

# Study of Some Medicinal Plants from Panvel Tahsil Dist. Raigad (MH)

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**Abstract:** India is rich in biodiversity and considered to be a storehouse of medicinal plants. The diversity of indigenous and endemic medicinal plants has contributed a lot to the practice of herbal/traditional medicines by local tribal communities. The present study was carried to find out utilization of medicinal plants of Panvel tahasil Raigad district in Maharashtra (MH) The survey of medicinal plants was carried out on June 2020 to June 2021. Thirty types of medicinal plants of 24 families belonging to angiosperms were identified. These families includes Malvaceae, Liliaceae, Araceae, Euphorbiaceae, Moraceae, Verbenaceae, Fabaceae, Acanthaceae, Amaryllidaceae, Amaranthaceae, Asclepiadaceae, Asteraceae, Bombacaceae, Caricaceae, Caesalpinaceae, Colchicaceae, Dioscoreaceae, Mimosaceae, Papaveraceae, Rutaceae, Lamiaceae, Solanaceae, Lamiaceae and Menispermaceae. The major plant parts were used such as root, stem, leaves and fruits. The present study provides introduction regarding the arability and uses of medicinal plants of Raigad district in Maharashtra.

**Keywords:** Medicinal plants, Panvel Tehsil, Families, Ailment

## I. INTRODUCTION

Weather is Sunny across the year. There is heavy rain during monsoon. May is the warmest month of the year. The temperature in May averages 34.3 °C. The lowest average temperatures in the year occur in January, when it is around 23.4 °C. Temperatures hover around 40 °C during most days of summer during mid-March till May. Highest temperature recorded around 44-45 °C. Average annual temperature of Panvel is 27.0 °C (March 2020).

According to the Botanical Survey of India, India is home to more than 8,000 species of medicinal plants. The term medicinal plants include various types of plants used in herbalism and some of these plants have some medicinal activities. Medicinal plants are the “backbone” of traditional medicine, which suggests quite 3.3 billion people within the less developed countries consume medicinal plants on a daily basis (Davidson-Hunt I.2000)The country has a rich history of traditional healing systems, many of which list the use of these plants. For many indigenous communities, they are an integral part of primary healthcare. In India there are 2,500 plants species documented medicinal value (Sunitha Singh 2013). In India, of the 17,000 species of higher plants, 7500 are known for medicinal uses (Shiva, 1996). India harbors a rich diversity of valuable medicinal plants, and attempts are being made at different levels for sustainable utilization of this resource in order to develop the medicinal plants sector.

Medicinal plants have been a resource for healing in local communities around the world for thousands of years. Still it remains of contemporary importance as a primary healthcare mode for approximately 85% of the world’s population (Pešić, 2015). Raigad district of konkan region of Maharashtra is very well known for its huge Biodiversity of flora and fauna. Indigenous medicinal plants with pharmaceutical properties have received increased interest these days, from both homeopathic and allopathic branches. Medicinal plant gardens were established at every village for healthcare (Husain, 1983). Indigenous culture has been enriched by the knowledge of traditional medicinal plants (Kichu et al., 2015). According to report of WHO, 80% population of world depends on traditional medicine for their treatment of different ailments (Kadhirvel et al., 2010). Many rural people including tribes use the folk medicine for their primary

treatment (Datta et al., 2014). The knowledge of medicinal plants has been transmitted from prudent to rising generation. It has extensive importance in Pharmacology (Sinhababu and Banerjee, 2013).

## II. MATERIALS AND METHODS

### 2.1 Study Area

The study area i.e. Raigad district is situated in the Konkan region of Maharashtra state along the west coast of Maharashtra state. It is bounded by the Arabian Sea towards west.

The study was performed in the Dombala hills and nearby villages of the Panvel region in Raigad district of Maharashtra(India). At the study site, a total of 30 medicinal plants were identified. In the study region, extensive field surveys were performed between June 2020 and June 2021. The plants were identified initially by their local names and scientific identification was done by using relevant scientific literatures (Hooker 1872–1877; Cooke 1967; Patil and Yadav 1991; Naik 1998; Singh and Karthikeyan 2000; Parrotta. 2001; Yadav and Sardesai 2002). The information available from actual conversations and observations with people is compiled in tabulated form.

### 2.2 Significance of Medicinal Plant to Humans

Medicinal plants have played an important role within the development of human culture, for instance religions and different ceremonies. Many of the fashionable medicines are produced indirectly from medicinal plants, for instance, aspirin. Many food crops have medicinal effects, for instance, garlic. Medicinal plants are resources of latest drugs. it's estimated there are quite 250, 000 flower plant species. Studying medicinal plants helps to know plant toxicity and protect humans and animals from natural poisons. Cultivation and preservation of medicinal plants protect biological diversity, for instance , metabolic engineering of plants. The medicinal effects of plants are thanks to metabolites especially secondary compounds produced by plant species. Plant metabolites include: primary metabolites and secondary metabolites. Phytotherapy is that the use of plants or plant extracts for medicinal purposes (especially plants that aren't a part of the traditional diet).

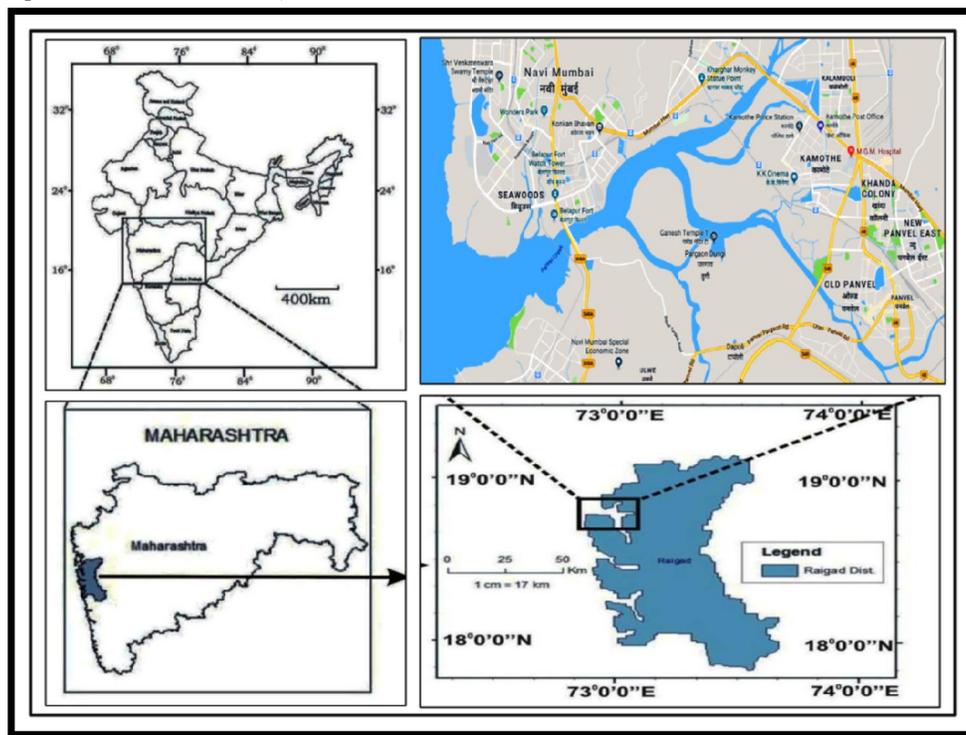


Figure 1: Location map of Navi Mumbai representing study area. (Panvel)

**III. EXPERIMENTAL RESULT**

**Table 1:** Detail about medicinal plants local name and its Traditional Uses.

Sr. No.	Botanical Name	Family	Local Name	Parts used	Traditional Uses
1	<i>Abutilon pannosum</i> L.	Malvaceae	Kasli	Leaves	4-5 fresh leaves given in scorpion sting, twice a day.
2	<i>Aloe vera</i> (L.)Burm.f.	Liliaceae	Korpad	Leaf pulp	Leaf pulp is eaten for theophytic, Leaf pulp is used to increase appetite and to strengthen the digestion, leaf pulp is used as skin lotion, leaf pulp is eaten to reduce body heat.
3	<i>Achyranthusaspera</i> L.	Amaryllidaceae	Aghada	Whole plant	,Leaves with milk of goat in asthma, Leaves prevents ulcers. Leaf extract used in skin diseases.
4	<i>Argemone Maxicana</i> L.	Papaveraceae	Billinga	Leaves and flowers	Extract of leaves and flowers used against skin diseases, Root extract used in hepatitis.
5	<i>Adhatoda zeylanica</i> L.	Acanthaceae	,Vasak	Leaf	Decoction of leaf is used in cold and cough.
6	<i>Aegle marmelos</i> (L.) Corr.	Rutaceae	Bel	Fruit	Pulp is used in constipation
7	<i>Abrus preatorius</i> . Lin .	Fabaceae	Gunj	Leaves, seeds	Abortion, mouth fresh, pimples.
8	<i>Acacia catechu</i> .	Mimosaceae	Khair	Stem, gum	Katha, bronchial asthma, homoptysis.
9	<i>Amorphophallus campanulatus</i> Den.	Araceae	Suran	Rhizome	Vegetables
10	<i>Asparagus racemosus</i> . Willd.	Liliaceae	Shatavari	Roots leaves	root extract stopped cough as well as the prescription cough medicine codeine phosphate.
11	<i>Bombax ceiba</i> . L.	Bombacaceae	Kate shaver	Roots, Stem, Gum.	The gum is astringent, demulcent and tonic. Decoction of the bark is given orally to combat fever; bark juice is given to reduce stomachache.
12	<i>Butea monosperma</i> . Lamk.	Fabaceae	Palas	Bark, Stem, Gum, flower	Flowers are astringent to bowel. flower juice is used to treat eye diseases. It is used for timber, resin, fodder, medicine, and dye. The bark and the flowers and the leaves and the gum and even the seeds are used to prepare herbal remedies.
13	<i>Calotropis procera</i>	Asclepiadaceae	Rui	Stem and flowers	The leaves of <i>Calotropis procera</i> are also used to treat jaundice. Latex is applied for relief of scorpion bite
14	<i>Carica papaya</i> L.	Caricaceae	Papai	Leaves	Fresh leaf juice given in dengue and viral fevers

15	<i>Cassia auriculata</i> (L.) Dunal	Caesalpinia eae	Tarwad	Flowers, Root	To cure carbuncle in nose flowers are inhaled. The root is used in decoctions against fevers, diabetes, diseases of urinary system and constipation
16	<i>Celosia argentea</i> L.	Amaranthac eae	Kurdu	Tender shoot, Root	Root powder in asthma. Vegetable is given in indigestion and as purgative.
17	<i>Colocasia esculenta</i> L.	Araceae.	Alu	Leaves	The tuber of the roots of the colocasia plant is edible.
18	<i>Dioscorea bulbifera</i> L.	Dioscoreace ae	Dukarka nd	Tubers	bulbils are used in the treatment of Piles, dysentery, syphilis, ulcers, cough, leprosy, diabetes, asthma, and cancer.
19	<i>Eclipta alba</i> (L)Hask	Asteraceae	Maka	Root and leaves	the leaf extract of Bhringraj is also considered a powerful liver tonic and detoxifier. It contains several phytochemicals such as alkaloids, polyacetylenes, thiophene derivatives, flavonoids, and triterpenes
20	<i>Emblica officinalis</i> L.	Euphorbiace ae	Awala	Leaves and fruits	Leaf ash mixed in oil and applied on burns, paste of fresh fruits used to prevent hair-fall.
21	<i>Ficus benghalensis</i> L.	Moraceae	Wad	Stem apices	The aerial root is styptic, useful in syphilis, biliousness, dysentery, inflammation of liver etc.
22	<i>Ficus racemosa</i> L.	Moraceae	Umbar	fruits	fruits given to promote lactation and in diabetes
23	<i>Pterocarpus santalinus</i> L.	Fabaceae	Rakta Chandan a	Stem, leaves	decoction is given in chronic dysentery. It is also useful in vitiated conditions of pitta, burning sensation, vomiting, skin diseases, leprosy, ulcers, fistula, and haemorrhages.
24	<i>Gloriosa superba</i> L.	Colchicacea e	Agnishik ha	leaves	The leaves when applied in the form of a paste to the forehead and neck, are reported to cure asthma in children. The leaf juice is used against head lice, and also as an ingredient in arrow poisons. The sap from the leaf tip is used for pimples and skin eruptions.
25	<i>Helicteres isora</i> L.	Malvaceae	Murad sheng	pod	to treat snake bite, diarrhoea and constipation of new born baby.
26	<i>Lantana camara</i> L.	Verbinaceae	Ghaneri	Leaves	Black ripened fruits are eaten in piles.
27	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulas	Leaves	The leaves strengthen the stomach and help in respiratory diseases cough relieving properties, antimicrobial activities against many pathogens and can be used as mouth wash agent, for wound healing, and preservation of food stuff.
28	<i>Jatropha curcas</i> L.	Euphorbiace ae	Japhali	Whole plant	Biodiesel, to treat bacterial and fungal infections or febrile diseases, muscle pain or jaundice.

29	<i>Tinospora cordifolia</i> Will. Miers	Minisperma ceae	Gulwel	Stem bark	The treatment of fever, jaundice, chronic diarrhea, cancer, dysentery, bone fracture, pain, asthma, skin disease, poisonous insect, snake bite, eye disorders.
30	<i>Vitex nigundo</i> L.	Verbanaceae	Nirghudi	Root stem and leaves	to treat a host of illnesses like arthritis and menstrual cramps.

The survey recognized 30 medicinal plants, belonging 24 families (Table 1) used by the people of Panvel and nearby villages for the treatment of various ailments. During present investigation families includes Malvaceae , Liliaceae , Araceae, Euphorbiaceae, , Moraceae , Verbenaceae , Fabaceae Acanthaceae, Amaryllidaceae ,Amaranthaceae, Asclepiadaceae, Asteraceae, Bombacaceae , Caricaceae, Caesalpinaceae, Colchicaceae , Dioscoreaceae, *Mimosaceae*, Papaveraceae , Rutaceae, *Lamiaceae* , *Solanaceae* ,*Lamiaceae* and *Menispermaceae* .

#### IV. DISCUSSION

Husain (1983). observed Conservation of genetic resources of medicinal plants in India. Kadirvel et al. (2010). Investigated on anti-diabetic medicinal plants used by tribals inhabitants of Nalamankadai Chitteri Reserve Forest, Dharmapuri, India. Sinhababu and Banerjee (2013). studied Ethnobotanical of medicinal plants used by tribals of Bankura District. Jain (2013 ) published book on ‘ Medicinal plant.Parvaiz (2014). studied on plant resources of Mangowal, District Gujrat, Punjab. Sunita Singh and subhalaxmi (2013) published Medicinal plants Kalpaz. Datta, et al (2014) studied of Medicinal plants used by tribal population of Coochbehar district. eth and Sharma (2004) screened Around 70% Indias Medicinal Plants are found in tropical areas. Yadav and Desai (2002) published Flora of Kolhapur District Shivaji University Kolhapur. Kichu et al. (2015). studied ethnobotanical of medicinal plants of Chungtia village, Nagaland.

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