

Seasonal Variations of Diatoms Epiphytic on the Roots of Water Hyacinth [*Eichhornia crassipes* (Mart.) SOLMS]

Parminder Kaur and Naresh K. Mehra

Limnology Unit, Department of Zoology, University of Delhi, Delhi 110 007, India

KEYWORDS Epiphytic Diatoms. Water Hyacinth. Seasonal Variations. Water Quality

ABSTRACT In this investigation, an attempt has been made to study the seasonal variations of epiphytic microflora, especially diatoms, attached, to the adventitious roots of water hyacinth growing lotic waters polluted by urban and agro-industrial wastes. Epiphytic algae were largely represented by Bacillariophyceae, Chlorophyceae, Euglenophyceae, and Cyanobacteria in the decreasing order of abundance. A total of 59 genera belonging to above algal groups were recorded. Although, qualitatively diatoms ranked second to green algae, quantitatively their relative percentage to total algal population was the highest throughout the period of investigation and attained maxima during spring. The dominant forms were *Navicula*, *Nitzschia*, *Synedra*, *Fragilaria*, *Cyclotella* and *Gomphonema* at various sites. Data were subjected to analysis of community parameters viz., Shannon-Weiner index (H') and Morisita's similarity index, as also correlations between the epiphytic diatoms and environmental variables.