

Polychaetes of Palk Bay, South East Coast of India

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ABSTRACT

Palk Bay is an important area for the study of Polychaetes. Already about 16 publications are available on the Polychaetes of Palk Bay. In order to find out the present position a comparative study was made by collecting Polychaete samples from 17 centres having different environmental situations. Out of 41 Polychaetes identified, 16 were found to be new to the study area.

KEYWORDS: Polychaetes, Palk Bay

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INTRODUCTION

Palk Bay has variety of environments such as beach, estuary, coral beds and mangrove beds (Fig. 1). All these environments have either a sandy bed or a muddy bed or a coral bed or a rocky bed or a mixture of all these. In order to study the polychaete population in these environments a study was conducted by collecting samples from all these areas and the results are given in this account. Although many works have been done by earlier workers [Balasubramanian (1960 and 1964), Srikrishnadhas and Ramamoorthy (1977), Srikrishnadhas *et al.*, (1981), Ajmal Khan *et al.*, (1975), Sarala Devi *et al.*, (1999), Murugesan *et al.*, (2007, 2009 & 2018), Anbuchezhian *et al.*, (2009), Karthikeyan *et al.*, (2009), Kundu *et al.*, (2009), Elayaraja *et al.*, (2010), Amar and Musale *et al.*, (2010), Varadharajan *et al.*, (2010), Sundaravarman *et al.*, (2012), Samidurai *et al.*, (2012), Ramesh *et al.*, (2013), Pandiyan *et al.*, (2013), Pravinkumar *et al.*, (2013), Sivaleela and Venkatraman (2013), Samikannu *et al.*, (2013), Seerangam *et al.*, (2013), Sivaraj *et al.*, (2014), Balachandar *et al.*, (2016), Bharathidasan *et al.*, (2017), Prabakaran *et al.*, (2019)] no

one has written a comprehensive account about the polychaete diversity of different coastal ecosystems of the area. Hence, an attempt was made to identify the polychaete diversity in the different ecosystems such as sea bottom, estuaries, and mangrove grounds.

MATERIAL AND METHODS

Samples were collected for a period of one year from different environments (Table - I) using Peterson's Grab and Scoop. If the depth is more, SCUBA diving technique was followed. Collected samples were washed through a 0.5 mm sieve on the site itself and sorted out in the laboratory on the same day after preserving them in 7% formalin for taxonomical studies. Length measurements were taken to the nearest mm and number of segments were counted in all specimens by drawing the figures using Camera Lucida and taking color photos. Species were identified by using standard keys (Fabricius, 1780; Ehlers, 1908; Southern, 1921; Fauvel, 1953; Day, 1961 and Fauchald, 1977).

Table 1 Depth and Location of the Sampling Sites

S. No.	Name of the stations	Depth (m)	Latitude (N)	Longitude (E)
1.	Thonithurai- coral reef bed	0.45	09°17'03"	79°10'27"
2.	Dhanushkodi- beach	0.40	09° 10'36"	78° 24' 58"
3.	Arichalmunai-beach	0.55	09° 90' 03"	79° 26' 56"
4.	Aththankarai-estuary	0.65	09°20'46"	78° 59' 56"
5.	Devipattanam-mangrove	0.30	09°29'25"	78°53'59"
6.	Thiruppalaikkudi-mangrove	0.30	09° 32' 43"	78° 54' 46"
7.	Valamavoor-mangrove	0.35	09°33'41"	78°55'20"
8.	Morepannai-mangrove	0.35	09° 35'49"	78° 55' 51"

9.	Uppoor-mangrove	0.80	09° 35'14"	78° 55' 36"
10.	Karankad-mangrove	0.70	09° 38'46"	78° 57' 56"
11.	Soliyakkudi-beach	0.10	09° 42'18"	78° 59'30"
12.	Vellar-estuary	0.28	11°29'59"	79°46'19"
13.	Southmeenavankulam- mangrove	0.50	11°29'41"	79°46'01"
14.	Annakovil-mangrove	0.60	11°29'56"	79°46'06"
15.	Parangipettai-mangrove	0.25	11°29'14"	79°45'43"
16.	Akkaraigori Gadilam- estuary	0.35	11°42' 27"	79°46'45"
17.	Sunnambar-estuary	0.40	11° 52' 33"	79°49' 16"

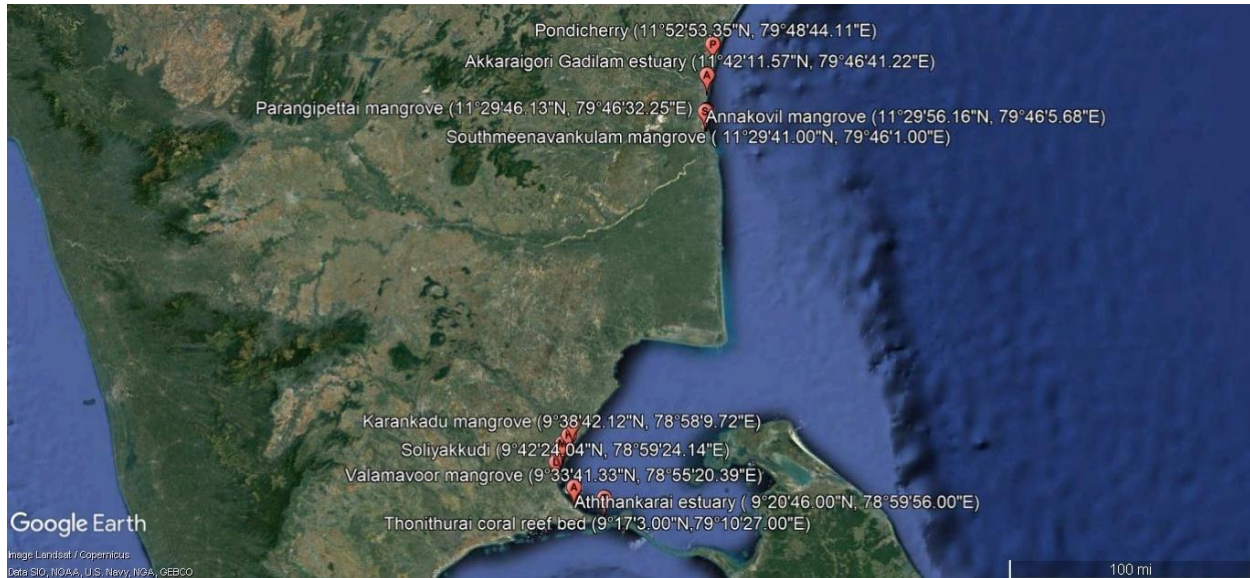


Fig 1 Map of the study area showing the sampling stations in Palk Bay

Table 2 List of Ploychaete Species recorded from Palk Bay during the present study

S. No.	Species Name	Family	Place of collection																
			TCB	DB	AB	AE	DM	TM	VM	MM	UM	KM	SB	VE	SM	AM	PM	GE	SEP
1.	<i>Notomastus aberans</i>	Capitellidae	-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-	+
2.	<i>Psuedonereis variegata</i>	Nereidae	-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	+
3.	<i>Culleriella acicula*</i>	Cirratulidae	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
4.	<i>Eunice schaemacephala*</i>	Eunicidae	-	-	-	-	-	+	-	-	-	-	+	-	+	-	-	-	-
5.	<i>Orbinia monroi*</i>	Orbiniidae	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	+	-
6.	<i>Scoloplos johnstonei</i>	Orbiniidae	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
7.	<i>Capitella capitata</i>	Capitellidae	-	-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	+
8.	<i>Polydora capensis</i>	Spionidae	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-
9.	<i>Scalibregma inflatum</i>	Scalibregmidae	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-	+
10.	<i>Lumbriconereis heteropoda</i>	Lumbrinereidae	-	-	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-
11.	<i>Namanereis gesae*</i>	Nereidae	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-	-
12.	<i>Armandia intermedia</i>	Opheliidae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
13.	<i>Lysidice collaris</i>	Eunicidae	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-
14.	<i>Eunice antennata*</i>	Eunicidae	-	-	-	+	-	-	-	-	-	-	-	-	+	-	-	+	-
15.	<i>Cossura coasta</i>	Cossuridae	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
16.	<i>Ceratonereis hircinicola*</i>	Nereidae	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+
17.	<i>Euclymene annandalei</i>	Maldanidae	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
18.	<i>Platynereis dumerilli</i>	Nereidae	+	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	+
19.	<i>Owenia fusiformis</i>	Oweniidae	+	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-
20.	<i>Magelona capensis*</i>	Magelonidae	-	+	-	-	-	+	+	-	-	-	-	+	-	-	-	-	+
21.	<i>Perinereis cultrifera</i>	Nereidae	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+
22.	<i>Chloeia inermis</i>	Amphinomidae	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
23.	<i>Glycera alba</i>	Glyceridae	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+
24.	<i>Exogone clavator</i>	Syllidae	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	+
25.	<i>Branchiommia violaceae*</i>	Sabellidae	+	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	+
26.	<i>Phyllodoce malmgreni</i>	Phyllodocidae	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	+	-
27.	<i>Goniada emerita</i>	Goniadidae	-	+	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-
28.	<i>Ancistrosyllis constricta</i>	Pilargidae	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+	-
29.	<i>Schroederella pauliani*</i>	Orbiniidae	-	-	-	-	-	+	-	-	-	-	-	+	-	-	-	+	+
30.	<i>Paralacydonia paradoxa</i>	Lacydoniidae	-	+	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-

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