

## ABSTRACT

Two hundred and sixty nine species of algae belonging to six phyla, two classes, fifteen orders, thirty three families and seventy five genera have been collected from various freshwater habitats of Pakistan from Gujranwala, Gujrat, Narowal and Sialkot in the province of Punjab, during March 2013 to August 2015. All species have been morphologically and cytologically investigated. All were taxonomically identified and described on the basis of their characteristics according to the recently proposed classification (Shameel, 2001, 2012).

From the taxonomic studies of algae from North-east Punjab, Phylum Cyanophycota observed with twenty eight genera and 120 species in two orders that were found to be more prevalent in algal diversity (45.60%) than the phylum Bacillariophyta, which included eighteen genera and forty species in two orders and thus was smaller phylum (14.87%) in algal diversities than Cyanophycota diversity. The result of that Nostocophyceae (31.59%) observed most highly distributed class with single order Nostocales and 6 families with 19 genera and 85 species as compare to the other Cyanophycota class chroocophyceae (13.02%) with 09 genera and 35 species (Table 1).

Phylum Volvocophycota revealed with thirteen genera and forty three species in three orders with 15.85% than the phylum Euglenophycota, which included four genera and twenty three species in one order with 8.55% taxonomic distribution in north-east, Punjab, Pakistan. Whereas Phylum Chlorophycota revealed with eleven genera and twenty six species in six orders with 13.38% than the Phylum Vaucheriophycota that included 2 genera and seven species in two orders (Table 2).

Great proportion of Cyanophycota (45.60%) was made from north-east Punjab, Pakistan where Phylum Volvocophycota shown 15.98% of algal distribution. It was followed by phylum Bacillariophycota (14.87%), Phylum Chlorophycota (13.38%), Phylum Euglenophycota (8.55%) and Phylum Vaucheriophycota (2.60%) respectively.