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CATCH COMPOSITION AND REVENUE ANALYSIS OF TRAWLERS OPERATING ALONG THE RATNAGIRI COAST, INDIA

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ABSTRACT

Catch composition and revenue of trawlers operated during the period of August 03 to May 04 off Ratnagiri coast are reported in this paper. Vessel and engine specifications data was collected from 50 trawlers and were classified into two clusters on the basis of specifications of vessel and engine. Altogether 27 varieties of fishes and shellfishes were recorded in the catch composition of trawlers of cluster I and II. Total landing and revenue of one fishing season were 1,41,310.58 kg and Rs. 19,90,893/- for the trawlers of cluster I, respectively while the respective values were 1,29,288.20 kg and Rs. 15,00,368/- for cluster II trawlers. Ribbonfish was the major constituent with a share of 20.10 and 15.03 per cent, respectively in the catch composition of trawlers of cluster I and cluster II. Among the seasons winter was more productive with a share of 41.42 and 49.04 per cent for cluster I and II trawlers, respectively. While among the groups, demersal fish contributed maximum with 47.03 and 42.71 per cent in the total landing of trawlers of cluster I and II, respectively.Revenue analysis revealed that ribbonfish (20.86%) and pink shrimp (18.82%) fetched the maximum revenue among all the varieties landed by trawlers of cluster I and cluster II, respectively. In groups crustaceans topped the revenue of cluster I trawlers and cluster II trawlers with contribution of 29.91 and 32.86 per cent, respectively. Among all seasons winter contributed maximum in revenue of the trawlers of both the clusters.

Key words : Revenue, Trawlers, Catch composition.

Trawl is an important marine fishing gear, nearly 20 per cent of the marine fish landed in the world is caught by this gear. More than 65 per cent of mechanised boats operate trawl along Indian coast, contributing substantially (65 %) to the total marine catch. Trawling is shrimp targeted fishery along Indian coast as it fetches the high price and therefore, economic viability of trawl is totally dependent on shrimp catches.

Many researchers have made attempts to study the catch composition of trawl net operated along the Indian coast (Pillai *et al.,* 1983; Sehara and Karbhari, 1991; Sehara *et al.,* 1991; Sehara and Kanakkan, 1992; Joel and Ebenezer, 1996; Pravin *et al.,* 1998*)* and revenue fetched (Sehara and Karbhari, 1991; Sehara *et al.,* 1991; Sathiadhas *et al.,* 1992; Sehara and Kanakkan, 1992). Sehara *et al.* (1991) have studies the catch composition of trawlers operated along the Ratnagiri coast in the year 1986-87. They have studied the trawlers of sizes 12 to 14 m without forming the groups. The vessel size and engine specifications decide the depth of operation. These factors play important role in quality and quantity of fish landed and intern affects revenue generated. Thus in the present study an attempt was made to study catch composition as well as revenue generated of two trawler clusters according to vessel and engine specifications.

MATERIALS AND METHODS

Mirkarwada fishing harbour is one of the important landing centres of Maharashtra ($17^0$00' N and $73^0$16'42" E). It is situated two kilometer away from the Ratnagiri town. Most of the trawlers operating along the Ratnagiri coast land their catches at this center. Details of the vessel and engine specifications were collected form the 50 trawlers out of 300 trawlers operated from the Mirkarwada fishing harbour. Two distinct clusters were formed depending upon the vessel and engine specifications by using SYSTAT 7.0. The clustering of trawler was done by K-mean groups (Johnson and Wichern, 2001). The group formed using K-mean

The quota of five vessels per week was fixed. The information about catch composition was collected for one fishing season from 15th of August to 31st of May by observation whereas value after personal enquiry in the local market. Specieswise catch statistics from five sampling units in a week was recorded by observation in terms of number of baskets or crates. Specieswise average holding capacity of basket and crate was estimated once and same value was used to convert the number of baskets landed into quantity of species in kilogram. As there was variation in the number days of