

STUDY OF MEDICINAL PLANTS OF DISTRICT KATHUA, J&K

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ABSTRACT

It is a systematic attempt to explore the knowledge of medicinal plants. The data was prepared on account of explorations of area of the wild plants growing there and interactions with knowledgeable inhabitants. The data presents a list of over one hundred medicinal plants which are also used by the people to cure various diseases. The botanical names of plants have been supported by the author citations and are complete in all respects including the vernacular names, the names of families to which they belong. Moreover, the present status of the medicinal plants like commonly seen, rare, endangered etc. has also been cited wherever necessary.

Keywords:

Abortifacient: to cause or promote abortion.

Astringent: the action of binding together.

Alopecia: loss of hair.

Anthelmintic: anti worm in action.

Antispasmodic: capable of preventing or relieving convulsions or spasms.

Diuretic: promoting urine.

Eczema: an inflammatory condition of skin characterized by redness, itching & oozing vesicular lesions which become scaly.

Emmenagogue: an agent that promotes the menstrual discharge.

Expectorant: promoting the expulsion of mucous.

Galactagogue: promoting milk secretion.

Laxative: promoting intestinal flow, acting against constipation.

Leucoderma: medically called Vitiligo is a chronic skin disorder that causes de-pigmentation of skin

INTRODUCTION

The use of plants for medicinal purposes and human sustenance has been in practice in India since the vedic age. The earliest mention of medicinal use of the plants is found in the Rigveda, 1500-400 BC, Atharveda 1500 B.C, Upanishada 1000-600 BC (Chauhan, 1999). In India there are about 17000 species of higher plants out of which 7500 are known for medicinal uses (Shiva, 1996). India is one of the major contributors to the world in terms of herbal drugs and its raw material (Grun Wald, 2000). Plant wealth of the Indian Himalayan region is known for its uniqueness, natural and socio-economic values. The people of the area keep high medicinal reverence on plants from the ancient. The inhabitants of the area have been dependent on plant source for medicine. Local people and tribals adjoining the forest areas are not only engaged in collection, processing and marketing of medicinal plants to boost their income but also themselves use them to cure a number of diseases. The local people including *Gujjars, Bakarwals and Gaddis* along with *Hindu-Muslim* communities depend on plant resources for medicines, fuel, fodder, fiber, timber and many other requirements. The traditional use of plants as medicine is well known among the native communities of the area for centuries. The people usually depend upon herbs and other materials for the treatment of various diseases. The description of the data compiled in the present study is based on the survey and discussion with local people. The study aimed to record the medicinal uses of plants found in the area.

Study Area

The area of research is one of the 22 districts of the state of Jammu and Kashmir adjoining Punjab to the south and Himachal Pardesh to the east. Its terrain is diverse consisting of agricultural plains along the Punjab border and a mountainous *Pahari* region in the north. District Kathua the gateway of J&K, lies

Research Article

between 320 -17' to 320-55' north latitude and 750-7' to 760-17', east longitude. The district Kathua is subdivided into five tehsils and three of them Billawar, Basohli and Bani lie in Shiwalik Himalayas whereas Kathua and Hiranagar tehsils are in the plains south-east of the foothills. The number of villages in the district is 512 and the population of the district is 6.15711 Lacs (as per 2011 census). Due to varied altitude and topography, the study area possesses a diverse flora ranging from sub-tropical in the south to alpine meadows on the higher peaks of north. The area has thus a very rich floral diversity particularly in the Shiwalik Hills.

MATERIALS AND METHODS

The study was carried out in 2012-2015 to identify and determine the medicinal uses of plants in the area. During the present study several villages of the district were visited including Aglidhar, Bhaddu, Bala-Sundari, Banhore, Basohli, Bhoond, Bani, Baanjal, Beril, Dharalta, Dambra, Daggar, Doula, Dheota, Galak, Katli, Ramkote, Parnalla, Macheddi, Malhar, Padwal, Sadrota, Sukrala, Joddein, Hiranagar, Kathua and important information was gathered from knowledgeable persons particularly senior inhabitants including women folk. Questionnaires were prepared before visiting an area of the field of study & establishing contacts with subjective people to gather information on the points outlined in the questionnaire. Besides, personal visits to known *Vaids & Hakims* of the area were also organized. During field trips, the twigs of the plants or other suitable specimens were collected, brought back and preserved for further reference. The photographs of the concerned plants were also taken for the purpose of identification and record as well. The identification of plants was done using floras, identification keys and experts. The tools employed in the study include cutters, plant press, magnifying lens, photographic camera, field note-book and polythene bags etc. The author has conducted several field trips in randomly selected villages of the research area and interviewed villagers particularly the senior inhabitants alongwith *Vaids & Hakims*. The common names of the plants were ascertained by way of investigations.

Observations

A total of 115 species of Gymnospermous and Angiospermous plants of medicinal importance have been presently recorded from the various localities within the area of study and described as under:

1. ***Abrus precatorius* Linn.**; Eng. Wild liquorice, Crab-eyed Creeper; Hindi *Rati*, *Gungchi*; Vern. *Ratti*, *Raktaan bel*;

Family- Papilionaceae

Medicinal Uses: Decoction is used in cough & cold, colic pain, rheumatism. Also induces abortion. Seeds in small doses act as purgative.

2. ***Acacia nilotica*, L.**; Eng. Egyptian thorn; Hindi *Babool*; Vern. *Kikar*;

Family- Mimosaceae;

Status- Common.

Medicinal Uses: The decoction of bark yields spongy gum which is useful in sore throat, for washing ulcers, to stop bleeding from wounds, skin diseases and as an astringent for diarrhea & leucorrhoea. Also used against eye ailments and liver complaints.

3. ***Achillea millefolium* L.**; Hindi *Gandhna*; Vern. *Dare di jadi*, *Pahale kutch*, *Gandhna*;

Family- Asteraceae.

Medicinal Uses: Roots & stems are crushed & used against toothache. Decoction of leaves & flower heads is used in colds & as tonic.

4. ***Achyranthus aspera* Linn.**; Hindi *Chirchita*, *Latzira*, *Apamarg*; Vern. *Pudkanda*;

Family- Achyranthaceae.

Medicinal Uses: Used in renal dropsy, bronchial disorders, eye complaints, hydrophobia, insect bite, leucoderma, piles, whooping cough & rheumatism. Root paste is administered to stop bleeding after abortion & also to facilitate delivery. Roots are very effectively used as tooth-brush to stop bleeding of gums.

5. ***Acorus calamus* Linn.**; Hindi *Vach*; Vern. *Bariyan*;

Family- Araceae.

Research Article

Medicinal Uses: The strongly aromatic root stock which has a piquent pungent taste, is much valued as a medicine, especially for cough. Rhizomes are carminative, used for treating nervous ailments. Also effective against stomach troubles, asthma, bronchitis, snake bite and teeth problems in children. Also possesses anti-carcinogenic property. Locally traded in J&K.

6. ***Adhatoda vasica*, Nees.;** Hindi *Vasaka*, *Adusa*; Vern. *Brankad*;

Family- Acanthaceae;

Status- Common.

Medicinal Uses: Antispasmodic & expectorant effect, used to treat asthma, chronic bronchitis. Powder of the shrub boiled with sesame oil is used to heal ear infections & arrest bleeding, boiled leaves are used in rheumatic pain & to relieve pain of urinary tract infection.

7. ***Adiantum capillus-veneris*;** Vern. *Hanspadi*, *Dumtuli*, *Kaki*;

Family- Adiantaceae.

Medicinal Uses: Whole plant is used as febrifuge, demulcent, diuretic, tonic & cough medicine.

8. ***Aegle marmelos* Corr.;** Eng. Bael, Bengal Quince; Hindi *Bel*; Vern. *Bil-patri*;

Family- Rutaceae;

Status- Common.

Medicinal Uses: The unripe fruit is astringent, stomachic, antiscorbutic and digestive. The ripe fruit is good for the heart, brain, digestive system & for back pain.

9. ***Aesculus indica* (Colebr. Ex. Cambess.) Hook.;** Eng. Horse Chestnut; Vern. *Goon*;

Family- Hippocastanaceae.

Medicinal Uses: Oil from the seeds is externally applied against rheumatism. Seeds are given to horses in colic pain.

10. ***Ajuga bracteosa* Wallich ex Benth.;** Vern. *Neelkainthi*;

Family- Lamiaceae.

Medicinal Uses: Leaf powder is bitter in taste & used with *gur* on daily basis to get relief from diabetes. Leaf juice finds use as blood purifier & also for fever & gonorrhea.

11. ***Aloe vera* Tourn. Ex Linn.;** Eng. Barbados Aloe; Hindi *Ghee-Kunwar*; Vern. *Kawaar-Gandal*, *Ghee-Kunwar*;

Family- Liliaceae.

Medicinal Uses: Leaves are used as stomachic, aphrodisiac, astringent, cathartic, anthelmintic & hepatic stimulant. Useful in enlargement of liver, spleen, gonorrhea, constipation, piles, jaundice & rheumatic affections. Also useful in burns, bruises, wounds & gum problems.

12. ***Angelica glauca* Edgew.;** Eng. Glaucous Archangel; Vern. *Choru*;

Family- Apiaceae.

Medicinal Uses: The roots are grinded & eaten with '*gur*' against stomach problems. Roots are also harvested for oil extraction & medicinal. Roots are burnt to drive away snakes from houses.

13. ***Anethum graveolens*, Linn.;** Vern. Name *Koadi sounf*;

Family- Apiaceae.

Medicinal Uses: It is used as diuretic, emmenagogue and galactagogue. The decoction of seeds is a household remedy as a stomachic medicine particularly for infants and women.

14. ***Arisaema flavum*, (Forsskal) Schott.;** Vern. *Sapp-kukdi*;

Family- Araceae.

Medicinal Uses: The paste made from tubers is used in foot & mouth disease of cattle and also applied in snake bite.

15. ***Artemisia absinthium*, Linn.;** Eng. Worm Wood ; Vern. *Shambar*;

Family- Asteraceae.

Medicinal Uses: Leaves & fronds are used for the extraction of drug santonin which is vermifuge & tonic. Herbal tea is recommended for pregnant women during labour pains.

16. ***Artemisia capillaris* Thunb. (Syn. *Artemisia scoparia*);** Eng. Red-stem wormwood; Vern. Name: *Danti*;

Research Article

Family: Asteraceae.

Medicinal Uses: The plant is anticholesterolemic, antipyretic, antiseptic, diuretic and vasodilator.

17. ***Asparagus adscendens* Roxb.;** Eng. Asparagus; Hindi *Safed-Musli*; Vern. *Sainspaur*, *Chittimusli*;

Family- Liliaceae;

Status- Common

18. ***Azadirachta indica* A. Juss.;** Eng.; Hindi *Neem*; Vern. *Nemm*;

Family- Meliaceae;

Medicinal Uses: Leaves are Anthelmintic, expetorantc, diuretic and insecticidal. Bark is bitter tonic. Also effective against skin ailments. Oil is used for healthy hair.

19. ***Barleria prionitis*;** Eng. Yellow Hedge Barleria; Hindi *Karunta*; Vern. *Kanda-Barenkar*, *Vajrandanti*;

Family- Acanthaceae.

Medicinal Uses: Bark is given in dropsy & whooping cough. Also recommended in ear complaints, gum troubles, piles, rheumatism & tuberculosis.

20. ***Bauhinia variegata* L.;** Eng. Mountain ebony; Hindi *Kachnar*; Vern. *Krail*;

Family- Caesalpiniaceae.

Medicinal Uses: Bark is anti-inflammatory, useful in skin diseases, scrofula and ulcers. The bark is alterative tonic, blood purifier, anthelmintic and astringent. Its decoction is given in scrofula, ulcers, syphilis, leprosy and other skin diseases. It is an effective wash for skin diseases, also useful in diarrhoea and liver complaints.

21. ***Boerhavia diffusa*;** Vern. *Itt-sitt*, *Gadhapurna*, *Santhi*;

Family- Nyctaginaceae.

Medicinal Uses: Root is used in treatment of eye troubles, asthma, jaundice, general weakness & urinary complaints. Also used in epilepsy, headache, rheumatism, menstrual complaints, itch & eczema.

22. ***Berberis lyceum* Royle.;** Eng. Barberry; Hindi *Daruharidra*; Vern. *Kemblu*, *Sumblu*, *Rasount*;

Family- Berberidaceae.

Medicinal Uses: Root bark yields *rasount* of commerce which is employed for curing ulcers, fevers, bleeding piles & eye sores.

23. ***Cannabis sativa* L.;** Eng. Hemp; Hindi *Marijuana*, *Bhaang*; Vern. *Bhaang*;

Family- Cannabinaceae.

Medicinal Uses: Plant yields 'Charas' & 'Ganja' which in action are sedative, appetizer, narcotic & toxic. Leaf juice is useful in dandruff & lice infestation.

24. ***Cardiospermum helicacabum*;** Hindi *Karan-Saphota*; Vern. *Kanphuti*, *Pataki*;

Family- Sapindaceae.

Medicinal Uses: Plant juice is used as an emmenagogue in ammenorrhoea, as demulcent, in gnorrhoea & pulmonary diseases.

25. ***Cassia tora* Linn.;** Eng. Pot Cassia; Hindi *Chakunda*, *Chakramard*; Vern. *Lauki hedma*;

Family- Caesalpiniaceae.

Medicinal Uses: Leaves are used to treat skin ailments, headache & other body pains. Also used as adulterant of coffee.

26. ***Cassia occidentalis*, Linn.;** Eng. Ant- bush; Vern. Name *Baddi Heduyan*;

Family: Caesalpiniaceae.

Medicinal Uses: Leaves, roots and seeds have been found to be purgative and are useful in cough and whooping cough. Leaves has antimalarial, antibacterial, antimutagenic, antiplasmodial and anticarcinogenic activity. Leaf decoction is used for malaria, fever, yellow fever, headache and conjunctivitis. Roots are considered as diuretic. Seeds are used as febrifuge and used for skin diseases.

27. ***Calotropis procera* R. Br.;** Eng. Akund, Swallow wart; Hindi *Safed ak*; Vern. *Ak-datura*, *Jangli Ak*;

Family- Apocynaceae (sub fam. Asclepidioideae)

Research Article

Medicinal Uses: Flowers are used in cough, cold & asthma. Latex is used in skin diseases and also considered abortifacient. It is also recommended in epilepsy, rheumatism, spleen complaints & toothache.

28. ***Colebrookia oppositifolia* Smith.**; Eng. Indian Squirrel Tail; Hindi *Binda*; Vern. *Dhuss*;
Family- Lamiaceae.

Medicinal Uses: Leaves are applied on painful joints & swelling.

29. ***Cryptolepis buchanani* Roem. & Sch.**; Hindi *Krishna-Saariva*; Vern. *Kali- Terai*;
Family- Asclepiadaceae.

Medicinal Uses: Bark is used against urinary troubles, loss of appetite & anaemia.

30. ***Centella Asiatica* (Linn.) Urb.**; Eng. Asiatic Pennywort; Hindi *Mandukparni*, *Brahmi*; Vern. *Brahmi-booti*, *Ghor-sumbi*;
Family- Apiaceae.

Medicinal Uses: Used in the preparation of PEP-UP syrup which is recommended for improving digestion and appetite. Also used for as substitute for *Neer- Brahmi* in various preparations.

31. ***Centratherum anthelminthicum***; Hindi *Somraj*; Vern. *Banjiri*;
Family- Asteraceae.

Medicinal Uses: Seeds are used as anthelmintic to expel worms.

32. ***Chenopodium album* L.**; Eng. Goose Foot, Fat Hen, Pigweed; Vern. *Bathu*;
Family- Chenopodiaceae.

Medicinal Uses: Leaves are used in diarrhea & dysentery and also useful in diabetes.

33. ***Cirsium wallichii* DC.**; Eng. Horse Thistle; Vern. *Kandshar*, *Bhuss*;
Family- Asteraceae.

Medicinal Uses: Leaf extract is useful in stomach ailments.

34. ***Cissampelos pareira* Linn.**; Hindi *Patha*; Vern. *Katordu*, *Battal Bel*, *pahre*;
Family- Menispermaceae.

Medicinal Uses: Dried roots are diuretic, stomachic & astringent. Useful in dyspepsia, diarrhea, dropsy & catarrhal disorders.

35. ***Costus speciosus***; Eng. Spiral Ginger; Vern. *Keu*, *Chamar-gatha*, *Sape-di-kukdi*;
Family- Zingiberaceae.

Medicinal Uses: Root is used medicinally It is considered as astringent, purgative, stimulant & anthelmintic. Also effective against eye complaints, jaundice, leprosy, snake bite & urinary complaints. Exploited for the production of steroid hormones.

36. ***Cleome gynandra* Linn.**; Hindi *Hulhul*; Vern. *Chitti neoli*, *Bhutmula*;
Family- Capparaceae.

Medicinal Uses: Leaf paste is recommended in rheumatism, neuralgia & headache. Seeds are rubefacient & anthelmintic. Also useful in scorpion bite.

37. ***Curcuma aromatica* Salisb.**; Eng. Wild Turmeric; Hindi *Haldi*; Vern. *Halder*;
Family- Zinziberaceae.

Medicinal Uses: Rhizomes are used in gastric acid, indigestion, intestinal ulcers, bronchitis, asthma & whooping cough.

38. ***Cuscuta reflexa* Roxb.**; Eng. Dodder; Vern. *Andle*, *Amar bel*;
Family- Cuscutaceae.

Medicinal Uses: Plant is useful in the infections of Scalp & hair wash as well.

39. ***Cassia fistula* Linn.**; Eng. Indian Laburnum, Golden Shower; Hindi *Amaltas*; Vern. *Krongal*, *Keyaal*, *Sinaru*;
Family- Caesalpiniaceae.

Medicinal Uses: The pulp of the fruits is laxative & used in curing constipation. The plant is also used in cough, urine problem & joint pains.

40. ***Catunaregum spinosa* (Thunb.) Tirveng.**; Hindi *Mainhar*, *Madan*; Vern. *Rara*;
Family- Rubiaceae.

Research Article

Medicinal Uses: Fruit is emetic, expectorant & antispasmodic. Bark is sedative, astringent, & given in diarrhea & dysentery. Also given in fevers to relieve bone-ache.

41. ***Cordia obliqua* Willd.;** Eng. Clammy cherry, Broad-leaved sebestan, Hindi *Bada-risalla*, *Lasora*; Vern. *Lasura*;

Family- Boraginaceae; A middle-sized deciduous tree with grey to brown bark. Leaves are simple, large, broad-ovate, margins wavy, coriaceous and glabrous above. Flowers are white, polygamous and in corymbose cymes. Drupe is yellow and glossy when ripe, usually 1-seeded and filled with viscid pulp. **Medicinal Uses:** Bark is useful against infections of mouth. Fruits are used in cholera, dysentery & dropsy.

42. ***Crataeva adansonii* DC. Subsp. *odora* Jacobs.;** Eng. Sacred barna ; Hindi *Barna*; Vern. *Barna*; **Family-** Capparaceae. A deciduous tree with lenticellate branchlets & trifoliate leaves. Flowers pale yellow or white. Gynophore present.

Medicinal Uses: Bark is demulcent, antipyretic, & sedative, useful against urinary troubles, fever & gastric irritation.

43. ***Cyperus rotundus* L.;** Hindi *Mustaka*; Vern. *Deela*, *Motha*;

Family- Cyperaceae.

Medicinal Uses: Bulbous roots are astringent, anthelmintic, stomachic & emmenagogue. A poultice of roots is used on wounds, sores & ulcers.

44. ***Datura stramonium* Linn.;** Eng. Thorn Apple, Stramonium; Hindi *Dhatura*; Vern. *Datura*; **Family-** Solanaceae.

Medicinal Uses: All parts are strongly intoxicant, narcotic, aphrodisiac, antispasmodic. Also used in asthma, whooping cough & bronchitis.

45. ***Dioscorea deltoidea*, Wallich ex Griseb.;** Eng. Yam; Hindi *Shingli-Mingli*; Vern. *Shingli-Mingli*, *Krits*, *Kins*;

Family- Dioscoreaceae.

Medicinal Uses: Tubers are a source of diosgenin which is used in the manufacture of contraceptive pills. Also used for curing swellings and sprains by local people.

46. ***Eclipta alba*;** Eng. Marsh Daisy; Hindi *Babri*, *Bhangra*; Vern. *Bhangra*, *Bhringraj*;

Family- Asteraceae;

Status- Common.

Medicinal Uses: Useful against enlargement of liver, spleen & various skin diseases. Leaves are given in cough, alopecia & jaundice. Also used in hair oils.

47. ***Ephedra gerardiana*, Wallich ex Stapf.;** Eng. Joint Pine, Desert Tea, Joint Fir, Young Weed; Hindi *Asmani-booti*; Vern. *Trudak*, *Tutjod*, *Asmani-booti*;

Family- Ephedraceae.

Medicinal Uses: Dried twigs are used to get ephedrine drug for curing asthma. Also used in the treatment of bronchitis, rheumatism, syphilis & heart ailments (cardiac stimulant).

48. ***Emblica officinalis* Gaertn.;** Eng. Emblic Myrobalan, Indian Gooseberry; Vern. *Amla*; Sanskrit *Amulki*, *amalaki*, *amala*;

Family- Euphorbiaceae;

Status- Common.

Medicinal Uses: Fruit forms an important constituent of *Triphla* which is used as laxative and in treatment of piles, liver, stomach complaints, anaemia, heart complaints, urinary troubles.

49. ***Eucalyptus citriodora* Hooker.;** Eng. Eucalyptus; Hindi *Safeda*; Vern. *Safeda*;

Family- Myrtaceae.

Medicinal Uses: Decoction of leaves is useful in cough & cold.

50. ***Evolvulus alsinoides* L.;** Eng. Little Glory; Hindi *Mar*; Sanskt. *Vishnugandhi*; Vern. *Neel Shankhpushpi*, *Shankholi*;

Family- Convolvulaceae.

Research Article

Medicinal Uses: Acts as brain tonic & considered superior to *Brahmi-booti*. Finds use in asthma, bronchitis, leucorrhoea & scorpion bite.

51. ***Euphorbia hirta* Linn.;** Eng. Common Spurge; Hindi *Dudhi*; Vern. *Dudhi*;
Family- Euphorbiaceae.

Medicinal Uses: Used for bronchial ailments, skin diseases & piles.

52. ***Euphorbia helioscopia* L.;** Eng. Sun Spurge; Vern. *Dudhi*;
Family- Euphorbiaceae;
Status- common.

Medicinal Uses: Root is anthelmintic. Seed along with roasted pepper is used in cholera.

53. ***Ficus benghalensis* L.;** Eng. Banyan Tree; Vern. *Bro*;
Family- Moraceae.

Medicinal Uses: The latex of this tree as also of *Ficus carica* is used to expel out thorns broken inside the body.

54. ***Ficus racemosa* L. (Syn. *Ficus Glomerata*);** Eng. Country Fig, Cluster Fig; Vern. *Goolar Rumble*;
Family- Moraceae;

Medicinal Uses: Fruits are used in the treatment of dry cough and loss of voice. Fruits are also used in kidney troubles. Latex is applied in wound healing.

55. ***Ficus carica* Linn.;** Hindi *Anjir*; Vern. Name *Fukada*, *Fukadi*;
Family- Moraceae.

Medicinal Uses: The sugars within the fruit have a pronounced but gentle laxative effect; syrup of figs is still a remedy for mild constipation. The fruit's emollient pulp helps to relieve pain, inflammation, swellings and gum abscesses. The milky latex from leaves and stems is reputed to be analgesic and has long been used to treat warts, insect bites and stings.

56. ***Fragaria nubicola* Lindley ex. Lacaita;** vern. *Akhrey*, *Panjaakha*.
Family- Rosaceae;

Status- common.

Medicinal Uses: Roots are used as tea substitute; infusion of leaves is useful in diarrhea & mouth infection.

57. ***Fumaria indica* (Hausskn.) Pugsley.;** Hindi *Pit-Papra*; Vern. *Papra*;
Family- Fumariaceae.

Medicinal Uses: Plant is used against fever & liver complaints.

58. ***Gentiana kurroo*, Royle.;** Hindi *Karu*; Vern. *Karu*, *Neelkainth*;
Family- Gentianaceae.

Medicinal Uses: Used as a bitter tonic for improving appetite & stimulating gastric secretions. Drug is administered in fevers & urinary troubles.

59. ***Hedera nepalensis* K.Koch.;** vern. *Karoori*;
Family- Araliaceae;

Status- common.

Medicinal Uses: An infusion of fruits is used in rheumatism.

60. ***Helicteres isora* Linn.;** Hindi *Marorephali*; Vern. *Marorephali*;
Family- Sterculiaceae.

Medicinal Uses: Pods are demulcent & mildly astringent. Used against intestinal disorders & ear complaints.

61. ***Holarrhena pubescens* Wall. Ex G. Don (syn. *H. antidysentrica* Wall. Ex A.DC.);** Hindi *Kogar*; Vern. *Kogar*, *Indrajau*, *Koda*;

Family- Apocynaceae.

Medicinal Uses: Bark & seeds are used against diarrhea & dysentery. It is also recommended in epilepsy, gout, leucoderma, menstrual complaints, snake bite & jaundice.

Research Article

62. ***Ipomoea hedracaea***; Hindi Krishna-beej; Vern. Kharpowa, Kaladana;
Family- Convolvulaceae.
Medicinal Uses: Used as galactagogue, purgative & tonic.
63. ***Jurinea dolomiaea* Boiss.**; Vern. Guggal, Dhooph;
Family- Asteraceae.
Medicinal Uses: Roots are medicinal, used as stimulant & in fever & colic pains. Root extract is used as incense. Locally traded in J&K.
64. ***Lepidium latifolium***; Vern. Smundersous;
Family- Lamiaceae;
Status- common.
Medicinal Uses: Fruits are used to cure acute diarrhea.
65. ***Leucas capitata***; Hindi Dronpushpi; Vern. Mall-Gha, Goma;
Family- Lamiaceae.
Medicinal Uses: Flowers are used in diabetes. Plant also finds use in earache, headache, piles, scabies, snakebite, gum troubles & constipation.
66. ***Litsea umbrosa* Nees.**; Eng. Aromatic Litsea; Vern. Singlu, Sangla, Chindu;
Family- Lauraceae.
Medicinal Uses: Fruit oil is used for treatment of skin diseases.
67. ***Lochnera rosea* (L.) Reichb.** (Syn. *Catharanthus roseus* G.Don.); Hindi Perivinkle; Vern. Sadda-bahar, Sadda-suhagan;
Family- Apocynaceae.
Medicinal Uses: Roots & thick basal stem contain higher percentage of alkaloids & two of them vinblastine & vincristine are used as medicines in cancer therapy.
68. ***Mentha longifolia*, (L.) Hudson.**; Eng. Horse-Mint; Vern. Ban Pudina;
Family- Lamiaceae.
Medicinal Uses: Decoction is used on digestive complaints along with Ajwain & Tulsi leaves. It also finds use in mouth & throat irritation.
69. ***Micromeria biflora* Benth.**; vern. Sapraili;
Family- Lamiaceae.
Medicinal Uses: Root is used as an antidote against snake-bite.
70. ***Mucuna prurita* Hook.**; Eng. Cowitch; Hindi Khajkhujli, Krainch, Kiwach; Vern. Jajooli;
Family- Papilionaceae.
Medicinal Uses: Infusion of pods used for dropsy. Ointment made of pod hairs is a local stimulant in paralysis & rheumatism. Hairs are also employed as an anthelmintic.
71. ***Murraya koenigii* Spreng.**; Hindi Kari-patta, Kath-Neem; Vern. Draikru, Draunkal;
Family- Rutaceae.
Medicinal Uses: Tender leaves are eaten in diarrhea & dysentery. A poultice of leaves applied over eruptions & bruises.
72. ***Melia azedarach* Linn.**; Eng. Persian Lilac, Pride of India, China Tree; Vern. Draink;
Family- Meliaceae. A medium size tree with 2-3 pinnately compound leaves. Flowers are in terminal panicles, lilac.
Medicinal Uses: Leaves are useful in expelling the worms. Seeds are used in rheumatism.
73. ***Nerium indicum* Miller.**; Eng. Oleander; Hindi Kaner, Lal Kaner; Vern. Lal Ganeera, Badhaa;
Family- Apocynaceae;
Status- common
Medicinal Uses: Roots are a cardiac poison; their paste is used in piles, skin diseases & inflammatory swellings. Root acts as an abortifacient.
74. ***Ocimum sanctum* L.**; Eng. Holy Basil; Hindi Tulsi; Vern. Tulsi;
Family- Lamiaceae.
Medicinal Uses: Used against bronchitis, skin ailments, respiratory & urinary troubles.

Research Article

75. ***Opuntia dillenii*, Haw.;** Eng. *Prickly pear*; Vern. Name: *Trappar Thor, Chhittar thor*;

Family: *Cactaceae*.

Medicinal Uses: Baked fruits are used in whooping cough, their syrup increases the flow of bile, controls the spasmodic cough and expectoration. The mashed stem is used as a poultice to allay inflammations and hot ones are applied to boils and abscesses. Pulp is also applied in ophthalmia.

76. ***Oroxylum indicum* (L.) Kurz.;** Eng. *Shyonak Tree*; Vern. *Tantra*;

Family- *Bignoniaceae*;

Status- *Common*.

Medicinal Uses: Root bark is astringent, stomachic. Its decoction is used in rheumatic fever, cough, biliousness, diarrhea & dysentery.

77. ***Oxalis corniculata*, L.;** Eng. *Common Sorrel*; Hindi *Amrit-Sak*; Vern. *Ammi, Khatti-ammi*;

Family- *Oxalidaceae*.

Medicinal Uses: A fine paste of aerial parts of the herb along with few seeds of black pepper is applied on boils, abscesses & wounds.

78. ***Pistacia chinensis* subsp. *Integerrima* stew.;** Eng. *East Indian Mastiche*; Hindi *Kakra*; Vern. *Kakarsinghi*;

Family- *Anacardiaceae*.

Medicinal Uses: The galls (*kakarsingi*) are used in medicines for the cure many ailments, including cough, asthma, fever, vomiting, and diarrhea

79. ***Plumbago zeylanica*, L.;** Eng. *Leadwort, White Plumbago*; Hindi *Chittra*; Vern. *Chittra, Chitrak*;

Family- *Plumbaginaceae*.

Medicinal Uses: Root is stimulant, stomachic, abortifacient & vesicant. Also used against rheumatism, paralysis & tumours.

80. ***Peristrophe Bicalyculata* L.;** Hindi *Kaakjangha*; Vern. *Harjodi, Chirchiri*;

Family- *Acanthaceae*.

Medicinal Uses: Finds use in eye diseases, sprains, fractures, gout & rheumatism.

81. ***Persicaria capitata* (Buch-ham ex. D. Don.);** Vern. *Thippi*;

Family- *Polygonaceae*.

Medicinal Uses: Herb possesses astringent, laxative, antiseptic & lithotriptic properties.

82. ***Phyllanthus neruri*;** Hindi *Bhui- Amla*; Vern. *Hazarmani*;

Family- *Euphorbiaceae*.

Medicinal Uses: Plant extract is useful against jaundice, also used against urinary troubles, gonorrhea & sleeplessness in children.

83. ***Podophyllum hexandrum* Royle;** Eng. *Himalyan May Apple*; Vern. *Bankakdi*;

Family- *Podophyllaceae*.

Medicinal Uses: The root and underground stem (rhizome) are used to make the medicine. Podophyllum is highly poisonous when taken by mouth. Nevertheless, people take it orally for jaundice, and liver ailments, fever, syphilis, hearing loss, cancer. Podophyllum is also used to empty the bowels, kill parasitic worms in the intestine, and counteract snakebite. Some women take it to cause an abortion. Intra-vaginally it is used to treat gynaecologic infections.

84. ***Prosopis juliflora* DC.;** Vern. *Kikar, Kabuli-kikar*; Eng. *Velvet mesquite*;

Family: *Mimosaceae*

Medicinal Uses: The plant is used in rheumatism and scorpion sting. The flower powder mixed with sugar is eaten by women during pregnancy as a safeguard against miscarriage.

85. ***Punica granatum* Linn.;** Eng. *Pomegranate*; Hindi *Anar-dana*; Sanskrit *Dadima*; Vern. *Dhaduni*;

Family- *Punicaceae*.

Medicinal Uses: A paste made of the green leaves is applied for the cure of conjunctivitis. A decoction of the leaves is useful as eyewash and is an effective mouthwash. The root bark is also effective as a febrifuge for the treatment of leucorrhoea and hemorrhages. The fruit is valued as a stomachic and refrigerant. Bark of stem & root is effective against tape-worm.

Research Article

86. ***Ricinus communis* Linn.**; Hindi *Arandi*; Vern. *Arind*, *Airan*;

Family- Euphorbiaceae.

Medicinal Uses: Decoction of leaves is used as purgative, galactagogue & emmenagogue. Roots are useful in rheumatism, lumbago & sciatica.

87. ***Rubia cordifolia* Linn.**; Eng. *Indian Madder*; Vern. *Manjeeth*;

Family- Rubiaceae

Medicinal Uses: Roots are used in rheumatism. Decoction of whole plant is very effective against treatment of diabetic foot ulcers and saves affected foot from being amputated due to setting in of gangrene.

88. ***Saussuria Costus* (Falc) Lipsch.**; Eng. *Costus*; Vern. *Kuth*;

Family- Asteraceae;

Status- Critically Endangered.

Medicinal Uses: Roots are insect repellent & used to protect garments from insect damage. It is also very useful in the treatment of bronchial asthma & joint pains. Locally traded in J&K.

89. ***Sida cordifolia* L.**; Vern. *Ban-dhammi*, *Bala*;

Family- Malvaceae.

Medicinal Uses: Used in leucoderma, rheumatism, spermatorrhoea, gonorrhea, & other venereal diseases. Also effective against dysentery & stomachache.

90. ***Solanum Nigrum* Linn.**; Hindi *Makoi*, *Kakmachi*; Vern. *Kayankothi*, *Makoi*;

Family- Solanaceae.

Medicinal Uses: Used as cardiac tonic, sedative, expectorant, & cathartic. Recommended in chronic enlargement of liver & jaundice. Leaves are used in inflammation of kidney & bladder. Berries are given in fevers, diarrhoea & heart diseases.

91. ***Solanum surratense***; Hindi *Kantkari*; Vern. *Neeli kandiari*, *kanteli*, *Kantkari*;

Family- Solanaceae.

Medicinal Uses: Used in treating cough, asthma, chest pain, sore throat, bladder stones, dropsy, gonorrhea, snake-bite, piles, migraine & pyorrhea.

92. ***Solanum xanthocarpum***; Eng. Yellow- berried nightshade; Vern. name: *Peeli Kanteali*, *Kandiari*;

Family: Solanaceae.

Medicinal Uses: The whole plant is considered as expectorant, stomachic, diuretic, astringent, anthelmintic and alternative. It is used in cough, asthma, pain in chest, and certain kind of fevers. It is diuretic and considered useful in controlling stones of bladders. Also used in bronchitis, muscular pains, enlargement of liver and spleen, blood cancer, vomiting. The stem flowers and fruits are carminative and given in burning feet. The roots are carminative and a constituent of Ayurvedic preparation '*Dasmula*'.

93. ***Sonchus arvensis* Linn.**; Eng. Common Sow Thistle; Hindi *Dudhi*; Vern. *Dudhi*;

Family- Asteraceae.

Medicinal Uses: Whole plant is used in cholera, dysentery, jaundice, fever, inflammation, wound & cuts.

94. ***Stellaria media*, (Linn.) Vill.**; Eng. Chickweed, Starweed; Vern. name: *Koku*;

Family: Caryophyllaceae.

Medicinal Uses: The plant makes a fine green cooling ointment that may be employed to treat acne and eczema. It may also be taken internally to treat chest ailments.

95. ***Salix alba* Linn.**; Eng. White Willow; Vern. *Badha*;

Family- Salicaceae.

Medicinal Uses: Leaves & bark possess analgesic properties.

96. ***Taxus wallichiana* (Zucc.) Pilger**; Eng. Himalayan Yew; Vern. *Birhmi*, *Brahmi*, *Thuneer*;

Family- Taxaceae.

Medicinal Uses: Bark is used as tea substitute by locals. Bark is used as source of Taxol & also as tea substitute. Taxol is useful in cancer treatment.

Research Article

97. ***Tanacetum dolichophyllum*, Kitam.**; Vern. Amritdhara-ghas;
Family- Asteraceae.
Medicinal Uses: Leaves are made into round pills of the size of almond nut & swallowed with water in stomach pain & indigestion.
98. ***Taraxacum officinale* Webr.**; Eng. Dandelion Vern. Phull-Dudhi, Dudhi;
Family- Asteraceae.
Medicinal Uses: Roots are diuretic, tonic & employed in the treatment of chronic disorders of kidney & liver. Considered very good for ladies after childbirth.
99. ***Terminalia bellirica* (Gaertn.) Roxb.**; Eng. Beliric Myrobalan; Vern. Behra; Hindi Bahera;
Family- Combretaceae;
Status- Common.
Medicinal Uses: Fruit forms an important constituent of *Triphla* which is used as laxative and in treatment of piles, liver, stomach complaints, anaemia, heart complaints, urinary troubles.
100. ***Terminalia chebula* Retz.**; Eng. Chebulic Myrobalan; Hindi Harad; Vern. Harad, Rheed;
Family- Combretaceae.
Medicinal Uses: Fruit is used in *Triphla*, *Chawanprash*, Blumin Syrup. Effective against chronic ulcers & mouth inflammations. Acts as laxative.
101. ***Terminalia arjuna* (Roxb.) Wight & Arn.**; Vern. Arjan ; Hindi Arjun;
Family- Combretaceae.
Medicinal Uses: Plant is hypocholesteremic, hypolipidemic, anticoagulant, antihypertensive, antithrombotic, antiviral, antifungal and antibacterial agent. Leaf extract is used in earache. Leaves are given in a compound decoction for flatulent distension of abdomen. Bark is astringent, febrifuge, anti dysenteric. It is applied as a paste on pimples and other minor skin eruptions. The pulverized bark gives relief in symptomatic hypertension, cardio tonic and as a diuretic in cirrhosis of liver.
102. ***Thymus linearis* Benth in Wall**; Eng. Lemon Thyme, Wild Thyme; Vern. Van-juain;
Family- Lamiaceae.
Medicinal Uses: It is recommended in the treatment of urinary & menstrual troubles. Also used as a tea substitute.
103. ***Thalictrum foliosum* DC.**; Eng. Meadow Rue; Hindi Mamiri; Vern. Beeni;
Family- Ranunculaceae.
Medicinal Uses: Roots medicinal, decoction is used in ophthalmia. Folk healers prescribe in treating mammary abscess.
104. ***Tinospora cordifolia* Miers.**; Hindi Giloe.; Vern. Garoe, Galoi, Gaduchi;
Family- Menispermaceae.
Medicinal Uses: The stem is used in constipation, fever, burning sensation, vomiting, diuretic, enriches blood, to cure jaundice and also useful in skin diseases. The juice is useful in diabetes and in enlarged spleen. Used in Ayurvedic preparations like Meryton Syrup to rejuvenate body vigour & to regulate blood metabolism.
105. ***Tribulus terrestris* L.**; Eng. Puncture Plant; Hindi Gokhru; Vern. Gokhru, Bhakhra;
Family- Zygophyllaceae.
Medicinal Uses: Recommended in disorders of urinary system for treating bladder stones, painful micturation. Also used in gonorrhea, impotency & dropsy.
106. ***Urena lobata*, Linn.**; Eng. Common Purple Mallow; Hindi Bachita; Vern. Dhamjojda, Dhamni;
Family- Malvaceae.
Medicinal Uses: Roots used as an external remedy for rheumatism. Flowers used to purify blood.
107. ***Urtica dioica* L.**; Eng. Stinging Nettle; Vern. Kali Shadder.
Family- Urticaceae;
Medicinal Uses: Used to excite the activity in paralyzed limbs. Also used in rheumatism.
108. ***Valeriana jatamansii* Jones.**; Eng. Indian Valerian, All heal; Hindi Sugandhbala; Vern. Mushkbala, Murmao;

Research Article

Family- Valerianaceae;

Status- Endangered.

Medicinal Uses: Roots used medicinally in Ayurvedic formulations. Valtrats isolated from rhizomes have tranquilizing & sedative action. Also used in perfumes. Locally traded in J&K.

109. ***Verbascum thapsus* L.;** Eng. Adam's Flannel; Vern. *Giddar Tamaku*;

Family- Scrophulariaceae.

Medicinal Uses: Decoction of roots is used for cramps & migraine. Leaves & flowers are used in pulmonary diseases. Also used on burns & wounds.

110. ***Viola odorata*, Linn.;** Hindi *Bunafsh*; Vern. *Bunashaan*;

Family- Violaceae.

Medicinal Uses: Whole herb is boiled in water & used in cough, cold & throat problems.

111. ***Vitex negundo* L.;** Eng. Common Chaste Tree; Hindi *Sambhalu*; Vern. *Bana*, *Nilpushpi*;

Family- Verbenaceae.

Medicinal Uses: Leaves are used as febrifuge, diuretic, emmenagogue & expectorant. Roots are demulcent, diuretic & expectorant. Flowers are astringent & cardiac tonic. Paste of leaves is applied on the wounds. Twigs are used to keep away evil spirits.

112. ***Withania somnifera*;** Hindi *Ashwagandha*; Vern. *Asgandh*;

Family- Solanaceae;

Status- Common.

Medicinal Uses: Roots are used in sexual disorders & general weakness forms an important ingredient of 31 energy capsules.

113. ***Woodfordia fruticosa* Kurz.;** Eng. Fire bush; Hindi *Dhataki*; Vern. *Dhayee*;

Family- Lythraceae

Medicinal Uses: Dried flowers are astringent, given in leucorrhoea, menorrhoea, piles & liver complaints.

114. ***Zanthoxylum armatum* DC.;** Vern. *Timbru*, *Tirmru*, *Timar*;

Family- Rutaceae;

Status- Endangered.

Medicinal Uses: Bark, fruits & seeds are extensively used in medicine as carminative, stomachic & anthelmintic. Fruits are effective against tooth ache. Essential oil obtained from fruits is used in tooth powders.

115. ***Ziziphus nummularia* (Burm.f.) Wight & Arn.;** Eng. Jujuva, Indian cherry plum; Vern.name *Foadi*, *Jhar beri*, *Jangli ber*;

Family: Rhamnaceae.

Medicinal Uses: Bark, a remedy in diarrhoea, cures kapha, biliousness and diarrhoea. They are antipyretic, reduce obesity. Fruit is mucilaginous, pectoral, styptic, considered to purify blood and help in digestion. They are cooling, aphrodisiac, anodyne, tonic and laxative.

RESULTS AND DISCUSSION

Most of the area of the district lies in the Shiwaliks including Billawar, Basohli and Bani tehsils. Each of these tehsils has so many villages and many of them are inaccessible because of lack of road connectivity. Therefore, people inhabiting such remote villages keep strong faith in medicinal plants to get rid of day to day ailments related to their health and well being. The knowledge of medicinal plants descends from generation to generation. In the present study it has also been inferred that the use of medicinal plants in some cases provide better relief than otherwise. *Ajuga bracteosa* is proven to give better relief to Diabetics. A total of 115 species of Gymnospermous and Angiospermous plants of medicinal importance have been presently recorded from the various localities within the area of study which spread over 60 families of Aniosperms and Gymnosperms and many more are yet to be explored. It has also been reported that a number of the medicinal plants are over-exploited through their extensive marketing in the nearby Amritsar Market or local consumption resulting in their rarity & even endangered status. In this

Research Article

category mention may be made of the plants like *Zanthoxylum armatum*, *Trillium govanianum*, *Valleriana jatamansi*, *Taxus wallichiana* etc.

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