



Medicinal Plants Diversity in Nashik District (Maharashtra: India)-Polypetalae & Gamopetalae

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Abstract: Botanical survey on medicinal plants and their indigenous uses was carried out in Nashik district, Maharashtra. These areas are floristically rich areas where plants of various categories are growing spontaneously in their natural habitat. The rural community of these regions uses some of the plants as medicine for the treatment of various diseases and ailments. In this paper 47 genus and 50 species of medicinal plants belonging to 11 families were recorded from Nashik district. These medicinal plants are listed according to Bentham and Hooker's system such as Botanical name, local names along with family, Fruits and Flowers, part used and disease treated.

Index Terms: Medicinal plants in Nashik District Maharashtra, India.

I. INTRODUCTION

Nashik District, with its diverse agro-climatic conditions and regional topography, has been considered as the treasure house or botanical garden of medicinal plants diversity and genetic resources. Hence, Plants are always considered as a primary source of drugs in traditional and alternative system of medicine in various forms such as crude form, juice, decoction, latex, and crude extracts. About 80% people of the world, particularly in the rural areas of developing countries, continue using traditional resources in healthcare. Large number of tribal communities also there and they survival form ancient times.

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The tribal people primary healthcare is depending on the medicinal dwellers and his knowledge. Although, indigenous knowledge is transfer on orally from one generation to next generation without any writing records. Throughout human history, people have relied on natural products in general and the plants in particular, to promote and maintain good health and to fight sickness, pain, and disease. However, the past 200 years have witnessed not only an acceleration in the rate of extinction of plant and animal species, but also the erosion of traditional knowledge related to the medicinal properties and uses of plants and other natural products.

This knowledge becomes extinct of gradually. The traditional medicine is well established in Nashik District because of tribal community using a wide variety of plants for the treatment of various ailments. However, now-a-days these traditional medicinal plants knowledge record and preserve is important for the future studied to developed new drugs. Along with this traditional knowledge conservation in documentation research is important part for future generation. Although, there is only few research works on Medicinal plants was done past years in the Nashik District

Sr. No	Botanical name	Local name	Family	Frts & Fls	Parts used	Disease treated
1	<i>Woodfordia fruticosa</i> (L.) Kurz.	Dhawati	Lythraceae	Jan-Jun	[Fl.J]	Depurative, uterine sedative, constipating, antibacterial, febrifuge leprosy, skin, liver headache, hemorrhoids, hemorrhage, leucorrhea, disorders, menorrhagia, Juice of leaves is used in bilious sickness.

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2	<i>Coccinia grandis</i> (L.) Voigt, Hort.	Tondli	Cucurbitaceae	Sep-Nov	[L. Fr]	Leprosy, fever, asthma, bronchitis, jaundice, carminative, viriliginic, antipyretic and antibiotic.
3	<i>Cucumis callosus</i> (Rottl.) Cogn.	Kachri	Cucurbitaceae	Aug-Nov	[Fr.Sd.]	Cooling, astringent, bilious diabetics, vomiting and constipation, dropsy.
4	<i>Cucumis setosus</i> Cogn.	Mekha	Cucurbitaceae	Aug-Oct	[Fr]	Antioxidants, antimicrobacteria, skin as a cleansing cosmetic.
5	<i>Kedrostis rostrata</i> Cogn.	Mirchi kand	Cucurbitaceae	Aug-Nov	[W.P]	Asthma, piles chest pain urinary tract infection diarrhoea, small pox skin disease and snakebite.
6	<i>Luffa acutangula</i> Roxb.	Dodka	Cucurbitaceae	June- Sep	[W.P]	Laxative, purgative, dysentery, asthma inflammation of spleen, ringworms, piles and even leprosy, jaundice.
7	<i>Momordica charantia</i> Linn.	Karale	Cucurbitaceae	May-Aug	[W.P]	Antidiabetic, anticancer, anti-inflammation, antiviral, cholesterol lowering, breast cancer
8	<i>Momordica dioica</i> Roxb.	Katorle	Cucurbitaceae	Aug-Oct	[L. R.Pt.]	Sedative, fever, diabetes, cancer, piles, jaundice, asthma, bronchitis, piles, hepatic damages, mental digestive disorders neurodegenerative disease, antihelminthic, aphrodisiac
9	<i>Oroxylum indicum</i> Vent.	Aralu	Bignoniaceae	May-July	[R.Br. Fr]	Stomachic, astringent, diarrhoea and dysentery, rheumatism, antiseptic.
10	<i>Radermachera xylocarpa</i> (Roxb.) K. Schum.	Kharsing	Bignoniaceae	April-Oct	[W.P.]	Treatment of cuaneous diseases.
11	<i>Tecomella undulata</i> (Sm.) Seem.	Ragat rohada	Bignoniaceae	Jan-Apr	[Br. Sd]	Syphilis, urinary disorders, enlargement of spleen, gonorrhoea, leucoderma, liver diseases, abscesses.
12	<i>Centella asiatica</i> (L.) Urban.	Brahmi	Apiaceae	All season	[W.P]	Revitalizing the nerves and brain cells, leprosy.
13	<i>Eclipta prostrata</i> (L.) L.	Bhrungraj	Rubiaceae	July -Feb	[W.P]	Jaundice, liver, hemorrhoids, analgesic, coughs, hair tonic.
14	<i>Hymenodictyon orixense</i> (Roxb.) Mabblerley	Kala Bachnag	Rubiaceae	July-Feb	[L.R. Br]	Atrophy, cholera; diarrhoea, fevers, gout inflammations, malaria, menstrual complains and snake bite treatment, astringent, febrifuge, ulcers, sialitis.
15	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	Kalam	Rubiaceae	May-Aug	[W.P]	Fever, malaria, diarrhea, cough, muscular pains, expulsion of worms, hypertension.
16	<i>Oldenlandia corymbosa</i> L.	Pitpapda	Rubiaceae	Sept-Nov	[L.R.J.D]	Stomach, sores, eyes, anthelmintic, antirheumatic, depurative, diaphoretic, digestive, diuretic, febrifuge, pectoral, nervous depression, cancer, acne, boils, appendicitis, hepatitis
17	<i>Rubia cordifolia</i> L.	Manjistha	Rubiaceae	Oct- Nov	[W.P]	Gastrointestinal, gouty arthritis, uterus, menstruation, uterine cramping.
18	<i>Wendlandia heynei</i> (R. & S.) Sant.	Yeloshi	Rubiaceae	Mar-Jun	[W.P]	Abortion, menstrual.
19	<i>Anthocephalus indicus</i> A. Rich.	Kadam	Rubiaceae	Nov-Feb	[L.R.Fr.]	Menorrhagia, diarrhea, dysentery and colitis, debility, analgesic, stomatitis.
20	<i>Catunaregam spinosa</i> (Thunb.) Tirvengadam.	Gel	Rubiaceae	July-Sep	[W.P]	Nauseant, expectorant, anthelmintic and abortifacient properties, headache, diarrhoea and dysentery.
21	<i>Meyna laxiflora</i> Robyns.	Pundrika	Rubiaceae	Feb-Sep	[Fr. Sd]	Kidney stones, abortifacient, Narcotic,
22	<i>Morinda pubescens</i> J.E. Sm.	Bartondi	Rubiaceae	Mar-Dec	[Fr.]	Fight bacterial, viral, parasitic and fungal infections, proliferation of tumors, including malignant ones.
23	<i>Cyathocline purpurea</i> Cass in Ann.	Gangotra	Compositae	Sep-Apr	[W.P]	The plant is used in blood purification, cough, and eye diseases.
24	<i>Echinops echinatus</i> Roxb.	Utkatar	Compositae	Nov-Jan	[W.P]	Aphrodisiac, spermatorrhoea, head to facilitate the delivery process, asthma, abortifacient, whooping cough, colic.
25	<i>Glossocardia bosvallea</i> (L.f.) DC.	Mirgi	Compositae	July-Oct	[D.L]	menstrual complaints, urethritis and syphilis, bleeding of miscarriage.
26	<i>Lagasca mollis</i> Cav.	Jharvad	Compositae	All time	[L.]	Leaf paste are used for swelling and body pain.
27	<i>Notonia grandiflora</i> DC.	Roti	Compositae	Feb-May	[W.P]	Cure for pimples, hydrophobia.
28	<i>Pulicaria wightiana</i> C.B. Clarke.	Sontikli	Compositae	Sep-Feb	[L.]	Microbicide, blood purifier. Leaves are used to cure elephantiasis

29	<i>Sclerocarpus africanus</i> Jacq.	Nli-atulu	Compositae	Aug-Oct	[L.]	Venereal diseases, gonorrhoea.
30	<i>Sphaeranthus indicus</i> Linn.	Gorakh-mundi	Compositae	Nov-Jan	[W.P]	Tuberculosis, indigestion, bronchitis, spleen diseases, elephantiasis, anaemia, uterus and vagina, piles, biliousness, epileptic convulsions, asthma, diuretic, leucoderma, aphrodisiac, scrofula.
31	<i>Sonchus asper</i> Hill.	Mhatara	Compositae	Jan-Mar	[W.P]	Diuretic, sedative, antiseptic, cough, bronchitis, asthma, tonsils, kidney inflammation, erectile dysfunction in male, fever, constipation, diabetes, scabies and heart diseases
32	<i>Synedrella nodiflora</i> (L.) Gaertn.	Synedrella	Compositae	Sep-Jan	[W.P]	Antioxidant, antimicrobial, analgesic, antipyretic, anticonvulsant, sedative, rheumatism.
33	<i>Tridax procumbens</i> Linn.	Ekdandi	Compositae	All time	[W.P]	Wound healing, anticoagulant, boils, antifungal, insect repellent, hepato-protective, anti-cancer, human prostate epithelial cancer.
34	<i>Tricholepis radicans</i> DC.	Patharchatti	Compositae	Sep-Nov	[W.P]	Hepatoprotective, antioxidant, fever, general debility, dyspepsia, flatulence, nervous.
35	<i>Xanthium strumarium</i> Linn.	Chota dhatura	Compositae	Jan-Feb	[W.P]	Cooling, laxative, anthelmintic, tonic, digestive, antipyretic, anodyne, allergic antirheumatic, appetizer, diaphoretic, diuretic, emollient, sedative, malaria,
36	<i>Zinnia elegans</i> Jacq. Ic.	Zinnia	Compositae	Aug-Sep	[W.P]	<i>Z. elegans</i> on top of a patient's head to cure madness.
37	<i>Zinnia peruviana</i> (L.) L.	Zinnia	Compositae	Aug-Nov	[W.P]	Malaria, stomach, hepatoprotective and antiparasitic, antifungal, antibacterial.
38	<i>Plumbago zeylanica</i> L.	Lepdi	Plumbaginaceae	Aug-Oct	[W.P]	Expectorant, laxative, muscular pain, rheumatic, hemorrhoids, leucoderma, hemorrhoids, skin, cough, cold.
39	<i>Maddhuca longifolia</i> Roxb.	Moha	Sapotaceae	Jan-Apr	[Br.Fl.Sd. Sd]	Rheumatism, diabetes, piles, chronic constipation, tonsillitis, eczema, itching problems,
40	<i>Mimusops elengi</i> Linn.	Bakuli	Sapotaceae	Jan-Mar	[W.P]	Cardio tonic, stomachic, anthelmintic, tonic, biliousness, liver, asthma, gums, aphrodisiac, diuretic, gonorrhoea.
41	<i>Xantolis tomentosa</i> (Roxb.) Raf.	Kate-Kumbal	Sapotaceae	May-Sep	[L.D]	Decoction of the leaves is used to wash foul ulcers promote hair prevent graying.
42	<i>Diospyros chloroxylon</i> Roxb.	Kala tendu	Ebenaceae	Mar-Apr	[J.]	The juice of unripe fruits is used styptic and their infusion is used as a gargle in aphthae or stomatitis and sore throat.
43	<i>Diospyros melanoxylon</i> Roxb.	Tamraj	Ebenaceae	Feb-Apr	[Fr.Sd. Fl]	Skin, urinary complains, germicidal, blood diseases, diarrhoea.
44	<i>Cuscuta reflexa</i> Roxb.	Amarvel	Cuscutaceae	Jan-Feb	[W.P]	Constipation, liver, spleen, diseases diarrhoea, inflammation, alternative, purgative, carminative anthelmintic. anti-fertility, cough fever, demulcent, diaphoretic, tonic.
45	<i>Carissa carandas</i> Linn.	kali maina	Apocynaceae	July-Oct	[R. Fr]	Biliousness, fever, diarrhoea, earache, stomachic, vermifuge, scabies, diabetic.
46	<i>Holarrhena pubescens</i> (Buch. -Ham.) Wall.	Kala-kuda	Apocynaceae	Apr-Sep	[Br.]	Astringent, antidiysenterica, piles, colic, anthelmintic, stomachic, febrifugal, tonic, dyspepsia, skin, spleen.
47	<i>Pentatropis spiralis</i> (Forsk.) Decne.	Popati-sheng	Apocynaceae	July-Oct	[R. Pt]	Gonorrhoea, acrid and emetic, swelling and tumors.
48	<i>Rauwolfia serpentina</i> Benth.	Sarpagandha	Apocynaceae	Aug-Sep	[W.P]	Insomnia, hysteria and hypertension, cataract, cures plague, fever, sedative, Schizophrenia, colic and cholera, rheumatism.
49	<i>Wrightia arborea</i> (Dennst.) Mabb.	Dhudalo	Apocynaceae	Feb-Apr	[L. R. Pt]	Toothache, fever, haemorrhage, galactagogue.
50	<i>Wrightia tinctoria</i> R.Br.	Dhuda-kudi	Apocynaceae	Mar-Oct	[W.P]	Fever, stomachache, skin diseases psoriasis, dermatitis, anti-inflammatory anti-dandruff, toothache.

[L.]: leaves; [Lt]: latex; [Fr]: fruit; [R]: roots; [Br]: bark; [Sd]: seeds; [Fl]: flower; [W.P]: whole plant; [St]: stem; [Rh]: rhizome; [Sd]: seed; [WP]: whole plant; [Lt]: latex; [D]: decoction; [J]: juice; [Pt]: paste; [LA]: local application; [O]: oral route.

II. RESULT AND DISCUSSION

During the present survey, a total number of 50 Medicinal plant species belonging to 48 genera and 11 families are recorded. The plant species were explored which have potent in use in the treatment of various diseases. They have different medicinal properties and their uses in various ailments. Statistically, among the different parts of plants used for the treatment of various diseases, the leaves of 9 plant species were used, 26 plants were used as whole, the roots were used from 9 species, the seeds were used from 5 species, the fruit was used from 7 species, the stem bark was used from 5 species, the flowers were used from 3 species and juice are used from 3 species. Paste and latex were used 3 plant species. Latex and stem are used 3 plant species. The identified plant species are arranged according to Bentham and Hooker's system Botanical name Local name Family, Fruits, flower Part used and diseases treated. Plant part and medicinal uses are given in separate column presented above Table.

CONCLUSION

In general, manuscripts may contain Title, Authors' names, Affiliation, E-mail address, Abstract, Keywords, Introduction, Literature Survey, Proposed Approach, Results and Discussion, Conclusion, Experimental Section, Acknowledgments, References and Endnotes. However, authors can organize the contents of the manuscript according to their requirements.

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