

Traditional Wisdom of Fishing Techniques and Rituals of Kuruman Tribe of Wayanad, Western Ghats

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Abstract

Tribes residing in various parts of the world still use the traditional knowledge gained from their ancestors for the collection of wild and natural food. These techniques are usually simple and effective. It is essential to document the traditional knowledge (TK) of the tribes before these techniques get completely vanished. Wayanad district, in the North-East of Kerala, India, has the largest population of aborigine people and there are many tribal groups in this area. Fishes were found to be the major and easily available animal food source for them. Among the major tribal groups, mostly kurumans are involved in fishing activities. Fishing is associated with their marriage, death and important festivals. The present study is an attempt to list out the various traditional fishing gears of kuruman tribes of Wayanad district. A detailed survey was carried out in the selected tribal settlements of Wayanad district using unstructured questionnaire, among various age and gender groups. The results ratified that traps were the major fishing device of kurumans. Besides traps, simple gill nets, cast nets and lines are other fishing gears of this community and there was no craft based fishery. Study also revealed that fishing had significant role in their customs and important ceremonies, like marriage, death etc. Tribes agreed that fish availability was drastically reduced due to various anthropogenic activities, such as check dam construction for irrigation, and uncontrolled used of chemical pesticide in the agricultural field. They were also aware of need for conservation of fishery resources and the ecosystem.

Wayanad district is situated in the northeast of Kerala, India at 11°27' - 15°58'N and 75°47' - 70°27'E. It is situated on the majestic western ghats with altitudes ranging from 700 to 2100 m above the mean sea level (MSL) it is considered as one of the world's biodiversity hotspots (Kumar *et al.*, 2003). It is bounded on the east by Nilgiris

and Mysore districts in Tamil Nadu and Karnataka states respectively, on the north by Kodagu district of Karnataka, on the south by Malappuram district and on the west by Kozhikode and Kannur districts of Kerala. Wayanad district stands in the southern tip of the Decan Plateau and its chief glory in the majestic Western Ghats is due to the

lofty ridges interspersed with dense forest, tangled jungles and deep valleys. Kabani river, one of the three east flowing rivers of Kerala, is an important tributary of the river Cauvery. Kabani and its tributaries constitute a powerful river system in the landscape of Wayanad. The district has an area of 2131 square kilometers with a total human population of 780619. As per 2001 census sex ratio was 995 female per 1000 males. The density of population was 366 per sq.km. The decadal census shows an increasing tendency in the density of population (GOK, 2011). The district is characterized by high ethnic diversity, with five dominant tribal groups – Kurichiya, Kuruma, Paniya, Adiya and Kattunaikka – and seven minor communities (Kumar, 2003; Garcia, 2006). Scheduled cast and scheduled tribes population comes around 4% and 17% respectively, of the total district population.

Reports reveal that among the tribes in Wayanad, mostly Kurumans and Kuruchyas are involved in fishing activities, and they are settled close to water bodies. Even fishing is of ritualistic significance for them (Narayana, 2004). The present study was conducted with the aim to prepare a database of the rich traditional knowledge of Kuruman tribe of Wayanad.

Methodology

A survey was conducted throughout Wayanad district. It consists of three taluks, Mananthavadi, Sultan bathery, and Vythiri. Kuruman tribal colonies located in the district were identified and two colonies from Mananthavadi, three from Sultan

bathery and two from Vythiri taluk were selected. Primary data were collected as referring to the available literature. Using an unstructured questionnaire, individual and group interviews with fishermen and direct observation of different types of gears and their operations were made. Discussions were carried out in the local language *Malayalam*. Experienced fishermen were contacted several times. The collected information was validated by cross-checking with the existing information.

Results and discussion

The study revealed the following major fishing gears and methods common among the tribes of Wayanad district.

Fishing without gear (bare hands)

Fishing with bare hands is mainly done during monsoon and summer. During monsoon, fishes show breeding migration, and usually this “breeding journey” is from river to shallow streams and paddy fields. After breeding, they become fatigued due to the spawning and long swimming. So, it is very easy to pick the fishes using bare hands. Similarly, in area where the check dams are constructed across the river for agricultural irrigation purposes, fishes get detained and concentrated, and this is more favorable for easy fishing (Michel, 2000). During summer, water level in most of the rivers become low and the fishes get concentrated in small pools. Tribes, belonging to *Paniya* community, do fishing with entire family. This type of fishing is known as *Kundu theval* (draining the pool). The intensity of catch depends on the availability of the

fishes in a special area, size of the fish, activity of the fish etc.

There is another type of handpicking locally known as “*thappi pidikkal* or *theeri pidikkal*” (searching with hands). In this method, small streams, “*Thodu*”, is blocked in the upper stream with mud, stones and vegetation. So, the lower part of the streams gets drain out and the fishes are caught easily. This kind of fishing method is also reported from the state of Mizoram in India (Lalthanzara and Lalthanpuui, 2009).

Traps

Traps are the most popular fishing systems among Kurumans. There are many types of traps and locally available material like bamboo is used for fabrication of trap. Traps are mainly operated by women. The major traps of Kurumans are:

Kortha. It is a conical tray like open trap made of bamboo splices. It has a total length of 5 feet, width of 3 feet and depth of 2.5 feet (Fig. 1a). Operation of *Kortha* is common both in the monsoon and summer. It is operated in shallow water bodies and through the sides of rivers with thick aquatic vegetation. Depending on the water body, the operation of *Kortha* differs. In shallow and narrow water bodies, it is placed against the water current and another person move towards the trap by creating strong disturbance in the water. As a result, fishes try to escape from the disturbance and move towards the traps. During the operation of *Kortha*, women sings traditional folk songs which starts like “*Vaa vaa vandu thodan, vaa vaa vaala meenu*” which means ‘big

snake head fish and freshwater shark, come to my trap and give me a good catch’. As soon as fishes enter in *Kortha*, it is lifted out from the water and the gathered fish in the corner of the gear is collected by hand picking.

Scooping type of operation is doing along the river side and areas with thick vegetation. Usually a small basket called “*Meen koota*” (Fig. 1b) is tied on the neck of the person who operates the *kortha*. *Meen koota* is a cylindrical basket with wide bottom and narrow mouth made of bamboo splice. This shape helps to prevent the escape of the fishes from basket. Usually, *meen kootas* are with bamboo lids. All kinds of fishes are caught using *kortha*. Catch depends on the skill of the person who operates the *kortha*, nature of the fish, nature of the fishing area etc. *Kuruma* and *Paniya* women are capable of judging the approximate quantity and kind of fish available, from the intensity and pattern of rain (Narayana, 2004).

Chaada. *Chaada* is miniature form of *kortha* (Fig. 1c). It is broad and the depth at the centre of the gear is less. Operation of the *chaada* is same as that of *kortha*. Since it is small, even children can operate this trap. Making the *chaada* and *kortha* calls for good skills and placing it aptly needs expertise as well, both of which are the forte of *Kuruma* and *Kurichya* women (Narayana, 2004). *Kortha* and *Chaada* are mainly made by the tribes belonging to *Paniya* and *Oorali* Community. But, it is mainly used by the womens from *Kuruma* and *Kurichya* community. There are reports of using bamboo scooping gears



Figure 1. Various kinds of fishing devices used by the tribes of Wayanad district, Kerala, India: (a) Operation of *Kortha*; (b) *Meen koota*; (c) *Kortha*, *Meen koota*, and *Chaada*; (d) *Meen koodu*; (e) *Veeshuvala* hanged on roof for drying; (f) *Kuthuvala*.

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for fishing from the North Eastern states of India (Gurumayum and Choudhury, 2009).

Bowl fishing. “*Kinnam*” is the local name for bowl. Suitable bowls are selected for making this kind of trap. Previously (in the early 90’s) white color coated metal bowls were used for this. But nowadays steel bowl, aluminum bowl, brass bowl, etc. are used. Mixture of cooked rice and rice bran are kept inside the bowl as bait and then the mouth of the bowl is tightly covered using white cotton cloth. According to tribes, use of white cloth make fishes difficult to differentiate trap from the surrounding. Usually, small round hole of approximately 4-cm diameter is put on the middle of the cloth. The bowl is dipped into the shallow region of the water body and some rice is spread on the top of the trap. Fishes get attracted to the bowl by the presence of rice and bran spread out. Gradually, the fishes will enter inside the bowl through the small opening. Once the fish entered into the bowl, it is difficult for it to come out. On a regular time interval of 15 to 20 minutes, the bowls are taken to shore, and opened to remove the catch. The major part of the catch usually consists of *Puntius sp.* and *barbus sp.* Fishes obtained by this method is known as *Kinna Meen*. Pravin *et al.* (2014) observed fishing using plates

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by the tribal women of Idukki reservoir, Kerala. Termites, broken-rice and coconut oil cake are the bait used in this method. Whereas Gurumayum and Choudhury (2009) reported the use of product from the rice bear as bait for similar type of fishing in North East hilly region.

Meen Koodu. It is a filter trap seen in many parts in Kerala. But, the trap made by the tribes of Wayanad is more compact than those of the others (Fig. 1d). *Paniyas* and *Ooralees* are the main communities engaged in the fabrication of this trap. In order to make trap more strong and durable, they keep the trap on the roof of kitchen, locally known as ‘*Attam*’. Smoke make the bamboo slices dry and stiff. *Meen koodu* is usually operated during the monsoon by placing in narrow and shallow streams with less water current. The traps are usually placed against water current. Both the ends of trap are open by construction, but during operation the narrow end is closed using cloth or straw. Usually, traps are set at night and hauled in the morning. All the fishes swimming along with the water current will get trapped. Due to the bamboo lid, outward movement of fishes from the tarp is prevented.

Nets

This is another common fishing gear, operated only by men. The major nets used by Kurumans are:

Cast net (Veeshuvala). Cast net is known as *Veeshuvala* in vernacular (Fig. 1e). Some people in the Kuruman community have expertise in fabrication of cast net. During operation, the net forms a circular shape. Hundreds of small pieces of lead sinkers are tied at the lower edge of the net. The net is placed between the two elbows and are thrown into the water bodies. The trapped fishes are caught by hand. Remesan (2006) reported three types of cast nets from North Kerala viz., string-less cast net without pocket, stringed cast net without pocket and string-less cast net with pocket. Baiju and Hridayanathan (2002), broadly divided cast nets of Kerala into two types. The simple type is called *Kattum Vala*, which is without internal closing strings and the more developed one *Vochu vala* are provided with closing strings (Hornell, 1938). The second one is common among the tribes of Wayanad because the bottom of many of the rivers in Wayanad is rocky and uneven. Sometimes, men carry nests of weaver ants or green ants (*Oecophyllini sp*) to the river side and dip the nest in water. It is a type of bait-based cast net operation. According to experts, catch from cast net is maximum during monsoon, particularly in the lower region of dam sites.

Gillnet. *Gillnet* is known as *thandadi vala*. It is operated in areas of lesser water current. Polyamide monofilament is generally used for making the main body of the gill nets. Mesh size varies from 60 mm to 100 mm.

Head rope is made of polypropylene and foot rope is absent. Floats and sinkers used vary from gear to gear. The locally available materials such as plastic cans and bottles are used as float. Small wooden blocks are used as sinkers. Soaking time and catch depends on the availability of fishes.

Kuthuvala. It is a type of conical bag net, which is operated in the regions, where the small canals meet the main river. The fishes, which are returning after the breeding, are caught using *Kuthuvala* (Fig. 1f). The mouth of the net is kept open using a semicircular frame. Usually, a long pole is attached to the middle of the net, to stretch and open the funnel.

Line fishing

Pole and line operation. Pole and line is the most popular method of fishing, among tribes. The hook and polyamide mono filament lines are purchased from the local market, and are tied to a small narrow bamboo pole of approximately 6-8 feet length. The line has a terminal lead sinker, a hook and sometimes a small dried grass piece as float. The commonly used baits are earth worm, eggs and larvae of weaver ants (*Oecophyllini sp*), larvae of rhinoceros beetle, termite larvae etc. Small frogs are the commonly used bait for freshwater shark, *Wallago attu*.

Miscellaneous fishing methods

Bow and arrow. This is mainly done by the men from the *Kurichya* community. Nowadays, this method is not popular, because only big fishes are caught using

this method. Also, the fishing needs high expertise and skill.

Fishing using cloths. This is one of the common and easiest methods for fishing. It is scooping type of fishing in shallow region of the water body. *Puntius spp.*, *Ambasis spp.* etc are the common species caught, using this method. Fishes, which shows schooling behavior, is mainly caught by this method.

Use of live clams. Opened live clams *Unio sp.* are kept inside the palm of the person who does fishing and the person stands in a suitable depth. Fishes will get attracted to the clam meat and while eating the meat, the person will close the clam shell quickly. So the head of the fishes will be trapped inside clam shell. This method needs high skill. Barb species are mainly caught by this method.

Ritualistic significance of fishing among Kurumans

The study revealed that among the tribes in Wayanad, fish and fishing have great significance in Kurumans, Kurichyas and Paniayas. In Kurumans and Kurichyas,

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fishing is associated with their marriage, death and important festivals. Newly married Kuruman bride has to go for fishing and she has to show her skill in fishing. The fishing groups may consist of 10 to 15 women. At the end of fishing, before returning to the hut, all her companions will transfer their catch into the bride's fish basket (*Meen Koodu*) to show that she is an expert in fishing. Another ritual is associated with post death ceremony. On the 3rd or 5th day of funeral, women go for fishing. The gears used are *Kortha* and *Chaada*. Before returning to the settlements, they take bath in the water body and do final fishing operation. Whatever fish caught in that operation, they leave on the bank. Kurumans believe that life originated in water and after death life goes into water. By doing this ritual, they believe that they are making the soul free from water, and call the soul to their settlement for offering further rituals. After reaching their residence, they prepare and offer meal and fish curry to the departed souls of ancestors. Tribes believe that departed souls attain liberation, if the ritualistic homage is performed. Fishing is also associated with some festivals of Kurumans, Kurichyans and Paniyas.

Conclusions

Traps and nets found to be the most common gear, among tribes. There is no craft based fishery. Fishing of Kurumans is not for sale. Previously Kurumans used to do fishing only for their own consumption and the surplus quantity was preserved as dry fish. In recent time, some of the tribal settlements reside near dam sites engaged in commercial fishing using gill net and

coracle. Proper training and awareness about responsible fishing practices and efficient fishing techniques may improve the fishing efficiency of the Kuruman tribes. The present data-base may be an asset to the coming generations for understanding the fishing practices and related rituals of tribes both in scientific and anthropologic aspects.

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