



Ethnobotanical practices of some angiospermic plants of Pandharpur tehsil of Solapur District (MS) India

Aniket Chandanshive^{1*}, Sunil Gaikwad¹, Vilas Aiwale¹, Dipali Patil²

¹Department of Botany, K. B. P. Mahavidyalaya, Pandharpur, Solapur, Maharashtra, India

²Department of Botany, S. B. Khade Mahavidyalaya, Kolhapur, Maharashtra, India

Abstract

This paper represents the survey of medicinal plants available in Pandharpur tehsil on the bank of Bhima River and territory. This investigation carried out in 2018 -2021, through several field visits and interviews. In present work the total 105 species belongs to 50 families were found which are used as traditional medicine for the treatment of various ailments. Used on frequently occurs in human life such as rheumatism, cough, fever, snake bite, wounds. In the study area most commonly used highly medicinal plants such as *Azadirachta indica*, *Bacopa monnieri*, *Ricinus communis*, *Tinospora cordifolia*, *Tridax procumbens*, *Withania somnifera*. This traditional knowledge is a treasure for world to challenge chemical side effects.

Keywords: Bhima River, traditional medicine, rheumatism, chemical side effect, *Withania somnifera*

Introduction

There is a strong obligation between human and plants studied under ethnobotany. Ethnobotany is the study of a region's plants and their practical uses through the traditional knowledge of a local culture and local communities of people in various parts of the world. Ancient Indian traditional therapeutics was established on 'Charaka Samhita', one of foundational Sanskrit text on Ayurveda. India having comprehensive biodiversity which embrace a large variety of medicinal plants hence known as botanical garden of world (Vedavathy *et al.*, 1997)^[23]. Out of the 36 biological hot spots two are Eastern Himalaya and Western Ghats located in India also, Western Himalaya and Andaman and Nicobar Island have more biodiversity.

The drugs prescribed in conventional medicine are related directly or indirectly to naturally occurring substances mostly of plant origin. This contribution is a credit to ethnobotany in drug discovery. Natural products from plants, microbes and animals contribute to about half of the pharmaceuticals use today. Some examples are aspirin (acetylsalicylic acid) originally derived from the Willow tree, *Salix* sp. (Salicaceae) used in Europe, reserpine from the Indian medicinal use of *Rauwolfia* sp. (Apocynaceae), quinine from the South American *Cinchona* sp. (Rubiaceae) and eserine (Physostigmin) from the African use of the plant *Physostigma venenosum* (Pipilionaceae) in Nigeria. Just recently artemisinin an antimalarial has been developed from the Chinese herbal medicinal plant *Artemisia annua* and in India *Artemisia indica* (Dauna).

Ethnobotany has grown from simply acquiring ethnobotanical knowledge to that of applying it to a modern society, primarily in the form of pharmaceuticals. Recent trends indicates that today's civilization is in the favour of Ayurveda. Rural people hand over the traditional indigenous knowledge of medicinal value of plants growing around them to next generation. (Savinaya *et al.*, 2016)^[16]. It was thought of in practical use terms for culinary and medical purposes and the ethnographic element was not studied as a modern anthropologist might approach ethnobotany today. The largest part of the population resides in the rural areas, and very strong plant-people interaction can be seen (Abbas *et al.*, 2021)^[27].

Plants are widely used in the rituals, dying, and handicraft and as wild food and herbal medicine in rural communities. More than 10 percent of the national flora possesses medicinal importance and most of the medicinal species are confined in the mountainous parts of the country (Shinwari and Kaiser, 2011). Medicinal plants have represented for thousands of years the only remedy for various diseases (Tsioutsou *et al.*, 2019). Thus, there is a need of conservation and sustainable use to avoid huge loss of such significant plant species (Aiwale *et al.*, 2022)^[1]. Phytotherapy still maintains an important role in the treatment of many diseases in India. A great deal of information about the traditional uses of plants is still intact with tribal peoples. The present paper gives the details of these medicinal plants uses which is collected from the local tribe and rural people. Ethnobotany of Pandharpur region is not documented and poorly known worldwide. Hence it is necessary to survey and record the traditional indigenous knowledge of medicinal plants.

Material and Method

The present field surveys were carried out in the Pandharpur tehsil from year 2018 to 2021 in order to document the botanical name, family, local name, habit and usage of ethnomedicinal plants of the rural and urban area of

Pandharpur. In different flowering seasons surveys were carried out to obtain correct identification of plant specimen and multiple information provided by the local elder peoples during earlier visits. In organized surveys, proper and informal interviews and notes were used to inquire about used plant parts, local names and the process of medication.

According to local peoples, vaidues and tribal communities their knowledge of ethno medicines were transmitted through parents and experience about medicinal value of plant to cure them. All the data were collected on field on the basis of interviews with the traditional practitioners, men utilized of various medicinal plants in curing various ailments and were also taken more knowledgeable person for study of plants. (Tembhurne *et al.*, 2012) [22].

Study Area

The Pandharpur tehsil is situated in the extreme southern part of Maharashtra state. Especially it is located central part of Solapur district.

Pandharpur tehsil lies between 17° 40' 30" N latitude and 75° 19' 36" E longitude cover an area of 1303 square kilometre and nature of area mostly lies rural. The study region has an elevation 458 meter above the mean sea level with average rainfall 496.5 mm. The total population of Pandharpur tehsil is 632578 including 103 villages as per 2011 census. Pandharpur tehsil is bounded by Madha to the north, Mohol to the North-East, Sangola and Mangalwedha respectively to South-East and South-West.

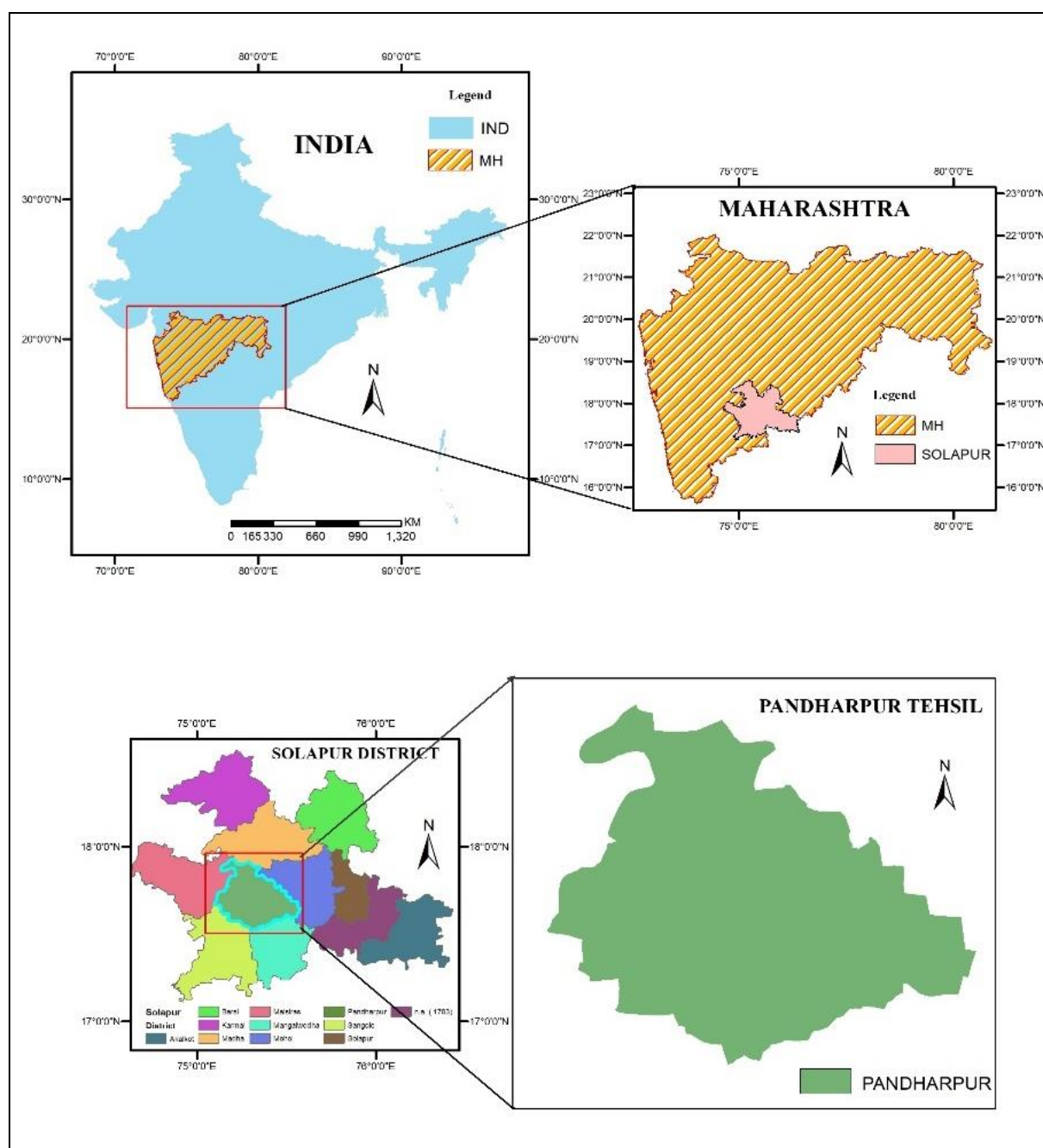


Fig 1: Location map of Pandharpur tehsil.

Result and Discussion

In the listing all the floral species are organised with their botanical name, family, local name, parts used and many usage of disorder and diseases (Table 1). A total of 105 plant species belonging to 50 families were reported for different therapeutic uses. Ethnomedicinal uses have been reported and investigation on the medicinal plants by vaidues, local elder peoples, tribal communities among the Pandharpur tehsil. Earlier generation is unaware about the vast medicinal resources presented in their adjoining and is more motivated towards the conventional medications. It was also found that the tribal practitioners are tentative to disclose their information. The local knowledge system of herbal preparation is still very rich and available among local tribal communities of tehsil Pandharpur. Henceforth it is essential to document the traditional information of useful plants species and their ethnomedicinal uses before being lost always from the community. Most of the ailments such as stomach ache, urinary problems, kidney stones, jaundice, fever, cough and diarrhoea can be cured by oral administration while most of the skin diseases, wounds, swelling, tumours, pneumonia and piles can be cured by topical application (Shahane *et al.*, 2015) [18].

Conclusion

The tribal mostly depend on the plants found in the wild. The knowledge gained about the efficacy of plants by the tribes for generations is kept secret and is orally communicated to their descendants. It was observed that the tribal people used all these species very carefully. (Kumar *et al.*, 2010) [11]. The indigenous medicine that is used to for maintaining health and to prevent, diagnose, treat physical and mental illnesses. The local traditional knowledge people in rural areas are fast disappearing along with the resources and traditional practices. Because of the rapid changes due to modernization, it is difficult for these people to find apprentices i.e., people from the younger generation to learn and continue these practices. (Natarajan *et al.*, 2000) [4]. The traditional knowledge on the folklore usage of the medicinal plants leads to open up various ways for active utilization of ethno medicines it should be benefited of our upcoming generations it has helped to cure various disease and disorders.

Enumeration

The botanical names of traditional plants along with their respective family, local names and part used then their ethno medicinal usage and doses were documented.

Table 1: Medicinal plants with taxonomical description and traditional medicinal knowledge recorded in Pandharpur tehsil.

Sr. No	Botanical name	Family	Local name	Part used	Medicinal uses
1	<i>Abutilon indicum</i> (Link) Sweet	Malvaceae	Mudra	Stem, leaves, fruits	Paralysis, body-ache, rheumatism, painful joints, fever
2	<i>Acacia chundra</i> (Rottler) Willd.	Fabaceae	Lal khair	Bark, stem	Diarrhoea, high blood pressure, tooth cleaning
3	<i>Achyranthes aspera</i> L.	Amaranthaceae	Aghada	Leaf, roots, seeds	Digestion problem, stomach pain, fat burning, hemp pain, antivenom, dog biting
4	<i>Adhatoda vasica</i> (L.) Nees	Acanthaceae	Adulsa	Leaves, root	Cough, fever, Asthma, urinary problems, tuberculosis, skin diseases
5	<i>Aegle marmelos</i> (L.) Correa	Rutaceae	Bel	Leaves, bark, fruit	Loss of appetite, sexual stimulant, antivenom, Dysentery, fever, wound healing
6	<i>Agave americana</i> L.	Asparagaceae	Ghaypat	Leaf	Teeth ache, skin diseases, blood acidity
7	<i>Amaranthus paniculatus</i> sensu Hook. f.	Amaranthaceae	Rajgira	Shoot, leaves	Wound healing, blood purifier, urinary disorder
8	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Kathemath	Roots, leaves	Urine disease, inhibit abortion, pain killer
9	<i>Aristolochia bracteolata</i> Lam.	Aristolochiaceae	Kidamari	Root, shoot	Parturition, fever, rheumatism, abdominal worm, skin infection,
10	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Kadunimb	Leaf, Bark, twig	Fever, parturition, skin disease, wound healing, abdominal worm, rheumatism, acidity, mouth ulcer
11	<i>Bacopa monnieri</i> (L.) Pennell	Plantaginaceae	Nirbramhi	Leaves	Memory enhancer, digestion, head ache, jaundice, appetite, bile

					disorder
12	<i>Balanites roxburghii</i> Planch.	Zygophyllaceae	Hingan	Stem, bark, fruits	Cough fever, fish killer, seed oil wounds healings
13	<i>Barleria prionitis</i> L.	Acanthaceae	Koranti	Leaves, stem	Dysentery, cough, body pain, teeth disease
14	<i>Bauhinia racemose</i> Lam.	Fabaceae	Apta	Bark, leaves	Dysentery, Leaves paste on head ache, fever, wound healing
15	<i>Biophytum sensitivum</i> (L.) DC	Oxalidaceae	Lajri	Leaf	Cough bleeding, dysentery, vaginal diseases, piles, gonorrhoea
16	<i>Boerhavia diffusa</i> L. nom. cons.	Nyctaginaceae	Punarnava	Roots, stem, leaves	Pain killer, jaundice, head ache
17	<i>Bryonia laciniosa</i> L.	Cucurbitaceae	Shivlingi	Seeds	Female infertility, cough, skin disease, sperm count increases, uterine tonic, constipation
18	<i>Caesalpinia pulcherrima</i> (L.) Sw.	Fabaceae	Vakeri	Leaves, pods, roots	Piles, wounds healings, fever, abdominal pain
19	<i>Calotropis procera</i> (Aiton) W.T.Aiton	Apocynaceae	Rui	Roots, leaves	Skin diseases, wounds healings, fever, cold, menstrual fever, acidity, digestion, teeth aches, rheumatism
20	<i>Cannabis indica</i> Lam.	Cannabaceae	Ganja	Leaves, stem, seeds	Abdominal pain, cough, fever, inflammation, ear pain, sexual stimulant, skin diseases, uterine problems
21	<i>Canscora decussata</i> (Roxb.) Roem. & Schult.	Gentianaceae	Shankhpushpi	Leaves	Analgesic, Anti tubercular, heart stimulant
22	<i>Capparis decidua</i> (Forssk.) Edgew.	Capparaceae	Tarti	Stem	Tooth ache, Dysentery, skin diseases
23	<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Kapalfodi	Leaves, stem	Ear-ache, wound healing,
24	<i>Carthamus tinctorium</i> L.	Asteraceae	Kardai	Leaves, stem, seeds	Common cold, jaundice, Rheumatism, stomach ache,
25	<i>Celosia argentea</i> L.	Amaranthaceae	Kurdu	Seeds	Sexual stimulant, urination stop, cure urinary diseases
26	<i>Centella asiatica</i> (L.) Urb	Apiaceae	Bramhi	Leaves	Skin disease, memory enhancer, digestion, head ache
27	<i>Coccinia grandis</i> (L.) Voigt	Cucurbitaceae	Tondali	Leaves, stem	Blood clotting during pregnancy, asthma, sperm fall
28	<i>Chenopodium album</i> L.	Amaranthaceae	Chakhvat	Leaves, stem	Dysentery, Skin heating, digestion
29	<i>Citrullus colocynthis</i> L. Schrad.	Cucurbitaceae	Indrvan	Fruit, leaves, root	Rheumatism, Chest inflammation, vaginal disease, abdominal pain, and hair growth
30	<i>Citrus medica</i> L.	Rutaceae	Mahalung	Fruit, root, leaves	Fever, rheumatism, bile disorder
31	<i>Coleus amboinicus</i> Lour.	Lamiaceae	Paan ova	Leaves, stem	Cough, fever, asthma, throat infection
32	<i>Colocasia esculenta</i> L. Schott	Araceae	Alu	Leaves, tuber	Used for wound healing, kidney stone, baby milk powder
33	<i>Commelina benghalensis</i> L.	Commelinaceae	Kenpat	Shoot	Abdominal pain, skin infection
34	<i>Crossandra undulaefolia</i> Salisb.	Acanthaceae	Aboli	Leaves	Child cough, fever, cold
35	<i>Crotalaria verrucosa</i> L.	Fabaceae	Khulkhula	Leaves, stem, bark	Skin diseases, mouth ulcers, express saliva

36	<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	Amarvel	Stem	Fever, acidity, for skin disease paste used
37	<i>Cyperus scariosus</i> R.Br.	Cyperaceae	Lavhala	Leaves, corm	Fever, urinary diseases, lactagogue
38	<i>Dalbergia sissoo</i> Roxb.	Fabaceae	Shisam	Leaves, roots, shoot, bark	Obesity, vitiligo, fever, ulcers, intestinal parasites
39	<i>Datura stramonium</i> L.	Solanaceae	Dhotra	Leaf, stem	Respiratory problem, fever inflammation, cough,
40	<i>Desmodium triflorum</i> (L.) DC.	Fabaceae	Ranmethi	Leaves	Child birth milking, wound healing, acidity
41	<i>Dolichandrone falcata</i> (Wall. ex DC.) Seem.	Bignoniaceae	Medshingi	Bark	Dislocated bones, fractured bones, menorrhagia, leukorrhea
42	<i>Euphorbia heterophylla</i> L.	Euphorbiaceae	Mothi dudhi	Latex, leaves, stem	Skin disease, wound healing
43	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Dudhi	Latex, leaves, stem	Rheumatism, small intestine disorder, abdominal pain, skin disease, bile disorder
44	<i>Euphorbia tirucalli</i> L.	Euphorbiaceae	Sher	Latex, leaves	Skin disease, wart, Rheumatism,
45	<i>Ficus racemosa</i> L.	Moraceae	Umber	Latex, root, Shoot, fruits	Abortion, bleeding, wound healing, Diabetes
46	<i>Ficus religiosa</i> L.	Moraceae	Pimpal	Bark, leaves	Abdominal ulcer, mouth ulcer, blood purifier, jaundice, vomiting, wound healing, piles
47	<i>Gliricidia sepium</i> (Jacq.) Steud.	Fabaceae	Undirmari	Root, bark	Fever, cough, fractures, rheumatism skin tumours, ulcer, urticaria
48	<i>Gossypium arboretum</i> L.	Malvaceae	Dev kapus	Root, shoot	Wound healing, scorpion sting, urine disease
49	<i>Guilandina bonduc</i> L.	Fabaceae	Gajaga	Leaves, seeds	Child birth fever, uterus contraction, testicular pain, ear ache
50	<i>Hibiscus cannabinus</i> L.	Malvaceae	Ambadi	Leaves, flower	Acidity, abdominal pain, constipation
51	<i>Indigofera trifoliata</i> L.	Leguminosae	Neel	Fruit, seed	Nutrient deficiency, immunity, power booster
52	<i>Ipomoea digitata</i> Linn.	Convolvulaceae	Bhumikohola, vidarikand	Tubers	Weight gain, lactagogue, digestion
53	<i>Jasminum sambac</i> L. Aiton	Oleaceae	Mogara	Flowers, leaves	Lactagogue, sexual stimulant
54	<i>Kalanchoe pinnata</i> (Lam.) Pers	Crassulaceae	Panfuti	Leaves	Diabetes, diuresis, dissolving kidney stones, respiratory tract infections, wounds healing, boils, insect bites, alcoholic, viral and toxic liver damages
55	<i>Launaea pinnatifida</i> Cass.	Asteraceae	Pathari	Leaves, shoot	Skin diseases, jaundice, throat infection, to increase lactation
56	<i>Leucas aspera</i> (Willd.) Link	Lamiaceae	Dronepushpi	Leaves	Cough, cold, snake bites, scorpion Stings, skin diseases
57	<i>Limonia acidissima</i> L.	Rutaceae	Kavad	Leaves, fruits	Cough bleeding, acidity, Ayurvedic toothpaste
58	<i>Loranthus longiflorus</i> Desr.	Loranthaceae	Bandgul	Flower, leaves	Tissue swelling, asthma, cough, fever, urinary problem,
59	<i>Martynia annua</i> L.	Martyniaceae	Vinchu	Seeds	Scorpion bites, joint inflammation

60	<i>Melia azedarach</i> L.	Meliaceae	Bakana nimb	Seeds, leaves, flowers, stem, bark	To cure Fungal infections, Abdominal pain, acidity, fever, during pregnancy headache, wound healing
61	<i>Melia dubia</i> Cav.	Meliaceae	Limbada	Fruits, leaves	Abdominal pain, acidity, fever, muscular disorder
62	<i>Mentha sylvestris</i> L.	Lamiaceae	Pudina	Leaves, shoot	Digestion, abdomen pain, vomiting, jaundice, child birth fever, tooth problem
63	<i>Michelia champaca</i> L.	Magnoliaceae	Son chafa	Bark, flower	Fever, cold, wound healing, rheumatism, urinary diseases, skin diseases, abdominal pain
64	<i>Millettia pinnata</i> L. Panigrahi	Fabaceae	Karanj	Seed, roots, leaves, flower	Pain killer, wound healing, Skin disease
65	<i>Mirabilis jalappa</i> L.	Nyctaginaceae	Gulbas	Root, leaves	Digestion, skin disease, wound healing
66	<i>Momordica cymbalaria</i> Hook.f.	Cucurbitaceae	Kadvanchi	Tuber, seeds	Abortion, anticancer, anti-diabetic, intestinal worm
67	<i>Morinda citrifolia</i> L.	Rubiaceae	Ranati noni	Roots, leaves	Jaundice, skin diseases, wound healing, rheumatism
68	<i>Moringa oleifera</i> Lam.	Moringaceae	Shevaga	Leaves, bark, legume	Abdominal pain, fever, Rheumatism, Sexual stimulant
69	<i>Murraya koenigii</i> (L.) Sprengel	Rutaceae	Kadhipatta	Leaves	Cough, acidity, hair fall, vomiting, insect bite
70	<i>Nerium oleander</i> L.	Apocynaceae	Kanher	Roots, bark	Skin diseases, Snake bite, antivenom
71	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Parijatak	Leaves, seeds	Fever, hair growth
72	<i>Ocimum gratissimum</i> L.	Lamiaceae	Rantulas	Shoot, seed	Mouth ulcer, fever, teeth problem, mouth odour
73	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Tulas	Root, stem, leaves, seeds	Fever, pain killer, vomiting, antivenom, fungal diseases, wound healing
74	<i>Opuntia dillenii</i> (Ker Gawl.) Haw.	Cactaceae	Nivdung	Fruits, leaves, roots	Inflammation, asthma rheumatism cough, fever
75	<i>Oxalis corniculata</i> L.	Oxalidaceae	Ambuti	Leaves	Acidity, wounds healings, headaches, reduce toxicity, warts
76	<i>Parkinsonia aculeata</i> L.	Fabaceae	Vilayati kikar	Leaves, legume, bark	Fever, epilepsy, antimalarial
77	<i>Pergularia daemia</i> Forsk	Apocynaceae	Utran	Latex, root	Asthma, skin disease, cold, urinary problem, severe stomach pain
78	<i>Phyllanthus niruri</i> L.	Phyllanthaceae	Bhuiawala	Leaves, stem	Jaundice, skin disease, fever,
79	<i>Physalis indica</i> Lam.	Solanaceae	Chirbutale	Fruit	Digestion, asthma, cough
80	<i>Piper longum</i> L.	Piperaceae	Pimpali	Capsule	Fever, brain disease
81	<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Chitrak	Roots	Rheumatism, abdominal problem, sexual stimulant, abortion, skin diseases
82	<i>Portulaca oleracea</i> L.	Portulacaceae	Ghol	Leaves	Kidney stones, teeth ache, urinary bleeding, wounds healings
83	<i>Psoralea corylifolia</i> L.	Fabaceae	Bavchi	Seeds	Hair fall, leukoderma, fever, Sex related problems, skin diseases, leprosy
84	<i>Ricinus communis</i> L.	Euphorbiaceae	Yerand	Leaves, root, seeds	Abdominal pain, vomiting, dysentery, boobs massage, wound

					healing, tumour, piles, inflammation
85	<i>Rumex vesicarius</i> L.	Polygonaceae	Chuka	Seed, leaves	Food digestion, vomiting, teeth ache, scorpion sting bite
86	<i>Santalum album</i> L.	Santalaceae	Chandan	Heart wood, seeds	Heart controllers, sore throat, headaches, skin diseases, cough bleeding.
87	<i>Senna auriculata</i> L. Roxb.	Fabaceae	Tarvad	Flower, stem, leaves	Sperm fall, Diabetes, Urine disease
88	<i>Senna tora</i> (L.) Roxb.	Fabaceae	Takla	Stem, leaves	Skin diseases, rheumatism, joint inflammation, swelling
89	<i>Sesbania bispinosa</i> (Jacq) W. Wight	Fabaceae	Kate shevari	Leaves, bark, seed	Anti-inflammatory, rheumatism, ringworm, lactagogue, diuretic
90	<i>Sesbania grandiflora</i> (L.) Poiret	Fabaceae	Hadaga	Leaves, flowers	Cough fever, lungs diseases, wounds healings
91	<i>Sida cordifolia</i> L.	Malvaceae	Bala	Leaves, bark	Wound healing, Dysentery, sexual stimulant
92	<i>Solanum virginianum</i> L.	Solanaceae	Kantkari	Seeds, leaves	Respiratory problems, fever, cough, inflammation, Rheumatism, Tooth problem
93	<i>Spinacia oleracea</i> L.	Amaranthaceae	Palak	Leaves	Fever, throat infection, intestine disorder
94	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Jambhul	Fruit, leaves, bark	Cold, cough, flue, dysentery, stomach pain, skin disease, heart problem, asthma, antidiabetic
95	<i>Tectona grandis</i> L. f.	Lamiaceae	Sag, sagwan	Leaves, flower, seed	Urinary disorder, skin diseases, hair fall, nail problem, snake bite
96	<i>Tephrosia purpurea</i> L. Pers.	Fabaceae	Unhali	Roots, seeds	Fungal disease, acidity, antivenom
97	<i>Terminalia catappa</i> L.	Combretaceae	Deshi badam	Bark, seeds	Acidity, head ache, sperm fall
98	<i>Tinospora cordifolia</i> (Thunb.) Miers	Menispermaceae	Gulvel	Stem	Digestion, hungry ness, power stimulant, jaundice, dysentery
99	<i>Tribulus terrestris</i> L.	Zygophyllaceae	Gokshur	Leaves, fruits	Sexual stimulant, infertility in women, sperm fall, back pain, uterus cleaning
100	<i>Tridax procumbens</i> L.	Asteraceae	Dagdi pala	Leaves	Wound healing, blood clotting, rheumatism, skin diseases, burning, cutting
101	<i>Vigna mungo</i> (L.) Hepper	Fabaceae	Udid	Seeds, root	Sexual stimulant, immunity booster, body pain
102	<i>Vigna trilobata</i> (L.) Verdc.	Fabaceae	Ranmug	Leaves	Fever, wound healing, lactagogue, Anti-inflammatory, Sedative, urinogenital disorder
103	<i>Vitex negundo</i> L.	Lamiaceae	Nirgudi	Leaves, stem	Inflammation, rheumatism, common cold, throat infection, joint inflammation
104	<i>Withania somnifera</i> (L.) Dunal	Solanaceae	Ashwagandha	Root, fruit	Rheumatism, insomnia, back pain, sexual stimulant, fever, joint pain, uterine stimulant
105	<i>Xanthium strumarium</i> L.	Asteraceae	Landaga	Roots, seed	Wound healing, uterus problem, asthma, rheumatism, fever

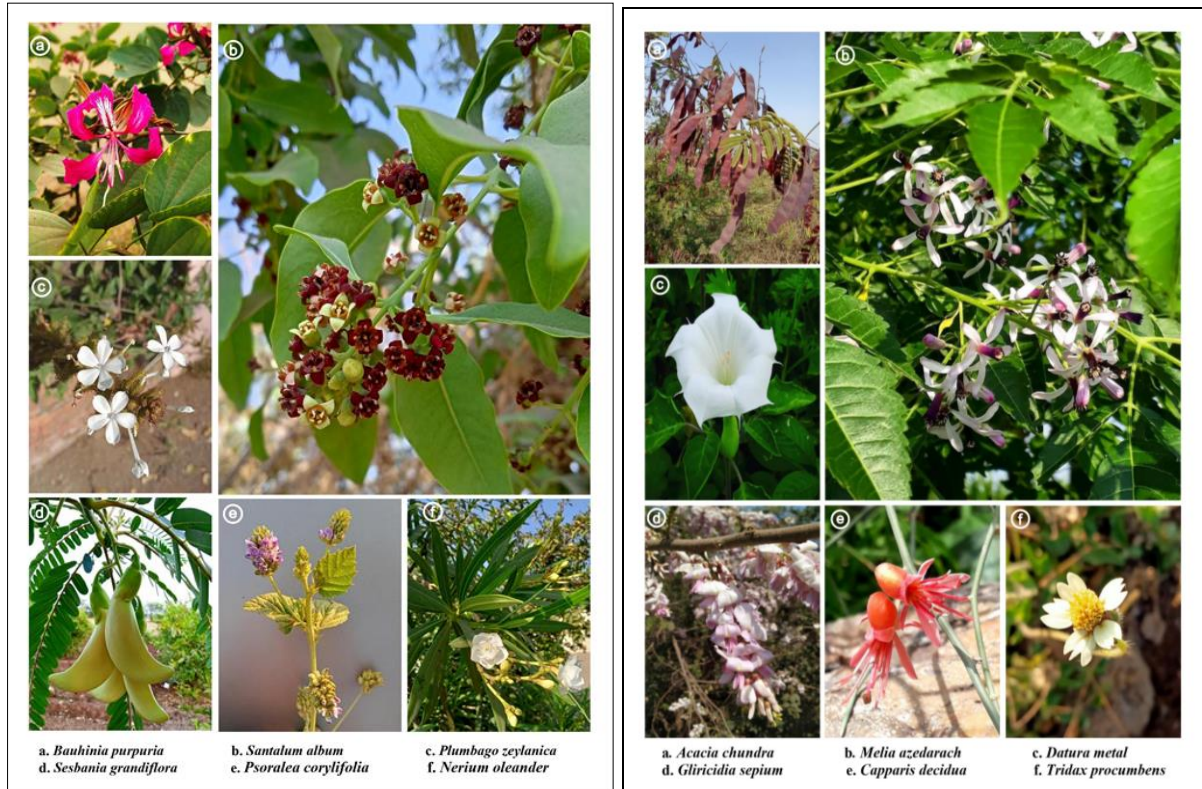


Fig 2: of some regional plant species from Pandharpur tehsil

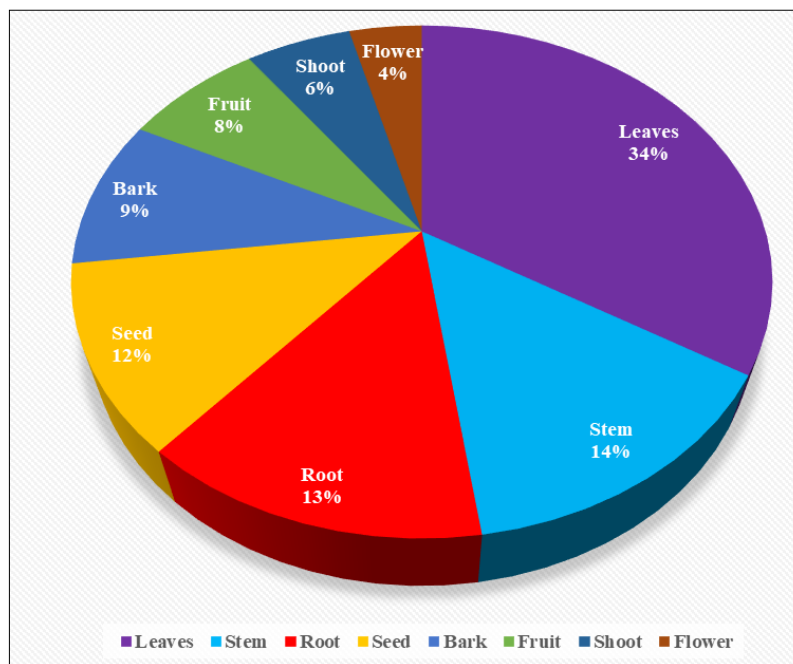


Fig 3: Plants part used in percentage for treatments.

References

1. Aiwale Vilas, Chandanshive Aniket, Gaikwad Sunil, Patil Dipali. Ethnobotanical survey of some important medicinal plants of Malshiras tehsil of Solapur district (MS) India, *International journal of Botany Studies*,2022:7(1):434-437.
2. Bernard K Wanjohi, Vincent Sudoi, Elizabeth W Njenga, Wilson K Kipkore. An Ethnobotanical Study of Traditional Knowledge and Uses of Medicinal Wild Plants among the Marakwet Community in Kenya, *Evidence-Based Complementary and Alternative Medicine*, 2020.
3. Bennerman R, Burton J, Chen WC. Traditional medicine and health care coverage, (WHO, Geneva, Switzerland), 1983.
4. Bhanumathi Natarajan, Berit Smestad Paulsen. An ethnopharmacological study from thane district, Maharashtra, India: traditional knowledge compared with Modern biological science, *Pharmaceutical Biology*,2000:38(2):139-151.

5. Bhosale SV, Ghule VP, Aundhe DJ, Jagtap SD. Ethnobotanical knowledge of plant used by the tribal people of Purandar in Maharashtra, India. *Ethnobotanical leaflet*, 2011, 1353-1361.
6. Chandran MDS, Rao GR, Gururaja KV, Ramachandra TV. Ecology of the swampy relic forest of Kathalekan from central Western Ghats, India. *Global Science Book*, 2010;4(1):54-68.
7. Ganeshan S., Venkatesh G. and Bhanumathy N. Medicinal plants used by ethnic group Thottainaickans of Semmalai hills, Tiruchirapalli district, Tamilnadu, *Indian Journal of Traditional Knowledge*, 2006;5(2):243-252.
8. Gaikwad SP, Garad KU. Flora of Solapur district, *Laxmi Book Publication*, 2015.
9. Kamble SY, Patil SR, Sawant PS, Sawant S, Pawar SG, Singh EA. Studies on plants used in traditional medicine by Bhilla tribe of Maharashtra, *Indian Journal of Traditional Knowledge*, 2010;9(3):591-598.
10. Kamboj VP. Herbal medicine, *Current Science*, 2000;78(1):35-51.
11. Kuvar SD, Bapat UC. Medicinal plants used by Kokani tribals of Nasik district Maharashtra to cure cuts and wounds, *Indian Journal of Traditional Knowledge*, 2010;9(1):114-115.
12. Pei JS. Ethnobotanical approaches of traditional medicinal studies: some experience from Asia. *Pharmaceutical Biology*, 2001;39:74-79.
13. Patil DA, Patil PS. Folk herbal medicine from some tehsil of Buldhana District (Maharashtra) in India. *Journal of Ecobiotechnology*, 2011;3(2):4-10.
14. Pawar S, Patil DA. Ethnobotany of Jalgaon District, Maharashtra, Daya Publishing House, Delhi, India, 2008, 1-3.
15. Pushpangadan P, George V. Ethnomedical practices of rural and tribal populations of India with special reference to the mother and child care. *Indian Journal of Traditional Knowledge*, 2010, 9-17.
16. Savinaya MS, Sangamesh S Patil, Narayana J, Krishna V. Traditional medicine knowledge and diversity of medicinal plants in Sharavathi valley region of central western ghats, *International Journal of Herbal Medicine*, 2016;4(6):124-130.
17. Schippmann V, Leaman D, Cunningham ABA. Comparison of cultivation and wild collection of medicinal and aromatic plants under sustainability aspects, In RJ Rogers, LE Crackers, D Lange (Eds): Medicinal and Aromatic plants, Netherland, Springer, 2006, 75-95.
18. Shahane MK, Devarkar VD. Ethnobotanical study of Solapur district (Maharashtra), *Science Park Research Journal*, 2015, 2(52).
19. Shahane MK, Devarkar VD, Sangekar SN, Kshirsagar UH. Some important ethnobotanical plants used by tribals of Solapur district (Maharashtra) India, *International Research Journal of Science & Engineering*, 2018;A6:69-71.
20. Sharma BD, Karthikeyan S, Singh NP. Flora of Maharashtra State, Monocotyledons, *Botanical Survey of India*, Flora of India- series, 1996, 2.
21. Srivastava R. Studying the information needs of medicinal plants stake holder in Europe. *Traffic Dispatches*, 2000:15:5.
22. Tembhurne RR, Nanir SP. Study common plants of medicinal values in Sangola taluka of Solapur district, Maharashtra (India), *IOSR Journal of Pharmacy*, 2012;2(6):19-24.
23. Vedavathy S, Mrudula V, Sudhakar A. *Tribal medicine in Chitoor district, Andhra Pradesh, India*, Vedams e Books (P) Ltd, 1997.
24. Ved DK, Goraya GS. Demand and supply of medicinal plants in India (NMPB, New Delhi and FRLHT, Bangalore), 2007, 18.
25. Vidhyarthy A, Gupta HS. Ethnomedicinal study of some important plants of Jharkhand and their conservation, *Indian Forester*, 2004;130(2):144-156.
26. Yadav SR, Sardesai MM. Flora of Kolhapur District, 2002.
27. Zaheer Abbas, Rainer W Bussmann, Shujaul Mulk Khan, Jan Alam, Salma, Manzoor Hussain. Ethnobotany of Karakorum, Pakistan, *Springer*, 2021.