark *Alauda gulgula* Breeding resident, very common in the Mannar area, common elsewhere in Sri Lanka

Swallows : Hirundinidae

Common Swallow *Hirundo rustica* Very common migrant

Pipits and wagtails : Motacillidae

Western Yellow Wagtail *Motacilla flava* Common migrant

Richard's Pipit *Anthus richardi* Uncommon migrant

Paddyfield Pipit *Anthus rufulus* Very common breeding resident

Blyth's Pipit *Anthus godlewskii* Common migrant

Cuckooshrikes : Campephagidae

Ceylon Wood-Shrike *Tepbrodornis affinis* Common breeding resident

Monarchs : Monarchidae

Asian Paradise Flycatcher *Terpsiphone paradisi* Common breeding resident and migrant

Bulbuls : Pycnonotidae

Red-vented Bulbul *Pycnonotus cafer* Very common breeding resident

White-browed Bulbul *Pycnonotus luteolus* Very common breeding resident

Shrikes : Laniidae

Brown Shrike *Lanius cristatus cristatus* Very common migrant

Philippine Shrike *Lanius cristatus lucionensis* Uncommon migrant

Long-tailed Shrike *Lanius schach* Resident, common in and just south of the Mannar area, not found elsewhere in Sri Lanka

Chats : Muscicapidae

Oriental Magpie-robin *Copsychus saularis* Very common breeding resident

Indian Black Robin *Saxicoloides fulicatus* Very common breeding resident

Babblers : Timaliidae

Tawny-bellied Babbler *Dumetia hyperythra* Common breeding resident

Yellow-billed Babbler *Turdoides affinis* Very common breeding resident

Cisticolas, prinias and tailorbirds : Cisticolidae

Zitting cisticola *Cisticola juncidis* Very common breeding resident

Grey-breasted Prinia *Prinia hodgsonii* Very common breeding resident

Ashy Prinia *Prinia socialis* Very common breeding resident
Jungle Prinia *Prinia sylvatica* Common breeding resident
Plain Prinia *Prinia inornata* Common breeding resident
Common Tailorbird *Orthotomus sutorius* Very common breeding resident

Old World warblers : Sylviidae

Blyth's Reed-warbler *Acrocephalus dumetorum* Common migrant
Hume's Whitethroat *Sylvia althaea* Uncommon migrant

Sunbirds : Nectariniidae

Purple-rumped Sunbird *Nectarinia zeylonica* Very common breeding resident
Loten's Sunbird *Nectarinia lotenia* Very common breeding resident
Purple Sunbird *Nectarinia asiatica* Very common breeding resident

Waxbills : Estrildidae

Scaly-breasted Munia *Lonchura punctulata* Very common breeding resident
Tricoloured Munia *Lonchura malacca* Common breeding resident

Old World sparrows : Passeridae

House Sparrow *Passer domesticus* Very common breeding resident

Starlings and mynas : Sturnidae

Rosy Starling *Sturnus roseus* Migrant, fluctuating from very common to rare
Common Myna *Acridotheres tristis* Very common breeding resident

Drongos : Dicuridae

Black Drongo *Dicrurus macrocercus* Common breeding resident

Woodswallows : Artamidae

Ashy Woodswallow *Artamus fuscus* Common breeding resident

Crows : Corvidae

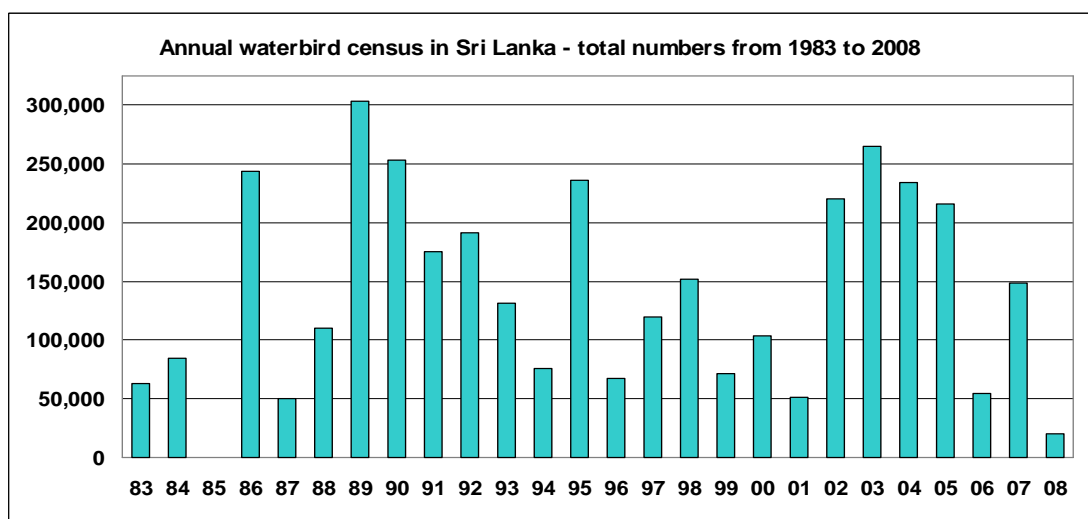
House Crow *Corvus splendens* Very common breeding resident.

Annex 7: VANKALAI SANCTUARY WATERBIRD STATISTICS

(Source: Ceylon Bird Club)

The table below shows the relevant records from the annual waterbird censuses from 2002 to 2010. The last column shows the population for each given species, and for the site, to qualify as a Ramsar Site under Criteria 5 and 6. Note that there may be Eurasian Wigeon also among the unidentified ducks and Black-tailed Godwit also among the unidentified shorebirds.

	2002	2003	2004	2005	2006	2007	2010	Ramsar level
Greater Flamingo <i>Phoenicopterus roseus</i>	4,000	5,000	-	2,000	550	200	1,500	2,900
Eurasian Wigeon <i>Anas penelope</i>	12	450	5,000	12	-	-	56,000	2,500
Northern Pintail <i>Anas acuta</i>	50	95,000	5,000	90,000	46	300	24,000	100,000
Unidentified ducks	-	5,000	-	-	-	-	-	
Black-tailed Godwit <i>Limosa limosa</i>	-	3,000	50	16	432	73	-	1,000
Unidentified shorebirds	4,500	10,300	2,150	-	22	140	500	
Total of all waterbirds counted at the site	11,395	120,134	12,658	92,223	2,626	2,204	82,653	20,000
Total of all waterbirds counted in Sri Lanka	219,872	265,069	234,648	216,250	54,500	148,873	Not yet calculd.	
Remarks	Part of site only	-	-	Heavy rain at site: Water level very high			-	



The general fluctuations in the period 1983 to 2008 seen in the chart above are due to natural reasons, although in a few years omission of the census in certain or all areas due to the security situation has lowered numbers. Separate sites within Sri Lanka, such as the Vankalai Sanctuary, are also subject to such natural fluctuations.

Annex 8: LIST OF FOOD FISH IN THE MARINE AND COASTAL WETLANDS IN THE VANKALAI SANCTUARY AREA

Family	Species	Common name
Hemiscyllidae	<i>Chiloscyllium griseum</i>	Grey bamboo shark
Carcharhinidae	<i>Carcharhinus sp.</i>	Shark species
Myliobatididae	<i>Aetobatus narinari</i>	Spotted eagle ray
	<i>Rhinoptera javanica</i>	Javanese cownose ray
Chanidae	<i>Chanos chanos</i>	Milkfish
Charangidae	<i>Alectis ciliaris</i>	African pompano
	<i>Caranx sexfasciatus</i>	Bigeye Trevally
	<i>Crangoides sp</i>	Travally species
	<i>Scomberoides sp.</i>	Queenfish species
Chiclidae	<i>Etroplus suratensis</i>	Pearl Spot
Clupidae	<i>Nematolosa nasus</i>	Bloch's gizzard shad
		Bleeker's smoothbelly
	<i>Amblygaster clupeioides</i>	sardinella
	<i>Sardinella gibbosa</i>	Goldstripe sardinella
	<i>Thryssa hamiltoni</i>	Hamilton's thryssa
Engraulidae	<i>Stolephorus indicus</i>	Indian anchovy
Lutjanidae	<i>Lutjanus argentimaculatus</i>	Mangrove red snapper
	<i>Lutjanus ehrenbergii</i>	Ehrenberg's snapper
Scatophagidae	<i>Scatophagus argus</i>	Spotted scat