ABSTRACT

The city of Chandigarh popularly known as "The City Beautiful" lies at the foot of Siwalik hills. It is spread over an area of 114 sq. kms. It lies at 30° 44'N latitude, 76° 53'E longitude with an average altitude of 362m (m.s.l.). The annual rainfall varies from 85-125cm. Nearly 75% of this occurs during the monsoon period. The average maximum temperature is 44°C during the summers and minimum 1.7°C during the winters. The location of Chandigarh is unique as it lies in the foot hill region and is also adjacent to the plains of north India. As such it continues the vegetation of the foot hills and the north Indian plains. A brief idea of climate of the area have been given. The data of the climate is based on a study of three years i.e. 1991-93. The detailed map of the region under study have also been added.

No comprehensive "Angiospermic Weed Flora" is available for this region exclusively. A check-list was prepared by Sharma and Sharma during the years 1966-68. This list includes both cultivated plants and wild plants. Trees, shrubs and other groups of plants were also listed by these authors. It is almost 25 years ago that these lists were prepared. These intervening years have witnessed a lot of change in the vegetations of this region both in context and content. These changes and the absence of a flora for this region was a great hinderance in any meaningful study of the plant wealth. To remove this lacuna, the present investigation were started. This has resulted in the preparation of the present "Angiospermic Weed Flora of Chandigarh". This is the result of three years of intensive and extensive exploration of the city for the wild angiospermic plants. This extensive collection work was followed by an exhaustive study of the specimens in herbaria of adjacent places (DD, Herbarium of Forest Research Institute, Dehradun; PUN, Herbarium of Punjabi University, Patiala; and PAN, Herbarium of Panjab University, Chandigarh). Reports in relevant literature have also included to make the work comprehensive.

The present "Angiospermic Weed Flora" lists 490 species of angiosperms covering 273 genera belonging to 63 families. Basically Hooker's system (1872-97) of classification has been followed but the nomenclature of some of the families
has been changed according to the International Code of Botanical Nomenclature. Out of these 325 species have been personally collected. The remaining could not be collected and presently some of these have become extinct from this area. The specimen of the species not collected but included in the literature have also been studied and their identities checked. The illustrations in the form of line-drawings have been given, almost half of the plants described. All collected specimen have been deposited in the herbarium, Department of Botany, Panjab University, Chandigarh (best accession numbers of the plants, PAN).

To aid ready field identification artificial keys have been provided for the families, genera and species. For each family, genera and species authority and complete citation is also given. For every species description has been provided. Its complete citation and relevant synonymy has been given. After the description the flowering and ecology, fruiting seasons and its herbarium accession numbers (PAN) have been given. The global distribution of the species studied have also been mentioned. The figure numbers of the plates have been given at the end of the description. The results of the present study are discussed in the end. This include a comparative analysis of The Weed Flora covering its composition. The habit form and growth pattern have also been discussed. The list of PAN numbers and plates have been given at the end in form of Appendix I & II.

The most dominating families among the dicots are Asteraceae (Compositae) with 57 species and among the monocots is Poaceae (Gramineae) with 82 species. 31 families are represented by only a single genus, while by 2 genus in 5 families, by 3 genus in one family and 26 families by more than 3 genus.

The present study revels that 250 species are abundant and 240 species are rare. Out of these 347 species, belonging yo 53 families are dicots and 143 species, belonging to 10 families are monocots. Of these 35 species are armed weeds, having spines, thorns or hooks etc. on different plant parts. About 23 species are climbing weeds. To the north of Chandigarh is a man-made lake. In this area and the Cho traverses through Sectors 3, 10, 16 and 23, 45 species of aquatic and semi-aquatic weeds could be collected.