

ABSTRACT

The present research work is a contribution to the fern flora of the Punjab, Northern areas and Mad Jammu & Kashmir. During the field survey a total of 51 species belonging to 27 genera and 17 families were ethnobotanically and taxonomically described, preserved on herbarium sheets and deposited in Dr. Sultan Ahmad Herbarium, GC University, Lahore, Pakistan, after pasting voucher numbers.

A dichotomous key was prepared for characterization and identification of the families, genera and species. Dryopteridaceae was found to be the largest family with 11 species belonging to 3 genera (*Cyrtomium caryotideum*, *C. falcatum*, *C. macrophyllum*, *Dryopteris erythrosora*, *D. fihix-mas*, *D. ramosa*, *D. stewartii*, *Polystichum aculeatum*, *P. lonchitis*, *P. nigropaleaceum* and *P. yunnanense*). The second largest family was Athyriaceae with five species of five genera (*Athyrium mackinnoni*, *Cystopteris fragilis*, *Diplazium esculentum*, *Hypodematium crenatum* and *Gymnocarpium robertianum*), each genus representing a single species. Thelypteridaceae, Adiantaceae, Aspleniaceae and Sinopteridaceae were represented by 4 species each, belonging to 3 (*Ampelopteris pro 1(fera)*, *Pseudophegopteris levin gel*, *Thelypteris dentata* and *T. erubescence*) 1 (*Adiantum capillus-veneris*, *A. caudatum*, *A. trapeziforme* and *A. venustum*) 1 (*Asplenium adiantum-nigrum*, *A. ceterach*, *A. pekinense* and *A. trichomanes*) and 1 (*Cheilanthes pteridioides*, *C. feei*, *C. farinosa* and *C. albomarginata*) genera, respectively. Pteridaceae and Oleandraceae were the families represented by 3 species each, belonging to 2 (*Pel nitidula*, *Pteris cretica* and *P. vittata*) and 1 (*Nephrolepis biserrata*, *N cord* and *N. exaltata*) genera, respectively. Dennstaedtiaceae was represented by 2 genera and each genus comprised of a single species (*Microlepia strigosa* and *Pteridium aquilinum*), whereas Cryptogrammeaceae, Marsileaceae and Salviniaceae were represented by a single genus and 2 (*Onychium con tiguum* and *O. japonicum*), 2 (*Marsilea minuta* and *M. quadrifolia*) and 2 (*Salvinia auriculata* and *S. molesta*) species, respectively. The remaining families such as Azollaceae, Blechnaceae, Lygodiaceae, Osmundaceae and Polypodiaceae were represented by a single genus and a single species each, i.e. *Azolla pinnata*, *Woodwardia unigemmata*, *Lygodium japonicum*, *Osmunda claytoniana* and *Lepisorus clathratus*, respectively.

Most of the above mentioned fern species were present as wild in the hilly areas of the Punjab, Northern areas and Azad Jammu & Kashmir, some in the botanic gardens, or for sale in various commercial nurseries. A few were found as aquatic ferns in wild, such as *Azolla* sp., *Marsilea* spp. and *Salvinia* spp.

The ferns thus reported were ethnobotanically important, being used by the local people as food or medicine to treat various ailments and ornamental plants.