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Notes on the Occurrence of Pea-Crab (*Arcotheres Sp.*) in *Tegillarca granosa* from Sundarban Mangroves, India

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Introduction

During the course of survey work under the project on Macrozoobenthos of Hugli-Matla Estuary in March, 1989, the present authors collected and examined a number of *Anadara granosa* (currently known as *Tegillarca granosa*) from different mangrove sites of Sundarban. Out of 5 clam host specimens examined at Kishori mohan pur, pinnotherid crabs were detected in four clams (80%) whereas all the 15 specimens of Prentice

Island, 2 specimens of Kalas and 1 specimen of Curzon creek were found to be infested by this crab. Lalitha Devi [1] reported *Pinnotheres alcocki* (now known as *Arcotheres alcocki*) from *Anadara granosa* (= *Tegillarca granosa*) at Kakinada bay. Later, the frequency and distribution of pea crabs in the clam *A. granosa* (= *Tegillarca granosa*) was investigated by Narasimham [2] while Pati et al. [3] recently recorded this crab in *Meretrix casta* at Bahuda and Rushikulya estuaries in Odisha.

Table 1: Occurrence of Pea crab *Arcotheres sp.* in *Tegillarca granosa* at three sites (islands) of Sundarbans.

Size of Tegillarcagranosa		Size of Pea Crab		Location in Valve	Remarks
Length (mm)	Width (mm)	Length (mm)	Width (mm)		
Prentice Island (Date of Collection 08. 03. 1989)					
32	21	13	10	R	Ovigerous
62	39	8.5	7	R	Non-ovigerous
51	33	11.5	10	R	Ovigerous
45	29	13.5	11	R	Ovigerous
57	38	11.5	9.5	L	Ovigerous
47	32	8	6.5	R	Non-ovigerous
60	38	11.5	10	R	Ovigerous
45.5	30	13	19.5	R	Ovigerous
52	34	12	10.5	R	Ovigerous
61	38.5	12	11	R	Ovigerous
40	31	12.5	11	R	Ovigerous
74	44	14	12	R	Ovigerou; also two juveniles on left valve
54	37	11.5	10	L	Ovigerous
47	31	-	-	R	Juvenile
37	25	12	9.5	L	Ovigerous
Kalas (Date of Collection 10. 03. 1989)					
29	19	8.5	7.5	L	Ovigerous
29	19.5	10	8.5	R	Ovigerous
Charland Near Curzon Creek (Date of Collection 09. 03. 1989)					
41	28	11.5	9	R	Ovigerous

Kishorimohanpur (Date of Collection 07. 03. 1989)					
56	37	-	-	R	Ovigerous
47	30	-	-	R	Ovigerous
56	35	-	-	R	Ovigerous
55	34	-	-	R	Ovigerous
40.5	25	-	-	-	Without crab

From the perusal of literature, it appears that this is the first report of the occurrence of *Arcotheres* sp. in *Tegillarca granosa* from West Bengal coast. An analysis of the frequency of occurrence of pea-crabs in *Tegillarca granosa* presented in Table 1 reveals their presence mostly in the right valve. In the present study, one crab was noticed within the mantle cavity in 21 of 23 clam hosts examined. A single clam of Prentice Island was, however, found to harbour a single ovigerous female in the right valve and two juveniles in the left valve, while only one was free from pea crab infestation. This corroborates the observation of Narasimham [2] who reported multiple occupations as uncommon (2.0%) for *P. Alcocki* occupying the mantle cavity of *A. granosa* (= *Tegillarca granosa*) in Kakinada Bay. During this investigation, no damage to soft parts of the host was noticed.

Similar observation was also reported by Narasimham [2] from Kakinada bay. It is also evident from the present investigation that size of clam has no bearing upon the number/and or size of pea crab.

References

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