D-12: Ecology and distribution of soil protozoa in the Bellanwila wetland

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Protozoa are the third most abundant group of organisms in soil. Environmental conditions influenced the types of animal which occur in any given soil and also their behaviour, but these conditions vary, with place and time.

The present investigation into the protozoan population and distribution in a wetland ecosystem, revealed that the wetland soil facilitates a large number of species to live. 29 species of protozoa were reported during this study period. Of them, 8 species were amoebae, 14 species were ciliates and 7 species were flagellates. *Arcella* sp. was the most widespread, among amoebae present in all the soil environments. Of the flagellates, *Astasia* sp. was the predominant type. *Colpoda* sp. was the commonest ciliate.

This investigation was carried out by analysing various physical, chemical and biological properties of wetland soil. Of the measured abiotic factors, temperature and soil moisture exerted general effects but pH and other chemical parameters showed no direct correlation. Moisture conditions favoured their existence with the appearance of additional species. Also high content of organic matter in wetland soil influenced the growth of testaceans. A seasonal variation of protozoa both in number and types was seen.