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STUDIES ON ETHNO-MEDICINAL PLANTS OF RATNAGIRI DISTRICT OF MAHARASHTRA STATE[#]

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Abstract

Ratnagiri district is having a great plant diversity and covered with tropical semi-evergreen, tropical moist deciduous and littoral and swamp forests. The populations of the district are using the plants in their surroundings for the treatment of various diseases and ailments. Rapid urbanization in the recent time is leading to the change in life style as well as loss of plant wealth of the district. There is an urgent need to study the medicinal plant wealth critically. Earlier reports regarding the vegetation of the district are the floristic accounts. The present paper deals with the study regarding the ethno-medicinal plants of the district.

Keywords: Ratnagiri district, ethno-medicinal plants, diseases and ailments

[#]Short Communication

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Introduction

Ratnagiri district is situated at 17.2478° N, 73.3709° E and covered with tropical semi-evergreen, tropical moist deciduous and littoral and swamp forests with great plant diversity. The aboriginals and the rural populations of the district are having tremendous knowledge regarding the plants of ethno-medicinal importance. The rural populations of the district are dependent on the plants in their surrounding for the treatment of different diseases and ailments. The available record about the vegetation of Ratnagiri district is the floristic account (Mistry, 1986). The references regarding economically and medicinally important plant species of Ratnagiri district are meager (Deokule & Mokate 2004, Ghalme *et al.* 2010, Shaikh *et al.* 2014). There is an urgent need regarding the documentation of information about the plants of ethno-medicinal importance as it will be useful in further studies. The present paper deals with the study regarding the plants of ethno-medicinal plants of study area.

Methodology

Field visits to the study area i.e. Ratnagiri district were made in the recent past (2018-19), for documentation of information regarding the plants of ethno-medicinal importance. Various places from Ratnagiri taluka of Ratnagiri district were visited for the documentation of information regarding the plants of ethno-medicinal importance used in the treatment of various diseases and ailments. The information regarding the plants of ethno-medicinal importance from the Ratnagiri district is collected with the help of a questionnaire. The ethno-medicinal practitioners, old age people having information regarding the plants of ethno-medicinal importance were interviewed for the collection of information about the plants of ethno-medicinal importance. The ethno-medicinal plants were collected with the help of local informers and the traditional healers, after getting the preliminary information regarding the plants. The plants of ethno-medicinal importance were then identified with the help of available floras (Yadav & Sardesai 2002, Kulkarni 1988, Cooke 1901). The information obtained from these people was about the diseases and the ailment treated by them, the ethno-medicinal plants used by for the treatment, their useful plant parts, mode of administration, dosage, duration of the treatment etc. The information obtained from the ethno-medicinal practitioners was then noted in systematic manner.

Enumeration

The plants of ethno-medicinal importance from the study area are enumerated alphabetically with their botanical name followed by the family, local name, plant part used and the mode of administration.

S.N.	Botanical Name	Family	Local Name	Plant Part Used	Mode Of Administration
1.	<i>Achyranthus aspera</i> L.	Amaranthaceae	Aghada	Leaves & Stem	The paste of leaves at the spot of scorpion bite. Paste of stem is applied at the place of scorpion bite. The leaves are chewed in the treatment of scorpion bite.
2.	<i>Aegle marmelos</i> (L.) Corr.	Rutaceae	Bel	Leaves	The leaves are eaten in the treatment of diabetes (empty stomach, in the morning)
3.	<i>Allium cepa</i> L.	Liliaceae	Kanda	Bulb	Paste of bulb is applied to the forehead in the treatment of fever.
4.	<i>Alstonia scholaris</i> (L.) R.Br.	Apocyanaceae	Satwin	Inner bark	Piece of inner bark is squeezed to get the juice and given in the treatment of jaundice.(usually on Sunday morning , empty stomach)
5.	<i>Amorphophallus paeonifolius</i> (Dennest.) Nicols.Var. <i>campanulatus</i> (Decne.) Sivadasan	Araceae	Jangali - Suran	Corm	The corm is cooked and eaten in the treatment of bleeding piles.
6.	<i>Aristolochia indica</i> L.	Aristolochiaceae	Sapsandi	Stem	The paste of stem is applied at the spot of snakebite.

S.N.	Botanical Name	Family	Local Name	Plant Part Used	Mode Of Administration
7.	<i>Blumea lacera</i> (Burm.f.)DC.	Asteraceae	Bhamburda	Leaves	Paste of leaves is applied to the fresh wounds.
8.	<i>Calycopteris floribunda</i> (Roxb.) Poir.	Combretaceae	Ukshi, Huski	Leaves	The paste of leaves is applied to fresh wounds.
9.	<i>Careya arborea</i> Roxb.	Lecithidaceae	Kumbha	Leaves Bark (vet.)	The juice of leaves is applied to fresh wounds The bark is tied on the fractured bones of cattle.
10.	<i>Carissa carandas</i> Garh.	Apocynaceae	Karvand	Roots	The paste of roots made in cow's urine or is applied to the skin in the treatment of skin infection.
11.	<i>Celosia argentea</i> L.var. <i>argentea</i>	Amaranthaceae	Kurdu	Seeds	The seeds are orally administered in the treatment of urine stone.
12.	<i>Centella asiatica</i> (L.) R.Br.	Apiaceae	Brahmi	Leaves	The paste of leaves is applied to the affected parts in the treatment of skin diseases.
13.	<i>Clerodendrum serratum</i> (L.) Moon.	Verbenaceae	Bharangi	Root	The paste of root is given orally in the treatment of cough and cold.
14.	<i>Cyclea peltata</i> (Lamk.)Hook.F. & Thomas	Menispermaceae	Pahadvel	Leaves	The paste of leaves is applied to the affected parts in the treatment of skin diseases.

S.N.	Botanical Name	Family	Local Name	Plant Part Used	Mode Of Administration
15.	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Durva	Entire plant	The paste of entire plant is applied to the forehead in the treatment of fever.
16.	<i>Datura innoxia</i> Mill.	Solanaceae	Dhotara	Leaves	The leaves applied with groundnut oil are made warm and applied to the forehead in the treatment of fever.
17.	<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Karanda	Bulbils	The scrapings of bulbil mixed with jaggery is given in the treatment of bleeding piles (1 teaspoon , in the morning, empty stomach)
18.	<i>Ensete superbum</i> (Roxb.) Cheesm.	Musaceae	Chavai	Fruits	The pulp of dried fruit is given (about ½ teaspoon) with milk in the treatment of urine stone.(For a week in the morning empty stomach)
19.	<i>Entada rheedei</i> Spreng.	Mimosaceae	Gaidal	Seeds	The paste of seeds is applied to joints in the treatment of rheumatism

S.N.	Botanical Name	Family	Local Name	Plant Part Used	Mode Of Administration
20.	<i>Euphorbia neriifolia</i> sec. Boiss.	Euphorbiaceae	Nivdung	Stem	Latex mixed with limestone to make the paste which is applied to the abscesses.
21.	<i>Helicterus isora</i> L.	Sterculiaceae	Murud-sheng	Fruits	The paste of fruits is given in the treatment of dysentery.
22.	<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Jaswand	Root	Paste of roots is given in the treatment of excessive discharge of menstrual fluids.
23.	<i>Holarrhena pubescens</i> (Buch-Ham.)Wall ex.Don	Apocynaceae	Kuda	Roots	The paste of roots is given in the treatment of amoebic dysentery.
24.	<i>Ixora coccinea</i> L.	Rubiaceae	Okaboki	Roots	The paste of roots is given with milk in the treatment of jaundice (in the morning empty stomach)
25.	<i>Jatropha gossypifolia</i> L.	Euphorbiaceae	Vaicha Aerand	Roots	The paste of inflorescence is applied to the forehead as well as applied at the place of bite in the treatment of scorpion-bite.
26.	<i>Justicia adhatoda</i> L.	Acanthaceae	Adulsa	Leaves	The decoction of leaves is used in the treatment of cough & cold.

S.N.	Botanical Name	Family	Local Name	Plant Part Used	Mode Of Administration
27.	<i>Kalanchoe pinnata</i> (Lamk.) Pers.	Crassulaceae	Leaves	Leaves	The juice of leaves is given in the treatment of urine stone. (In the morning empty stomach)
28.	<i>Leucas stelligera</i> Wall. ex Benth.	Lamiaceae		Leaves	The paste of leaves is applied to forehead in the treatment of fever.
29.	<i>Mimusops elengi</i> L.	Sapotaceae	Bakul	Bark	The crushed bark is used in the treatment of toothache.
30.	<i>Moullava spicata</i> (Dalz.) Nicols.	Caesalpinaceae	Vakeriche – Bhate	Tuberous root	The paste of tuberous roots is taken with milk in the treatment of diabetes (empty stomach, in the morning)
31.	<i>Mucuna pruriens</i> (L.) DC	Papilionaceae	Kahj-kuihili	Seeds	Splitted seed is applied at the place scorpion bite.
32.	<i>Nyctanthus arbor-tristis</i> L.	Oleaceae	Parijatak	Leaves & flowers	The juice of leaves and flowers is given in the treatment of jaundice (in the morning, empty stomach)
33.	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulas	Leaves	The decoction of leaves made with clove, cinnamon bark and <i>Justicia adhatoda</i> leaves is given in the treatment of cough and cold.

S.N.	Botanical Name	Family	Local Name	Plant Part Used	Mode Of Administration
34.	<i>Phyllanthus niruri</i> L.	Euphorbiaceae	Bhui-Amla	Whole plant	The juice of leaves is taken (about half cup) in the treatment of jaundice (in the morning, empty stomach).
35.	<i>Rauvolfia serpentina</i> (L.) Benth. ex. Kurz.	Apocynaceae	Adkai	Root	The paste of roots is given in the treatment of excessive discharge during menstrual cycle (one tea-spoon)
36.	<i>Ricinus communis</i> L. Erand.	Euphorbiaceae	Goda Aerand	Leaves	The juice of leaves is given in the treatment of jaundice (in the morning, empty stomach, on Sunday)
37.	<i>Sida acuta</i> Burm. f.	Malvaceae	Kadeya	Leaves	The paste of leaves is applied to abscesses.
38.	<i>Smilax zeylanica</i> L.	Smilacaceae	Ghot-vel	Leaves & fruits	The mixture of powder of leaves and fruits is taken with buttermilk in the treatment of urine stone.
39.	<i>Syzigium cumini</i> (L.) Skeels.	Myrtaceae	Jambhul	Seeds	The powder of dry seeds is taken with water in the treatment of diabetes (in the morning, empty stomach).

S.N.	Botanical Name	Family	Local Name	Plant Part Used	Mode Of Administration
40.	<i>Tamarindus indica</i> L.	Caesalpinaceae	Chinch	Bark	The paste of bark is applied to wounds
41.	<i>Terminalia bellerica</i> (Gaertn.)Roxb.	Combretaceae	Beheda	Fruits	The dry fruits are chewed in the treatment of cough.
42.	<i>Tridax procumbens</i> L.	Asteraceae	Dagadi-Pala	Leaves	The juice of leaves is applied to fresh wounds.
43.	<i>Vitex negundo</i> var. <i>incisa</i> Lam.	Verbenaceae	Nigadi	Leaves	Paste of leaves is made hot and applied to joints in the treatment of rheumatism.

Conclusion

In the present study 43 ethno-medicinal plants belonging to 30 families of angiospermic plants were recorded. Various plant parts used for the treatment are root, stem, leaves, flowers, fruits, seeds and bark. It is noted that the rural as well as the populations residing in the vicinity of the forest are dependent on these ethno-medicinal plants for the preliminary treatment. The ailment like jaundice is treated by the advice or under the supervision of traditional healers using the ethno-medicinal plants. Shifting of rural populations towards urban areas, lack of communication of the information to the younger generation regarding the ethno-medicinal plants may lead to the loss of the information of these plants. There is threat of loss of some of the plant species, due to lack of the knowledge regarding the plants of ethno-medicinal importance. There is scope for development of new formulations of herbal medicines after further studies.

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