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## Ethanomedicinal potential of Salher-Mulher forest Nashik district (Maharashtra)

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### Abstract

Salher-Mulher forest area comes under the Maleagon division of Nashik forest circle Nashik division. This area adjoins the Dang forest of Gujra. The aim of this study is to evaluate the ethanomedicinal potential of this area. These areas are rich in biodiversity and various wild plants grow in their natural wild habitat. From ancient period of time tribals of this region were used plants as source of folk medicine for treatment of various human ailments. According to present floristic survey it was revealed that 31 wild medicinal plants species belonging to 25 families were daily used as source of medicine recorded from this region. It was noted that the documented ethnomedicinal plants were frequently used to cure fever, cough, skin diseases, respiratory diseases, liver diseases, jaundice, diarrhea, dysentery, diabetes, poisons bites, impotency, stomach disorders etc. The different mode of administration of drugs like kadhas (decoction), bhasmas (ash), paste, poultice, powder, infusion or direct use of plant parts by tribal people.

**Keywords:** folk medicines, indigenous knowledge, tribal's, ojhas

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### Introduction

Ethnobotany is the study of plants and their interrelations with human day to day life. (Singh and Khade, 2012-2013 & 2021-22) [20]. In India the ethnobotanical studies were carried out by various groups of workers such as Vartak and Gadgil (1980) [21], (Sonawane, M.D 2012) [21], and Jain *et.al* (1989) [14], have explored the study area with respect to the flora, ecology and vegetation of that region in Maharashtra. Ethnobotany has evolved into a specific discipline over the last century, that looks at the people-plant relationship in a multidisciplinary manner, such as economic botany ecology, pharmacology, and public health (Balick, 1996) [6]. The study areas Salher-Mulher forests are comes under the Maleagon division of Nashik forest circle. It is newly created division vide Government Order No.MFS-1108/2376/C.No.315/F-8 Dated 21.2.2009. The forests in these divisions are exploited to obtain sustained supplies of timber and other forest products required for society and industry also. Salher-Mulher forest belts have a very rich in diversity of wild vegetation. Tribal's and rural communities like Kokana, Bhilas, Pawara, Mahdev koli etc. inhabitant and settlement in these belts of forests. These people mostly are dependent on plant resources for fulfillment of their daily needs in life. They were used plants as source of medicine, fibers, timber, beverages, natural dye, fixatives and preservatives etc. According their traditional knowledge various plants parts like stem, root, leaves, bark, seed, flowers, fruit, latex etc. as well as tree species, major and minor plants extensively used for health care and other purposes. It has recognized that plant based traditional knowledge become a known tool in search for nutraceuticals product and drugs (Sharma and Mujundar, 2003) [18]. The present investigation aimed to highlight 31 ethno medicinal wild plant species belonging to 25 families focus with their local name and plant parts used as medicine in Salher-Mulher forts and forest region of Nasik District in Maharashtra

### Methodology

The study was started in the month of June 2019 and it was completed in June 2020. Frequent visits were carried out to document the flora, forest vegetation and its various products. Forest offices are also good source of information for the forest products and its revenues. Information about the use of forest products and plant parts on the various diseases as well as its consumption as a food and fodder was collected from forest dwellers, knowledge informants, elderly people, headman of the hamlets, tribal medicinal man 'Baidya' and 'Ojhas'. The documented plant species were identified by referring various Floras, Keys and Monographs such as Flora of Maharashtra by Almeida (1996-2009) [4], Singh *et.al* (2000) [20], Flora of Nashik District by P. Lakshminarasimhan and B.D. Sharma. The collected plant specimens information collected from "traditional healers" about their medicinal uses is verified by referring standard literature (Agharkar (1991); Ahmed (2008); Alam (1992); Anisuzzaman (2007); Bhattachariya (1989); Biswas (1973); Dey (1996); Ghani (1988, 1998); Hassan (1988, 1993), Huq (1986, 1986), Khan (1975, 1998); Khan *et. al.* (2002); Kirtikar (1987) [1, 2, 3, 5, 7, 8, 9, 10, 11, 15, 16, 17]

## Results and Discussion

The ethnomedicinal uses of plant species from different families were described in alphabetically order according to their Latin name, local name, along with family and parts used as source of medicine. Present study focused on ethnomedicinal knowledge of plants used by rural and tribal communities of Salher-Mulher forest of Nashik District in Maharashtra. In this study, it was noted that tribal and rural communities of Salher-Mulher forest region were used 31 ethnomedicinal plants were belonging to 25 families for treating and controlling the diseases. In India tribal and rural populations are mostly dependant on wild medicinal plants based folk remedies for meeting their health care needs. For Documentation of traditional knowledge there is urgent need to catalogue the plants used by indigenous communities in various forest belts around the Country and to collaborate research with phytochemists to analyze active ingredient in medicinal plants. More information collected by taxonomist, agriculturist, foresters, and naturalists for conservation of biodiversity and sustainable use of plant resources. Another studied showed that herbal medicines are considered to be of utmost importance in the primary healthcare of individuals (Sheldon *et al.*, 1997) [19]. In present study on survey at different area of Salher-Mulher forest region were engaged in the collection of large number of plants parts like stems, barks, leaves, flowers, fruits and roots of their day to day requirements. It was noted that during the period of investigation particular plant was sometime prescribed for different ailments in different localities and some medicinal man applied a mixture of plants for remedy of a disease.

This study also indicated that tribal people have great knowledge of medicinal uses of the plant species found in this region. Salher-Mulher forest region unfortunately, their knowledge had not been documented and on priority basis there was an urgent need for documentation knowledge. Documentation & conservation of these traditional knowledge efforts should be made. A time will come when this knowledge pool will be lost forever if this traditional knowledge does not flow on to the next generations. Hence its urgent need that these treasures of knowledge should be conserved and inherited in such a way those we may be able to preserve this age old cultural heritage. Furthered explored investigations on active principles may yield longer dividends if researchers, planners and policy makers combine their efforts clinical trials may also be done. This will be recognizing that traditional knowledge on one hand and enrich the state wealth as the other.

**Table 1**

Sr. No	Botanical Name	Local name	Family	Part used
1	<i>Senegalia catechu</i> (L.f.) P.J.H.Hurter & Mabb.	Khair	Mimosaceae	Bark of <i>Acacia catechu</i> is reported to be used in the treatment of conjunctivitis. Heartwood of the tree has a potential medicinal values.
2	<i>Vachellia nilotica</i> (L.) P.J.H.Hurter & Mabb.	Babhul	Mimosaceae	Most of the peoples from study area use bark of the tree for the treatment of Diarrhea, Dysentery. It is also reported in the treatment of Diabetes. Gum of the tree is well known for its medicinal value as well as in the food industry.
3	<i>Aegle marmelos</i> (L.) Corrêa	Bel	Rutaceae	This tree has a religious value. Its leaves are use in the shiva pooja. Fruits are useful in the piles treatment. Young fruit is cursed with turmeric and applies externally in the case of skin disorders.
4	<i>Agave americana</i> L	Ghaypat, Ketaki	Agavaceae	Leaves are used to making ropes. Mostly leaves fibers are used by farmers to tide the cauliflower. Also used in making hedge around the farm or home. Roots are used for treating diuretic and in syphilis.
5	<i>Ageratum conyzoides</i> L.	Weed	Asteraceae	Plant leaf is use to treat the fresh wounds because is consider that its having a blood coagulation property. also used in leprosy and other skin diseases.
6	<i>Andrographis paniculata</i> (Burm.f.) Nees	Kalmegh	Acanthaceae	Peoples use whole plant in the treatment of bronchitis, influenza, dysentery, fever and in liver diseases.
8	<i>Artemisia vulgaris</i> L	Weed	Asteraceae	Leaves are used as laxatives. Flowers are proved to be useful in expelling round worm and wounds heal.
9	<i>Asparagus racemosus</i> Willd.	Shatawari	Liliaceae	Main use of the <i>Asparagus</i> is for the lactation in women's. This property is also exploited for the cattle's lactation. Entire plant is used in the leucorrhoea, epilepsy and gastrointestinal disorders.
10	<i>Azadirachta indica</i>	Nim,	Meliaceae	Young stem of the twigs is use to brush the teeth.

	A.Juss.	Kadunim		Fresh or dried leaves burn as a insect repellent. Plant bark, leaves and fruits used as a antiseptic in ulcers, skin diseases. Seeds are used in the treatment of intestinal worms. Fruits are crushed and extract is use to spray on crops as a broad spectrum fungicide and insecticide.
11	<i>Blumea lacera</i> (Burm.f.) DC.	Kukurband	Asteraceae	Roots of the plants are used to cure piles and cholera. Leaves are used to treat mouth disorders.
12	<i>Butea monosperma</i> (Lam.) Kuntze	Palash	Fabaceae	Roots of the plant are used to treat fever. Seeds of many plants treated for the roundworm. Seed powder is used to cure diarrhea and dysentery.
13	<i>Calotropis procera</i> (Aiton) W.T.Aiton	Rui	Asclepidaceae	Bronchitis, asthma dysentery tuberculosis, cough and skin diseases can be treated by the root extract of plant. latex use for the treatment on snake bite.
14	<i>Cardiospermum halicacabum</i> L.	Gunj	Sapindaceae	Cardiospermum leaves are used for fever, hydrocoele rheumatism, ear ache and piles.
15	<i>Chlorophytum borivilianum</i> Santapau & R.R.Fern.	Safed Musali	Liliaceae	This plant has been under the constant use ayurvedik preparations. It is used to improve the strength, sexual vigor and o increase the sperm count.
16	<i>Coccinia grandis</i> (L.) Voigt	Kundru	Cucurbitaceae	Whole plant and its fruits are reported to be use on diabetes.
17	<i>Datura metel</i> L.	Datura	Solanaceae	Asthma peoples takes the smoke of leaves and seeds to cure the respiratory disorders and asthma. Piles, joint pain and inflammation treated by leaf juice.
18	<i>Diospyros ebenum</i> J.Koenig ex Retz.	Tendu	Ebenaceae	Tendu bark of plant used to treat diarrhea. Leaf is useful in the blood and skin diseases. Seeds used for cure the dysentery.
19	<i>Euphorbia tirucalli</i> L.	Sehand	Euphorbiaceae	Entire plant can be used in the healing of wounds. Milky latex used for the treatment of Asthama, rheumatism and cough.
20	<i>Evolvulus alsinoides</i> (L.) L.	Vishnukanti	Convolvulaceae	Leaves of plant used to cure the bleeding and epilepsy. it is also known as a antispasmodic, bitter nerving tonic.
21	<i>Ficus populifolia</i> Vahl	Pimpal	Moraceae	Important is, Pimpal tree is most religious. It is worship as a god. Its milky latex is used as a tonic. Bark of the tree is used on sacbies and gonorrhea. Leaves as also used as a antidote on the snake bite.
22	<i>Mangifera indica</i> L.	Amba	Anacardiaceae	Fruits of the plant are used for consumption and juice making. Roots and bark of the plant is use treat vomiting and wound healing. It is also reported that, it helps to cure ulcers, rheumatism, diarrhea and dysentery.
23	<i>Nerium indicum</i> Mill.	Kanher	Apocynaceae	Entire plant has medicinal values. Leaves of the plant have a medicinal value. Plant roots and bark are poisonous.
24	<i>Ocimum tenuiflorum</i> L.	Tuls	Lamiaceae	This plant is religious. Plant leaf is antiseptic and used on the skin diseases. It is also used to cure cough and cold.
25	<i>Cullem corylifolium</i> (L.) Medik	Bawchi	Fabaceae	Seed are more important as a folk medicine. Seeds are use in the cough, diabetes and fever. It is also importantin edema, piles and ulcers.
26	<i>Sesamum indicum</i> L.	Til	Pedaliaceae	Til seeds oil is used to massage. Oil is beneficial for muscle fatigue. It is also use as a hair oil, to prevent hair loss.

27	<i>Syzygium cumini</i> (L.) Skeels	Jamun	Myrtaceae	The seed powder used to control sugar level in diabetes cases.
28	<i>Tamarindus indica</i> L.	Jambhul	Myrtaceae	Plant fruits are use to eat, faor juice making. It is use as a digestive, laxative, carminative, and astringent.
29	<i>Tectona grandis</i> L.f.	Sag	Lamiaceae	Sag wood is most durable and resistant to termites. Oil extract is used to treat itches and ringworms.
30	<i>Withania somnifera</i> (L.)Dunal	Ashwagnadha	Solanaceae	Entire plant is use in the medicine. Plant roots are use to treat cough, fever and ulcers.
31	<i>Ziziphus mauritiana</i> Lam.	Bor	Rhamnaceae	Fruits are use to eat and dry fruit powder is consume as a food. The bark is use on stomach ulcers and for treating diarrhea.

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