

Enumeration of ethnomedicinally important plants used by Mahadev Koli tribe in Osmanabad district MS, India

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ABSTRACT

Maharashtra state flora abounds in medicinal plant which can be called as storehouse as it covers varied geographical area, phytogeographic regions. The medicinal plants are used for various diseases from common cold to variety of cancers [3]. Some of the medicinal plants are believed to cure practically every human disease from head to toe. Natural drugs are better safe than synthetic western medicines which are synthetic, therefore peoples are returning to the field of traditional medicinal plants. An ethnobotanical survey of the study area with respect to medicinal plants showed that villagers depends on plants for their various daily needs like food and shelter. The present work deals with documentation and study of medicinal plants, used by people of villages in Osmanabad district (MS). Plant name, family along with their part used, and method of preparation is discussed.

Keywords - Medicinal plant, Documentation, Osmanabad district etc.

INTRODUCTION

In earlier day's the indigenous people of Osmanabad district fully depends on both wild and cultivated plants for their food, shelter, medicine and other uses. The indigenous people of Osmanabad district have recognized the biological and economical value of its natural forest [1]. The rural people of the district are still depending upon wild plants for the treatment of various diseases. These people have gathered

good knowledge about the useful properties of the plants in the nearby forest [1]. They gather medicinal plants from nearby forests and use these plant materials as raw drugs. However, as a result of modernization and human's uncontrolled activities, life style of these people is changing fast and ultimately resulting in loss of traditional knowledge [1, 2]. Hence, efforts should be made to document the various use of plants before these inhabitants shift over to modern remedies. However, the vast store of ethno-medicinal information of these study areas has not fully documented. This paper reports especially plants of medicinal importance as used by rural folks of the district [3].

MATERIAL AND METHODS

Present research work involves survey and documentation of plants which are used by the tribal peoples for the treatment of various diseases. Ethnobotanical data were collected after discussions with rural physicians, tribal headmen and local informants. Repeated enquiries were made in different pockets of the Osmanabad district for different seasons. [3], [1] Plants arranged alphabetically by their botanical

name, local name family name, plant part used, Administration of used part [9].

RESULT AND DISCUSSION

During study it was found that 60 types of plants used to cure diseases like wound healing, enhancement lactation, dysentery, diarrhea, cold, cough, mouth diseases, stomachache, measles, retained placenta, snake bit, fever, joint pain, ulcer etc. Most of the information reported from the tribal's of the area is found to be less known to the literature of Indian medicinal plant. The plants mentioned here are still popular in this area and enjoyed good reputation in traditional medicines used on diseases most of the drugs are utilized in freshly made and as a cooled decoctions. It is necessary to make further investigations on these ethnomedicines for conservation of biodiversity to protect extinction of the ethnobotanical plants. There is also need to bring these plants under cultivation in a systematic manner to meet demands from traditional drug based market. It is also needed to evaluate pharmacologically the efficiency of these plants.

Table 1: Ethnobotanical Enumeration

Sr. No	ScientificName & Local Name	Family	Plant Part Used	Medicinal Uses & Administration of used part
1	<i>Abelmoschus ficulneus</i> (L.) wt. & Arn. Ex Wight Ran Bhendi	Malvaceae	Young fruits & Seeds	Stomach Infection 3-4 entire young fruits are eaten at early morning.
2	<i>Abrus precatorius</i> Linn. Lal - Gunj	Fabaceae	Leaves	Against Laryngitis Fresh leaves crushed in Til oil and extract is mashed on the throat twice a day for 3-4 days to relieve laryngitis.
3	<i>Achyranthus aspera</i> , Linn Aghada	Amaranthaceae	Leaves	Ear infection 2 to 3 drops daily 2 times of this solution poured in the ear for 4 days.
4	<i>Agave vera-</i> Cruz Mill. Kekti / Kektad	Agavaceae	Flower buds	Stomach Problem 2 to 3 flower buds are eaten raw
5	<i>Aegle marmelos</i> (L.) Corr. Bael	Rutaceae	Leaves	Headache Fine paste from a handful of fresh leaves in sheep's milk is massaged topically on the forehead to

				relieve headache
6	<i>Amaranthus spinosus</i> , Linn Katemath	Amaranthaceae	Leaves	On migraine Apply the leaf juice on the part of head for one month daily two times.
7	<i>Asparagus racemosus</i> Wild Shatavari	Liliaceae	Root & leaves	As a nutritive tonic Take 5 ml Juice of root/leaves twice a day.
8	<i>Argemone mexicana</i> (L.) Bilayat	Papaveraceae	Leaf spines	Eye irritation Spines of the leaves are removed and are made into paste. This paste is applied to eyes in small quantity twice a day for 3 days.
9	<i>Acacia arabica</i> (L.) Babul	Mimosaceae	Bark	Wound healing Bark power mix with coconut oil and apply on wound for 4-5 days
10	<i>Azadirachta indica</i> A Juss Nimb	Meliaceae	Leaves	Against acidity Leaves juice is given 2-3 times a day for 3-4 days during acidity.
11	<i>Bauhinia racemosa</i> Lamk Apta	Caesalpiniaceae	Bark	Against tuberculosis, Leprosy, Asthma Bark decoction given in tuberculosis, leprosy, asthma for 5-10 days.
12	<i>Butea monosperma</i> (Lam) Taubert. Palas	Fabaceae	Bark	In swelling, To increase male vigor Bark paste applied on swelling for 3-4 days. The bark is cut into small pieces & chewed slowly for 3 to 10 min to increase male vigor
13	<i>Bombax ceiba</i> . Linn. Katesavar	Malvaceae	Bark	Sunstroke 10 ml decoction of bark is given to effected person 3 times a day for 5 days.
14	<i>Bacopa monnieri</i> (L.) Brahmi	Scrophulariaceae	Whole Plant	Kidney disease 5 ml juice given orally two times a day.
15	<i>Amaranthus paniculatus</i> (L.) Rajgira	Amaranthaceae	Leaves	Antioxidant Leaves are chopped and cooked& eaten at the time of meal.
16	<i>Allium cepa</i> (L.) Kanda	Liliaceae	Leaves & bulb	Hypertension, lowering the level of blood sugar, body heat etc. Onion bulb juice used to reduce heat, Leaves are chopped and eaten to reduce blood sugar level.
17	<i>Brassica campestris</i> (L.) Mohari	Brassicaceae	Young tender Leaves	Bronchitis, muscular & skeletal pains, diuretic, stimulant etc 5 ml juice given 2-3 time in a day for 3-4 days.
18	<i>Catharanthus roseus</i> (L.) Sadaphuli	Apocynaceae	Root & leaves	Root in Insomnia, cancer, diabetes, cardiogenic etc.leaf is used in menorrhagia, wasp sting, diabetes 5 ml root juice per day against diabetes
19	<i>Calotropis procera</i> (Ait.) R.Br	Asclepidaceae	Root, leaves &	Snake bite, tooth ache, dysentery Root power used in dysentery for 3-4 days, 1 tea

	Rai		flowers	spoon at morning.
20	<i>Cuscuta reflexa</i> Roxb Akasbeli	Convolvulaceae	Whole plant	Jaundice & Fever Plant juice dose of about 4 teaspoons twice a day to cure jaundice & fever.
21	<i>Cassia fistula</i> (L.) Bauha / Amaltas	Caesalpiniaceae	Fruits	Throat infection in cattles. 100 gm. ghee obtained from cow milk is applied on fruit and warm gently on flame and applied frequently on affected swollen throat of cattle for seven days till cure.
22	<i>Cicer arietinum</i> (L.) Chana / Harbara	Fabaceae	Young leaves	Stomachache One teaspoon sour juice (Aamb) of young leaves is given once a day for 1-2 days during stomachache
23	<i>Citrus aurantiifolia</i> (Christm&Panz) Nimbu	Rutaceae	Leaves & seeds	Dysentery, stomachache Leaf juice of tulsi & Nimbu are given twice a day for 1 -2 days in dysentery. Leaf juice of tulsi & citrus seeds are given twice a day in stomachache
24	<i>Colocasia esculanta</i> (L.) Schott Dhopa Aalu	Araceae	Tender leaves	Hair growth, Scorpion sting, snake bite etc Juice of leaves applied on hair & bite portion of body
25	<i>Celmatis triloba</i> Heyne ex Roth Mogra	Ranunculaceae	Leaves	Headache Leaf juice is applied on head against headache
26	<i>Cyperus rotundus</i> (L.) Nagar Motha	Cyperaceae	Root	Stomachache Root power is given with buttermilk, garlic & black piper till cure
27	<i>Cocculus hirsutus</i> DC. Vasanvel	Minispermaceae	Roots	On Kidney stone 2 teaspoons of this solution is given orally 2 times a day in morning and evening for one month
28	<i>Cynadon dactylon</i> (L.) Harali	Poaceae	Whole plant	On headache Whole plant paste applied on forehead to relieve headache
29	<i>Dolichandrone falcata</i> (Wall ex DC) Medsinghi	Bignoniaceae	Fruits	On stomachache One teaspoon fruit powder is taken once a day for 3-4 days during stomachache
30	<i>Datura metal.</i> Linn. Dhotra	Solanaceae	Leaves	On joint pain Leaves paste applied on joint in morning and evening
31	<i>Erythrina variegata</i> (L.) Pangara	Fabaceae	Stem bark, Leaves	On pain & swelling, Arthritis Bark is burn & ash applied with coconut oil on the swollen part. Hot leaves useful for Arthritis.
32	<i>Euphorbia hirta.</i> Linn. Dudhi	Euphorbiaceae	Whole plant	On Asthma Juice of whole plant 10 ml is given orally daily 2 times for 15 days.
33	<i>Ficus racemosa.</i> Linn.	Moraceae	Leaves,	On skin diseases, Acidity

	Umbar		Gum	5 ml leaf juice is given orally daily 3 times for 5 days, Gum put in water is taken once a day for 2-3 days in acidity.
34	<i>Ficus religiosa</i> (L.) Pimpal	Moraceae	Stem bark	To remove placenta in cattle Half liter of inner stem bark extract with jaggary given to cattle to remove the placenta after delivery.
35	<i>Gloriosa superba</i> . Linn. Kal-lavi	Liliaceae	Leaves	On ulcer, piles 3 ml leaf juice is given orally 3 times daily
36	<i>Jatropha curcas</i> (L.) MogaliErand/Parsi Erand	Euphorbiaceae	Stem	To kill germs in teeth cavities Patients are advised to use stem pieces as tooth brush
37	<i>Kalanchoe pinnata</i> (Lam.) pers. Panphuti	Crassulaceae	Leaves	Urinary bladder stone 30-40 ml extract of leaf with pinch of salt taken once a day for 10-15 days.
38	<i>Lantana camara</i> (L.)var. <i>aculeate</i> (L.) Tantani	Verbanaceae	Leaves	On Jaundice 20-30 ml of leaf extract taken once a day for 8-9 days
39	<i>Mangifera indica</i> (L.) Amba/ Aam	Anacardiaceae	Stem bark	On wound healing Bark powder with coconut oil mix well and wrapped on wound for 6-8 days
40	<i>Mimosa pudica</i> (L.) Lajalu	Mimosaceae	Roots & Leaves	Cuts & injuries Root decoction is used as poultice to wash wounds, it acts as an antiseptic. Leaves, tender twigs& roots are ground together and mixed with jaggary in 2:1 proportion. The pills of 1 gm each are formed and taken twice a day for 15 days.
41	<i>Moringa oleifera</i> Lam. Kadipatta	Moringaceae	Flowers	Joint pain Flowers are crushed and used for massage for joints to treat joint pains
42	<i>Morus alba</i> (L.) Tuti	Moraceae	Leaves	Tonsils & Mumps 20-30 ml of extract of handful leaves & 5-6 black pepper taken twice a day for 5-6 days
43	<i>Melia azedarach</i> (L.) Neem	Meliaceae	Leaves	Fever 100 gm of leaves are made into by adding 2-3 root pieces of curcuma longa and given orally for worms daily twice up to seven days.
44	<i>Ocimum gratissimum</i> (L.) Ran - tulsi	Lamiaceae	Leaves	Dysentery Leaf juice of tulsi and limbu is taken twice a day in dysentery.
45	<i>Opuntia stricta</i> (Haw) Niwdung	Cactaceae	Flowers	Dandruff, Hair fall Flower paste is applied on scalp and then washed after half an hour thrice a week for two weeks against Dandruff. Flower paste is applied regularly

				to treat hair fall
46	<i>Pongamia pinnata</i> (L.) Flerre Karanji	Papilionaceae	Bark	Against malaena Bark extract is applied on tongue of patients suffering from malaena.
47	<i>Portulaca oleracea</i> (L.) Ghol	Portulacaceae	Whole plant	In bleeding piles, gums, constipation Plant cooked as a vegetable similar to spinach
48	<i>Psidium guajava</i> (L.) Peru	Myrtaceae	Leaves	Blood purification, Diarrhea & Vomiting 100 gm of tender leaves of plant mixed with equal amount of <i>Syzygium cumini</i> & <i>Mangifera indica</i> leaves are pounded together, Juice extracted from fresh leaves is given twice a cupful for 3-4 days
49	<i>Parkinsonia aculeata</i> (L.) Vedibabhul	Cesalpiniaceae	Leaves	Against Dog bite In case of dog bite, the leaf paste applied on the parts daily once for 15 days. If is good medicine for rabies
50	<i>Ricinus communis</i> (L.) Erend	Euphorbiaceae	Leaves	Joint swelling in cattle Leaves boiled in water and that lukewarm water is poured over joints for 10-25 days.
51	<i>Raphanus sativa</i> (L.) Mula	Brassicaceae	Leaves, pods, roots	Antiseptic, stimulant, indigestion Raw roots are eaten with meal, pods used as vegetables
52	<i>Santalum album</i> (L.) Chandan	Santalaceae	(Wood powder) Stem	Mumps Sandal wood powder mixed with the water remains after rice cooking is applied till cure.
53	<i>Sesbania grandiflora</i> (L.) pair Hatga	Fabaceae	Leaves	On sleeplessness Leaves are crushed in water and applied over scalp to induce good sleep
54	<i>Syzygium cumini</i> (L.) skeels Jambhul	Myrtaceae	Seeds	Leucorrhea 1.2 gm seed powder taken with cow milk once a day for 15 days.
55	<i>Tagetes petula</i> (L.) Jhendu	Asteraceae	Flowers, roots	Urinary disorders Flowers and roots crushed together to prepare extract which is given 30 ml with water once a day it increases urinary flow.
56	<i>Thespesia lampas</i> (Cav). Dalz. & Gibs Rankapas	Malvaceae	Leaves	In delivery of cow. 10-20 fresh leaves crushed in glassful of water & given regularly for suppression of waist after delivery in cows daily morning till cure
57	<i>Tridax procumbens</i> (L.) Dagadipala	Asteraceae	Leaves	Kidney stone 10-15 ml of leaf juice with a glassful water taken once a day for 15 days, it dissolves kidney stone.
58	<i>Vitex negundo</i> (L.) Nirgudhi	Vitaceae	Leaves	Internal ulcers & external swellings Fresh 100 gm leaves mixed with 01-20 cardamom fruits are made into juice with 1 liter warm water.

				100 ml given twice a day orally till cure
59	<i>Zingiber officinale</i> (L.) Adrak/Aale	Zingiberaceae	Rizome	Against Acidity & Ulcer Rhizome powder of adrak and sagargota seed (without seed coat) is given twice a day after meal for treating acidity and ulcer.
60	<i>Zyzyypus jujbe</i> (L.) Lam. Bor	Rhamnaceae	Dried fruits	Gastro-intestinal digestion One teaspoon fruit powder with goat milk is given twice a day before meal to cure disease

In the present survey the only 07 species of piscivorous birds we observed with help of binocular 7 x and 8 x magnifications. The birds were identified on the spot, out of 07 these 04 are residential migratory and 3 are residential. The birds affecting fish culture of the tank. The control of birds is essential by reducing their population. It can be done by removing marginal aquatic weeds by using spring strap. The table no. 1 shows the piscivorous birds.

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