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## RESEARCH ARTICLE

### DIFFERENT TYPES OF FISHING GEARS USED BY THE MARINE FISHERMEN OF PULICAT COAST

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#### ABSTRACT

The present study deals with the various fishing gears adopted for fishery purpose used by the Pulicat marine fishermen during the period of May 2013-April 2014. During the study time, five different kinds of gears were observed and dominant catch were caught using the purse seine net and Gill net, that means 90 % of the total catch were caught by these nets and Others fishing gears contribute only few percent of the total catch. The highest catch recorded during the period of August and September.

#### Key words:

Marine fishermen, Fishing gears,  
Purse seine net, Pulicat Coast.

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## INTRODUCTION

A considerable number of residents in the coastal areas of Pulicat on fishing for their main source of livelihood. There are 13 villages are involved in marine fishing. Among them 9 villages fully depend on marine fishing. The traditional fisheries management system (*Paadu system*) followed by the pulicat lake fishermen. However, nowadays there are no regulation and management practices in the marine fishing. Previously they are banning some types of nets and fishes like banning of rays and shark fishing and also catching of gastropods and shells. Of late, complaints of traditional fishermen on low catch rates and economic returns have become more regular; and worry about the deterioration of their already low socioeconomic standing has been repeatedly expressed. Despite low catches, however, they continue to fish due to lack of alternative sources of livelihood. Some have resorted to illegal fishing methods which are ecologically destructive. Fishing without gears-This is probably the simplest method of catching the fishes, which are caught by hand in shallow water. In the beel, water flows out through narrow channels. The fishes that come out in the shallow channels are picked up by hand. Mollusca and Murels are also caught by this method (Pranjal Chakravartty *et al.*, 2013). Some standard fishing gears could be used in a way; which damages the resource and / or the environments, to such an

extent that they could be considered as “destructive” fishing practices. These may include, inter alia, that practices can be properly regulated and controlled: because of the large proportion of juveniles yielded and often discarded. It may have very long lasting negative effects on the habitats (FAO).

## MATERIALS AND METHODS

### Study Area

Pulicat lake is the second largest brackish water lake in India. It is located between 13°26' and 13°43'N latitude and 80°03' and 80°18'E longitudes, with its narrow opening into the Bay of Bengal through the south-eastern margin near the Pulicat town which is located 40 km north of Chennai city by sea.

### Data Collection

The data was gathering in Pulicat landing centre during the period of may 2013-april 2014. The Pulicat fish Landing centers were monitored every first week of month. Data collected include the degree of the catch's of different fishing gears and their corresponding species. Members of the research team joined fishing trips in FRP Boats to observe operations and obtain information for use in validating the data generated through the monitoring surveys. The total catch and the types of nets using by the fishermen from may 2013 –April 2014 were also obtained from the records maintained by the fish merchants, Auctioneer and money lender namely Kanakaraj.A, Panchamirtham, Mahimai and KRK.

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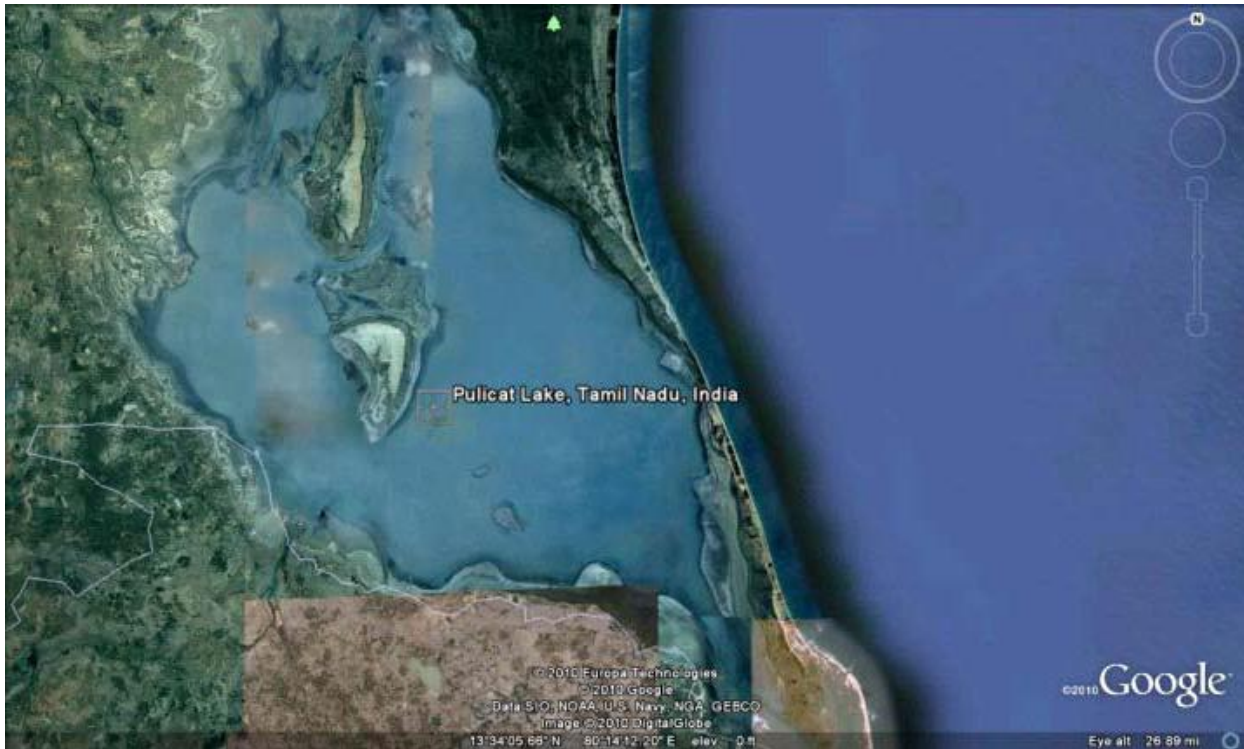
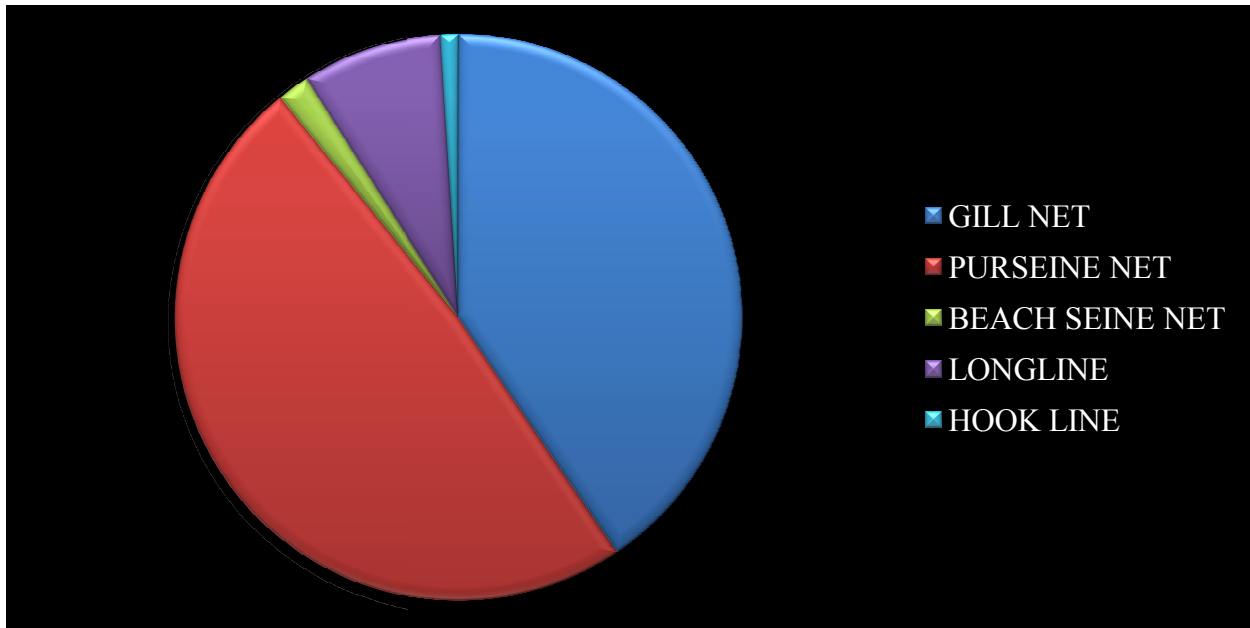


Fig. 1. shows the Pulicat Lake.  
Source: Google Earth



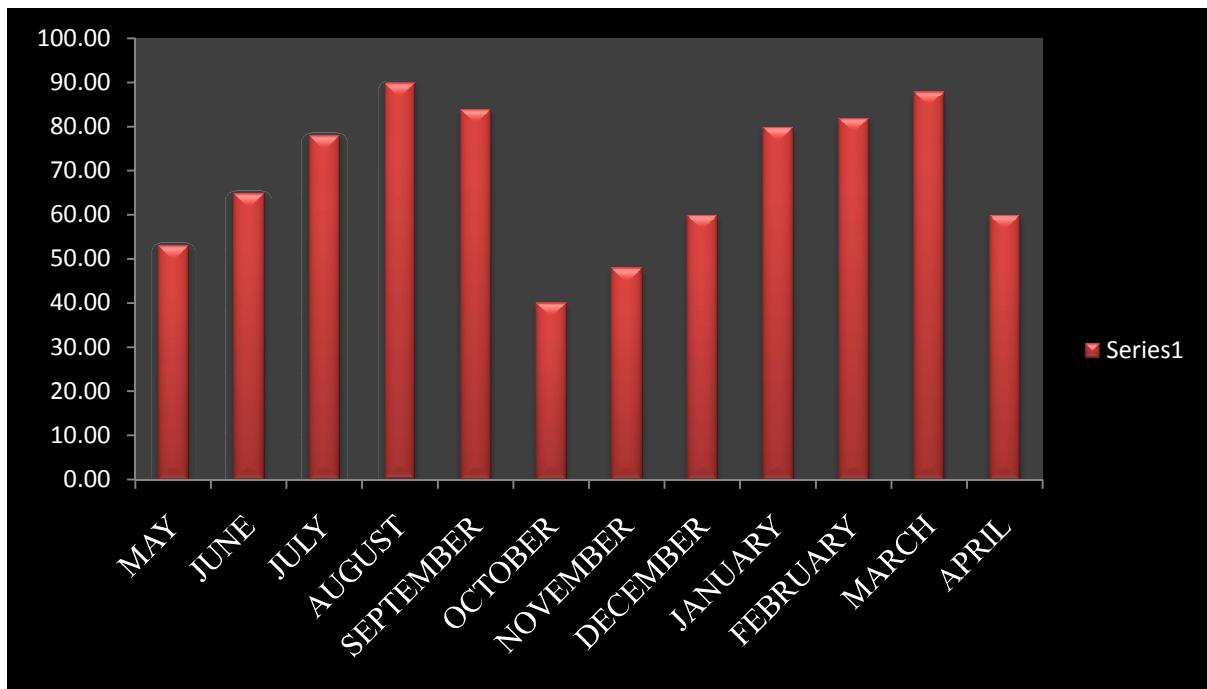
Graph 1. Shows the different nets were used for the capture fishery in Marine fishermen

**RESULTS**

The graph 1 shows the more than 49% of the total catches were captured by the fisher’s using the purse seine net, and then gill nets were recorded 41% of the total catches, and then long line contribute 8%,beach seine and hook line each were contribute 1% of the total catches respectively. Graph 2 shows the highest catch during the month of August and September. The lowest catches were recorded during the month of October.

**DISCUSSION AND CONCLUSION**

Selection of fishing methods and gear are influenced by various factors such as physiographic of the water body, nature of fish stock, characteristics of the material from which gear are fabricated and standard of living. Therefore, variation in application of gear can be observed in different rivers, which have characteristic of their own due to unique nature of the water resources of the region. The success of these fishing techniques depends on various factors like selection of site,



Graph 2. Shows the catch quantity in different season in Pulicat landing centre

time, and efficiency of materials used and availability of fish. Fishing with traditional gears is eco-friendly in comparison to the destructive fishing like chemical poisoning, dynamiting, electro-fishing, use of small mesh-sized nets etc., which has imbalanced the aquatic biota damaging not only the water environment but also fishes and their prey-bases and ultimately the aquatic food chain. Therefore, to exploit the fishery resources, new eco-friendly fishing method is utmost urgent (Gurumayum *et al.*, 2009). Pulicat coast act as breeding, feeding and nursery ground of numerous indigenous fish and in terms of commercial fisheries it is one of the important fishing grounds of Tamilnadu state as well as of southern part of Andhra Pradesh (Vinoth, 2014). However, the coast having a lot of problems regarding fish harvesting. Most of the fishing methods adopted from the southern part of Tamilnadu. The result shows dominant catch were made by the purse seine net, in many places in tamilnadu coast, purse seine net is the banned fishing gear, because the impact of less catch after using the gears for capturing the marine fish as well as the ecological destructive of diversity. There are 45 Hammered shark about 8 tons were observed and reported in Pulicat coast captured during the period of March 2014 by Goonamkuppam village present in northern part of Pazhaverkadu.

Fishing of fish size lesser than 4 inches should be banned. Unauthorized poaching of fish species should be totally banned (Kumar varun *et al.*, 2013). Boats should be regularly inspected Purse seine net should be restricted for fishing in Pulicat coast. The fishery management in government and fisheries co-operative society of pulicat village should aware this collision make in the prospect as a severe problems and necessitate to banned the purse seine net without delay.

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