

ABSTRACT

The present study was based on the quantitative description and multivariate analysis of chasmophytes and ediphytes of Lahore city, growing out from the moist wall crevices and cracks of dilapidated, multi-storeyed as well as historical buildings, railway tracks, foot paths and road sides. For this purpose twenty stands of chasmophytic vegetation at different locations of the city were selected for sampling using 1×1m size quadrats and a total of 52 Chasmophytes belonging to 25 families included 37 herbs, 8 shrubs and 7 trees.

On the other hand, a total of 35 species of ediphytes belonging to 18 families were also recorded. The families Poaceae, Moraceae, Euphorbiaceae, Malvaceae, Brassicaceae, Amaranthaceae and Solanaceae were found including highest number of species. Moreover, five species of family Moraceae, i.e. *Ficus benghalensis* L., *Ficus elastica* Roxb., *Ficus glomerata* Roxb., *Ficus religiosa* Linn. and *Ficus glomerata* L. were frequently recorded on walls of buildings and *Ficus religiosa* Linn. was declared the most common ediphyte in the area. It was observed that ediphytes were growing along the pipe lines leakage, sewerage water and were also abundant near water tanks showing hydrophobic nature. These plants were causing rigorous damage to buildings due to penetrating root especially that of the members of Family Moraceae.

The agglomerative clustering technique applied on the IV input data identified five major communities of chasmophytes such as *Dactyloctenium - Setaria* community, *Tribulus - Polygonum* community, *Malvastrum-Calotropis-Ficus* community, *Boerhavia-Amaranthus- Morus* community and *Alternanthera - Xanthium- Portulaca* community. The five groups of vegetation that emerged from cluster analysis were found associated with particular edaphic variables such as electrical conductivity and soil organic matter, particularly important in plant association constitution and distribution.

The results of biological spectrum exposed that Chasmophytic vegetation was characterized by the predominance of therophytes (28 spp., 53.8%) followed by hemicryptophytes (10 spp., 19.23%), megaphanerophytes (7 spp., 13.46%), chamaephytes (5 spp., 9.61%) and nanophanerophytes (2 spp., 3.84%) respectively.