

# CMFRI bulletin 42

Part Two

DECEMBER 1988



## NATIONAL SEMINAR ON SHELLFISH RESOURCES AND FARMING

TUTICORIN

19-21 January, 1987

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Sessions II-VI

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CENTRAL MARINE FISHERIES RESEARCH INSTITUTE  
(Indian Council of Agricultural Research)  
P. B. No. 2704, E. R. G. Road, Cochin-682 031, India

## 90. EXPLOITATION AND MARKETING OF CHANKS FROM THE GULF OF KUTCH

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### ABSTRACT

Chank is an important resource being exploited in the Gulf of Kutch. Chank resources of the area are described with a note on their exploitation and marketing in this paper. Measures to propagate, conserve and utilisation of chank, are suggested.

### INTRODUCTION

Gulf of Kutch, an assemblage of different flora and fauna is a biological paradise.

Chank as one faunistic constituent supports important fishery of the area. It stands next to window pane oyster fishery of Gujarat.

Hornell (1916) has dealt with chank in his prestigious report. Thereafter, during 1960,

Gokhale has written on shell fisheries of Saurashtra region. Then, Sarvaiya and Chhaya (1983) have included chank fisheries briefly in Saurashtra Molluscs. Nayar and Mahadevan (1973, 1974) and Mahadevan and Nayar (1974) have discussed chank fisheries in general from the area.

In Gulf of Kutch, not much information is available about the ecological conditions of the

chank beds (Mahadevan and Nayar 1974). Besides, no detailed information is available on chank of the area at a stretch from the literature. Moreover, there is change from time to time in mode of payment to fishermen and sizes. It is, therefore, necessary to record these changes to keep records by chank up-to-date of the area.

With this view an attempt is made here to bring all information in a consolidated form.

#### DISTRIBUTION OF CHANK : AREA OF OCCURRENCE AND DEPTH

Chanks are fished out from southern bank of Gulf of Kutch approximately a distance of 200 Km, stretching between Sachhana to Okha (Fig 1). This is intertidal area of patchy coral reefs, having vast exposure during low tide and high tidal amplitude during high tide. The collection centres and other details are given below:

Collection Centres	Surrender Centres	Controlling Centre	Administrative controlling centre
Sachhana (C)	Bedi	Jamnagar ———→ Gandhinagar	
Bedi (C)			
Pirotan (I)	Sikka		
Movada (I)			
Sikka (C)			
Narara (I)			
Goose (I)			
Vadinar (C)	Salaya		
Bharana (C)			
Salaya (C)			
Chusna (I)			
Baida (I)			
Nora (I)			
Ajad (I)			
Dhabdhaba (I)	Okha		
Poshetra (C)			
Gujar (C)			
Laku (C)			
Dona (I)			
Beria (I)			
Mangunda (I)			
Savaj (I)			
Paga (I)			
Arambhada (C)			
Beyt Balapur (I)			
Okha (C)			

It may not be out of place to record that chanks are found only in the vicinity of seaward rims of patchy coral reefs. Rest of the portion of vast intertidal areas are devoid of chanks. The depth of water at which the chanks occur is 4 - 6 m.

#### VARIETY OF CHANK FISHED OUT COMMERCIALY

*Xancus pyrum* var. *acuta* is fished out commercially in Gulf of Kutch. No other species of chank is available.

This is comparatively narrow, moderately elongate elegant form with well-balanced spire. Breadth in length comes to 1.75 to 2. Shoulder rounded and low, profile of whorls in spine convex.

Male is having raising crest along with shell at the opening in the case of dextral form whereas in the case of female it is not.

#### COMMUNITIES INVOLVED

Local communities such as Sindhis, Varghers, Meghwars and Koli are involved in chank collection.

##### *Fishing season*

Chank collection season lasts from September to May with a peak period during December-January (Sarvaiya and Chhya, 1983). At and around Sikka, chank season is March-June. Thus, they are fished out throughout the year. The fishermen prefer to fish in low tide of spring tide.

##### *Fishing craft*

To approach islands for chank collection, fishermen ply their fishing crafts locally known as "Machhavas". They are plankbuilt, non-mechanised sailing boats. The overall length ranges from 6 m to 8.5 m and breadth from 1.70 m to 2.40 m. The draft of these boats are 0.6-1.2 m

##### *Fishing gear*

As a matter of fact there is no special gear to catch chanks. However, fishermen dump their catch in a bag type structure locally known as "Gumbha" for easy transport from fishing grounds to crafts and from crafts to fisheries

offices etc. The size of *Gumbha* is approximately 0.6-0.75 m in length and 0.75-1.00 m in width with a mesh size of 7.5-10.00 cm.

#### FISHING METHODS

There are two methods for chank collection.

##### (1) *Hand picking*

During maximum exposure of spring tide fishermen go to chank beds by wading through. They collect chank by their hands by bending themselves anteriorly from the seawards side. They dump their catches in "Gumbha". Along with chank, they collect other food items, locally known as *Selvi* such as *Serranas* sp, '*Sarvan*', *Octopus* sp, '*Kurchal*', Crob etc.

##### (2) *Skin-diving*

During '*Gopping*', fishermen wade in 1.2-1.5 m deep water of seaward side of patchy fringe reefs. They feel the chanks by the touch of toes and if it is there, then, they dive and pick them by their hands. Then, they dump in a bag. After collection of chanks, fishermen have to surrender them to concerned Fisheries Offices.

#### FISHERY VALUE

Chank fishery is a state monopoly, hence chanks are purchased by Supdt. of Fisheries, Dept. of Fisheries, Govt. of Gujarat, Jamnagar. The rate is fixed by Govt. of Gujarat. The price paid, in past and present, to fishermen are given in the following tables.

Category	Size		Price / chank (Rs.)	
	Up to 1978-79	From 1979-80 onwards	Up to	From 1979-80 onwards
Big	9 cm dia and above	10 cm dia and above	4.00	6.00
Medium	Between 6-9 cm dia	Between 8-10 cm dia	3.50	5.00
Small	Less than 6 cm dia	Between 6-8 cm dia	2.50	4.00
Worm eaten	Worm eaten	Not less than 6 cm dia	0.80	1.50

Period	No. of chank supplied	Name of party to whom supplied	Revenue realised (Rs.)
May 74-May 75	11363	Gujarat Agro Machine products Ltd , Ahmedabad	40722.11
Jun 75 to Jul 76	8203	Madhusudan Creasent Enterprises, Calcutta on behalf of Gujarat Agro Marine Products Ltd., Ahmedabad	31607.84
Aug 76 to Jul 79	13476	Gujarat Agro Marine Products Ltd., Ahmedabad	74024.50
Sep 81 to Nov 83	21358	Gujarat Fisheries Development Corporation, Ahmedabad	143718 37

TABLE-1. Showing gross exploitation of chanks, expenditure, income etc.

Year	Quality of chank				Total	Expenditure		Income realised (Rs)
	Big	Medium	Small	Worm eaten		Purchase price	Bonus + Misc.	
1952-53	—	—	—	—	14058	—	—	—
1953-54	—	—	—	—	16752	—	—	—
1954-55	—	—	—	—	14419	—	—	13200.00
1955-56	—	—	—	—	11628	—	—	9324.00
1956-57	—	—	—	—	10002	—	—	11132.80
1957-58	—	—	—	—	10601	—	—	—
1958-59	—	—	—	—	15580	—	—	34837.40
1959-60	—	—	—	—	23037	—	—	48492.08
1960-61	—	—	—	—	16079	—	—	—
1961-62	—	—	—	—	19373	—	—	57773.92
1962-63	—	—	—	—	18123	—	—	60536.00
1963-64	—	—	—	—	25655	—	—	60536.00
1964-65	—	—	—	—	24752	—	—	73177.31
1965-66	—	—	—	—	13688	—	—	45426.08
1966-67	—	—	—	—	12161	—	—	44927.75
1967-68	—	—	—	—	17198	—	—	68739.15
1968-69	—	—	—	—	12589	—	—	21945.99
1969-70	—	—	—	—	14247	—	—	71566.75
1970-71	—	—	—	—	13529	—	—	78791.77
1971-72	—	—	—	—	16165	—	—	—
1972-73	—	—	—	—	17462	—	—	—
1973-74	—	—	—	—	13491	—	—	15000.00
1974-75	—	—	—	—	6765	—	—	—
1975-76	1188	6654	192	2382	10416	11884.50	755.50	40722.11
1976-77	1022	6024	638	1633	9317	10390.50	765.00	31607.84
1977-78	318	1999	22	1357	3696	3813.25	15.25	—
1978-79	1002	4702	194	1372	7270	8567.50	437.00	—
1979-80	465	2126	157	1761	4509	4468.00	841.25	74024.50
1980-81	340	2555	1258	1948	6101	12167.00	—	127544.24
1981-82	261	1372	5545	3150	10328	21000.00	—	—
1982-83	385	6289	239	3994	10907	30000.00	—	—
1983-84	534	9272	303	4251	14360	50000.00	—	143718.37
1984-85	271	10730	191	9707	20899	62000.00	720.50	—
1985-86	64	3910	141	3478	7593	22000.00	120.00	—

— Not available

? Figures differing

In addition to these, Rs. 10 bonus is given to these fishermen who bring 100 chanks in a single tide.

No price for chank flesh is given to fishermen. Normally fishermen take out flesh by boiling chank in hot water and use as food. For operculum also, no price is given to fishermen.

To decide sizes of various chanks, sub-offices of Supdt. of Fisheries at Bedi, Sikka, Salaya and Okha are provided with iron structures, made up of iron plates (locally known as "Furmo")

#### EXPLOITATION OF CHANKS

Exploitation and other details are in Table 1. The actual production varied in numbers between 6101 to 25655; this is a minor fishery with fluctuations.

#### MARKETING OF CHANK

Marketing of chanks is done by Fisheries Dept., Govt. of Gujarat. They are marketed to different parties through Gujarat Fisheries Development Corporation, Ahmedabad.

#### MEASURES PROPOSED TO CONSERVE, MANAGE AND UTILISATION OF CHANK

The following measures are proposed to conserve, manage and utilisation of chank fishery:

1. Egg capsules of chanks may not be disturbed by the collectors. This may be taught to fishermen through Supdt. of Fisheries, Jamnagar.
2. It may be forbidden to pick up small/under sized chanks.
3. Illegal fishing of chank may be stopped by patrolling fish landing centre, ports as well as other coastal areas. Strict inspection

may be executed at centres near Dwarka and Beyt Dwarka to stop illegal activities.

4. Fisheries Act may be put into action.
5. To propagate chanks, chank hatchery may be organised in the field area where basic facilities are available.
6. Better utilisation of chank flesh and operculum may be taught to fishermen.
7. Exploitation of chank may be taken into state fish landing account.
8. Money may be kept ready in time to different sub-offices to purchase chanks as much as possible.
9. Fishermen may be given higher prices in term of price like in market.
10. Survey to be conducted in adjoining deep waters to locate chank resources.

#### ACKNOWLEDGEMENTS

It is a pleasure to express thanks of gratitude to the present Commissioner of Fisheries for permission to submit and present this paper in the National Seminar to be held at Tuticorin and to former Commissioner of Fisheries Mr. A. K. Luke, I. A. S., for all the facilities provided. Thanks are also due to Mr. Ajit Magodia, I A.S., Joint Commissioner of Fisheries, Gandhinagar and to Prof. N. D. Chhaya, Dy. Commissioner of Fisheries, Okha for their help. Supdt. of Fisheries, Jamnagar is greatly acknowledged for providing data and co-operation extended. Mr. H. A. Raval is thanked for nice typing.

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