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MEDICINAL PLANTS OF USHERAI VALLEY, DIR, NWFP, PAKISTAN

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Abstract

This research is based on the results of an ethno-botanical research conducted in Usherai Valley. The main objective was to enlist the wealth of medicinal plants. In total 50 species, belonging to 32 families of wild herbs, shrubs and trees were found to be used as medicinal plants by the inhabitants in the valley.

Introduction

Usherai Valley is situated in the east side of Dir. It is 70km away from Timergara on the main Dir Chitral road. The area is fertile for agriculture. The total area covered by this Valley is 3992.67 hectares. The major part of the Usherai Valley is hilly. The whole area is generally covered with forests. The climate is extremely cold in winter and slightly warm in summer. The mean maximum and minimum temperature in the month of January has been recorded as 6.22^{o}C and -2.39^{o}C respectively (Ghafoor, 2002). The research area is rich with medicinal plants and the local people of the area widely use them as a remedy for various ailments. This remote area was selected to revive the old tradition because in past there was deficiency of doctors and the Hakims resorted to different medicinal plants as a treatment to different diseases. (Arshad, 1999; Shinwari, 2002-2003).

The eastern medicine practiced in Pakistan comprises of three systems Chinese, Ayurvedic and Greco Arabic. The recipes of medicines used in these systems are derived from both organic and inorganic sources. The knowledge of drugs goes back to prehistoric times. Records of ancient civilizations show that a considerable number of drugs, used by modern doctors, were already in use of Egyptians, Babylonians, Greeks, Romans, Chinese and people of the subcontinent (India and Pakistan). (Khan, 1991).

Materials and Methods

Regular study trips were made to representative areas and collections were completed in their flowering season from March 2006- 2007. During these trips, different plants were collected, dried, documented and were identified both by comparing them with herbarium specimen and with the help of Flora of Pakistan. (Stewart, 1967, 1982). Specimen sets were given to the Herbarium of Islamia College University Peshawar and herbarium of Shaheed Benazir Bhutto University (one each) for future reference. Through a questionnaire, medicinal plants usage data was collected from local people and Hakims that practice the medicine regularly.

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Table 1. Botanical names, Local names, Families and Medicinal uses of different Plant s pecies distributed in the research area.

#	Botanical name	Local name	Family	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.	*Aconitum chasmanthum* Stapf.exHolmes	Zaharmora	Ranunculaceae	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+	+
2.	*Aconitum heterophyllum* Wall. ex Royle	Sarba wali	-Do-	-	+	+	-	-	-	-	-	-	-	-	-	-	+	+	+	+	.	.
3.	*Adonis aestivalis* L.	Birdeye	-Do-	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
4.	*Ajuga bracteosa* Wall. ex Benth.	Khawagabouti	Lamiaceae	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.	*Acacia modesta* Wall.	Palosa	Mimosaceae	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.	*Ammi visnaga* L.	Spairkai	Apiaceae	+	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
7.	*Artemisia vulgaris* L.	Tarkha	Asteraceae	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-
8.	*Berberis lycium* Royle	khawaray	Berberidaceae	+	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-
9.	*Calotropis procera* (Ait.) Ait.f.	Spulmay	Ascelpiadaceae	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
10.	*Clematis orientalis* L.	Chengenwala	Ranunculaceae	-	-	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-
11.	*Cannabis sativa* L.	Bhang	Cannabaceae	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.	*Caltha alba* jacq.ex Camb	Marygold	Ranunculaceae	-	-	+	-	-	-	+	+	-	-	+	-	-	+	-	-	-	-	-
13.	*Cynodon dactylon* L.	Kabal	Poaceae	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.	*Convolvulus arvensis* L.	Prewatay	Convolvulaceae	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
15.	*Carthamus oxyacantha* M.B.	Kareeza	Asteraceae	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
16.	*Calendula officinalis* L.	Zare Gule	Asteraceae	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-
17.	*Capsella bursapastoris* L.	Bumbsa	Brassicaceae	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
18.	*Chenopodium album*	Sarmay	Chenopodiaceae	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
19.	*Crocus sativa* L.(cultivated)	Zafran	Iridaceae	-	-	-	+	+	-	+	-	-	-	-	-	+	-	+	-	-	-	-
20.	*Datura stramonium* L.	Bhatura	Solanaceae	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
21.	*Dodonaea viscosa* (L.) Jacq.	Ghuraskay	Sapindaceae	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
22.	*Eruca sativa* Mill.	Jomama	Brassicaceae	+	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-		-	-
23.	*Alnus nitida* (spach) Endl.	Gairy	Betulaceae	+	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.	*Euphorbia helioscopia* L.	Mandano	Euphorbiaceae	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
25.	*Ficus carica* L.	Inzar	Moraceae	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-
26.	*Fumaria indica* (Hausskn.) Pugsley	Papra	Fumariaceae	+	+	-	-	-	-	-	+	-	+	+	-	-	-	-	-	-	-	-
27.	*Justacia adhatoda* L.	Baikar	Acanthaceae	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-

Table 1. (Cont'd.).

#	Botanical name	Local name	Family	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
28.	*Juglans regia* L.	Ghuz	Juglandaceae	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.	*Melia.azedarach* L.	Bikyana	Meliaceae	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
30.	*Malva neglecta* Wall.	Panerak	Malvaceae	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-
31.	*Morus alba* L.	Baidana	Moraceae	-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-
32.	*Mentha arvensis* L.	Pudinah	Lamiaceae	+	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-
33.	*Mentha longifolia* L.	Enalay	Lamiaceae	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34.	*Mallotus philippensis* Mule.	Kambela	Euphorbiaceae	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-
35.	*Nerium oleander* L.	Gandery	Apocynaceae	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
36.	*Nasturtium officinale* R. Br.	Tarmira	Brassicaceae	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
37.	*Otostegia limbata* (Benth.) Boiss.	Spin Azgy	Lamiaceae	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38.	*Olea ferruginea* Royle	Khuna	Oleaceae	+	+-	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
39.	*Oxalis corniculata* L.	Threwaky	Oxalidaceae	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
40.	*Punica protopunica* L.	Anangorey	Punicaceae	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
41.	*Pinus roxburghii* Sargent	Nakhtar	Pinaceae	+	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42.	*Punica granatum* L.	Anar	Punicaceae	-	+	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-	-	-
43.	*Riccinus communis* L.	Aranda	Euphorbiaceae	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
44.	*Salvia moorcroftiana* Wall.	Khargug	Lamiaceae	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
45.	*Solanum nigrum* L.	Kachmachoo	Solanaceae	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-
46.	*Taraxicum officinale* Weber	Zear-Gulay	Asteraceae	-	-	+	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-
47.	*Verbascum thapsus* L.	Khardug	Scrophulariaceae	-	+	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-
48.	*Ziziphus nummularia* (Burm.f.) Wight	Markhanari	Rhamnaceae	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
49.	*Zanthoxylum armatum* DC.	Dambara.	Rutaceae	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
50.	*Zizyphus oxyphylla* Edgew.	Walaney	Rhamnaceae	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-

Legend: 1: Diuretic, 2: Astringent, 3: Tonic, 4: Expectorant, 5: Stimulant, 6: Anthalmintic, 7: Antispasmodic, 8: Purgative, 9: Emollient, 10: Laxative, 11: Anti-Dyspepsia, 12: Anti-Diarrheal, 13: Carminative, 14: Febrifuge, 15: Aphrodisiac, 16: Anti-Inflammatory, 17: Antiperiodic, 18: Anti Diabetic, 19: Antirheumatic

Results and Discussion

The research revealed that local folk utilize 50 species of plants, belonging to 32 families for various purposes (Table 1). The people of the valley are generally ignorant about the medicinal and economic importance of these plants. Out of the 50 medicinal plants, only 30 species were known to the local people and the rest of the species of high medicinal and economic values were completely unknown to the local community of the area. (Ahmad, 2000; Rehman and Ghafoor, 2002).

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