

## ABSTRACT

The present study work was carried out to study a contribution to the taxonomic studies on the Algal Flora of Punjab. The freshwater algal samples were collected from different northern, southern, eastern, western, salt range and central areas of the Punjab from different types of water reservoirs like rivers, dams, canals, lakes, ponds (stagnant and waste water), tube well, marshes, puddles, fish farms and stagnant field water. Four hundreds and fifteen species of planktonic, epiphytic, epizootic, edaphic, episammic, epilithic and terrestrial freshwater algae belonging to eight phyla one hundred and one genera have been collected from various freshwater habitats of Punjab during July 2008-September 2010. One hundred and five species belonging to twenty nine genera of cyanophyta, one hundred and ninety nine species belonging to thirty five genera belonging to chlorophyta and euglenophyta, one hundred and four species belonging to thirty two genera of bacillariopyta, only four species belonging to only two genera of tribophyta and only three species belonging to only three genera of pyrrhopyta were found from freshwater of Punjab. They have been morphologically investigated, taxonomically determined and described on the basis of such characters. Different ecological parameter were also noted from the sampling freshwater algae reservoirs like pH, temperature, type of water body, flow of water, water turbidity and colour, to investigate the tolerance level of different species at extreme condition.

Greatest species diversity was exhibited by the collection made at northeastern, salt range and southern areas of the Punjab. The investigated blue green algae were mostly found to grow in summer seasons but the member of green algae in winter and spring seasons. The great diversity of chlorophyta was found in northern and eastern areas but the diversified members of bacillariophyta were found mostly in salt range areas of the Punjab. Investigated that the blue green algae was cosmopolitan in terrestrial and planktonic habitat, but the members of the pyrrhopyta was found mostly in brackish water of salt range areas of the Punjab. Overall study concluded that the

northern and salt range areas of the Punjab were rich in diversity with fresh water algae which belonging to different phyla.