

SECTION D

SOME ASPECTS OF MESOFAUNAL ECOLOGY OF TWO TEMPORARY PONDS

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The northern region of Sri Lanka especially the Jaffna peninsula is provided with a large number of ponds. Most of them are temporary, collect water during precipitation and have considerable potential for freshwater fish culture.

In this study two temporary ponds namely the Aariakulam and Regal pond were selected. The study commenced at the initial filling of the ponds during the North-East monsoonal rains (September-December) and concluded when the ponds were dry or nearly so during the dry season.

Weekly samples were collected and quantitative and qualitative plankton sampling performed. Samples were analysed to determine salinity, oxygen content and total nitrogen content: temperature and pH were measured in the field and the depth and the area of the two ponds were surveyed.

Regarding the quality of the zooplanktons all the observed organisms were common in both ponds. But their populations varied due to various chemical and physical conditions. In most instances the populations were found to be dependent on the other zooplanktons. In both ponds, the organisms composing the community may be divided into three major groups: those that enter at the first of the succession such as *Chlamydomonas*, diatoms, and various ciliates: organisms that form algal mat such as blue greens; and organisms that become dominant later, Rotifera, *Cyclops*, *Daphnia* Ostracoda.

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