

OBSERVATION OF SOME MESOFAUNA IN A  
TEMPORARY POND IN THE JAFFNA PENINSULA

N. Selvarajah, C. Balasundram  
Dept. of Zoology, University of Jaffna.

Mesofauna in Periyakovil Kulam, a temporary pond in the Jaffna peninsula, was studied from January 1987 to June 1987.

Water and soil analysis were done once a week, chemical and physical analysis were done once a month.

Samples were obtained by using a Plankton net, a mesh size 60 . The samples were taken at random at different depths. Soil samples were taken by a square shape metal box. It was dipped into the bottom region to make mud from a square bottom area. Then both samples, soil and water were analysed in the laboratory qualitatively.

Physical factors such as temperature of water and pH of water, and light penetration were determined. Light penetration was measured using a 'Secchi Disc'.

Salinity was determined by  $\text{AgNO}_3$  titration, dissolved oxygen was determined by Winkler's method. Carbon dioxide content and Nitrogen content were also determined by titrations. Mesocyclops leuckarti was observed during the full period of study from January to June. Moinadaphnia mcleayi was found from January to March. Stenocypris malcolmsoni was observed from April to June, and Conochilus unicornis was observed during the full period of study. Larva of Hyphydrus, larva of Sternolopus and Nymph of Ephemera sp. were also observed. In the soil sample, Chironomid larva, Tubifex worms and other annelid worms were observed.

Among physical factors, average temperature was  $30.45^\circ\text{C}$ . The pH ranged between 6.5 - 7.0, water was turbid during the period of study.

Among chemical factors, average salinity was 0.732 ppt, average  $\text{O}_2$  content  $1.210 \times 10^{-5}$  ppm, average  $\text{CO}_2$  content  $2.663 \times 10^{-5}$  ppm, average N content  $1.80 \times 10^{-6}$  ppm.

In this study, ecological succession was noted in animal communities due to the unstable environment.

#### References

- Fernando, C.H., (1973). "Guide to the freshwater fauna of Ceylon"  
Bull. Fish. Res. Stn. Sri Lanka. 1974, p .27.
- Selvarajah, N and Balasundaram, C (1986). "The distribution of copepods in some ponds in the Jaffna peninsula" Proceedings of the 42nd Annual Session of SLAAS 1986, pp.142
- Selvarajah, N. and Costa, H.H. (1979) The distribution of Anostraca and Conchostraca in the Jaffna peninsula. Bull. Fish. Res. Stn., Sri Lanka, Vol. 29, pp. 79-88

10th Dec. 1987 (Wednesday) 08.15 a.m. - 08.30 a.m.