



## OUR HERITAGE

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ONE DAY NATIONAL CONFERENCE ON RECENT ADVANCES IN SCIENCES

Held on: 13<sup>th</sup> February 2020.

Organized by: Department of PHYSICS, CHEMISTRY, MATHEMATICS, BOTANY & ZOOLOGY Shivaji Arts, Commerce and Science College Kannad. Dist: Aurangabad (MS)



## STUDY ON ZOOPLANKTON DIVERSITY OF ANJANA PALSHI RESERVOIR – PISHOR TQ. KANNAD, DIST. AURANGABAD.

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### ABSTRACT:

Zooplanktons are commonly small animals found in fresh and marine water through out the world. They plays an important role in energy transfer in aquatic ecosystem. The primary productivity of an aquatic ecosystem directly related to the density of zooplanktons. Zooplankton community in an aquatic ecosystem composed of both Primary consumers and secondary consumers with immense diversity. Present study deals with the diversity of zooplankton found in Anjana Palshi reservoir – Pishor tq. Kannad, Dist. Aurangabad.

**KEY WORDS:** Zooplankton , Anjana palshi reservoir, etc.

### INTRODUCTION:

Zooplanktons are one of the most important biotic community affecting all the functional units of an aquatic ecosystem (Dadhick & Saxena,1999, Misal & Tangade 2013). The manmade water reservoir extensively used for irrigation, drinking fisheries and other domestic uses. All such activities affects the physicochemical parameters and nature of water and directly influence the diversity and amount of total biomass of the water reservoir. The qualitative and quantitative abundance of zooplankton in a lake are of remarkable importance for successful aquatic management as these are geographically diversified with difference in water bodies in similar geographical and ecological conditions. Nimbalkar & Pawar (2018).



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Zooplanktons acts as bioindicators of water quality Odum (1983) which is a recent and useful aspect of environment assessment ( Chandrashekhar & Kodarkar 1997, Walujkar, 2014) The zooplanktons are composed of both primary and secondary consumers. They also serve as food for many larvae of major carps (Jhingran, 1985). Zooplanktons are mainly composed of Rotifera, Cladocera, Copepoda and Ostracoda

### MATERIAL AND METHODS:

To study the zooplankton diversity the water samples were collected from various sites of Anjana Palashi reservoir and filtered with plankton net. Planktons were preserved in Lugol's Iodine and 70 % alcohol solution to maintain the fragile structure of animals. The planktons were observed under microscope (100x) and counted by using Sedge wick-Rafter chamber (Sedgwick, 1988).

### RESULTS AND DISCUSSION:

The collected samples were observed in laboratory and categorized in to following groups. a) Rotifera b) Cladocera c) Copepoda and d) Ostracoda . Of which Rotifera is dominant followed by cladocera, copepod and ostracoda.

Rotifera: These are microscopic, natural water purifier small animals. Rotiferans found dominant in this study.

Cladocera: These are known as water fleas commonly found in deep water and mainly serve as food for fish. These are minute crustaceans belonging to order Cladocera subclass Brachiopoda under subfamily Crustacea.

Copepoda: These are the group of animals of both freshwater and marine habitats. During the study copepod density found third in dominant.

Ostracoda: This group of animals are also free living small animals. The two species of this groups are found during present study.

Sr. No.	Group	Name of Zooplankton
1	Rotifera	<i>Branchionus forticula</i> .



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		<i>Branchionus quadridentatus</i>
		<i>Keratella tropica</i> .
		<i>Filinia longiseta</i>
2	Cladocera	<i>Daphnia carinata</i>
		<i>Daphnia magna</i>
		<i>Monia branchiate</i>
		<i>Monia affinis</i>
3	Copepoda	<i>Mesocyclops leuckarti</i>
		<i>Cyclops viridis</i>
4	Ostracoda	<i>Cypris proturba</i>
		<i>Cyclocypris globosa</i>

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