Avifaunal Composition of Point Calimere Wildlife and Bird Sanctuary

T.P. Bhattacharyya
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Conservation Area Series : 31

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AVIFAUNAL COMPOSITION OF POINT CALIMERE WILDLIFE AND BIRD SANCTUARY, TAMIL NADU

Conservation Area Series

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INTRODUCTION

Point Calimere Wildlife and Bird Sanctuary encompassing the great Vedaranyam Swamp extends from Point Calimere (10°18'N; 79°51'E) in the north to Adirampattinam (10°21'N; 79°25'E) in the south in Nagapattinam district, Tamil Nadu, India. The region is bounded by Salt Pans in the west and north, Bay of Bengal in the east and Palk Strait in the south. The detailed avifaunal list of this Sanctuary is not available except a few short publications (Ali 1963; Daniel 1967; Sugathan 1982; Natarajan 1992; Natarajan et. al. 1990; Manakadan 1993). As a part of the fauna of conservation area programme, Zoological Survey of India took up this project and conducted one field survey to this area during the period from 01.01.2005 to 14.01.2005. The present report is prepared based on actual sighting during field survey and earlier published records. For systematic account Ali and Ripley (1983) has been followed here.

STUDY AREA

The Point Calimere Wildlife and Bird Sanctuary forms the apex of cauvery delta. Only human habitations in the area are at Kodikkarai and Kodikkadu villages. Kodikkarai was connected by a branch line of Southern Railway since 1936, but the services were suspended from 1982. A motorable road connects the Sanctuary with Vedaranyam, the nearest town, situated at a distance of about 11 km. Both the railway line and the road run through the forest.

The forest of the Sanctuary is dry evergreen type and is situated on a low promontory on the coromandel coast at the meeting point of Palk Strait and Bay of Bengal. Due to interplay of high wind and fluvial processes sand dunal formations occurring in this area are unstable and dynamic in the costalfore dune area. The dunes occurring farthest from the coast are further stabilised by vegetations. A series of different types of vegetations were observed on these formations from coastal halophytic, successional scrub to highly evolved dry evergreen type which were found on the stable dune ridges. Interdunal lowlying areas form the drainage channels. The largest and deepest of these channels Peralam and Chinnanadu Pallam retain rainwater for longer periods. Muniappan Lake is a freshwater lake of the Sanctuary. Mangrove and backmangrove species of plants were found on its bank. In addition to these waterbodies most of the lowlying areas in the coastal grassland area are inundated by fresh water from upland run off during monsoon periods. The dune slacks and lowlying areas have excellent coastal meadow grasslands.
The entire swamp area is screened off from sea by a long sandabar breached at various places by inlets and outlets for water flow. Five freshwater channels empty into the swamp maintaining the freshwater content of the lagoons. The nature of the swamp habitat varies seasonally. During north east monsoon swamp remains filled with water and dries up during summer.

Many species of migratory waterbirds visit the swamps as well as costal areas of this Sanctuary during winter. Of these the wading birds egrets and herons, belonging to the order Ciconiiformes, occur throughout the year. The wading birds have been proposed as indicators of the quality of the ecosystem (Custer and Osborn 1978).

**HISTORICAL BACKGROUND**

The actual control of the area was with the Revenue Department. It was handed over to the Forest Department in the year 1907. The forest of Point Calimere with an area of 1729 ha consisting whole of Kodikkadu Reserve Forest and Kodikkadu Extension Reserve Forest was finally notified in the year 1938 and the same was declared as Point Calimere Sanctuary in the year 1967. In the year 1988 it was proposed to include the Great Vedaranyam Swamp where the waterbirds concentrate and also the Thalainayar Reserve Forest together with its surrounding swamps with a total area of about 36000 ha within the Sanctuary and be renamed as Point Calimere wildlife and Bird Sanctuary.

**CLIMATE**

The climate of the area is monsoonal. But it is not typical of tropical monsoonal climates due to its assymmetrical rainfall regimes. It is characterised by a wet season of six months, followed by a dry season for rest of the months. Eventhough, some rain occurs during the southwest monsoon, the main contribution to the total rainfall is from the northeast monsoon. The northeast monsoon in the Bay of Bengal resulting in cyclonic storms which bring rains. As a result, except in February, there are rainfall in varying quantum in almost all the months of the year. The average rainfall ranges from 1000 to 1500 mm. per year.

The presence of rain practically throughout the year is a significant factor in supporting plant species in the forest habitat and finally supporting wildlife habitat.

**SOIL**

The soil along the shore area is silty loam and in the mud flats it is clay-silt. Towards the landward side where the freshwater channels bring in fresh silt, deposits the soil which is in a rich clay siltloose formation.
METHODOLOGY

The entire area of the sanctuary was covered on foot on a number of occasions throughout the day at different times and also in the night. Birds observed were identified with the help of 7 x 50 binocular. During night a high power head light was used to locate the nocturnal birds and to identify them. Observations were recorded as per Emlen (1971).

SYSTEMATIC ACCOUNT

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<td>PODICIPITIFORMES</td>
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1. *Podiceps ruficollis capensis* Salvadori

**Common names:** Little Grebe or Dabchick (Eng.); Mukkulippam, Tanni pullu (Tamil).

**Habits:** Resident, shifting locally due to drought and flood. Keeps in pairs or small scattered parties. Affects mainly freshwater wetlands. Feeds on fish, frogs, tadpoles, molluscs, crustaceans and aquatic insects.

**Remarks:** Common. A number of birds were seen in different aquatic habitats. Breeds between December and February.

<table>
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<th>Order</th>
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2. *Pelecanus philippensis* Gmelin

**Common names:** Spottedbilled Pelican or Grey Pelican (Eng.); Kulakeda (Tamil).

**Habits:** Widespread resident. Keeps in flocks, in association with other waders. Affects large inland and coastal waters. Feeds mainly on fishes.

**Remarks:** Moderately common. Only a flock of twentyeight birds was seen once in coastal waterbodies. Breeds between November and March.

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<th>Family</th>
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<td>PHALACROCORACIDAE</td>
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3. *Phalacrocorax niger* (Vieillot)

**Common names:** Little Cormorant (Eng.); Kadal kagam, Neer kagam (Tamil).

**Habits:** Resident, moving locally with conditions of water. Keeps singly or in pairs in village tanks to great flocks in tidal estuaries and larger inland waters. Feeds mainly on fish; to a lesser extent also takes tadpoles, small frogs and crustaceans.
Remarks: Common. A number of birds were seen at Muniappan Lake and other wetland and marshy areas of the sanctuary. Breeds between November and February.

4. *Anhinga rufa melanogaster* Pennant

*Common names:* Darter or Snake-bird (Eng.); Pambuttara (Tamil).

*Habits:* Resident, with local movements depending on water conditions. Occurs singly or in pairs, only rarely in small or large flocks. Frequents inland waters and feeds exclusively on fish, occasionally swallows too large ones.

*Remarks:* Moderately common. Only six birds could be seen in wetland areas throughout the survey period. Breeds between November and February. Population is feared to be decreasing all over the country.

Order CICONIIFORMES
Family ARDEIDAE

5. *Ardea cinerea* Linnaeus

*Common names:* Grey Heron (Eng.); Narai, Sambal narai (Tamil).

*Habits:* Resident. Keeps singly or in small parties. Largely crepuscular, hunting in early morning and at dusk. Affects jheels, marshes, rivers; also tidal creeks, estuaries, mangrove swamps and coastal backwaters. Feeds on fish, frog, molluscs, crustaceans and aquatic insects.

*Remarks:* Common. A number of birds were seen in different marshy areas. Breeds between November and March.

6. *Ardea purpurea* Linnaeus

*Common names:* Purple Heron (Eng.); Chennarai (Tamil).

*Habits:* Resident and local migrant. Generally salitary. Largely crepuscular, shy, feeds in dense aquatic vegetation on fish, frogs and aquatic insects during morning and evening.

*Remarks:* Common. A number of birds were seen in dense cover of tree tops inside Muniappan Lake. Breeds between November and March.

7. *Butorides striatus javanicus* (Horsfield)

*Common names:* Little Green Heron (Eng.); Dossi kokku (Tamil).

*Habits:* Resident. Keeps singly. Crepuscular and nocturnal, also active during daytime.
in cloudy weather. Affects rivers, lakes, rice fields and marshes with dense vegetation on the banks. Feeds on fish, frogs, crabs and aquatic insects.

**Remarks**: Common. A number of birds were seen in different suitable habitats. Breeds between March and September.

8. *Ardeola grayii* (Sykes)

*Common names*: Indian Pond Heron, Paddybird (Eng.); Kulathu kokku, Kuruthu kokku, Madayan (Tamil).

*Habits*: Usually singly or in small parties. Feeds on frogs, fish, crustaceans, water beetles, mud skippers and other insects near water bodies and tidal swamps. Resident, shifting locally with drought and flood conditions.

**Remarks**: Very common. A good number of birds were seen near waterbodies. Breeds between November and February.

9. *Bubulcus ibis coromandus* (Boddaert)

*Common names*: Cattle Egret (Eng.); Unni kokku (Tamil).

*Habits*: Widespread resident. Gregarious. Keeps in small to large flocks. Usually found in association with grazing village livestocks and also in inundated ploughed fields. Feeds chiefly on insects; also takes tadpoles, frogs and lizards.

**Remarks**: Common. A number of birds were seen in different habitats. Breeds between November and February.

10. *Ardea alba modesta* J.E. Gray

*Common names*: Eastern Large Egret (Eng.); Peria kokku (Tamil).

*Habits*: Generally solitary. Feeds communally near jheels and marshy ares on fish, frogs, crustaceans and aquatic insects. Resident, shifting locally with water conditions.

**Remarks**: Common. A number of birds were seen near waterbodies. Breeds between November and February.

11. *Egretta intermedia* (Wagler)

*Common names*: Smaller or Median Egret (Eng.), Vellai kokku (Tamil).

*Habits*: Resident. Found in small flocks. Feeds on fish, frogs, crustaceans and aquatic insects near jheels, marshes, inundations; also near costal backwaters, tidal estuaries and mangrove swamps.
Remarks  Common. A good number of birds were seen near waterbodies. Breeds between November and February.

12. *Egretta garzetta* (Linnaeus)

*Common names*: Little Egret (Eng.); Chinna kokku (Tamil).

*Habits*: Found in flocks. Feeds on fish, frogs, crustaceans and water insects near marshes, jheels, inundated paddyfields, etc. Resident but shifting locally with water conditions.

*Remarks*: Very common. A good number of birds were seen near waterbodies. Breeds between November and February.

13. *Egretta gularis schistacea* (Hemprich & Ehrenberg)

*Common names*: Indian Reef Heron (Eng.); Karai kokka, Karpu kallavayan (Tamil).

*Habits*: Resident, nomadic and local migrant. Solitary and crepuscular; sits by hunching and runs around for hunting. Affects rocky seashore, estuaries, lagoons and mangroves. Feeds on fish, molluscs and crabs.

*Remarks*: Common. A number of birds were seen near seashores and wetland areas of the sanctuary. Breeds between April and August.

14. *Nycticorax nycticorax* (Linnaeus)

*Common names*: Night Heron (Eng.); Vakka (Tamil).

*Habits*: Resident, patchily distributed throughout India. Gregarious, nocturnal or crepuscular except in breeding season. Roosts on dense trees during day time, often at dusk. Affects reservoirs, jheels, tanks, streams, ponds and rivers. Feeds on fish, frogs, aquatic insects and odonata larvae.

*Remarks*: Very common. A large flock of more than hundreds were found roosting on dense tree tops bordering a small pond near Muniappan Lake. Breeds between December and February.

15. *Ixobrychus cinnamomeus* (Gmelin)

*Common names*: Chestnut Bittern (Eng.); Kuruttu kokku (Tamil).

*Habits*: Resident, nomadic, non-gregarious and crepuscular. Keeps singly or in pairs. Affects reddy beds of jheels, marshes, paddy fields and tidal mangroves. Feeds on fish, frog, molluscs and insects in large quantity.
Remarks: Uncommon: Only two birds could be seen throughout the survey period in marshy bush of Black Buck enclosure of the sanctuary. Breeds between June and September when monsoon rains have well set in.

16. *Ixobrychus flavicollis* (Latham)

*Common names*: Black Bittern (Eng.); Karuppu narai (Tamil).


Remarks: Moderately common. Four birds were seen throughout the survey period in the aquatic bushes of Muniappan Lake area of the sanctuary. Breeds between June and September during SW monsoon.

Family CICONIIDAE

17. *Mycteria leucocephala* (Pennant)

*Common names*: Painted Stork (Eng.); Chenga narai, Sanguvalai narai (Tamil).

*Habits*: Resident, shifting locally with water conditions. Keeps in pairs or small parties. Feeds mainly on fish; also takes reptiles, frogs, crustaceans and insects. Affects inland marshes, jheels, inundated fields and river banks.

Remarks: Common. A number of birds were seen at Muniappan Lake and other marshy areas of the sanctuary. Breeds between November and March but variable, dependant on monsoon conditions.

18. *Anastomus oscitans* (Boddaert)

*Common names*: Openbill Stork (Eng.); Naththai kuththi narai (Tamil).

*Habits*: Resident, shifting locally with water conditions. Keeps singly or in small parties. Affects jheels, marshes, shallow wetlands, paddyfields and riverbeds. Feeds on molluscs, crabs, fishes, frogs and other small animals.

Remarks: Moderately common. Only five birds could be seen throughout the survey period in different habitats. Breeds between November and March.

19. *Ciconia episcopus* (Boddaert)

*Common names*: Whitenecked Stork (Eng.); Vannathi narai (Tamil).
Habits: Resident. Keeps singly, in pairs, or small parties. Affects flooded grassland, fallows, irrigated ploughed fields, rain-filled ponds, banks of streams, marshes and rivers. Feeds on frogs, reptiles, aquatic insects, molluscs and fish.

Remarks: Moderately common. Only four birds could be seen throughout the survey period near marshy areas. Breeds between December and March.

20. *Ciconia ciconia* (Linnaeus)

Common name: White Stork (Eng.).

Habits: Winter visitor. Keeps in pairs or small parties. Affects jheels, marshy areas, wet grassland and moist ploughed fields. Feeds on frogs, reptiles, crustaceans, young rodents, fish and orthopteran insects.

Remarks: Rare. Manakadan (1993) reported its occurrence in the sanctuary. We could not see any during entire survey period there. Breeds in Palaearctic north to 60°N latitude; N Africa and W Asia between March and May.

Family THRESKIORNITHIDAE

21 *Threskiornis aethiopica melanocephala* (Latham)

Common names: White Ibis (Eng.); Thalaikaththi chondan (Tamil).

Habits: Resident, nomadic. Keeps in moderate to large flocks in company with other waders. Affects river, jheels, marshes, tidal mudflats, brackish lagoons and paddy fields. Feeds on fish, frogs, molluscs and aquatic insects.

Remarks: Moderately common. Only seven birds could be seen throughout the survey period in marshy land. Breeds between November and February.

22. *Pseudibis papillosa* (Temminck)

Common names: Indian Black Ibis (Eng.); Thalaikaththi chondan (Tamil).


Remarks: Common. A number of birds were seen throughout the survey period in different habitats. Breeds between June and November.

23. *Plegadis falcinellus* (Linnaeus)

Common names: Glossy Ibis (eng.); Karappu kottan (Tamil).
**Habits:** Winter visitor. Gregarious nomadic and shy. Keeps in small to large flocks. Affects marshland or shallow waters. Feeds on molluscs, crustaceans and aquatic insects.

**Remarks:** Uncommon. Only a group of four birds were seen throughout the survey period in a marshy land. Breeds in N India between May and July.

### 24. Platalea leucorodia Linnaeus

**Common names:** Spoonbill (Eng.); Karandi mukh nare, Chappai chondan (Tamil).

**Habits:** Partly resident and nomadic, partly winter visitor. Affects marshes, jheels, rivers, tidal creeks and mangrove swamps. Keeps in small parties or flocks of fifty or more. Feeds on small fish, tadpoles, frogs, molluscs, crustaceans, aquatic insects and vegetable matters actively in mornings and evenings than during day time, and is partly nocturnal.

**Remarks:** Very common. A number of flocks of fifties or more were found in marshy areas of the sanctuary. Breeds between November and January.

**Family PHOENICOPTERIDAE**

### 25. Phoenicopterus roseus Pallas

**Common names:** Flamingo (Eng.); Pun narai, Urian (Tamil).

**Habits:** Resident and locally migratory; also extralimital migrant in part. Highly gregarious, keeps in small or large flocks. Affects shallow brackish lakes, mudflats and saltpans, estuaries and freshwater jheels. Feeds on chironomid larvae, small molluscs, crustaceans and seeds of aquatic plants.

**Remarks:** Common. A number of flocks of several hundreds were found in the mudflats of the sanctuary. Breeds between September and April in the Great Rann of Kutch, the only known nesting ground within our country.

**Order ANSERIFORMES**

**Family ANATIDAE**

### 26. Dendrocygna javanica (Horsfield)

**Common names:** Lesser whistling Teal or Tree Duck (Eng.); Chilla thara (Tamil).

**Habits:** Resident, nomadic. Gregarious, sociable, keeps in small to large flocks. Affects freshwater wetlands. A nocturnal feeder - feeds on aquatic weeds, tender shoots, cultivated or wild gains; also takes fish, frogs, molluscs and insects.
Remarks: Common. A number of birds were seen roosting on trees near water of Muniappan Lake. Breeds between June and October.

27. *Tadorna ferruginea* (Pallas)

*Common names*: Ruddy Shelduck, Brahminy Duck (Eng.); Thara (Tamil).


Remarks: Uncommon. Only a pair was seen throughout the survey period in 'Muniappan Lake' area. Breeds between May and June from Morocco to C Siberia and N Japan. Within Indian limit breeds in Ladakh above 4000 m.

28. *Anas acuta* (Linnaeus)

*Common names*: Pintail (Eng.); Markalian (Tamil).

*Habits*: Common winter visitor. Keeps in large flocks near lakes, marshes, reedy and vegetation covered jheels, wet paddy fields and rivers. Largely a crepuscular and nocturnal feeder and roosts during day. Feeds on grass, corns, shoots, seeds of aquatic plants and other vegetative matters. Also takes to a lesser extent molluscs, worms, aquatic insects and their larvae.

Remarks: Very common. A number of flocks of several hundreds were seen in different wetlands of the sanctuary. Breeds in northern parts of Europe, Asia and N America.

29. *Anas crecca* Linnaeus

*Common names*: Common Teal (Eng.); Siravi, Kilawai (Tamil).


Remarks: Moderately common. A group of eight birds was only seen once throughout the survey period in Muniappan Lake area. Breeds in Europe and N and NE Asia.

30. *Anas poecilorhyncha* J.R. Forster

*Common name*: Spotbill Duck (Eng.).

*Habits*: Resident nomadic, and occasionally migratory. Usually seen in pairs, family
parties, or small flocks. Affects freshwater vegetation covered jheels, lakes, marshes, reservoirs, tanks and rarely on rivers. Feeds mainly on vegetative matters - aquatic plants, their seeds and arable crops; occasionally also takes aquatic insects, their larvae, worms and molluscs.

**Remarks** : Common. A good number of birds were seen in freshwater wetlands of the sanctuary. Breeds between November and December depending largely on water conditions.

31. *Anas penelope* Linnaeus

*Common name*: Wigeon (Eng.).

**Habits**: Winter visitor. Gregarious, keeps in flocks. Affects shallow reedy jheels and marshes. Feeds on vegetable matters; also takes aquatic insects and their larvae, and molluscs.

**Remarks** : Uncommon. Only six birds could be seen throughout the survey period in marshy land. Breeds in Eurasia in temperate region north to Arctic Circle and beyond.

32. *Anas querquedula* Linnaeus

*Common name*: Garganey or Bluewinged Teal (Eng.).

**Habits**: Winter visitor. Gregarious, keeps in flocks. Affects every type of water bodies jheels, marshes, village tanks, coastal backwaters, laggons and paddy fields. Feeds on seeds, arable crops; also aquatic insect larvae, worms and molluscs.

**Remarks** : Uncommon. Only one flock of six birds could be seen throughout the survey period in marshy areas. Breeds across Palaearctic from Britain to Pacific.

33. *Anas clypeata* Linnaeus

*Common names*: Shoveller (Eng.). Mattimukh cherevi, Thara (Tamil).

**Habits**: Winter visitor. Usually keeps in small parties in association with other teals. Affects all types of shallow freshwaters. Feeds on molluscs, crustaceans, insect larvae, worms and aquatic plants.

**Remarks** : Moderately common. About twenty birds were seen in different freshwater bodies throughout the survey period. Breeds in Europe, N Asia and N America.

34. *Aythya ferina* (Linnaeus)

*Common names*: Common Pochard (Eng.); Sengalian (Tamil).

Remarks: Uncommon. Only a group of six birds were seen once throughout the survey period in Muniappan Lake. Breeds in W Europe to E Siberia.

Order FALCONIFORMES
Family ACCIPITRIDAE

35. *Milvus migrans goynthia* Sykes

Common names: Pariah Kite (Eng.); Paria parundu, Kalu parundu (Tamil).

Habits: Found singly or in pairs. Largely omnivorous. An efficient scavanger, haunting the precincts of slaughter houses, fish markets, refuge dumps, markets and harbours. Resident with local migration from heavy rainfall localities to drier areas.

Remarks: Common. A number of birds were seen near human habitations. Breeds between September and April.

36. *Haliastur indus* (Boddart)

Common names: Brahminy Kite (Eng.); Sem parundu, Krishna Parundu (Tamil).

Habits: Live in pairs. Feeds on fish, frogs, crabs, lizards, small snakes, insects, small birds, etc. near tidal creeks, fishing villages, docks, reservoirs, rivers, jheels, inundated rice-fields and flooded areas. Resident, with some local movements governed by monsoon and water conditions.

Remarks: Common. A number of birds were seen nesting on tree tops. Breeds between December and March.

37. *Accipiter badius* (Gemlin)

Common name: Indian Shikra (Eng.).


Remarks: Uncommon. Only two birds were seen flying up in the air. Breeds between April and May.
38. **Accipiter nisus** (Linnaeus)

*Common name*: Asiatic Sparrow-Hawk (Eng.).

*Habits*: Sparse winter visitor. Usually solitary. Affects well wooded, broken and foot hills country, light forests, groves and orchards. Feeds mainly on birds and other animals about its own size and weight.


39. **Hieraaetus pennatus** (Gmelin)

*Common names*: Booted Hawk-Eagle (Eng.); Punja parandu, Rasali, Kalugu (Tamil).

*Habits*: Winter visitor. Keeps in pairs. Affects well-wooded country; also groves and trees around habitations and cultivation. Feeds on small mammals, birds and reptiles.

*Remarks*: Moderately common. Only four birds could be seen throughout the survey period in forest trees. Breeds in Baluchistan and Himalayas between March and June.

40. **Aquila rapax** (Temminck)

*Common name*: Eastern Steppe Eagle (Eng.); Ali (Tamil).


*Remarks*: Rare. Natarajan et al. (1990) observed a single specimen near old Forest Rest House. We could not observe any during survey trips there. Breeds in Altai to Mongolia and SE Siberia.

41. **Circus aeruginosus** (Linnaeus)

*Common names*: Marsh Harrier (Eng.); Poonai parundu (Tamil).


*Remarks*: Uncommon. Only two birds could be seen throughout the survey period in marshy areas. Breeds in S Sweden and Denmark during April to June.

42. **Spilornis cheela** (Latham)

*Common names*: Crested Serpent Eagle (Eng.); Kudumiyan (Tamil).
Habits  Resident, subject to local migration. Keeps singly or in pairs. Affects wooded streams, edge of forest, cultivation and jungle-clad ravines. Feeds on snakes, frogs, lizards, rats, mice, small birds, crabs and fishes.

Remarks: Uncommon. Only a pair of birds could be seen throughout the survey period in forested areas of the sanctuary. Breeds between December and March.

Family FALCONIDAE

43. *Falco biarmicus* Temminck

*Common name*: Laggar Falcon (Eng.).


Remarks: Uncommon. Only three birds could be seen throughout the survey period perched on tree-tops near cultivated land of the sanctuary area. Breeds between January and April.

44. *Falco peregrinus* Tunstall

*Common names*: Shaheen Falcon (Eng.); Valluru (Tamil).

*Habits*: Resident. Keeps singly or in pairs. Affects the neighbourhood of jungles, rivers, jheels, costal marshes and lagoons. Feeds mainly on birds - hunting after dawn and again in late afternoon and dusk.

Remarks: Moderately common. Only four birds could be seen throughout the survey period perching on tree tops near marshes. Breeds between January and April.

Order GALLIFORMES
Family PHASIANIDAE

45. *Francolinus pondicerianus* (Gmelin)

*Common names*: Grey Partridge (Eng.); Kondari, Kauthari (Tamil).

*Habits*: Resident. Keeps in pairs or small family parties. Affects scrub and grassland near villages and cultivation, also forest bushes. Feeds on seeds, grains, grass shoots, crop plants, berries and insects.

Remarks: Moderately common. Only five birds could be seen throughout the survey period in forest bushes. Breeds between April and September.
46. **Coturnix coromandelica** (Gmelin)

*Common names*: Blackbreasted or Rain Quail (Eng.); Kadai (Tamil).

*Habits*: Resident, nomadic or locally migratory. Keeps singly or in scattered pairs. Affects grassland, scrub jungle, standing crops and paddyfields. Feeds on paddy, millets, grains, seeds and insects.

*Remarks*: Uncommon. Only a pair was seen throughout the survey period near 'Ramrapadam'. Breeds between March and October.

47. **Perdicula asiatica** (Latham)

*Common names*: Jungle Bush Quail (Eng.); Kadai (Tamil).


*Remarks*: Uncommon. Only two birds could be seen throughout the survey period in forest bushes. Breeds between February and April.

48. **Galloperdix spadicea** (Gmelin)

*Common names*: Red spurfowl (Eng.); Sarawa kozhi (Tamil).


*Remarks*: Uncommon. Only a pair could be seen throughout the survey period in bushes of Muniappan Lake. Breeds between January and June.

49. **Pavo cristatus** Linnaeus

*Common names*: Indian Peafowl (Eng.); Mayil (Tamil).

*Habits*: Resident. Keeps in small flocks consisting usually of a cock and 3 to 5 hens. Affects forest undergrowth in wild; villages and cultivation where semiferal. Feeds on vegetative matters, centipeds, scorpions, lizards, small snakes and insects.

*Remarks*: Common. A number of birds were seen in different areas. Breeds between April and May.
Order GRUIFORMES
Family TURNICIDAE

50. *Turnix tanki* Blyth

*Common name:* Yellowlegged Button Quail (Eng.).


*Remarks:* Moderately common. Only three birds could be seen throughout the survey period. Breeds between July and September.

51. *Turnix suscitator* (Gemelin)

*Common names:* Bustard-Quail (Eng.); Kurung kadik, Ankadik (Tamil).

*Habits:* Resident, nomadic. Keeps singly or in pairs. Affects grassland and scrub jungle, light deciduous forest. Feeds on vegetative matters and small insects.

*Remarks:* Uncommon. Only a single bird could be seen throughout the survey period in Black Buck enclosure. Breeds between June and October.

Family RALLIDAE

52. *Prozana fusca* (Linnaeus)

*Common names:* Ruddy Crake (Eng.); Kanan kozli (Tamil).

*Habits:* Resident with partial migration during winter. Keeps in pairs. Affects reeds and bushes on the edge of flooded fields, swamps and jheels; also canal banks and marshes. Feeds on aquatic insects and their larvae, molluscs, seeds and shoots of marsh plants.

*Remarks:* Moderately common. Only six birds could be seen throughout the survey period in different marshy areas. Breeds between June and September.

53. *Amourornis phoenicurus* (Pennant)

*Common names:* Whitebreasted Waterhen (Eng.); Kanan kozhi (Tamil).

Remarks: Common. A number of birds were seen in the wetland bushes of the sanctuary and also even found running to cross the other side of the forest. Breeds between July to October but is mainly coincident with the SW monsoon.

54. Gallinula chloropus (Linnaeus)

Common names: Indian Moorhen (Eng.); Tannir kozhi, Kanan koli (Tamil).

Habits: Resident and partly winter visitor. Keeps in pairs or small parties. Affects jheels, swamps, marshes, lakes, ponds, village tanks and ditches. Feeds on aquatic plants, molluscs, insects, small fish and forgs.

Remarks: Moderately common. Only six birds could be seen throughout the survey period in Muniappan Lake area. Breeds between July and September during monsoon months.

55. Porphyrio porphyrio Linnaeus

Common names: Indian Purple Moorhen (Eng.).


Remarks: Moderately common. Only five birds could be seen throughout the survey period in a marshy area inside the 'Black Buck' enclosure. Breeds between November and January.

Order CHARADRIIFORMES
Family JACANIDAE

56. Hydrophasianus chirurgus (Scopoli)

Common names: Pheasant-tailed Jacana (Eng.); Manal pura, Miwa (Tamil).

Habits: Resident. Keeps in small flocks. Affects fresh water wetlands, village tanks and jheels. Feeds on aquatic insects and their larvae; also takes molluscs and aquatic insects.

Remarks: Moderately common. Six birds could be seen throughout the survey period in different waterbodies. Breeds between March and July.

57. Metopidius indicus (Latham)

Common names: Bronzewinged Jacana (Eng.).

Remarks: Moderately common. Only four birds could be seen throughout the survey period in different waterbodies. Breeds between June and September.

Family CHARADRIIDAE
Subfamily CHARADRIINAE

58. Vanellus indicus (Boddaert)

Common names: Redwattled Lapwing (Eng.); Alkatti (Tamil).


Remarks: Common. A number of birds were seen in different areas of the sanctuary. Breeds between April and August.

59. Vanellus malabaricus (Boddaert)

Common names: Yellow-wattled Lapwing (Eng.); Alkatti (Tamil).


Remarks: Common. Found throughout the sanctuary in suitable habitats. Breeds between March and July.

60. Pluvialis squatarola (Linnaeus)

Common names: Blackbellied or Grey Plover (Eng.); Kottan (Tamil).

Habits: Winter visitor. Gregarious, keeps in pairs or parties. Affects sandy seashore, tidal mudflats, estuaries and creeks. Feeds on insects, molluscs, crustaceans and worms; rarely takes marsh plants and seeds.

Remarks: Moderately common. Only a group of six birds were seen throughout the survey period in mudflats. Breeds in Arctic tundra of Europe and Asia between June and July.

61. Pluvialis dominica fulva (Gmelin)

Common names: Eastern Golden Plover (Eng.); Kottan (Tamil).

Remarks: Common. A number of birds were seen in the marshy areas of the sanctuary. Breeds in N Siberia and W. Alaska.

62. Charadrius leschenaultii Lesson

Common name: Large Sand Plover (Eng.).


Remarks: Moderately common. Only six birds could be seen throughout the survey period in mudflats. Breeds in C Asia from Iran to Japan.

63. Charadrius asiaticus Pallas

Common names: Caspian Sand Plover (Eng.).


Remarks: Rare. Only a pair could be seen throughout the survey period near edge of water of the southern boundary of the sanctuary. Breeds in SE Russia to E Iran.

64. Charadrius dubius Scopoli

Common names: Little Ringed Plover (Eng.); Sinna kottan (Tamil).


Remarks: Common. A number of birds were seen in different marshy area of the sanctuary. Breeds between March and May.

65. Charadrius alexandrinus Linnaeus

Common names: Kentish Plover (Eng.); Sinna kottan (Tamil).

Habits: Winter visitor. Keeps in parties or flocks, mixed with other waders. Affects the seacoast, riverbanks and mudflats. Feeds on insect and small crabs.

Remarks: Common. A number of birds were found feeding with other waders in the marshy areas. Breeds between April and July in N India and Pakistan.
66. **Charadrius mongolus** Pallas

*Common names*: Lesser Sand Plover (Eng.); Kottan (Tamil).


*Remarks*: Common. A number of birds were seen in different suitable habitats. Breeds in Ladakh, Kashmir, Tibet and NW China between June and July.

**Subfamily** **SCOLOPACINAE**

67. **Numenius phaeopus** (Linnaeus)

*Common names*: Whimbrel (Eng.); Kuthirai malai kottan (Tamil).


*Remarks*: Moderately common. Only seven birds could be seen throughout the survey period in different mudflats. Breeds in N Europe to western Siberia during May and June.

68. **Numenius arquata** (Linnaeus)

*Common names*: Curlew (Eng.); Kuthirai mallai kottan, Khudure kottan (Tamil).

*Habits*: Winter visitor. Keeps singly or in small groups in association with other waders. Affects tidal mudflats, sandy seashores, mangrove swamps, harbours, creeks and estuaries. Feeds on molluscs, crustaceans, mudskippers and insects.

*Remarks*: Uncommon. Only five birds could be seen throughout the survey period in the seashores of the sanctuary. Breeds in the Palaearctic region up to western Siberia.

69. **Limosa limosa** (Linnaeus)

*Common name*: Blacktailed Godwit (Eng.).

*Habits*: Winter visitor. Keeps singly or in small groups. Affects both freshwater and brackish habitats. Feeds on molluscs, crustaceans, worms and grass seeds.

*Remarks*: Moderately common. Four birds could be seen throughout the survey period in different habitats. Breeds in N and C Europe and W Asia between May and June.

70. **Tringa totanus** (Linnaeus)

*Common names*: Common Redshank (Eng.); Mali kottan, Segappu kal ullan (Tamil).
Habits: Winter visitor. Keeps solitary, in small parties or large flocks, often in association with other waders. Affects river banks, jheel margins, tidal creeks, salt pans and estuaries on the sea board. Feeds on molluscs, crustaceans, worms, aquatic insects and their larvae.


71. Tringa stagnitilis (Bechstein)

Common names: Marsh Sandpiper, Little Greenshank (Eng.).

Habits: Winter visitor. Keeps in parties or small flocks in company with other sandpipers. Affects swampy edges of freshwater ponds and jheels, inundated paddyfields; also to a lesser extent at brackish lagoons and tidal mudflats. Feeds on small molluscs, crustaceans, worms and insects.


72. Tringa nebularia (Gunnerus)

Common names: Greenshank (Eng.); Peria kottan (Tamil).

Habits: Winter visitor. Keeps singly or in small parties but rarely in flocks. Affects riverbanks, marshes, puddles, tanks and jheels, tidal creeks, costal lagoons and salt pans. Feeds on tadpoles, molluscs, crustaceans, worms and insects.

Remarks: Moderately common. Found in less number than Redshank throughout the marshy areas of the sanctuary. Breeds in N Europe and across N Asia.

73. Tringa ochropus Linnaeus

Common name: Green Sandpiper (Eng.).

Habits: Winter visitor. Keeps singly or in pairs. Affects jheels, village tanks, puddles, paddy fields; also tidal creeks, lagoons and salt pans. Feeds on molluscs, crustaceans, worms and aquatic insects.

Remarks: Moderately common. Only eight birds were seen throughout the survey period in salt pans of the sanctuary. Breeds in N Europe and Asia.

74. Tringa glareola Linnaeus

Common names: Wood or Spotted Sandpiper (Eng.); Kottan, Vaya ullan (Tamil).
Habits: Winter visitor. Keeps in small to large flocks. Affects jheels, wet paddyfields, marshes; also tidal creeks and mudflats on seaboard. Feeds on small fish, tiny molluscs, crustaceans, worms and insects.


75. *Tringa terek* (Latham)

Common names: Terek Sandpiper or Avocet-Sandpiper (Eng.).


Remarks: Rare. Natarajan (1992) reported its occurrence in the sanctuary. We could not observe any during our survey period there. Breeds in N Russia to Siberia between May and June.

76. *Tringa hypoleucus* Linnaeus

Common names: Common Sandpiper (Eng.); Kottan (Tamil).

Habits: Winter visitor. Keeps singly or in loose groups of 2-3. Affects inland water tanks, streams, ditches, paddy fields; also seashore, tidal mudflats and estuaries. Feeds on small molluscs, crustaceans and aquatic insects.

Remarks: Common. A number of birds were seen in different marshy land of the sanctuary. Breeds in Kashmir, Ladakh and Garhwal within Indian limits; all over Europe and Asia south of Tundra.

77. * Arenaria interpres * (Linnaeus)

Common names: Turnstone (Eng.); Kottan (Tamil).


Remarks: Uncommon. Only twelve birds in two flocks were seen in the mudflats throughout the survey period. Breeds in Arctic coasts and Tundra.

78. *Gallinago stenura* Bonaparte

Common names: Pintail Snipe (Eng.); Ullan kuruvi, Mor ullam (Tamil).
79. *Gallinago gallinago* (Linnaeus)

*Common names*: Common or Fantail Snipe (Eng.); Mor ullan, Ullan kuruvi, Korra kuthi (Tamil).

*Habits*: Winter visitor. Keeps singly or in small groups. Affects edges of jheels, marshes and harvested paddyfields. Feeds chiefly on worms, larvae and tiny molluscs.

*Remarks*: Uncommon. Only four birds could be seen throughout the survey period in Muniappan Lake of the sanctuary. Breeds in Himalayas during April and June.

80. *Gallinago minima* (Brunnich)

*Common names*: Jack Snipe (Eng.); Ullan (Tamil).


*Remarks*: Uncommon. Only five birds could be seen throughout the survey period in Muniappan Lake of the sanctuary. Breeds in N Europe and N Asia.

81. *Calidris alba* (Pallas)

*Common name*: Sanderling (Eng.).

*Habits*: Winter visitor. Keeps in small parties with other waders. Affects sandy seashore and tidal mudflats. Feeds on molluscs, small crustaceans and other small animals.

*Remarks*: Moderately common. Eight birds in two flocks were seen throughout the survey period in mudflats. Breeds in Arctic tundra.

82. *Calidris minuta* (Leister)

*Common names*: Little Stint (Eng.); Kosu ullan (Tamil).

Remarks: Common. A number of flocks were seen in different marshy areas of the sanctuary. Breeds in N Europe to Central Siberia.

83. *Calidris temminckii* (Leisler)

*Common names*: Temminck's Stint (Eng.); Kosu ullan (Tamil).

*Habits*: Winter visitor. Keeps singly or in loose small flocks. Affects tidal mudflats, coastal lagoons; inland freshwater marshes and river banks. Feeds on small molluscs, crustaceans and insects.

*Remarks*: Uncommon. Only ten birds in two flocks were seen in the marshy areas throughout the survey period. Breeds in N Europe and NW Asia.

84. *Calidris subminuta* (Midendorff)

*Common names*: Longtoed Stint (Eng.).

*Habits*: Winter visitor. Keeps in pairs or small parties in mixed flocks with other stints. Affects coastal wetlands, tidal mudflats and freshwater. Feeds on small molluscs, crustaceans and insects.

*Remarks*: Uncommon. Only two birds were seen throughout the survey period while feeding in association with other waders in Muniappan Lake. Breeds in E Siberia south to Kamchatka.

85. *Calidris alpina* (Linnaeus)

*Common name*: Dunlin (Eng.).


*Remarks*: Moderately common. Only a flock of six birds could be seen throughout the survey period feeding in the mudflats in association with other waders. Breeds in N Europe and N Asia during June - July.

86. *Calidris testacea* (Pallas)

*Common names*: Curlew Sandpiper (Eng.); Mookar ullan (Tamil).

*Habits*: Winter visitor. Keeps in flocks, often mixed with other waders. Affects seashore, tidal mudflats, creeks, salt pans, squelchy paddy fields and marshes. Feeds on molluscs, crustaceans, worms, chironomid larvae, insects; occasionally takes seed.
Remarks: Common. A number of birds were seen in different marshy area of the sanctuary. Breeds in N Asia upto N Siberia.

91. *Eurynorhynchus pygmaeus* (Linnaeus)

*Common names*: Spoonbilled Sandpiper (Eng.).

*Habits*: Winter visitor. Keeps singly or small flocks in association with other small waders. Affects muddy coasts and costal lagoons. Feeds on insects and minute crabs.


92. *Limicola falcinellus* (Pontoppidan)

*Common names*: Broadbilled Sandpiper (Eng.); Ullan (Tamil).

*Habits*: Keeps in flocks in association with other water birds. Affects the costal area, tidal mudflats, muddy creeks and brackish lagoons, and sand banks of large rivers. Feeds on molluscs, worms, tiny gastropods, insects; also small quantity of seeds. A winter visitor to India.

Remarks: Common. More than hundred bird were seen in two flocks near mudflats. Breeds in N Europe and western Siberia.

93. *Philomachus pugnax* (Linnaeus)

*Common name*: Ruff (Eng.).


Remarks: Uncommon. Only four birds could be seen in Muniappan Lake throughout the survey period. Breeds across Palaearctic from N Europe, N. Africa to Tundra in the east.

Subfamily PHALAROPINAE

94. *Phalaropus lobatus* (Linnaeus)

*Common name*: Rednecked Phalarope (Eng.).

Remarks: Rare. Natarajan (1992) reported its occurrence in the sanctuary. We could not observe any bird during our survey period there. Breeds circumpolar in Arctic zone.

Family ROSTRATULIDAE

95. Rostratula benghalensis (Linnaeus)

Common names: Painted Snipe (Eng.); Myle ulan, Ullan kuruvi (Tamil).


Remarks: Common. A number of birds were seen in different habitats of the sanctuary. Breeds mainly between December and February.

Family RECURVIROSTRIDAE

96. Himantopus himantopus (Linnaeus)

Common names: Blackwinged Stilt (Eng.); Paville kal ullan (Tamil).

Habits: Widespread resident, subject to local movements; partly winter visitor. Gregarious, keeps in small parties with other waders. Affects freshwater and brackish water marshes, jheels, village tanks, lagoons and salt-pans. Feeds on molluscs, worms, aquatic insects; also takes seeds of aquatic vegetation.

Remarks: Common. A number of birds were seen in different aquatic habitats. Breeds between April and August.

97. Recurvirostra avocetta Linnaeus

Common names: Avocet (Eng.); Kuni arichichan (Tamil).


Family DROMADIDAE

98. Dromas ardeola Paykull

Common name: Crab Plover (Eng.).
Habits: Winter visitor. Keeps singly, in pairs or small parties. Affects tidal mudflats, lagoons, estuaries and seashore. Usually crepuscular, feeds chiefly on crabs; also crustaceans and other small aquatic animals.

Remarks: Uncommon. Only two birds could be seen throughout the survey period near sea shore area of the sanctuary. Breeds in Persian Gulf Islands during May and June.

Family BURHINIDAE

99. Burhinus oedicnemus (Linnaeus)

Common names: Stone Curlew (Eng.); Musal kinandi (Tamil).

Habits: Resident, with some local movements. Keeps in pairs or small parties. Affects open scrub and light forest in the neighbourhood of cultivation, orchards and groves around villages. Terrestrial, cursorial, crepuscular and nocturnal. Feeds on insects, worms, slugs and small reptiles.

Remarks: Uncommon. Only four birds could be seen throughout the survey period in forest bushes of the sanctuary. Breeds between March and July.

100. Esacus maganierostris recurvirostris (Cuvier)

Common name: Great Stone Plover (Eng.).

Habits: Resident with some local migratory movements. Keeps in pairs or small loose parties. Affects stony bed of rivers, tidal estuaries, salt pans and occasionally sea beaches. Feeds on crabs, molluscs, insects, frogs and other small animals. Crepuscular and nocturnal but prefers sunlight during day.

Remarks: Uncommon. Only a flock of four birds could be seen throughout the survey period in sea shore area. Breeds between February and June.

Family GLAREOLIDAE

101 Glareola pratincola (Linnaeus)

Common names: Collared Pratincole or Swallow-Plover (Eng.).


Remarks: Moderately common. Only a flock of six birds was seen throughout the survey period near a tidal creek. Breeds in Mediterranean, Black Sea, Middle east upto W Pakistan during March to May.
102. **Glareola lactea** Temminck

*Common names:* Small Indian Pratincole or Swallow-Plover (Eng.).

*Habits:* Resident. Keeps in large flocks. Affects rivers with sand banks and coastal marshes. Crepuscular, feeds on insects till it is quite dark.

*Remarks:* Common. A number of flocks were seen in different suitable habitats. Breeds between March and May.

**Family LARIDAE**

103. **Larus argentatus** Pontopiddan

*Common name:* Herring Gull (Eng.).

*Habits:* Winter visitor. Keeps in small flocks. Affects seacoast, harbours and also inland lakes and rivers. Feeds on fish waste, molluscs, crabs, insects; also steals eggs and chicks of terns.

*Remarks:* Rare. Natarajan (1992) reported occurrence of this bird in the sanctuary. We could not see any during the survey period there. Breeds in northern Siberia.

104. **Larus fuscus** Linnaeus

*Common name:* Lesser Blackbacked Gull (Eng.).


*Remarks:* Common. A good number of birds were seen in coastal and costal mudflat area of the sanctuary. Breeds outside India, from N, Scandinavia, eastward to Murman coast and south to the Gulf of Bothria and Finland.

105. **Larus brunnicephalus** Jerdon

*Common names:* Brownheaded Gull (Eng.); Kadal kakkai (Tamil).


*Remarks:* Common. A number of birds were seen near seashores and other mudflats throughout the survey period. Breeds in Ladakh and in high plateaus of C Asia upto Mongolia during June and July.
106. *Larus rudibundus* Linnaeus

*Common names:* Blackheaded Gull (Eng.); Kadal kakkai (Tamil).


*Remarks:* Common. A number of birds were seen near seaboard and mudflats. Breeds in Europe, W and C Asia upto S Mongolia during June and July.

107. *Chlidonias hybridus* (Pallas)

*Common names:* Whiskered Tern (Eng.); Kadal kuruvi (Tamil).

*Habits:* Winter visitor. Keeps singly or in small flocks. Affects backwater, jheels, rivers, marshes and flooded paddyfields, costal lagoons, tidal mudflats and estuaries. Feeds on insect and their larvae, crab, fish and tadpoles.

*Remarks:* Common. A good number of birds were seen in different habitats of the sanctuary. Breeds in Kashmir and northern India during June to August.

108. *Sterna aurantia* J.E. Gray

*Common names:* Indian River Tern (Eng.); Kadal Kuruvi (Tamil).

*Habits:* Resident. Generally solitary, also found in twos and threes. Found flying in flocks up and down over rivers and lakes. Feeds mainly on fish, crustaceans and aquatic insects. Rests and roost at night on sandbanks.

*Remarks:* Common. Found in the salt punds, adjoining swamps, Maniappan Lake and monsoonal pools inside the forests. Breeds between March and May.

109. *Sterna hirundo* Linnaeus

*Common names:* Common Tern (Eng.); Kadal Kuruvi (Tamil).

*Habits:* Generally solitary, sometimes in colonies. Affects large rivers, jheels and lakes. Hunts by plunging. Feeds mainly on fish; also takes molluscs, crustaceans and aquatic insects. Rest on estuarine mudflats and sandbars in association with other tern and gulls.

*Remarks:* Common, a number of birds were seen. A winter visitor to the coasts of India. Breeds in Palaearctic Europe and Asia.
110. *Sterna acuticauda* J.E. Gray

*Common names*: Blackbellied Tern (Eng.); Kadal kuruvi (Tamil).

*Habits*: Widespread resident. Keeps in small to large flocks. Affects large rivers and freshwater jheels; not found on the sea coast. Feeds mainly on fish; also takes insects and crustaceans.

*Remarks*: Moderately common. Only twelve birds in two flocks could be seen in Muniappan Lake area. Breeds between March and May.

111. *Sterna anaethetus* Scopoli

*Common names*: Brownwinged Tern (Eng.); Kadal kuruvi (Tamil).

*Habits*: Winter visitor. Keeps singly or in pairs. Affects offshore wetland areas. Feeds mainly on fish.

*Remarks*: Rare. Natarajan *et al.* (1990) obtained a single dead specimen and recorded its occurrence in the sanctuary. We could not see any during our survey trips there. Breeds off Maharashtra coast, Lakshadweep and Maldives islands between June and July.

112. *Sterna albifrons* Pallas

*Common names*: Little Tern or Ternlet (Eng.).


*Remarks*: Uncommon. Only three birds could be seen in different tidal creeks of the sanctuary. Breeds in W Pakistan and NW India.

113. *Sterna bergii* Lichtenstein

*Common names*: Large crested Tern (Eng.); Periya kondai, kadal kuruvi (Tamil).

*Habits*: Usually seen singly or in small parties in association with Lesser Crested Tern in offshore waters. Hunts by hovering and plunging chiefly on fish and prawns. Rests on sand banks and estuarine mudflats. Feeds on fish and prawn.

*Remarks*: Common. Resident to the seaboards of India. Breeds in India on Vengurula rocks off Ratnagiri coast and also in Sundarbans.
114. *Sterna bengalensis* Lesson

*Common names*: Lesser Crested Tern (Eng.); Kondai kadal kuruvi (Tamil).

*Habits*: Winter visitor. Found singly or in small parties and flocks at considerable distance out at sea - hardly ever seen on tidal creeks. Found resting on buoys or fishing stakes and sand banks. Feeds chiefly on fish and prawns.


115. *Sterna sandvicensis* Latham

*Common name*: Sandwich Tern (Eng.).


*Remarks*: Rare. Natarajan *et al.* (1990) reported its occurrence in the sanctuary. But we could not found any specimen during survey periods there. Breeds in European coasts.

Order COLUMBIFORMES
Family COLUMBIDAE

116. *Treron phoenicoptera* (Latham)

*Common names*: Green Pigeon (Eng.); Pachchai pura (Tamil).

*Habits*: Resident. Keeps in small flocks but sometimes also found in very large numbers. Affects deciduous forest and fruiting trees around villages and cultivation. Feeds on drupes, berries and wild figs of various Kinds.

*Remarks*: Common. Found throughout the sanctuary in suitable habitats. Breeds between March and June.

117. *Columba livia* Gmelin

*Common names*: Indian Blue Rock Pigeon (Eng.); Made pura, Malai pura (Tamil).


*Remarks*: Very common. Found throughout the sanctuary near human habitations. Highly destructive pest to food crops. Breeds throughout the year.
118. *Streptopelia decaocto* (Frivaldszky)

*Common names*: Indian Ring Dove (Eng.); Kalli pura, Sambal pura (Tamil).

*Habits*: Resident with seasonal local migration. Keeps in pairs or small parties. Affects open dry country with cultivation and groves and often in the environs of towns and villages. Feeds on grain and seeds.

*Remarks*: Common. A number of birds were seen inside forests of the sanctuary and also near human habitations. Breeds practically throughout the year.

119. *Streptopelia chinensis* (Gmelin)

*Common names*: Spotted Dove (Eng.); Pulli Pura (Tamil).


*Remarks*: Common. Found throughout the sanctuary. Breeds throughout the year.

Order PSITTACIFORMES
Family PSITTACIDAE

120. *Psittacula krameri* (Scopoli)

*Common names*: Roseringed Parakeet (Eng.), Kili (Tamil).

*Habits*: Keeps in small parties or large noisy groups. Feeds mainly on fruits, cereal, grain and seeds of all kinds whether wild or cultivated. Affects moist and dry-deciduous biotope and cultivation near human habitations.


121. *Psittacula cyanocephala* (Linnaeus)

*Common names*: Blossomheaded Parakeet (Eng.); Kili (Tamil).

*Habits*: Resident but having local movements with food supply. Keeps usually in small parties. Affects light forest, well-wooded compounds, and cultivation. Feeds on grain and fruit of all kinds, buds and bleshy petals.
Remarks: Moderately common. Only a flock of six birds could be seen throughout the survey period. Breeds between December and April.

Order CUCULIFORMES
Family CUCULIDAE

122. *Clamator jacobinus* (Boddaert)

*Common names*: Pied Crested Cuckoo (Eng.); Konde kuyil (Tamil).


*Remarks*: Uncommon. Only two birds could be seen throughout the survey period in forest bushes. Breeds between June and September.

123. *Eudynamys scolopacea* (Linnaeus)

*Common names*: Indian Koel (Eng.); Kuyil (Tamil).


*Remarks*: Moderately common. Six birds were seen throughout the survey period inside forests of the sanctuary. Breeds between May and July.

124. *Rhopodytes viridirostris* (Jerdon)

*Common names*: Small Greenbilled Malkoha (Eng.); Kuyil (Tamil).


*Remarks*: Common. A number of birds were seen throughout the survey period in different habitats. Breeds between March and May.

125. *Centropus sinensis* (Stephens)

*Common names*: Crow-Pheasant, Coucal (Eng.); Kalli kaka, Chempakan (Tamil).

*Habits*: Resident. Keeps singly or in pairs. Affects scrub jungle, tall grassland; entering freely in groves, orchards and gardens near habitations. Feeds predominantly on animals; also takes molluscs, crustaceans and insects.

*Remarks*: Common. Found throughout the sanctuary in different habitats. Breeds between November and May.
Order STRIGIFORMES
Family STRIGIDAE
Subfamily TYTONINAE

126. Tyto alba (Scopoli)

*Common names*: Barn Owl (Eng.); Chavu kuruvi (Tamil).


*Remarks*: Uncommon. Only two birds could be seen throughout the survey period. Breeds throughout the year.

Subfamily STRIGINAE

127. Otus bakkamoena Pennant

*Common names*: Collared Scops Owl (Eng.); Sinna andai, Nathe (Tamil).


*Remarks*: Common. A number of birds were seen and their distinctive calls were heard throughout the survey period. Breeds during January and February.

128. Glaucidium radiatum (Tickell)

*Common names*: Jungle Owlet (Eng.); Sinna andai (Tamil).


*Remarks*: Common. A number of birds were seen in different areas during survey period. Breeds between March and May.

129. Athene brama (Temminck)

*Common names*: Southern Spotted Owlet (Eng.); Pulli andai (Tamil).

*Habits*: Resident. Keeps in pairs or family parties of 3 or 4. Crepuscular and nocturnal. Affects ruins, mango topes and groves of old trees in and around towns, villages and cultivation. Feeds chiefly on beetles, moths and other insects; also lizards, mice, rats and small birds.
Remarks: Moderately common. A number of birds were seen. Breeds between November to March.

Order CAPRIMULGIFORMES
Family CAPRIMULGIDAE

130. *Caprimulgus indicus* Latham

*Common names*: Jungle Nightjar (Eng.); Padukai kuruvi (Tamil).


*Remarks*: Moderately common. Only three birds could be seen throughout the survey period within forests. Breeds between February and May.

131. *Caprimulgus asiaticus* Latham

*Common names*: Little Nightjar (Eng.); Padukai kuruvi, Kuruttu pakshi (Tamil).


*Remarks*: Moderately common. Only four birds could be seen throughout the survey period near cultivated lands. Breeds between March and May.

Order APODIFORMES
Family APODIDAE
Subfamily APODINAE

132. *Chaetura gigantea indica* Hume

*Common name*: Brownthroated Spinetail Swift (Eng.).

*Habits*: Resident. Keeps in small parties or larger flocks. Affects evergreen and moist-deciduous forest. Feeds on insects, mainly beetles, bugs, ants, bees and grasshoppers.

*Remarks*: Uncommon. Only four birds could be seen throughout the survey period inside the Black Buck enclosure of the sanctuary. Breeding recorded only in Kerala between February and April.
133. *Chaetura sylvatica* (Tickell)

*Common names*: Whiterumped Spinetail swift (Eng.).

*Habits*: Keeps in loose disorderly groups of 12 to 50 birds hawking insects all day above forest, river valleys, grassy hilltops and hill cultivation clearings but may turn up almost everywhere. Feeds mainly on flying beetles and bugs. Roosts in colonies, clinging within the hollow holes of rotten and dead trees.

*Remarks*: Common. A number of birds were seen flying for feeding. Breeds from February to May, chiefly March and April.

134. *Apus affinis* (J.E. Gray)

*Common name*: House Swift (Eng.).

*Habits*: Widespread resident, migrate locally during coldest months. Gregarious and predominantly aerial. Keeps in small to large flocks. Affects urban habitations, old forts, ruins and cliffs. Feeds on tiny flying insects, all captured in mid-air.

*Remarks*: Common near human habitations of the sanctuary area. Breeds throughout the year except the coldest months.

135. *Cypsiurus parvus* (Lichtenstein)

*Common names*: Palm Swift (Eng.); Ambattan katti (Tamil).

*Habits*: Resident. Gregarious, usually more scattered; rarely seen in close-packed rabbles. Affects open country and cultivation with palms. Feeds on winged ants, hymenopterous insects, tiny bugs and beetles; all taken in the air.

*Remarks*: Common. Found in the forested tracts of the sanctuary. Breeds throughout the year, peak periods varying locally.

Order **CORACIIFORMES**  
Family **ALCEDINIDAE**

136. *Ceryle rudis* (Linnaeus)

*Common names*: Pied Kingfisher (Eng.); Meenkotti (Tamil).

*Habits*: Resident. Keeps singly or in pairs. Affects every kind of stagnant freshwater; occasionally also tidal creeks and intertidal pools on the seashore. Feeds mainly on fish; also tadpoles and aquatic insects.
Remarks: Common. A number of birds were seen near different waterbodies. Breeds between February and April.

137. *Alcedo atthis* (Linnaeus)

*Common names*: Small Blue Kingfisher (Eng.); Meenkotti (Tamil).

*Habits*: Widespread resident. Usually met singly or in pairs perched on some favourite stake near streams, ponds, roadside ditches, etc., in open country. Feeds on small fish, tadpoles and aquatic insects.

Remarks: Moderately common. Found near freshwater marshy areas of the sanctuary. Breeds between February and September.

138. *Pelargopsis capensis* (Linnaeus)

*Common names*: Brownheaded Storkbilled Kingfisher (Eng.); Meenkotti, Kukuluppan (Tamil).

*Habits*: Resident. Keeps singly or in separated pairs. Affects forest streams, irrigation canals and coastal backwaters. Feeds on fish, frogs, lizards, mice and small birds.

Remarks: Uncommon. Only two birds could be seen throughout the survey period near Muniappan Lake. Breeds between February and March.

139. *Halcyon smyrnensis* (Linnaeus)

*Common names*: Whitebreasted Kingfisher (Eng.); Vichuli, Menkotti (Tamil).

*Habits*: Keeps singly or in pairs. Resident with local movements. Found near cultivation, forest edges, gardens, and freshwater and coastal wetlands - perched upright on telegraphwire, fence-post or branches. Feeds mainly on insects like grasshoppers, beetles, ants, termites, dragonflies and sometimes also feed on scorpions, centipedes, frogs, lizards, mice and small birds. Fish only a secondary item.

Remarks: Common. Found throughout the sanctuary. Breeds between January and June.

Family MEROPIDAE

140. *Merops leschenaulti* (Vieillot)

*Common names*: Chestnutheaded Bee-eater (Eng.); Kattalan kuruvi, Panchankam (Tamil).
**Habits**: Widespread resident. Keeps in parties. Affects the neighbourhood of streams in deciduous forests. Feeds on winged insects.

**Remarks**: Moderately common. Only seven birds in two parties were found throughout the survey period perching on tree branches and wires near marshy land. Breeds between March and April.

141. *Merops philippinus* Linnaeus

*Common names*: Bluetailed Bee-eater (Eng.); Kattalan kuruvi, Panchankam (Tamil).

*Habits*: Keeps in pairs or small flocks. Resident and locally migratory. Prefers areas neighbourhood of jheels, tanks, streams, coastal backwaters near forest clearings. Feeds on winged insects like dragonflies, wasps and bees.

**Remarks**: Common. A good number of birds were seen during survey periods. Breeds between March and June.

142. *Merops orientalis* Latham

*Common names*: Small Green Bee-eater (Eng.); Kattalan kuruvi, Panchankam (Tamil).

*Habits*: Resident, with marked seasonal local movements. Keeps in loose parties, usually perched along telegraph wires, or on fence-posts and dead branches. Feeds on winged insects mainly–ants, bees, wasps, moths, butterflies and small beetles. Roosts communally in leafy trees or bamboo clumps.

**Remarks**: Common. A number of birds were seen during survey period. Breeds between April and July, chiefly during June and July.

Family CORACIIDAE

143. *Coracias benghalensis* (Linnaeus)

*Common names*: Northern Roller, Blue Jay (Eng.); Pal kuruvi, Kattu kadei (Tamil).

*Habits*: Resident with seasonal local movements. Keeps singly or in pairs perched on fence posts, telegraph wires and bare trees near cultivation. Feeds mainly on insects, sometimes on small frog, lizards, snakes and field mice.

**Remarks**: Common. Found throughout the sanctuary. Breeds between March and June. A highly beneficial bird to cultivation for destroying vast quantities of insect pests.
144. *Eurystomus orientalis* (Linnaeus)

*Common names*: Broadbilled Roller (Eng.); Puluppurukki (Tamil).

*Habits*: Resident. Keeps singly or in pairs. Affects secondary evergreen jungle and forest clearings with scattered standing trees. Feeds chiefly on insects; also lizards and other small animals.

*Remarks*: Uncommon. Only a pair was seen sitting on a tall tree inside forest near 'Ramrapadam' of the sanctuary. Breeds between March and May.

Family UPUPIDAE

145. *Upupa epops* Linnaeus

*Common names*: Hoopoe (Eng.); Chaval kuruvi (Tamil).

*Habits*: Partly resident and partly winter visitor. Keeps singly or in pairs. Affects open country, cultivation, light forest and habitations. Feeds on different insects and caterpillars.

*Remarks*: Uncommon. Only four birds could be seen throughout the survey period in forested part of the sanctuary. Breeds between January and April.

Order PICIFORMES

Family CAPITONIDAE

146. *Megalaima zeylanica* (Gmelin)

*Common names*: Green Barbet (Eng.); Kukkuruvan, Kutur (Tamil).

*Habits*: Widespread resident. Keeps singly or in small parties. Affects forest, wooded areas and trees near habitations. Feeds on figs, drupes, berries, flower petals and flower nectar. Also takes insects.

*Remarks*: Moderately common. Only six birds could be seen throughout the survey period in gardens near human habitation. Breeds between March and May.

147. *Megalaima haemacephala indica* (Latham)

*Common names*: Crimson breasted Barbet or Coppersmith (Eng.); Sinna kukuruvan (Tamil).

*Habits*: Widespread resident. Keeps singly or in pairs. Affects roadside avenues, near villages, gardens and compounds. Feeds on fruits, berries and occasionally moths and flying termites.
Remarks: Common. A number of birds were seen in different habitats. Breeds between February and April.

Family PICIDAE

148. *Dinopium benghalense* (Linnaeus)

*Common names*: Goldenbacked Woodpecker (Eng.); Maramkotti, Tachchan kuruvi, Manu potoku (Tamil).


Remarks: Common. Found throughout the sanctuary around forest glade. Breeds between February and July.

149. *Chrysocolaptes lucidus* (Scopoli)

*Common names*: Larger Goldenbacked Woodpecker (Eng.); Thachchan kuruvi (Tamil).


Remarks: Uncommon. Only a single bird was seen throughout the survey period sitting on a tree branch near 'Ramrapadum' Breeds between December and March.

Order PASSERIFORMES

Family PITIDAE

150. *Pitta brachyura* (Linnaeus)

*Common names*: Indian Pitta (Eng.); Arumani kuruvi, Thotta kallan, Kathelachi (Tamil).


Remarks: Moderately common. Only three birds could be seen throughout the survey period in forest bushes. Breeds between May and August.

Family ALAUDIDAE

151. *Mirafra assamica* Horsfield

*Common names*: Bush Lark (Eng.); Vanampadi kuruvi (Tamil).

**Remarks**: Common. A number of birds were seen in different forest bushes and cultivated lands. Breeds between March and May.

152. *Mirafra erythroptera* Blyth

**Common names**: Redwinged Bush Lark (Eng.); Vanampadi kuruvi (Tamil).

**Habits**: Resident. Keeps singly, in pairs or small parties. Affects scrubs, bushes and cultivated lands. Feeds on seeds and small insects.

**Remarks**: Common. A number of birds were seen in different forest bushes. Breeds between March and October.

153. *Eremopterix grisea* (Scopoli)

**Common names**: Ashycrowned Finch-Lark (Eng.); Vanampadi kuruvi, Manam vanambadi (Tamil).

**Habits**: Resident. Keeps in pairs or small parties. Affects open scrub, cultivation; also grass covered sandy river banks and dry tidal mudflats near coast. Feeds on vegetable seeds and insects.

**Remarks**: Common. A number of birds were seen in different forest habitats and cultivated lands. Breeds chiefly between February and September.

154. *Galerida malabarica* (Scopoli)

**Common names**: Malabar Crested Lark (Eng.); Kondai vanambadi (Tamil).

**Habits**: Resident. Keeps in pairs or small scattered flocks. Affects scrub jungle, forest clearings, cultivation and grassy edges of tidal mudflats. Feeds on weed seeds, paddy grains and insects.

**Remarks**: Common. A number of flocks were seen in the scrub jungle areas of the sanctuary. Breeds throughout the year except the months of heaviest rainfall.

155. *Alauda gulgula* Franklin

**Common names**: Indian Small Skylark (Eng.); Vanambadi kuruvi (Tamil).

**Habits**: Resident with seasonal local movements. Keeps in pairs or small scattered parties. Affects grassland on the edge of jheels and tanks, cultivation fields and tidal mudflats in coastal tracts. Feeds on weed seeds, roots and bulbs; insects.
Remarks: Moderately common. Only six birds could be seen throughout the survey period in the grassland near wetland of the sanctuary. Breeds between April and June.

Family HIRUNDINIDAE

156. Hirundo rustica Linnaeus

Common names: Western Swallow (Eng.); Talai illatha kuruvi, Adai kallan kuruvi, Tam-padi (Tamil).


Remarks: Common. A number of flocks were seen skimming low over water of the sanctuary. Breeds in Pakistan Hills, Himalayas and NE India.

157. Hirundo daurica Linnaeus

Common names: Redrumped Swallow (Eng.); Tam padi, Talai illada kuruvi (Tamil).

Habits: Resident, with seasonal local movements. Keeps in pairs, small flocks or family parties. Affects open cultivated country; closely attached to the neighbourhood of water reservoirs, streams and canals. Feeds on insects.

Remarks: Common. A number of birds were seen in different habitats. Breeds between April and August.

Family LANIIDAE

158. Lanius vittatus Valenciennes

Common names: Indian Baybacked Shrike (Eng.); Kidhan kuruvi (Tamil).


Remarks: Moderately common. Only four birds could be seen throughout the survey period in forest bushes. Breeds between February and April.

159. Lanius schach caniceps Blyth

Common names: Greybacked Shrike (Eng.); Kattu kuruvi, Pey kuruvi (Tamil).

Habits: Resident, subject to local seasonal movements. Keeps singly or in widely
separated pairs, each to its own feeding territory. Found sitting upright on bush top, stake or telegraph wire. Feeds on any small living creature that can be overpowered.

**Remarks**: Common. A number of birds were seen in the forested tract of the sanctuary. Breeds between March and June.

### Family ORIOLIDAE

160. *Oriolus oriolus kindoo* Sykes

**Common name**: Indian Golden Oriole (Eng.).

**Habits**: Sparse winter visitor to the area. Keeps singly or in pairs. Affects open woodland and trees in cultivation, orchards, gardens around human habitation. Feeds on wild figs, berries, flower-nectar, insects and caterpillars.

**Remarks**: Common. A number of birds were seen in different habitats of the sanctuary. Breeds between May and June.

161. *Oriolus xanthornus* (Linnaeus)

**Common names**: Blackheaded Oriole (Eng.); Mambala kuruvi (Tamil).

**Habits**: Resident. Keeps singly or in pairs. Affects open forest, orchards, gardens, village groves and compounds near habitations. Feeds on fruits, berries and flower-nectar; also takes insects.

**Remarks**: Common. A number of birds were seen in different habitats. Breeds between March and July.

### Family DICRURIDAE

162. *Dicrurus adsimilis* (Bechstein)

**Common names**: Black Drongo, King Crow (Eng.); Karichan, Kari karuman, Karuvattuvali (Tamil).

**Habits**: Common resident with some seasonal local migration. Keeps singly perched on tree-tops, fense posts, telegraph wires or on the ground. Feeds mainly on insects; on occasions lizards, small birds and small bats.

**Remarks**: Common. Found near cultivation and forested areas of the sanctuary. Breeds between March and June. Helps agriculture by destroying vast quantities of insect pests.
163. *Dicrurus leucophaeus* Vieillot

*Common names:* Grey Drongo (Eng.); Erattai valan kuruvi (Tamil).

*Habits:* Winter visitor. Keeps singly or in pairs. Affects well wooded forested areas, perching high up in tree tops. Feeds mainly on insects of various kinds, also feeds occasionally on lizards and small birds.

*Remarks:* Uncommon. Only a pair could be seen throughout the survey period in a forest tree. Breeds in Himalayas and NE Indian Hills between April and June.

164. *Dicrurus hottentottus* (Linnaeus)

*Common names:* Haircrested or Spangled Drongo (Eng.).


*Remarks:* Rare. Natarajan *et. al.* (1990) reported its occurrence in the sanctuary. We could not see any bird during our entire survey period there. Breeds between March and April.

**Family ARTAMIDAE**

165. *Artamus fuscus* Vieillot

*Common names:* Ashy Swallow-Shrike (Eng.); Madam pura (Tamil).

*Habits:* Resident with seasonal local migration. Gregarious, sociable, keeps in parties. Affects openly wooded country. Feeds on insects; also takes flower-nectar.

*Remarks:* Moderately common. Only four birds could be seen throughout the survey period in forest habitats. Breeds between March and June.

**Family STURNIDAE**

166. *Sturnus malabaricus* (Gmelin)

*Common names:* Greyheaded Myna (Eng.).

*Habits:* Resident, with marked migration during monsoon and winter. Gregarious, keeps in small flocks. Affects thinly wooded country near human habitations, open secondary jungle and forest plantations. Feeds on fruits, berries and insects.

*Remarks:* Common. A good number of birds were found in different suitable habitats. Breeds between April and July.
167. **Strunus pagodarum** (Gmelin)

*Common names*: Blackheade Myna or Brahminy Myna (Eng.); Papata pariki, Pappatthi nahanavai, Rawanati (Tamil).


*Remarks*: Common. A number of birds were seen in different habitats. Breeds between February and August.

168. **Sturnus roseus** (Linnaeus)

*Common names*: Rosy Starling, Rosy Pastor (Eng.); Surai kuruvi, Cholam kuruvi (Tamil).


*Remarks*: Moderately common. About twenty birds in two flocks were observed throughout the survey period. Breeds in SE Europe and SW Asia during May-June.

169. **Sturnus contra** Linnaeus

*Common name*: Pied Myna (Eng.).


*Remarks*: Moderately common. Only six birds could be seen throughout the survey period in different cultivated lands. Breeds between March and September.

170. **Acridotheres tristis** (Linnaeus)

*Common names*: Indian Myna, Common Myna (Eng.); Nahanavai (Tamil).

*Habits*: Widespread resident. Keeps in small family parties or sometimes in flocks near human habitation and cultivation. Feeds on fruits, grains, insects and grubs but also takes everything that can be eaten.

*Remarks*: Very common in the sanctuary near human habitation areas. Breeds chiefly between April and July.
Family CORVIDAE

171. *Dendrocitta vagabunda* (Latham)

*Common names*: Indian Tree Pie (Eng.); Val kakai (Tamil).

*Habits*: Widespread resident. Keeps in noisy pair or family parties of 4 and 5. Social, arboreal and omnivorous. Affects open wooded country, and gardens with trees and bushes.

*Remarks*: Common. Found throughout the sanctuary in suitable habitats. Breeds between March and May.

172. *Corvus splendens* Vieillot

*Common names*: House Crow (Eng.); Nalla kaka, Maniyan kakai (Tamil).

*Habits*: Widespread resident, subject to seasonal movements. Found around human habitations and cultivation. Very useful as a municipal scavenger. Feeds practically on everything that can be eaten.

*Remarks*: Much common around human habitations. Breeds between March and August, but peak periods varying locally.

173. *Corvus macrorhynchos* Wagler

*Common names*: Indian Jungle Crow (Eng.); Andan kakdi, Karun kakdi (Tamil).

*Habits*: Less gregarious and sociable than House Crow. Keeps singly or in pairs and small scattered parties. Widespread resident. A regular marauder of birds nest and often becomes a serious meanance to poultry keepers. Feeds on animal and vegetable matters.

*Remarks*: Common. Found in different habitats of the sanctuary. Breeds between February and June, varying locally.

Family CAMPEPHAGIDAE

174. *Tephrorhynx pondicerianus* (Gmelin)

*Common name*: Indian Wood Shrike (Eng.).

*Habits*: Resident. Keeps in pairs or small parties. Affects open broadleaved forest, secondary growth and well wooded forests. Feeds on caterpillars, spiders and insects.

*Remarks*: Moderately common. Only four birds could be seen throughout the survey period in forest bushes. Breeds between February and July.
175. *Coracina novaehollandiae* (Gmelin)

*Common name*: Large Cuckoo-Shrike (Eng.).


*Remarks*: Moderately common. Only three birds could be seen throughout the survey period inside forests. Breeds between March and July.

176. *Coracina melanoptera* (Ruppell)

*Common name*: Blackheaded Cuckoo-Shrike (Eng.).

*Habits*: Resident and local migrant. Keeps singly or in pairs. Affects open deciduous or mixed forests, thick hedges, groves, gardens and secondary jungle. Feeds mainly on insects; also takes berries.

*Remarks*: Moderately common. Only five birds could be seen throughout the survey period in forest habitats. Breeds between April and May.

177. *Pericrocotus flammeus* (Forster)

*Common names*: Scarlet Minivet (Eng.); Mambala kuruvi, Potkurruvi (Tamil).


*Remarks*: Common. Found throughout the forested tracts of the sanctuary. Breeds between June and September.

Family IRENIDAE

178. *Aegithina tiphia* (Linnaeus)

*Common names*: Indian lora (Eng.); Sinna mampala-kuruvi, Pachapora (Tamil).


*Remarks*: Common. Found throughout sanctuary in different habitats. Breeds between April and May.

179. *Chloropsis cochinchinesis* (Gmelin)

*Common name*: Goldmantled chloropsis (Eng.).
Habits: Resident. Entirely arboreal; keeps singly or in pairs. Affects scrub jungle, forest edges, groves and leafy trees on village outskirts. Feeds on insects, caterpillars, wild figs, berries and flower-nectar.

Remarks: Moderately common. Only eight birds could be seen throughout the survey period in different habitats. Breeds between April and August.

180. Irena puella (Latham)

Common name: Fairy Bluebird (Eng.).

Habits: Resident, subject to seasonal wandering with disjunct range of distribution. Keeps in small parties. Affects moist-deciduous, evergreen forests and deep jungle. Feeds on fruit, berries and nectar.

Remarks: Uncommon. Only a group of four birds could be seen throughout the survey period inside forested part of the sanctuary. Breeds between February and April.

Family PYCNONOTIDAE

181. Pycnonotus jacosus (Linnaeus)

Common names: Redwhiskered Bulbul (Eng.); Konda-kloti-kuruvi (Tamil).


Remarks: Common. A number of birds were seen in different habitats. Breeds between December and June.

182. Pycnonotus cafer (Linnaeus)

Common names: Redvented Bulbul (Eng.); Konda-lati, Kondai kuruvi (Tamil).

Habits: Resident. Keeps in pairs or small parties. Affects light scrub, gardens, secondary jungle and light deciduous forest. Feeds on fruits and berries.

Remarks: Common. Found throughout the sanctuary and also near human habitations. Breeds between February and November, chiefly during the monsoon.

183. Pycnonotus luteolus (Lesson)

Common names: Whitebrowed Bulbul (Eng.); Manjat kondai kuruvi (Tamil).

Habits: Resident. Keeps in pairs. Affects dry scrub, forest edges and thickets near villages. Feeds on fruits, berries and flower-nectar; also takes spiders and small insects.
Remarks: Moderately common. Only four birds could be seen throughout the survey period in forest edges. Breeds between April and August.

Family MUSCICAPIDAE
Subfamily TIMALINAE

184. *Pomatorhinus schisticeps* Hodgson

*Common name*: Scimitar Babbler (Eng.).


*Remarks*: Uncommon. Only two birds could be seen throughout the survey period in forest bushes. Breeds between November and March.

185. *Dumetia hypothyra* (Franklin)

*Common name*: Whitethroated Babbler (Eng.).


*Remarks*: Moderately common. Only six birds could be seen throughout the survey period in forest bushes. Breeds during monsoon between June and October.

186. *Chrysomma sinense* (Gmelin)

*Common name*: Yellow-eyed Babbler (Eng.).


*Remarks*: Common. A number of birds were seen in different habitats. Breeds chiefly between July and August.

187. *Turdoides caudatus* (Dumont)

*Common names*: Common Babbler (Eng.); Huni (Tamil).


*Remarks*: Common. A number of birds were seen in different suitable habitats. Breeds between March and July.
188. *Turdoides striatus* (Dumont)

*Common names*: Jungle Babbler (Eng.); Velaikkara-kuruvi (Tamil).


*Remarks*: Common. A good number of birds were seen in different habitats throughout the survey period.Breeds between June and August.

189. *Turdoides affinis* (Jerdon)

*Common names*: Whiteheaded Babbler (Eng.); Thavittu-kuruvi, Pandri-kuruvi (Tamil).


*Remarks*: Common. A number of birds were seen in different suitable habitats. Breeds overall between January and November having two peak periods.

Subfamily MUSCICAPINAE

190. *Muscicapa parva* Bechstein

*Common names*: Redbreasted Flycatcher (Eng.); Pattuk kuruvi, Yeepidippan, Chuvappunencha kuruvi (Tamil).


*Remarks*: Moderately common. Only three birds could be seen throughout the survey period in forest bushes. Breeds from the Urals to Kamchatka.

191. *Muscicapa tickelliae* (Blyth)

*Common names*: Tickell's Blue Flycatcher (Eng.); Neelakkuruvi (Tamil).

*Habits*: Resident, subject to local movements. Keeps singly or in mixed hunting parties. Affects thick bushes, forests, streams, village groves, gardens and orchards. Feeds on insects.

*Remarks*: Common. A number of birds were seen in different habitats. Breeds between April and June.
192. *Muscicapa thalassina* Swainson

*Common names*: Verditer Flycatcher (Eng.); Neelameni (Tamil).


*Remarks*: Moderately common. Only four birds could be seen throughout the survey period in forest bushes. Breeds in Himalayas and NE India between April and August.

193. *Rhipidura aureola* Lesson

*Common names*: Whitebrowed Faintail Flycatcher (Eng.); Visiri-vali (Tamil).


*Remarks*: Moderately common. Six birds could be seen throughout the survey period in different habitats. Breeds between April and May.

Subfamily MONARCHINAE

194. *Terpsiphone paradisi* (Linnaeus)

*Common names*: Paradise Flycatcher (Eng.); Piramana-kuruvi, Vedivat-kuruvi (Tamil).


*Remarks*: Common. A number of birds were seen in the forested tract of the sanctuary. Breeds between April and July.

195. *Monarcha azurea* (Boddaert)

*Common names*: Blacknaped Monarch Flycatcher (Eng.); Yeepidippan (Tamil).


*Remarks*: Uncommon. Only a pair could be seen throughout the survey period in forest habitat near 'Ramrapadam' Breeds between March and August.

Subfamily SYLVIINAE

196. *Prinia hodgsonii* Blyth

*Common names*: Ashy-grey Wren-Warbler (Eng.); Kosu katai, Nunni chirai (Tamil).

Remarks: Moderately common. Only five birds could be seen throughout the survey period in different forest bushes. Breeds between April and August during the height of the monsoon.

197. Prinia subflava (Gmelin)

Common names: Plain Wren-Warbler (Eng.); Tinu-kuruvi (Tamil).


Remarks: Moderately common. Only five birds could be seen throughout the survey period in different habitats. Breeds between June and October, depending on monsoon.

198. Prinia socialis Sykes

Common names: Ashy Wren-Warbler (Eng.); Tinu-kuruvi (Tamil).


Remarks: Moderately common. Only six birds could be seen throughout the survey period in grasslands. Breeds between April and July.

199. Orthotomus sutorius (Pennant)

Common names: Tailor Bird (Eng.); Thaiyal chittu, Pon chittu (Tamil).

Habits: Widespread resident. Keeps singly or in pairs. Affects bushes in gardens, cultivation edges and forest edges. Feeds on small insects and their larvae; also feeds on flower - nectar.

Remarks: Common. A good number of birds were seen in different habitats of the sanctuary. Breeds between June and August during monsoon period.

200. Acrocephalus stentoreus (Hemprich & Ehrenberg)

Common names: Great Reed Warbler (Eng.); Kosu kattai, Nunni chirai (Tamil).

Remarks: Moderately common. Only eight birds could be seen throughout the survey period in different bushes. Breeds between May and August.

201. *Acrocephalus dumetorum* Blyth

*Common name*: Blyth's Reed Warbler (Eng.).


*Remarks*: Moderately common. Only three birds could be seen throughout the survey period in forest bushes. Breeds in central Eurasia between June and July.

202. *Hippolais caligata* (Lichtenstein)

*Common name*: Booted Tree Warbler (Eng.).

*Habits*: Winter visitor. Keeps singly or in loose flocks. Affects scrub jungle, grasslands, cultivated lands; also gardens and hedges. Feeds mainly on insects.

*Remarks*: Moderately common. Only six birds could be seen throughout the survey period in different habitats. Breeds from Pakistan to southern Siberia.

203. *Sylvia curruca* (Linnaeus)

*Common name*: Lesser Whitethroat (Eng.).


*Remarks*: Moderately common. Only five birds could be seen throughout the survey period in forest bushes. Breeds in central Siberia between April and August.

204. *Phylloscopus trochiloides* (Sundevall)

*Common name*: Greenish Leaf Warbler (Eng.).


*Remarks*: Moderately common. Only four birds could be seen throughout the survey period inside forests. Breeds in Turkestan, eastern Siberia, western China and Iran between May and August.
Subfamily TURDINAE

205. Copsychus saularis (Linnaeus)

*Common names*: Magpie-Robin (Eng.); Gundoo-kavitchan, Vannati-kuruvi, Patkari-kuruvi (Tamil).

*Habits*: Widespread resident. Keeps singly or in pairs. Affects gardens, orchards, plantations, scrub jungle and open broadleaved forest near human habitations. Feeds on insects, caterpillars, dragonflies and small lizards.

*Remarks*: Common. Found throughout the sanctuary. Breeds between March and May.

206. Saxicola caprata (Linnaeus)

*Common names*: Pied Bush chat (Eng.); Kallu kuruvi (Tamil).


*Remarks*: Common. A number of birds were seen in different habitats. Breeds between February and May.

207. Saxicoloides fulicata (Linnaeus)

*Common names*: Indian Robin (Eng.); Wannati-kuruvi, Kari-kuruvi (Tamil).

*Habits*: Widespread resident. Keeps singly or in pairs. Affects thin scrub jungle, forest, sparse bushes, paddyfields and village gardens. Feeds on insects and their larvae.

*Remarks*: Common. A number of birds were seen in different habitats. Breeds between December and April.

208. Turdus merula Linnaeus

*Common names*: Blackbird (Eng.); Karun kuruvi (Tamil).

*Habits*: Resident. Keeps singly or in pairs. Affects forests, gardens and well shaded areas of plantations. Feeds on insects, slugs, earthworms, snails, fruits and berries.

*Remarks*: Moderately common. Only four birds could be seen throughout the survey period in forested tracts. Breeds between March and August, depending on rains.
Family MOTACILLIDAE

209. Anthus novaeseelandiae Gmelin

_Copyright names_ : Paddyfield Pipit (Eng.); Pulla purake, Nettai-kali (Tamil).


_Remarks_ : Moderately common. Only ten birds could be seen throughout the survey period in different suitable habitats of the sanctuary. Breeds from November till rains in June.

210. Anthus godlewskii (Teczanowski)

_Copyright names_ : Blyth’s Pipit (Eng.); Pulla puraki (Tamil).


_Remarks_ : Uncommon. Only four birds could be seen throughout the survey period in a cultivation land of the sanctuary. Breeds in eastern Asia.

211. Motacilla indica Gmelin

_Copyright names_ : Forest Wagtail (Eng.); Kodikal valati (Tamil).

_Habits_ : Winter visitor. Keeps singly or in loose pairs. Affects well shaded plantations, footpaths through forest and glades. Forages mostly on the ground and feeds on ants, other small insects and spiders.

_Remarks_ : Uncommon. Only four birds could be seen throughout the survey period in a scruby jungle of the sanctuary. Breeds in eastern Asia during May and June.

212. Motacilla flava Linnaeus

_Copyright name_ : Yellow Wagtail (Eng.).

_Habits_ : Winter visitor. Keeps in scattered pairs or parties. Affects marshes, grassy margins of tanks and jheels, and irrigated rice-fields. Feeds on insects, their larvae; and tiny molluscs.

_Remarks_ : Uncommon. Only four birds could be seen throughout the survey period feeding in a cultivated land of the sanctuary. Breeds in Siberia.
213. *Motacilla caspica* (Gmelin)

*Common name*: Grey Wagtail (Eng.).


*Remarks*: Moderately common. Only six birds could be seen throughout the survey period running and feeding on the edges of Muniappan Lake. Breeds in the palaearctic region.

214. *Motacilla alba* Linnaeus

*Common name*: White Wagtail (Eng.).

*Habits*: Winter visitor. Keeps singly, in pairs or small loose flocks. Affects vicinity of rivers, streams, tanks, flooded lands, cultivated lands, compounds and suburbs. Feeds on insects and their larvae.

*Remarks*: Common. A number of birds could be seen in different habitats of the sanctuary. Breeds in western Siberia.

215. *Motacilla maderaspatensis* Gmelin

*Common names*: Large Pied Wagtail (Eng.); Vannathi kuruvi, Kulatthu kuruvi (Tamil).


*Remarks*: Common. A number of birds were seen throughout the sanctuary in different habitats. Breeds between March and June.

Family DICAEIDAE

216. *Dicaeum erythrorhynchos* (Latham)

*Common name*: Tickells' Flowerpecker (Eng.).


*Remarks*: Common. A number of birds were seen throughout the survey period in different habitats. Breeds between February and May and again in August-September.
Family NECTARINIIDAE

217. Nectarinia zeylonica (Linnaeus)

*Common names*: Purplerumped Sunbird (Eng.); Then-kudi, Pu-kudichan (Tamil).


*Remarks*: Common. A number of birds were seen throughout the survey period in different habitats. Breeds between February and April.

218. Nectarinia lotenia (Linnaeus)

*Common names*: Maroonbreasted Sunbird (Eng.); Pan chittu, Then chittu (Tamil).


*Remarks*: Moderately common. Only five birds were seen throughout the survey period in different habitats. Breeds between March and May.

219. Nectarinia asiatica (Latham)

*Common names*: Purple Sunbird (Eng.); Then-kudi, Pu-kudichan (Tamil).

*Habits*: Resident. Keeps singly or in pairs. Affects light forest, semi-cultivation, gardens and compounds. Feeds on nectar of flowers.

*Remarks*: Common. A good number of birds were seen in different habitats. Breeds between February and June.

Family ZOSTEROPIDAE

220. Zosterops palpebrosa (Temminck)

*Common names*: White-eye (Eng.); Kannadi kuruvi (Tamil).


*Remarks*: Common. A number of birds were seen in different forested areas. Breeds between June and July.
Family PLOCEIDAE
Subfamily PASSERINAE

221. *Passer domesticus* (Linnaeus)

*Common names:* House Sparrow (Eng.); Ur kuruvi, Adaikala kuruvi (Tamil).


*Remarks:* Common in and around human habitations. Breeds throughout the year.

Subfamily PLOCEINAE

222. *Ploceus philippinus* (Linnaeus)

*Common names:* Indian Baya (Eng.); Thonga-nathan, Thukanan-kuruvi, Manja-kuruvi (Tamil).


*Remarks:* Common. A number of flocks were seen throughout the survey period in different habitats. Breeds between April and October, depending on monsoon rains.

Subfamily ESRILDINAE

223. *Lonchura malabarica* (Linnaeus)

*Common names:* Whitethroated Munia (Eng.); Nellu-kuruvi (Tamil).

*Habits:* Widespread resident. Keeps in flocks. Affects grassland, cultivation and scrubbed jungle. Feeds on small insects and grass seeds.

*Remarks:* Common. A number of birds were found throughout the survey period in different habitats. Breeds between December and March.

224. *Lonchura striata* (Linnaeus)

*Common names:* Whitebacked Munia (Eng.); Nellu-kuruvi, Tinai-kuruvi (Tamil).

Remarks: Common. A number of birds were seen in grasslands and cultivated fields. Breeds between July and December.

225. *Lonchura punctulata* (Linnaeus)

*Common names*: Spotted Munia (Eng.); Neelu-kuruvi, Tinna-kuruvi (Tamil).


*Remarks*: Common. A number of birds were seen in different habitats. Breeds between May and September during monsoon.

226. *Lonchura malacca* (Linnaeus)

*Common names*: Blackheaded Munia (Eng.); Thinai kuruvi, Nellu-kuruvi (Tamil).


*Remarks*: Common. A number of flocks were found throughout the survey period in different habitats. Breeds between June and September.

**DISCUSSION**

The Sanctuary is one of the important refuges for the migratory wintering waterbirds. The tropical dry evergreen forest is of great value in the preservation of the biological diversity of its kind. This highly fragile ecosystem is being endangered by the following factors:

(i) Two companies are manufacturing industrial salt in the sanctuary area since 1963. Both the companies also produce Bromine. During this process, the waste product called as 'Bittern', which is having high concentration of Calcium, Magnesium and Sodium salt, are being released untreated into the swamp. This practice is detrimental to marine benthic organisms and need be stopped as during rainy season migratory water birds also use these habitats in addition to the swamp area. New proposals to start more salt based industries are also of great concern.

(ii) Collection of firewood by the local inhabitants in an uncontrolled manner is likely to cause habitat destruction in near future.

(iii) Collection and removal of litters is also of great concern and need be controlled.
(iv) Catching of fish and prawns from the swamp area is a regular practice. This is causing habitat destruction and is causing disturbance to the migratory waterbirds while feeding and resting.

(v) The Sanctuary was found to have a lot of hunting pressure. On a number of occasions the survey party found a number of ducks lying dead in different places of the swamp area being shot by firearms. This need be stopped immediately. Otherwise in near future these wintering waterbirds may avoid this area out of fear.

(vi) Cattle were found grazing even in the deepest part of the forest. Huge grazing of domestic cattle not only degrades the habitat but also will lead to serious outbreak of contagious disease among the wild herbivores.

**RECOMMENDATION**

To conserve the Sanctuary which is part of a coastal, marine influenced ecosystem following recommendations may be considered.

(a) The salt works within the sanctuary should not be allowed to be expanded. 'Bittern' to be released into the swamp only after being treated properly.

(b) Collection of fire wood and other forest products inside the sanctuary need be controlled and alternative sources of firewood for local communities need be developed. However, attempts should be made to minimize their requirement gradually. Supply of low fuel consuming oven, use of solar energy and social forestry may come under this programme.

(c) Grazing of livestock within the sanctuary should be controlled. Free inoculation of domestic cattle must be arranged to minimize spreading of contagious diseases.

(d) Protective status of the entire sanctuary and the adjacent Great Vedaranyam Swamp need be upgraded.

(e) Well-equipped research wing should be arranged immediately. This wing will carry out researches on the eco-development of the area, status of different species, population fluctuations, animal behaviour, diseases and others. Carrying capacity of the sanctuary need also be studied from time to time.

(f) Unless the local people are taken into confidence, no conservation programme can achieve any success. Awareness programme must be organised regularly to make the local people understand that the sanctuary is not against them, rather it is for
them. In this course, fullest cooperation from them may be received for the conservation of this sanctuary which will serve as substantial resource for future generations.

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REFERENCE


Map of Point Calimere Wildlife and Bird Sanctuary
Entrance of Point Calimere Wildlife and Bird Sanctuary.
View of Munippan lake

View of forest type
Salt pans in the Sanctuary

Large Eagret
BHATTACHARYYA et al. : Avifaunal Composition of Point Calimere Wildlife and Bird Sanctuary

Different water birds in feeding ground

Congregation of Different water birds
Painted Stork

Jungle owlet

Pea Fowl

Rufous Babbler
Roosting Night Herons

Pintail duck found shot dead
Mangrove swamp in Muniappan Lake

Domestic cattle grazing inside the sanctuary