

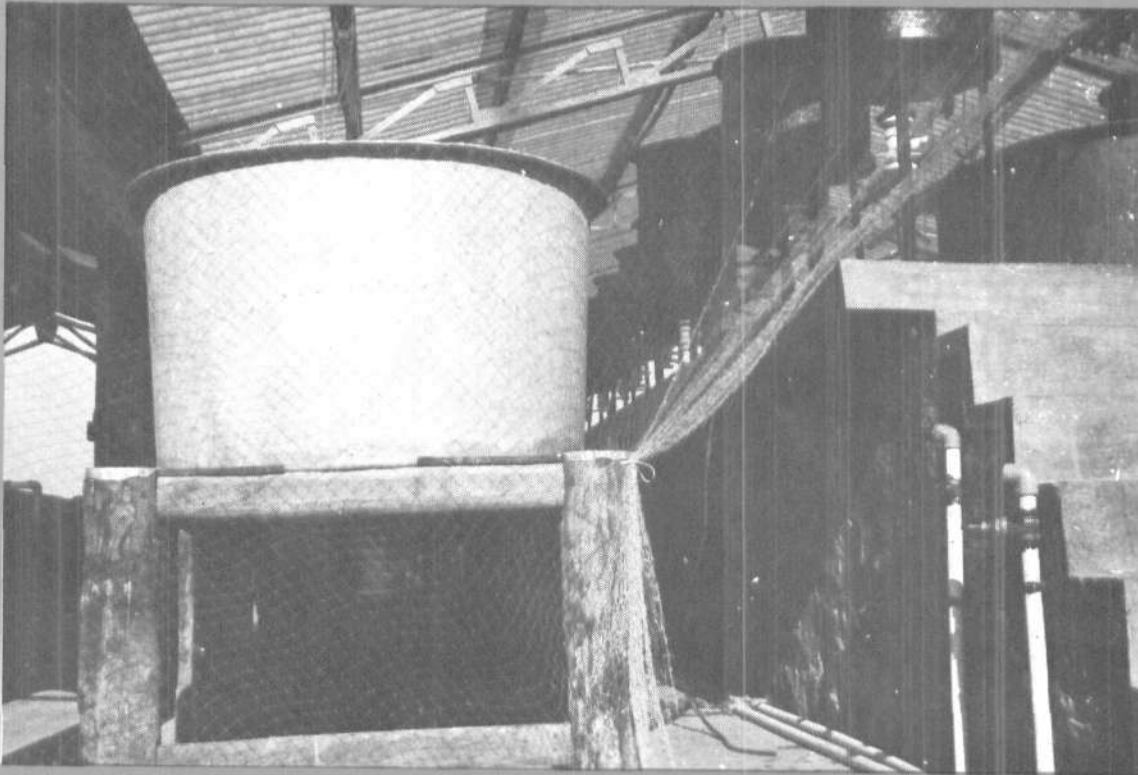


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INDIAN COUNCIL OF AGRICULTURAL RESEARCH

**ON THE OCCURRENCE OF MEGALOPAE OF *ATERGATIS INTEGERRIMUS*
AND *A. ROSEUS* IN THE ENNORE ESTUARY NEAR MADRAS***

During the course of studies on the recruitment of penaeid prawn postlarvae into the Ennore estuary, megalopae of *Atergatis integerrimus* and *A. roseus* were observed in the estuary. The data presented here pertains to the years 1985 and 1986. The megalopae were absent in the collections during January to August, 1985 and January to May, 1986. Maximum number of megalopae were seen during September and October. The

occurrence of megalopae is influenced by the lunar phase and the tidal rhythm. Except on six occasions the megalopae were more during the high tide. Maximum number occurred during newmoon in September and October '85. In 1986 during full moon, the megalopae were abundant during September and October. Collections were made by fixed net for one hour during high and low tide of all four phases of the moon. On newmoon (15 - 9 - '85)

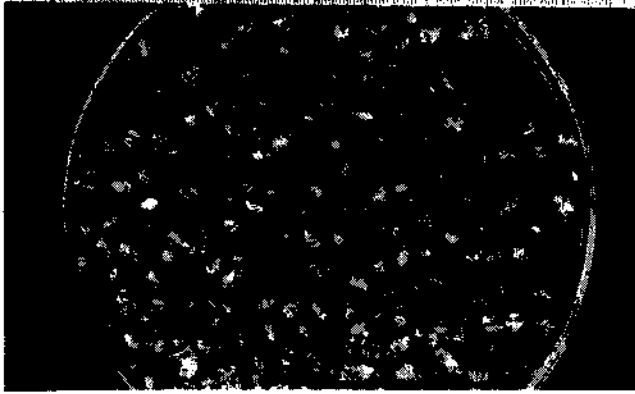


Fig. 1. A growth of megalopae collected from Ennore.

TABLE 1. Number of megalopae collected during four phases of moon at high and low tides

Date	Phase of moon	High tide	Low tide
Jan-Aug., '85		-	-
7-9-'85	Last quarter	-	-
15-9-'85	New moon	735	273
22-9-'85	First quarter	23	1
5-10-'85	Last quarter	84	2
12-10-'85	New moon	1456	21
19-10-'85	First quarter	-	-
26-10-'85	Full moon	3	25
3-11-'85	last quarter	6	-
12-11-'85	New moon	15	-
18-11-'85	First quarter	27	-
27-11-'85	Full moon	-	-
4-12-'85	Last quarter	-	-
11-12-'85	New moon	1	3
18-12-'85 to -		-	-
30-5-'86			
6-6-'86	New moon	6	-
13-6-'86	First quarter	-	-
22-6-'86	Full moon	1	-
30-6-'86	Last quarter	-	-
5-7-'86	New moon	-	-
13-7-'86	First quarter	-	-

28-7-'86	Last quarter	-	1
4-8-'86	New moon	3	1
12-8-'86	First quarter	-	1
20-8-'86	Full moon	1	2
26-8-'86	Last quarter	6	6
3-9-'86	New moon	-	-
10-9-'86	First quarter	18	-
18-9-'86	Full moon	60	4
24-9-'86	Last quarter	7	-
3-10-'86	New moon	6	-
10-10-'86	First quarter	2	-
18-10-'86	Full moon	25	1
24-10-'86	Last quarter	3	-
4-11-'86	New moon	2	5
9-11-'86	First quarter	14	-
16-11-'86	Full moon	-	-
23-11-'86	Last quarter	1	-
1-12-'86	First quarter	-	15
8-12-'86	New moon	-	2
15-12-'86	Full moon	-	-
22-12-'86	Last quarter	-	-

during high tide between 19 and 20 hrs, 735 larvae and during low tide between 24 and 01 hrs, 273 larvae were collected. During first quarter (22 - 9 - '85) at high tide between 24 and 01 hrs, 23 larvae and during low tide between 19 and 20 hrs only one megalopa were collected. The number of megalopae collected during the four phases of the moon at high and low tides are given in Table 1.

The table shows that the megalopae enter the estuary in maximum numbers during the high tide on new moon and full moon nights. This pattern of abundance also shows that the breeding season for the crab *Atergatis integerrimus* and *A. roseus* is from June to December with peak in September and October.

* Reported by D. B. James, Tuticorin Research Centre of CMFRI, Tuticorin and P. Thirumilu, Madras Research Centre of CMFRI, Madras.