



Ethnobotanical study of plants collected from the forest of Shankargarh, Prayagraj, Uttar Pradesh

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Abstract

Shankargarh is the area which is less studied for its ethnomedicinal values so this ethnobotanical study presents the folk medicinal and herbal uses of local plants by public of the Shankargarh, Prayagraj. The main aim of this study is to investigate the indigenous knowledge, documentation and conservation of important ethnomedicinal plants of Shankargarh and also studied their socio-economic relationship with the forests and its resources. There were 126 ethno-medicinal plant species belonging to 104 genera of 46 families recorded during field observations which are medicinally used against different diseases, such as cough, cold, dysentery, diarrhea, ulcer, diabetes, weakness, insects bite, snake-bite, skin problems, etc. Among 126 species 50 species related to tree, 8 species related to shrub, 63 species related to herb and 5 species related to climber. Fabaceae (17 species) was the dominant family among all families followed by Poaceae (10 species), Asteraceae (8 species), Acanthaceae (6 species). These medicinal species were also used in combination of some another species like *Aloe vera*, *Cocos nucifera*, *Allium cepa*, *Curcuma longa*, *Ocimum sanctum*, *Punica granatum*, etc.

Keywords: Ethnobotanical study, ethnomedicinal values, ethnomedicinal plants, folk medicine, diseases

Introduction

Natural products are the main source of human beings to fulfill their needs. These natural products are the incredible gift to human beings given by nature and play vital role in human's life. From long time humans are using these natural products as medicine. Plants and animals both are the important part of the nature but plants are more beneficial for human beings.

Plants are important part of the ecosystem and play important roles in development of medicine and in human health care. Plants which contain active ingredients in one or more organs or parts and the active ingredients are used in the synthesis of different types of drugs are medicinal plants. Now a days medicinal plants are largely used by the people in treatment of different diseases. Indigenous knowledge of medicinal plants help in curing different diseases and can be used as basis for developing management plans for conservation and sustainable use of medicinal plants.

These medicinal plants are economically as well as pharmaceutically useful and contributed an important part to the industry. Various ailments of rural areas are treated effectively by the traditional use of the medicine like Ayurvedic, Unani, Chinese and biomedicine. In all over world ethnobotany is a very important area for research and study. Ethnobotany is the study of the plants and their uses with the help of traditional knowledge of the local people. Ethnobotany is investigating the plants used by the societies in various parts of the world. Ethnobotany showed strong relationship between human beings and nature and it is also the study of how modern and indigenous societies visualize and use the plants. Ethnobotany provides opportunity to find out new uses of medicinal plants and also help in discovery of new medicines which are derived from plants. The requirement of ethnobotany is increasing because of growing recognition of natural products, nontoxicity and easy availability.

In the cure of human diseases and in the development of medicines for human health, there are many herbal remedies and healthcare preparations from traditionally used plants, as described in ancient texts such as the Vedas and Bible, has been traced to the occurrence of natural products with enormous medicinal properties. The development of indigenous medicines and the use of medicinal plants for the treatment of various diseases are economically beneficial. According to World Health Organization (WHO), 80% people of the world depend on ethnobotanical medicines for their primary healthcare needs.

For the treatment of various diseases medicinal plants should be free from microbial infection as well as fungal infection. Sometimes medicinal plants infected and reduces their medicinal effects by reducing formation of secondary metabolites which are the active constituents or ingredients of the plants in curing diseases. Fungal infection also degrades the quality of medicinally important active ingredients of the parts of the plants.

Methodology

This study was conducted at forest area of Shankargarh of Prayagraj, Uttar Pradesh, India. The forest area located in between 25°13'41"N latitude and 81° 36'00" E longitude. Shankargarh is mining rich area. There are three well recognized monsoonic seasons, summer, rainy and winter. Summer season is hot and long with maximum temperature ranging from 40 °C to 48 °C and occurs from month of March to June. Rainy season occurs from month of June to September with about 934 mm average annual rainfall. There is a wonderful cool and dry winter season occurs from month of December to February. Winter rains commonly occur. Land area of the site is black and coarse grey. Soil is coarse grey and less fertile so the main occupation of this area is mining.

The plant species collected during field trips and identification of the plants occur with the help of herbarium

of Allahabad University, Flora of Allahabad. Ethno-medicinal information collected by interviewing local informants and local traditional medical practitioners, from locality of Shankargarh so the local peoples were the main informer in this study. Ethno-botanical data was developed

consisting of botanical name followed by their local name, family, part used and ethno-medicinal uses.

Result

Table 1

S. No.	Name of the flora	Common name	Family	Habit	Parts	Ethno-medicinal Uses
1	<i>Abrus precatorius</i> Linn.	Gunj	Fabaceae	Climber	Seed	Brain tumor, conjunctivitis, epilepsy, gastritis, nephritis, tetanus, ulcer
2	<i>Abutilon indicum</i> (Linn.) Sweet	Kanghi	Malvaceae	Herb	Root, seed, whole plant	Bleeding disorders, cough, gonorrhea, headache, leprosy, paralysis
3	<i>Acacia catechu</i> (L. f.) Willd.	Khair, Kattha	Mimosaceae	Tree	Leaves, shoots, wood	Asthma, diabetes, obesity skin diseases, sore throat, teeth diseases
4	<i>Acacia farnesiana</i> (L.) Wight et Arn.	Vilayati Kikar	Mimosaceae	Tree	Bark, leaf, root	Alzheimer, indigestion, inflammation, snake bite, tuberculosis, urinary disorders
5	<i>Acacia nilotica</i> (L.) P.J.H.Hurter & Mabb	Babul, Kikar	Mimosaceae	Tree	Bark, gum, leaf, pod	Cholera, headache, jaundice, leprosy, skin diseases, urinary disorders, wound
6	<i>Achyranthes aspera</i> Linn.	Latjeera	Amaranthaceae	Herb	Root, leaf, whole plant	Anemia, asthma, bleeding, bronchitis, colic, cough, debility, dropsy, ear complications, pneumonia, scorpion bite
7	<i>Adina cordifolia</i> Hook. f.	Haldu	Rubiaceae	Tree	Bark, leaf, root	Cancer, colic, diarrhea, dysentery, fever, indigestion, leprosy, skin diseases, vomiting, wound
8	<i>Aegle marmelos</i> (L.) Correa	Bel	Rutaceae	Tree	Flower, fruit, root	Constipation, cold, cough, diabetes, diarrhea, epilepsy, ulcers, piles, scurvy, tuberculosis
9	<i>Ageratum conyzoides</i> Linn.	Sahdevi	Asteraceae	Herb	Leaf, root, whole plant	Constipation, dizziness, dysentery, eczema, epilepsy, filariasis, headache, hepatitis, intestinal worms, nausea, vomiting, wounds
10	<i>Ailanthus excelsa</i> Roxb.	Aralu	Simaroubaceae	Tree	Gum, stem, Bark, leaf	Asthma, bronchitis, dysentery, scarlet fever, tonsils
11	<i>Alangium salvifolium</i> (L.f.) Wangerin.	Ankal	Cornaceae	Tree	Leaf, whole plant, root, bark, seed	Abscess, arthritis, edema, flu, herpes, nose bleeding, piles, ringworm, snake bite
12	<i>Albizia lebbek</i> Benth.	Siris	Mimosaceae	Tree	Seed, bark, flower, fruit, leaf	Arthritis, bronchial asthma, cold, cough, diarrhea, eczema, flu, kidney stones, piles
13	<i>Albizia procera</i> Benth.	Safed Siris	Mimosaceae	Tree	Leaf, bark, root, whole plant	Cancer, rheumatism, stomachache, ulcers
14	<i>Alysicarpus vaginalis</i> DC.	Sauri	Fabaceae	Herb	Seed, root, whole plant	Bone fracture, colic, constipation, cough, fever, gonorrhea, malaria, wounds, urinary problems
15	<i>Amaranthus viridis</i> Linn.	Jungali chaulayi	Amaranthaceae	Herb	Leaf, whole plant	Abscesses, eye infection, filarial, gonorrhoea, heart problems, inflammation, purify blood
16	<i>Anagallis arvensis</i> Linn.	Krishananeel	Primulaceae	Herb	Whole plant	Disorders of liver, Dropsy, epilepsy, gall bladder, mental problems, skin infections
17	<i>Anogeissus latifolia</i> (Roxb. ex DC) Wall.	Dhaura	Combretaceae	Tree	Wood, bark	Cold, diabetes, diarrhea, localized swelling, skin diseases, wounds
18	<i>Argemone mexicana</i> Linn.	Satyanashi	Papaveraceae	Herb	Seed, flower, leaf, root	Ailments of the spleen and liver, asthma, cancer, chronic skin diseases, dropsy, epilepsy, jaundice
19	<i>Azadirachta indica</i> A. Juss.	Neem	Meliaceae	Tree	Bark, leaf, fruit, whole plant	Asthma, cough, dental problems, detoxify the blood, fever, intestinal worms, piles, ulcers, urinary, diseases
20	<i>Bambusa arundinaceae</i> (Retz.) Willd.	Kanteela Baans	Poaceae	Herb	Dried resin, tender, shoot	Cough, cold, dark discoloration, diabetes, dog bite, eczema, fever, indigestion, nausea, ringworm, scorpion bite, wounds
21	<i>Barleria cristata</i> Linn.	Kansaraiya	Acanthaceae	Herb	Root, seed, leaf	Baldness, catarrhal infections, earache, goiter, gout, jaundice, phlegm, toothache, whooping cough
22	<i>Bauhinia purpurea</i> (L.) Benth.	katmauli	Caesalpinaceae	Tree	Bark, leaf, flower, root, stem, seed	Edema, flatulence, goiter, insanity, jaundice, leprosy, mouth ulcers, obesity, tonsils, tumors
23	<i>Bauhinia variegata</i> L.	Kachnar	Caesalpinaceae	Tree	Leaf, stem,	Dyspepsia, hypothyroidism, oral

					flower, seed	disorders, skin problems, snake bite
24	<i>Bidens biternata</i> (Lour.) Merr. & Sherff.	Chirchitta	Asteraceae	Herb	Root, leaf,	Colic, conjunctivitis, earache, leprosy, pneumonia, snake bite, toothache
25	<i>Boerhavia diffusa</i> Linn.	Punarnawa	Nyctaginaceae	Herb	Seed, leaf, whole plant	Aging, anemia, cancer, debility, fever, kidney stones, liver diseases
26	<i>Bombax ceiba</i> Linn.	Semal	Bobacaceae	Tree	Leaf, resin, bark, seed, flower	Acne, amnesia, cough, diarrhea, enteritis, flu, premature ejaculation, sexual debility
27	<i>Borreria stricta</i> Linn. F.	Safed phooli	Rubiaceae	Herb	Stem, leaf, bark	Diarrhea, fever, gonorrheal sores, itches, kidney problems, leprosy
28	<i>Boswellia serrata</i> Roxb. ex Colebr.	Salai	Burseraceae	Tree	Bark, resin	Asthma, osteoarthritis, rheumatoid arthritis, ulcers
29	<i>Blumea lacera</i> (Burn.f.) DC.	Kakronda	Asteraceae	Herb	Root, leaf, whole plant	Cholera, cough, fever, gingivitis, inflammation, leucorrhea, neuralgia, oral herpes, rabies, sinusitis
30	<i>Brachiaria reptans</i> (Linn.) Gard.	Chaurila	Poaceae	Herb	Rhizome, whole plant	Kidney problems, snake bite
31	<i>Bridelia retusa</i> (L.) Spreng.	Kaji	Euphorbiaceae	Tree	Leaf, flower, root, bark	Fracture, jaundice, rheumatism, urinary problems
32	<i>Buchanania lanzan</i> Spreng.	Chironji	Anacardiaceae	Tree	Bark, seed, leaf, fruit	Abscesses, acne, asthma, bronchitis, constipation, heart diseases, nose bleeding, phlegm, sexual debility
33	<i>Butea monosperma</i> (Lam.) Taub.	Palas	Fabaceae	Tree	Seed, bark, leaf gum	Diabetes, eczema, hemorrhages, leucorrhea, phthisis, ringworm, skin diseases
34	<i>Calotropis procera</i> (Ait.) R. Br.	Madar	Asclepiadaceae	Shrub	Latex, flower, leaf, root seed	Cramps, elephantiasis, epilepsy, gout, joint pain, leprosy, snake bite, toothache
35	<i>Cannabis sativa</i> Linn.	Bhang	Cannabinaceae	Herb	Leaf	Dyspepsia, epilepsy, hemorrhoids, insect bite, insomnia, migraine, neuralgia, rheumatism, tetanus, tumors
36	<i>Cassia absus</i> Linn.	Bankulthi	Caesalpiniaceae	Herb	Seed, leaf, root	Anemia, blood impurity, bronchitis, conjunctivitis, constipation, cough, headache, leprosy, trachoma
37	<i>Cassia fistula</i> Linn.	Amaltas	Caesalpiniaceae	Tree	Root, leaf, fruit	Cardiac problems, chronic cough, colic, dyspepsia, fever, flatulence, pimples, skin irritation, syphilis
38	<i>Cassia tora</i> Linn.	Chakvad	Caesalpiniaceae	Herb	Seed, leaf, root, whole plant	Bee sting, carbuncles, erysipelas, itches, menstrual disorders, ringworm, scabies
39	<i>Chenopodium album</i> Linn.	Bathua	Chenopodiaceae	Herb	Whole plant, leaf, fruit	Abdominal diseases, abscesses, anemia, constipation, flatulence, jaundice, stomach problems
40	<i>Cleome gynandra</i> Linn.	Safed Hurhur	Cappariaceae	Herb	Leaf, seed, root, whole plant	Bronchitis, chest congestion, earache, insect bite, rheumatism, scorpion bite, sinus infection
41	<i>Clitoria ternatea</i> Linn.	Aparajita	Fabaceae	Climber	Bark, seed, root	Bleeding, boils, chronic headache, diarrhea, dizziness, fever, gastritis, migraine, nausea, syncope, tonsils
42	<i>Convolvulus pluricaulis</i> Choisy.	Shankpuspi	Gentianaceae	Herb	Leaf, flower, stem, whole plant	Bleeding, diabetes, epilepsy, high blood pressure, hypertension, migraine, sun stroke, vomiting
43	<i>Corchorus tricularis</i> Lam.	Kadvapat	Tiliaceae	Herb	Seed, leaf	Gripe, nausea, syphilis
44	<i>Cordia dichotoma</i> Forst.	Lasora	Ehreteaceae	Tree	Bark, leaf, fruit	Dyspepsia, fracture, headache, ringworm, sexual disorders, skin diseases, ulcers
45	<i>Crotalaria prostrata</i> Willd.	Chhunchhuni	Fabaceae	Herb	Whole plant, root	Cuts, gout, infantile diarrhea, stomach problems, wounds
46	<i>Cuscuta reflexa</i> Roxb.	Amar Bel	Cuscutaceae	Climber	Whole plant	Constipation, dandruff, diarrhea, inflammation, osteoporosis, piles
47	<i>Cynodon dactylon</i> (L.) Pers.	Doob ghaas	Poaceae	Herb	Rhizome, whole plant	Anemia, allergy, diarrhea, herpes, syphilis, warts, wrinkles
48	<i>Cyperus rotundus</i> Linn.	motha	Cyperaceae	Herb	Rhizome, whole plant	Breast tumor, diarrhea, fever, jaundice, sores, stomach disorders, wounds
49	<i>Dactyloctenium aegyptiacum</i> Linn.	Makra	Poaceae	Herb	Seed, whole plant	Dysentery, pain, ulcers, wounds
50	<i>Dalbergia sissoo</i> Roxb.	Shisham	Fabaceae	Tree	Bark, leaf, root, wood	Fever, intestinal parasites, non-healing wounds, obesity, over bleeding in menstrual cycle, sciatica, ulcers
51	<i>Datura innoxia</i> Linn.	Datura	Solanaceae	Shrub	Seed, flower, leaf	Asthma, fever, inflammation, itching, pain, skin diseases

52	<i>Dendrocalamus strictus</i> (Roxb.) Nees	Lathi Baans	Poaceae	Herb	Shoot, leaf	Epilepsy, fainting, inflammation
53	<i>Desmodium gangeticum</i> (Desv.)DC.	Salparni	Fabaceae	Herb	Whole plant, root	Arthritis, cardiovascular problems, digestive problems, respiratory complications, piles, sexual debility, skin diseases
54	<i>Desmodium triflorum</i> DC.	Kudaliya	Fabaceae	Herb	Leaf, whole plant	Diarrhea, digestion, dysentery, ulcers, wounds
55	<i>Desmostachya bipinnata</i> (Linn.) Stapf.	Kusha	Poaceae	Herb	Root, whole plant	Bleeding, dysmenorrheal, eczema, excessive burning sensation of the body, leucorrhoea
56	<i>Digitaria sanguinalis</i> (L.) Scop.		Poaceae	Herb	Seed	Debility, gonorrhoea
57	<i>Diospyros melanoxylon</i> Roxb.	Tendu	Ebenaceae	Tree	Bark, fruit, seed, leaf, flower	Diabetes, eye diseases, nausea, night blindness, nose bleeding, small pox, vomiting
58	<i>Echinochloa colonum</i> (L.) Link	Jharwa	Poaceae	Herb	Seed, tuber	Constipation, nausea, spleen and hemorrhage problems, vomiting
59	<i>Eclipta prostrata</i> Hassak.	Bhringaraj	Asteraceae	Herb	Whole plant	Asthma, cough, eye disorders, skin diseases
60	<i>Elytraria acaulis</i> (L.fil.) Lindau.	Patharchatta	Acanthaceae	Herb	Leaf, root	Abscesses, diabetes, diarrhea, fever, mammary tumor, pneumonia, venereal diseases
61	<i>Emblica officinalis</i> Gaertn.	Amla	Euphorbiaceae	Tree	Fruit, seed, flower, bark, leaf, whole plant	Anemia, dyspepsia, hair problems, jaundice, stomach problems
62	<i>Eucalyptus robusta</i> Sm.	Safeda	Myrtaceae	Tree	Seed, leaf	Abscesses, boils, cold, encephalitis, enteritis, erysipelas, flu, gangrene, mastitis, sores
63	<i>Euphorbia hirta</i> Linn.	Duddhi	Euphorbiaceae	Herb	Stem, leaf, root, Whole plant	Asthma, cold, cough, fever, insomnia, mental disorders, nervous weakness, skin diseases
64	<i>Evolvulus alsinoides</i> Linn.	Neeli Shankhpusphi	Convolvulaceae	Herb	Leaf, root, whole plant	Alzheimer, anxiety, asthma, chicken pox, cholera, skin diseases
65	<i>Evolvulus nummularis</i> Linn.	Musakarni	Convolvulaceae	Herb	Whole plant	Blood impurity, cramps, epilepsy, leprosy, paralysis
66	<i>Feronia limonia</i> Linn.	Kaith	Rutaceae	Tree	Fruit, root	Anorexia, dyspepsia, nausea, phlegm, vomiting, wounds
67	<i>Ficus benghalensis</i> Linn.	Bargad tree	Moraceae	Tree	Leaf, latex, bark	Diabetes, diarrhea, eye diseases, leucorrhoea, skin diseases, vomiting, wounds
68	<i>Ficus racemosa</i> Linn.	Gular tree	Moraceae	Tree	Bark, latex, fruit	Diabetes, fractured bones, heavy periods, leucorrhoea
69	<i>Ficus religiosa</i> Linn.	Peepal tree	Moraceae	Tree	Latex, leaf	Cough, diarrhea, nausea, skin diseases, vomiting
70	<i>Ficus rumphaii</i> Linn.	Pakar	Moraceae	Tree	Bark, stem, fruit	Diabetes, gastritis, intermittent fever, psychiatric disorders
71	<i>Gardenia latifolia</i> Aiton.	Papra	Rubiaceae	Tree	Leaf,	Skin diseases, snake bite, wounds
72	<i>Gloriosa superba</i> Linn. **	Kalihari	Colchicaceae	Herb	Flower, leaf, rhizome	Arthritis, colic, cholera, chronic ulcers, gonorrhoea, gout, infertility, leprosy, piles, scorpion stings, urological pains
73	<i>Gomphrena celosioides</i> Mart.	Gul-e-makhmal	Amaranthaceae	Herb	Whole plant	Gastrointestinal problems, respiratory problems, skin infections
74	<i>Gymnema sylvestre</i> R.Br	Gudmar	Asclepiadaceae	Herb	Fruit, flower, leaf	Constipation, diabetes, liver diseases, weight loss
75	<i>Hemidesmus indicus</i> (Linn.) Schultz	Anantamul	Asclepiadaceae	Climber	Latex, leaf, root	Anorexia, chronic cough, dyspepsia, gastritis, leucorrhoea, syphilis
76	<i>Holoptelia integrifolia</i> (Roxb.) Planch.	Chilbil	Ulmaceae	Tree	Stem seed, leaf	Chronic wounds, diabetes, dyspepsia, inflammation, intestinal cancer, malaria, rickets, ringworm, scabies, vomiting
77	<i>Ipomoea fistulosa</i> Mart DC.	Behaya	Convolvulaceae	Shrub	Root	Arthritis, constipation, fatigue, hydrocephaly, hypertension, inflammation, kidney problems
78	<i>Jatropha gossypifolia</i> L.	Ratanjoti	Euphorbiaceae	Shrub	Leaf, whole plant	Abrasions, headache, indigestion, inflammation, ulcers, venereal disease
79	<i>Justicia adhatoda</i> Nees.	Adusa	Acanthaceae	Shrub	Flower, leaf,	Asthma, bronchitis, cough, leprosy, tuberculosis
80	<i>Justicia paniculata</i> (Burm.f.) Wall. ex Nees.	Chiraita	Acanthaceae	Herb	Root, leaf	Allergies, cold, diarrhea, flu, jaundice, kidney problems, snake bite, tonsils

81	<i>Justicia procumbens</i> Linn.	Kalmashi	Acanthaceae	Herb	Whole plant, leaf	Asthma, conjunctivitis, flatulence, infections, low back pain
82	<i>Lantana camara</i> Linn.	Raimuniya	Verbenaceae	Shrub	Flower, root, leaf	Asthma, chicken pox, rabies, skin problems, ulcers
83	<i>Leucaena leucocephala</i> (Lam.) de Wit	Subabul	Fabaceae	Tree	Root, seed, leaf	Diabetes, insects bite
84	<i>Leucas aspera</i> (Willd.) Link	Gumma	Lamiaceae	Herb	Dried whole plant, flower, leaf, root	Flatulence, insect bite, jaundice, liver diseases,
85	<i>Madhuca indica</i> Gmel	Mahua	Sapotaceae	Tree	Seed, flower, bark, fruit	Cough, diarrhea, headache, hypertension, nerve disorders, skin diseases
86	<i>Malvastrum coromandelianum</i> (L.) Garcke	Kharenti	Malvaceae	Herb	Root, seed, leaf	Dysentery, ringworm, sores, stomach pain, wounds
87	<i>Mangifera indica</i> Linn.	Aam	Anacardiaceae	Tree	Seed, fruit, leaf, root, bark	Abscesses, anemia, anthrax, blisters, datura poisoning, insomnia, miscarriage, tetanus
88	<i>Medicago sativa</i> Willd.	Alfalfa	Fabaceae	Herb	Seed, leaf	Bladder, dyspepsia, kidney and prostate problems
89	<i>Melilotus indica</i> (Linn.) All.	Ban methi	Fabaceae	Herb	Whole plant, seed	Bowel complaints, infantile diarrhea, swellings
90	<i>Manilkara hexandra</i> Roxb.	Khirmi	Sapotaceae	Tree	Fruit, leaf, bark	Colic, dental disorders, fever, flatulence, gum problems
91	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	Kaim	Rubiaceae	Tree	Bark, root	Burning sensation, cough, edema, gynecological disorders
92	<i>Murraya koenigii</i> (L.) Sprengel	Curry patta	Rutaceae	Tree	Root, bark, leaf	Burns, digestive problems, indigestion, insect bite, vomiting, wounds
93	<i>Oldenlandia herbaceae</i> (L.) Roxb.	Paper-bhed	Rubiaceae	Herb	Whole plant, leaf	Consumption, elephantiasis, fever, inflammation, ulcers
94	<i>Oxalis corniculata</i> Linn.	Khati buti	Oxalidaceae	Herb	Flower, leaf	Burns, influenza, insomnia, irritation of eyes, jaundice, scurvy
95	<i>Parthenium hysterophorus</i> Linn.	Gajar Ghans	Asteraceae	Herb	Root	Dysentery, fever, malaria, neuralgia disorders, rheumatic pain, skin inflammation, urinary tract infections
96	<i>Peristrophe paniculata</i> (Forssk.) Brummitt	Atrilal	Acanthaceae	Herb	Leaf, seed	Bone fracture, cold, cough, snake bite, sprain, tuberculosis
97	<i>Phyllanthus debilis</i> Ham.	Jarmala	Euphorbiaceae	Herb	Root, leaf	Endometriosis, fracture, heavy menstrual bleeding, jaundice, leucorrhoea, liver diseases, urinary problems
98	<i>Plumbago zeylanica</i> Linn.	Chitrak	Plumbaginaceae	Herb	Leaf, root	Arthritis, piles, skin diseases
99	<i>Pongamia pinnata</i> Linn.	Karanj	Fabaceae	Tree	Stem bark, leaf, seed	Cough, dyspepsia, herpes, itching, piles
100	<i>Prosopis cineraria</i> (L.) Druce	Shami	Fabaceae	Tree	Fruit, bark	Bronchitis, cysts, piles, skin diseases, tumors
101	<i>Prosopis julifera</i> (Sw.) DC.	Vilayati babul	Fabaceae	Tree	Leaf	Conjunctivitis, excrescences, flu, inflammation, sore throat, wounds
102	<i>Pterocarpus marsupium</i> Roxb.*	Bija sal	Fabaceae	Tree	Leaf, flower, bark	Bleeding, diabetes, inflammation, skin diseases, toothache
103	<i>Ricinus communis</i> Linn.	Rendi	Euphorbiaceae	Tree	Fruit, root, seed	Abdominal disorders, boils, constipation
104	<i>Saccharum spontaneum</i> Linn.	Kans	Poaceae	Herb	Whole plant, root	Gall stones, jaundice, kidney stones, obesity, piles, sexual debility, tuberculosis
105	<i>Saccharum munja</i> Roxb.	Munj	Poaceae	Herb	Root	Blood impurity, dizziness, excessive burning sensation, herpes, intoxication, thirst
106	<i>Sida cordata</i> (Burm. f.) Borss. Waalk	Bhuinii	Malvaceae	Herb	Leaf, whole plant	Nervous disorders, piles, urinary tract infection
107	<i>Sida cordifolia</i> Linn.	Khareti	Malvaceae	Herb	Seed, root	Bronchial asthma, cold, flu, nerve pain, stroke, tuberculosis
108	<i>Sida spinosa</i> Linn.	Gulsakari	Malvaceae	Herb	Bark, root, leaf	Blood disorders, gonorrhoea, urinary problems
109	<i>Solanum nigrum</i> Linn.	Makoi	Solanaceae	Herb	Whole plant, fruit	Diseases of liver, fever, headache, jaundice, nausea, opium poisoning
110	<i>Solanum xanthocarpum</i> Schrad. & H. Wendl. Schard & Wendl.	Bhatakataiya	Solanaceae	Herb	Leaf, root, fruit	Infestations, kidney stones, respiratory disorders, stomach disorders
111	<i>Syzygium cumini</i> Linn.	Jamun	Myrtaceae	Tree	Fruit, bark, leaf, seed	Abdominal pain, dysentery, hyperglycemia, sore throat
112	<i>Tamarindus indica</i> Linn.	Imli	Fabaceae	Tree	Fruit, seed, flower	Anemia, constipation, scurvy, skin infections, thyroid disorders

113	<i>Tectona grandis</i> Linn.	Sagon	Lamiaceae	Tree	Whole plant,	Burns, eczema, leprosy, ringworm, scabies,
114	<i>Tephrosia purpurea</i> Linn.	Sarphonk	Fabaceae	Herb	Root, whole plant	Anorexia, edema, jaundice, nose bleeding, liver cirrhosis, weakness
115	<i>Terminalia arjuna</i> Wight & Arn.	Arjun	Combretaceae	Tree	Bark	Asthma, bleeding piles, obesity, osteoporosis, tumor, wound
116	<i>Terminalia bellirica</i> Roxb.	Behera	Combretaceae	Tree	Seed, seed fruit	Indigestion, piles, respiratory tract infections, sore eyes, sore throat
117	<i>Terminalia chebula</i> Retz.	Harad	Combretaceae	Tree	Bark, root, fruit	Dysentery, edema, gout, hiccups, leprosy, ulcers
118	<i>Tinospora cordifolia</i> (Willd.) Miers.	Giloy	Menispermaceae	Climber	Root, leaf, stem	Arthritis, gout, hepatitis, lymphoma, peptic ulcer, syphilis
119	<i>Tribulus terrestris</i> Linn.	Gokhru	Zygophyllaceae	Herb	Fruit, leaf, root	Chest pain, eczema, enlarged prostate, infertility, sexual disorders
1120	<i>Tridax procumbens</i> Linn.	Musbhari	Asteraceae	Herb	Stem, leaf, flower	Bleeding, boils, diabetes, sore, ulcers
121	<i>Vernonia cinerea</i> Less.	Sahdevi	Asteraceae	Herb	Root, leaf, stem	Constipation, elephantiasis, insomnia, intestinal worms, skin diseases
122	<i>Xanthium strumarium</i> Linn.	Chota dhatura	Asteraceae	Herb	Fruit, root	Leprosy, malaria, sinusitis, tuberculosis
123	<i>Xylocarpus xylocarpa</i> (Roxb.) Taub.	Jambu	Fabaceae	Tree	Seed, bark	Piles, ulcers, vomiting
124	<i>Ziziphus mauritiana</i> Lam.	Ber	Rhamnaceae	Tree	Seed, fruit, root, leaf	Bronchitis, burns, dyspepsia, fever, hysteria, wounds
125	<i>Ziziphus nummularia</i> (Burn.f.) Wight & Arn.	Jharber	Rhamnaceae	Shrub	Leaf, fruit	Burns, hysteria, scabies, skin diseases
126	<i>Ziziphus oenoplia</i> (L.) Mill.	Makkay	Rhamnaceae	Shrub	Bark, leaf, whole plant	Anemia, diarrhea, fracture, kidney stones, stomach ache, wounds

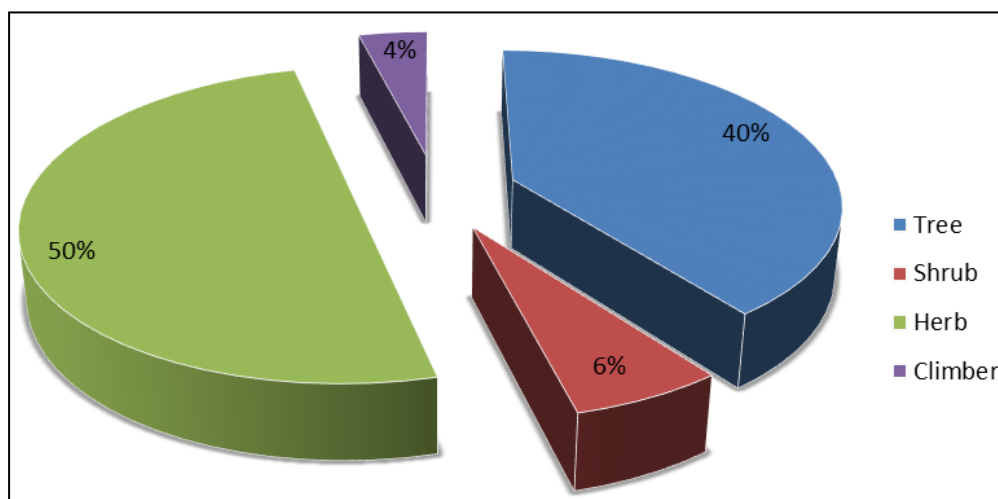


Fig 1: Graph showing distribution of plants in forest area

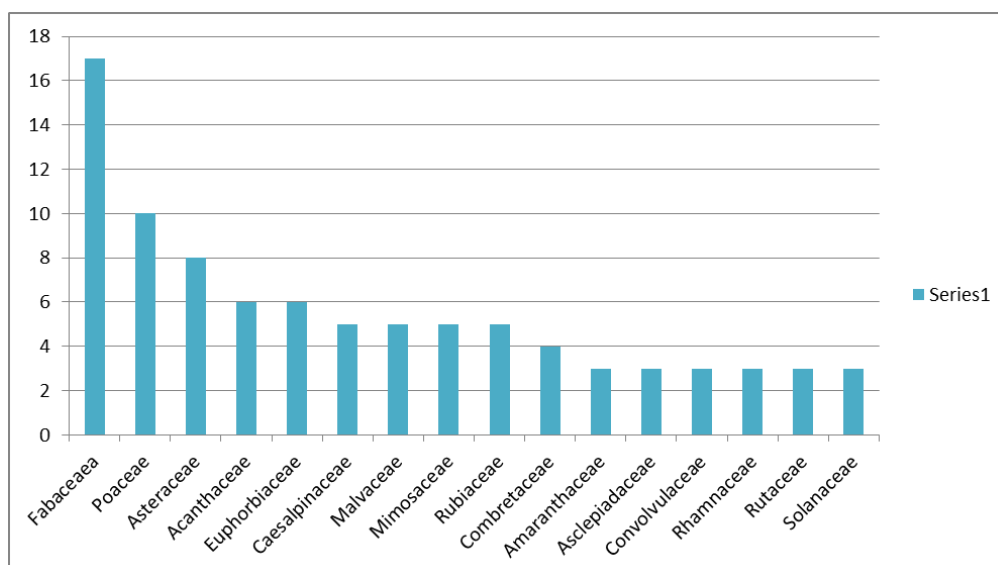


Fig 2: Graph showing contribution of families in forest area

Discussion

The study shows that a large number of medicinal plants are used for treating different ailments. There were total 126 species related to 104 genera and 46 families identified for medicinal purposes. Among 126 species of medicinal plants 50 species related to tree, 8 species related to shrub, 63 species related to herb and 5 species related to climber. Among 46 families, most dominant families were Fabaceae (17 species), Poaceae (10 species), Asteraceae (8 species), Acanthaceae (6 species) and Euphorbiaceae (6 species). These plants are used for some common diseases like diabetes, diarrhea, dysentery, skin diseases, wounds, etc. Most common parts of the plants used for diseases are root, leaf, fruit, seed and whole plant. Dried plants are also used when fresh plants are unavailable. Many of the medicinal plants studied at the site have been reported in other sites with similar or different uses. Herbal flora plays an important role in folk medicine and various types of folk drugs are produce locally by household remedies.

Conclusion

Plants play a vital role in treatment of diseases and these are the main part of the folk medicine. These folk medicinal plants are largely used by tribal communities as herbal medicine since long time and mostly dependant on these plants for their treatment. Therefore documentation of the indigenous knowledge about the medicinal plants is valuable for the communities and their future generations. So it is necessary that future generation should learn the importance and traditional uses of these plants and conserve plants for future.

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