



A preliminary report on the ichthyofauna of Yedayanthittu Estuary (Tamil Nadu, India) and rivulets draining into it

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Yedayanthittu Estuary is part of the Kaliveli wetland complex which includes the Kaliveli Floodplain, Uppukalli Creek and lowland streams draining into it. The ichthyofauna of Kaliveli Floodplain and Uppukalli Creek has already been assessed (Ramanujam 2005). This report concerns the list of species found in the estuary and lowland streams.

Study Area and Methods

The Kaliveli complex has already been described (Ramanujam 2005). Lowland drains behind Kurumpuram Reserve Forest (Villupuram District, Tamil Nadu) are part of the Arni River complex and has its origin in the Eastern Ghats.

Yedayanthittu or Muttukadu Estuary (12°12'–12°15'N & 70°56'–80°0'E) extends from a little north of Marakkanam Road Bridge to the point of confluence with the Bay of Bengal at Alamparai (Kancheepuram District, Tamil Nadu). It is an area of intertidal mudflats and salt pans. It was once linked to Pulicat Lake via Chennai by the Buckingham Canal (Scott 1998). The feature of the estuary is that during the monsoon season (September–mid November) the salinity is low (<1600uS/cm), but during the rest of the year it is brackish (1,600–4,800uS/cm), saline (4,800–51,500uS/cm) and even hypersaline (>51,500uS/cm) depending on the tides and proximity to the sea. The naturally occurring vegetation consists of sea grasses such as *Halophila ovalis*, mangroves such as *Avicennia marina* and *Rhizophora* sp. (the latter has been planted lately) and algae such as *Chaetomorpha*, *Enteromorpha*, etc. A degraded mangrove swamp also exists whose dominant

vegetation includes *Avicennia marina*, *Salicornia brachiata*, *Arthrocnemum indicum*, *Suaeda maritima* and *Sesuvium portulacastrum*.

The study period was from January 2006 to December 2006. Specimens were collected randomly with local fishermen all over the estuary. In addition, small fish stranded in pools when the water recedes (that commercialists ignore) were collected. Identification was based on Daniels (2002), Day (1878), Jayaram (1981), Talwar & Kacker (1984), Talwar & Jhingran (1991) and Venkateswarlu & Rao (1986).

Results and Discussion

A total of 75 species were recorded under 14 orders and 37 families. Perciformes dominated with 32 species (42.66%). 47 species were found exclusively in the estuary, 18 were in lowland streams and 10 species occurred both in the estuary and freshwater. *Oreochromis mossambica* is the only exotic species.

Inventorisation of living resources is of paramount importance to evolve conservation and management strategies, especially when economically important species are involved. As of date it is unfortunate that the Kaliveli Wetland has received little attention (from the viewpoint of the ichthyologist), this report gains importance as the Kaliveli Wetland has been described as one of the two most important wetlands along the Coromandel Coast of southern India (Perennou 1987; Perennou & Santharam 1990).

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Table 1. Species diversity and occurrence of fish at Yedayanthittu Estuary and Rivulet behind Kurumpuram Reserve Forest

Sl.No	Scientific Name	English Name	Local Name (Phoenetic Tamil)	Estuary	Rivulet
Order: Anguilliformes					
Family: Anguillidae					
1	<i>Anguilla bicolor</i>	Indian Shortfin Eel	Vilangu	+	+
Family: Muraenesocidae					
2	<i>Congresox talabon</i>	Indian Pike Conger	Pallankili	+	
3	<i>Muraenesox bagio</i>	Common Pike Conger	Pallankili	+	
Family: Ophichthidae					
4	<i>Bascanichthys deraniyagalai</i>	Long-tailed Sand Eel		+	
Order: Clupeiformes					
Family: Engraulidae					
5	<i>Stolephorus tri</i>	Spined Anchovy	Poriva	+	
6	<i>Stolephorus indicus</i>	Indian Anchovy	Poriva	+	
7	<i>Thryssa mystax</i>	Moustached Anchovy	Poriva	+	
8	<i>Thryssa purava</i>	Oblique-jawed Anchovy	Poriva	+	
9	<i>Colia dussumieri</i>	Grenadier Anchovy	Poriva	+	
Family: Clupeidae					
10	<i>Anodontostoma chacunda</i>	Chacunda Gizzard Shad		+	
11	<i>Nematalosa nasus</i>	Bloch's Gizzard Shad	Pachai Kutti, Ponneli, Pon Kendai	+	+
Order: Elopiformes					
Family: Megalopidae					
12	<i>Megalops cyprinoids</i>	Indian Tarpon		+	+
Order: Gonorhynchiformes					
Family: Chanidae					
13	<i>Chanos chanos</i>	Milkfish	Alathi	+	+
Order: Cypriniformes					
Family: Cyprinidae					
14	<i>Puntius sophore</i>	Spotfin Barb	Kulla Kendai	+	+
15	<i>Puntius dorsalis</i>	Kaveri Barb	Sall Kendai		+
16	<i>Puntius vittatus</i>	Greenstripe Barb		+	+
17	<i>Amblyphrayngodon microlepis</i>	Indian Carplet	Ori Kendai		+
18	<i>Salmostoma clupeoides</i>	Bloch's Razorbelly Minnow			+
19	<i>Parluciosoma daniconius</i>	Blackline Rasbora	Ovari Kendai		+
20	<i>Esomus danricus</i>	Flying Barb	Ovari Kendai		+
Family: Cobitidae					
21	<i>Lepidocephalus thermalis</i>	Malabar Loach	Palli Meen		+
Order: Siluriformes					
Family: Bagridae					
22	<i>Mystus gulio</i>	Long-whiskered Catfish	Pee Keluthi	+	+
23	<i>Mystus vittatus</i>	Striped Dwarf Catfish	Keluthi		+
Family: Ariidae					
24	<i>Arius arius</i>	Threadfin Marine Catfish	Visha Keluthi	+	
25	<i>Arius subrostratus</i>	Shovelnose Marine Catfish	Visha Keluthi	+	
26	<i>Arius maculatus</i>	Spotted Marine Catfish	Visha Keluthi	+	
Family: Plotosidae					
27	<i>Plotosus canius</i>	Grey Eel Catfish	Irun Keluthi	+	
Order: Mugiliformes					
Family: Mugilidae					
28	<i>Liza parsia</i>	Goldspot Mullet	Karunthalai Kendai	+	
29	<i>Mugil cephalus</i>	Common or Flathead Mullet	Madavai	+	
30	<i>Valamugil cunesius</i>	Longarm Mullet	Senkani Kendai	+	
Order: Beloniformes					
Family: Belonidae					
31	<i>Xenotodon cancila</i>	Freshwater Garfish	Retta-mooku Kola	+	
32	<i>Strongylura strongylura</i>	Spot-tailed gar	Retta-mooku Kola		+
Family: Hemiramphidae					
33	<i>Hyporhamphus limbatus</i>	Halfbeak Gar	Otha-mooku Kola	+	+
Family: Adrianichthyidae					
34	<i>Oryzias melastigma</i>	Estuarine Ricefish	Kosuru Meen		+
Order: Cyprinodontiformes					
Family: Aplocheilidae					
35	<i>Aplocheilus parvus</i>	Dwarf Panchax	Kosuru Meen		+
Order: Synbranchiformes					
Family: Mastacembelidae					
36	<i>Macrogathus pancalus</i>	Barred Spiny Eel	Araa		+
37	<i>Macrogathus aral</i>	Onestripe Spiny Eel	Araa		+

SI.No	Scientific Name	English Name	Local Name (Phoenetic Tamil)	Estuary	Rivulet
	Order: Scorpaeniformes				
	Family: Platycephalidae				
38	<i>Platycephalus indicus</i>	Bar-tailed Flathead	Udupalathi	+	
	Order: Perciformes				
	Family: Chandidae				
39	<i>Ambassis commersoni</i>	Glassy Perchlet	Selathan	+	
40	<i>Pseudambassis ranga</i>	Glassfish		+	+
	Family: Serranidae				
41	<i>Epinephelus tauvina</i>	Greasy Grouper	Panni Sethan	+	
	Family: Sillaginidae				
42	<i>Sillago sihama</i>	Silver Sillago	Kezhangan	+	
	Family: Leiognathidae				
43	<i>Gazza minuta</i>	Toothpony	Karai	+	
44	<i>Leiognathus brevirostris</i>	Shortnose Ponyfish	Karai	+	
45	<i>Leiognathus splendens</i>	Splendid Ponyfish	Karai	+	
46	<i>Secutor insidiator</i>	Pugnose Ponyfish	Karai	+	
47	<i>Secutor ruconius</i>	Deep Pugnose Ponyfish	Karai	+	
	Family: Carangidae				
48	<i>Caranx malabaricus</i>	Malabar Trevally	Parai	+	
49	<i>Carangoides chrysophrys</i>	Longnose Trevally	Parai	+	
50	<i>Atule mate</i>	Yellowtail Scad	Parai	+	
	Family: Lutjanidae				
51	<i>Lutjanus argentimaculatus</i>	Mangrove Snapper	Kal Sankara, Sankara	+	
52	<i>Lutjanus fulviflamma</i>	Dory Snapper	Kathazhai	+	
	Family: Gerridae				
53	<i>Gerres abbreviatus</i>	Mojarra	Udan	+	
54	<i>Gerres filamentosus</i>	Whipfin Silveerbiddy	Udan	+	
55	<i>Gerres poeti</i>	Strong-spined Silveerbiddy	Suthumbu	+	
	Family: Teraponidae				
56	<i>Terapon jarbua</i>	Target Perch	Keesan	+	
57	<i>Terapon puta</i>	Small-scaled Terapon	Keesan	+	
	Family: Scatophagidae				
58	<i>Scatophagus argus</i>	Spotted Scat	Therta, Pilsithi	+	
	Family: Siganidae				
59	<i>Siganus javus</i>	Streaked Spinefoot	Ora	+	
	Family: Cichlidae				
60	<i>Etroplus maculatus</i>	Orange Chromide	Sellakasu Meen		+
61	<i>Etroplus suratensis</i>	Pearl Spot	Seetha Kendai	+	
62	<i>Oreochromis mossambica</i>	Egyptian Mouthbreeder	Silapi Kendai	+	+
	Family: Gobiidae				
63	<i>Boleophthalmus boddarti</i>	Mudskipper	Kayyan Kuthirai	+	
64	<i>Periophthalmus sp.</i>	Mudskipper	Kayyan Kuthirai	+	
65	<i>Yongeichthys criniger</i>			+	
66	<i>Glossogobius giurus</i>	Tank Goby	Uluvai		+
	Family: Anabantidae				
67	<i>Anabas testudineus</i>	Climbing Perch	Panangottai Meen		+
	Family: Belontiidae				
68	<i>Macropodus cupanus</i>	Indian Paradise Fish			+
	Family: Channidae				
69	<i>Channa punctatus</i>	Spotted Snakehead	Kuravai		+
70	<i>Channa striatus</i>	Striped Snakehead	Veral		+
	Order: Pleuronectiformes				
	Family: Soleidae				
71	<i>Euryglossa orientalis</i>	Oriental Sole	Naku Meen	+	
72	<i>Cynoglossus sp.</i>	Tongue Sole	Naku Meen	+	
73	<i>Pseudorhombus arsius</i>	Flounder	Naku Meen	+	
	Order: Tetraodontiformes				
	Family: Triacanthidae				
74	<i>Triacanthus brevirostris</i>	Tripod Fish	Mullurivi	+	
	Family: Tetradontidae				
75	<i>Tetrodon fluviatilis</i>	Puffer	Norai Thankala	+	



Image 1. Indian Shortfin Eel *Anguilla bicolor*



Image 2. Indian Pike conger *Congresox talabon*



Image 3. Indian Longtailed Sand Eel *Bascanchthys deraniyagalai*



Image 4. Bloch's Gizzard Shad *Nematalosa nasus*



Image 5. Milkfish *Chanos chanos*



Image 6. Kaveri Barb *Puntius dorsalis*



Image 7. Greenstripe Barb *Puntius vittatus*



Image 8. Indian Carplet *Amblypharyngodon microlepis*



Image 9. Bloch's Razorbelly Minnow *Salmostoma clupeoides*



Image 10. Blackline Rasbora *Parlucciosoma daniconius*



Image 11. Flying Barb *Esomus thermoicos*



Image 12. Malabar Loach *Lepidocephalus thermalis*



Image 13. Long-whiskered Catfish *Mystus gulio*



Image 14. Striped Dwarf Catfish *Mystus vittatus*



Image 15. Shovelnose Marine Catfish *Arius subrostratus*



Image 16. Gray Eel Catfish *Plotosus canius*



Image 17. Common or Flathead Mullet *Mugil cephalus*



Image 18. Freshwater Garfish *Xenentodon cancila*



Image 19. Spot-tailed Gar *Strongylura strongylura*



Image 20. Halfbeak Gar or Congaturi Halfbeak *Hyporhamphus limbatus*



Image 21. Dwarf Panchax *Aplocheilichthys parvus*



Image 22. Barred Spiny Eel *Macrogathus pancalus*



Image 23. Onestripe Spiny Eel *Macrogathus arai*



Image 24. Bar-tailed Flathead *Platycephalus indicus*



Image 30. Malabar Trevally *Caranx malabaricus*



Image 25. Glassy Perchlet *Ambassis commersoni*



Image 31. Streaked Spinefoot *Siganus javus*



Image 26. Greasy Grouper *Epinephelus tauvina*



Image 32. Spotted Etroplus *Etroplus maculatus*



Image 27. Silver Sillago *Sillago sihama*



Image 28. Splendid Ponyfish *Leiognathus splendens*



Image 33. Pearl Spot *Etroplus suratensis*



Image 29. Deep Pugnose Ponyfish *Secutor ruconius*



Image 34. Egyptian Mouthbrooder *Oreochromis mossambica*



Image 40. Striped Snakehead *Channa striatus*



Images 35 & 36. Mudskipper *Boleophthalmus boddarti* & *Periophthalmus* sp.



Image 41. Tongue Sole or Flounder *Pseudorhombus arsius*



Image 37. Tank Goby *Glossogobius giurus*



Image 42. Puffer *Tetrodon fluviatilis*



Image 38. Climbing Perch *Anabas testudineus*



Image 43. Tongue Sole *Cynoglossus* sp.



Image 39. Spotted Snakehead *Channa punctatus*



Image 44. Tripod Fish *Triacanthus brevirostris*

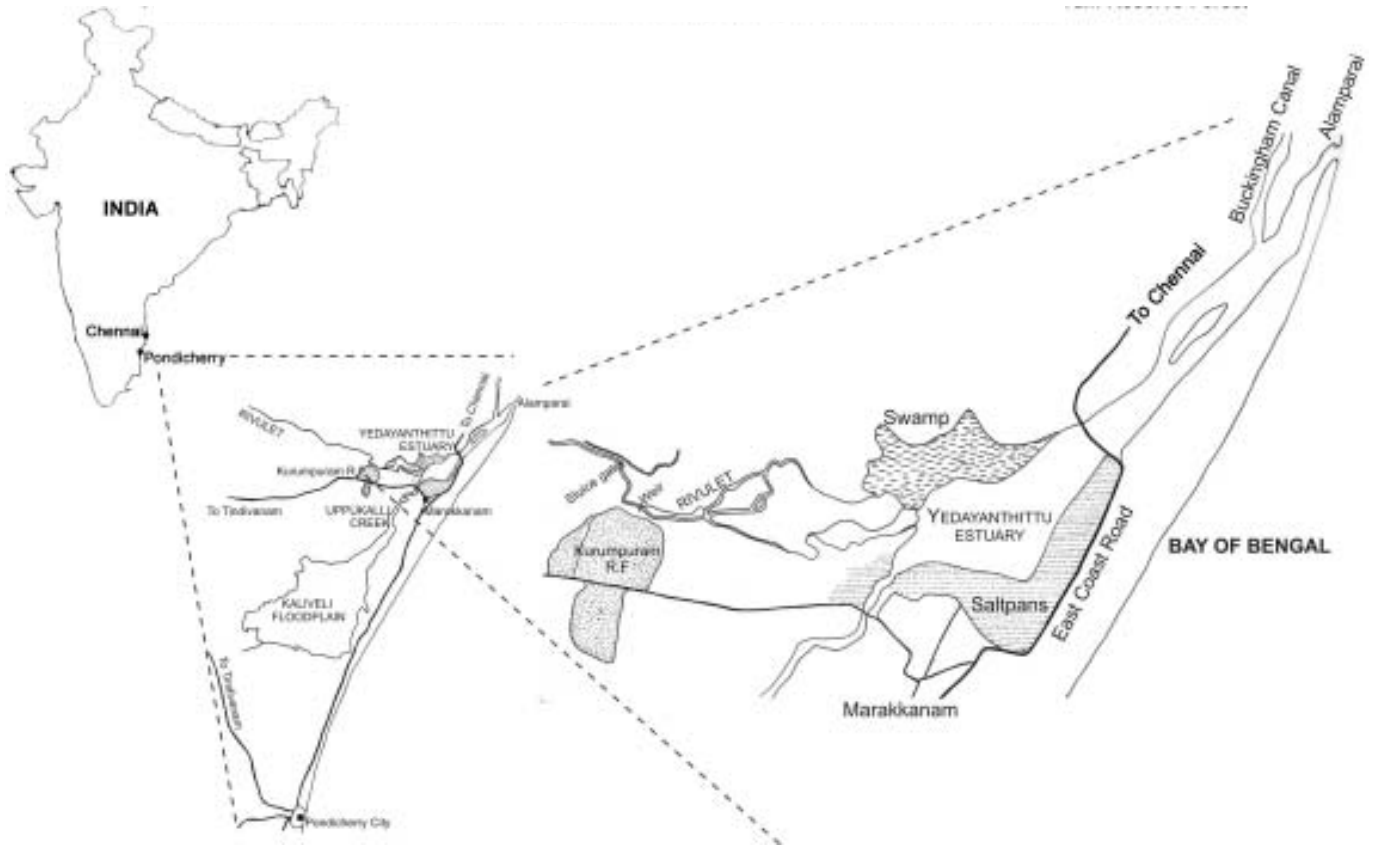


Figure 1. Areas of sampling - Yedayanthittu Estuary, Swamp and Rivulet north of Kurumpuram Reserve Forest

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