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**ECOLOGY AND DISTRIBUTION OF GOBIOID FISHES
OF MADRAS AND ITS ENVIRONS****

**EKOLOGIA I ROZMIESZCZENIE RYB BABKOWATYCH
Z OKOLICY MADRAS**

Zoological Survey of India

Ecology and distribution of gobioid fishes of Madras and its environs were studied. A total of twenty one species are reported. The original reference is given after each species, followed by material, distribution and remarks. Under material the registration number, number of examples, locality, date of collection and collector's name are given in sequence. Distribution of gobioid fishes and hydrological data of Pulicat, Ennore and Adayar are given.

INTRODUCTION

The gobioid fishes are distributed through out the temperate and tropical zones of the world. They occur in fresh to saline waters of the world and in all types of aquatic habitats. Koumans (1941, 1953) has done excellent work on the gobioids of India and Pacific.

The present paper deals with ecology and distribution of gobioid fishes of Madras and its vicinity. Chacko et al (1953), Chacko and Ganapati (1940), Chacko and Rajagopal (1962), Day (1878), Evangeline and Subbiah (1969), Menon and Govindan (1976), Menon and Raman (1977), Raghunathan and Srinivasan (1983), Venkateswarlu et al. (1975), Venkateswarlu (1976) are some of the important contributions on Pulicat, Ennore, Adayar and Madras coast.

A total of twenty one species are reported in this paper. The classification followed is after Koumans (1941, 1953). The abbreviations used are: Ex. — example, T.V. —

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T. Venkateswarlu and K.V.R. – K.V. Rama Rao. The original reference is given after each species, followed by material, distribution and remarks. Under material the registration number, number of examples, locality, date of collection, and collector's are given in sequence.

Distribution of gobioid fishes is given in Table 1 as per published reports.

SYSTEMATIC ACCOUNT

Family: *Gobiidae*

Sub-Family: *Gobiinae*

Genus: *Acentrogobius* Bleeker

Acentrogobius caninus (Cuv. et Val.)

Gobius caninus, Cuv. et Val., 1837, Hist. Nat. Poiss. 12, 86.

Material: F. 472, 1 Ex. Ennore, 13.6.75, T.V.

Distribution: India, Thailand, China, Philippines, Indo-Australian Archipelago, Fiji Islands.

Acentrogobius cyanomos (Bleeker)

Gobius cyanomos, Bleeker, 1849, Verh. Bat. Gen., 22, p. 25.

Material: F. 350, 25 Ex., Pulicat, 4.2.76, T.V., F. 454, 4 Ex., Pulicat, 14.9.76, T.V.

Distribution: India, Thailand, Indo-Australian Archipelago.

Acentrogobius reichei (Bleeker)

Gobius reichei, Bleeker, 1853, Nat. Tijds. Nad. Ind., 5, p. 509.

Material: F. 330, 2 Ex., Ennore, 23.8.75, T.V., F. 349, 40 Ex., Pulicat, 4.2.76, T.V., F. 353, 3 Ex., Ennore, 13.7.72, S. Chakrapany, F. 364, 4 Ex., Ennore, 9.7.75, Dr A. Daniel, F. 366, 3 Ex., Pulicat, 14.9.76, T.V., F. 446, 5 Ex., Pulicat, 14.9.76, T.V., F. 452, 3 Ex., Adayar, 29.5.73, K.V.R.

Distribution: S.E. Africa, India, Andamans, Philippines, Indo-Australian Archipelago.

Acentrogobius viridipunctatus (Cuv. et Val.)

Gobius viridipunctatus, Cuv. et Val., 1837, Hist. Nat. Poiss. 12, p. 62.

Material: F. 461, 1 Ex., Pulicat, 26.6.76, T.V., F. 479, 1 Ex., Ennore, 13.6.76, T.V.

Distribution: Zanzibar, India, Andamans, Philippines, China, Indo-Australian Archipelago.

Genus: *Awaous* Cuv. et Val.

Awaous stamineus (Val.)

Awaous stamineus, Valenciennes, 1842, Zool. Voy. Bonite, p. 179, pl. V, fig. 5.

Material: F. 475, 15 Ex., Kovelong, 22.11.76, T.V., F. 476, 25 Ex., Kovelong, 21.8.76, T.V., F. 477, 13 Ex., Kovelong, 4.9.76, T.V., F. 478, 28 Ex., Kovelong, 6.2.76, T.V.

Distribution: India, Philippines, Indo-Australian Archipelago, Hawaiian Islands.

Remarks: This species is found only in a fresh water pond at Kovelong.

Genus: *Ctenogobius* Gill

Ctenogobius criniger (Cuv. et Val.),

Gobius nebulosus, Forskal, 1775, Descr. Anim., p. 24.

Gobius criniger, Cuv. et Val., 1837, Hist. Nat. Poiss. 12, p. 82.

Material: F 329, 4 Ex., Pulicat, 14.9.76, T.V., F. 331, 2 Ex., Pulicat, 29.4.72, K.V.R., F 335., 13 Ex., Pulicat, 27.9.74, Dr A.G.K. Menon and T.V., F. 352, 7 Ex., Ennore, 13.7.72, S. Chakrapany, F. 354, 80 Ex., Pulicat, 22.4.72, K.V.R., F. 355, 26 Ex., Pulicat, 27.7.63, Dr T.E. Sivaprakasam, F. 455, 12 Ex., Ennore, 23.6.75, T.V., F. 468, 3 Ex., Ennore, 23.6.75, T.V., F. 469, 5 Ex., Ennore, 7.8.75, T.V., F. 474, 1 Ex., Madras, 30.4.75 K.V.R., F. 482, 40 Ex., Ennore, 13.6.75, T.V.

Distribution: India, Red Sea, Mozambique to the Pacific.

Genus: *Glossogobius* Gill

Glossogobius giuris (Hamilton)

Gobius gutum, Hamilton, 1822, Fish. Ganges, pp. 50, 366.

Gobius giuris, Hamilton, 1822, op. cit., pp. 51, 366, pl. 33, fig. 15.

Material: F. 323, 33 Ex., Sullurpet, 18.2.75, T.V., F. 324, 4 Ex., Madras, 6.1.73, S. Chakrapany, F. 325, 3 Ex., Pulicat, 4.2.76, T.V., F. 326, 3 Ex., Pulicat, 14.9.76, T.V., F. 328, 1 Ex., Pulicat, 22.4.72, K.V.R., F. 357, 2 Ex., Pulicat, 21.2.75, T.V., F. 464, 1 Ex., Adayar, 4.1.74, M. Kasi.

Distribution: India, From the east coast of Africa to Australia, Philippines, China, Japan, New Caledonia.

Glossogobius biocellatus (Cuv. et Val.)

Gobius biocellatus, 1837, Cuvier et Val., Hist. Nat. Poiss, 12, p. 73.

Material: F. 358, 5 Ex., Ennore, 23.6.75, T.V., F. 361, 1 Ex., Pulicat, 13.10.71, K.V.R., F. 447, 4 Ex., Adayar, 11.2.74, M. Kasi Coll., F. 466, 3 Ex., Ennore, 7.8.75, T.V., F. 470, 30 Ex., Ennore, 13.6.75, T.V., F. 471, 2 Ex., Ennore, 21.6.75, T.V.

Distribution: India, Andamans, Philippines, Indo-Australian Archipelago, Samoa.

Genus: *Oxyurichthys* Bleeker

Oxyurichthys microlepis (Bleeker)

Gobius microlepis, Bleeker, 1849, Verh. Bat. Gen., 22, p. 35.

Material: F. 333, 8 Ex., Ennore, 23.6.75, T.V., F. 336, 39 Ex., Ennore, 7.8.75, T.V.,

F. 338, 31 Ex., Pulicat, 30.4.76, T.V., F. 339, 35 Ex., Pulicat, 17.7.76, T.V., F. 340, 15 Ex., Pulicat, 4.6.76, T.V., F. 341, 25 Ex., Pulicat, 17.8.76, T.V., F. 343, 66 Ex., Ennore, 13.6.75, T.V., F. 346, 25 Ex., Ennore, 23.8.75, T.V., F. 360, 39 Ex., Pulicat, 14.9.76, T.V., F. 365, 1 Ex., Tondiarpet, 18.75, S. Charapany, F. 453, 7 Ex., Adayar, 11.2.74, M. Kasi, F. 460, 19 Ex., Pulicat, 26.6.76, T.V., F. 480, 2 Ex., Ennore, 21.5.75, Dr A.G.K.Menon, F. 481, 7 Ex., Ennore, 21.6.75, T.V.

Distribution: India, Indo-Australian Archipelago, China, Philippines.

Oxyurichthys tentacularis (Cuv. et Val.)

Gobius tentacularis, Cuv.ier et Val., 1837, Hist. Nat. Poiss., 12, p. 128.

Material: F. 332, 8 Ex., Adayar, 12.2.74, M. Kasi, F. 344, 10 Ex., Ennore, 13.6.75, T.V., F. 345, 1 Ex., Ennore, 23.6.75, T.V., F. 356, 1 Ex., Ennore, 7.8.75, T.V.,

Distribution: India, Indo-Australian Archipelago, Philippines, Hongkong, Polynesia, North Australia.

Genus: *Parachaeturichthys* Bleeker

Parachaeturichthys ocellatus (Day)

Gobius ocellatus, Day, 1873, Proc. Zool. Soc. London, p. 107

Material: F. 351, 3 Ex., Madras, 18.6.75, S. Chakrapany.

Distribution: Bombay and Sind.

Parachaeturichthys polynema (Bleeker)

Ohaeturichthys polynema, Bleeker, 1853, Verh. Bat. Gen. 25, p. 44, text-fig. 4.

Material: F. 334, 2 Ex., Pulicat, 4.2.76, T.V., F. 360 A, 10 Ex., Royapuram, 5.9.74, T.V., F.363, 14 Ex., Pulicat, 14.9.76, T.V., F. 448, 2 Ex., Madras, 15.10.71, K.V.R., F. 458, 2 Ex., Madras, 29.8.75, K.V.R.

Distribution: India, Japan, China, Ambon, North Queensland.

Genus: *Waitea* Jordon et Seale

Waitea buchanani V. Rao

Waitea buchanani, Viswerswara Rao, 1972, J. Bombay Nat. Hist. Soc., pp. 130–133.

Material: F. 362, 1 Ex., Ennore, 12.2.75, K.V.R.

Distribution: Kakinada and Madras.

Remarks: This is the second record of this species from Indian waters (Rama Rao and Venkateswarlu, 1977).

Sub Family: *Apocryptinae*

Genus: *Boleophthalmus* Cuv. et Val.

Boleophthalmus boddaerti Pallas

Gobius boddaerti, Pallas, 1770, Spicilegia VIII, p. 11, pl. ii, figs. 4, 5.

Material: F. 342, 1 Ex., Pulicat, 17.8.76, T.V., F. 451, 7 Ex., Adayar, 12.2.74, M. Kasi.
Distribution: India, Malay Peninsula, Indo Australian Archipelago.

Family: *Taenioididae*
Sub Family: *Taenioninae*
Genus: *Brachyamblyopus* Bleeker

Brachyamblyopus urolepis (Bleeker)

Amblyopus urolepis, Bleeker, 1852, Nat. Tijds. Ned. Ind, III, p. 581.

Material: F 472, 43 Ex., Ennore, 13.6.75, T.V.

Distribution: India, Andamans, Thailand, Philippines, Sumatra.

Genus: *Odontamblyopus* Bleeker

Odontamblyopus rubicundus Hamilton

Gobioides rubicundus, Hamilton, 1822, Fish. Ganes., pp. 37, 365, Pl. v. fig. 9.

Material: F. 456, 1 Ex., Madras, 14.8.74, T.V., F. 457, 6 Ex., Adayar, 29.5.73, T.V.

Distribution: India, Indo-Australian Archipelago, Port Arthur.

Genus: *Taenioides* Lacèpède

Taenioides anguillaris (Linnaeus)

Gobius anguillaris, Linnaeus, 1758, Syst. Nat. ed. 10, p. 264.

Material: F. 327, 1 Ex., Ennore, 23.8.75, T.V., F. 348, 1 Ex., Adayar, 17.9.71,
S. Chakrapany.

Distribution: India, Andamans, China, Penang.

Taenioides cirratus (Blyth)

Amblyopus cirratus, Blyth, 1860, Journ. As. Soc. Bengl. XXIX, p. 147.

Material: F. 365, 3 Ex., Ennore, 23.8.75, T.V.

Distribution: India, Andamans, Indo-Australian Archipelago, Australia.

Sub-Family: *Trypaucheninae*

Genus: *Ctenotrypauchen* Steindachner

Ctenotrypauchen microcephalus (Bleeker)

Trypauchen microcephalus, Bleeker, 1860, Act. Soc. Indo-Neerl. VIII, p. 62.

Material: F. 347, 47 Ex., Pulicat, 29.4.72, K.V.R., F. 467, 64 Ex., Madras, 19.7.75,
V.K. Premakumar.

Distribution: India, from the Persian Gulf to Indo-Australian Archipelago.

Trypauchen Cuv. et Val
Trypauchen vagina (Bloch et Schneider)

Gobius vagina, Bloch et Schneider, 1801, Syst. Ichth, p. 73.

Material: F. 337, 28 Ex., Madras, 11.7.77, S. Chakrapany, F. 359, 1 Ex., Madras, 5.9.74, T.V., F. 449, 12 Ex., Madras, 30.4.75, K.V.R., F. 450, 13 Ex., Madras, 22.7.76, Dr A. Daniel, F. 459, 6 Ex., Ennore, 20.9.75, S. Chakrapany.

Family: *Eleotridae*

Genus: *Eletroides* Bleeker

Eletroides wardii Playfair

Eletroides wardii Playfair, 1866, Fish. Zanzibar, p. 73, pl. IX, fig. 3.

Material: F. 83, 1 Ex., Madras, 24.5.75, K.V.R.

Distribution: Indian Ocean (Zanzibar and Madras)

Remarks: This is the first report of this species out side its type locality (Venkateswarlu and Rama Rao, 1976).

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Table I

Distribution of gobioid fishes

	Madras coast	Adayar Estuary	Ennore Estuary	Pulicat Lagoon
1. <i>Ctenogobius criniger</i>	+	+	+	+
2. <i>Brachygobius numus</i>			+	
3. <i>Gobiopterus chuno</i>			+	
4. <i>Waitea buchanani</i>	+			
5. <i>Parachaeturichthys ocellatus</i>	+			
6. <i>Parachaeturichthys polynema</i>	+	+		+
7. <i>Stenogobius malabaricus</i>			+	
8. <i>Oxyurichthys jaarmani</i>			+	
9. <i>Oxyurichthys microlepis</i>	+	+	+	+
10. <i>Oxyurichthys tentacularis</i>	+	+	+	+

11.	<i>Acentrogobius caninus</i>				+
12.	<i>Acentrogobius reichei</i>		+		+
13.	<i>Acentrogobius gobiceps</i>				+
14.	<i>Acentrogobius griseus</i>		+		+
15.	<i>Acentrogobius madras-patensis</i>		+		+
16.	<i>Acentrogobius cyanomos</i>			+	+
17.	<i>Acentrogobius viridipunctatus</i>			+	+
18.	<i>Oligolepis acutipennis</i>		+		+
19.	<i>Oligolepis cylindriceps</i>				+
20.	<i>Cryptocentrus gymnocephalus</i>		+		
21.	<i>Paragobiopsis ostericola</i>		+		
22.	<i>Glossogobius biocellatus</i>		+	+	+
23.	<i>Glossogobius giuris</i>		+	+	+
24.	<i>Stigmatogobius javanicus</i>		+		
25.	<i>Apocryptes bato</i>				+
26.	<i>Apocryptichthys cantori</i>		+	+	
27.	<i>Parapocryptes serperaster</i>		+		+
28.	<i>Parapocryptes rictuosus</i>				+
29.	<i>Pseudapocryptes lanceolatus</i>				+
30.	<i>Boleophthalmus boddaerti</i>		+	+	+
31.	<i>Periophthalmus variabilis</i>				+
32.	<i>Brachyamblyopus urolepis</i>				+
33.	<i>Taenioides buchanani</i>		+		
34.	<i>Taenioides anqillaris</i>		+	+	+
35.	<i>Taenioides cirratus</i>				+
36.	<i>Ctenotrypauchen microcephalus</i>		+		
37.	<i>Odontamblyopus ribucundus</i>		+	+	
38.	<i>Trypauchen vagina</i>		+		+
39.	<i>Eleotris fusca</i>			+	
40.	<i>Eleotrioides wardii</i>		+		
41.	<i>Prionobutis koilomatodon</i>				+
42.	<i>Awaous stamineus</i>		Found only at Kovelong		

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