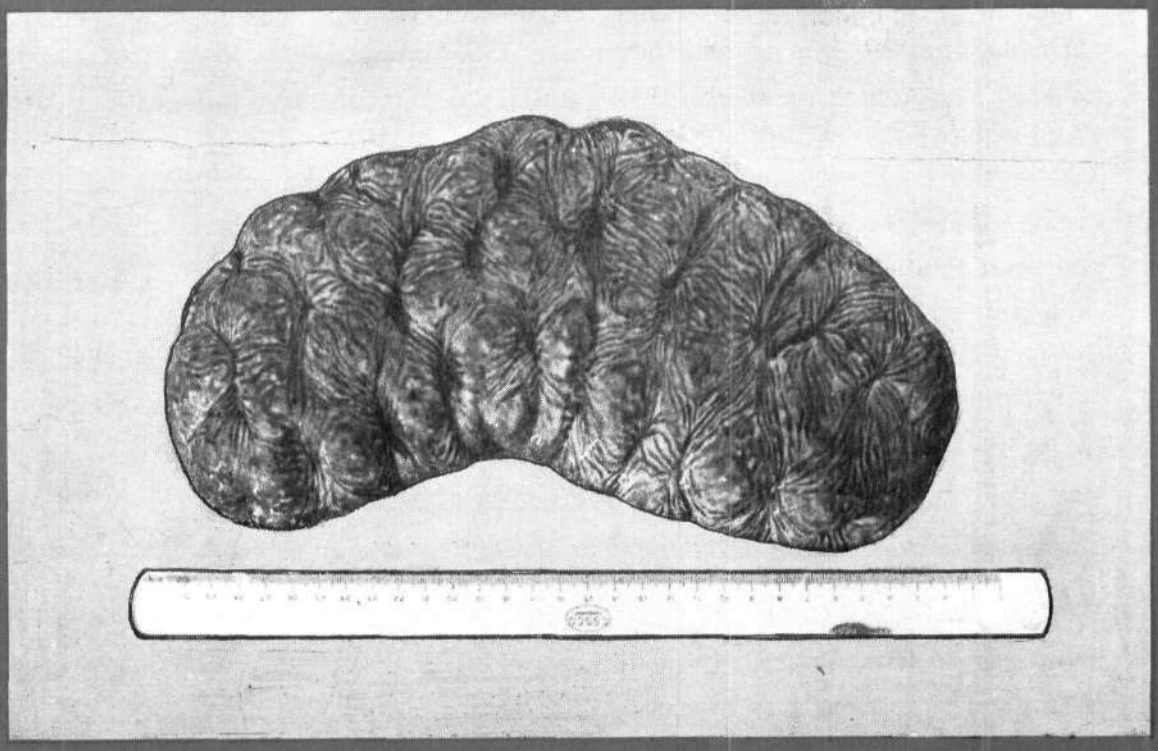
समुद्री मात्स्यिकी सूचना सेवा
MARINE FISHERIES INFORMATION SERVICE

No. 158 DECEMBER 1998



तकनीकी एवं विस्तार अंकावली
TECHNICAL AND EXTENSION SERIES

केन्द्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान कोचिन, भारत
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE COCHIN, INDIA

भारतीय कृषि अनुसंधान परिषद
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

885 CATCH TREND OF COMMERCIAL TRAWL FISHERIES AT KRISHNAPATNAM PORT, NELLORE DISTRICT, ANDHRA PRADESH

P.K. Mahadevan Pillai, K. Ramani, G.C. Lakshmaiah and Varughese Philipose

Central Marine Fisheries Research Institute, Cochin - 682 014, India

Introduction

Of the five fisheries harbours in the Andhra Pradesh, Visakhapatnam Fisheries Harbour has been classified as major and the harbours at Kakinada (East Godavari district), Bhavanapadu (Srikakulam district), Nizampatnam (Guntur district) and Krishnapatnam Port (Nellore district) as minor harbours. Though detailed reports are available on the fishery potential of the commercial trawlers operating at Visakhapatnam and Kakinada centres information on the other fisheries harbours of the state are lacking. The present account discusses briefly the recent production trend of the commercial trawlers operated at Krishnapatnam Port in Nellore district, one of the minor fisheries harbours of the state during the period 1992-'97.

During the period 1992-'97, Andhra Pradesh realised an estimated annual average fish production of 1.65 lakh tonnes of which nearly 37 % was accounted for by trawl catches. Though the contribution of trawler fish production at Krishnapatnam Port was less than 10 % of the total trawler catch of the state during the period, the present study is important, since the trawler landings at this centre sustains the livelihood of a large sector of local fishers besides the related industries.

Krishnapatnam Port affords facility for berthing nearly 50 trawlers (Fig. 1 and Fig. 2). A few other mechanised units including OBE fitted gillnets, hooks and line, dipnets and a limited number of non-mechanised units used to land seasonally at this centre. On an average 5,000 t of fish was landed here annually of which 90 % was from trawler catch.

An average of nearly 50 trawlers land fish at Krishnapatnam Port during peak fishing season. Most of the trawlers are of Sona type (12.7-14.2 OAL) conducting multiday and night fishing for

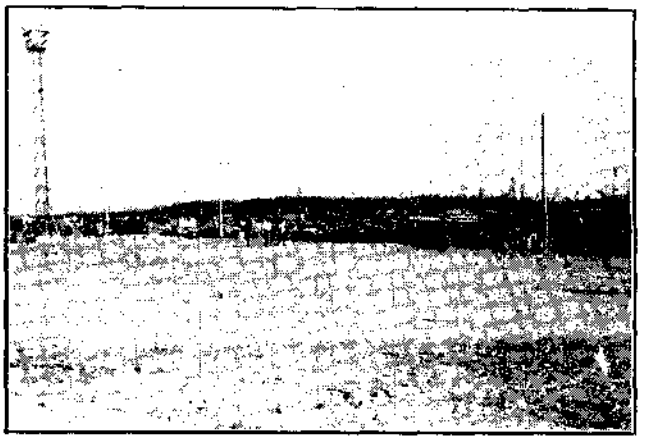


Fig. 1. A view of Krishnapatnam Port trawler landing centre.

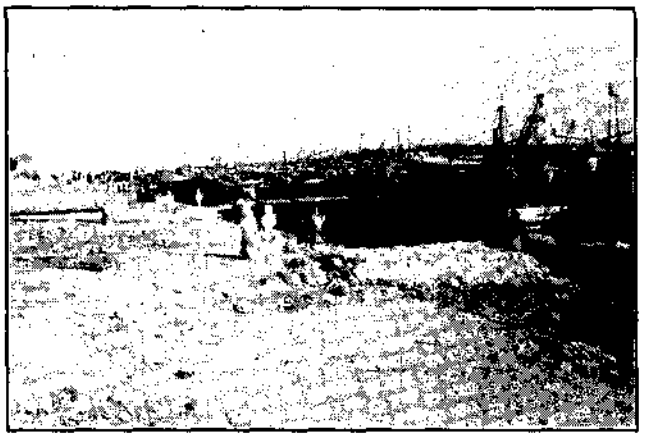


Fig. 2. Temporary trawler landing jetties at Krishnapatnam Port (Photographs courtesy P. Poovannan, M.R.C. of CMFR Institute, Madras).

3-4 days in the area off Nizampatnam and Nellore at a depth of 15-40 m.

Trend of trawl production

During the period 1992-'97, an estimated annual average of nearly 4,500 t of fish was landed at Krishnapatnam Port by commercial trawlers from 4,375 unit operations. The annual trawler yield and the effort expended indicate consider-

able fluctuations in the production trend and effort (Fig. 3). Thus an increase of 96 % in

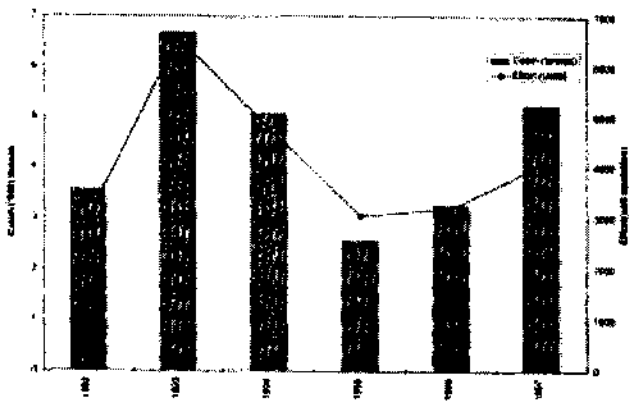


Fig 3. Catch and Effort of trawlers landed at Krishnapatnam Port during 1992 - '97.

catch recorded in 1993 than that of the previous year, declined thereafter and showed further increase in 1997 (constituting 20 % of the total production during the whole period). The estimated high catch per unit effort of 1,290 kg occurred in 1997 and 1,204 kg in 1992 while the remaining years except 1995 recorded the catch per unit effort of nearly 1,000 kg. Production trend also revealed a reduction of 29 and 28 % respectively in catch and effort during 1993-'94 than that during 1992-'93.

Analysis of pooled data on the quarterwise average catch and effort during the period (Table 1) reveals that nearly 44 % of the total trawl catch was recorded in the fourth quarter (October to December) followed by 34 and 17 % respectively in the first (January to March) and third quarters (July to September) while second quarter (April to June) could yield just 5 % of the total production. Almost the same trend could be observed in the distribution of unit operations over seasons. The study thus indicates that the commercial trawl fishery at Krishnapatnam Port commences in the third quarter, passes through a productive fourth quarter and show a decline thereafter during the second quarter.

Catch composition

Catch estimates of a few important groups suggested that penaeid prawns formed 27 % of the total landings followed by silverbellies (17 %) and perches (11 %) (Fig. 4). Threadfin breams

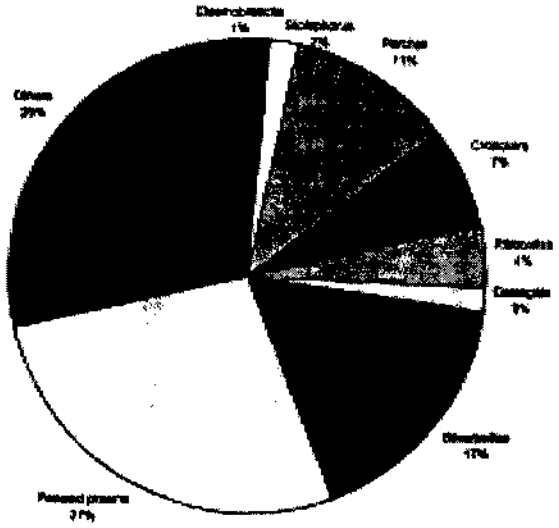


Fig. 4. Important groups represented in the trawl production at Krishnapatnam Port during 1992 - '97.

contributing to about 60 % dominated the perches group. The genera *Pomadasys*, *Lutjanus* and *Drepane* were the other seaonally abundant perches in the landings. Next in importance was croackers comprising the genera *Johnius*, *Protonibea*, *Kathala* and *Otolithes* and formed 7 % of the catch. Ribbonfish (4 %), carangids (2 %), *Stolephorus* (2 %) and elasmobranchs (1 %) also occurred in the landings in the order of abundance. Other groups of fishes which exhibited seasonal abundance included flat fishes, lizard fishes, clupeoid fishes, goatfishes and catfishes and categorised as others in the present study contributed to 29 % of the trawler landings during the period. The cephalopods including squids and cuttlefishes formed only 0.43 % in the total catches.

About 10 % of the total fish catches landed at Krishnapatnam Port during the period constituting an annual average of 500t was recorded from other units mainly gillnets operated by motorized craft (82 %) followed by hooks and line (12 %), dipnets (5 %) and non mechanised units (1 %).

Remarks

Most of the trawlers landing fish at

Krishnapatnam Port conduct multiday fishing for 3-4 days off Nellore and Nizampatnam waters at a depth of 15-40 m. A recent study indicates that the coastal areas between Madras and Nizampatnam in the depth range of 15-50 m are fully exploited by the Madras based trawlers. It has been observed that in spite of higher yield from the depth of more than 50 m, the trawlers restrict to fishing in depth less than 50 m owing to the abundance of prawns. Most of the Madras based multiday fishing trawlers at present concentrate their operations in the traditional fishing areas of Nellore and Nizampatnam based trawlers and this open access to the resource has led to frequent clashes between the fishers of Tamil Nadu and Andhra Pradesh.

At present the trawlers and other motorized units land their catches in six temporary jetties at Krishnapatnam Port. It has been reported recently that no progress has been achieved so far in the construction of a full fledged fisheries harbour at this centre owing to which the commercially important marine products are transported to Madras for processing. Hence the construction of a fisheries harbour at Krishnapatnam Port deserves special attention as it can provide facilities for landing and berthing of trawlers apart from storage, transportation and hygienic handling of export varieties like prawns which at present constitute about 27 % of the trawler yield.

TABLE 1. *Quarterwise important groups in the trawl average landings at Krishnapatnam Port during 1992-'97 (in tonnes)*

Fish group	1QR	2QR	3QR	4QR	Total
Elasmobranchs	26	2	7	21	56
Stolephorus	40	2	34	11	87
Perches	184	16	74	220	494
Croackers	107	12	49	142	310
Ribbonfishes	47	3	17	116	183
Carangids	28	3	14	27	72
Silverbellies	253	43	130	348	774
Penaeid prawns	353	60	235	561	1,209
Cephalopods	5	0	5	9	19
Others	452	64	193	535	1,244
Total	1,495	205	758	1,990	4,448
Effort (unit operation)	1,454	202	750	1,969	4,375

****