

ABSTRACT

Freshwater algae are well-known for being communities made up of members from numerous taxonomic groups. The diversity of algal genera can also be quite distinct. Individual species that are best adapted to this combination of climatic and environmental variables develop communities of protected water bodies as a result of evolution. Algal samples were collected from different parks of district Lahore from October to December 2021. Altogether fifty six algal species were identified. The microscopic analysis of these samples revealed that these all the identified species of algae belong to three kingdoms; Monera, Protista and Protocista. Kingdom Monera included single Phylum Cyanophycota containing 2 classes, 2 orders, 2 families, 7 genera and 15 species i.e. *Aphanocapsa pulchra* (Kütz.) Rabenh, *Gloeocapsa stegophila* Rabenh, *Chroococcus varius* A. Br, *C. turgidus* (Kütz.) Nag, *C. minutus* (Kützing) Nägeli and *Microcystis robusta* (Clark) Nygaard, *Oscillatoria terebreformis* C. A. Agardh, *O. curviceps* Ag. Gomontt, *O. limosa* Ag. Gomontt, *O. subbrevis* Schmidle, *Phormidium stagnina* Rao, C. B, *P. anomala* Rao, C. B, *P. lucidum* Kützing, *Lyngbya diguetii* Gomontt and *L. polysiphoniae* Fremy. Kingdom Protista consisted of 3 phyla; Volvophycota, Euglenophycota and Bacillariophycota. Phylum Volvophycota included 1 class, 1 order, 1 family, 1 genus and 12 species i.e. *Cosmarium tumidum* P. Lundell, *C. broomei* Thwaites, *C. botrytis* Meneghini, *C. pseudomenghinii* Foster, *C. quinarium* Schmidle, *C. pulchellum* Turner, *C. subtumidum* Norstedt, *C. rugosum* Turner, *C. sublateriundatum* West, *C. scotii* Croasdale, *C. subcostatum* Nordstedt and *C. subcirculare* Turner. Phylum Euglenophycota comprised of only one class, one order, a family, single genus and 2 species i.e. *Trachelomonas dybowskii* Drezepolski and *T. abrupta* Ehrenberg. Phylum Bacillariophyta consist of one class, one order, 6 families, 7 genera and 7 species which are *Cymbella gracilis* (Rabenhorst) Cleve, *Navicula mournei* Bory, *Gyrosigma attenuatum* (Kütz.) Rabenh, *Nitzschia sigmoidea* (Nitzsch.) W. Smith, *Pinnularia manausensis* Ehrenberg, *Rhoicosphenia abbreviata* Grunow and *Achnanthes scotica* Bory. Phylum Chlorophycota with 4 classes, 4 orders, 4 families, 4 genera and 20 species i.e. *Ulothrix variabilis* Kützing, *U. aequalis* Kützing, *U. subconstricta* G. S. West, *U. subtilissima* Kützing, *U. cylindricum* Prescott, *Spirogyra rectispira* Meriman, *S. calearea* Transeau, *S. crassa* Kützing, *S. subsalsa* Kützing, *S. condensata* Kützing, *S. fuellebornei* Schmidle, *S. fluvialtilis* Schmidle, *S. aequinoctialis* G. S. West, *Rhizoclonium hookeri* Kützing, *R. crasspellitum* West and West, *R. hieroglyphicum* C. A. Agardh, *R. ramosum* Kützing, *Microspora pachyderma* Lagerheim, *M. floccosa* Thuret and *M. crassior* Hazen.