

BLUE GREEN ALGAL POPULATIONS  
OF SOME IRRIGATION TANKS IN  
ANURADHAPURA DISTRICT

A PROJECT REPORT PRESENTED

BY

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## Abstract

Blue –green algal study of irrigation tanks used by National Water Supply and Drainage Board was carried out from 2000-August to 2001-April, and the data will be useful for future studies and predictions. This study covered four reservoirs in the Anuradhapura District: Nuwarawewa, Tissawewa, Kalawewa and Thuruwilawewa. Monthly samples were collected and analysed quantitatively and qualitatively. Quantitative analysis of algae was done by the use of sedgwick-Rafter counting cell. Qualitative analysis for water for nitrate, phosphate and ammonia, was done after colour reaction with relevant reagents and colour intensity was measured by use of DR/2000 Spectrophotometer.

Most of the algal species observed, belong to potential toxin producing cyanobacterial, and they are dominant in surveyed reservoirs.

In this particular study, much attention paid was the Thuruwila tank because it is the water source for future expansion of Anuradhapura water supply. The Thuruwila tank showed the highest number of blue- green algal populations which can produce toxic substances.

During the study, an algal bloom was observed in the Parakrama Samudraya at Polonnaruwa ,which was highly populated with an *Anabaena sp.*

As toxin producing algal species are present in all the water bodies used by the NWSDB, Sri Lanka should have facilities to detect the extent of toxin levels in these water bodies, in order to ensure a supply of safe drinking water to its population.