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## **DIVERSITY AND SEASONAL ABUNDANCE OF ZOOPLANKTON COMMUNITIES IN TWO SACRED TEMPLE TANKS OF PONDA TALUKA, GOA**

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### **ABSTRACT**

Zooplankton are good indicators of the changes in water quality, because they are strongly affected by environmental conditions and respond quickly to changes in water quality. Hence, qualitative and quantitative studies of zooplankton are of great importance. In the present study, qualitative and quantitative studies of zooplankton in two sacred temple tanks of Goa were carried out for one annual cycle. (Dec. 2009 to Nov. 2010). Present investigations revealed that 20 species of Zooplankton belonging to four major groups i.e., Rotifera (four spp.), Calanoid (seven spp.), Cyclopoid (four spp.) and Cladoceran (five spp.) were present. Densities as well as diversity of zooplankton were higher at Site-2 than Site-1. Among zooplankton, Copepod group was dominant at both the sites throughout the study period. Density of zooplankton during different seasons at both sites was as follows: Summer season > Winter season > Rainy season. Zooplankton dominated both the sites in summer season due to favourable growth conditions.

**KEY WORDS:** Density, Diversity, Seasonal abundance, Temple tank, Zooplankton