



International Journal of Fisheries and Aquatic Studies

E-ISSN: 2347-5129

P-ISSN: 2394-0506

(ICV-Poland) Impact Value: 5.62

(GIF) Impact Factor: 0.549

IJFAS 2018; 6(6): 368-371

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www.fisheriesjournal.com

Received: 19-09-2018

Accepted: 23-10-2018

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Traditional fishing methods of Kolhapur district

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Abstract

Traditional fishing practice relates to small scale commercial or subsistence fishing practices. The traditional fishing methods are employed by local population in or ethnic groups. Gleaning, net fishing, line fishing, use of arrows, harpoons and barriers, set and mobile traps, night fishing, fish poisoning, spear fishing are the common traditional methods of fishing. It does not generally cover the idea of fishing for sport. Traditional fishing is often less rigorous and less stressful on fish populations when compared to modern industrial fishing techniques. Due to the lack of insufficient investment in refrigeration and processing facilities, the export process faces difficulties. Nevertheless, the main purpose of traditional fishing practice is domestic consumption, as it is looked upon as important source of inexpensive but accessible protein in poor coastal areas. This traditional bay fishing activity can be described as the major occupation of both men and women. Local fishermen often possess useful information. They know the best fishing locations, the times when a wide range of species can be caught, and how to catch them. People have praised the knowledge of local fishermen but researchers have sought their knowledge and documented their resource usage. In the present study, attempt has been made to understand and have glimpses of "Traditional Fishing Methods of Kolhapur District".

Keywords: traditional fishing methods, remote areas, local fishermen

1. Introduction

Artisanal fishing, defined as a small-scale fishing where the fisherman's wealth is his fishing gear (boats, motors, nets, and lines), which is subject to rapid depreciation and loss, is a major form of fishing. Many of these fishermen use traditional techniques and equipment. They depend for their success on local and indigenous knowledge, much of which has been passed down from generation to generation through a strong oral tradition. Traditional fishing techniques will vary considerably in detail from region to region, but an analysis of the range of techniques employed show that the techniques and tools used depend on the type of habitat being exploited. Studies of traditional fishing rights and investigations of ways of encouraging more effective use of existing fishing skills and technology are vital to sound fisheries development. Recognition of the importance of subsistence fisheries is long overdue.

These practices are not anthropological curiosities, but vital village industries whose economic contribution has yet to be assessed. The traditional fishing techniques described are representative of those used in remote village fisheries of Kolhapur district. These fisheries have been little studied by researchers; hence, no catch statistics have been recorded for fisheries that use traditional techniques. Having experienced less socioeconomic impact than the fisheries of urban centers, the villagers still rely on traditional methods and practices for some of their protein. Canned meats, fish, and other important sources of protein are luxury items.

Fish catching is one of the oldest occupations of mankind and fish has been also one of the most important food items of the human beings from the primitive time. In fact, the success of fisheries in a country depends on proper catch of its fish fauna. In India million of people of fishermen community have been depending on this occupation. Like other parts of India, fishing is a caste based occupation and is traditionally practiced by the Kathkari and Bhoi tribes of Kolhapur, Maharashtra. The Kathkari and Bhoi tribes are constituent of fishing community, is an important caste of India. Fishing is their only main traditional occupation of livelihood. This fishing community is specified as Nomadic Tribes by the constitution order 1950 (a) Part II: Maharashtra. Western Maharashtra is full of fishery resources. The Western Maharashtra districts have been surviving on their traditional knowledge based techniques for

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fish harvesting. The sixth schedule of the Indian constitution has declared the scheduled caste community as the weaker fragment of Indian caste based society. The Indian government has taken some large scale measures for the social, economic cultural and educational development of the people of this community. The people of this community have been declared socio-economically backward by a public notification under Article 341[I] of the Indian constitution. As the Kathkari and Bhoi tribes are one of the sixteen scheduled caste communities of Maharashtra, so they are not exception to this problem as a whole.

Maharashtra is famous for its varied fresh water resources, including lakes, tanks and rivers. A number of fishing communities have developed in response to these favorable factors. These communities can be divided into:

1. Specialists or indigenous groups who depend completely on fish and other aquatic resources for their subsistence
2. Subsistence fishers or opportunists who depend partly on fish, and
3. Groups who have recently started fishing.

Indigenous fishing communities of Maharashtra

1) Koli

Koli, the caste of Original fishermen – The Main occupation of Koli is fishing. Primarily they are fisherman and boatman. They are adept in various methods of river fishing and are regularly employed as a worker on a ferry. Their connection with water has led to them becoming the water-carrier for Hindus.

2) Dhiwar

Dhiwar, the caste of fishermen and palanquin -bearers derives the name from a corruption of the Sanskrit 'Dhiwara', a fisherman. It has a large number of sub-divisions of a local or occupational nature. The 'Singadia' or those who cultivate 'Singada nut'; the 'Nadha' or those who live on banks of streams and the 'Dhurias' who sell parched rice. A large number of exogamous groups are also returned, either of titular or totemistic nature: such as 'Baghmare' or Vaghmare, tiger-slayer; 'Godhve, a vulture; and 'Kolhe' or Jackal. Marriage is prohibited between members of the same sept and between first cousins. In many localities, families do not intermarry so long as they remember any relationship to have existed between them. The occupations of Dhiwar are many and various. Primarily they are fisherman and boatman. They are adept in various methods of river fishing and are regularly employed as a worker on a ferry. They monopolizes growing Singade or water nuts in tanks; also grows melons, cucumbers and other vegetables on the sandy stretches along the banks of streams, but at agriculture proper they do not excel. Their connection with water has led to them becoming the water-carrier for Hindus. With the introduction of wheeled transport, these people's occupation as carriers of palanquins or litters has dwindled.

3) Bhoi

Bhoi is a fishing community in this area. Bhoi are traditionally dependent upon the river Adan for their subsistence. Due to depleting fish resources their lives are in danger. Bhoi's the traditional fishermen community in Maharashtra state is mostly found in shoreline areas of the west coast of Maharashtra as well as near rivers, reservoirs, dams. Rrom the ancient times these people used to be called as the "Palkhiche Bhoi" the tribe which wander all over

carrying the Palkhi of ancient king and their families as the loyal ones. Diminishing the rule of king's and kingdom these loyal people have returned to their traditional business – fishing. This community/tribe is mostly found in District of Ratnagiri, Sindhudurga, Raigad, Mumbai and in mostly all districts of Maharashtra where the fishing occupation is traditional carried out.

4) Gabit

Gabit are a community found in the Konkan regions of the Indian states of Goa, Karnataka and Maharashtra. In Goa, they are distinct from the Kharvi community found mostly in the south of that state, although they share a similar traditional occupation. The Gabits are primarily a fishing community and are concentrated in the northern talukas of Canacona, Pernem and Salcete. They are Hindus and generally live in joint family arrangements, although a movement towards the nuclear family is evident

2. Materials and Methods

The methods adopted for writing this project are that of multi-disciplinary approaches involving the socio-economic, traditional and religious dimensions. Collection of materials, field survey, case study, interviews and questionnaires are some of the techniques involved in writing this project. Evaluation and analysis may also be implied as convenient tool of this study. Schedules and questionnaires are made to collect data from the informants. The information collected is checked and cross checked from various sources. Methods adopted for investigation of the proposed study are:

I. Interview method

II. Case study method

The relevant data are collected from primary and secondary sources. The interview method is done on the following basis. The primary data are collected from the field survey. The secondary data are collected from books, journals, research papers, online sources, various census reports and government documents.

I. Social aspects: Tradition bearer and older persons of the area

II. Occupational aspects: Kathakari and Bhoi fisher folk of the area

3. Results

Following fishing equipments were observed with traditional fisher folks:



Fig 1: Harpoon



Fig 2: Cast net



Fig 3: Double mouth opening bamboo basket



Fig 4: Single mouth opening bamboo baskets



Fig 5: Bamboo Bucket



Fig 6: Large size Indi / Zill net



Fig 7: Kiltan

4. Discussions

The traditional fishing technique described is practiced in Kolhapur region of Western Ghats, Maharashtra, 18°27' latitude and 73°25' Longitude. Kathkari and Bhoi tribes are local community engaged in using various fishing methods since time memorable. These traditional techniques having experienced less socioeconomic impact but sustainable method of fishing and does not harm the local biodiversity. They still relay on traditional methods and practices for their livelihood and rich protein intake. In present study it has been found that the traditional knowledge of downstream migration of fishes, behaviors of fishes, geographical features of streams and rivers are used as blend of arts and scientific knowledge of fish harvesting have been evolved by Kathkari and Bhoi tribes using available material and indigenous skills. It has been noticed that during dry season when the streams are dried; an Art and Science of fish harvesting have been evolved by these Kathkari and Bhoi tribes

Traditional fishing techniques will vary considerably in detail from region to region, but an analysis of the range of techniques employed show that the techniques and tools used depend on the type of habitat being exploited. Various traditional fishing practices are being used in the country including ichthyotoxic plants, hand picking, nets & baskets made are of various natural materials.

Currently there are between 258 and 540 scheduled tribe communities exists. The strength of these communities varies from 31 people of jarwa tribe to over 7 million Gonds. Thus the Gonds are big tribal community. Whereas the small communities comprising less than 1000 people include the andamanese, onge, oraon, munda, mina, khond, saora. Tribal economy forms an important criterion for classifying Scheduled Tribes in India. The dominant economies of the

tribes are:

- (1) Hunting, fishing and food gathering,
- (2) Shifting cultivation and lumbering, and
- (3) Sedentary cultivation and animal husbandry.

Equipments used by traditional fisher folk

1) Harpoon

A harpoon is a long spear-like instrument used in fishing, whaling, sealing, and other marine hunting to catch large fish or marine mammals such as whales. It accomplishes this task by impaling the target animal and securing it with barb or toggling claws, allowing the fishermen to use a rope or chain attached to the butt of the projectile to catch the animal. A harpoon can also be used as a weapon

2) Cast net

A cast net, also called a throw net, is a net used for fishing. It is a circular net with small weights distributed around its edge. The net is cast or thrown by hand in such a manner that it spreads out on the water and sinks. This technique is called net casting or net throwing. Fish are caught as the net is hauled back in. This simple device is particularly effective for catching small bait or forage fish, and has been in use, with various modifications, for thousands of years. On the US Gulf Coast, it is used especially to catch mullet, which will not bite a baited hook.

3) Bamboo basket:

A bamboo basket is a basket used for fishing. The ancient Egyptians used weir baskets made from willow branches to fish the Nile River. The use of fishing weirs was specifically outlawed throughout England, except at the seacoast, by order of the Magna Carta, but little heed was given to the

restrictions. The Spaniards named the Nazas River after the fishing baskets they saw the local peoples using in the river.

4) Bamboo bucket

Another common method of fishing is bamboo bucket. This technique is good for small canals.

A kind of basket made of bamboo is used for this type of fishing. The basket has one conical closed end and a wide opening at the other. This trap device is called koodu (cage) by the natives. The trap is placed in the narrowest area of running water. The part of the canal towards the back of the trap is blocked with twigs or mud. The fishes enter the trap through its wide mouth. They cannot escape as the other end is closed. The trap is then lifted from the waters for the catch. Sometimes, in paddy fields, the fishermen throw the fish food and when the fishes gather, they are caught by covering them with bamboo traps.

5) Indi or Zill net

It is traditional type of fishing. It is prepared by fisherman using mosquito net for small size and common net for regular size and rope. This type of net is also available in readymade form. This type of net is used in river for commercial purpose. Small size net is used by solo fisher folk and big size net is used by 4 to 5 fishermen together. Small size net is used for catching small fishes and large size net is used for catching big size fishes.

6) Kiltan

This is very innovative equipment used by only one family. This equipment is known as Kiltan as said in vernacular language by the local fisher folk. It is prepared by fishermen at residential place. For preparation of this equipment the small size net; saree or cloth, rope and threads are used. It is operated on the outlets of dam where the water falls down, bringing with current small fishes. Upto 3 to 4 Kg fishes are caught per operation.

5. Conclusions

For many developing countries with restricted budgets and few trained personnel for fisheries research, it is possible to study only species involved in earning foreign currency. Even then, statistically valid sampling techniques require equipment, trained personnel, and logistic coordination that is difficult to sustain.

As biological models have become more complex, computerized, and data devouring, it has become harder for decision makers in developing countries to generate or apply them. Fishery statistics should not be so sophisticated that they can only be collected irregularly by outside researchers.

A simpler approach is to work with local fishermen. Local fishermen often possess useful information. They know the best fishing locations, the times when a wide range of species can be caught, and how to catch them. People have praised the knowledge of local fishermen but only recently have studies sought their knowledge and documented their resource usage. The need is for simple and timely data, on boats and trips, tools and catches, routinely reported by fishery participants themselves and openly communicated throughout the maritime community. If this is done, the onset of diminishing returns to fishing effort will be more likely to induce support for limitations on entry or gear while incremental adjustments are still possible.

The traditional fishing techniques described here are

representative of fisheries being practiced in remote villages of Kolhapur district even today. These fisheries have been little studied by researchers; hence, no catch statistics have been recorded for fisheries that have been used by these traditional fishermen.

6. Acknowledgements

Author is thankful to Head, Department of Zoology, Shivaji University, Kolhapur for providing laboratory and other infrastructural facilities towards completion of said work. And to local tribal fishermen for their cooperation in interaction to understand their fishing methods as livelihood.

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