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MR Patel
Research Scholar,
Dept. of aquaculture,
College of fisheries, JAU,
Veraval, 362265, Gujarat, India.

KH Vadher
Associate Professor,
Department of aquaculture,
College of Fisheries, Veraval,
Gujarat, India.

ML Ojha
Assistant Prof. College of
fisheries, Maharana Pratap
University of agriculture and
technology, Udaipur, Rajasthan,
India.

KG Baraiya
Research Scholar,
Dept. of aquaculture,
College of fisheries,
JAU, Veraval, 362265,
Gujarat, India.

Correspondence:
MR Patel
Research Scholar,
Dept. of aquaculture,
College of fisheries, JAU,
Veraval, 362265, Gujarat,
India.

Unique traditional fish seed collection method around Tapi district in Gujarat

MR Patel, KH Vadher, ML Ojha, KG Baraiya

Abstract

The scheduled tribe community fishing practiced by Traditional fish seed collection method in district Tapi, Gujarat. In this practice, they mainly conduct in side canal of main canal or stagnant water. In this method use 0.2 m diameter and depth is 10 cm of dish and dish is cover with the white cotton cloth and hole size 3 cm. and put 3 gm. wheat flour. The principle behind this fishing method was found wheat flour is use for fish attractant and fish go inside the dish by hole than fish can't escape form dish. Main advantage is no physically damage the seed.

Keywords: Traditional fish seed collection, steel dish, cotton cloth, wheat flour, Indian major carp

1. Introduction

Tapi district is a forest area, which is located in the southern part of Gujarat covering an area of 3,249 sq. km, providing habitat to mainly Scheduled Tribe communities. Generally, this community possesses and practice traditional knowledge in the daily activities. There is a good water resource in Tapi district and there is a largest reservoir of Gujarat in Tapi district. Area of reservoir is 60075 ha^[1] and due to this development of canals and sub canals is good for irrigation purpose. Due to this fisherman communities inhabit in these areas. In most of the houses they stock fish seeds in water storage tanks and then utilize them as food and also sometimes they directly consume small size fishes.

They capture seeds from nature for stocking because in these areas, there are more ponds and canals and due to this method fishermen can capture fish seeds at lesser expense. And they can capture fish seeds without damage.

2. Methodology

2.1 Experimental area

The experiment was conducted was conducted in Ukai reservoir side canal 21°11'N to 73°37'E (fig.0).

2.2 Experimental Area

Fish seed collection method practiced around Ukai reservoir involves one steel dish like vessel, a piece of cotton cloth and wheat flour (fig.1). The steel vessel is fully covered with a piece of cotton cloth as shown in (fig 2). A hole of 2-3cm diameter is made on the middle of cloth piece. Wheat flour is applied inside the vessel and small amount of wheat flour is spread around the hole (fig.3) Now this vessel (device) is kept in the area where fish seed are available in abundance (fig. 4 and 5). This device can be kept in slow flowing water or stagnant water at the depth of around 4-5 feet. After settling the dish in particular water body the water should not be disturbed in and around. A small amount of flour is spread in that water body.

In this method fish seed are attracted by wheat flour (fig.6). First the fish seeds feed on flour which is spread on cotton cloth and then it will go inside the vessel through hole. Once it has gone inside the hole it cannot come outside soon because of a single hole on cloth cover and food is also inside.

This device is kept for 1-2 hours in fish seed collection sites. After this the device is lifted outside the water body keeping the hole closed by hand to prevent escape of the fish. Now the water level in vessel is reduced and cloth is removed (fig 7). The fish seed are collected and transferred to bucket or fish tanks for transported to fish farm (fig. 8).

3. Result

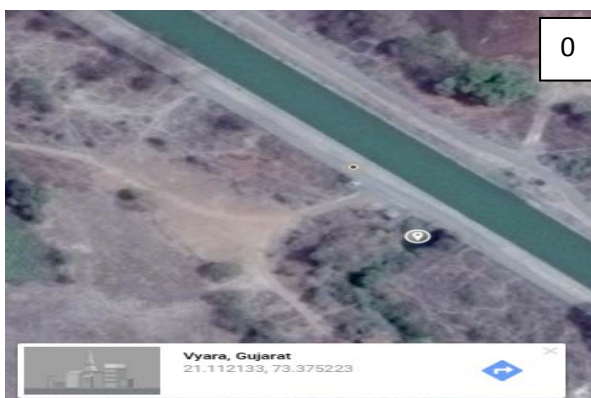
The scheduled tribe community in district Tapi normally use cast net, hook and lines to catch for their own consumption and seed collection. Long year back mainly use this method for seed collection. Only male member is participants in this practices. In this method use 0.2m diameter of dish and depth is 10cm. and dish is cover with the white cotton cloth fig-1 and 6. And hole size is 3cm. and put 3 gm. wheat flour fig-6. The fish seed collection by this method was experienced by the author. The collection device was operated in sub canal of Ukai reservoir. The device is put at 3 feet depth kept in operation for 1 hour fig-5. Total 118 fish seeds were caught fig-7. All the seed collected were of Indian major carps. I and two other fishermen are helping me for this operation. This dish is put at 2 feet depth. After 1hour we just check out we caught 108 fish. Then we same operation conduct in second site in this operation we just increase the time, this time in 2 hours 30 min operation we caught 376 fish.

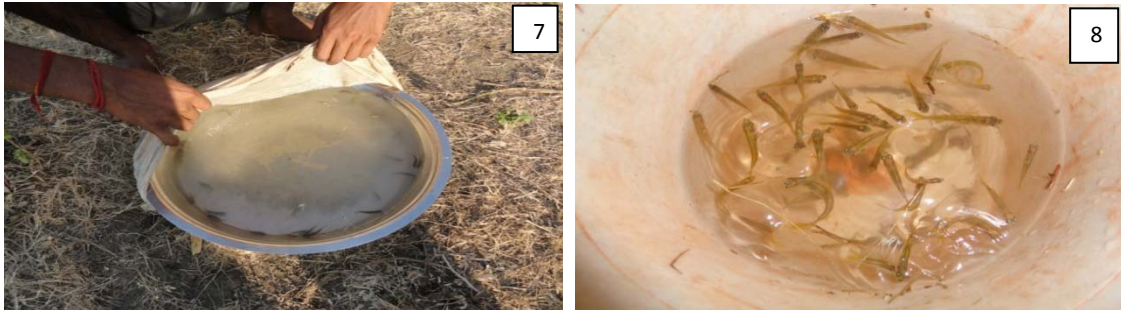
3.1 Advantages of method

- There is no physical injuries/damage to fish seed during the collection.
- Fish seed can be collected with less expenditure.

4. Discussion

In this Tapi district fishing is a significant during whole year. In this practice, almost the entire village community takes part in seed collection in water body side canal and other stagnant area with traditional method. And this method main advantage is not affected to environment. Wheat flour is use as fish attractants. Also no physical damage, no stress by this method. And very less expenditure caught seed. But dis advantage of this method is this device operated only in stagnant water not operated in running water.





Figure

4. References

- 1 Anonymous. In: Gujarat Fisheries Statistics: 2010-2011. Commissioner of Fisheries, Govt. of Gujarat, Gandhinagar, 2013.