

Documentation of Major Medicinal Plants in Sandure of Karnataka, India

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ABSTRACT

Documentation of Medicinal plants is the only way to preserve the fundamental knowledge of the plant resources for future endower. The present survey is designed to study the Medicinal plants in Swamymalai block of Yeshwantha nagar beat, Sandur, Karnataka, India. This study resulted in the documentation of 50 ethnomedicinal plants. The 50 plant species are belongs to 26 families of 46 genera. The documented families in the study area are Acanthaceae, Aloaceae, Amaranthaceae, Annonaceae, Apocyanaceae, Arecaceae, Asteraceae, Caricaceae, Combretaceae, Euphorbiaceae, Fabaceae, Lamiaceae Malvaceae, Menispermaceae, Moraceae, Moringaceae, Myrtaceae, Phyllanthaceae, Poaceae, Rhamnaceae, Rutaceae, Solanaceae, Verbenaceae, Vitaceae, Zingiberaceae. The survey shows that, Fabaceae is the dominant family with 12 species. The survey also reviles that, the trees are dominant ones followed by the shrubs and Herbs. Majority of the documented plants are used against several diseases, either alone or in combination with other plants.

Keywords: Ethnobotany; Ethnomedicinal plants; Family; Species

INTRODUCTION

India has one of the richest plant medical traditions in the world. Traditional medicine and ethnobotanical information's play an important role in plant science research. Herbal medicine is still practiced about 75 - 80% of the world population mainly in the developing countries for their primary health care needs [1]. It is estimated that, around 46,000 plant species including higher plants such as angiosperms and gymnosperms and lower groups wise pteridophytes, bryophytes, fungi, lichen and algae are known to occur in India. Of which 19,395 taxa including infra-specific level are angiosperms. About 8,000 flowering plant species have been recorded in different codified and non-codified system systems of medicine practiced by 4,635 ethnic communities [2]. In India, there are about 7,000 species of angiosperms reported to be in medicinal use [3]. These figures have now obviously increased. Plants and its products have been used traditionally by the inhabitants of India from the time immemorial.

The state of Karnataka boasts an unparallel diversity of medicinal plants in the country. It is estimated that, Karnataka is the home to about 4800 species of flowering plants out of which about 2000 species are medicinal [4]. This is quite remarkable, as this number accounts for about 27% of the country's flora, with just 10% of the

geographical area. Karnataka with its unique wild habitats spread across the Western Ghats and the Deccan Peninsula is also the home to several endemic species of commercial importance [5]. Some of the studies related to ethnobotany and floristic diversity have been reported from Karnataka state [6,7].

Nevertheless, there is a lack of current exact estimations concerning the use of medicinal plant resources by local people across the globe [8]. Up to date quantitative estimations about the plants used in home and folk therapies are needed, especially those supported by a complex analysis of variables influencing the importance and persistence of plant medicines in local communities [9]. Measuring medicinal plant knowledge can give an insight into the cultural importance of plant resources, i.e., which species are recognized as effective, appreciated and reported with major frequency. Measuring this knowledge may also provide information about the proportions of agreement (consensus) and variation in medicinal plant use by groups within the same region, as well as distant but culturally similar groups [10].

Hence, the current study on diversity indices and documentation of medicinal plants will provide the awareness and traditional knowledge of medicinal plants.

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MATERIAL AND METHODS

Study area

The present study provides a detail of Sandur talluk is located in the central part of Ballari district and eastern part of Karnataka state. Sandur is 565 m above sea level and lies between 15°00' and 15°15' N latitude and 76°20' and 76°55' E longitude. The total geographical area is 1,243,95 Sq.km. Sandur Medicinal plant area falls in Swamy malai block of Yeshwantha nagar beat extends over 345 hectare and is situated at an altitude between 550-773 MSR around forest guest house, it is the slopy area forming valley portion with local species and good generations, this is situated on main road from Sandur to Kudligi and is 5 km away from Sandur town shown in Figure 1.

Regular field visits to the study areas were made for observation and documentation of medicinal plants for a period of five months from first week of January 2018 till last week of May 2018. Personal interactions were conducted with the knowledgeable officers of – Range forest officer (RFO), Deputy Range Forest Officer (DRFO), Forest guides and herbal healers of study area during field trips and recorded ethnomedicinal information about the plants. Medicinal plants were documented and detailed field notes were taken along with voucher number, locality, habit, local name, floral characteristics, nature of the fruit, local medicinal uses, etc. The identification of plants was made by referring flora [11,12] and some medicinal plants books [13].

Plants were photographed and identified by floras such as Gamble and Ramaswamy et al. with the help of Taxonomists. During the fieldwork, the plant species are given in alphabetical sequence with other details such as botanical name, vernacular name, family, habit of the plant, Plant parts used and medicinal properties.

RESULT AND DISCUSSION

In the current study, plants belonging to medicinal uses were studied and were identified and collected during flowering, fruiting



and seed developing stages described accordingly in a detailed alphabetic manner with respect to their family names. Total 50 plants were collected from the different parts of the study area. Those 50 plants include tress, herbs and shrubs. The documented plant species consists of 26 families of 46 genera.

Present study shows that dicotyledons vegetation is dominating in the area. The dominant families such as Fabaceae (12) followed by Apocyanaceae (4), Rutaceae (4), Lamiaceae (3), Malvaceae (3), Phyllanthaceae(2), Acanthaceae (1), Aloaceae (1), Amaranthaceae (1), Annonaceae (1), Arecaceae (1), Asteraceae (1), Caricaceae (1), Combretaceae (1), Euphorbiaceae (1), Menispermaceae (1), Moraceae (1), Moringaceae (1), Myrtaceae (1), Poaceae (1), Rhamnaceae (1), Santalaceae (1), Solanaceae (1), Verbenaceae (1), Vitaceae (1), Zingiberaceae (1). The trees are the dominant ones (29 species) followed by the Herbs (11species), Shrubs (10 species) are shown in Figure 2. Number of genera and the number of species are listed in the Table 1.

The documented medicinal plants are used in the treatment of various ailments like Arthritis, Boils, Bleeding Hemorrhoids, Diarrhea, Dysentery, Gastric Ulcer, Head ache, Inflammation, Skin diseases, Stomach disorders, Asthma, cholera, cold, cough, rheumatism, ringworm, small pox, stomach disorders, toothache and swelling, Urinary diseases, Antioxidant, antibacterial, antiinflammatory, antiphretic, hepatoprotective, antidiabetic, antiulcer etc. *Catharanthus roseus* is used as an anticancer agent. Root, leaf, fruit, flower, bark or whole plant is used to cure disease. Medicinal plants are rich resources to cure the various diseases. The plant species which are falls under vulnerable, rare and endangered category are due to various external factors. Hence these wild plant species should be conserved and to be encouraged for large scale cultivation and to develop many herbal gardens for medicinal plants in the suitable areas adopting the modern agronomical techniques.

Some of the photographs of documented medicinal plants are included below:

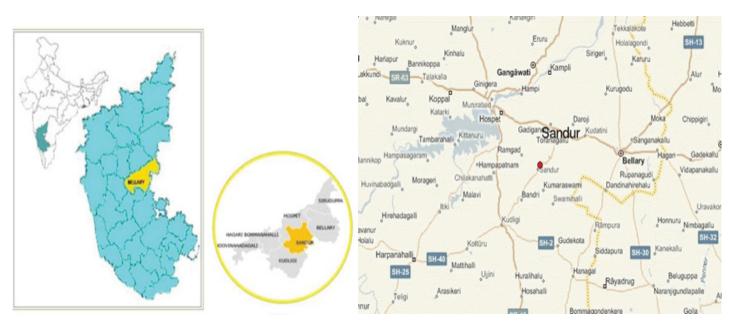


Figure 1: Maps showing medicinal plant conservation area (study area) in Swamimalai block of Sandur Taluk, Karnataka, India.

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Table 1: Name of the family, Habit and medicinal uses of the medicinal plants in study area.

Serial Number	Botanical Name	Common Name	Habit	Family	Medicinal uses
1.	Justicia adhatoda	Malabar nut	Shrub	Acanthaceae	Decoction of the leaves is used for bronchiole disorders, This herb is known for it's antispasmodic, expectorant and blood-purifying qualities
2.	Aloe succotrina	Aloe vera	Herb	Aloaceae	Relieve from heartburn, anti-aging, reduce blood glucose level, natural laxative, lower cholesterol, in treating psoriasis, seborrhea, <u>dandruff</u> , and minor burns and skin abrasions, as well as radiation- induced skin injuries. Aloe gel also seems helpful in treating the sores caused by genital herpes in men.
3.	Chenopodium ambrosioides	Warm seed	Herb	Amaranthaceae	Used to expel parasitic worms from body. Whole plant shows analgesic, anti-asthmatic, carminative, properties. It has been used as a wash for hemorrhoids as a poultice to detoxify snake bites & other poisons & is thought to have wound – healing properties. Seed essential oil extract is very effective against most parasites, including the amoeba that causes dysentery. The plant is used as a fumigant against mosquitoes & is also added to fertilizers to inhibit insect larvae.
4.	Annona squamosa	Sugar apple	Shrub	Annonaceae	A bark decoction is used to stop diarrhea, while the root is used in the treatment of dysentery.
5.	Calatropis procera	Sodoms milk weed	Shrub	Apocyanaceae	Asthma, boils, cholera, cold, cough, rheumatism, ringworm, small pox, stomach disorders, toothache and swelling.
6.	Carissa carandus	Bengal cerrant	Shrub	Apocyanaceae	fruit is rich source of iron, contains a fair amount of vit- c. antidiarrheal anthelmintic, Antioxidant, antiphretic, anti baeterial, antiinflammatory, anti-ulcer, hepatoprotective, antidiabetic,
7.	Catharanthus roseus	Vinca rosa	Herb	Apocyanaceae	Whole plant is used in curing diabetes, while the leaves are used during body swelling.
8.	Nerium oleander	Nerium	Shrub	Apocyanaceae	The leaves and the flowers are cardiotonic, diaphoretic, diuretic, emetic, expectorant and sternutatory, A decoction of the leaves has been applied externally in the treatment of scabies and parasitic skin worms and to reduce swellings. An oil prepared from the root bark is used in the treatment of leprosy and skin diseases of a scaly nature. The whole plant is said to have anticancer properties
9.	Coconut nucifera	Coconut	Tree	Arecaceae	The seed oil is cytotoxic, emetic, emollient, hypotensive and purgative. It is also used to treat rheumatism and back pains or as an ointment to maintain smooth, soft skin. The root is employed in treating stomach-ache and blood in the urine
10.	Artemisia parviflora	Worm wood	Tree	Asteraceae	It is most commonly used to treat disorders of the digestive tract & aid in all digestive functions & is said to have properties that use anti-fungal, anti bactrical, expectorative & antiasthmatic. Excellent insect repellent.
11.	Сатіса рарауа	Papaya	Tree	Caricaceae	Papaya contains Vit-A which provides a fresh & glowing skin & protect the skin from infection and help to speed up the healing of wounds, the Vit-A rich, papaya help in preserving good eye sight, it also contains flavonoids β carotene that protects against macular degeneration, papaya fruit is rich in fiber that improves digestion & softens the bowel movement. The anti- oxidant activity coupled by rich fibers content of papaya fruit help in absorbing the toxins from the colon that protects the good cells from free radicals & damage. Help to prevent the colon cancer development. Fruit contains Ca & K these minerals are important in regulating the blood pressure & metabolism and boosts the immune system. Abortificient - extracts from papaya roots are used to absorb early pregnancy.
12.	Terminalia bellerica	Beleric	Tree	Combretaceae	The fruits cause loss of appetite and also provide anti-diastral because of its astringent property also useful for curing eye related problems such as immature cataract (or) any kind of infection lower the blood pressure and levelling the cholesterol. It promotes hair growth adds nutrition and useful against greying. Chewing of fruits is believed to cure cough, cold, asthma and hoarse voice. This has been proved beneficial against jaundice, leprosy and anaemia, cardiac problems, diabetes and urinary problems.

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13.	Jatropha carcus	Barbados nut	Shrub	Euphorbiaceae	The plant is known to be toxic when ingested but used as remedy for external injuries. The Roots (oil) can be used for Haemolytic disease. The leaves are used to relief the pains, Rheumatic, Fever ,malaria, Oedema, wounds, colic syphilis, jaundice , the leaves are made in the form of decoction to sterilize umbilicus of newborn babies, The twigs are used as cheeking stick to prevent tooth decay, oral thrush, bleeding and toothache. The latex is used to treat skin diseases such as ring worm, scabies, eczema, wounds, tooth decay, Snake bites and wasp strings
14.	Putranjiva roxburghhi	Lucky been tree	Tree	Euphorbiaceae	Its leaves, fruits and seeds are used for medicinal purpose. The leaves of tree are refrigerant analgestic and Anti:-inflammatory and used to treat fever and sterility, treat allergic of Red pimples on the body. Decoction of leaves is used for treating cold, fever and Rheumatism for swollen and inflamed joints; the leaves of the tree are used externally. The seeds paste is also useful against headache and seed powder used for Knee pain.
15.	Albizia procera	Red &white siris	Tree	Fabaceae	All parts plants are reported to show anti-cancer activity, decoction of the bark is given for the treatment of rheumatism and haemorrhage.
16.	Bauhinia purpuria	Butterfly tree	Tree	Fabaceae	Seed powder is used to control intestinal parasites. Flowers and leaves are usedin Blood purification.
17.	Butea monosperma	Flame of the forest	Tree	Fabaceae	Control Crotch itch, Ringworm, Inflammation, sprain, swelling due to any reason (arthritis, moch), Dysentery, Intestinal parasites, remedy for snakebite and helps in Urine retention, Blood purification, Sexual dysfunction, intestinal infection, ulcer, Diabetes
18.	Caesalpinia pulcheminna	Peacock tree	Shrub	Fabaceae	Control LDL Cholesterol, protect against heart diseases, cancer. A combination of the Roots Bark and Leaves may be boiled into a medicinal tea , which is given to a patients a treatment for fever, Jaundice, Kidney disease and gastrointestinal disorder. Gurgling with a tea is also said to treat sores in the mouth (or) throat.
19.	Cassia alata	Candle bush	Tree	Fabaceae	It has anti-bacterial, antifungal, antitumor activity. The leaves and root is laxative they are taken internally as a remedy for constipation and to purify the blood, used in treating skin diseases and powder is mixed with oil as an ointment. The bark is used to treat skin diseases, diarrhoea, worms, parasitic skin diseases, scabies and eczema.
20.	Cassia fistula	Golden shower	Tree	Fabaceae	liver protecting, inflammation reducing , cough suppressing, wounder healing, anti-microbial and constipation curing
21.	Erythrina variegate	Indian coral tree	Tree	Fabaceae	Decoction of the bark relief from stomach problems and reduce obesity, Leaves are used to reduce the amount of harmful cholesterol in the blood and ear pain
22.	Gliricidia maculate	Mother of cocoa	Tree	Fabaceae	The plant is a folk remedy for alopecia, boils, bruises, burns, colds, cough, debility, eruptions erysipelas, fever, fractures, gangrene headache, itch, prickly heat rheumatism, skin tumours, ulcers, urticaria and wounds also shows antfungal activity
23.	Pterocarpus santalinus	Red sandal wood	Tree	Fabaceae	Used in skin ailments and disorders, cosmetics, relief from burns and antiseptic
24.	Pongamia þinnata	Pongam oil tree	Tree	Fabaceae	It's used externally as a liniment for rubbing on skin diseases & rheumatic joints, The seed powder is given as an expectorant in the treatment of bronchitis & whooping cough & is also prescribed as a febrifuge & tonic. Leaves are crushed & applied as a poultice for the treatment of parasitic skin diseases & to relieve bleeding haemorrhoids. The flowers are claimed to have anti-diabetic action. The antiseptic root juice is put on sores& ulcers & used to clean teeth.
25.	Sesbania grandiflora	Hummimg bird tree	Tree	Fabaceae	Root and bark paste is used to relived pain and inflammation associated with arthritis, gout. Leaf juice extract is used for nausea. Flowers are used in the treatment of night blindness, headache, oral and throat infection. Fruit are used to improve memory and intelligence

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26.	Tamarindus indica	Tamarind tree	Tree	Fabaceae	 Whole plant has the medicinal properties. Leaf extracts exhibits Anti-oxidant activity in the lives and is a common ingredient cardiac and blood sugar reducing medicines. The decoction of the leaves is good against throat infections, cough, fever and even intestinal worms. The decoction of the Flower buds is used as remedy for children bed wetting and urinary complaints. Syrup made from the ripe fruit is used to keep the digestive organs in good condition.
27.	Ocimum americanum	Hoary basil	Herb	Lamiaceae	Used to treat arthritis, have anti-aging & antibacterial properties and help to prevent certain types of skin, Liver oral & lung cancers.
28.	Ocimum basilicum	Great basil	Herb	Lamiaceae	Basil is aromatic herbs that are used extensively to add a distinctive aroma & flavor to food. Essential oils extracted from fresh leaves & flowers can be used as aroma additives in food, pharmaceuticals & cosmetics.
					Used in the treatment of headaches, coughs, diarrhea, constipation, warts, worms, urinary infection & kidney malfunction. Basil leaves possess strong antiviral, antimicrobial, anti-inflammatory & anti- oxidant properties. Basil acst as insect repellents.
29.	Ocimum sanctum	Tulasi	Tree	Lamiaceae	Whole plant has medicinal uses. Tulsi oil is used against the insects and bacteria. It is an effective remedy for the severe acute respiratory problems. It helps in curing malaria, indigestion, headache, hysteria, insomnia and cholera. Helps in protecting one from the negative influences.
	Ceiba pentondra	White silk cotton tree	Tree	Malvaceae	Astringen, diuretic herb that lowers fevers and controls bleeding. used in treatment of scabies, diarrhoea, cough hoarse throats. Young leaves are warmed and mixed with palm oil to be eaten as a remedy for heart problems.
30.					The bark and the leaves are used in the treatment of bronchial congestion. A decoction of the stem bark is taken to treat stomach problems, diarrhoea, hernia, gonorrhoea, heart trouble, fever, asthma and rickets.
31.	Hibiscus rosa sinensis	Chinese rose	Shrub	Malvaceae	Flowers are aphrodisiac, demulcent, emollient and refrigerant. They are used internally in the treatment of excessive and painful menstruation, cystitis, venereal diseases, feverish illnesses, bronchial catarrh, coughs and to promote hair growth
32.	Thespesia populnia	Pacific rose wood	Tree	Malvaceae	All parts of the plant including bark, root, leaves flowers and fruits are used. Fruits and leaves possess Antibacterial properties. Crushed fruits are used in treatment of Urinary Tract Problems and Abdominal swelling. Decoction of leaves treats cough, influenza, and headache. The leaf sap is used externally for skin diseases. The bark decoction is used for cleaning of wounds, treats Dysentery, diabetes, yellow urine, Gonorrhoea and Thrush. The inner bark is used to treat constipation and Typhoid. The stem is employed in treating Breast cancer. Leaf and bark decoction are used as Remedy for high blood pressure
33.	Tinospora cardifolia	Heart leaves moonseed	Herb	Menispermaceae	Used for diabetes, high cholesterol, peptic ulcer disease, allergic rhinitis (hay fever), upset stomach, gout, lymphoma and other cancers, rheumatoid arthritis, hepatitis, fever, gonorrhea, syphilis, and to boost the immune system.
34.	Artocarpus heterophyllus	Jackfruit	Tree	Moraceae	Leaves are used for treating ulcers, diarrhoea, boils, stomach-ache and boils. Seeds are aphrodisiac and as a cooling tonic like the pulp. Root decoction can reduce fever and can treat diarrhoea, skin diseases and asthma.
35.	Moringa oleifera	Moringa	Tree	Moringaceae	It is a good source of protein, vitamins, beta-carotene, amino acids & various phenolics. Moringa can act as cardiac & circulatory stimulants, possess anti-tumor, antipyretic antiepileptic, anti- inflammatory, anti-ulcer anti-oxidant, anti-diabetic, antifungal & anti-bacterial activities, Flower juice improve the quality & flow of mother's milk when breast feeding & useful for urinary problems.

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3	6. Psidium guajava	Guava	Tree	Myrtaceae	Guava leaf extract has analgesic, Anti-inflammatory, Antimicrobial, hepato protective and Anti-oxidant activities, inhibits pancreatic cholesterol esterase, which decrease cholesterol levels, diabetes. The Anti-oxidant properties of the guava seeds extract can be associated to anti-cancer effects on both Hemato logical and solid neoplasm.
3	7. Phyllanthus acidus	Star goose berry	Tree	Phyllanthaceae	The root is used to cure skin itching, asthma. Leaves to control fevers. The decoction of the bark is used to treat branching catarrh. The fruit is used as laxative and also tonic to enrich the blood. The juice of fruit is rich in vit "c".
3	8. Phyllanthus emblica	Indian goose berry	Tree	Phyllanthaceae	It is a Immunomodulatory, Anti-diabetic, anti-hyperglycemic, Antilipemic, Atioxidant, Aadaptogenic, Antacid, Demulcent, Digestive stimulant, Hematogenic (increases haemoglobin level), Anti-anemic, Anti-inflmmatory Anti-cancer, Anti-microbial.
3	9. Vetiveria zizanoides	Lavancha	Herb	Poaceae	Used for cooling in juice (or) sharbat. Treatment of nervous disorder, insomnia, muscular and joint pain and circulation problem, diabetics, regular menstruation, blood pressure and cardiac problems etc. Flavouring agent in alcoholic beverages. Used against lice and other insects.
4	0. Zizipus jujuba	Indian jujube	Tree	Rhamnaceae	It is used for improving muscular strength and weight, for preventing liver and bladder diseases and stress ulcers, and as a sedative. It is also used to reduce constipation and to reduce symptoms of some medications.
4	1. Aegle marmelos	Wood apple	Tree	Rutaceae	Lowering of blood cholesterol, anti-inflammatory, roots are anti- diarrhoetic, antidote to snake venom. Chewing of raw leaves help to solve many gastric problems. Bael juice is rich in vitamin 'c', and good for scurvy treatment also acidity, heartburn, indigestion and hyperacidity.
4	2. Citrus limon	Lemon tree	Shrub	Rutaceae	Used to treat scurvy, a condition caused by not having enough vitamin C, common cold and flu, H1N1 (swine) flu, ringing in the ears (tinnitus), Meniere's disease, stomach upset and vomiting from pregnancy, and kidney stones.
4	3. Murraya koenigii	Curry leaves	Tree	Rutaceae	Used externally to treat skin eruptions and bites of poisonous animals. The fresh leaves are eaten to treat dysentery, and a leaf infusion is drunk to stop vomiting. In northern Nigeria Murraya koenigii is used traditionally as a stimulant and for management of diabetes
4	4. Ruta chalepensis	Fringed rue	Herb	Rutaceae	The leaf dedication is taken to treat stomatch-ache and headache, fevers and cold. Leaf juice is given to suffering from convulsions, fits. It is potentially toxic and carcinogenic when consuming orally and can produce dermatitis when touches.
4	5. Santalum album	Indian sandal wood	Tree	Santalaceae	Widely used in folk medicine for treatment of common colds, bronchitis, skin disorders, heart ailments, general weakness, fever, infection of the urinary tract, inflammation of the mouth and pharynx, liver and gallbladder complaints and other maladies.
4	6. Withania somnifera	Ashwagandha	Herb	Solanaceae	Whole ahshwaganda plant is used to cure many diseases like root drug finds an important place in treatment of rheumatic pain, cold, cough female disorders, normalize high blood sugar & improve insulin sensitivity for diabetes,breast& colan cancer cells,increase sperm count & sexual potency & also a increase iron content in the blood.
4	7. Clerodenrum inerme	Glory bowel	Shrub	Verbenaceae	Leaf is ground in water and the juice is taken orally to treat fever. It is an important medicinal plant reported to be used in the treatment of skin diseases, venereal infections, elephantiasis, asthma, topical burns and for rheumatism. It is also used as substitute of quinine
4	8. Stachytarpheta urticiflora	Blue snakeweed	Herb	Verbenaceae	Oral preparation for treatment of gastrointestinaldysfunctions. The treatment of liver related disease, respiratory problems. The phytochemical in gervao powder are powerful antioxidants with antiviral, neuroprotective liver protective, antibacterial, antitumorous and cardioactive effects.
4	9. Cissus quadrangularis	Devils backbone	Tree	Vitaceae	Analgesic:- Acting to relive pain, Anti-oxidant, anti-Inflammatory. whole plant possesses Bone-Healing/ Antiosteoporoticating
5	0. Zingiber officinale	Zinger	Herb	Zingiberaceae	promote weight gain, Improve muscular strength, immunostimulant to increase physical stamina and remove blood impurities

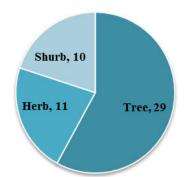


Figure 2: Shows habit wise distribution of medicinal plants in study area.



Cocos nucifera

Artemisia parviflora



Justicia adhatoda

Aloe succotrin



Terminalia bellerica

Jatropha carcus



Putranjiva roxburghii

Albezia procera



Chenopodium ambrosioides





Carissa carandus



Bauhinia purpurea

Butea monosperma



Catharanthus roseus

Calatropis procera



Nerium oleander



Caesalpinia pulcheminna

Cassia alata



Cassia fistula

Erythrina variegata



Ceiba pentandra

Hibiscus rosasinensis



Gliricidia maculata



Pterocarpus santalinus



Thespesia pupulnia

Tinospora cardifolia



Pongamia pinnata



Sesbania grandiflora



Artocarpus heterophyllus

Moringa oleifera



Tamarindus indica



Ocimum americanum



Psidium guajava

Phyllanthus acidicus



Ocimum basilicum



Ocimum sanctum



Phyllanthusa emblicsa

Vetivieria zizanoidesa





Zizipus jujube

Aegle marmelos



Citrus limon

Murraya koenigii



Ruta chalepensis

Santalum album



Withania somnifera



Clerodendrum inerme



Stachytarpheta urticiflora



Cissus quadrangularis



Carica papaya

Zingiber officinale

CONCLUSION

The current study provides the basic information about the medicinal uses of plant species and provides the information about the distribution and description of the medicinal plant species which is useful for further research and field work in Sandur region. It is concluded that, 50 medicinal plant species are documented in the study area which belongs to 26 families and 46 genera. The family Fabaceae has 12 species Rutaceae 4 species, Apocynaceae 4 species, Malvaceae 3 species, Lamiaceae 3 species and followed by Phyllanthaceae 2 species, Verbenaceae 2 species and others are one from each family. These wild medicinal plant species treasure are encouraged to be conserved because many of the valuable plant species are under threat to became rare, endangered and some are on the verge of extinction due to various external factors.

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