



ISSN: 0975-833X

RESEARCH ARTICLE

A STUDY OF IMPORTANT MEDICINAL PLANTS OF SAVANTWADI REGION, WESTERN GHATS, (MS), INDIA

*¹Somkuwar, S. R., ²Chaudhary, R. R., ³Patil, V. N. and ⁴Deokule, S. S.

¹Dr. Ambedkar College, Deeksha Bhoomi, Nagpur-440010

²Department of Botany, Dharampeth Science College Nagpur-440033

^{3,4}Department of Botany, University of Pune, Pune – 411007

ARTICLE INFO

Article History:

Received 04th September, 2012

Received in revised form

18th October, 2012

Accepted 16th November, 2012

Published online 18th December, 2012

Key words:

Medicinal plants,
Family, genus,
Species, Savantwadi.

ABSTRACT

The Medicinal plants provide the raw materials for use in all the indigenous systems of medicine. The demand for medicinal plants is increasing day by day and on the other hand changing global environment is worstly affecting this plant wealth. This reflects the need to study and preserve diversity of medicinal plants. The coverage area of the Western Ghats in relation to geographical area and biodiversity variation is one of the larger and ecologically sensitive areas in the world. All over the world, there are 32 ecologically sensitive areas (hot spots) of which two are in India including Western Ghats. The study area harbours the radius of 30 kms from Savantwadi. In the present investigation, we documented the important families, number of the genera and species and the medicinal uses of medicinally important plants which are being used by the people.

Copy Right, IJCR, 2012, Academic Journals. All rights reserved.

INTRODUCTION

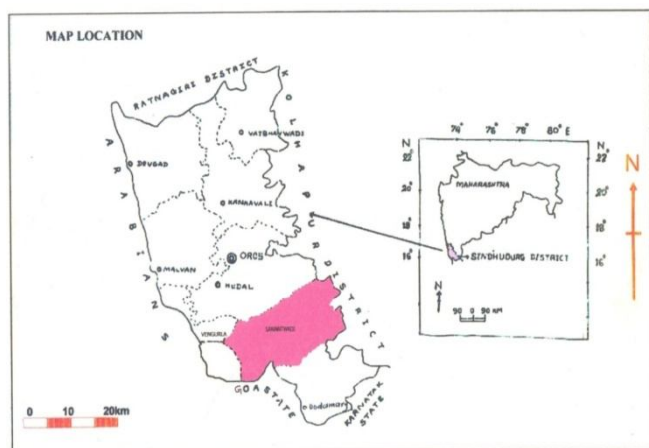
India is a treasure chest of biodiversity which hosts a large variety of medicinal plants. Medicinal plants provide raw material for use in all the indigenous systems of medicine in India viz. Ayurveda, Unani and Siddha. The demand for medicinal plants is increasing day by day and on the other hand changing global environment is worstly affecting this plant wealth. This reflects the need to study and preserve diversity of medicinal plants. The coverage area of the Western Ghats in relation to geographical area and biodiversity variation is one of the larger and ecologically sensitive areas in the world. All over the world there are 32 ecologically sensitive areas (hot spots) of which two are in India including Western Ghats. Of the 4500 species of higher plants about 2000 species are endemic to Western Ghats (Daniel 1997). Western Ghats occupies just 5 % of Indians total area but support 26-27 % flowering species of the country. It is a center of high endemism in India. Numbers of new species are being described from Western Ghats every year. During 1986 to 1996 about 260 new species of flowering plants have been described from the region (Yadav S.R., 2012). The Western Ghats mountain chain is part of the Indian plate of the Gondwanaland origin. The flora of Indian plate was subjected to different climate stresses during its passage from southern latitudes resulting in the impoverishment of its palaeotropic flora. Now a days, due to human intervention in forests and increasing anthropogenic

activities like irrigation facilities, construction of hotel and industries; electric projects, mining, land for agriculture, communication development etc added reasons to decline the emage of the region in terms of biodiversity. There is an urgent need for biodiversity rich countries to save it against destruction. However, in most of the developing countries biodiversity attached to environments and forest agencies which have no idea about it. If such countries are not aware of conserving it for sustainable utilization, they would be compelled to export biodiversity import products for well being of their people. In India, a large number of institutions are involved in conservation and utilization of biodiversity which comes under Ministry of Environment and Forest, Agriculture Science and Technology. They deal conservation of biosphere reserve, national parks, wild life sanctuaries, field gene banks etc. The country needs more expertise and methodologies besides tiger-bird-wildlife syndrome. India is predominantly an agricultural country, therefore the policy makers have to realize that conservation and sustainable utilization of biodiversity must be placed on the top of all developmental plannings.

The Sindhudurg District lies between 15^o37' north to 16^o40' north latitude and 73^o13' east to 74^o 13' east longitudes. The area of the district is 5087.5 sq.km. There are eight tahsils in the district namely Devgad, Dodamarg, Kankavli, Kudal, Malvan, Savantwadi, Vaibhawadi and Vengurla. The district has an average maximum temperature of 33.7^oC and average minimum temperature of 16.7^oC. Average rainfall is 3042.2 mm. Laterite soil is commonly found in the district. It varies in colour from bright red to brownish red; it comes from hydrated iron oxides. It is rich with nitrogen and organic

*Corresponding author: ssmkuvar@gmail.com,
ssomkuvar@gmail.com, vnpatil85@gmail.com,
deokule.ss@gmail.com

matter and its texture is loamy. This is the first hand report of its own kind. There is no such work type of research has been carried out. Hence in the present investigation, we documented the important families, number of the genera and species and the medicinal uses of medicinally important plants which is being used by the people.



METHODOLOGY

Study area

The study area harbours the radius of 30 kms from Savantwadi. The climate of the study area is typical humid. Towards the west there is Arabian Sea.

Identification of Plants

The plant materials of the present study were collected from the study area. Efforts were made to collect the plant materials in flowering and fruiting conditions for the correct botanical identification. The herbariums were prepared and compare with the herbariums in Botanical Survey of India, Western Circle, Pune. They were identified with the help of Flora of Presidency of Bombay (Cooke, 1958), The Flora of British India, (Hooker, 1892), Flora of Maharashtra state (Monocotyledons) (Sharma et al. 1996), Flora of Kolhapur District (Yadav and Sardesai, 2002), Flora of Raigad District (Kothari and Murthy, 1993), The Flora of Savantwadi (Almeida, 1990), Flora of Madras Presidency (Gamble and Fisher, 1935). Plants have been identified by using Medicinal uses of plants are known from local people around the study area and also from the Materia medica of Nadkarni (2002).

The part of study area includes Gulduve, Talawane, Amboli, Tirwade, Nonos and Charatha. This area is dominated by the trees like – Terminalia paniculata L., Terminalia tomentosa (Kurz) Cl., Mangifera indica L., Anacardium occidentale L., Thespesia papulnea (L.) Soland ex Corr., Cocos nucifera L., Garcinia indica (Thou.) Chois., Artocarpus heterophyllus Lam., Macaranga peltata Roxb. Mueller, weeds like Cyperus sp., Ludwigia sp. Smithia sp. Cassia tora L., Commelina sp., Leucas aspera Roxb., Lindernia sp. It is comparatively plane and hilly area which covered by scrubby vegetation. The nomenclature has been brought up to date as far as possible, in consonance with the International Code of Botanical Nomenclature. The correct name is followed by basionym and

synonyms, if any to correct the name with the flora of British India or the regional flora. Whether latest taxonomist work is available for any species, such as revisions or dealing with nomenclature, it has been cited. Invariably reference to J.D. Hooker's Flora of British India, Cooke's Flora of the Presidency of Bombay, Flora of Savantwadi by Almeida has been given.

DISCUSSIONS

The study region is rich with variety of plants and animals. It has rich biodiversity. Biodiversity is the sum total of all living things on earth especially considering their great variety in structure, function and genetic make-up. It includes both the number and frequency of ecosystem and species in a given assemblage. The study region experiences significant seasonal variations in rainfall. Usually the region receives its first spell of rain from pre-monsoonal convectional showers in the month of May. During the South-West monsoon period (June to Sept.) the region receive maximum rainfall. The study region has agro and Fishery based economy. The study region shows average density 13.71% of trees shrubs and herbs. Aronda is situated nearer to the Kiranpani estuary. The habitat of the Kiranpani estuary is dominated by the mangrooves. Saline marshes at Aronda is the only place where Rhizophora mucronata Linn. Sonneratia Caseolaris (L.) Engl., Avicennia marina (Forssk.) Vierh., Avicennia officinalis Linn., Excoecaria agallocha Linn., Aegiceras corniculatum (L.) Blanco are predominantly observed. Gandhinagar, Shroda and Huda is situated along the sea shore and covered by sandunes. The vegetation is found beyond high tide mark.

This area is dominated by the tree like Casuarina equisetifolia L., Thespesia populnea (L.) Soland ex Corr., Mangifera indica L., Cocos nucifera L., Areca catechu L., Ficus benghalensis L., Ficus religiosa L., Macaranga peltata Roxb. Mueller, Acanthus ilicifolius Linn., Avicennia officinalis Linn. Amboli, Tirwade and Nanos are comparatively hilly area and covered by scrubby vegetation. Sindhudurg district is known for its lush green forest, mountains, villages, water falls, river and clean beaches. Tourists are attached more and more to this place now a days. Nature's beauty and biodiversity in this place is found nowhere else in Maharashtra. It is also beloved place for biologist and researchers as large number of medicinal plants, rare plants and animals are found in this region. The complex topography and heavy rainfall in this region helped to retain its diversity. Sindhudurg is one of the megadiversity zones in Maharashtra.

It has been estimated that the Orchids (46), medicinal Plants (254), mangroves (09) pterodophyts (129), Keystone sp., Umbrella sp., Flagship sp., religious sacred grove, gymnosperm, bryophytes, fungi, algae, etc. represents the richness of biodiversity in this region. But during recent times, in this area the policies of rapid economic gains are wrecking the ecological balance through the process of over exploitation of natural resources such as forests, land, water etc. The plans for rapid and one sided strategic development are destroying the life supporting environmental opportunities through tremendous pressures on ecological contours. The sustainable development is highly essential for the conservation of rich biodiversity.

Table 1: List of Botanical names, families uses and part used in Sawantwadi region

S. No.	Botanical Name	Family	Local Name	Uses	Part used
1	<i>Tinospora cordifolia</i> (Willd.) Miers	Menispermaceae	Gulwel	Fever	Stem
2	<i>Cocculus hirsutus</i> (L.) Theob.	Menispermaceae	Wasinwel	fever, piles	Leaves
3	<i>Cyclea peltata</i> Diels	Menispermaceae	Pahadwel	Digestive, fractures setting	Root
4	<i>Gnetum ula</i> Brongn.	Gnetaceae	Nagotrin	Eye wash	Seeds
5	<i>Argemone mexicana</i> Linn.	Papaveraceae	Piwla Dhotra	Analgesic; antispasmodic	Leaves, seeds, roots, flowers
6	<i>Garcinia indica</i> (Thou.) Chois.	Clusiaceae	Kokam	Digestive	Leaves, fruit
7	<i>Mammea longifolia</i> Wt. ex Graham.	Clusiaceae	Surangi	Aromatherapy	Flower
8	<i>Mesua nagassarium</i> Burm. F.	Clusiaceae	Nagkeshar	Astringent	Bark
9	<i>Abelmoschus manihot</i> Linn.	Malvaceae	Ranbhendi	Nutritional supplement	Root
10	<i>Thespesia papulnea</i> (L.) Soland ex Corr.	Malvaceae	Ranbhendi	Anti-inflammatory	Root, bark
11	<i>Urena lobata</i> L. Ssp. <i>Lobata</i> moorthy	Malvaceae	Caesar gavat	Antioxidant, antimicrobial	Leaves, root
12	<i>Ficus exasperata</i> Vahl.	Moraceae	Karvat	Jaundice	Root and Bark
13	<i>Ficus racemosa</i> Linn.	Moraceae	Umber	Food, Antiseptic	Fruit and Latex
14	<i>Ensete superbum</i> (Roxb.) Chess.	Musaceae	Rankeli	Urinary disorder and Kidney stone	Flower and Seed
15	<i>Helicteres isora</i> Linn.	Sterculiaceae	Murudseng	Antidiabetic	Root
16	<i>Grewia tiliifolia</i> Vahl.	Tiliaceae	Haroli	Pneumonia,	Stem bark
17	<i>Murraya koenigii</i> (L.) Spreng	Rutaceae	Golneem	Antioxidant	Leaves
18	<i>Zanthoxylum rhetsa</i> Roxb.	Rutaceae	Tirphal	Stimulants, astringent, aromatic	Fruit
19	<i>Glycosmis pentaphylla</i> (Retz.) DC.	Rutaceae	Chirgondha	Digestive	Leaves
20	<i>Celastrus paniculatus</i> Willd.	Celastraceae	Malkamni	Fish bait, muscle pain	Seed, bark
21	<i>Semecarpus anacardium</i> Linn.	Anacardiaceae	Bibba	Inflammation, hypoglycemic	Seed
22	<i>Nothopegia castaneifolia</i> Roth.	Anacardiaceae	Aameri	Antiseptic	Leaves
23	<i>Memecylon umbellatum</i> Burm. F.	Melastomaceae	Anjani	Diabetes	Leaves
24	<i>Nothapodytes nimmoniana</i> Graham.	Icaciniaceae	Narakya	Tumer, antidiabetic	Fruit, leaf and bark
25	<i>Moringa pterygosperma</i> Gaertn.	Moringaceae	Shigru	Abortion	Bark
26	<i>Naregamia alata</i> Wight & Arn.	Meliaceae	Nelakanchi	Kidney stone, digestive	Leaves, roots
27	<i>Turraea villosa</i> Benn.	Meliaceae	Tafshin	Antihelmentic	Root
28	<i>Syzygium caryophyllatum</i> (L.) Alston	Myrtaceae	Shenjarel	Antioxidant, antiseptic	Leaves, flower
29	<i>Bauhinia purpurea</i> Linn.	Caesalpinceae	Apta	Scorpion bite	Leaves, fruit
30	<i>Caesalpinia crista</i> Linn.	Caesalpinceae	Sargargoti	Diabetes, fever	Seeds, leaves bark
31	<i>Cassia fistula</i> Linn.	Caesalpinceae	Bahava	Purgative	Root, fruit
32	<i>Mimosa pudica</i> Linn.	Mimosaceae	Lajalu	Insomnia, inflammation	Root
33	<i>Abrus precatorius</i> Linn.	Papilionaceae	Gunj	Skin disease, asthma, stomatitis	Root, Leaves, Seeds.
34	<i>Clitoria ternatea</i> Linn.	Papilionaceae	Gokarn	Nephro protective	Leaves, root
35	<i>Crotalaria verrucosa</i> Linn.	Papilionaceae	Ghagari	Jaundice	Leaves
36	<i>Dalbergia horrida</i> Graham.	Papilionaceae	Kalig	Antiseptic	Leaves
37	<i>Erythrina orientalis</i> Linn.	Papilionaceae	Pamkara	Sedative, carminative	Bark, leaves
38	<i>Mucuna pruriens</i> Linn.	Papilionaceae	Khachkuli	Deworming	Leaves
39	<i>Pterocarpus marsupium</i> Roxb.	Papilionaceae	Bivala/Bija	Antidiabetic	Heartwood
40	<i>Xylia xylocarpa</i> Taub.	Papilionaceae	Jambha	Kidney stones	Leaves
41	<i>Woodfordia fruticosa</i> (L.) Kurz	Punicaceae	Daayatti	Cytotoxic	Flower
42	<i>Schleichera oleosa</i> (Lour.) Oken	Sapindaceae	Kusumb	Digestive	Fruit
43	<i>Sapindus emarginatus</i> Vahl.	Sapindaceae	Ritha	Skin disease	Bark
44	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Behda	Expectorant, stomatic	Fruit
45	<i>Terminalia chebula</i> Retz.	Combretaceae	Hirda	Cough, stomatic.	Fruit
46	<i>Passiflora foetida</i> Linn.	Passifloraceae	Mukkopeera	Antiseptic	Root
47	<i>Trichosanthes tricuspidata</i> Lour.	Cucurbitaceae	Kavandala	Migraine, asthma	Root, fruit
48	<i>Careya arborea</i> Roxb.	Lecythidaceae	Kumbha	Antiseptic, Rope making	Root
49	<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Ekpani bramhi,	Antiulcerogenic, anxiolytic	Leaves, stem
50	<i>Anthocephalus chinensis</i> Lamk.	Rubiaceae	Kadamb	Uterine, leprosy. complaints,	Fruits, leaves, bark.
51	<i>Gardenia resinifera</i> Roth.	Rubiaceae	Dikmali	Astringent to bowels, bronchitis	Gum
52	<i>Ixora barchiata</i> Roxb.	Rubiaceae	Malwa	Muscular	Bark
53	<i>Rubia cordifolia</i> Linn.	Rubiaceae	Manjeshta	Skin diseases, piles	Root, stem
54	<i>Xeromphis spinosa</i> Thunb.	Rubiaceae	Gela	Astringent, emetic, abortifacient	Bark, fruit
55	<i>Catunaregam spinosa</i> (Thunb.) Triveng.	Rubiaceae	Ghela	Pesticide	Leaves
56	<i>Eclipta prostrata</i> Linn.	Asteraceae	Maka	Hair problem, Skin diseses	Leaves, stem
57	<i>Sphaeranthus indicus</i> Linn.	Asteraceae	Gorakhmundi	Laxative, tonic	Leaves, fruit
58	<i>Tridax procumbens</i> Linn.	Asteraceae	Jayanti	Wound healing	Leaves
59	<i>Vernonia cinerea</i> Linn.	Asteraceae	Sahadevi	Cytotoxic, fever	Leaves
60	<i>Elephantopus scaber</i> Linn.	Asteraceae	Pathari	Kidney stone	Whole plant
61	<i>Eupatorium rependum</i> Linn.	Asteraceae	Ranmodi	Antiseptic	Leaves
62	<i>Elaeagnus conferta</i> Roxb.	Elaeagnaceae	Nerada	Body pain	Leaves
63	<i>Embelia basaal</i> Roem. et. Schult.	Myrsinaceae	Wawding	Piles, sore throat, dyspepsia	Bark, root

64	<i>Drynaria quercifolia</i> Linn.	Polypodiaceae	Suruli	Muscular	Rhizome
65	<i>Plumbago zeylanica</i> Linn.	Plubaginaceae	Chitraka	Rheumatism, pile, scabies	Leaves, root, bark
66	<i>Diospyros nigrescens</i> Saldanha	Ebenaceae	Kaling	Antiseptic, Food	Fruits, leaves, stem
67	<i>Dillenia pentagyna</i> Roxb.	Dilleniaceae	Karmel	Digestive	Bark
68	<i>Mimusops elengi</i> Linn.	Sapotaceae	Bakul	Ulcers, headache, dental caries	Bark, seed, flower, fruit
69	<i>Cordia dichotoma</i> Forst.	Boraginaceae	Bhokar	Cough, chest relief	fruit, mucilage, kernel, barks
70	<i>Jasminum sambac</i> (L.) Ait.	Oleaceae	Jasmin	Aromatherapy	Flowers
71	<i>Alstonia scholaris</i> (L.) R.Br.	Apocynaceae	Saptpurni	Cultural, Diabetes	Bark, leaves
72	<i>Holarrhena antidysentrica</i> (Roth) Wall.	Apocynaceae	Kula	Diarrhoea	Bark
73	<i>Rauwolfia serpentina</i> (L.) Bth.ex Kurz.	Apocynaceae	Rarpgandha	Snake bites	Root
74	<i>Tabernaemontana alternifolia</i> Linn.	Apocynaceae	Tagar	Digestive	Bark, leaves
75	<i>Hemidesmus indicus</i> Linn.	Asclepidaceae	Anatmul	Digestive	Root
76	<i>Gymnema sylvestre</i> (Retz.) R. Br ex Shult.	Asclepidaceae	Gulmar	Diabetic, hypertension	Leaves
77	<i>Holostemma annularium</i> Roxb.	Asclepidaceae	Utran	Diabetic	Root
78	<i>Tylophora dalzellii</i> Hook. f.	Asclepiadaceae.	Lahan Pitambari	Asthma, dermatitis and rheumatism.	Leaves, stem
79	<i>Mallotus philippensis</i> (Lam.) Mull. Arg.	Euphorbiaceae	Kunku	Aphrodisiac, skin infection	Fruit, bark
80	<i>Strychnos nux-vomica</i> Linn.	Gentianaceae	Kajara	Digestive antidiabetic	Seeds, barks
81	<i>Argyrea nervosa</i> (Burm. f.) Boj.	Convolvulaceae	Vrdhdharuka	Ageing, insomnia	Root
82	<i>Ipomoea nil</i> (L.) Roth	Convolvulaceae	Kaaladaana	Acrid, thermogenic	Seed
83	<i>Physalis minima</i> Linn.	Solanaceae	Phophundi	Rheumatism	Whole plant
84	<i>Solanum anguivi</i> Lam.	Solanaceae	Chichardi	Digestive	Fruit
85	<i>Oroxylum indicum</i> (L.) Vent.	Bignoniaceae	Tetu	Mouth cancer, scabies	Roots, leaves and stems
86	<i>Heterophragma quadrilocularae</i> (Roxb.) K. Schum.	Bignoniaceae	Kusaga	Diabetic, skin diseases	Leaves
87	<i>Andrographis paniculata</i> (Burm. f.) Wall. Ex Nees	Acanthaceae	Bhuineem	Fever, antiseptic	Leaves, stem
88	<i>Barleria prionitis</i> Linn.	Acanthaceae	Katekoranti	Toothache, joint pains, lung diseases	Whole plant
89	<i>Leea indica</i> (Burm. f.) Merr.	Vitaceae	Dinda	Antiseptic	Leaves
90	<i>Clerodendrum serratum</i> Linn.	Verbenaceae	Bharangi	Inflammations, anorexia, flatulence	Leaves, root
91	<i>Vitex negundo</i> Linn.	Verbenaceae	Nirgundi	Arthritis, pesticide	Leaf, flower
92	<i>Leucas cephalotes</i> Roxb.	Lamiaceae	Tumbha	Malaria fever, jaundice	Whole plant
93	<i>Ocimum gratissimum</i> Linn.	Lamiaceae	Tulasi	Urinary tract, wound, skin infections	Aerial part
94	<i>Gnidia glauca</i> (Fresen.) Gilg.	Thymelaeaceae	Datpadi	Cancers, sore throat, wounds, burns	Leaves, bark, flower.
95	<i>Achyranthes aspera</i> (L.) var. <i>Porphyrista</i>	Amaranthaceae	Akhada	Gynecological disorders	Root, seed
96	<i>Piper nigrum</i> Linn.	Piperaceae	Mire	Rheumatism, Appetizer	Fruit
97	<i>Smilax zeylanica</i> Linn.	Smilacaceae	Ghotwel	Antiseptic	Leaves, root
98	<i>Cinnamomum verum</i> Persl.	Lauraceae	Gulum	Bone setting	Bark
99	<i>Persea macrantha</i> (Nees) Kosterm.	Lauraceae	Koorma	Asthma, arthritis, Ulcer	Leaves, bark
100	<i>Litsea floribunda</i> Gamble	Lauraceae	Dadeghotum	Antiseptic	Bark
101	<i>Phyllanthus urinaria</i> Linn.	Euphorbiaceae	Bhuivala,	Gonorrhoea, diabetes, flu	Aerial parts
102	<i>Ficus locor</i> Buch. Hams.	Moraceae	Plaksa	Menstrual disorders, ulcer	Stem, bark
103	<i>Curculigo orchiodes</i> Gaertn.	Hypoxidaceae	Dukkarkandh	Sexual tonic	Tuber
104	<i>Tacca leontopetaloides</i> Linn.	Taccaceae	Ransuran	Bodyache and headache	Tuber
105	<i>Luffa acutangula</i> (L.) Roxb.	Cucurbitaceae	Phagul	Diabetes, tinea, ulcers	Leaves, seeds
106	<i>Dioscorea bulbifera</i> Linn.	Dioscoriaceae	Mataru	Jaundice, piles	Tuber
107	<i>Curcuma pseudomontana</i> Girahm.	Zingiberaceae	Jangli halad	Ulcer, antiseptic	Rhizome
108	<i>Curcuma enodora</i> Blatt.	Zingiberaceae	Jangli halad	Skin diseases	Rhizome
109	<i>Curcuma nilgiriensis</i> Pant & Awasthi.	Zingiberaceae	Jangli halad	Ulcer, skin diseases	Rhizome
110	<i>Aloe barbadensis</i> (L.) Burm.	Liliaceae	Aloe	Skin care	Leaves
111	<i>Asparagus racemosus</i> Willd.	Liliaceae	Satawari	Food, medicine for women	Rhizome
112	<i>Gloriosa superba</i> Linn.	Liliaceae	Kallawi	Abortifacient, spleen complaints, sores	Tuber, Leaves
113	<i>Costus speciosus</i> Koenig.	Costaceae	Pewa	Burns, constipation, skin diseases	Rhizome
114	<i>Amorphophallus commutatus</i> Schott.	Araceae	Janglisuran	Scabies	Tuber
115	<i>Caryota urens</i> Linn.	Areceaeae	Bhedlimal	Body pains and coollent	Seeds, toddy
116	<i>Celtis timorensis</i> Span.	Ulmaceae	Brumaj	Digestive	Leaves
117	<i>Ligustrum perrotetii</i> A. DC.	Oleaceae	Kapashi	Antiseptic	Stem, flower
118	<i>Smithsonia viridiflora</i> Dalzell	Orchidaceae	Weni	Aromatherapy, ear drops	Flowers, leaves
119	<i>Pandanus tectorius</i> Parkinson	Pandanaceae	Kewada	Diuretic	Root, fruit
120	<i>Cyperus rotundus</i> Linn.	Cyperaceae	Nagarmotha	Diarrheal pathogenesis	Tuber
121	<i>Cympopogon citratus</i> (DC) Stapf.	Poaceae	Gawati chah	Fevers, stomach cramps	Leaves

Figures of some endemic species of Savantvadi region of Western Ghats



Rauvolfia serpentina (L.) Bth.ex Kurz.



Curcuma inodora Blatt.



Curcuma pseudomontana J.Graham



Curcuma nilgiriensis Pant and Awasthi



Nothapodytes nimmoniana (Graham) Mabb.



Clerodendrum serratum Linn.

REFERENCES

- Almeida, S. M. 1990. Flora of Sawantwadi. Scientific Publications, Jodhpur Vol. 2.

- Anonymous, 2000. The Wealth of India- A dictionary of Indian raw material and industrial products, First supplement series (Raw Material) National Institute of Science Communication, CSIR, New Delhi, 1: A-Ci: 203-206, 247.
- Arya Vaidya Sala, 1994. Indian Medicinal Plant, *Orient Longman Publication*. Vol. I-III.
- Bhattacharjee, S. K. 2001. Handbook of Medicinal Plants. IIIrd revised edition, *Pointer Publication, Jaipur*.
- Chopra, R. N., Nayar, S. L. and Chopra, I. C. 1986. Glossary of Medicinal plants, *Council of Scientific Industrial Research*, New Delhi.
- Cooke, T., 1958. Flora of Presidency of Bombay, Indian edn. 1997. Dehra Dun, India: Bishen Singh Mahendra Pal Singh, (BSI reprint, Calcutta) I & II: 771-774.
- Daniel, R. J. R., 1997, Taxonomic Uncertainties and Conservation Assessment of the Western Ghats, *Current Science*, 73(2), 169-170
- Gamble, J. S. and Fisher, E. S. 1935. Flora of Madras Presidency. London, Reprinted Ed., BSI Calcutta. Vol. I and II.
- Hooker, J. D., 1892. The Flora of British India, (London: L. Reeve): *L. Reeves and company London*. Vol. I-VII.
- Kothari, M. J. and J. S. Murthy, 1993. Flora of Raigad District, Maharashtra State: 403-404.
- Nandkarni K. M. 2002. Indian Material Medica Popular Prakashan. Vol. I and II.
- Sharma, B. D., Karthikeyan, S and N. P. Singh., 1996. Flora of Maharashtra State, Monocotyledons, *Botanical Survey of India*, Flora of India- series 2: 121-129.
- Yadav, S. R. and M. M. Sardesai, 2002. Flora of Kolhapur District: 495-498.
- Yadav, S.R, 2012, Rare, Endangered and Threatened Plant species of Western Ghats and their conservation, *Journal of Science Information/ Special Issue-3*, 01-04.
