

- Roystonea regia* **Kth.** Palmae (Eng. The Cuban Royal Palm);
- Sapindus* sp. Sapindaceae;
- Saraca indica* **L.** Caesalpiniaceae (Tel. Asokamu) (Eng. Asoka tree);
- Spathodea campanulata* **Beauv.** Bignoniaceae; (Eng. Fountain tree);
- Tabebuia pentaphylla* **Hemsl.** Bignoniaceae;
- Tecoma* sp. Bignoniaceae;
- Wrightia tinctoria* **R. Br.** Apocynaceae (Tel. Tella pala).

While *Casuarina equisetifolia* (Tel. Chavukku) is extremely rare in Yanam, the cashew-nut trees (*Anacardium occidentale* **L.**) and *Barringtonia actuangula* **Gaertn.** which are very common in Karaikal, are totally absent in Yanam region.

Conclusion

Each region of Pondicherry territory has its own singular floristic aspect. For example, the flora of the Miocene sandstones of Pondicherry is unknown in other regions; the vegetation types of the 'occidental floral domain' that we find in Mahe are not met with in the other regions situated on the Eastern Coast; Karaikal is extremely rich in hygrophytes; in Yanam one finds many halophytes covering vast areas. Thus the flora of these four regions complement each other.

VI. Fauna

The fauna of Pondicherry, Karaikal and Yanam may be taken as essentially the same as that of the nearby districts of Tamil Nadu or Andhra Pradesh, the regions presenting practically the same physical, climatic and biotic features of the surrounding areas. The fauna of Mahe is more or less the same as that of the adjoining Malabar tract of Kerala. There are no major forests in the region, which at best contains only scarce, secondary, disturbed scrub jungle besides open trees and agricultural fields. The sea-board of the territory also does not exhibit any special feature. As such the fauna is limited and not spectacular so far as the larger species of wild life are concerned. By and large the fauna can be characterised as typical of the drier areas of Peninsular Indian plains.

Mammals :

There are about 54 species of mammals found in the area. Of the order Insectivora or insect eating small mammals, the commonest is the House Shrew (*Suncus murinus niger*). Two other species of House Shrews (*Suncus stoliczkanus* and *Suncus dayi*) may also be found occasionally. South Indian Hedgehog, *Paraechinus micropus nudiventris* may be rarely met with, while the Southern Tree Shrew *Anathana ellioti ellioti* may no longer be found here. Among Chiroptera or bats, both the frugivorous and insectivorous species are common. The frugivorous bats which do a certain amount of damage to orchards and fruit cultivations belong to the family Pteropidae and are of three species: *Pteropus giganteus giganteus* commonly known as Flying Fox, the short-nosed Fruit Bat *Cynopterus sphinx sphinx* and the Leschenault's Fruit Bat *Rousettus leschenaulti leschenaulti*. About twenty species of insectivorous bats belonging to five families are known to exist here. These include three species of Tomb bats (*Taphozous longimanus longimanus*, *T. melanopogon melanopogon* and *T. Saccolaimus crassus*); two species of False Vampires (*Megaderma spasma horsfieldi* and *M. lyra lyra*); two species of Horseshoe Bat (*Rhinolophus rouxi rouxi* and *R. luctus beddomei*); the Leaf-nosed Bat (*Hipposideros speoris speoris*); the Free-tailed Bat (*Tadarida plicata plicata*); three species of Pipistrelle Bats (*Pipistrellus coromandra coromandra*, *P. minus minus* and *P. ceylonicus*); two species of Yellow Bat (*Scotophilus temmincki wroughtoni* and *S. heathi heathi*); the Long winged Bat (*Miniopterus australis pisillus*); and the Hairy winged Bat (*Harpiocephalus harpid madrassius*).

Coming to the order of Primates to which apes, monkeys and man himself belong, commonest is the Bonnet monkey *Macaca radiata radiata* the common pale or red faced squat monkey. The Grey Langur *Presbytis entellus anchises*, the black faced slimmer monkey originally found in some areas probably no longer range in these areas. The slender Loris (*Loris tardigradus lydekkerianus*) is said to be almost non-existent in Pondicherry region now. The curious creature Scaly Anteater or Pangolin (*Manis crassicaudata*) is rarely met with.

Among the Carnivora, the larger cats like Tiger and Leopard are non-existent here. Of the lesser cats Rusty spotted Cat (*Felis rubiginosa rubiginosa*), the Leopard Cat (*Felis bengalensis bengalensis*) and the jungle Cat (*Felis chaus kelaarti*) were found here but except for the scarce occurrence of the latter, others are very rare now. Jackals (*Canis aureus naria*) and foxes (*Vulpes bengalensis*) are nowadays not so common. The Civet Cats and mongooses are represented by the common Palm Civet (*Paradoxurus hermaphroditus hermaphroditus*) rather rare, the small Indian Civet (*Viverricula indica indica*), the Grey Mongoose (*Herpestes smithi smithi edwardsi*) and occasionally Ruddy Mongoose (*Herpestes smithi smithi*).

No large wild herbivores such as deers, antelopes etc., occur as the area is devoid of any large forests.

Of the rodents (Rodentia) and their allies, hares and rabbits (Lagomorpha) there are many species. Blacknaped Hare *Lepus nigricollis nigricollis* could be found in some areas. The common three striped Palm Squirrel (*Funambulus palmarum palmarum*) is the commonest squirrel of our compounds and gardens. The Flying Squirrel *Petaurista petaurista philippensis* is extremely rare now. Porcupine (*Hystrix indica indica*) although rarely met with some years ago are no more found to exist in Pondicherry region. The murid group of rodents that include gerbilles, rats and mice includes several kinds, a menace to cultivation. The Gerbilla Rat (*Tatera indica cuvieri*), Mole Rat (*Bandicota bengalensis ok*), Large Bandicoot (*Bandicota indica indica*), Metad (*Millardia meltada*), Bush Rat (*Gohunda ellioti ellioti*), the Field Mouse (*Mus booduga*) are all destructive to agriculture and plantations. The species found living in and around houses are the common House Rat (*Rattus rattus rattus* and *R. norvegicus*) and the House Mouse (*Mus musculus castaneus*). Other species of rats and mice which might be occasionally found in the area include Blanford's Rat (*Rattus blanfordi*), Fawn coloured Mouse (*Mus cervicolor phillipsi*), Brown Spiny Mouse (*Mus platythrix ramnadensis*) and the Tree mouse (*Vandeleuria oleracea nilagrica*).

In Mahe among the insectivora or insect eating small mammals the common House Shrew *Suncus murinus* (Linnaeus) and occasionally, Day's Shrew, *Suncus dayi* (Dobson) could be met with. Bats are of several kinds. There are three species of fruit eating bats viz., the Egyptian fruit bat *Rousettus leschenaulti* (Desmarest), the common Flying Fox *Pteropus giganteus giganteus* (Brünnich) and the short-nosed fruit bat, *Cynopterous sphinx* (Vahl). Others are mainly the smaller sized insectivorous bats. Species found in the area are: the lesser Rat-tailed bat *Rhinopoma hardwickei* Gray, the Tomb bat *Taphozous longimanus Hardwickei*, the Black-bearded Tomb bat *T. melanopogon* Temminck, the Malay False Vampire *Megaderma spasma* (Linnaeus) and the Indian False Vampire *M. lyra* Geoffroy; three species of Horseshoe bats: *Rhinolophus rouxi rouxi* Temminck, *R. gracilis* Anderson and *R. luctus beddomei* Anderson; two or three species of Leaf-nosed bats: *Hipposideros speoris* Schneider, *H. lankadiva* Kelaart and probably *H. bicolor fulvus* (Gray), the free-tailed bat *Tadarida tragata* (Dobson); three species of Pipistrelle: *Pipistrellus coramandra* (Gray), *P. minus minus* (Wroughton) and *P. ceylonicus indicus* (Dobson); two species of Yellow bats, *Scotophilus temmincki wroughtoni* Thoms and *S. heathi* (Horsfield); the long winged bat *Miniopterus schreibersi fuliginosus* (Hodgson) and the beautiful painted bat *Kerivoula picta picta* (Pallas).

Of the monkeys, the Macaques are represented by the Bonnet Monkey *Macaca radiata radiata* (Geoffroy) and Langurs by *Presbytis entellus dussumieri* (Geoffroy).

Among the Carnivora, many species are commonly met with in the adjoining Malabar tract and it is possible that some of these may be occasionally found in Mahe. These include the Jackal *Canis aureus naria* (Wroughton), the Fox *Vulpes benghalensis* (Shaw), the Common Otter *Lutra lutra nair.* (F. Cuvier), the small Indian Civet *Viverricula indica indica* (Desmarest), the Palm Civet or Toddy Cat *Paradoxurus hermaphroditus hermaphroditus* (Pallas), Grey Mongoose *Herpestes edwardsi edwardsi* (Geoffroy), the Jungle Cat *Felis chaus kelaarti* (Pocock) and very rarely the Fishing Cat *Felis viverrina* (Bennett).

The common South Indian Blacknaped hare *Lepus nigricollis nigricollis* (F. Cuvier) is occasionally found. Rodents are mostly the house and field species found generally in Southern India, like the Squirrel *Funambulus palmarum palmarum* (Linnaeus) and various species of rats and mice. The porcupine *Hystrix indica indica* (Kerr) might sometimes visit from adjoining areas. A spiny Dormouse *Platacanthemys lasiurus* (Blyth) is often found in the Malabar and Mysore forest areas which might perhaps be still found here also. The species of rats and mice occurring in the region are: Long tailed Tree Mouse *Vandeleuria oleracea nilagirica* (Jerdon), the soft-furred Field Rat *Millardia melitada melitada* (Gray), the House Rat *Rattus rattus rufescens* (Gray), the Norway Rat. *R. norvegicus* (Berkenhout) which is alien but introduced here as elsewhere also, the House Mouse *Mus musculus castaneus*, Water Mouse *Mus booduga booduga* (Gray), the little Field Mouse *Mus cervicolor phillipsi* (Wroughton) the Fawn coloured Mouse, the Brown spiny Mouse *Mus platythrix platythrix* (Bennett), the Bush rat *Golunda ellioti* (Gray), two types of bandicoots, the lesser *Bandicota benghalensis* (Gray) and the larger *Bandicota indica indica* (Bechstein) and finally the Gerbil *Tatera indica hardwickei* (Gray).

Marine mammals reported from Malabar coast and near Mahe are the black finless Porpoise *Neomeris phocaenoides* (Cuvier), the Dolphin *Delphinus dussemieri* (Blanford) and Plumbeous Dolphin *Sotalia plumbea* (Cuvier). The Dugong (sea-cow) and Otter are also sighted near the shore.

TABLE—I

Mammals

Scientific and common English names		Pondi- cherry	Karai- kal	Mahe	Yanam
<i>Anathana ellioti</i> Waterhouse—Madras Tree-Shrew	..	+	+	—	—
<i>Suncus murinus</i> Linnaeus—House-Shrew	..	..	+	+	+
<i>Rousettus leschenaulti</i> Desmarest—Fulvous Fruit Bat	..	+	+	+	—
<i>Pteropus giganteus</i> Brünnich—Indian Flying Fox	..	+	+	+	+
<i>Cynopterus sphinx</i> Vahl—Short-nosed Fruit Bat	..	+	+	+	—
<i>Taphozous melanopogon</i> Temminck—Black-bearded Tomb Bat	..	..	—	—	+
<i>Taphozous saccolaimus</i> Temminck—Pouch-bearing Bat	..	+	+	—	—
<i>Megaderma spasma</i> Linnaeus—Malay False Vampire	..	+	+	+	+
<i>Megaderma lyra</i> Geoffroy—Indian False Vampire	..	+	+	+	+
<i>Rhinolophus rouxi</i> Temminck—Horse-shoe Bat	..	..	+	+	+
<i>Hipposideros speoris</i> Schneider—Schneider's Leaf-nosed Bat	..	..	+	+	+
<i>Hipposideros fulvus</i> Gray—Indian Bicoloured Leaf-nosed Bat	..	..	+	+	+
<i>Tadarida plicata</i> Buchanan—Wrinkled-lipped Bat	..	+	+	+	—
<i>Pipistrellus coromandra</i> Gray—Indian Pipistrelle	..	+	+	+	+
<i>Pipistrellus mimus</i> Wroughton—Indian Pygmy Pipistrelle	..	+	+	+	+
<i>Pipistrellus ceylonicus</i> Kelaart—Kelaarti's Pipistrelle	..	+	+	+	+
<i>Scotophilus kuhli</i> Leach—Lesser Yellow Bat	..	..	+	+	+
<i>Scotophilus heathi</i> Horsfield—Greater Yellow Bat	..	+	+	+	+

Scientific and common English names	Pondi- cherry	Karai- kal	Mahe	Yanam
<i>Kerivoula picta</i> Pallas—Painted Bat	..	..	+	+
<i>Macaca radiata</i> Geoffroy—Bonnet Monkey	..	..	+	—
<i>Presbytis entellus</i> Dufresne—Langur	..	..	+	+
<i>Canis aureus</i> Linnaeus—Asiatic Jackal	..	..	+	+
<i>Vulpes bengalensis</i> Shaw—Bengal Fox	..	..	+	+
<i>Melursus ursinus</i> Shaw—Sloth Bear	..	..	—	—
<i>Lutra lutra</i> Linnaeus—Common Otter	..	..	+	—
<i>Lutra perspicillata</i> Geoffroy—Smooth-coated Indian Otter.	—	—	+	—
<i>Viverra megaspila</i> Blyth—Large-spotted Civet	..	..	—	—
<i>Paradoxurus hermaphroditus</i> Pallas—Common Palm Civet.	+	+	—	+
<i>Paradoxurus jerdoni</i> Blanford—Jerdon's Palm Civet	..	+	+	+
<i>Herpestes edwardsi</i> Geoffroy—Indian Grey Mongoose	..	+	+	+
<i>Felis chaus</i> Guldenstaedt—Jungle Cat	..	..	—	—
<i>Felis rubiginosa</i> Geoffroy—Rusty-spotted Cat	..	..	+	—
<i>Sus scrofa</i> Linnaeus—Wild Boar	..	..	—	—
<i>Tragulus meminna</i> Erxleben—Mouse Deer	..	..	+	+
<i>Axis axis</i> Erxleben—Spotted Deer	..	..	+	+
<i>Cervus unicolor</i> Kerr—Sambar	..	..	+	+
<i>Tetracerus quadricornis</i> Blainville—Four-horned Antelope.	+	+	+	+
<i>Gazella gazella</i> Pallas—Mountain Gazelle	..	..	—	—
<i>Lepus nigricollis</i> Cuvier—Indian Hare	..	..	+	+
<i>Funambulus palmarum</i> Linnaeus—Indian Palm Squirrel.	+	+	+	+

Scientific and common English names	Pondi- cherry	Karai- kal	Mahe	Yanam
<i>Funambulus tristatus</i> Waterhouse—Jungle Striped Squirrel.	+	+	+	—
<i>Funambulus sublineatus</i> Waterhouse—Dusky Striped Squirrel	—	—	+	—
<i>Funambulus layardi</i> Blyth —Layard's Striped Squirrel ..	—	—	+	—
<i>Ratufa indica</i> Erxleben—Indian Giant Squirrel	+	+	+	+
<i>Millardia meltada</i> Gray--Soft-furred Field Rat	+	+	+	—
<i>Rattus blanfordi</i> Thomas—Blanford's Rat	+	+	—	+
<i>Rattus rattus</i> Linnaeus—House Rat	+	+	+	+
<i>Mus musculus</i> Linnaeus—House Mouse	+	+	+	+
<i>Mus booduga</i> Gray—Little Indian Field Mouse	+	+	—	+
<i>Mus cervicolor</i> Hodgson—Fawn-coloured Mouse	+	+	+	—
<i>Mus platythrix</i> Bennett—Indian Brown Spiny Mouse	+	+	—	+
<i>Bandicota bengalensis</i> Gray—Lesser Bandicoot Rat	+	+	+	+
<i>Bandicota indica</i> Bechstein—Large Bandicoot Rat	+	+	+	+

Birds :

Several species of resident or locally migratory birds are found in the area. In winter months this bird fauna is considerably enriched by the arrival of several more species of migratory birds from the north. Barring a few exceptions, most of the birds found in other parts of the plains of peninsular India occur here also.

A number of aquatic or waterfront species of birds can be found in and around the various irrigation tanks, ponds and canals or water courses.

Little Grebe or Dabchick (*Podiceps ruficollis*) is a drab coloured squat, tailless little water bird with silky white under parts, found in pairs or parties near water. The Spotbill or Grey Duck (*Anas poecilorhyncha*) is the size of domestic duck with brown scaly feather pattern, yellow tipped bill with two orange red spots at its base. Of the teals, only Cotton Teal (*Nettapus coromandelianus*) the

smallest of the wild ducks largely white is present. Another duck like bird sometimes found is the Nakta or Comb Duck (*Sarkidiornis melanotos*) black glossy blue and green above and white below with a swollen knob at the base of the bill. Flamingo (*Phoenicopterus roseus*) is familiarly met with. Not so common is the Chestnut Bittern (*Ixobrychus cinnamomeus*), a bird largely chestnut in colour as the name indicates. Another bittern is the Little Green Bittern (*Butorides striatus*) resembling paddy birds in general effect as bitterns do. Night Heron (*Nycticorax nycticorax*) ashy grey above with black back and white below, is nocturnal in habits. Paddy Bird (*Ardeola grayii*) an earthly brown bird at rest is quite common. Two egrets, the Cattle Egret (*Bubulcus ibis*) the common white bird seen around cattles, and the Little Egret (*Egretta garzetta*) similar but differentiated by the black bill, are present. Another common water front bird is Grey Heron (*Ardea cinerea*) a stork like bird with white, long, curved neck. Four species of storks are common: Open billed stork (*Anastomus oscitans*) greyish white, with black wings, Painted stork (*Ibis leucocephalus*) with a heavy yellow bill and face and rose pink on shoulders and wings, the Black necked Stork (*Xenorhynchus asiaticus*) with enormous black bill, head and neck and pied black and white wings and the White necked stork (*Ciconia episcopus*) a black stork with white neck and abdomen. Both Black Ibis and White Ibis (*Pseudibis papillosa* and *Threskiornis melanocephala*) with long, down curved bills are present. The Spoon Bill (*Platalea leucorodia*) can be easily identified by the large flat, black and yellow spoon shaped bill. Darter (*Anhinga rufa*) known also as snake-bird for its snake like neck and narrow head is met with rarely. Little Cormorant (*Phalacrocorax niger*) is another similar black duck like bird. Spotted billed or Grey pelican may be occasionally found. Lapwings, plover like birds of partridge size with fleshy wattles in front of eyes are represented by Yellow-wattled Lapwing (*Vanellus malabaricus*) and Red wattled Lapwing (*Vanellus indicus*). Commonest of the plovers is the Little Ringed Plover (*Charadrius dubius*) sandy brown above and white below with a complete white neck band. Near water courses one may find the River Tern (*Sterna aurantia*) coloured grey and white yellow bill and forked tail with a jet black cap on the head and nape in the summer. On the sea board, the Brownheaded Gull (*Larus brunnicephalus*) is quite common; so is the Blackheaded Gull (*Larus ridibundus*). Painted snipe (*Rostratula benghalensis*), metallic green with buff and black streaks above and brown and white below with long tip-cured bill may be occasionally seen in paddy fields. An Avocet with upturned beak was found near Thengathittu recently. Jacanas with spidery elongated toes are of two types, the Pheasant-tailed Jacana (*Hydrophasianus chirurgus*) and Bronzewinged Jacana (*Metopidius indicus*); both are very rare nowadays. The family of Rails and Coots is represented by the Coot (*Fulica atra*), a slaty black duck like bird with white bill and forehead, the Purple Moorhen (*Porphyrio porphyrio*), a purplish blue hen like bird with red bill and forehead, the Indian Moorhen (*Gallinula chloropus*)

slaty grey and brown with white under-tail red forehead and base of bill, and the white breasted Waterhen (*Amaurornis phoenicurus*). The purple Moorhen is said to be very rare.

Birds of open trees with scrub jungle or meadows and ploughed fields are numerous. Bustard Quail (*Turnix suscitator*) Button Quail (*Turnix tanki*) are common in grass land. True Quails also found in similar habitats include Jungle Bush Quail (*Perdica Asiatica*), Rain Quail (*Coturnix coromandelica*) and the common Grey Quail (*Coturnix coturnix*). The pheasants found include Grey and Painted Partridges (*Francolinus pondicerianus* and *F. pictus*) and Pea fowl (*Pavo cristatus*). Sandgrouses are represented by the Common Indian Sandgrouse (*Pterocles exustus*). The species of pigeons and doves usually met with are the Little Brown Dove (*Streptopelia senegalensis*), Ring Dove (*Streptopelia decaocto*), Spotted Dove (*Streptopelia chinensis*), Red Turtle-Dove (*Streptopelia tranquebarica*), Emerald Dove (*Chalcophaps indica*), Blue Rock Pigeon (*Columba livia*) and the Green Pigeon (*Treron phoenicoptera*). Emerald dove and green pigeon are very rare.

Birds of prey commonly found in the area are vultures like the White Scavenger Vulture (*Neophron percnopterus*) mostly dirty white in colour, Whitebacked Vulture (*Gyps bengalensis*) with white on the back, the King Vulture (*Torgos calvus*) with scarlet head and neck; the kites notably the common Pariah Kite (*Milvus migrans*), the Brahminy Kite (*Haliastur indus*) body rusty red with head, neck and breast white, the Shikra (*Accipiter badius*) a slim ashy blue grey bird with rusty brown cross barred white below, eagles like Short-toed Eagle (*Circus gallicus*) thick set, with white under parts barred with brown and vertical bustle like feathers on face, and the commonest of our eagles, the Tawny Eagle (*Aquila rapax*) with flat head and thickly feathered legs; falcons like Redheaded Merlin (*Falco chicquera*) a bluish grey falcon with chestnut head and black barred white abdomen, owls like the Barn Owl (*Tyto alba*) with a facial disc surrounded by a ruff of stiff hairs, the Great Horned Owl (*Bubo bubo*) with 'ear tufts' or 'horns' and fully feathered legs, the Collared Scops Owl (*Otus bakkamoena*) a mottled grey brown, 'horned' owlet, under parts barred with blackish and brown, and the familiar Spotted Owlet (*Athene brama*) with spotted body, large round head and staring yellow eyes. Another common bird of the night is the Nightjar (*Caprimulgus asiaticus*).

Parrots found in the area include the large Indian Parakeet (*Psittacula eupatria*) with a maroon patch on the shoulder, the Roseringed Parakeet (*Psittacula krameri*) smaller and lacking the maroon patch, and the Blossom headed Parakeet (*Psittacula cyanocephala*), still smaller with bluish red head. The last is not so common as the other two.

Among cuckoos, the Koel (*Endynamys scolopacea*) and the Crow-Pheasant (*Centropus sinensis*) the familiar crow like bird with chestnut wings and long black tail are commonest. The Hawk-Cuckoo or Brainfever Bird (*Cuculus varius*) can be spotted by its screaming call rising in crescendo and ending abruptly, heard intermittently throughout the day.

Of the swifts, birds with bow like wings and noted for their speed, the Alpine Swift (*Apus melba*) is quite common. The Palm Swift (*Cypsiurus parvus*) associated with palmyra palm is found where these trees are present.

There is a rich variety, too many for individual mention, of small birds of the open plains, most of which are found in other similar drier areas of South India. These include, to mention the better known among them, kingfishers like Whitebreasted Kingfisher (*Halcyon smyrnensis*), Common Kingfisher (*Alcedo atthis*) and Pied Kingfisher (*Ceryle rudis*); Common Green Bea-eater (*Merops orientalis*); Roller or Blue Jay (*Coracias benghalensis*) the Common Hoopoe (*Upupa epops*); the Crimsonbreasted Barbet or Coppersmith (*Megalaima haemacephala*); woodpeckers like Goldenbacked Woodpecker (*Dinopium benghalense*) and the Yellowfronted Pied Woodpecker (*Dendrocopos mahrattensis*). Of the perching birds (*Passeriformes*) there are a great many variety: Indian Pitta (*Pitta brachyura*) a gaudy stub tailed green and fulvous bird with crimson undertail; larks like Black bellied Finch Lark (*Eremopterix grisea*), Rufoustailed Finch-Lark (*Ammomanes phoenicurus*), the Redwinged Bush Lark (*Mirafra erythroptera*), Small Indian Skylark (*Alauda gulgula*), Indian Pipit (*Anthus novaeseelandiae*) all rather resembling sparrow; swallows, like Wiretailed Swallow (*Hirundo smithii*) and the Redrumped Swallow (*Hirundo daurica*); Shrikes-birds with bills hooked at the tip like: Baybacked Shrike (*Lanius vittatus*), Rufousbacked Shrike (*Lanius schach*) and the Wood Shrike (*Tephrodornis pondicerianus*); the Golden Oriole (*Oriolus oriolus*) and Blackheaded Oriole (*Oriolus xanthornus*) bright golden yellow birds with some black on wings or on head; Drongos like Racket-tailed Drongo (*Dicrurus paradiseus*) and Black Drongo or King Crow (*Dicrurus adsimilis*); the ubiquitous House Crow (*Corvus splendens*) as also the Jungle Crow (*Corvus macrorhynchos*); the large Cuckoo-Shrike (*Coracina novae hollandiae*), Blackheaded Cuckoo-Shrike (*Coracina melanoptera*) and minivets like Small Minivet (*Pericrocotus cinnamomeus*) and Scarlet Minivet (*Pericrocotus flammeus*); the lora (*Aegithina tiphia*); three species of bulbuls, the white browed Bulbul (*Pycnonotus jocosus*) the Redvented Bulbul (*P. cafer*) and Red whiskered Bulbul (*Pycnonotus cafer*).

Of the family of Babblers, Flycatchers, Warblers etc., we have the Quaker Babbler (*Alcippe poioicephala*), the Spotted Babbler (*Pellorneum ruficeps*), Yellow eyed Babbler (*Dumetia hyperythra*), the Slatyheaded Scimitar Babbler (*Pomatorhinus schisticeps*), the Common Babbler (*Turdoides caudatus*) and the Jungle Babbler

(*T. striatus*). The common flycatchers are the Greyheaded Flycatcher (*Culicicapa ceylonensis*) and Blacknaped Blue Flycatcher (*Monarcha azurea*). Warblers found include the Streaked Fantail Warbler (*Cisticola juncidis*), the Ashy Wren-Warbler (*Prinia socialis*) and the Indian Wren-Warbler (*P. subflava*). The White throated Ground Thrush (*Zoothera citrina cyanotus*) is common. So is the Chestnutbellied Nuthatch (*Sitta castanea*). Of the Wagtails the resident species is the Large Pied Wagtail (*Motacilla maderaspatensis*). Tickell's Flowerpecker (*Dicaeum erythrorhynchos*) is occasionally seen. The Purple Sunbird (*Nectarinia asiatica*) and the Purplerumped Sunbird (*Nectarinia Zeylonica*) are the common sun birds. Nests of Common Weaver Bird (*Ploceus philippinus*) are a common sight.

In winter, this bird fauna is considerably enriched by the migrant species of birds from the north.

Reptiles:

Among the lizards, the commonly seen and better known forms are the Garden Lizard (*Calotes versicolor*), the Skink (*Mabuya carinata*). An interesting form which is named after the area, is the Agamid Lizard (*Sitana ponticeriana*) the only member of the family showing signs of degeneration of the limbs in that it has only four toes instead of the usual five. The Monitor Lizard (*Varanus monitor*) is occasionally met with.

The estuarine crocodile (*Crocodylus porosus*) and the fresh-water crocodile (*Crocodylus palustris*) used to be found, but have almost disappeared now.

Among sea turtles, the Hawksbill Turtle (*Eretmochelyx imbricata*) which yields the tortoise shell of commerce occur along the Pondicherry coast.

Many species of snakes may be found in the area. Among the poisonous species we have the Cobra (*Naja naja*), the common Krait (*Bungarus caeruleus*) and the Saw-scaled Viper (*Echis carinatus*). Non-poisonous snakes are more numerous of which the Wolf Snake (*Lycodon aulicus*) often mistaken for a Krait, the Green Whip Snake (*Ahaetulla namtus*), the Rat Snake (*Ptyas mucosus*) the Water Snakes or Keel backs (*Xenochrophis piscator* and *Amphiesma stoleta*) are rather common. The Dog-faced Water Snake (*Cerberus rhynchops*) is met with in estuaries and brackish waters. The Worm Snake (*Typhlops braminus*) is a harmless burrowing snake common in damp areas.

The common sea snakes of Pondicherry coast are the Beaked Sea Snake (*Enhydrina schistosa*) and the Banded Snake (*Hydrophis fasciatus*). Some other forms occasionally met with are (*Kerilia jerdoni*) known as Jerdon's Sea Snake and the Yellow Sea Snake (*Hydrophis spiralis*).

TABLE—II

List of reptiles met with in Karaikal, Mahe and Yanam

Common English name (1)	Karaikal (2)	Mahe (3)	Yanam (4)
Family—Cheloniidea			
Green turtle	<i>Chelonia mydas</i> (Linnaeus)	<i>C. mydas</i> (Linnaeus)	<i>C. mydas</i> (Linnaeus)
Family—Emydidae			
	<i>Geomyda trijuga</i> (Schweigger)		
Family—Gekkonidae			
House lizard	<i>Hemidactylus brooki</i> (Gray)	<i>H. brooki</i> (Gray)	<i>H. brooki</i> (Gray)
	<i>Hemidactylus triedus</i> (Daudin)		
	<i>Hemidactylus leschenaulti</i> (Dum & Bibr)		
Family—Agamidae			
Garden lizard or Blood sucker	<i>Calotes versicolor</i> (Daudin)	<i>C. versicolor</i> (Daudin)	<i>C. versicolor</i> (Daudin)
Skink	<i>Mabuya carinata</i> (Schneider)	<i>M. carinata</i> (Schneider)	<i>M. carinata</i> (Schneider)
	<i>Riopa punctata</i> (Gmelin)	<i>R. punctata</i> (Gmelin)	<i>R. punctata</i> (Gmelin)
		<i>Lygosoma dussumieri</i> (Dum. & Bibr.)	

(1)

(2)

(3)

(4)

Family—Varanidae

Monitor lizard *Varanus benghalensis*
(Daudin)

Family—Uropeltidae

Plectrurus perroteti *P. perroteti*
(Dum. & Bibr.) (Dum. & Bibr.)

Uropeltis ceylanicus
(Cuvier)

Family—Colubridae

Olivaceous *Atretium schistosum*
Keelback (Daudin)

Cat Snake *Boiga trigonata*
(Schneider)

Enhydris enhydris
(Schneider)

Dog faced *Cerberus rhynchops* *C. rhynchops* *C. rhynchops*
snake (Schneider) (Schneider) (Schneider)

Wolf snake *Lycodon aulicus* *L. aulicus* *L. aulicus*
(Linnaeus) (Linnaeus) (Linnaeus)

Green Keel *Macropisthodon*
back *plumbicolor*
(Cantor)

Checkered *Natrix psicator* *Natrix psicator* *Natrix psicator*
Keel back (Schneider) (Schneider) (Schneider)

Striped Keel *Natrix stolata* *Natrix stolata* *Natrix stolata*
back (Linnaeus) (Linnaeus) (Linnaeus)

Rat Snake *Ptyas mucosus* *Ptyas mucosus* *Ptyas mucosus*
(Linnaeus) (Linnaeus) (Linnaeus)

(1)

(2)

(3)

(4)

Family—Elapidae

Krait	<i>Bungarus caeruleus</i> (Schneider)	<i>B. caeruleus</i> (Schneider)	<i>B. caeruleus</i> (Schneider)
Cobra	<i>Naja naja</i> (Linn.)	<i>Naja naja</i> (Linn.)	<i>Naja naja</i> (Linn.)

Family—Hydrophiidae

Beaked Sea Snake	<i>Enhydrina schistosa</i> (Daudin)	<i>E. schistosa</i> (Daudin)	<i>E. schistosa</i> (Daudin)
Yellow Sea Snake	<i>Hydrophis spiralis</i> (Shaw)		
	<i>Lapemis curtus</i> (Shaw)		
Small headed Sea Snake	<i>Microcephalophis gracilis</i> (Shaw)		
	<i>Kerilia jerdoni</i> (Gray)		

The commonest House Gecko *Hemidactylus brooki* (Gray,) is found also quite as often away from buildings. The *Calotes versicolor* (Daudin) is commonly known as blood sucker. The *Varanus benghalensis* (Daudin) is commonly known as Monitor Lizard. It is beneficial to the people as it takes rats. *Enhydris enhydris* (Schn.) and *Natrix piscator* are aquatic snakes where they live upon fishes. The *Ptyas mucosus* (Linn.) is commonly known as "Rat Snake". It is mainly inhabitant of the plains and often found in the vicinity of human habitations. They take mainly rats and frogs. Within the poisonous snakes *Bungarus caeruleus* (Schn.) common "Indian Krait" and *Naja naja* (Linn.) "Indian Cobra" are terrestrial inhabitants and the *Enhydrina schistosa* (Daudin) is the common sea snake.

The occurrence of the estuarine crocodile, *Crocodylus porosus* though common once now needs confirmation. However, the marsh crocodile, *C. palustris*, may be spotted in marshy areas. Amongst lizards, the garden lizard *Calotes versicolor* and the skeii (*Mabuya carinata*) are common.

In respect of land snakes, mention should be made of the blind snake (Typhlops), the python (*Python molurus*), the so-called double headed snake (*Eryx conicus*), the rat snake *Ptyas mucosus*, the wolf snake (*Lycodon aulicus*), the cat snake (*Boiga trigonata*) etc.

The water snakes are the chequered keel back and striped keel back. All the four dangerous killers like the Cobra, Russel's viper, Banded krait and the small Indian viper are also met with in fair number.

Amongst sea snakes, the common species are the beaked sea snake (*Enhydrina* sp.) *Hydrophis cyanocinctus*, and the small headed sea snake (*Microcephalophis gracilis*).

The sea turtles of the area are the edible green turtle (*Chelonia mydas*), the Logger head (*Caretta caretta*) and lastly the valuable "Tortoise shell" turtle (*Eretmochelyx imbricata*).

Amphibians :

Among the amphibians the commonest of the frogs are the Indian Pond Frog (*Rana cyanophlyctis*), the Paddy-field Frog (*Rana limnocharis*) and the two edible frogs, the Green Frog (*Rana hexadactyla*) and the Indian Bull Frog (*Rana tigrina*). The Indian Toad (*Bufo melanosticus*) is very common. Two narrow mouthed frogs Microphyla and Uperodon are commonly met with under stones. The tree frog (*Rhacophorus*) is sometimes found on trees and bushes.

TABLE—III

The following amphibian species are likely to be found in Karaikal and Mahe:

Common Indian names	Species names
Family—Ranidae	
Genus— <i>Rana</i> Linnaeus	
Skipping Frog	<i>Rana. cyanophlyctis</i> (Schneider)
South Indian Frog	<i>Rana hexadactyla</i> (Lesson)
Paddy-field Frog	<i>Rana limnocharis limnocharis</i> (Wiegmann).
Bull Frog	<i>Rana tigrina tigrina</i> (Daudin)

Family—Bufonidae
Genus—*Bufo* Laurenti

Common Indian Toad *Bufo melanostictus* (Schneider)

The following amphibian species are likely to be found in Yanam :

Family—Ranidae
Genus—*Rana* Linnaeus

Skipping Frog *Rana cyanophlyctis* (Schneider)
Paddy-field Frog *Rana limnocharis limnocharis* (Wiegmann)
Bull Frog *Rana tigrina tigrina* (Daudin)

Family—Bufonidae
Genus—*Bufo* Laurenti

Common Indian Toad *Bufo melanostictus* (Schneider)

The water-frog community met with in this area include the skittering pond frog (*Rana cyanophlyctis*), the Paddy-field Frog (*Rana limnocharis*) and the Indian Bull frog (*Rana tigrina*) and the Green frog (*Rana hexadactyla*). However, the bull frog is scarcely seen because of its secretive habits. The toad commonly met with is *Bufo melanostictus*.

Fishes:

The territory has a rich variety of fish fauna in the coastal waters (Bay of Bengal) and also in the numerous ponds, tanks and water courses. About 175 species of fishes are known from Pondicherry. A new species of eel *Baseanichthys deranivagalai* (Menon) is known from the area.

Sharks such as *Carcharias sorrah*, *Scoliodon sorrakowah*, popularly known in Tamil as the "Sura meen" are common in these waters. The Electric Ray (*Narcine timlei*) is also known to occur here. The famous Hilsa (*Hilsa ilisha*) occurs sporadically. Though the Oil Sardine is not found in plenty as on the West Coast, a species of sardine related to the former (*Sardinella fimbriata*) is caught from the sea adjoining these areas. The White Bait (*Anchoviella commersonii*), the Dorab (*Chirocentrus dorab*), the Milk Fish (*Chanos chanos*) are some of the clupeid and clupeid-like fishes found. The Bombay Duck (*Harpodon nehereus*) found plenty in the Arabian Sea also occurs here though in limited numbers. Amongst the carps and catfishes, two species of "Kendai meen" are found: *Labeo kontius* and *Labeo boga*. The "Ponnaikeletee" (*Osteogobius militaris*, *Tachysurus jella*, *Myxus gulio* and *Pseudotropheus atherinoides*) are some of the other catfishes caught in considerable numbers.

The eel (*Anguilla benghalensis*) and a species of Muraenid eel are found. The Half-beak (*Hyporhamphus gaimardi*) and Gar-fish *Xenentodon cancila* are also common. Mulletts of the species *Mugil tade*, *Mugil parsia* and *Mugil cephalus* are of commercial value. The popular Mangoe fish (*Polynemus indicus*) yields an isinglass and is of value. Murrels of the species *Channa gachua*, *Channa punctata* and *Channa striata* are eaten in large numbers by the poorer section of the community. Carangid fishes (*Caranx melanpygus*, *Caranx carangus*) and Sciaenida such as *Otolithes ruber*, *Pseudosciaena coibor*, *Sciaena dussumieri* are also not uncommon. The Chichlid fish, Pearlsport (*Eetroplus suratensis*) is also found here. Ribbon fishes (*Trichiurus savala*) of commercial importance occur here. Common fishes such as the goby, soles etc., are many. The fish fauna is rich and varied and with proper judicious management could be profitably exploited (See Appendix I on page 98).

Marine invertebrate fauna:

There are four major groups of marine invertebrate fauna commonly met with in the sandy beaches along the coastal line of the Bay of Bengal.

Polychaeta : As far as the polychaeta are concerned 26 species belonging to 14 families occur commonly in this area. In the family Aphroditidae five species viz., *Aphrodita aculeata*, *Gayana deludens*, *Harmothue dictyophora*, *H. sinagawensis* and *Euthalensessa djiboutiensis* are easily available forms. Out of these *Gayana deludens* have a wide range of distribution along the east coast of India. Among the family Syllidae, *Syllis exilis*, *Trypanosyllis Zebra* and *T. misakiensis* are commonly met with. Next comes the family Glyceridae wherein three species viz., *Glycera sagittariae*, *G. rouxii*, *G. cirrata* may also be found occasionally. Family Nereidae having three species i.e. *Nereis chilkaensis*, *Platynereis dibranchis* and *Perinereis maidroni*, of which the last one is known only from this area. Among the other species the following are to be mentioned:

Hesione pantherina (family Hesionidae), *Nephtys dibranchis* (family Nephtyidae), *Diopatra neapolitana* and *Arabella irricolor* (family Eunicidae), *Scoloplos marsupialis* (family Ariciidae), *Serpula vermicularis* and *Salmacina Dysteri* (family Serpulidae), *Stylarioides benghalensis* (family Chloraemidae), *Sternaspis scutata* (family Sternaspidae), *Schistocomus hiltoni* (family Ampharetidae), *Nicolea gracilibranchis* (family Terebellidae) and *Cossura delta* (family Cirratulidae).

TABLE—IV

General Non-Chordata

Polychaeta (Bristle worms)

- Galtiana dewdens* Fauvel
Perinereis maindroni Fauvel.
Marphysa mossambica Peters.
Ancistrosyllis rigida Fauvel.
Syllis (*Typosyllis*) *exilis* Gravier.
Platynereis dumerilii (Aud. and Edwards).
Marphysa sanguinea Montagu.
Pisionidens indica (Aiyar and Alikunhi).
Pisone complexa Alikunhi.
Diopatra neapolitana Dellechiaje.

Sipuncula (Peanut worms)

- Sipunculus nudus* Linnaeus.

Crustacea: Class crustacea is a diversified group having peculiar habit and habitat. Of the order Cirripedia 14 species are commonly met with. They are sessile form and attached to different kinds of substratum. These are as follows :

Lepas anatifera indica, *Trilasmis minuta*, *T. amygdalum*, *Octolasmis tridens* *O. warwickii*, *O. gravii*, *O. lowei*, *O. cor*, *O. angulata*, *Balanus longinostrum* *Krusadiensis*, *B. amphitrite communis*, *B. tintinnabulum tintinnabulum*. *B. Sinnuensis* and *B. hoekianus*.

Among the order Isopoda and Stomatopoda not many species are known from this locality. Mention can be made of *Ligia* (order Isopoda), *Squilla* and *Lysiosquilla* (order Stomatopoda).

Order Decapoda is an important group from the commercial point of view. More than sixty species of crabs and prawns are known to occur in Pondicherry. In the sub-order (*Macrura* *Penaeus indicus*, *P. monodon*, *P. semisulcatus*, *Metapenaeus monoceros*, *M. dobsoni*, *M. brevicornis* and in the sub-order Brachyura *Scylla serrata*, *Portunus pelagicus*, *P. sanguinolentus* are most important species supporting commercial fishery of the area.

Other forms of this order *Emerita*, *Albunea*, *Clibanarius*, *Diogenes*, *Coenobita*, *Polionex*, *Pachycheles*, *Porcellana*, *Matuta*, *Calappa*, *Dorippe* are known from this area.

Mollusca : In the class Gastropoda all the orders have their representatives in this area. *Haliotis*, *Patella*, *Nerita* and *Neretina* of the order Achaegastropoda, *Littorina*, *Turritella* *Planaxis*, *Cerithidea*, *Natica*, *Cyprea*, *Gyrineum*, *Cymatium*, *Bursa*, *Tona* of the order Magagastropoda, *Murex*, *Druba*, *Thais*, *Babylonia*, *Nassa*, *Olivia*, *Ancilla*, *Xancus* of the order Stenoglossa, *Hydetina*, *Bulla*, *Aplysia* of the order Pleurocoela are the common forms available in the intertidal area. *Onchidium* (order Stylommatophora) and some other genera of the above named order might be occasionally found in this area.

Among the class Pelecypoda *Arca*, *Modiolus*, *Pecten*, *Ostrea* and *Crassostrea* of the order Taxodonta and *Lucinia*, *Cardium*, *Meretrix*, *Venus*, *Paphia*, *Donax* and *Pholas* of the order Eulamellibranchiata are common inhabitants of this area.

Class Cephalopoda is represented by only *Sepia*, *Loligo* and *Octopus*.

TABLE—V

Mollusca

FAMILY

—Patellidae	<i>Cellana radiata</i> Born
—Trochidae	<i>Trochus radiatus</i> Gmelin. <i>Umbonium vestiarium</i> Linnaeus.
—Turritellidae	<i>Turritella attenuata</i> R eve. <i>Turritella duplicata</i> Linnaeus.
—Architectonidae	<i>Architectonica perspectiva</i> Linnaeus.
—Potamididae	<i>Telescopium telescopium</i> Linnaeus.
—Calyptraeidae	<i>Crucibulum extintorum</i> Lamarck.
—Naticidae	<i>Polynices mamilla</i> Linnaeus. <i>Natica tigrina</i> Roding.
—Muricidae	<i>Murex tribulus</i> Linnaeus.
—Nassariidae	<i>Bullia (Dorsanum) vittata</i> Linnaeus.
—Olividae	<i>Oliva ispidula</i> Linnaeus.
—Arcidae	<i>Anadara granosa</i> Linnaeus. <i>Arca inaequalis</i> Bruguiere.
—Mytilidae	<i>Mytilus viridis</i> .
—Pteriidae	<i>Pinctada vulgaris</i> Schumacher.
—Pectinidae	<i>Pecten tranquebarius</i> Gmelin.

- Cardiidae *Cardium asiaticum* Bruguiere.
- Veneridae *Meretrix casta* Chemnitz.
 Paphia textile Gmelin.
 Dosinia modesta Sowerby.
 Sunetta scripta Linnaeus.
- Mactridae *Mactra attenuata* Deshayes.
 Mactrimula plicataria Linnaeus.
 Mactra mera Reeve.
- Donacidae *Donax scortum* Linnaeus.
- Tellinidae *Tellina angulata* Gmelin.
- Pholadidae *Pholas (Monothyra) orientalis* Gmelin.

Echinodermata : Most of the species belonging to this group are from the intertidal and shallow water zone. When the hightide recedes Sea Stars, Sea Urchins, Sand Dollars and Brittle Stars are found lying on the sandy seashore.

Asteroidea are readily identified by their shape like that of star hence the name Sea Star. Among the Sea Stars common forms are *Astropecten indicus*, *A. monacanthus* and *A. polyacanthus*, *Luidia maculata*, *Goinodiscus farficularis*, *Asterodiscus elegans* and some species of protoreaster.

Echinoidea are commonly known as Sea Urchins, Heart Urchins and Sand Dollars. As ubiquitous and conspicuous inhabitants of the sea, the echinoids easily attract the attention of the shore visitor. Not many species are known from this place. Among them *Salmacis bicolor* and *Temnopleurus toreumaticus* (family-Temnopleuridae) *Clypeaster humilis* (family-Clypeasteridae), *Echinometra mathaei* (family-Echino metridae) are common.

Ophiuroidea are commonly known as Serpent Stars due to snake like appearance of the arms or as Brittle Stars from the tendency of the arms to break easily. Usually available forms are *Ophiogymna lineata*, *Ophioenemis inarmorata*, *Ophiothrix accedens* and *O. variegata*. They all belong to the family *Ophiotrichidae*. The family *Ophiocomidae* includes the forms *Ophiocomella* and *Ophionereis* may also be found occasionally.

Holothuroidea are usually known as Sea Cucumbers. This group is commercially important for its use in Trepang industry. The forms usually exploited for this purpose, available in this area are *Holothuria atra*, *H. scabra*, *H. edulis*, *Stichopus variegatus* and *Actinopyga echinites*. Besides these *Acaudina australis* and *Chondroclaea recta* are also present in this area.

Crinoids are commonly known as Sea Lily and Feather Star. This group shows its marked absence in this area. Rarely some washed ashore forms such as *Lampometra* and *Comatella* are found.

APPENDIX—I

1. Species of fresh water fish recorded from Pondicherry and Karaikal:

Family — Cyprinidae	..	<i>Chela clupeioides</i> (Bloch)
		<i>Chela laubuca</i> (Hamilton)
		<i>Esomus barbatus</i> (Jerdon)
		<i>Rasbora daniconius</i> (Hamilton)
		<i>Labeo calbasu</i> (Hamilton)
		<i>Labeo boga</i> (Hamilton)
		<i>Labeo kontius</i> (Jerdon)
		<i>Puntius chola</i> (Hamilton)
		<i>Puntius dorsalis</i> (Jerdon)
		<i>Puntius filamentosus</i> (Cuv. & Val.)
		<i>Puntius sarana</i> (Hamilton)
		<i>Puntius</i> (Sarana) <i>pinnauratus</i> (Day)
		<i>Puntius sophore</i> (Hamilton)
		<i>Tachysurus jella</i> (Day)
Bagridae	..	<i>Mystus gulio</i> (Hamilton)
		<i>Mystus vittatus</i> (Bloch)
Schilbeidae	..	<i>Pseudeutropius atherinoides</i> (Bloch)
Belonidae	..	<i>Xenentodon cancila</i> (Hamilton)
Cyprinodontidae	..	<i>Aplocheilus panchax</i> (Hamilton)
		<i>Oryzias melastigma</i> (McClelland)
Channidae	..	<i>Channa gachua</i> (Hamilton)
		<i>Channa leucopunctata</i> (Sykes)
		<i>Channa punctata</i> (Bloch)
		<i>Channa striata</i> (Bloch)
Ambassidae	..	<i>Ambassis ranga</i> (Hamilton)
Anabantidae	..	<i>Anabas testudineus</i> (Bloch)
Gobiidae	..	<i>Glossogobius giuris</i> (Hamilton)

2. List of marine fishes met with in the Territory.

Family—Orectolobidae ..	<i>Chiloscyllium griseum</i> (Muller and Henle)
Carcharhinidae ..	<i>Carcharhinus sorrah</i> (M. & H.) <i>Galeocerdo cuvieri</i> (Le Sueur)
Rhinobatidae ..	<i>Rhinobatos granulatus</i> (Cuvier)
Trygonidae ..	<i>Dasyatis</i> (<i>Himantura</i>) <i>uarnak</i> (Forsk.) .. <i>Dasyatis</i> (<i>Amphotistius</i>) <i>zugei</i> (M.&H.) <i>Gymnura</i> (<i>Gymnura</i>) <i>micrura</i> (Schneider) <i>Gymnura</i> (<i>Gymnura</i>) <i>poecilura</i> (Shaw)
Myliobatidae ..	<i>Aetobatus flagellum</i> (Bloch & Schneider)
Torpedinidae ..	<i>Narcine brunnea</i> (Annandale) <i>Narcine timlei</i> (Bl. & Schn.) <i>Narke dipterygia</i> (Bl. & Schn.)
Clupeidae ..	<i>Dussumieria acuta</i> (Cuvier & Valenciennes) <i>Sardinella fimbriata</i> (Cuvier & Valenciennes) <i>Sardinella melanura</i> (Cuv.) <i>Sardinella sindensis</i> (Day) <i>Sardinella sirm</i> (Walbaum) <i>Hilsa ilisha</i> (Hamilton) <i>Pellona ditchela</i> (Cuv. & Val.) <i>Anodontostoma chacunda</i> (Ham.)
Engraulidae ..	<i>Setipinna taty</i> (Cuv. & Val.) <i>Anchoviella indica</i> (Van Hasselt) <i>Thrissocles dussumieri</i> (Cuv. & Val.) <i>Thrissocles malabaricus</i> (Bloch) <i>Thrissocles mystax</i> (Bloch & Schneider) <i>Thrissocles purava</i> (Ham.) <i>Thrissocles setirostris</i> (Brousonet)
Chirocentridae ..	<i>Chirocentrus dorab</i> (Forsk.)
Chanidae ..	<i>Chanos chanos</i> (Forsk.)
Synodidae ..	<i>Saurida tumbil</i> (Bloch)

Ariidae	..	<i>Osteogeneiosus militaris</i> (Linnaeus) <i>Tachysurus jella</i> (Day)
Muraenidae	..	<i>Gymnothorax punctata</i> (Bl. Schn.)
Ophichthyidae	..	<i>Bascanichthys deraniyagalai</i> (Menon)
Hemirhamphida	..	<i>Hyporhamphus gaimardi</i> (Cuv. & Val.)
Sphyraenoidae	..	<i>Sphyraena jello</i> (Cuv. & Val.) <i>Sphyraena obtusata</i> (Cuv. & Val.)
Mugilidae	..	<i>Mugil parsia</i> (Ham.)
Polynemidae	..	<i>Polydactylus sextarius</i> (Bl. Schn.)
Sillaginidae	..	<i>Sillago sihama</i> (Forsk.)
Lactariidae	..	<i>Lactarius lactarius</i> (Bl. Schn.)
Rachycentridae		<i>Rachycentron canadus</i> (Linn.)
Carangidae		<i>Atropus atropus</i> (Bl. Schn.) <i>Caranx (caranx) carangus</i> (Bl. Schn.) <i>Megalaspis cordyla</i> (Linn.) <i>Chorinemus sancti-petri</i> (Cuv. & Val.) <i>Chorinemus lysan</i> (Forsk.) <i>Chorinemus tala</i> (Cuv. & Val.)
Lutjanidae	..	<i>Lutianus johnii</i> (Bloch)
Nemipteridae	..	<i>Nemipterus japonicus</i> (Bl.)
Leiognathidae	..	<i>Leiognathus fasciatus</i> (Lacep) <i>Leiognathus insidiator</i> (Bl.) <i>Leiognathus lineolatus</i> (Cuv. & Val.) <i>Leiognathus splendens</i> (Cuv.) <i>Gazza minuta</i> (Bl.)
Gerridae	..	<i>Gerres filamentosus</i> (Cuv.)
Sciaenidae	..	<i>Johnius maculatus</i> (Bl. & Schn.) <i>Otolithes argenteus</i> (Cuv. & Val.) <i>Pseudosciaena coibor</i> (Ham.) <i>Sciaena dussumieri</i> (Cuv. & Val.)
Kyphosidae	..	<i>Kyphosus cinerascens</i> (Forsk.)

Ephippidae	..	<i>Ephippus orbis</i> (Bl.)
Drepanidae	..	<i>Drepane punctata</i> (Linn.)
Siganidae	..	<i>Siganus oramin</i> (Bl. & Schn.)
Trichiuridae	..	<i>Trichiurus savala</i> (Cuv.)
Scombridae	..	<i>Rastelliger kanagurta</i> (Cuv.)
Stromateidae	..	<i>Pampus chinensis</i> (Euphrason)
Gobiidae	..	<i>Glossogobius giuris</i> (Ham.) <i>Boleophthalmus boddarti</i> (Pallas)
Platycephalidae	..	<i>Platycephalus indicus</i> (Linn.) <i>Platycephalus scaber</i> (Linn.)
Bothidae	..	<i>Pseudorhombus triocellatus</i> (Bl. & Schn.)
Cynoglossidae	..	<i>Cynoglossus lingua</i> (Ham.) <i>Cynoglossus macrolepidotus</i> (Blkr.)
Echeneidae	..	<i>Echeneis naucrates</i> (Linn.)
Tricanthidae	..	<i>Tricanthus indicus</i> (Regan)
Tetraodontidae	..	<i>Arthrin stellatus</i> (Bl. & Schn.) <i>Chelonodon fluviatilis</i> (Ham.) <i>Castrophysus lunaris</i> (Bl. & Schn.) <i>Lagocephalus inermis</i> (Temm. & Schleg.) <i>Troquigener oblongus</i> (Bl.)

APPENDIX—II

Insects

Diptera

Family	Name of species	Locality
Bombylidae	<i>Bombylins albosparsus</i> Big	Pondicherry
Culicidae	<i>Anopheles tessellatus</i> Theo	Pondicherry
	<i>A. Vagus</i> Dönitz.	"
Conopidae	<i>Psysocephala calopus</i> Big	Pondicherry

Family	Name of species	Locality
Asilidae	<i>Asilus Asilus nigrimystaceus</i> Macq.	Pondicherry
	<i>Asilus Asilus trifarius</i> Macq.	"
	<i>Bactria maculatus</i> Fabr.	"
Calliphoridae	<i>Himipyrellia pulchra</i> Wd.	"
Muscidae	<i>Musca domestica</i> .	"

Orthoptera

Acrididae	<i>Aiolopus offinis</i> Boliver.
	<i>Onya velon</i> Fabr.
Blattidae	<i>Therea petiveriana</i> Linn.

Isoptera

There is no record in literature of any termites from Karaikal, Mahe and Yanam in particular. However the first record of any termite from India was from Tarangambadi, which is very close to Karaikal and it is very likely that the following species also occur in those areas:

- Anacanthotermes viarum* König.
Macrotermes convulsionarius König.
Odontotermes redemanni Wasman.

APPENDIX—III

Paleozoology

(Animal Fossils)

Family—Trocleidae :	<i>Calliostoma dyscritum</i> Cossm.
	<i>Calliostoma inaequiliratum</i> Cossm.
Family—Rissoidae	<i>Rissoina bonneti</i> Cossm.
Family—Turritellidae :	<i>Turritella tjadjariensis</i> Mart.
	<i>Turritella encosmeta</i> Cossm.
	<i>Turritella endeli</i> Cossm.
	<i>Turritella trifunis</i> Cossm.

- Family-Mathildidae : *Mathildia bonneti* Cossm.
- Family-Solariidae : *Solariella distinguenda* Cossm.
Solariella amblygoniata Cossm.
Solariella pachyozoder var. *bonneti*.
Solariella karikalensis Cossm.
Solariella pachyozoder Cossm.
Solarium karikalensis Cossm.
Solarium cf. *nitens*.
- Family-Vermetidae : *Vermetus javanus*.
- Family-Cerithiidae : *Cerithium (vertagus) bonneti* Cossm.
Cerithidea gibbulosa.
Cerithidea trifunata Cossm.
Rhinodavis bonneti Cossm.
Hemicerithium inopinatum.
- Family-Melanellidae : *Eulima grandis* Cossm.
Wiso marmorata.
- Family-Pyramidellidae : *Pyramidella balteata*.
Syrnola karikalensis.
- Family-Capulidae : *Capulus bonneti* Cossm.
- Family-Calyptraeidae : *Crepidula (siphopatella) subcentralis* Cossm.
Crepidula (siphopatella) cf. *Walshi*.
Crucibulum (Bicatillus) conulatum.
- Family-Xenophoridae : *Xenophora (Tugurium)*.
- Family-Strombidae : *Rimella margaritae* Cossm.
Rimella cancellata.
Strombus cf. *variabilis*.

- Family-Naticidae : *Stigmaulax aratulum* Cossm.
Sigaretus bonneti Cossm.
Natica forskali.
Natica marochiensis var. *lurida*.
Natica (*Ploynices*) *martini* Cossm.
Natica (*Momilla*) cf. *melanostoma*.
Natica prosthenglossa Cossm.
Natica rhytidozodes Cossm.
Natica rosalina.
- Family-Cassididae : *Cassis* (*Casmaria*) *bonneti*.
Semicassis (*Bezoardica*) cf. *glanca*.
Semicassis (*Bezoardica*) *strigata*.
- Family-Cymatiidae : *Persona* (*Distortris*) *reticulata* Linn.
- Family-Bursidae : *Ranella bitubercularis* Lam.
Ranella margaritula Cossm.
- Family-Pirulidae : *Pyrula raticulala*.
- Family-Thaisidae : *Cymia sacellum* (Chemn).
- Family-Muricidae : *Murex bonneti* Cossm.
Murex (*Muricopsis*) *diarti*.
Murex (*Muricidea*) *infratulatus* Cossm.
Typhis (*Typhinellus*) *tetragoniatas* Cossm.
- Family-Columbellidae : *Anachis crassicostata* Cossm.
Atlia simplex Mart.
- Family-Buccinidae : *Hindsia mekranica* Vred.
Latrunculus canaliculatus.
Latrunculus (*Eburna*) *spiratus* Linn.
Latrunculus (*Eburna*) *occlusus* Cossm.
Siphonalia (*Perrion*) *heptozodes* Cossm.
Phos macrostoma Cossm.
Tritonidea (*Cantharus*) *tranquebarica* (Martini).
Latrunculus (*Peridipsaccus*).

Family-Galeodidae : *Melongena (Pungilina) octocostata* Cossm.

Family-Nassariidae : *Nassa (Hinia) karikalensis* Cossm.

Nassa (Hinia) colpophora Cossm.

Nassa (Telasco) verbeeki Mart.

Nassa (Amycla) dimorpha Cossm.

Nassa ovum Cossm.

Nassa (hebra) bonneti Cossm.

Nassa (Niotha) gemmulata.

Cyllene varians Cossm.

Family-Fasciolariidae : *Fusus perplexus* Adams.

Clavilithes inopinatus Cossm.

Family-Olividae : *Oliva (Neocylindrus) mustelina* Lam.

Oliva (Neocylindrus) irisans Lam.

Olivancillaria gibbosa Born.

Olivancillaria (Agaronia) acuminata Lam.

Ancilla (Sparella) cinnamomea Lam.

Ancilla (Sparellina) candida Lam.

Ancilla (Alocospira) tornata Cossm.

Oliva cheribonensis.

Family-Mitridae : *Mitra (cancilla) flammea* Quoy.

Mitra (cancilla) circulata Kien.

Family-Turbinellidae : *Turbinella pirum* Linn.

Family-Vasidae : *Tudicula spirillus* Linn.

Streptosiphon conderti.

Streptosiphon macrospira Cossm.

Family-Cancellariidae : *Merica asperella* Lam.

Merica verbeeki Mart.

Trigonostoma crispatum Sow.

Trigonostoma bonneti Cossm.

Trigonostoma tjibaliungense Mart.

- Family—Marginellidae : *Marginella (Eratoidea) bonneti* Cossm.
Marginella (Eratoidea) karikalensis Cossm.
Marginella (Glabella) oligoptycha Cossm.
Cryptospira (Gibberula) tectiformis Cossm.
Cryptospira (Gibberula) cuneata Cossm.
Cryptospira (Gibberula) glandina (Velain) Cossm.

- Family—Conidae : *Conus (Leptoconus) cosmetulus* Cossm.
Conus (Leptoconus) bonneti Cossm.
Conus (Leptoconus) anlacophorus Cossm.
Conus (Leptoconus) vimineus Reeve.
Conus (Lithoconus) malaivus Hwass.
Conus (Lithoconus) ngavianus Mart.
Conus (Lithoconus) literatus Linn.
Conus (Lithoconus) karikalensis Cossm.
Conus (Dendroconus) figulinus Linn.
Conus (Dendroconus) quercinus Hwass.
Conus (Chelyconus) subvimineus Cossm.

- Family—Terebridae : *Terebra (Myurella) mariesi* A. Smith.
Terebra (Myurella) cancellata Quoy.
Terebra (Myurella) cumingi Desh.
Terebra (Myurella) cingulifera Lam.
Terebra (Myurella) karikalensis Vred.
Terebra (Duplicaria) cf. anomala Gray.
Terebra (Hastula) continuicosta Cossm.

- Family—Turridae : *Pleurotoma cf. crista* Lam.
Pleurotoma (Hemipleurotoma) bonneti Cossm.
Pleurotoma (Hemipleurotoma) cingulifera Lam.
Clavatula (Perrona) unisulcata Cossm.
Surcula javana Linn.
Surcula streptopleura Cossm.

Surcula tuberculata Gray.
Drillia ferenuda Cossm.
Drillia bonneti Cossm.
Drillia (Brachytoma) karikalensis Cossm.
Drillia (Crassispira) sacra Reeve.
Drillia (Crassispira) sinensis Hinds.
Drillia (Crassispira) quadricarinata Cossm.
Drillia (Crassispira) adelomorpha Cossm.
Mangilia (Clathurella) costicrenata Cossm.
Mangilia (Clathurella) karikalensis Cossm.
Swecula (Turricula) lirocostata Cossm.
Daphnella (Raphitoma) mirocostriata Cossm.
Mangilia Houdasi Cossm.
Asthenotoma terebralis Cossm.
Raphitoma crenicostata Cossm.
Clathurella bicrenata Cossm.

Family-Actaeonidae : *Actaeon (Solidula) solidulus* Linn.
Actaeon (Solidula) of. affinis A. Adams.
Actaeon (Solidula) bonneti Cossm.

Family-Ringiculidae : *Ringicula bonneti* Cossm.

Family-Atyidae : *Alys (Alicula) panaulax* Cossm.

Family-Dentalidae : *Dentalium proteiforma* Cossm.

VII. Climate

Pondicherry Region:

Situated well within the tropics near 12° N latitude on the east coast of India, Pondicherry experiences a hot and tropical maritime type of climate characterised by small daily range of temperature, humid weather and moderate rainfall. There is no clear demarcation of seasons. However, the summer may be taken to last from March to June followed by the period of the south-west monsoon which lasts upto September. The months of October and November constitute the main north-east monsoon season. There is no real cool weather season, but the period from December to February is relatively cool.