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## New fishing method discovered for Irradiation of bottom dwelling fishes

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### Abstract:

Cultivating fishes and making aquatic water resources with cultivable point of view is need of time as Global food security is becoming a serious problem. Construction of dams and impoundments in flow of rivers is frequent practice. During cultivation the interspecific competition between predatory and cultivable fishes is a serious issue of concern. Present study deals with an innovative method discovered for removal of bottom dwelling fishes and different life stages without poisoning or electrifying water (Janac and Jurajda 2005) and making the reservoirs weed free and cultivable. Most of the ingredients in the technique are being biological in origin causes least effect on biology of different life forms.

**Keywords:** Global food security, predatory fish, cultivable fish, interspecific competition.

### Introduction:

Cooperation and participation of fishermen for regulation of work is a recognized fact in fishery management (Pomeroy and Berkes 1997). The cultivable fishes are major and minor carps of the world. *Catla catla*, *Labeo rohita*, *Cyprinus carpio carpio* and *Cirrhina mrigala* are amongst major carps and *Labeo bata*, *Labeo angora*, *Labeo boga* are the minor carps cultivated world over. There are many factors included in best pond management practices which are as follows:

- Removing unwanted and overpopulated fish
- Harvesting fish produce
- Fish feeding
- Record keeping
- Fish Kills

Thus removing unwanted and overpopulated fishes is one of the key factors in pond management practice as unwanted fishes may prove predators or competitors with the cultivated fish population. Wild fish species are used as feed during farming of carnivores fishes (Naylor et. al. 2000). But as none of the major and minor carps are carnivores, their culture desperately needs removal of wild fishes. According to Food and Aquaculture Organisation, Weed fish compete with carp for food, space and oxygen. Use of rotenone (Lawrence J M 2011), chlorine and antimycin A (Burres and Luhning, 1969) for is one of the key factors suggested for removing fish from ponds (Wynne and Masser 2010). The fyke nets have also proven lethal for Turtle capture (Barko V A et al. 2004). Along with the same *Callicarpone* (I) isolated from the leaf of *Callicarpa candicans* (Kawazu K. et. Al. 1967) many times Mahua oil cakes, Tea seed cake, Ammonia (Randall and Tsui 2002), Bleaching powder and Urea (Ram K J et al. 1988) are also used for fish irradiation at varying doses. The present method is an alternative for all the above practices being done world over.

### Material Method:

There are generally three fishing methods adopted in the Hingoli District for collection which include Drag Net, Cast Net and Gill net along with Hooks. In the present study we have documented a new method for collection of bottom dwelling fishes being adapted at Hingoli City on Kayadhu River. The coordinates of the place of documentation of the method was 19.72<sup>0</sup>N and 77.15<sup>0</sup> E.



The method includes a string of nylon attached with pebbles equidistantly of 10gms each at about one foot, the string is pulled by putting at the bottom of the pond at slower rate starting from one side and ending at other, where a triangular net acts as trap is set. The pebbles create water current which makes water turbid and the fishes move towards opposite direction. The triangular net at the other side appears them to be a safe place to stay at. The string when reaches to the other side of pond with continuous pulling brings almost all fishes in the triangular trap. The trap is now suddenly lifted trapping the fish in. The method have also been video documented at youtube as: **New fishing method discovered for fish *Nemacheilus* irrespective . . . .**

#### **Result and Discussion:**

We have found that this method is one of the best techniques with both economic and ecological point of view, as it is ideal for collection of live predatory fishes which can never be caught by any of the pre-existing methods. Thus it is cost effective beneficial method and can be easily adopted by any humans.

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