



ISSN NO. 2320-5407

Journal homepage: <http://www.journalijar.com>

INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH

RESEARCH ARTICLE

An Introductory Study on Fishing Craft and Gears in Thotapalli and Gotta Reservoirs, of Vizianagaram and Srikakulam districts of Andhrapradesh , India.

Sridhar. D* and Ramaneswari. K

1. Department of Zoology, College of Science and Technology, Adikavi Nannaya University, Rajamundry, Andhra Pradesh, India.
2. Department of Zoology, College of Science and Technology, Adikavi Nannaya University, Rajamundry, Andhra Pradesh, India.

Manuscript Info**Manuscript History:**

Received: 15 June 2015
Final Accepted: 22 July 2015
Published Online: August 2015

Key words:

Fishing craft, fishing gear,
Thotapalli, Gotta reservoir

***Corresponding Author**

Sridhar. D

Abstract

The current study deals with the different fishing craft and gears implemented for fishery purpose in Thotapalli and Gotta reservoirs. The study of fishing craft and gears of these reservoirs were conducted for a period of two years from June 2012 to May 2014. The investigation revealed that the fisherman use two different kinds of crafts i.e. the thermocol raft and musa raft and gears (gill net, cast net) in Thotapalli reservoir and one type of craft (wooden canoe, made with Terminalia arjuna or Albizia saman) and four different kinds of gears (gillnet, cast net, push net, drag net) in Gotta reservoir. The investigation is documented for the first time in the Thotapalli and Gotta reservoirs.

Copy Right, IJAR, 2015., All rights reserved.

Introduction

Thotapalli reservoir (N 18°47'17.56" and E 83°29'50.60" Fig.1a) and Gotta reservoir (N 18°41'21.51" and E 83°57'41.35" Fig.1b) are manmade reservoirs situated at Thotapalli village which is 80 km away from Srikakulam and Gotta village which is 40 km away from Srikakulam. Water from these reservoirs is mainly used for irrigation purposes. These reservoirs having a variety of fish species (28 species in Thotapalli, 26 fish species in Gotta). Fishing craft and gears implemented in the Thotapalli and Gotta reservoirs are simple tools used by local fishermen for fish production observed to be obsolete. A number of researchers work upon the fishing craft and gears used over freshwaters of India and abroad (1-6, 8-11). Disappointingly, the fishing methods used in these reservoirs were not documented ever in the inland fisheries sector of Andhra Pradesh. The present paper is an effort to document the fishing craft and gears used in Thotapalli and Gotta reservoirs.

Fig.1a



Fig.1b



Material and Methods

The present investigation of fishing craft and gears in Thotapalli and Gotta reservoirs were conducted for a period of two years from June 2012 to May 2014. During the field work the information regarding the various fishing craft and gears and their working procedure were collected by the personal interviews and questionnaires from local fishermen community and by personal observation during the fishing operations.

Results and Discussion

In the present investigation of both reservoirs about Thotapalli Total 28 species were identified, in Gotta reservoir 26 species were identified (Ramaneswari K and Sridhar D, 2015). During the present investigation two crafts and two gears were observed in Thotapalli, one craft and four gears were observed in Gotta reservoirs. The crafts observed were thermocol raft and Musa bamboo raft in Thotapalli, wooden canoe (made with *Terminalia arjuna* or *Albizia saman*) in Gotta while the gears were Gill net, Cast net, in Thotapalli, gillnet, cast net, push net, drag net, in Gotta. All the three crafts and six gears used in these reservoirs are described below. The different fishing crafts and gears are listed in Table-1, 2, Plate I & II

Table- 1

Fishing Crafts used in Thotapalli and Gotta Reservoirs

S.no	Crafts	Used in	Made with	Length&width	Making cost	Durability
1	Thermocol raft	Thotapalli reservoir	Thermocol	1 feet width ,6-7 feet length	1000 - 1500 rupees	3-4 years
2	Musa bamboo raft	Thotapalli reservoir	Musa	5*5 width ,length	500-600 rupees	2-3 months
3	Canoe	Gotta reservoir	Terminalia arjuna or Albizia saman	1 feet width ,7-8 feet length	1,0000-12000 rupees	2-4 years

Table -2

Fishing Gears used in Thotapalli and Gotta Reservoirs

S.no	Gear	Mesh size	Different types based on size	Used in	Making cost	Durability
1	Gill net	2-20 cm	16	Thotapalli and Gotta reservoirs	3000-10000 rupees	3-4 years
2	Cast net	1-8 cm	11	Thotapalli and Gotta reservoirs	2000-5000 rupees	3-4 years
3	Push net	0.5-1cm	2	Gotta reservoir	1000-4500 rupees	2-4 years
4	Drag net	0.5-3cm	2	Gotta reservoir	1000-2000 rupees	2-4 years

Plate-I(crafts)



Thermocol raft

Musa raft
Plate-I(gears)

Dugout canoe



Gill net (2 finger)



Gill net (3 finger)



Gill net (4 finger)



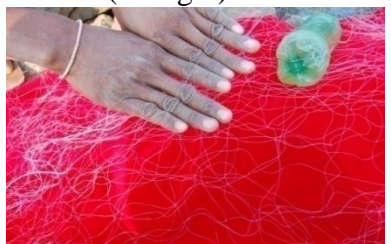
Gill net (5 finger)



Gill net (6 finger)



Gill net (7 finger)



Gill net (8 finger)



Gill net (9 finger)



Gill net (10 finger)



Gill net (12 finger)



Cast net(1cm)



Cast net(1.5cm)

Plate-II



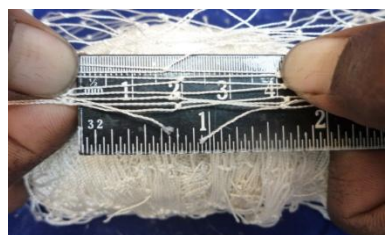
Cast net(2cm)



Cast net(3cm)



Cast net(3.5cm)



Cast net(4cm)



Cast net(4.5cm)



Cast net(5cm)



Cast net(6cm)



Cast net(7cm)



Cast net(8cm)



Cast net(10cm)



Push net



Drag net

Conclusion

Thotapalli and Gotta reservoirs show numerous fish species and in terms of commercial fisheries. These are the important water bodies of Vizianagaram and Srikakulam districts of Andhra Pradesh state in India. Nevertheless, the reservoirs are having some problems concerning fish harvesting. The fishing methods adopted in these reservoirs seem to be obsolete and unempirical as said by local fishermen. The Societies for the reservoirs management should be aware for the use of modern equipments of fishing. Fishing depends upon fish size less than 8 cm should be banned. Illicit poaching of fish species should be totally banned in these reservoirs. Nets of mesh size less than 3centimeters should be restricted for fishing in these reservoirs. Proper training of modern fishing methods should be provided to the fisher men community by reservoir authorities for commercial yield of fish production.

References

1. Chakravartty Pranjal, Dr. Sharma Subrata, Different Types Of Fishing Gears used by The Fishermen in Nalbari District Of Assam *IJSSIR*, Vol. 2 (3), March (2013).
2. Jhingram, V.G. (1982) Fish and Fisheries of India. Hindustan Publication Corp. New Delhi, 2nd edn. Pp 195.
3. Kingdom T. and Kwen K., Survey of Fishing Gears and Methods in Lower Taylor Creek Area, Bayelsa state, Nigeria, *World J. Fish & Marine Sci.*, 1(4), 313-319 (2009).
4. Mohammed O.M., A Short review on: Fishing boats used in Sudan Freshwater fisheries, *Bull. Environ. Pharmacol. Life Sci.*, 1(6), 93-99 (2012).
5. Moore, G. and Jennings, S. 2000. Commercial Fishing (the wider ecological impacts). Blackwell Science Ltd., Oxford. 72pp.
6. Nédélec, C. and Prado, J. (eds.). 1989. FAO Catalogue of Small Scale Fishing Gear. Blackwell Science Ltd., Oxford. 224pp.
7. Ramaneswari K and Sridhar D. (2015) A typical study on fish faunal biodiversity of Thotapalli and Gotta reservoirs of Vizianagaram and Srikakulam districts of Andhra Pradesh, India. *International Journal of Recent Scientific Research Research* Vol. 6, Issue, 4, pp. 3529-3533.
8. Sakhare V.B., Reservoir Fisheries and Limnology, Narendra Publishing House, New Delhi (2007).
9. Singha, M. (1977) Inland fishery Resources of India and their utilization in Fisheries enhancement of small reservoirs and flood plain lakes in India, Ed V.V. Sugunan and M. Singha, Bull 75, CIFRI, Barrackpore Pp 167-179.
10. Sreenivasan, A. (1966), Limnology and tropical impoundment I. Hydrobiological features and fish population in Standley Reservoir, Mattur Dam Int. Revue Ges Hydrobiol. 51:295-306.
11. Sugunan V.V., Reservoir Fisheries of India, Fisheries Aquaculture Department, FAO Corporate Documentary Repository, FAO, Rome (1995).