

Spurt in the landings of crabs along northern Tamil Nadu and Puducherry coasts

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The marine crab fishery by mechanised trawlers along the north Tamil Nadu (Chennai and Cuddalore) and Puducherry coasts is mainly supported by those belonging to the genera *Portunus* and *Charybdis* of the family Portunidae. Species like *Portunus sanguinolentus*, *P. argentatus*, *P. gladiator*, *P. pelagicus*, *Charybdis natator*, *C. lucifera*, *C. variegata* and *Podophthalmus vigil* are commercially important. Of these, until the end of October 2008, there were remarkable changes in the landing pattern of trawl fishing along the north Tamil Nadu and Puducherry coasts. The same change of pattern was also seen in indigenous gears such as gillnet, operated near the shore, locally called as *Nandu valai* and *Kallu valai* in the depth range of 5–10 m. In multiday long voyage trawl fishing, crabs were caught in deeper waters up to 100 m. In single day fishing, the fishermen operated up to 50–60 m. In the crab exploitation there was heavy landings of

P. sanguinolentus and other portunid crabs along the Tamil Nadu coast, while other fish categories were poorly caught during the period. A brief account of unusual heavy landings of the portunid crabs is reported here.

Landings

The total landings of crabs varied from 0.04 t to 48.75 t at Chennai (Kasimedu) with CPUE of 0.14–125.0 kg/h. In Puducherry, the catch ranged from 0.6 t to 29.4 t and CPUE 1.4–76.7 kg/h, while at Cuddalore, it varied from 1.9 t to 17 t with CPUE 6.1–35.4 kg/h. The daily average landing of crabs at Chennai was 23.9 t with a CPUE of 58.6 kg/h. In Puducherry, the daily average landing was at 15.7 t with a CPUE of 42.1 kg/h, while at Cuddalore, it was 12.4 t with a CPUE of 27.7 kg/h. Details of crab landing at Chennai, Puducherry and Cuddalore are given in Table 1.

Table 1. Estimated crab catch landings (t) at Chennai, Puducherry and Cuddalore during 29th Oct - 1st Nov 2008

Date	Centre		Chennai			Puducherry					Cuddalore				
	Total No. of fishing hours	Total catch (t)	Catch/h (kg)	Crab (t) (%)	Fish (t) (%)	Total No. of fishing hours	Total catch (t)	Catch/h (kg)	Crab (t) (%)	Fish (t) (%)	Total No. of fishing hours	Total catch (t)	Catch/h (kg)	Crab (t) (%)	Fish (t) (%)
29.10.08	390	75	125.0	48.75 (65)	26.25 (35)	288	18	43.8	12.6 (70)	30	480	20	35.4	17.0 (85)	3.0 (15)
30.10.08	450	30	46.7	21.0 (70)	9.0 (30)	384	32	76.7	29.4 (92)	8	576	18	28.1	16.2 (90)	1.8 (10)
31.10.08	515	40	50.5	26.0 (65)	14.0 (35)	480	20	41.7	20.0 (100)	-	415	15	34.3	14.3 (95)	0.75 (5)
1.11.08	280	2	0.14	0.04 (2)	1.96 (98)	336	1	1.4	0.6 (55)	45	310	2	6.1	1.9 (94)	0.11 (6)
Average	1635	147	45.4	95.79 (50.5)	51.21 (49.5)	1488	71	38.8	62.6 (79.3)	8.4 (20.7)	1781	55	28.1	49.4 (91)	5.6 (9)

Species composition

Details of species composition recorded at Chennai, Puducherry and Cuddalore are given in Table 2.

The pooled data from three centres on the size of the population of *P. sanguinolentus* exploited indicated that for males, the size (carapace width in mm) ranged between 96-145 mm with dominant size group at

Table 2. Species composition of crabs (by weight) at Chennai, Puducherry and Cuddalore

Species	Chennai		Puducherry		Cuddalore	
	Catch (t)	%	Catch (t)	%	Catch (t)	%
<i>Portunus sanguinolentus</i>	42.5	42.5	39.0	55.0	63.7	70.0
<i>P. argentatus</i>	3.0	3.0	8.5	12.0	-	-
<i>P. gladiator</i>	5.3	5.3	-	-	-	-
<i>Charybdis natator</i>	7.8	7.8	7.1	10.0	7.3	7.3
<i>C. lucifera</i>	10.4	10.4	1.4	2.0	1.8	1.8
<i>C. variegata</i>	9.8	9.8	9.2	13.0	14.0	14.0
<i>C. smithii</i>	4.3	4.3	5.8	8.0	13.2	13.2
<i>C. feriata</i>	6.7	6.7	-	-	-	-
<i>Thalamita crenata</i>	2.8	2.8	-	-	-	-
<i>Galene bispinosa</i>	7.4	7.4	-	-	-	-

Totally 10 species (9 portunid and 1 xanthid) were represented at Chennai, of which, *P. sanguinolentus* dominated (42.5 %), followed by *C. lucifera* (10.4 %), *C. variegata* (9.8 %), *C. natator* (7.8 %), *G. bispinosa* (7.4 %), *C. feriata* (6.7 %), *P. gladiator* (5.3 %), *C. smithii* (4.3 %), *P. argentatus* (3.0 %) and *T. crenata* (2.8 %). At Puducherry, only 6 portunid crabs (*P. sanguinolentus* 55 %, *C. variegata* 13 %, *P. argentatus* 12 %, *C. natator* 10 %, *C. smithii* 8 % and *C. lucifera* 2 %) were caught, while at Cuddalore only 5 portunid crabs (*P. sanguinolentus* 63.7 %, *C. variegata* 14 %, *C. smithii* 13.2 %, *C. natator* 7.3 % and *C. lucifera* 1.8 %) were represented.

106-110 mm and for females, the size ranged from 76 to 150 mm with the dominant size group at 116-120 mm. Females were predominant in the catches constituting nearly 73%. The ovigerous females were in the size range of 121-175 mm and their percentage was 13%.

This is the first observation on heavy landings of crabs during the north-east monsoon period along the northern Tamil Nadu and Puducherry coasts. At Chennai, the estimated crab landing during 3 days (29th to 31st) in October 2008 was 95.75 t, recording three-fold increase when compared to 31 t of crabs landed during October 2007. The usual constituent portunid crab species, namely, *Portunus pelagicus* was completely absent in the trawl catches landed at all the three centres.