

ON THE ICHTHYOFAUNA OF TRIVANDRUM DISTRICT, KERALA, INDIA

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INTRODUCTION

Trivandrum district with a total area of 2192 Sq. Km. is divided into four main taluks viz. Chirayankil Taluk, Nedumangad Taluk, Trivandrum Taluk and Neyyatinkara Taluk and is drained by three main rivers namely Vamanapuram or Attingal river, Karamana & Neyyar river. Besides, the other major aquatic bodies include the Neyyar Dam, Velikayal, Kadimankulamkayal, Anjuthengukayal and Edava Nadayara Kayal. Trivandrum district was surveyed by the Z.S.I. teams during 1997-1998.

The collections from various water bodies comprised 1274 specimens belonging to 53 species including 36 primary fresh water species and 17 estuarine/marine ones under 25 families and 13 orders. Earlier reports on the Freshwater fishes from Trivandrum include 16 primary Freshwater species. A detailed systematic list is provided for the 36 primary freshwater species collected, which includes the first reference, material examined, length range in SL mm, locality, date of collection, distribution and relevant remarks. Nomenclatural changes followed are based on Menon, 1999.

This is the first consolidated report on the Freshwater fishes of Trivandrum District. Earlier studies on fishes of Travancore are by Pillai, 1929; John, 1936; Hora & Law 1941; Hora & Nair, 1941; and Silas, 1951. Recent addition to the fish fauna of Trivandrum district are by Rema Devi *et al.* 1996 and Raju *et al.* 1999.

SYSTEMATIC LIST

Primary Fresh Water Fishes

*Earlier reports, not represented in the present collections.

	Endemic to India	Endemic to Western Ghats	Common to Srilanka	Of Wider Distribution	New Additions to the Dist.
Order : ANGUILLIFORMES					
Family : ANGUILLIDAE					
1 <i>Anguilla bengalensis bengalensis</i> (Gray & Hardwicke)			+	+	+
2 <i>Anguilla bicolor bicolor</i> McCl.			+	+	+

List Contd.

	Endemic to India	Endemic to Western Ghats	Common to Srilanka	Of Wider Distribution	New Additions to the Dist.
Order : CYPRINIFORMES					
Family : CYPRINIDAE					
Subfamily : RASBORINAE					
3			+		+
4	+	+			+
*5	+	+			
6			+		
7			+		+
8			+	+	
Subfamily : CYPRININAE					
*9	+				
10			+	+	+
11	+	+			+
*12	+	+			
*13	+	+			
14			+		
*15	+	+			
*16			+	+	
*17				+	
18			+		
19	+				
*20	+				
21			+	+	+
22			+		

List Contd.

	Endemic to India	Endemic to Western Ghats	Common to Srilanka	Of Wider Distribution	New Additions to the Dist.
Subfamily : GARRINAE					
*23 <i>Garra gotyla stenorhynchus</i> (Jerdon)	+	+			
*24 <i>Garra mcClellandi</i> (Jerdon)	+	+			
25 <i>Garra mullya</i> (Sykes)	+				
Family : COBITIDAE					
26 <i>Lepidocephalus thermalis</i> (Val.)			+		+
Family : BALITORIDAE					
Subfamily : NOEMACHEILINAE					
27 <i>Noemacheilus triangularis</i> Day	+	+			
Subfamily : BALITORINAE					
28 <i>Bhavana australis</i> (Jerdon)	+	+			
Order : SILURIFORMES					
Family : BAGRIDAE					
*29 <i>Batasio travancoria</i> Hora & Law	+	+			
30 <i>Mystus bleekeri</i> Day				+	
*31 <i>Mystus gulio</i> (Ham.)			+	+	
*32 <i>Mystus malabaricus</i> (Jerdon)	+	+			
*33 <i>Pseudobagrus chryseus</i> Day	+	+			
Family : CLARIIDAE					
*34 <i>Clarias batrachus</i> (Linn.)			+	+	
Family : HETEROPNEUSTIDAE					
35 <i>Heteropneustes fossilis</i> (Bloch)			+	+	+
Order : CYPRINODONTIFORMES					
Family : BELONIDAE					
36 <i>Xenentodon cancila</i> (Ham.)				+	+
Family : APLOCHEILIDAE					
37 <i>Aplocheilus blocki</i> (Arnold)	+				+
38 <i>Aplocheilus lineatus</i> (Val.)	+				

List Contd.

	Endemic to India	Endemic to Western Ghats	Common to Srilanka	Of Wider Distribution	New Additions to the Dist.
Order : SYNGNATHIFORMES					
Family : SYNGNATHIDAE					
39 <i>Microphis cuncalus</i> (Ham.)				+	+
Order : SYNBRANCHIFORMES					
Family : SYNBRANCHIDAE					
40 <i>Ophisternon bengalense</i> McClelland			+	+	+
Order : PERCIFORMES					
Family : AMBASSIDAE					
41 <i>Parambassis thomassi</i> (Day)	+	+			
Family : CICHLIDAE					
42 <i>Etroplus maculatus</i> (Bloch)			+		
43 <i>Etroplus suratensis</i> (Bloch)			+		
44 <i>Oreochromis mossambica</i> (Peters)				+	
Family : GOBIIDAE					
45 <i>Glossogobius giuris</i> (Ham.)				+	+
*46 <i>Sicyopterus griseus</i> Day			+		
Family : ANABANTIDAE					
47 <i>Anabas testudineus</i> (Bloch)			+	+	+
Family : BELONTIDAE					
48 <i>Pseudosphromenus cupanus</i> (Val.)			+	+	+
49 <i>Pseudosphromenus dayi</i> Kohler	+	+			+
Order : CHANNIFORMES					
Family : CHANNIDAE					
50 <i>Channa orientalis</i> (Bloch & Schn.)			+	+	+
51 <i>Channa punctatus</i> (Bloch)			+	+	
Order : MASTACEMBELIFORMES					
Family : MASTACEMBELIDAE					
52 <i>Macrogathus guentheri</i> (Day)	+	+			+

Order : ANGUILLIFORMES

Family : ANGUILLIDAE

1. *Anguilla bengalensis bengalensis* (Gray & Hardwicke)

1834. *Muraena bengalensis* Gray & Hardwicke, *Illust. Indian Zool.*, : pl. 95, fig. 5 (Type locality : Ganges River)

Material : 3 exs., 52–54 mm TL., F.5577, Poikhat, 3.4.98.

Distribution : Freshwaters and seas of Pakistan, India, Sri Lanka, the Andamans; Myanmar and the East Indies.

2. *Anguilla bicolor bicolor* McClelland

1844. *Anguilla bicolor* McClelland, *Calcutta, J. nat. Hist.*, 5 (8) : 178, pl. 6, fig 1. (Type locality : India)

Material : 1 ex., 62.5 mm TL., F.5526, Poikat, 3.4.98

Distribution : India and Srilanka and most countries bordering the Bay of Bengal.

Order : CYPRNIFORMES

Family : CYPRINIDAE

Subfamily : RASBORINAE

3. *Amblypharyngodon melettinus* (Valenciennes)

1844. *Leuciscus melettinus* Valenciennes, *Hist. nat. Poiss.*, 17 : 304, pl. 501 (Type locality : Bombay).

Material : 5 exs., 50–56 mm SL., F.5467 & 5497, Venganoor, 20.12.97; 22 exs., 63–80 mm SL., F.5464, Pongulam, 21.12.97; 6 exs., 85–96 mm SL., F.5551, Anchuthengu, 2.4.98.

Distribution : India : Western Ghats and Tamil Nadu; Srilanka.

Remarks : *A. chakaiensis* Babu and Nair (1978) is considered a synonym of *A. melettinus* (Menon 1999).

4. *Barilius bakeri* Day

1865. *Barilius bakeri* Day, *Proc. Zool. Soc. Lond.* : 305 (Type locality : Mundakayam, Kerala).

Material : 3 exs., 24–37 mm SL., F.5493, Tropical Botanical Garden, 17.12.97; 76 exs., 15–70 mm SL., F.5534, Kallar reservoir site, 27.3.98; 2 exs., 65–68 mm SL., F.5542, Mottamood river, Ponmudi, 30.3.98; 1 ex., 65 mm SL., F.5515, Poikat, Poika, 3.4.98.

Distribution : India : Western Ghats of Kerala.

5. *Danio malabaricus* (Jerdon)

1849. *Perilampus malabaricus* Jerdon, *Madras J. Lit & Sci.*, 15 : 325 (Type locality : Malabar).

Material : 1 ex., 48 mm SL., F.5465, Pongulam, 21.12.97; 153 exs., 60–115 mm SL., F.5533, Kallar river site, 27.3.98; 2 exs., 29–77 mm SL., F.5566, Golden Valley, 28.3.98; 1 ex., 28 mm SL.,

F.5547, way to Ponmudi, Chankiri, 29.3.98; 40 exs., 13–55 mm SL., F.5541, Mottamood river, Ponmudi, 30.3.98; 1 ex., 69 mm SL., F.5550, Anchuthengu, 2.4.98; 1 ex., 64 mm SL., F.5516, Poikat, Poika, 3.4.98.

Distribution : India : Peninsular India; from headwaters of Krishna river in Maharashtra to Kerala; Srilanka.

6. *Horadandia atukorall* Deraniyagala

1943. *Horadandia atukorali* Deraniyagala, *J. Ceylon Br. roy. Asiat. Soc.* 35 (96) : 158 fig 1 (Type locality : Attidiya Colombo; Ceylon).

Material : 19 exs., 15–20 mm SL., F.5568, Neyyar Dam Site, 29.3.98; 6 exs., 13–18.5 mm SL., F.5518, Poikat, Poika, 3.4.98.

Distribution : India : Kerala, Tamilnadu : Madras & Pondicherry; Sri Lanka. In Kerala it is known from Kottayam district. From Trivandrum district this forms the first report.

7. *Rasbora daniconius* (Hamilton)

1822. *Cyprinus daniconius* Hamilton, *Fishes of Ganges* : 327, 391, pl 15, fig, 89. (Type locality : rivers of southern Bengal).

Material : 3 exs., 49–55 mm SL., F.5774, Karamana 18.12.97; 6 exs., 44–59 mm SL., F.5490, Kallar, 24.12.97; 6 exs., 14–25 mm SL., F.5535, Kallar river site, 27.3.98; 27 exs., 17–64 mm SL., F.5543, Mottamood river; Ponmudi, 30.3.98; 14 exs., 33–56 mm SL., F.5517, Poikat, Poika; 3.4.98.

Distribution : Pakistan, India, Nepal, Srilanka, Bangladesh, Myanmar and Thailand.

Subfamily : CYPRININAE

8. *Catla catla* (Hamilton)

1822. *Cyprinus catla* Hamilton, *Fishes of Ganges* : 287, 318, pl. 13, fig. 81 (Type locality : rivers and tanks of Bengal).

Material : 1 ex., 130 mm SL., F.5498, Venganoor, 20.12.97; 1 ex., 116 mm SL., F.5476, Pongulam, 21.12.97.

Distribution : Pakistan : Indus plain and adjoining hills; India : Northern India; Bangladesh; Nepal and Myanmar. This species has been transplanted into some of the rivers of Peninsular India, notably river Cauvery, and in more recent times into Srilanka and China.

This has been introduced for fishery purpose.

9. *Horallabiosa joshuai* Silas

1953. *Horallabiosa joshuai* Silas, *Rec. Indian Mus.*, 51 (1) : 30, text fig. & pl. 5 (Type locality : Singampatty, Tirunelveli dist., Tamil Nadu).

Material : 7 exs., 12–21 mm SL., F.5549, way to Chankiri, 29.3.98.

Distribution : India : Tirunelveli district, Tamil Nadu and Kerala : Silent valley and Trivandrum District.

Remarks : This species was first reported by Silas (1952) from upper reaches of Tambraparni river, Tirunelveli dist. . Subsequently this species was collected from Silent Valley. The present collection of juveniles have been tentatively identified as *H. Joshuai*. This is the first report of this species from this part of Kerala.

10. *Puntius amphibius* (Valenciennes)

1842. *Capoeta amphibia* Valenciennes, *Hist. nat. Poiss.*, 16 : 282, pl. 478 (Type locality : Bombay).

Material : 1 ex., 37 mm SL., F.5776, Karamana, 18.12.97; 5 exs., 47–60 mm SL., F.5491, Kallar, 24.12.97; 5 exs., 70–95 mm SL., F.5552, Anchuthengu, 2.4.98.

Distribution : Peninsular India as high as Orissa, Madhya Pradesh and Rajasthan; Srilanka.

11. *Puntius filamentosus* (Valenciennes)

1844. *Leuciscus filamentosus* Valenciennes, *Hist. nat. Poiss.*, 17 : 96, pl. 492 (Type locality : Alleppey, Kerala State).

Material : 6 exs., 38–100 mm SL., F.5480, Vellaiyanikayal, 19.12.97; 2 exs., 79–107 mm SL., F.5468, Venganoor, 20.12.97; 4 exs., 45–75 mm SL., F.5484, Pongulam, 21.12.97; 3 exs., 87–90 mm SL., F.5494, Thiruvallam, 22.12.97; 1 ex., 55 mm SL., F.5537, Kallar river site, 27.3.98; 2 exs., 65–87 mm SL., F.5553, Anchuthengu, 2.4.98; 1 ex., 70 mm SL., F.5520, Poikat, Poika, 3.4.98; 1 ex., 100 mm SL., F.5556, Vellaiyanikayal, 5.4.98.

Distribution : India : Goa, Karnataka, Kerala, Andhra Pradesh and Tamil Nadu; Sri Lanka.

12. *Puntius melanampyx* (Day)

1865. *Labeo melanampyx* Day, *Proc. Zool. Soc. Lond.* : 298 (Type locality : Mundakayam, Kerala).

Material : 13 exs., 14–39 mm SL., F.5538, Kallar river site, 27.3.98; 10 exs., 14–44 mm SL., F.5544, Mottamood river, Ponmudi, 30.3.98.

Distribution : Peninsular India : Western Ghats : Goa, South Kanara through Travancore hills to Nagerkoil; also Nilgiris, and Cauvery drainage.

13. *Puntius vittatus* Day

1865. *Puntius vittatus* Day, *Proc. Zool. Soc. Lond.* : 303 (Type locality : Cochin, Kerala).

Material : 2 exs., 24–39 mm SL., F.5485, Pongulam, 21.12.97; 2 exs., 21–25 mm SL., F.5570, Vamanapuram river, 1.4.98; 264 exs., 17–35 mm SL., F.5519, Poikat, Poika, 3.4.98.

Distribution : Pakistan; India : Goa, Karnataka, Kerala, Tamil Nadu, Kutch, Bihar and Rajasthan; Sri Lanka.

14. *Tor khudree* (Sykes)

1839. *Barbus khudree* Sykes, *Trans. Zool. Soc. Lond.*, 2 : 357 (Type locality : Mulla Mutha river near Poona, Maharashtra).

Material : 3 exs., 45–50 mm SL., F.5536, Kallar river site, 27.3.98.

Distribution : India : rivers of Peninsular India and Deccan; Sri Lanka.

Subfamily : GARRINAE

15. *Garra mullya* (Sykes)

1841. *Chondrostoma mullya* Sykes, *Trans. Zool. Soc. Lond.*, 2 : 359, pl. 62, fig. 3. (Type locality : Bheema river and Daunde, Poona).

Material : 8 exs., 27–64 mm SL., F.5548, way to Chankiri, 29.3.98; 1 ex., 88 mm SL., F.5564, Vamanapuram, 1.4.98.

Distribution : India : throughout the Peninsula.

Family : COBITIDAE

16. *Lepidocephalus thermalis* (Valenciennes)

1846. *Cobitis thermalis* Valenciennes, *Hist. nat. Poiss.*, 18 : 78 (Type locality : Malabar).

Material : 5 exs., 36–44 mm SL., F.5492, Kallar, 24.12.97.

Distribution : Peninsular India and Sri Lanka.

Family : BALITORIDAE

Subfamily : NOEMACHEILINAE

17. *Noemacheilus triangularis* Day

1865. *Nemacheilus triangularis* Day, *Proc. Zool. Soc. Lond.* : 295 (Type locality : Mundakayam, Travancore).

Material : 7 exs., 19–50 mm SL., F.5539, Kallar river site, 27.3.98; 2 exs., 13–24 mm SL., F.5545, Mottamood river, Ponmudi, 30.3.98; 1 ex., 38 mm SL., F.5521, Poikat, Poika, 3.4.98.

Distribution : Peninsular India : Western Ghats : Kerala and Tamil Nadu.

Subfamily : BALITORINAE

18. *Bhavana australis* (Jerdon)

1849. *Platycastra australis* Jerdon, *Madras J. Lit. & Sci.*, 15 : 333 (Type locality : Walliar, Nilgiris).

Material : 1 ex., 56 mm SL., F.5532, Kallar river, 27.3.98.

Distribution : India : extreme south of western Ghats (Karnataka, Nilgiris and Tirunelveli District in Tamil Nadu and Kerala).

Order : SILURIFORMES

Family : BAGRIDAE

19. *Mystus bleekeri* Day

1846. *Bagrus bleekeri* (nec Valenciennes) Bleeker, *Nat. Gen. Arch. Ned. Indie*, (2) 3 : 135 (Type locality : Bengal).

Material : 8 exs., 22–28 mm SL., F.5546, Mottamood river, Ponmudi, 30.3.98; 1 ex., 35 mm SL., F.5522, Poikat, Poika, 3.4.98.

Distribution : Pakistan, India : Throughout India, Bangladesh.

Remarks : The Southern most limit of the species was till recently known to be the headwaters of Mahanadi. Subsequently this species has been reported from Neyyar river, Trivandrum Dist. by Raju *et al.* (1999).

Family : HETEROPNEUSTIDAE

20. *Heteropneustes fossilis* (Bloch)

1794. *Silurus fossilis* Bloch, *Naturgesch. Ausl. Fische*, 8 : 46, pl. 370, fig. 2 (Type locality : Tranquebar, Tamil Nadu).

Material : 2 exs., 62–63 mm SL., F.5523, Poikat, Poika, 3.4.98.

Distribution : Pakistan : Indus basin; India including the Andaman Islands; Nepal; Bangladesh; Srilanka; Myanmar; Thailand and Laos.

Order : CYPRINODONTIFORMES

Family : BELONIDAE

21. *Xenentodon cancila* (Hamilton)

1822. *Esox cancila* Hamilton, *Fishes of Ganges* : 213, 380, pl. 27, fig. 70 (Type locality : Gangetic provinces).

Material : 1 ex., 155 mm SL., F.5502, Venganoor, 20.12.97; 1 ex., 165 mm SL., F.5477, Pongulam, 21.12.97.

Distribution : Pakistan; India; Bangladesh; Sri Lanka; Myanmar and Thailand.

Family : APLOCHEILIDAE

22. *Aplocheilus blocki* (Arnold)

1911. *Haplocheilus panchax* var. *blockii* Arnold, *Wochenschr. Aquarien and Terrarienkunde*, 8 : 672 (Type locality : Cochin, Kerala).

Material : 1 ex., 24 mm SL., F.5572, Vamanapuram, 1.4.98; 34 exs., 17–23 mm SL., F.5525, Poikat, Poika, 3.4.98.

Distribution : India : Tamil Nadu, Kerala, Kutch (Gujarat); and Sri Lanka.

23. *Aplocheilus lineatus* (Valenciennes)

1845. *Panchax lineatus* Valenciennes, *Hist. nat. Poiss.*, 18 : 381 (Type locality : Bombay).

Material : 3 exs., 34–35 mm SL., F.5571, Vamanapuram, 1.4.98; 63 exs., 23–46 mm SL., F.5524, Poikat, Poika, 3.4.98.

Distribution : India : Widely distributed in Peninsular India.

Order : SYNGNATHIFORMES

Family : SYNGNATHIDAE

24. *Micropis cuncalus* (Hamilton)

1821. *Syngnathus cuncalus* Hamilton, *Fishes of Ganges* : 12, 362. (Type locality : estuaries near Calcutta).

Material : 2 exs., 91 & 92 mm SL., F.5576, Vamanapuram, 1.4.98.

Distribution : India : West Bengal, Orissa, Tamil Nadu, Maharashtra, Goa and Kerala; Bangladesh and Sri Lanka.

Order : SYNBRANCHIFORMES

Family : SYNBRANCHIDAE

25. *Ophisternon bengalense* McClelland

1845. *Ophisternon bengalense* McClelland, *Calcutta J. nat. Hist.*, 5 (18) : 197, 220, pl, 11, fig. 1 (Type locality : Hooghly river, West Bengal).

Material : 1 ex., 143 mm., F.5563, Anchuthengu, 2.4.98.

Distribution : Sri Lanka, Indo-Malayan Region and the Philippines.

Order : PERCIFORMES

Family : AMBASSIDAE

26. *Parambassis thomassi* (Day)

1870. *Ambassis thomassi* Day, *Proc. Zool. Soc. Lond.*, : 369 (Type locality : Coast of Canara).

Material : 5 exs., 16–45 mm SL., F.5481, Vellaiyanikayal, 19.12.97; 2 exs., 72–73 mm SL., F.5469 & F.5501, Venganoor, 20.12.97; 13 exs., 22–45 mm SL., F.5466 and F.5486, Pongulam, 21.12.97; 1 ex., 29 mm SL., F.5473, Thiruvallam, 22.12.97; 4 exs., 19–25 mm SL., F.5560, Vellaiyanikayal, 5.4.98.

Distribution : India : Western Ghats of Kerala and Karnataka.

Family : CICHLIDAE

27. *Etroplus maculatus* (Bloch)

1785. *Chaetodon maculatus* Bloch, *Syst. Ichth* : pl. 427, fig. 2 (Type locality : India).

Material : 3 exs., 47–48 mm SL., F.5775, Karamana, 18.12.97; 15 exs., 23–80 mm SL., F.5482 & F.5488, Vellaiyanikayal, 19.12.97; 6 exs., 36–65 mm SL., F.5470 & F.5499, Venganoor, 20.12.97; 8 exs., 55–65 mm SL., F.5478, Pongulam, 21.12.97; 2 exs., 24–26 mm SL., F.5573, Vamanapuram, 1.4.98; 1 ex., 58 mm SL., F.5561, Anchuthengu, 2.4.98; 21 exs., 45–64 mm SL., F.5557, Vellaiyanikayal, 5.4.98.

Distribution : India : Tamil Nadu, Kerala and South Karnataka; Sri Lanka.

28. *Etroplus suratensis* (Bloch)

1785. *Chaetodon suratensis* Bloch, *Syst. Ichth.* : pl. 217 (Type locality : Surat, Gujarat).

Material : 2 exs., 46–56 mm SL., F.5489, Vellaiyanikayal, 19.12.97; 2 exs., 51 & 60 mm SL., F.5471 & F.5500, Venganoor, 20.12.97; 2 exs., 68–90 mm SL., F.5479, Pongulam, 21.12.97; 2 exs., 73–96 mm SL., F.5496, Thiruvallam, 22.12.97; 2 exs., 88 & 100 mm SL., F.5474, Anchuthengu, 23.12.97; 2 exs., 90–120 mm SL., F.5562, Anchuthengu, 2.4.98; 3 exs., 50–120 mm SL., F.5558, Vellaiyanikayal, 5.4.98.

Distribution : Peninsular India; Sri Lanka.

29. *Oreochromis mossambica* (Peters)

1852. *Chromis (Tilapia) mossambica* Peters, *Montab. Akad. Wiss. Berlin* : 681 (Type locality : Mozambique).

Material : 2 exs., 125–130 mm SL., F.5475, Anchuthengu, 23.12.97; 17 exs., 17–30 mm SL., F.5569, Neyyar Dam site, 24.3.98.

Distribution : East Africa; an introduced species in India, Pakistan and Sri Lanka.

Family : GOBIIDAE

30. *Glossogobius giuris* (Hamilton)

1822. *Gobius giuris* Hamilton, *Fishes of Ganges* : 51, pl. 33, fig. 15 (Type locality : Gangetic Provinces).

Material : 1 ex., 34 mm SL., F.5487, Pongulam, 21.12.97; 1 ex., 24 mm SL., F.5540, Kallar river site, 27.3.98; 2 exs., 23–32 mm SL., F.5574, Vamanapuram, 1.4.98.

Distribution : Indo-West Pacific.

Family ANABANTIDAE

31. *Anabas testudineus* (Bloch)

1795. *Anthias testudineus* Bloch, *Naturges. Ausland. Fische*, (6) : 121, pl. 322 (Type locality : Java)

Material : 3 exs., 65–68 mm SL., F.5527, Poikat, Poika, 3.4.98.

Distribution : Pakistan; India; Bangladesh; Sri Lanka; Myanmar; Malay archipelago; Singapore and the Philippines.

Family : BELONTIDAE

32. *Pseudosphromenus cupanus* (Valenciennes)

1831. *Polycanthus cupanus* Valenciennes, *Hist. nat. Poiss.*, 7 : 357 (Type locality : Ariancoupan river at Pondicherry).

Material : 133 exs., 19–65 mm SL., F.5528, Poikat, Poika, 3.4.98.

Distribution : Eastern India, Sri Lanka, Western Myanmar, Malay Peninsula and Sumatra.

33. *Pseudosphromenus dayi* Köhler

1909. *Polycanthus cupanus dayi* Kohler, *Blat. Aquar. Terrar.*, 20 : 331 (Type locality : Not given, Probably Kerala).

Material : 14 exs., 22–23 mm SL., F.5529, Poikat, Poika, 3.4.98.

Distribution : India : Kerala.

Remarks : Talwar (1991) treated this species a synonym of *P. cupanus* though he remarked, that it is considered a distinct species in aquarium literature. Jayaram (1999) did not consider this a distinct species for lack of sufficient data, while Kottelet (1994) and Menon (1999) retained its separate identity. Because of differences in the number of branched rays and the colour pattern, *P. cupanus* and *P. dayi* are considered here distinct species. A detailed note on this species is being published elsewhere.

Order : CHANNIFORMES

Family : CHANNIDAE

34. *Channa orientalis* Bloch and Schneider

1801. *Channa orientalis* Bloch and Schneider, *Syst. Ichth.*, : 496, pl. 90, fig. 2 (Type locality : India).

Material : 1 ex., 85 mm SL., F.5567, Golden Valley, 28.3.98; 2 exs., 57–82 mm SL., F.5539, Poikat, Poika, 3.4.98; 6 exs., 40–62 mm SL., F.5565, way to Kulathupuzha, 6.4.98.

Distribution : Afghanistan; Iran; Pakistan; India; Nepal; Sri Lanka; Bangladesh; Myanmar and East Indies.

35. *Channa punctatus* (Bloch)

1793. *Ophiocephalus punctatus* Bloch, *Naturges. ausland, Fische*, (7) : 139, pl. 358 (Type locality : rivers and lakes of Coromandel Coast).

Material : 1 ex., 210 mm SL., F.5504, Anchuthengu, 23.12.97.

Distribution : Afghanistan; Pakistan; India; Sri Lanka; Nepal; Bangladesh; Myanmar and Yunnan.

Order : MASTACEMBELIFORMES

Family : MASTACEMBELIDAE

36. *Macrognaathus malabaricus* (Jerdon)

1849. *Mastacembelus malabaricus* Jerdon, *Madras J. Lit. Sci.*, 15 : 147 (Type locality : Malabar).

Material : 1 ex., 114 mm SL., F.5531, Poikat, Poika, 3.4.98.

Distribution : India : Kerala.

Remarks : Menon (1999) considered *Mastacembelus guentheri* Day a synonym of this species.

Besides, the following species were also collected during the surveys, estuarine/ marine species

Order : RAJIFORMES

Family : DASYPATIDAE

1. *Dasyatis zugei* (Muller & Henle)

Order : CLUPEIFORMES

Family : CLUPEIDAE

2. *Dayella malabarica* (Day)

Order : MYCTOPHIFORMES

Family : SYNODIDAE

3. *Saurida thombil* (Bloch)

Order : CYPRINODONTIFORMES

Family : BELONIDAE

4. *Tylosurus crocodilus* (Peron & LeSueur)

Order : SYNGNATHIFORMES

Family : SYNGNATHIDAE

5. *Fistularia petimba* Linn.

Order : PERCIFORMES

Family : AMBASSIDAE

6. *Ambassis commersoni* Cuvier

Family : SILLAGINIDAE

7. *Sillago vincenti* Mc Kay

Family : CARANGIDAE

8. *Caranx sexfasciatus* Quoy and Gaimard9. *Trachynotus baillonii* (Lacepede)

Family : LEIOGNATHIDAE

10. *Leiognathus brevis* (Val.)

Family : MUGILIDAE

11. *Liza subviridis* (Val.)12. *Mugil cephalus* (Linne)

Family : GOBIIDAE

13. *Awaous gutum* (Ham.)

Family : ELEOTRIDAE

14. *Eleotris fusca* (Schneider)

Order : PLEURONECTIFORMES

Family : BOTHIDAE

15. *Pseudorhombus triocellatus* (Bloch)

Order : TETRAODONTIFORMES

Family : TETRAODONTIDAE

16. *Lagocephalus lunaris* (Bloch & Schneider)17. *Diodon holocanthus* Linne.**DISCUSSION**

The present paper records the distribution of 69 species, in the inland waters of Trivandrum District. This includes 52 primary freshwater species and one exotic one. Of these 16 are based on earlier reports and are not represented in the present collections. The present study revealed the distribution of 20 more species in the state. It is interesting to observe that the ichthyofauna of this

state alone comprise 22 species endemic to India including 15 Western Ghat endemics, four of which viz. *Barilius bakeri*, *Batasio travancoria*, *Pseudosphromenus dayi* and *Macrognaathus guentheri*, are confined to Kerala State.

While drawing the relationship of the Travancore fauna with other Zoogeographical realms, Hora (1941), listed 9 species (12%) of the 76 reported by him, as common to Ceylon. From the present collection it is observed that 24 species (52%) of the primary freshwater species of this district alone are common to Sri Lanka and 20% exclusive to India and Sri Lanka revealing a close affinity of the ichthyofauna of Sri Lanka and the Southern Western Ghats as is the case with the herpetofauna (Cherian *et. al.*, 2000). This is further strengthened by the collection of *Horadandia atukorali* Deraniyagala (thought till recently to be endemic to Sri Lanka), from this state, and is now found to be fairly widespread in Southern India especially Tamil Nadu and Kerala. Of special Ichthyological significance is the collection of *Pseudosphromenus dayi* considered a colour variant in aquarium literature or a Juvenile of *P. cupanus* and considered its synonym by Talwar and Jhingran (1991) and Jayaram (1999). However, it is considered here a distinct species (Menon, 1999) owing to the differences in the colour and the number of branched rays in the dorsal fin.

SUMMARY

Studies on a small collection of inland fishes from Trivandrum district, Kerala has revealed the presence of 52 Primary freshwater species, including 16 species reported earlier. In this paper 20 species are reported for the first time from this district, including several of Ichthyological significance. The present status of some of these species is also discussed.

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REFERENCES

- Cherian, P. T., Rema Devi, K. and Ravicandran, M. S. 2000. Ichthyo and Herpetofaunal Diversity of Kalakkad wildlife sanctuary. *Zoos Print*, **15** (2) : 203-206.
- John, C. C. 1936. Freshwater fish and fishery of Travancore *J. Bombay nat. Hist. Soc.*, **38** : 702-733.
- Hora, S. L. and Law, N. C. 1941. The freshwater fish of Travancore. *Rec. Indian Mus.*, **XLIII** (2) : 233-256.
- Hora, S. L. and Nair, K. K. 1941. Notes on Fishes in the Indian Museum. **XLI**, New Records of freshwater Fish from Travancore. *Rec. Indian Mus.*, **XLIII** (3) : 387-393.

- Kottelat, M. 1994. Authorship and date of publication of *Pseudosphromenus dayi* (Pisces : Belontiidae). *J. South Asian nat. Hist.*, Vol. 1, No. 1, pp. 31-33.
- Menon, A. G. K. 1999. Checklist Freshwater Fishes of India, ZSI. Occ. Pap. No. 175. pp. 366.
- Pillay, R. S. N. 1929. A list of the Fishes from Travancore. *J. Bombay nat. Hist. Soc.*, **33** : 347-379.
- Raju Thomas, K., Biju, C. R. and Ajithkumar, C. R. 1998. *Mystus bleekeri* (Day)—An addition to the Fish Fauna of Kerala *J. Bombay nat. Hist. Soc.*, **96** (3) : 482-483.
- Rema Devi, K., Indara, T. J. and Emiliyamma, K. G. 1996. On the fish collections from Kerala, deposited in Southern Regional Station, Zoological Survey of India, by NRM Stockholm. *Rec. Zool. Surv. India*, **95** (3-4) : 129-146.
- Silas, E. G. 1951. Fishes from the high ranges of Travancore. *J. Bombay nat. Hist. Soc.*, **50** : 323-330.
- Talwar, P. K. and Jhingran, A. G. 1991. Inland Fishes of India and Adjacent countries. Oxford & IBM Publ. Co., New Deli. Vol. 1 & 2. pp. 1158.