

AN ASSESSMENT OF NATIVE PLANTS AND THEIR MEDICINAL USES

MN . Mhaiskar

R.S. Bidkar Art's, Commerce and Science College, Hinganghat, Dist- Wardha, Maharashtra, India.

ABSTRACT

Native plants provide basic needs of human beings such as food, shelter, clothes, medicine and ritual practices. They have nutritive value, durability, quality, delicious and palatable properties. They feed the insects; which in turn is the food of birds. They also maintain the biodiversity, climatic and ecological balance. They also contribute the nation's income. In this present review article, the total 58 native plantspecies are enumerated. They belong to both dicotyledone and monocotyledone, majority of plants are dicotyledone. They are herbs, shrubs, trees and climbers. Family wise analysis revealed that Fabaceae is a dominant family with 12 species followed by Malvaceae with 5 species, Moraceae with 3speices, Polygalaceae, Apocyanaceae, Asparagaceae, Asteraceae, Meliaceae, Combretaceae, Rutaceae, Anacardaceae, Verbenaceae, Oleaceae, Arecaceae with 2species each andCommelinaceae, Nyctaginaceae, Rosaceae, Orchidaceae, Nelumbonaceae, Dipteraceae, Lamiaceae, Araceae, Musaceae, Rhamnaceae, Magnoliaceae, Santalaceae, Myrtaceae, Poaceae, Lythraceae and Sapotaceae with 1 species each. They are also used against diseases such as pain and inflammation, intestinal ulcer, diarrhea, cancer, sore throat, skin infections, diabetic, dysentery, nausea, toothache, lecoderma, fever, gonorrhea, snake bite, diuretic, emetic, digestion, stimulant, anthelmintic, leprosy, hysteria, epilepsy, cold, asthma, alexipharmic, pile, expectorant, bronchitis, abortifacient, dermatopathy, rheumatism, anorexia, jaundice, antifertility, vermifuge, leishmaniasis, laxative, antimalarial, appetite, astringent, eczema etc.aphrodisiac, tonic.

Keywords: Native plants; uses; botanical name; family name and diseases.

INTRODUCTION

Native plants are those originated in the Indian climatic condition. Since prehistoric period people fully depend on the native plants for the food, medicine and ritual practices. Use of native plant species in ritual practices is one of the parts of traditional culture of Indian people. The native plants are most convenient for their productivity, durability, nutritive value and medicinal purposes. They do not affect the environment, soil and human health. They grow on organic fertilizer and hence they are suitable not only for human food, animal fodder but also for soil fertility. Food for our survival is produced by plants and they also create a healthy and ecofriendly environment to live (Sazada, *et al.*, 2009)⁴.

The native plants feed the native insects which are the major food source for the native birds.

Native properties supported significantly more caterpillars and caterpillar species and significantly greater bird abundance, diversity, species richness, biomass and breeding pairs of native species. Of particular importance is that bird species of regional conservation were eight times more abundant and significantly more diverse on native properties (Burghardt *et al.*, 2009)². The insects and birds carry the pollination, it is an essential phenomenon in the reproduction of flowering plants, basically important for the cultivated plants. Around 70% people of our country depend on the agricultural practices. They have major role in the contribution of the basic need of the people. Native plants are adapted to the local environment. They require less water, less fertilizer, consequently less money for cultivation hence it is most valuable natural

resources. They are a help to maintain the biodiversity and ecosystem.

India is home to around 15,000 plant species which account for 6% of the world's plant species ranges into herbs, shrubs, trees and climbers. The diversity of plant species is attributed to India's diverse climate and topological condition.

Some of the plants are endangered, some are facing extinction and some are exploited due to

drastic climatic change and tremendous human activity.

OBSERVATION AND RESULTS

It was not possible to study in detail all Indian trees. So the study is restricted to some common plants. Out of total 57 native plants, 31 trees, 16 herbs, 08 shrubs and 02 Climbers (Table: 1).

Table 1:

Sr.No	Vernacular name	Botanical name	Family name	Characteristic	Uses
1	Milkwort	<i>Polygala irregularis</i> L.	Polygalaceae	Endangered species, flowering herb.	Increased milk production when fed to cows.
2	Jeemikanda	<i>Ceropegia odorata</i> Nimmo	Apocyanaceae	Endangered species	Curing stomach pain and eye problems
3	Spiderwort	<i>Belosynyosis vivipara</i> (Dalzell) CEC Fisch.	Commelinaceae	Epiphyte, rare plant	--
4	Bird's foot	<i>Lotus corniculata</i> L.	Fabaceae	Endangered plant, flowering Herb.	People harvest them for medicinal and commercial use
5	Malabar lily (safedmusli)	<i>Chlorophytum malabaricum</i> Baker.	Asparagaceae	Tuberous herb, flowers highly fragrant, endangered species	It is used as an aphrodisiac
6	Musli	<i>Chlorophytum tuberosum</i> (Roxb.) Baker	Asparagaceae	Herb, rare plant.	It is used in tonic to give strength and vigor.
7	Thuthi	<i>Abutilon indicum</i> (L) Sweet	Malvaceae	Endangered species.	Anti-inflammatory and anti proliferative
8	Bougainvillea	<i>Bougainvillea spectabilis</i> Wild	Nyctaginaceae	Ornamental evergreen climber	A drink can be making from the flower bracts.
9	Rose	<i>Rosa indica</i> L.	Rosaceae	Ornamental plant	Blood purification, intestinal ulcer, diarrhea, anti-inflammatory
10	Orchid	Orchid sps.	Orchidaceae	Largest and highly evolved family	Make medicinal tea, strengthen the immune system, treat cancer, improve eye-sight
11	Lotus	<i>Nelumbo nucifera</i> Gaertn.	Nelumbonaceae	Ornamental, sacred plant	Used for culinary
12	Marigold	<i>Calandula officinalis</i> L.	Asteraceae	Scented herb, ornamental	Treating sore throat and mouth, menstrual cramps, cancer of stomach and duodenal ulcers, skin infections.
13	Banyan tree/wad	<i>Ficus benghalensis</i> L.	Moraceae	The largest tree in the world by canopy. Sacred tree, shade plant, Lord Boudha achieved enlightenment under this tree.	Antidiabetic, growth of hair, diarrhea, rheumatism, latex is used in dysentery, nausea, toothache and leucoderma
14	Neem tree/kaduneem	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Oxygen supply is great	Fever, weakness, skin diseases
15	Peepal tree	<i>Ficus religiosa</i> L.	Moraceae	Oxygen supply is great, releases oxygen for 24 hours.	Latex is used as tonic, bark for gonorrhoea and scabies, used as antidote to snake bite
16	Arjuna tree	<i>Terminalia arjuna</i> (Roxb.) Wight & Arn	Combretaceae	The arjuna is one of the species whose leaves are fed to silk moth, use in Ayurvedic medicine	Diuretic, cardio tonic
17	Sal tree	<i>Shorea robusta</i> Gaertn.	Dipterocarpaceae	Evergreen and timber tree, 'least concern' in the IUCN red list of threatened species	Use in ayurvedic medicine, cure for itching.
18	Gulmohar tree	<i>Delonix regia</i> (Hark.) Raf.	Fabaceae	Fast growing tree, ornamental	Emetic properties, kill roundworm, fungicidal properties
19	Mohagany	<i>Swietenia mahagoni</i>	Meliaceae	Deciduous tree that	---

		(L) Jacy.		can grow large, spherical crown and many branches, obtained finest timber, ornamental tree, 'endangered' in the IUCN red list of threatened species.	
20	Curry tree/god neem/kadipatta	<i>Murrayakoenigii</i> (L) Spreng	Rutaceae	Leaves used in many dishes for flavouring, aromatic plant.	Digestion, stimulant, diabetic
21	Ashoka tree	<i>Saracaasoca</i> (Roxb.) Wild	Fabaceae	Evergreen tree, with fragrant flowers	Uterine tonic
22	Tulsi	<i>Ocimum sanctum</i> L.	Lamiaceae	Aromatic, Scared plant, Queen of herbs.	Cough, stomachache, anthelmintic
23	Money plant	<i>Pothosaureus</i> Linden & Andre	Araceae	It energizes the home by filtering air and increasing oxygen inflow.	Leaves used for growth, root for skin infections.
24	Jaswand	<i>Hibiscus rosinensis</i> L.	Malvaceae	Cultivated as ornamental plant.	Mouth ulcer, prevention of grey hair
25	Banana	<i>Musa paradisiaca</i> L.	Musaceae	Fruit as edible, leaves and plant used for ornamental purpose.	Leprosy, hysteria, fever, digestive disorders, hemorrhage, epilepsy, hemorrhoids, insect bites.
26	Sunflower	<i>Helianthus annuus</i> L.	Asteraceae	Basically crop cultivated for its edible oil	High fever, sores, swellings, snake bites and spider bites.
27	Chikana	<i>Sidaacuta</i> Burm.f.	Malvaceae	Common weed	Root infusion is used in bronchial asthma, cold, dysentery, stomach pain, headache and nasal congestion.
28	Chikana	<i>Sidarhombifolia</i> L.	Malvaceae	Common weed	Leaves are used to relieve swelling, fruit for relieve headache, the root is used to treat rheumatism.
29	Bor tree	<i>Zizyphusmauritiana</i> Lam.	Rhamnaceae	The spiny, evergreen small plant, fruits are edible part	Alexipharmic, for Vitamin B, the bark is used in diarrhea and in removing intestinal worms
30	Bael	<i>Agelemarmoelos</i> (L) Correa	Rutaceae	It is considered to be sacred tree in India, fruit pulp edible.	Snake bite, diarrhea, dysentery, pile
31	Champa	<i>Micheliachampaca</i> L.	Magnoliaceae	Large, evergreen tree, fragrant flowers.	Leaves and flower used as expectorant, purgative
32	Chandan	<i>Santalum album</i> L.	Santalaceae	Plants are the source of sandalwood, it is considered scared in some regions and is used in religious traditions.	Oil used for treatments of cold, bronchitis, skin disorders, heart ailments, weakness, fever infection of urinary tract, inflammation of mouth and liver
33	Amba	<i>Mangiferaindica</i> L.	Anacardaceae	It is a big tree, fruits are edible. It is the national fruit of India.	Leucorrhoea, diarrhea, dysentery
34	Kaner	<i>Neriumindicum</i> L.	Apocynaceae	Cultivated for ornamental purpose.	Abortifacients, leprosy, dermatopathy
35	bahawa	<i>Cassia fistula</i> L.	Fabaceae	Used as vegetable	Constipation, skin disease, colic inflammation, rheumatism, anorexia, jaundice
36	Khair	<i>Acacia catechu</i> (L.f.) Wild	Fabaceae	Deciduous with thorny plant	Pods, leaves, bark, gum used in urinogenital disorder
37	Jambhul	<i>Syzygiumcumini</i> L.	Myrtaceae	Fruits are edible, evergreen tree.	Antidiabetic, acidity
38	Silk cotton/katsawar	<i>Bombaxceiba</i> L.	Malvaceae	It is commonly known as cotton tree.	Bark is used to cure permato-urea

39	Sag	<i>Tectonagrandis</i> L.f.	Verbenaceae	Basically it is timber tree.	The oil is used to treat ringworm and itches
40	Chiroli/char	<i>Buchananialanzen</i> Spr eng	Anacardaceae	Seeds are edible, it is known as charoli.	Cough, skin diseases, bronchitis
41	Nirgudi	<i>Vitexnegunda</i> L.	Verbenaceae	It is large aromatic shrub.	Antifertility, headache, rheumatism, root cure epilepsy, leaf extract used in rheumatoid and fever
42	Shisam	<i>Delbergialatifolia</i> Rox b.	Fabaceae	Used as timber, shade and evergreen plant, 'vulnerable' in the IUCN red list of threatened species.	To treat diarrhea, indigestion, leprosy, avermifuge
43	siris	<i>Albizzialebeck</i> (L) Benth	Fabaceae	It is a deciduous tree.	Abdominal worms, pain
44	Night jasmine	<i>Nyctanthesarbortristis</i> L.	Oleaceae	The night flowering parijat	Pain and inflammation, leishmaniasis
45	Behda	<i>Terminaliabelirica</i> (Gaertn.) Roxb.	Combretaceae	The plant has the sweet scented flowers. It is one of the important plants in Ayurveda.	Fruits are used as tonic and indigestion, fruit powder mixed with honey used as laxative and used for treating cough and used for proper blood circulation
46	Bhabul	<i>Acacia nilotica</i> (L) Wild ex. Delile	Fabaceae	It is a thorny tree, also weed of national significance	Pod, leaves, bark for dental use
47	Chinch	<i>Tamarindusindica</i> L.	Fabaceae	The flowers and tender leaves used as vegetable, the tree produces pod like fruit that contain an edible pulp.	Antimalarial, diarrhea, dysentery, laxative, antiseptic, scorpion bites
48	Date	<i>Phoenix dactylifera</i> L.	Arecaceae	It is commonly called as date plum. It is cultivated for its edible fruits.	Treatment of diarrhea, toothache.
49	Velu/bambu	<i>Bambusaarundinacea</i> (Retz.) Wild	Poaceae	Tender shoots are cooked. It is a tallest grass	Anti-inflammatory, antiulcer, appetite, digestion
50	Palas	<i>Buteamonosperma</i> (Lam) Tanb	Fabaceae	It is commonly called as 'flame of the forest'. Extraction of dries flowers used as colour in holly festival	Cough, leucoderma, dried flowers soaked in water and used for taking both for preventing sunstroke
51	Apta	<i>Bauhinia variegata</i> L.	Fabaceae	It is cultivated as ornamental plant. Apta leaves are exchanged during Dasera festival	Used as astringent, tonic and anthelmintic
52	Mehndi	<i>Lawsoniainermis</i> L.	Lythraceae	It is the source of the dye henna	Burning sensation of feet, nephritic
53	Moh	<i>Madhucaindica</i> .f. Gmel	Sapotaceae	Used as vegetable	Dermatopathy, appetizing, astringent, cough
54	Chameli	<i>Jasminumgrandiflorum</i> L.	Oleaceae	Scandent shrub	Abortifacient
55	Karanji	<i>Pongamiapinnata</i> (L) Pierre	Fabaceae	It is grown as the shade tree	Eczma, leucoderma
56	Naryal/coconut	<i>Cocusnucifera</i> L.	Arecaceae	It is the source of Naryal	Skin softener and moisturizer, skin infections, anti-wrinkle
57	Fanas/jackfruit	<i>Artocarpusheterophyllum</i> Lam.	Moraceae	The fruits are edible	Leaves used for treating ulcers, diarrhea, boils, stomach ache and boils. Seeds are aphrodisiac, root for fever, diarrhea, skin disease, asthma

DISCUSSION

In the present investigation, native plants of 57 plant species are studied. All these species belong to dicotyledon and monocotyledon. Out

of total 57 native plants, 31 trees, 16 herbs, 08 shrubs and 02 Climbers (Table: 1). Family wise analysis revealed that Fabaceae is a dominant family with 12 species followed by Malvaceae

with 5 species, Moraceae with 3 species, Polygalaceae, Apocyanaceae, Asparagaceae, Asteraceae, Meliaceae, Combretaceae, Rutaceae, Anacardaceae, Verbenaceae, Oleaceae, Arecaceae with 2 species each and Commelinaceae, Nyctaginaceae, Rosaceae, Orchidaceae, Nelumbonaceae, Dipteraceae, Lamiaceae, Araceae, Musaceae, Rhamnaceae, Magnoliaceae, Santalaceae, Myrtaceae, Poaceae, Lythraceae and Sapotaceae with 1 species each. They are also used against diseases such as pain and inflammation, intestinal ulcer, diarrhea, cancer, sore throat, skin infections, diabetic, dysentery, nausea, toothache, lecoderma, fever, gonorrhoea, snake bite, diuretic, emetic, digestion, stimulant, anthelmintic, leprosy, hysteria, epilepsy, cold, asthma, alexipharmic, pile, expectorant, bronchitis, abortifacient, dermatopathy, rheumatism, anorexia, jaundice, antifertility, vermifuge, leishmaniasis, laxative, antimalarial, appetite, astringent, eczema etc. and aphrodisiac, tonic. These observations are well supported by the various studies like Bodele and Shahare (2015); who reported that the total 29 plant species belonging to 47 genera and 30 families used as a medicine in the health care treatment¹, Chavan and Marganwar (2015) documented 50 different plants species representing 35 families used for medicinal purposes³, Kakulte *et al.* (2014) revealed the traditional and indigenous knowledge on 31 ethnomedicinal plants belonging to 25 families⁵.

CONCLUSION

This review article simply pays attention to and aims to spread awareness that we should know the value and importance of native plants, their role in the climatic condition and topology, their importance in the productivity and nutritive value, their role in the human as well as animal health and their contribution to build up the nation and reach the name at global level.

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