ETHNOMEDICINAL PLANTS USED BY TRIBALS OF DHAR DISTRICT, MADHYA PRADESH, INDIA

Kamal Singh Alawa¹ and Sudip Ray²

¹Department of Botany, Govt. P.G. College, Dhar (MP)
²Department of Botany, PMB Gujarati Science College, Indore (MP)

*Author for Correspondence

ABSTRACT

Dhar district is known as one of the tribal district of Madhya Pradesh where 54 percent of total populations belong to tribal community. Bhil, Bhilala Barela and Patelia are the main tribals of study area and totally dependent on medicinal plants for their daily health care need. Present paper deals with 86 ethnomedicinal plants which are belong to 71 genera and 47 families used for 35 types of diseases.

Key Words: Ethnomedicine, Dhar District, Tribals, Ethnomedicinal Plants, Madhya Pradesh

INTRODUCTION

India has rich heritage of knowledge on plant based drugs both for use in preventive and curative medicines. Besides the classical work of the “Atharva Veda”, ancient Indian scholars like ‘Charak’, ‘Sushrta’ and others produced remarkable description of Indian medicinal plants. They described the properties of medicinal plants and preparation in such details that most of the plants and their preparation are still held in high repute in the medical profession. In fact, our Ayurvedic system of medicine is predominantly a plant-based Materia-medica, making use of most of our native plants to make the health care cheap and acceptable.

Dhar district is situated in the South-western part of Madhya Pradesh. The district lies between the latitude of 22° 1’ 14” to 23° 9’ 49” North and the longitude of 74° 28’ 27” to 75° 42’ 43” East. The shape resembles an irregular pentagon. Dhar name is supposed based on “Sword Blade”of Vairisingh to have been derived from Dharanagari. The district is bounded by Ratlam to the North, Ujjain to the Northeast, Indore to the East, Khargone to the Southeast, Barwani to the South, Alirajpur to the Southwest and Jhabua to the West. The elevation varies from 256-1000 m above sea level. The total area of the district comprising 8153 sq. km. is divided in to seven tahsils viz. Dhar, Dharampuri, Sardarpur, Manawer, Badnawer, Gandhwani and Kukshi (Figure1). Geographically area is divided into Malwa plateau, Vindhyan scarps and Narmada valley. The average annual rainfall is between 656.7 mm. and 1556.6mm. and average Maxi. Temperature varies from 26.5°C to 40.1°C and mini. Temperature varies between 9.7°C to 24.2°C. Most of area is drained by Narmada, Chambal, Man, Mahi, Karam, Khuj, Bag, Hathani rivers. The area under study is inhabited by Bhils, one of the most important and third largest tribe of India. The Bhil has been derived from the Dravidian word bil or vil meaning a bow.

According to 2011 census, population of the district is 21, 84,672. The Scheduled Tribes constitute 54 percent and rural tribe population is 83 percent. Most of the village inhabitants of Dhar district belong to tribal communities. Major part of the district is covered by dense forest area in which various tribes, like Bhil, Bhilala, Barela and Patelia are living in majority out of these tribes. These Tribal’s live close to the forest and are largely dependent on the wild biological resources for their livelihood. They utilize a wide variety of plant for their basic needs, such as food, fiber, fodder, wood, medicine, gum, tannin, resin, dye and shelter. The present paper deals the medicinal wealth of Dhar district, Madhya Pradesh.

Pradesh. Covering 86 herbal remedies uses against various disorders medicinal plants used by tribals of Dhar district.

**MATERIALs AND METHODS**
Ethnobotanical surveys were conducted during the years 2010-2012 in the tribal pockets of Dhar district Madhya pradesh. The Tribals madicineman ‘Badwa’ keep secrecy about medicinal plants uses of the stomach disorders, skin disease, aphrodisiacs, fever, tonic, ulcer, asthma, snake-bite, respiratory disease, leucorrhoea, dandruff, eye-disease and diabetes. The first hand information on folklore uses of plants was gathered along with the mode of administration, therapeutic uses and dosages from tribal medicine men.

![Location map of study area](image)

**Figure 1: Location map of study area**
Research Article

The tribal medicine men were taken to the forests where they pointed out the plants being used for treating the disease. During the course of field study, knowledgeable persons such as old tribal men were approached and specific questionnaires were asked about the plants and their traditional uses. The data regarding uses of ethnomedicinal plants has verified and cross checked (Kirtikar and Basu, 1993; Chopra, 1956 and Jain, 1993).

Herbarium specimens were prepared following the standard method (Jain and Rao, 1978) and deposited of PMB Gujarati Science College, Indore, Madhya Pradesh.

ENUMERATION

In the following enumeration, the plant species are arranged alphabetically order with their scientific names, family, locality, local name, vernacular names, tribal uses and a brief note on medicinal plant parts used and mode of utilization and dosage.

1. *Adansonia digitata* L., (Bombacaceae); *Locality*: Mandu, *Local name*: Khurasani imli; the dried pulp of the fruit (about half teaspoon) has effect on body cooling and also given as appetizer and to treat stomach pain.

2. *Adhatoda zeylanica* Medik. (Acanthaceae); *Locality*: Mandu, *Local name*: Adusa; Decoction of leaves is taken orally (About 2 teaspoons) 2-3 times daily in bronchitis.

3. *Andrographis paniculata* wall. Ex. Nees. (Acanthaceae); *Locality*: Nalcha, *Local name*: Kalmegh; Whole plant is boiled in water and the filtrate (About 2 teaspoons) is given for three-five days to treat malaria.


5. *Abelmoschus manihot* (L.) Medik., (Malvaceae); *Locality*: Nalcha, *Local name*: Jangli bhendi; Root extract given internally for a long duration in case of male impotency.

6. *Aegle marmelos* (L.) Corr., (Rutaceae); *Locality*: Mandu, *Local name*: Bela; the pulp of ripe fruit is used in stomach disorders.

7. *Aloe vera* (L) Burm.f., (Liliaceae); *Locality*: Nalcha, *Local name*: Gwarpatha; The succulent leaves are crushed and mixed with turmeric and the paste is applied on the eruptions on any part of the body.

8. *Amorphophallus campanulatus* Blume: ex DC. (Araceae); *Locality*: Keshavi, *Local name*: Bhabdi; the tubers are crushed and applied in cases of snake bite.

9. *Anogeissus latifolia* (Roxb. Ex DC.) Wall (Combretaceae); *Locality*: Mandu, *Local name*: Dhawda; Fried gum is useful in spermatorrhoea.

10. *Asparagus racemosus* Willd. (Liliaceae); *Locality*: Nalcha, *Local name*: Satawari; the root paste mixed with water is given in the morning upto 15 days to increase the potency and Typhoid. The root juice (teaspoons) is taken orally with milk to cure general fever.

11. *Azadirachta indica* (Linn.) A. Juss. (Meliaceae); *Locality*: Nalcha, *Local name*: Neem; It is believed that on brushing the teeth daily with the stick, the body becomes resistant against snake bite and bathing to cure skin afflictions.

12. *Annona squamosa* L. (Annonaceae); *Locality*: Nalcha, *Local name*: Sitaphal; Seed powder is used as abortifacient.

13. *Argemone mexicana* L. (Papaveraceae); *Locality*: Nalcha, *Local name*: Peli kateli; Small pieces of roots are chewed with a leaf of Paan (Piper betle) in jaundice.

14. *Ailanthus excelsa* Roxb. (Simaroubaceae); *Locality*: Mandu, *Local name*: Maharukh; Stem of crushed leaves inhaled in tetanus, leaf decoction given internally as long treatment for joint pains.

15. *Balanites aegyptiaca* Delilie (Simaroubaceae); *Locality*: Nalcha, *Local name*: Hingry; the bark paste is applied on the face to reduce the swellings on the face. The paste mixed with water is also given four times in a day against discharge of yellowish urine.
16. *Biophytum sensitivum* DC. (Oxalidaceae); **Locality**: Nalchha, **Local name**: Lajuri (Lajwanti); the leaf powder is used to decrease sexuality.

17. *Boerhavia diffusa* Linn. (Nyctaginaceae); **Locality**: Nalchha, **Local name**: Purnava; the root paste is given in cases of blood dysentery two times a day, in empty stomach and the urinary disorders.

18. *Bombax ceiba* Linn. (Bombaceae); **Locality**: Nalchha, **Local name**: Semal; the roots of young seedlings are chewed for more vitality. The flowers are also given against semen discharge.

19. *Butea monosperma* (Lamk.) Taub. (Fabaceae); **Locality**: Nalchha, **Local name**: Palash; Leaf juice is extracted with water, strained and given in diabetes. The roots are chewed in the cases of male impotency.

20. *Caesalpinia bonduc* (Linn.) Roxb. (Caesalpiniaceae); **Locality**: Aamkho, **Local name**: Gattar; the seed powder is given to ladies against bleeding.

21. *Calotropis gigantea* (Willd.) Ait, (Asclepiadaceae); **Locality**: Mandu, **Local name**: Ankda; the milky latex is applied on the inflamed parts of the body to reduce pain and swellings.

22. *Calotropis procera* (Ait.), (Asclepiadaceae); **Locality**: Mandu, **Local name**: Akau; Leaves are heated a bit and tied over swollen body part.

23. *Careya arborea* Roxb. (Lecythidaceae); **Locality**: Aamkho, **Local name**: Kumbhi; the leaf paste is applied on the face to reduce the swellings.

24. *Carissa congesta* Wt. (Apocynaceae); **Locality**: Aamkho, **Local name**: Karonda; The juice of root bark is given in fever.

25. *Cassia glauca* Lamk. (Caesalpiniaceae); **Locality**: Aamkho, **Local name**: Kamarsothi; the beads made from wood are hanged in neck to cure jaundice.

26. *Cassia fistula* L., (Caesalpiniaceae); **Locality**: Mandu, **Local name**: Amaltas; the fruit pulp is given in diabetes as a long term treatment.

27. *Caesalpinia bonduc* (L.) Roxb. (Caesalpiniaceae); **Locality**: Bharudpura, **Local name**: Gattar; The stem bark paste is eaten to Stomach pain.

28. *Celastrus paniculatus* Wild. (Celastraceae); **Locality**: Mandu, **Local name**: Malkangni; the seed oil is used as massage oil in the cases of leprosy and body ache.

29. *Centella asiatica* (Linn.) Urb. (Apiaceae); **Locality**: Mandu, **Local name**: Brahmi; the decoction of the plant is given against discharge of yellowish urine.

30. *Chlorophytum arundinaceum* Baker. (Liliaceae); **Locality**: Bharudpura, **Local name**: Safed musli Root is taken as an aphrodisiac, Diarrhoea, Menstrual disorders and Tonic.

31. *Cissus quadrangularis* (Linn.) (Vitaceae); **Locality**: Nalchha, **Local name**: Gathan; the entire plant Crushed into paste is eaten and applied on bone fracture. The wound heals shortly.

32. *Costus speciosus* (Koenig). Sm (Zingiberaceae); **Locality**: Bharudpura, **Local name**: Kanda; the root paste is given to cattle in fever, once a day upto two days.

33. *Croton oblongifolius* Roxb. (Euphorbiaceae); **Locality**: Aamkho, **Local name**: Jangli arandi; the paste made from roots ca 8 cm. long with 1.5 cm. girth is given in dysentery and in vomiting for one or two alternate days.

34. *Crotalaria juncea* L. (Fabaceae); **Locality**: Mandu, **Local name**: Sann; Fine powder of seeds used in obesity, especially of women.

35. *Curculigo orchioides* Gaertn. (Zingiberaceae); **Locality**: Bharudpura, **Local name**: Kali musli; the root paste mixed with ghee is given to increase potency.

36. *Curcuma angustifolia* Roxb. (Zingiberaceae); **Locality**: Keshavi, **Local name**: Haldi; the rhizome paste mixed with milk is given in empty stomach in cases of fever, two times in a day up to seven days.

37. *Dillenia pentagyna* Roxb. (Dilleniaceae); **Locality**: Nalchha, **Local name**: Kelia sag; the stem bark is powdered and mixed with water and after filtration, ‘Misri’ is added to the filtrate. This mixture is then given to ladies for easy delivery, two times in a day upto three weeks.

38. *Diplocyclos palmaus* (L.) C. Jeffrev, (Cucurbitaceae); **Locality**: Nalchha, **Local name**: Shivlingi; Fine powder of seeds in milk is used in cases of both male and female sterility.
39. *Drimia indica* (Roxb.) Jessop [Urginea indica (Roxb.) Kunth.] (Liliaceae); **Local name:** Bardhupura, **Local name:** Jangli kela; Seed paste soaked overnight in water is given in small quantity to children in dysentery.

40. *Euphorbia Nerifolia* L. (Euphorbiaceae); **Local name:** saray, **Local name:** Thuwar; Latex is mixed with Haldi powder and a paste is prepared, this paste is applied over swollen part of body.

41. *Ensete superbum* (Roxb.) Cheesman, (Musaceae); **Local name:** Mandu, **Local name:** Jangli kela; Seed powder is given internally in case of a bite a rabid dog.

42. *Euphorbia Azul* Roxb. (Euphorbiaceae); **Local name:** Mandu, **Local name:** Khargoni; the root paste is small quantity is dissolved in water and is given to animals in dysentery and in fever, only once or rarely two times.

43. *E. hirta* Linn. (Euphorbiaceae); **Local name:** Nalchha, **Local name:** Chotidudhi; the milky latex is rubbed externally on eyes and applied in scorpion bite.

44. *Ficus Religiosa* Linn. (Moraceae); **Local name:** Mandu, **Local name:** Pipal; the young leaves are used in snake bite. It is believed that the leaf petiole when inserted in both the ears sucks poison from the body. About twenty pairs of leaves are used alternatively to take out the poison from the body and ash of stem bark in asthma.

45. *Ficus hispida* L., (Moraceae); **Local name:** Mandu, **Local name:** Bhui gular; Fruit boiled in goats milk, strained and given in enlargement of liver and also in jaundice.

46. *Ficus Racemosa* L., (Moraceae); **Local name:** Mandu, **Local name:** Gular; Fruits given in diabetes and to check abortion (Ayu. also).

47. *Flacourtia Indica* (Burm. f.) Merr. (Flacourtiaceae); **Local name:** Mandu, **Local name:** Dollar; the root paste is applied externally in skin diseases.

48. *Gloriosa Superba* Linn. (Liliaceae); **Local name:** Saray, **Local name:** Kalihari; the root and flower paste is used for killing the mouse and birds in crop fields and root paste (half teaspoons) is administered in the pregnancy upto four month.

49. *Gymnema sylvestre* (Retz.) R. Br. Ex. Schult. (Asclepiadaceae); **Local name:** Nalchha, **Local name:** Gudmar; the tuber powder is applied on Diabetes and Menstrual disorders.

50. *Helicteres isora* Linn. (Sterculiaceae); **Local name:** Haror, **Local name:** Maror phalli; the aqueous extract of the seed in small quantity is given to children in dysentery and Root extract is given in fits and diabetes (Ayu. Also.).

51. *Hemidesmus Indicus* R. Br. (Asclepiadaceae); **Local name:** Nalchha, **Local name:** Dudhi; the root paste mixed with water is given in small quantity to children in dysentery.

52. *Holarrhena pubescens* Wall. ex G. Don Syn. *H. Antidysenterica* Wall. ex DC.(Apocynaceae); **Local name:** Nalchha, **Local name:** Kudhi; the fruit paste is given in stomachache.

53. *Hymenodictyon Excelsa* (Roxb.) Mab., (Rubiaceae); **Local name:** Nalchha, **Local name:** Bhavar sal/ Bhaulan; An extract of inner stem bark given for relief from addiction to hard drink.

54. *Indigofera Tintoria* L., (Fabaceae); **Local name:** Nalchha, **Local name:** Neel; Seed paste soaked overnight in clean water, strained in the morning through a clean cloth. The filtrate is used as eye drops, for a number of days for relief from cataract.

55. *Ichnocarpus Frutescens* (L.) R. Br. (Apocynaceae); **Local name:** Nalchha, **Local name:** Dudhi; the root paste is applied on body to cure fever.

56. *Jatropha curcas* Linn. (Euphorbiaceae); **Local name:** Aamkho, **Local name:** Ratanjot; the stem is used as tooth brush to relieve toothache and gum swelling.

57. *Lawsonia inermis* L. (Lythraceae); **Local name:** Mandu, **Local name:** Mehandi; the whole plant is crushed and the paste is applied on Boils Burn, Headache, Piles, Rheumatism, Snake bite.

58. *Luffia acutangula* (L.) Roxb., (Cucurbitaceae); **Local name:** Nalchha, **Local name:** Kadv turai; Fine seed powder inhaled for cure of jaundice. Very clean juice of fruits is used as eye drops in conjunctivitis.

59. *Madhuca Longifolia* (Koenig) Mac.Bride var. latifolia (Roxb.) Chev., (Sapotaceae); **Local name:** Nalchha, **Local name:** Mahua; A sweet dish made by boiling the flowers in milk and taken regularly for a long duration to cure male impotency. Bark paste applied externally on tonsils. Seed extract is given internally.
Research Article

in diphtheria. The oil cake is burnt inside the room to keep away snakes.
60. *Martyania annua* L. (Martyniaceae); **Local**ity: Nalcha, **Local** name: Bichia; the seed oil is applied in case of eczema.
61. *Momordica dioica* Roxb. ex Willd. (Cucurbitaceae); **Local**ity: Mandu, **Local** name: Kikode; the Seeds are used to remove Kidney stone, diabetes and fever.
62. *Momordica charantia*. Linn. (Cucurbitaceae); **Local**ity: Mandu, **Local** name: Bankarela; The juice of the fruits is given in diabetes till it is cured.
63. *Mucuna pruriens* (L.) DC., (Fabaceae); **Local**ity: Nalcha, **Local** name: Kevach/ Kaunch; Root paste applied externally on facial and paralytic places and root extract is given with water in empty stomach to sexually weak male.
64. *Ocimum americanum* Linn. (Lamiaceae); **Local**ity: Mandu, **Local** name: Tulsi; the leaves are crushed and mixed with salt, and eaten to increase the taste of tongue.
65. *O. basilicum* Linn. (Lamiaceae); **Local**ity: Mandu, **Local** name: Kali tulsi; the leaf decoction mixed with saline water is used to keep away the snakes.
66. *O. gratissimum* L., (Lamiaceae); **Local**ity: Mandu, **Local** name: Tulsi ghas; the extract of seeds is mixed with sugary water and given during hot summer days as nerve tonic.
67. *Oldenlandia corymloosa* (L. F.) DC. Syn. *O. crystalline* Roxb. (Rubiaceae); **Local**ity: Nalcha, **Local** name: Ratwa; the root paste is applied and eaten to cure eczema and stomachache.
68. *Phoenix sylvestris* Roxb. (Areceaceae); **Local**ity: Nalcha, **Local** name: Khajoor; the heartwood is given to ladies for increasing lactation after child birth.
69. *Phyllanthus virgatus* Forst. (Euphorbiaceae); **Local**ity: Aamkho, **Local** name: Blahi aonla; Extract of the whole plant given in malaria.
70. *Physalis minima* Linn. (Solanaceae); **Local**ity: Nalchha, **Local** name: Popati; Two and a half leaves are eaten to cure fever and fruits are eaten to maintain body heat.
71. *Senna tora* (L.) Roxb. (Caesalpiniaceae); **Local**ity: Mandu, **Local** name: Puwadia; the seeds are crushed with water and applied in eczema and hemicrania.
72. *Solanum nigrum* L. (Solanaceae); **Local**ity: Nalcha, **Local** name: Makoi; Leaf juice given in enlargement of spleen, Jaundice and Snake bite.
73. *Solanum incanum* Linn. (Solanaceae); **Local**ity: Mandu, **Local** name: Khatti ringdi; the seed powder is applied inside the mouth to cure toothache.
74. *Solanum virginianum* L. (Solanaceae); **Local**ity: Mandu, **Local** name: Kateli; the seed powder is applied inside the Asthma, Cough and Rheumatisms.
75. *Sterculia villosa* Roxb (Sterculiaceae); **Local**ity: Nalcha, **Local** name: Kudawala; the root paste is given only and also applied on the inflamed parts of the body to reduce Swellings and Bark used in asthma.
76. *Taca leontopetaloides* (Linn.) O. Ktze. (Taccaceae); **Local**ity: Mandu, **Local** name: Barwa; the tuber paste is applied in headache and in body pain.
77. *Malinkara hexandra* Roxb. (Sapotaceae); **Local**ity: Mandu, **Local** name: Khirni; the stem bark boiled with water is used for bathing upto four days once in a day to bodyache.
78. *Tectona grandis* L., (Verbenaceae); **Local**ity: Nalcha, **Local** name: Sagon; Stem bark is chewed in the case of any mouth disease.
79. *Trichosanthes cucumerina* Linn. (Cucurbitaceae); **Local**ity: Nalcha, **Local** name: Tambakasri; the fruits are kept in water for 12 hours and used to give bath to patients suffering from jaundice.
80. *Tridax procumbens* Linn. (Asteraceae); **Local**ity: Nalcha, **Local** name: Karkadia khad; the paste of whole plant is used to stop bleeding caused by any outer stroke.
81. *Ventilago denticulate* Willd. (Rhamnaceae); **Local**ity: Mandu, **Local** name: Ghurbela; the stem bark paste mixed with sugar is given two times in a day for cooling effect.
82. *Vitex negundo* L., (Verbenaceae); **Local**ity: Mandu, **Local** name: Nirgudi; Leaf juice is mixed with the seeds of Ajwain (Trachyspermum ammi (L.) Sprague) and is given (a teaspoon) in stomach disorders.
Research Article

83. *Xanthum strumarium* Linn. (Asteraceae); **Locality**: Nalchha, **Local name**: Ghadsia/Gokhru; the seed paste is applied in forehead to cure headache and decoction of whole plant is given for three days to treat liver disorder.

84. *X. uliginosa* (Retz.) Mahesh (Rubiacaeae); **Locality**: Aamkho, **Local name**: Gagri; the root paste is given in dysentery.

85. *Zingiber roseum* Rosc. (Zingiberaceae); **Locality**: Mandu, **Local name**: Jangliadrak; the rhizome paste is applied on the body and the juice of the rhizome is given three times in a day to cure general fever.

86. *Ziziphus mauritiana* Lamk., (Zingiberaceae); **Locality**: Nalchha, **Local name**: Bor; Leaf paste or bark is applied over the place of scorpion sting.

RESULTS AND DISCUSSION

Present study reports 86 plants species which are included fewer than 71 genera and 47 families which are used for the treatment 35 types of diseases. Generally local medicine man or knowledgeable of medicinal plants of Bhils and Bhilala tribes is known as ‘Badwa’. They keep secrecy about medicinal plants and uprooted according to required proportion. Usually they collect these plants after rainy season or Dushera festival. Most of the traditional medicines were prepared by healers from fresh material harvested from wild. Dried materials often given as powder form. Prescribed to take as a Juices, decoction or infusion of whole plants or plant parts given to patient and most commonly.

The data on the medicinally important plants reveals that 35 were used again skin disease 2, diarrhea and dysentery 2, plants for respiratory, cough & cold or branchities or asthma 3, stomach pain 7, fever & typhoid 13, snake & scorpion bite 7, eye-disease 4, body pain 8, diabetes 6, jaundice 5, bone fracture 1 plants for cardiovascular.

ACKNOWLEDGEMENT

The author is thankful to Dr. R. Trivedi, Principal and Prof. S. Nagar, Head of Botany Department, PMB Gujarati Science College, Indore for providing research and library facilities. We also extend our thank to Dr. R. K. Dave, Principal and Dr. Anuradha Dubey, Head of Botany Department, Govt. P. G. College, Dhar for their help and support. We are also thankful to Divisional forest officer, Dhar for help during the ethno medicinal survey in tribal villages and forest areas of the district we are thankfully acknowledge the informants Goverdhan Gavad, Shukhlat Singare, Kishan Chouhan, Ramsingh Patel and Onkar patel for the important information giving regarding ethno medicinal plants.

REFERENCES


Research Article


Research Article

Vairale MG and Singh R (2010). Folklore claims on some medicinal plants used by Bhil tribes of Guna District, Madhya Pradesh. Indian Journal of Traditional Knowledge 9(1) 105-107.

Wagh VV and Jain AK (2010). Ethnomedicinal observations among the Bheel and Bhilala tribe of Jhabua District, Madhya Pradesh, India. Ethnobotanical Leaflets 14 715-720.