Ethnobotanical Uses of Wild Medicinal Plants by Guddi and Gujjar Tribes of Himachal Pradesh

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Abstract

India is a rich source of plant flora of 2500 documented species and 600-700 species are having medicinal value¹. About 150 are used commercially. It is reported that Western Himalayas are the abode of 50 percent plant drugs mentioned in the British pharmacopoeia. Medicinal plants are used for preventive, promotive and curative purposes. Eighty percent of the ingredients of drug formulation in ayurvedic are plant based². In compliance with the CBD and WTO, India too has to conserve its natural resources from unfair exploitation³. The survey of the area was conducted during March, 2007-October, 2008. The two tribal communities viz. “Gaddis and Gujjars” were interviewed⁴⁻⁵. These two nomadic communities were asked to identify the plant and tell its use by them. The samples of the plants were crosschecked with the qualified ayurvedic practitioners of the area and some were identified by the author him self. However, Some of the samples were processed and identified with the help of literature available⁶⁻⁷ in the library of Dr. Y.S. Parmar University of Horticulture and forestry Nauni Solan. The plant species of the area have been enumerated below in an alphabetic order. Each species have been provided with scientific name, local name, crude drug preparation (as per details provided by the folklore) and its local use. Twenty seven species of Ethnobotanical use were identified from this backward district of Himachal Pradesh.

Key words: Ethnobotanical, uses, Forestry Plants and trees, Gujjars, Gaddis, Himachal Pradesh.
Introduction

India is a rich source of plant flora of 2500 documented species and 600-700 species are having medicinal value\(^1\). About 150 are used commercially. It is reported that Western Himalayas are the abode of 50 percent plant drugs mentioned in the British pharmacopoeia. Medicinal plants are used for preventive, promotive and curative purposes. Eighty percent of the ingredients of drug formulation in ayurvedic are plant based\(^2\). A repository of herbal wealth existing in different parts of Himachal Pradesh extending from plains to the cold desert of Lahaul and Spiti has been a boon to the poor villagers living in remote and tribal areas. Nearly 70-80 percent world population relies upon traditional medicines. Documentation of the indigenous knowledge and plants is the need of the hour. In compliance with the CBD and WTO, India too has to conserve its natural resources from unfair exploitation\(^3\).

Himachal has a long tradition of using herbs as household remedies also extracting the herbal wealth from the forest and selling to the local traders. However, a great diversity of medicinal and aromatic plants occurs in the state the pressure is on the traditionally known drugs consumed by the pharmacies. Chamba is a district of Himachal Pradesh and situated in the western part of the state. It lies in between 32°&10’ to 33°&13’ N latitude and 75° 45’ 77° -33’ E longitude covering an area of 674.16 Km Sq. It is such a diversified district that it cover four climatic zones viz. Low hill subtropical, Mid hill sub montane, High hill humid temperate zone and high hill dry temperate zone. The study was conducted in the three zones only viz. mid hill sub montane, high hill humid temperate zone and high hill dry temperate zone. The subtropical zone was left out because most of the drugs and plants have already been documented by earlier studies.

Methodology

The survey was conducted during March, 2007-October, 2008. Folklore data was collected from the local healers called ‘Vaids’ from the Gaddi and Gujar community. Apart from this, the two communities viz. “Gaddis and Gujjars” were interviewed\(^4-5\). These two nomadic communities were asked to identify the plant and tell its use by them. The samples of the plants were crosschecked with the qualified ayurvedic practitioners of the area and some were identified by the author him self. However, Some of the samples were processed and identified with the help of literature available\(^6-7\) in the library of Dr. Y.S. Parmar University of Horticulture and forestry Nauni Solan. The plant species of the area have been enumerated below in an alphabetic order. Each species have been provided with scientific name, local name, crude drug preparation (as per details provided by the folklore) and its
Results

1) *Aconitum heterophyllum* wall syn. *Aconitum deinorrhyzum* Holmes ex stapf.
Family: Ranunculaceae
Local Names: Mitha jaihar/ Patrish(Chamba)*, Ativish and Atish (Hindi)
Ethnobotanical uses: It is mainly used to treat the cough and cold. Aconitum and karroo when mixed in equal amount and mixed with multani mitti and honey can be used to treat chronic cough.

*Achyranthes aspera* Linn.
Family: Amaranthaceae
Local Names: (Chamba) umblkanda, Puthkanda or Umblokando
Ethnobotanical uses: Roots are applied as paste around joints to treat pain. Its 3-5 seeds daily for 3-5 days are given to treat the dry cough.

*Angelica glauca* Edgew
Family: Umbriferae(Apiaceae)
Local Names: Chora,egue(Chamba) and Choraka
Ethnobotanical uses: Its roots are given the animals and human when loss of appetite is there 5-10 gm of crushed roots are for 3-5 day are sufficient to double the hunger and liver tonic.

*Artimisia scoparia*
*Syn; Artimisia brevifolia* Wall.syn: A. maritime Linn.
Family: Compositae(Asteraceae)
Local Names: Haul(Chamba)* and Nurcha
Ethnobotanical uses: The leaves of the plant are used to stop the intestinal bleeding in the animals. The leaves are administered either orally or in decoction form through a bamboo made ‘nalka’.

*Asculus indica* Colebr.
Family: Hippocastanaceae
Local Names: Goon (Chamba), Bankhor and Kanor
Ethnobotanical uses: *Asculus indica* in used by the Gaddis and Gujjars of Bharmour and Salooni areas for the soap making and its flour after many washing is used for treatment of ailments such as Joint pain
Asparagus abscedens Roxb.
Family: Liliaceae
Local Names: Sansfai(Chamba), Shatabari
Ethnobotanical uses: The roots of this plant are dug and outer bark is removed. The roots so cleaned are put in the Brassica oil and the formulation is used to stop the hair fall.

Acorus calamus Linn.
Family: Araceae
Local Names: Baryan, Bare and Bach
Ethnobotanical uses: It is found in the mid hill region of Chamba. Roots of the plant are macerated in the form of paste and applied to the chest of the patient suffering from chest congestion and bronchitis.

Aguja bractosa Wall. Ex Benth.
Family: Lamiaceae(labiateae)
Local Names: Neelkanthi
Ethnobotanical uses: It is found in the mid hill region of Chamba and Bharmour region of the district and is called ‘neelkanthi’. Its roots are used to treat the snakebite. The roots are applied in the form of paste and in the form of decoction.

Centella asiatica (Linn.) Urban
Syn: Hydrocotyle asiatica L.
Family: Umbellifereae
Local Names: Brahmi(Chamba) and Mandukparni(Hindi)
Ethnobotanical uses: It is found in the cool and wet areas. The whole plant called “Panchang” is used in the treatment of leprosy, boils and skin diseases. Its major use is as memory enhancer when given in the decoction form to the patient suffering from loss of memory.

Cinnamomum tamala Necess& Ebesm
Family: Lauraceae
Local Names: Mitha patter (Chamba), Tajpata and Gurupatraj
Ethnobotanical uses: Its leaves are used by the Salooni people as mouth freshener and bark is used for making decoction in treatment of internal heat
**Dactylorhiza hatagirea** Soo

*Syn:* Orchis latifolia L.

*Family:* Orchidaceae

*Local Names:* Salmpanja

*Ethnobotanical uses:* It is found in the high hill region of Chamba. Its roots are crushed into fine powder and filtered through cotton cloth and given to the person suffering from general weakness, loss of alertness, diabetic, lose motions. Person suffering from the impotency is also given the powdered drug to regain erection.

**Dioscoria deltoides** Wall.ex Kunth.

*Family:* Dioscoreaceae

*Local Names:* Kuth(Chamba) and Singli mingli

*Ethnobotanical uses:* It is found in high hill region of Chamba. The rhizomes are used in messaging the joints and crushed rhizomes are used with kneaded flour and salt to animals in treatment of digestive ailments and in treatment of common cold.

**Emblica officinali** Gaertn.

*Family:* Euphorbiaceae

*Local Names:* Amla and Aonla

*Ethnobotanical uses:* It is very common tree in low hill region of the district. Harad, Baheda and Aonla are mixed in equal quantity and crushed to form fine powder. Its fruits are used to cure the stomach diseases, eye infection, fever, and arthritis. Brassica oil mixed with aonla fruits is used to blacken the hairs.

**Ficus bengalensis** Linn.

*Family:* Moraceae

*Local Names:* Fagudaq/Bar(Chamba), Bargad(Hindi)

*Ethnobotanical uses:* Its leaves are used in internal injury by the people of mid hill region such as Chamba, Salooni and Tisa blocks of the district.

**Jatropha curcus** Linn.

*Family:* Euphorbiaceae

*Local Names:* Jablotha(Chamba), Jmal ghota(Hindi)

*Ethnobotanical uses:* Its seeds are given to the patients to induce the vomiting. Oil is extracted from the seeds and applied in the joint region of the body to relieve the pain from arthritis.
Junipers dolomia
Syn: Jurnea macrocephala Benth.
Family: Compositae/Asteraceae
Local Names: Dhoop
Ethnobotanical uses: It is one of the endangered species of alpine region of Chamba and exploited mostly for fragrance and used in the scented agar battis.

Primula macrophylla
Syn: Primula nivalis D.Don
Family: Primulaceae
Local Names: Ccharmar(Chamba)
Ethnobotanical uses: It’s found in the region covering the altitude upto 1800 meter above mean sea level. It is used to control the acidity. Its leaves are used after crushing. The tablets of size 5-10 gm are prepared and administered orally to the person suffering from acidity and ulcer.

Picrorhiza karooa Royleex Benth.
Family: Scrophulariaceae
Local Names: Kaur (chamba) and Kutki
Ethnobotanical uses: Its roots are used to improve the appetite. The decoction of this with ajwan is also given to purify the blood in case of skin infection

Podophyllum heterophylum
Syn: Podophyllum hexandrum Royale
Syn: P. emodi Wall.
Family: Podophylaceae
Local Names: Bankakri
Ethnobotanical uses: It is found in the high hill region of Chamba. Its roots are crushed and given to the patient suffering from cancer.

Rheum australe:
Syn: Rheum emodi Wall.Ex Meissn.
Family: Polygonaceae
Local Names: Chukri (Chamba) Revandchini( Hindi)
Ethnobotanical uses: It is used as tooth cleaning powder and sprayed over the wounds for early healing. Roots are also given to the animal in cold. Roots along with the ash guard are fed to the animal suffering from loss of appetite and general weakness.

*Sapindus mukrossii* Gaertn.
Family: Sapindaceae
Local Names: Dodae(Chamba) and Ritha (Hindi)
Ethnobotanical uses: The tree is found in the subtropical part of the study area which is the winter abode of these communities. Its roots are used in treating the poison. *Sapindus mukrossii* fruits are mixed with the Asculus indica seeds and a shampoo is prepared to wash the warm clothes and hairs by local people.

*Swertia chiryata* Karst.
Syn: *S. Chirata* buch. Ham.
Family: Gentanaceae
Local Names: Chiraita
Ethnobotanical uses: Its roots and stem is used to treat fever, ‘Atisar’, anal diseases, cough, and cold. The general use of the plant parts is in the powder form, however decoction is also prepared from the plant stem and roots by boiling them in water.

*Texus baccata* Hook.f.
Syn: *Texus wallichiana* Zucc
Family: Taxaceae
Local Names: Rakhala /Birhmi(Chamba) and Himalayan Yew(Hindi)
Ethnobotanical uses: It is used by the local people for making black tea though. It is bitter in nature but assumed to be the most refreshing and energetic

*Terminalia bellerica* Roxb.
Family: Combretaceae
Local Names: Bahera
Ethnobotanical uses: *Terminalia bellerica* is used to treat the eyes, heart problems and ear infections. Its fruits are mixed with aonla to control the hair loss.

*Tinospora cordial* (Willd.) Miers.
Family: Menispermaceae
Local Names: Amrita and Giloe Amlora (Chamba)

Ethnobotanical uses: Its local name is Amlora. It water extraction is used to treat the animals in fever and water boiled extract is used in treatment of foot diseases.

*Viola odorata* Linn.
Family: Violaceae
Local Names: banfsa

Ethnobotanical uses: It is used in the treatment of sleeplessness and fever. Flowers of the plant are boiled in the water and the decoction as prepared is given to the patient.

*Vitex nigundu* Linn.
Family: Verbenaceae
Local Names: Banna, Nirgundi and Sambhalu

Ethnobotanical uses: Leaves of *Vitex nigundu* decoction is used in internal injury. Its leaves are also tied around (tying is called ‘Dava’) the area of the body having internal injury. The leaves are burnt in the fire during rainy season to keep the mosquitoes away from the animals and human beings

**Discussion**

Nearly 27 species of medicinal plants have been listed in the paper. Similar kind of observations regarding flora of Bilaspur district of Himachal Pradesh India were made by Bhardwaj(2006). A multiple of home remedies are employed for the treatment to cure the stomach diseases, eye infection, fever, and arthritis, blacken the hairs, refreshing mind, the hair loss, general weakness, loss of alertness, diabetic, lose motions and impotency.

Mostly the drugs are prepared in the form of paste, powder, decoction, extract, smoke, and even as tea. Many of the reported species are commonly used as folk medicines either directly i.e. in fresh. Studies on the traditional medicinal plants have revealed that the local people of Chamba are not prosperous economically and prefer local medicines due to low cost and ignorantly also.

The information generated from the present study regarding the medicinal plant use by Guddies and Gujjar tribes need a thorough phytochemical investigation including alkaloid extraction and isolation along with few clinical trials. The knowledge regarding the natural habitat it will help to further conserve these species *in situ*. The claimed therapeutic uses of the plant species call for the modern scientific studies to establish the safety and effectiveness and to promote the scientific cultivation, which will protect forests and conserve the wild flora.
* (Chamba) : refers to local name of the plant by the tibal people prevalent in chamba only.

References

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