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MEDICINAL PLANTS OF TIMERGARA VALLEY DIR, PAKISTAN

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ABSTRACT

Timergara valley has diverse habitats. A total of 44 species were documented in Timergara valley, out of which 13 plants are used as diuretic, 14 astringent, 4 tonic, 2 expectorant, 10 stimulant, 6 anthalmintic, 9 antispasmodic, 7 purgative, 5 emollients, 6 laxative, 3 antidyspepsia, 8 antidiarrheal and 2 carminative. The present study reports the ethno medicinal details of the selected plants.

Key-words: Medicinal plants, ethnobotany, NWFP, Timergara, Dir, Pakistan.

INTRODUCTION

Timergara Valley is located between 34° 48/ North latitude and 71° 53/ East longitude. The area is bounded by district Dir (Upper) in the North, in the West by Bajauar Agency and Jandool Sub-division. In the East by district Swat and Malakand Agency in the South. The total area covered by this Valley is 7992.67 hectares. The major part of the area is hilly. The northern part is generally covered with forests. The river panjkora flows north to south. The climate is some what cold in winter and warm in summer. The mean maximum and minimum temperature in the month of January has been recorded as 11.22°C and - 2.39°C, respectively (Anonymous, 1998; Rehman and Ghafoor, 2002). The research area is rich in 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 shortage of allopathic doctors Hakims resorted to medicinal plants as treatment to different disease. (Hussain, 1987; Sher, 1998; Said, 1996; William and Ahmad, 1999; Arshad and Akram, 1999; Shinwari, 2002, 2003).

MATERIALS AND METHODS

Regular study trips were made to representative areas in the valley and collections were completed in flowering season from March 2004- 2005. The plants were dried, documented and were identified both by comparing them with herbarium specimens and with the help of flora of Pakistan. (Stewart, 1967, 1982; Ali and Qaiser (eds), Nasir and Ali (eds) 1970 – 2004; Choudhary *et al*., 2000). Specimen plants were given to the Herbarium Islamia College Peshawar and herbarium of Campus II University of Malakand (one each) for future reference. Through a questionnaire, medicinal plant usage data was collected from local people and hakims that practice the medicine regularly. Hussain (1987), Said (1996), Ahmad (2000) were important references on medicinal plants.

RESULTS AND DISCUSSION

The medicinal plants collected from the area were of 44 belonging to 29 different families (Table 1). Out of these species 42 were dicotyledonous, one monocotyledonous & one gymnosperm. Lamiaceae was the leading family with 5 species followed by Astraceae having 4 species. Brassicaceae and Euphorbiaceae each had 3 species. Moraceae, Punicaceae, Apiaceae and Solanaceae had 2 species each. While Poaceae, Acanthaceae, Berberidaceae, Convolvulaceae, Cannabaceae, Oleaceae, Sapindaceae, Myrtaceae, Meliaceae, Apocynaceae, Pinaceae, Scrophulariaceae, Rutaceae, Mimosaceae, Juglandaceae, Fumariaceae, Chenopodiaceae, Malvaceae, Rhamnaceae, Oxalidaceae and Ascelpiadaceae have one species each. A total of 44 species were collected and documented from research area out of these 13 plants were used as diuretic, 14 astringent, 2 expectorant, 4 tonic, 10 stimulant, 5 emollient, 6 laxative, 9 antispasmodic, 7 purgative, 3 dyspeptic, 8 diarrhea, 9 anthalmintic and 2 carminative. (Hussain, 1987; Nasir *et al.*, 1970-2004; Said, 1996; Ahmad, 2000). Plants such as *Ammi visnaga*, *Coriandrum sativum*, *Capsella bursapastoris*, *Eruca sativa*, *Ficus carica*, *Fumaria indica*, *Mallotus philippensis*, *Olea ferruginea*, *Pinus roxburghii*, *Punica granatum*, *Taraxicum officinale and Verbascum thapsus* are multipurpose medicinal plants being used in more than three medicinal ways. *Fumaria indica* is very important in sense that it has not less than 5 uses.It is diuretic, astringent, purgative and laxative. It is anti-dyspeptic also.

Table No. 1 Botanical names, Local names, Families and Medicinal uses of different Plant species distributed in the research area.

#	Botanical Name	Local Name	Family	1	2	3	4	5	6	7	8	9	10	11	12	13
1	*Ajuga bracteosa* Wall. ex Benth.	Khawaga-bouti	Lamiaceae	+	-	-	-	+	-	-	-	-	-	-	-	-
2	*Acacia modesta* Wall.	Palosa	Mimosaceae	-	-	+	-	-	-	-	-	-	-	-	-	-
3	*Ammi visnaga* (Linn.) Lam.	Spairkai	Apiaceae	+	+	-	-	-	-	+	-	-	-	-	-	-
4	*Artemisia vulgaris* L.	Tarkha	Asteraceae	-	-	-	-	-	+	-	-	-	-	+	-	-
5	*Berberis lycium* Royle	khawaray	Berberidaceae	+	-	-	-	+	-	+	-	-	-	-	-	-
6	*Calotropis procera* (Ait.) Ait.f.	Spulmay	Ascelpiadaceae	-	-	-	+	-	-	-	+	-	-	-	-	-
7	*Cannabis sativa* L.	Bhang	Cannabaceae	+	-	-	-	+	-	-	-	-	-	-	-	-
8	*Coriandrum sativum* L.	Dhanyal	Apiaceae	+	-	+	-	-	-	-	-	-	-	+	-	-
9	*Cynodon dactylon* L.	Kabal	Poaceae	+	+	-	-	-	-	-	-	-	-	-	-	-
10	*Convolvulus arvensis* L.	Prewatay	Convolvulaceae	-	-	-	-	-	-	-	+	-	+	-	-	-
11	*Carthamus oxyacantha* M.B.	Kareeza	Asteraceae	-	-	-	-	-	-	-	-	-	+	-	-	-
12	*Calendula officinalis* L.	Zare Gule	Asteraceae	-	-	-	-	+	-	-	-	-	-	-	-	+
13	*Capsella bursapastoris* (Linn.) Medik	Bumbsa	Brassicaceae	+	+	-	-	-	-	-	-	-	-	-	+	-
14	*Chenopodium album* L.	Sarmay	Chenopodia-ceae	-	-	-	-	-	-	-	-	+	-	-	-	-
15	*Datura stramonium* L.	Bhatura	Solanaceae	-	+	-	-	-	-	+	-	-	-	-	-	-
16	*Dodonaea viscosa* (L.) Jacq.	Ghuraskay	Sapindaceae	-	+	-	-	-	-	-	-	-	-	-	-	-
17	*Eruca sativa* Mill.	Jomama	Brassicaceae	+	-	-	-	+	+	+	-	-	-	-	-	-
18	*Eucalyptus cammaldulensis* Schlcht	Lachi	Myrtaceae	-	+	-	-	-	-	-	-	-	-	-	+	-
19	*Euphorbia helioscopia* L.	Mandano	Euphorbiaceae	-	-	-	-	-	-	-	+	-	-	-	-	-
20	*Ficus carica* L.	Inzar	Moraceae	+	-	-	-	-	+	-	-	-	+	-	-	-
21	*Fumaria indica* (Hausskn.) Pugsley	Papra	Fumariaceae	+	+	-	-	-	-	-	+	-	+	+	-	-
22	*Justacia adhatoda* L.	Baikar	Acanthaceae	-	-	-	-	-	+	+	-	-	-	-	-	-
23	*Juglans regia* L.	Ghuz	Juglandaceae	-	+	-	-	+	-	-	-	-	-	-	-	-
24	*Melia azedarach* L.	Bikyana	Meliaceae	-	+	-	-	-	-	+	-	-	-	-	-	-
25	*Malva neglecta* Wall.	Panerak	Malvaceae	-	-	-	-	-	+	-	-	+	-	-	-	-
26	*Morus alba* L.	Baidana	Moraceae	-	-	-	-	-	-	-	+	-	-	-	+	-
27	*Mentha arvensis* L.	Pudinah	Lamiaceae	+	-	-	-	+	-	+	-	-	-	-	-	-
28	*Mentha longifolia* L.	Enalay	Lamiaceae	-	+	-	-	+	-	-	-	-	-	-	-	-
29	*Mallotus philippensis* Mule.	Kambela	Euphorbiaceae	-	-	-	-	-	+	+	+	-	-	-	-	-
30	*Nerium oleander* L.	Gandery	Apocynaceae	-	-	-	-	-	+	-	-	-	-	-	-	-
31	*Nasturtium officinale* R. Br.	Tarmira	Brassicaceae	-	-	-	-	-	+	-	-	-	-	-	-	-
32	*Otostegia limbata* (Benth.) Boiss.	Spin Azgy	Lamiaceae	-	+	-	-	-	-	-	-	-	-	-	-	-
33	*Olea ferruginea* Royle.	Khuna	Oleaceae	+	+-	+	-	-	-	-	-	-	+	-	-	-
34	*Oxalis corniculata* L.	Threwaky	Oxalidaceae	-	-	-	-	-	-	-	-	-	-	-	+	-
35	*Punica protopunica* L.	Anangorey	Punicaceae	-	-	-	-	-	-	-	-	-	-	-	+	-
36	*Pinus roxburghii* Sargent.	Nakhtar	Pinaceae	+	-	-	+	+	-	-	-	-	-	-	-	-
37	*Punica granatum* L.	Anar	Punicaceae	-	+	-	-	-	+	-	-	-	-	-	+	-
38	*Riccinus communis* L.	Aranda	Euphorbiaceae	-	-	-	-	-	-	-	+	-	-	-	-	-
39	*Salvia moorcroftiana* Wall.	Khargug	Lamiaceae	-	-	-	-	-	-	-	-	+	-	-	-	-
40	*Solanum nigrum* L.	Kachmachoo	Solanaceae	-	-	-	-	-	-	+	-	-	-	-	+	-
41	*Taraxicum officinale* Weber.	Zear-Gulay	Asteraceae	-	-	+	-	+	-	-	-	-	+	-	-	-
42	*Verbascum thapsus* L.	Khardug	Scrophularia-ceae	-	+	-	-	-	-	-	-	+	-	-	+	-
43	*Ziziphus nummularia* (Burm.f.) Wight.	Markhanari	Rhamnaceae	-	-	-	-	-	-	-	-	+	-	-	-	-
44	*Zanthoxylum armatum* DC.	Dambara	Rutaceae	-	-	-	-	-	-	-	-	-	-	-	-	+

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

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