

## Resources Information Series

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### Results of Fishery Resources Survey along the Central West Coast of India during July – September 2017

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The Resources Information Series is a quarterly publication of Mormugao Zonal Base of Fishery Survey of India for dissemination of fishery resources survey results along the central west coast of India.

*Abbreviation : Res. Inf. Ser.*

### Scientist participants

Month	MFV Yellow Fin	MFV Sagarika
July 2017	Awaiting for Dry-docking	Main Engine overhauling
August 2017	Vessel under dry-docking repairs at CSI, Goa	Shri Devanand Uike
September 2017		Shri Solly Solomon

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Mormugao - Goa.

## **Introduction:**

The vessel *Sagarika* (OAL :28.8m) continued her demersal trawl survey along the south Maharashtra, Goa, Karnataka and north Kerala coast during the period from July - September, 2017. During the quarter(July – September 2017),the vessel undertaken two cruises by employing 27m fish trawl under the project.

The demersal trawl survey were conducted with a total of 63 sampling stations ( Fig.1) by expending 93 hours of sampling effort in the depth range 30 - 100m in the area between Lat.12<sup>0</sup>N to17<sup>0</sup>N.

## **I. Results of the demersal survey:**

### **a. Catch composition:**

The average catch rate recorded during the period was 11.27 Kg/hr. The catch was dominated by Rockcods (55.79%), followed by priacanthids (22.66%), others (19.67%), decapterids (1.28%), nemipterids (0.24%) and cephalopods (0.24%) in the 30 – 50m depth zone and Rockcods ( 86.15%), priacanthids (10.99%) and others(2.86%) in 50 – 100 m depth zone. The depth-wise catch composition is given in Table 1.

### **b. Geographical and bathymetric distribution:**

The catch rates recorded in different latitudes and depth zones are given in Table 2. Rock cods and priacanthidsshowed a widespread distribution in almost all the latitudes surveyed. Rock cods(16.29 kg/hr) and priacanthids (5.07 kg/hr)recorded the highest CPUE in Lat.14<sup>0</sup>N and Lat.15<sup>0</sup>N respectively at 30-50 m. depth zones whereas Rock cods (46.67kg/hr)recorded the highest CPUE in Lat.15<sup>0</sup>N at 50-100 m. depth zone. A meagre catch of decapterids, crabs,cephalopods and mackerel were observed at 30 – 50 m. depth zone of Lat.15<sup>0</sup>N. Latitude-wise Lat.13<sup>0</sup>N,Lat.14<sup>0</sup>N and Lat.15<sup>0</sup>N at the 30 -50 m. depth zones showed more productive for Rock cods and priacanthids and others fishes.

### **c. Seasonal distribution:**

The month-wise catch rate recorded for different groups of fishes are given in Table 3.

#### **d. Highlights of demersal survey:**

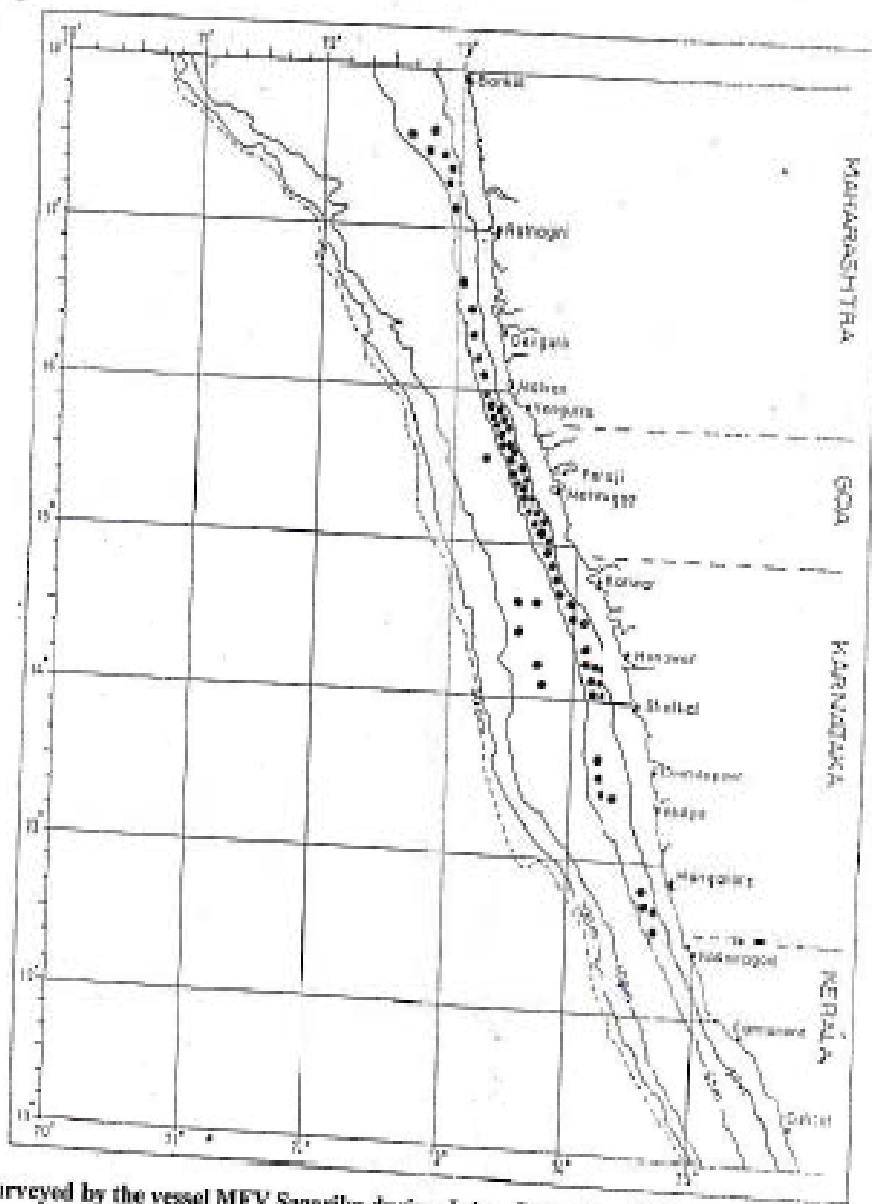
1. The average catch rate recorded during the period was 11.27 Kg/hr.
2. The catch was dominated by Rock cods (55.79%), followed by priacanthids (22.66%), others (19.67 %), decapterids (1.28%), nemipterids (0.24%) and crabs (0.24%) in the 30 – 50m depth zone. Rock cods (86.15%), priacanthids (10.99%) and others (2.86%) in 50 – 100 m depth zone.
3. Rock cods were the dominant species in almost all the latitudes at 30-50m and 50-100m depth zones.
4. Almost all the fishes observed in juvenile stage viz. *Priacanthus hamrur* 4.0 -16.0cm; *Decapterus russelli* 14.0-16.0cm. and *Epinephelus diacanthus* 5.0-10.0cm
5. Rock cods (46.67kg/hr) and priacanthids (10.00kg/hr) were recorded highest CPUE in 50-100 m. depth zone of Lat.15°N. Further, in Lat.14° N and Lat.15°N at 30-50 m. depth zone Rock cods (16.29 kg/hr) and priacanthids (5.07 kg/hr) recorded the highest CPUE.
6. In Lat.15°N, a meagre catch of Decapterids, crabs, cephalopods and mackerel were observed at 30 – 50 m. depth zone.
7. Among other species the main catch composition were of Jelly fish, shells and other non-commercial varieties. They were 19.67% and 2.86% in 30-50m and 50-100m depth zones respectively.

**Table.1 Catch composition (%) in different depth zones obtained in demersal trawl survey**

<b>Depth range (m)</b>	<b>30 - 50</b>	<b>50 - 100</b>
<b>Fishing effort (hr)</b>	84	09
<b>Total catch(Kg)</b>	821	227.5
<b>Catch composition %</b>		
<b>Species</b>		
Priacanthids	22.66	10.99
Rock cods	55.79	86.15
Decapterids	1.28	0.00
Nemipterids	0.24	0.00
Mackerel	0.06	0.00
Cephalopods	0.06	0.00
Crabs	0.24	0.00
Others	19.67	2.86
<b>Total</b>	<b>100</b>	<b>100</b>

<b>Latitude</b>	<b>Depth (m)</b>	<b>Fishing efforts (Hr)</b>	<b>Total catch rate (Kg/hr)</b>	<b>Nemipterids</b>	<b>Decapterids</b>	<b>Priacanthids</b>	<b>Rock cods</b>	<b>Mackerel</b>	<b>Cephalopods</b>	<b>Crab</b>	<b>Others</b>
12°N	30-50	4.5	4.67	0.00	0.00	0.00	0.89	0.00	0.00	0.44	3.33
13°N	30-50	5.5	11.45	0.00	0.00	0.36	7.27	0.00	0.00	0.00	3.82
14°N	30-50	21.0	19.62	0.00	0.00	0.19	16.29	0.00	0.00	0.00	3.14
	50-100	6.0	23.67	0.00	0.00	1.67	21.00	0.00	0.00	0.00	1.00
15°N	30-50	35.5	8.33	0.06	0.30	5.07	2.03	0.01	0.01	0.00	0.86
	50-100	3.0	56.84	0.00	0.00	10.00	46.67	0.00	0.00	0.00	0.17
16°N	30-50	10.5	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	1.52
17°N	30-50	7.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.86

<b>Month</b>	<b>Depth (m)</b>	<b>Fishing efforts (Hr)</b>	<b>Total catch rate (Kg/hr)</b>	<b>Nemipterids</b>	<b>Decapterids</b>	<b>Priacanthids</b>	<b>Rock cods</b>	<b>Mackerel</b>	<b>Cephalopods</b>	<b>Crab</b>	<b>Others</b>
Aug-17	30-50	42.50	5.88	0.05	0.01	4.24	0.47	0.01	0.01	0.00	1.09
	50-100	1.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
Sep-17	30-50	41.50	13.76	0.00	0.24	0.14	10.55	0.00	0.00	0.05	2.77
	50-100	7.50	30.27	0.00	0.00	3.33	26.13	0.00	0.00	0.00	0.80



Area surveyed by the vessel MFV Sagarika during July - September 2017

Fig.1 Trawl stations operated by the vessel MFV Sagarika during July - September 2017

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