

A NOTE ON THE OCCURRENCE OF *ANELASSORHYNCHUS BRANCHIORHYNCHUS*  
(ANNANDALE AND KEMP) IN THE SEABED OF KARWAR BAY

## ABSTRACT

A rare echiurid *Anelassorhynchus branchiorhynchus* is recorded for the first time from the seabed of Karwar Bay and reported in this note.

*Anelassorhynchus branchiorhynchus* (Phylum: Echiura, Class: Echiuroinea, Family: Thalassematidae) is a rarely occurring echiurid inhabiting the subtidal sediments of sandy silt and has not been so far reported from this area of the Indian Coast. But, its occurrence has been widely recorded from Gujarat, W. Bengal and Orissa coastal waters; especially from the estuarine waters of Sagar Islands and several localities of Sunderbans (Halder, 1985). In fact, Indian echiurans are not well known excepting for the pioneering works of Shipley (1902), Annandale and Kemp (1915), Annandale (1922), Prashad and Awati (1929), Prashad (1935), Datta Gupta and Menon (1961), Menon and Datta Gupta (1962), Datta Gupta *et al.* (1963), Datta Gupta (1965, 1967) and Halder (1978, 1981, 1985). Hence, this study intends to make a small contribution.

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*Material and Methods*

The study was a part of the benthic survey undertaken in Karwar Bay (14°48'02" to 14°50'32" N and 74°03' 12" to 74°07' 30" E) between 1981-83 during which, fortnightly collection of macrobenthos were made with the help of a modified Petersen grab with an area of 250 cm<sup>2</sup> and a biting depth of 8 cm (Sudarshana, 1983). Eventhough the

samples from 5 different localities ranging from a depth of 2 to 15 m were collected, *A. branchiorhynchus* occurred from one area on 15 m contour line. The echiurids were separated from the sediment with a 500 µ sieve and were stored in 1 : 5 Rose Bengal-Formaldehyde solution for further studies.

*Temporal occurrence of A. branchiorhynchus*

Eventhough in very small numbers, the echiurid was found to be present in the seabed all over the year except for a brief absence from June to August. In all, it ranged from 1 to 10 individuals m<sup>2</sup> with the highest occurrence being in January. Inspite of the fact that it was numerically less abundant in the midst of other resident benthic forms (Table 1), it contributed highest to the biomass (Sudarshana, 1983) and tertiary production (Sudhshana *et al.*, 1984) in the bottom waters. Sumarily, the occurrence, could be partitioned into two distinct peaks one each during April-May and November-January respectively.

*Ambience of A. branchiorhynchus*

Keen observations on the undisturbed sediment retrieved from Karwar Bay have revealed that the sediment interface is hard and sticky with numerous holes of crustaceans and polychaetes. The burrows of the echiurid worm were 'U' shaped with the two arms of the burrow set apart at 5 to 10 cm. The diameter of each hole was about 0.7 to 2.5 cm.

TABLE 1. Comparative densities (individuals m<sup>2</sup>) of macrobenthic groups in the Karwar Bay

Group	MONTHS												
	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Polychaeta	44	118	110	14	2	19	2	6	65	157	166	69	47
Bivalvia	13	33	31	2	1	6	1	3	23	46	47	29	13
Gastropoda	7	15	14	-	1	3	1	1	13	21	21	15	6
Decapoda	10	9	16	1	-	-	1	1	6	24	28	13	10
Amphipoda	7	15	14	5	1	1	2	3	14	21	21	11	8
Harpacticoida	5	14	10	1	-	-	1	1	15	20	20	16	6
Ostracoda	5	12	11	4	2	1	2	2	8	17	17	9	3
Foraminifera	11	22	23	5	-	3	-	10	20	32	33	15	11
Isopoda	4	7	8	2	1	1	1	5	8	11	11	7	4
Stomatopoda	4	9	8	1	1	-	-	1	3	12	12	9	3
Penaeidae	2	5	6	-	-	-	-	1	3	8	8	6	2
Mysidacea	2	5	5	-	-	-	-	2	2	8	8	4	2
Echiura	2	6	6	-	-	-	1	2	5	8	10	2	1
Total	116	270	262	35	9	34	12	38	185	385	402	205	116

The burrows were mudcoated and mucous-laiden, also hosting a variety of macrobenthic polychaetes and isopods and meiobenthic nematodes.

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