

MEDICINAL PLANTS OF SHERINGAL VALLEY, DIR UPPER, KPK, PAKISTAN

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Abstract

Sheringal valley has diverse flora for the growth of high valued medicinal plants. A total of 62 species were collected belonging to 34 families. The local people of this area are being used these plants for 26 different types of local uses. The local medicinal uses include diuretic, astringent, tonic, expectorant, stimulant, anthelmintic, antispasmodic, purgative, emollient, laxative, anti-dyspepsia, anti-diarrhea, carminative, rheumatism, ophthalmic, narcotic, sedative, dysentery, jaundice, stomachache, ant asthmatic, epilepsy vomiting, anodyne, fever and anti cancer.

Introduction

Sheringal Valley is located between 35^o to 28^o North latitude and 72^o to 20^o East longitudes in Dir Upper. Altitude is approximately 2000m above the sea level. This is a small valley situated northern site of District upper Dir. Bajaur Agency and Jandool Sub-division is located toward the West while it is surrounded by District Swat and Malakand Agency from the East and South respectively. The total area covered by this hilly valley is 7992.67 hectares. The northern part is generally covered with forests. The River Panjkora flows north to south. The climate is somewhat 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 (Hazrat *et al.*, 2011). The research area is rich in medicinal plants and the local people of the area widely use them as a remedy for various ailments.

Plants growing in this area are natural resources with tremendous natural chemical compounds that are potentially rich for further exploitation by the human being for diverse purposes. But classically only those plants which have been in practice for the treatment of various ailments in a particular region or the plants which serve as a starting material for chemical or pharmaceutical synthesis are considered as medicinal plants (Hazrat *et al.*, 2007).

To rescue man from the clutches of diseases is a duty, sacred and obligatory, from the time immemorial. To achieve this there are several systems of medicine practiced in the World, every system with its own basic philosophy and therapeutics, but the common object is always alleviation of diseases (Shinwari and Gilani, 2003).

The dominant traditional system in Pakistan is the Unani system. In Pakistan there are 50,000 Hakims spread all over the country who run their clinic in rural and Urban areas and used medicinal plants. According to Unani system, Pakistan have rich flora in which 2,000 plants species are used for medicinal purposes but only 400 to 600 plant species are documented and analyzed for medicinal purposes (William and Ahmad, 1999). Beside Hakims the rural area dwellers use the plants on their own experiences. Due to the unavailability of allopathic doctors and modern medicine in the remote areas and up to some extent fears of side effects of modern medicine local people prefer traditional systems (Hussain and Sher, 2007; Said, 1996; Arshad and Akrum, 1999). The people of this remote area also have no alternative beside follow the old tradition since their was no doctor or Hakims. Therefore the purpose of the present study was to document plants of this area which are being used as medicine by the local people of this remote valley.

Materials and Methods

Regular study trips were made to representative areas during flowering season from March 2010- August 2011. 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; Ali *et al.*, 1970 – 2004; Choudhary *et al.*, 2000). Specimen were deposited in the Herbaria of Shaheed Benazir Bhutto University and Malakand University for future reference. Through questionnaire, medicinal plant usage data was collected from local people and hakims that practice the medicine regularly.

Results and Discussion

The medicinal plant collected from research area consists of 62 species belonging to 34 different families

(Table 1). Out of these 60 species were dicot, one monocot & one gymnosperm. The medicinal plants usage data showed that 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 anthelmintic and 2 plant species were as carminative. It is hoped that this documentation would be useful for future workers and pharmaceutical industries of the country.

Table 1. Check list of 62 medicinal plants collected from Sheringal valley

#	Botanical Name	Local Name	Family	Medicinal uses
1.	<i>Aconitum heterophyllum</i> Wall. ex Royle	Sarba wali	Ranunculaceae	2, 3, 6, 12, 14, 20, 26
2.	<i>Aconitum violaceum</i> Jacq. ex Stapf	Zahar mora,	Ranunculaceae	12, 14
3.	<i>Aquilegia pubiflora</i> Wall. ex Royle	Woudi Gwalae	Ranunculaceae	15
4.	<i>Caltha alba</i> Camb.	Makhanpath	Ranunculaceae	7, 17
5.	<i>Atropa accuminata</i> Royle ex Miers	Bargak	Solanaceae	1, 16, 17, 24, 26
6.	<i>Ajuga bracteosa</i> Wall. ex Benth.	Khawagabouti	Lamiaceae	1, 4
7.	<i>Acacia modesta</i> Wall.	Palosa	Mimosaceae	3
8.	<i>Ammi visnaga</i> (Linn.) Lam.	Spairkai	Apiaceae	1, 2, 7
9.	<i>Artemisia vulgaris</i> L.	Tarkha	Asteraceae	6, 11
10.	<i>Berberis lyceum</i> Royle	Khawaray	Berberidaceae	1, 5, 7
11.	<i>Bergenia ciliata</i> (Haw.) Sternb.	Kamar panra	Berberidaceae	3, 14
12.	<i>Calotropis procera</i> (Ait.) Ait.f.	Spulmay	Asclepiadaceae	4, 8
13.	<i>Cannabis sativa</i> L.	Bhang	Cannabinaceae	1, 5
14.	<i>Coriandrum sativum</i> L.	Dhanyal	Apiaceae	1, 3, 11
15.	<i>Cynodon dactylon</i> L.	Kabal	Poaceae	1, 2
16.	<i>Convolvulus arvensis</i> L.	Prewatay	Convolvulaceae	8, 10
17.	<i>Carthamus oxyacantha</i> M.B.	Kareeza	Asteraceae	10
18.	<i>Calendula officinalis</i> L.	Zare Gule	Asteraceae	5, 13
19.	<i>Capsella bursapastoris</i> (Linn.) Medik	Bumbsa	Brassicaceae	1, 2, 12
20.	<i>Chenopodium album</i> L.	Sarmay	Chenopodiaceae	9
21.	<i>Cotoneaster numularia</i> Fisch	Luni	Rosaceae	4, 20
22.	<i>Datura stramonium</i> L.	Bhatura	Solanaceae	2, 7
23.	<i>Datura innoxia</i> Mill	Bhatura	Solanaceae	10, 16, 21, 24
24.	<i>Datura metel</i> Fastuosa	Bhatura	Solanaceae	14, 16, 22, 23, 25, 26
25.	<i>Daphne mucronata</i> Royle	Laighonai	Urticaceae	8, 12, 14
26.	<i>Dodonaea viscosa</i> (L.) Jacq.	Ghuraskay	Sapindaceae	2
27.	<i>Eruca sativa</i> Mill.	Jomama	Brassicaceae	1, 5, 6, 7
28.	<i>Eucalyptus cammaldulensis</i> Schlcht	Lachi	Myrtaceae	2, 12
29.	<i>Euphorbia helioscopia</i> L.	Mandano	Euphorbiaceae	8
30.	<i>Ficus carica</i> L.	Inzar	Moraceae	1, 6, 10
31.	<i>Fumaria indica</i> (Hausskn.) Pugsley	Papra	Fumariaceae	2, 3, 25
32.	<i>Hyoscyamus niger</i> L.	Dewana bhang	Solanaceae	2, 3, 7, 16, 17, 21, 24, 26
33.	<i>Justicia adhatoda</i> L.	Baikar	Acanthaceae	6, 7
34.	<i>Juglans regia</i> L.	Ghuz	Juglandaceae	2, 5
35.	<i>Melia azedarach</i> L.	Bikyana	Meliaceae	2, 7
36.	<i>Malva neglecta</i> Wall.	Panerak	Malvaceae	6, 9
37.	<i>Morus alba</i> L.	Baidana	Moraceae	8, 12
38.	<i>Mentha arvensis</i> L.	Pudinah	Lamiaceae	1, 5, 6
39.	<i>Mentha longifolia</i> L.	Enalay	Lamiaceae	2, 5
40.	<i>Mallotus philippensis</i> Mule.	Kambela	Euphorbiaceae	6, 7, 8
41.	<i>Nerium oleander</i> L.	Gandery	Apocynaceae	6
42.	<i>Nasturtium officinale</i> R. Br.	Tarmira	Brassicaceae	6
43.	<i>Otostegia limbata</i> (Benth.) Boiss.	Spin Azgy	Lamiaceae	2
44.	<i>Olea ferruginea</i> Royle.	Khuna	Oleaceae	1, 2, 3, 10
45.	<i>Oxalis corniculata</i> L.	Threwaky	Oxalidaceae	12
46.	<i>Punica protopunica</i> L.	Anangorey	Punicaceae	12
47.	<i>Pinus roxburghii</i> Sargent.	Nakhtar	Pinaceae	1, 4, 5
48.	<i>Punica granatum</i> L.	Anar	Punicaceae	2, 6, 12
49.	<i>Ranunculus sceleratus</i> L.	Jaghagha	Ranunculaceae	8, 21, 25

#	Botanical Name	Local Name	Family	Medicinal uses
50.	<i>Ranunculus muricatus</i> L.	Jaghagha	Ranunculaceae	8, 21, 25
51.	<i>Riccinus communis</i> L.	Aranda	Euphorbiaceae	8
52.	<i>Salvia moorcroftiana</i> Wall.	Khargug	Lamiaceae	9
53.	<i>Sageretia thea</i> (Osbeck) M.C. Jhonston	Mamanr	Rhamnaceae	5, 19
54.	<i>Solanum nigrum</i> L.	Kachmachoo	Solanaceae	7, 12
55.	<i>Solanum surratense</i> Burm. f.	Maraghonay	Solanaceae	1, 4, 14, 20, 21, 25
56.	<i>Taraxicum officinale</i> Weber.	Zear-Gulay	Asteraceae	3, 5, 10
57.	<i>Thalictrum foliolosum</i> DC.	Kamasla mammera	Ranunculaceae	15
58.	<i>Verbascum thapsus</i> L.	Khardug	Scrophulariaceae	2, 9, 12
59.	<i>Ziziphus nummularia</i> (Burm.f.) Wight.	Markhanari	Rhamnaceae	9
60.	<i>Ziziphus jujuba</i> Mill.	Baira	Rhamnaceae.	4, 9, 11, 18
61.	<i>Ziziphus oxyphylla</i> Edgew.	Elanai	Rhamnaceae.	1, 2, 5
62.	<i>Zanthoxylum armatum</i> DC.	Dambara.	Rutaceae	13

Legend:

1: Diuretic	2: Astringent	3: Tonic	4: Expectorant	5: Stimulant
6: Anthelmintic	7: Antispasmodic	8: Purgative	9: Emollient	10: Laxative
11: Anti-Dyspepsia	12: Anti-Diarrhea	13: Carminative	14: Rheumatism	15: Ophthalmia
16: Narcotic	17: Sedative	18: Dysentery	19: Jaundice	20: Stomachache
21: Ant asthmatic	22: Epilepsy	23: Vomiting	24: Anodyne	25: Fever 26: Anti cancer

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