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## Proceedings of Extended Abstracts

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06-20

## TRACKING THE ROLE OF BENTHIC ORGANISMS IN THE REGULATION OF MICROBIAL CONTAMINATION IN SASTHAMKOTTA LAKE

MunishaMurali.S and Sheeba. S

Sree Narayana College, Kollam

\*Email: [munishamurali@yahoo.co.in](mailto:munishamurali@yahoo.co.in)

### Abstract

In recent years pollution in water resources have led to serious hazardous diseases. The quality of water therefore has a substantial value in the health management. Present study was based on the hypothesis that the benthic larvae on the bottom of the Sasthamkotta Lake purify the water. Therefore composition of aquatic benthic community was used as a tool in regulating the microbes in natural water. Sasthamkotta Lake is the main drinking water source of Kollam city, Chavara, suburban areas of Panmana, Sasthamkotta, West Kallada and Shooranadpanchayath. The hydrological factors were done as per the method of APHA (2005) and the microbiological parameters such as total bacterial count in water, sediment and benthic organisms as per the methods of IS 1622-1981 (Reaffirmed 2003) Edn 2.4 (2003-2005) and IS 5402:2002.

Physicochemical parameters of Sasthamkotta Lake were at optimum level. The microbial evidence revealed that the increasing bacterial load was in the order as benthic organisms > sediment > water. *E.coli* was little or absent in water. It was evident that the bacterial contamination was controlled by the mutual activity of the benthic communities. This exploration centered around the assumption opened material evidence that sediment-dwelling organism have important role in the purification of the lake water.

**Key words:** physicochemical, bacteria, benthic organisms, sediment