

ABSTRACT

The present taxonomic study on Bryophytes and Pteridophytes of District Swat, Khyber Pakhtunkhwa, Pakistan was carried out during 2013 to 2016. Frequent field visits were arranged to far and wide localities of the study area. In total 38 species belonging to 31 genera and 22 families of Bryophytes, while 81 of 30 genera and 15 families of Pteridophytes were collected, identified, preserved and submitted to enrich Dr. Sultan Ahmad Herbarium and Prof. Kashyap Museum of GC University, Lahore. Family Marchantiaceae of Bryophytes was found to be the largest among all the families, representing 3 genera and 5 species, while Aytoniaceae, Brachytheciaceae, Bryaceae and Polytrichaceae were the second largest families, representing 2 genera and 3 species each, whereas Bartramiaceae and Mniaceae represented 2 genera and 2 species each; Fissidentaceae and Hypnaceae 1 genus and 2 species each; Aneuraceae, Bryoxiphiaceae, Conocephalaceae, Dicranaceae, Ditrichaceae, Funariaceae, Hypopterygiaceae, Pelliaceae, Plagiochilaceae, Porellaceae, Radulaceae, Ricciaceae and Targioniaceae by 1 genus and 1 species each. In Pteridophytes, family Dryopteridaceae representing 3 genera and 21 species was the largest and family Pteridaceae representing 5 genera and 12 species the second largest, while family Aspleniaceae represented 2 genera and 11 species, Athyriaceae 3 genera and 6 species, Equisetaceae 1 genus and 6 species, Adiantaceae 1 genus and 5 species, Thelypteridaceae 4 genera and 5 species, Dennstaedtiaceae and Woodsiaceae 2 genera and 3 species each; Cystopteridaceae 2 genera and 2 species, Marsileaceae 1 genus and 2 species, and Blechnaceae, Polypodiaceae, Salviniaceae and Selaginellaceae 1 genus and 1 species each. Twenty-six species of Bryophytes were the new record from District Swat, and nine new to Pakistan. Similarly, 41 species of Pteridophytes were reported for the first time from District Swat and 14 species for the first time from Pakistan. Out of the total species of Bryophytes, 4 were abundant, 3 were frequent, 10 were infrequent, 14 were sparse and 7 were rare. Similarly, in Pteridophytes, 7 species were abundant, 8 were frequent, 16 were infrequent, 23 sparse and 27 rare. The plant inventory of Bryophytes and Pteridophytes was prepared. The data includes keys based on simple morphological and easily distinguishable characters to facilitate the process of identification, 142 colored photographs (36 Plates) of plants, Tables on species distribution maps, distribution range of species, and data on ethnomedicinal uses of these plants.

Description of each species includes botanical name, synonyms, conservation threats status (as per IUCN guidelines), habitat, altitude, distribution, botanical description, medicinal uses, and a map of the study area. For the first time, such a detailed scientific, ethnomedicinal systematic approach has been taken for Bryophytes and Pteridophytes in the present study area i.e. District Swat. The present work provides data to facilitate the process of identification which may be helpful to the local city District Government, the students and researchers of Ecology, Plant Conservation, Biodiversity, Ethnobotany, Genetics and Ethnopharmacology etc.