

Ethno-Medicinal Claims of Mhadei Wildlife Sanctuary Area of Goa

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ABSTRACT

An ethno-medico-botanical survey was carried out among the people and local healers of nearby villages of Mhadei wildlife sanctuary area of Goa State in Western Ghats of South India. Ethno-medicinal uses of 16 plant species belongs to 12 families are described under this study. The medicinal plant used by the local healers are arranged alphabetically followed by Botanical Name, Family, Local Name, Sanskrit and English Names, Parts used, Method of preparations, Route of drug administration, doses and Medicinal uses along with their duration of treatment are presented in this article.

Keywords: *Ethno-botany, Ethno-medicinal claims, Mhadei Wildlife Sanctuary, Medicinal Uses.*

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INTRODUCTION

Plants are used as integral part of healthcare systems like Ayurveda, Siddha and Unani medicine etc. Not only in healthcare system; plants are also use for the preparation of cosmetics and colours. Though the synthetic chemical compounds have replaced Ayurvedic plant products but the safety and efficacy of natural product could not find suitable substitute or match [1]. Plant based medicines are in practice since ancient time all over the world. Plant drugs are efficacious potent, cheaper, easily available naturally. Believe to be natural means minimum or no side effects and safer in the treatment of several diseases.

Western Ghats of India is ethno-botanically very rich having high diversity of medicinal plants. Goa is one of the very reputed and utmost beautiful State lies in Western Ghats. The State has many hills and sanctuaries and one among them is Mhadei Wildlife Sanctuary belongs to Satterri Taluka of North Goa district of Goa State in Western Ghats of South India. It is located Northern part of the State near the town Valpoi and situated between 15.48⁰ North Latitudes and 74.20⁰ East Longitudes covers an area of 208 sq kilometres. The people and healers of these adjacent villages area are possesses a wealth of knowledge on the utilization and conservation of medicinal plants, their useful parts, compound formulations as well as use of single drug, method of preparations, route of administration, dosage, various uses in common and critical diseases. So to document valuable traditional knowledge on folk claimed uses of plant species an ethno-medico- botanical study was conducted in the study area. The information recorded from the study has been enumerated.

METHODOLOGY

Field survey was carried out in village area of Mhadei wildlife sanctuary during year 2017-18. The ethno-botanical data were collected through interviews, discussion and questionnaires with local healers in and around the study area. The medicinal plants were identified, Photographed and sample specimens were collected for herbarium preparations. Routine method of botanical collection and herbarium techniques had been followed in the study [2, 3]. The prepared herbarium specimens were deposited at Research and Utilization division of Forest Department, Government of Goa.

RESULT

The recorded plants are arranged alphabetically by Botanical Name, Family, Local Name, Sanskrit Name, English Name and ethno-medicinal uses are given below-

- 1) *Anisomeles malabarica R.Br.* (Lamiaceae)
Local Name :-Kalothumba .
Sanskrit Name: - Vaikuntha .
English Name: - Malabar catmint.

Uses-

- a. Scorpion sting: Local application of leaves juice subside the burning sensation & pain due to scorpion sting.
- b. Dentition Problems: Leaves juice 5 – 10 ml given orally in case of colic pain, fever and dyspepsia occurs in the children at the time of dentition.

2) *Butea monosperma* (Lam.) Kuntze. Syn:-*B. frondosa* Koenig & Roxb.(Fabaceae)

Local Name :-Palas, khakaro palas .

Sanskrit Name: - Palasha.

English Name: - Flame of the forest, Bastard teak.

Uses-

Dysentery: Oral administration of 5 grams flower & seed paste with water taken for 2-3days.

3) *Croton oblongifolius* Roxb.(Euphorbiaceae)

Local Name :-Ghansurang , Gansari.

Sanskrit Name: - Nagadanti.

Uses-

- a. Constipation: Roots paste 2 teaspoonfuls with half glass of water taken orally at bedtime produce purgation.
- b. Snake bite: Root paste orally is claimed to be beneficial effect on snake bite.

4) *Glycosmis pentaphylla* Correa. Syn:- *G.cochinchinensis* Pierra. (Rutaceae)

Local Name :-Kirmira , Menki.

Sanskrit Name: - Ashwa shakhota.

Uses-

Fever: Leaf juice 20ml along with Black pepper powder (*Piper nigrum*) 1 – 2 grams given thrice daily in case of fever.

5) *Leea macrophylla* Roxb. ex Hornem.(Leeaceae)

Local Name :-Dinda,Jino.

Sanskrit Name: - Hastikarna palasha, Dhola Samundrika.

Uses-

For sexual disorders and debility in man: Root paste taken internally once daily for 5-7days cures sexual problems.

6) *Naregamia alata* W & A.(Meliaceae.)

Local Name:- Bhui naringa , Pitmaada

Sanskrit Name: - Kandalu.

English Name: - Goanese or Country ipecacuanha.

Uses-

Itching scalp: Leaf paste applied locally on scalp and juice of leaves 15 – 20ml orally for 3 – 5 days for itching in scalp.

7) *Achyranthes aspera* Linn(Amaranthaceae)

Local Name:-Aghado.

Sanskrit Name: - Apamarga.

English Name: - Prickly chaff flower.

Uses-

Diarrhoea: 25ml of root decoction added with 3-5 black pepper powder given orally.

8) *Calotropis gigantea* (Linn)R. Br.(Asclepiadaceae.)

Local Name:- Rui, Madar,Dhavi-rui.

Sanskrit Name: - Arka

English Name: - Mudar ,Giant milk- weed.

Uses-

- a. Snake bite: Latex applied externally on snake bite and Scorpion sting.
- b. Pain & Swelling of knee joint ; Local application of root and dry ginger paste made with cow butter milk applied locally to subside Pain & Swelling of knee joint.

9) *Celastrus paniculatus* Wild .(Celastraceae)

Local Name:-Kanguni, Malkamgoni
Sanskrit Name: - Jyotismati.
English Name:-Climbing staff plant, Intellect tree,
Uses-

- a. Eczema and itching: Jyotishmati oil applied externally in eczema and itching.
- b. Body pain: Root paste is applied externally on whole body once a day for 7days to relieve body pain.

10) *Hemidesmus indicus* Linn. R. BR.(Asclepiadaceae)

Local Name-Uparsal
Sanskrit Name- Sariva
English Name- Indian sarsaparilla
Uses-

Mouth ulcer: Paste prepared from root is applied locally on oral cavity twice daily for four days to get relief from mouth ulcer.

11) *Holarrhena antidysenterica* Wall.Ex DC.(Apocynaceae)

Local Name-Kuda, Kodaga
Sanskrit Name- Kutaja
English Name-Easter tree
Uses-

Worm infestation: Root juice 5ml given orally to children for worm infestation.

12) *Leucas cephalotus* Spreng (Lamiaceae)

Local Name-Tumbo
Sanskrit Name- Dronapushpi
Uses:

Increase quantity of breast milk: Leaves eaten as vegetables by lactating mothers to increase the quantity of breast milk .

13) *Moringa oleifera* Lamk (Moringaceae)

Local Name- Shevga, Noshing
Sanskrit Name- Shigru
English Name-Horse reddish, Drumstick tree.
Uses:

Eczema: Dried stem bark rubbed on a stone with adding few drops of water thus the paste obtained is to mix with coconut oil and applied on eczema.

14) *Sterculia urens* Roxib. (Sterculiaceae)

Local Name- Kadayo, Pandruk
Sanskrit Name- Kateera
English Name-Karaya gum
Uses:

Dysentery: Karaya gum 5 grams soaked in water and given orally beneficial in dysentery.

15) *Bryophyllum pinnatum* Kurz.

Syn- *B.calycinum* Salisb. ,*Kalanchoe pinnata* Pers.(Crassulaceae)
Local Name- Panphuti
Sanskrit Name- Parnabija
Uses-

- a. Hotness at scalp: Put paste of leaf locally on scalp gives coolness.
- b. Dysentery: 2-3 leaves paste with black pepper powder mixed and make paste given orally 2-3 times daily for 2-3days cures dysentery.

16) *Thespesia populnea* Linn Soland ex corr. (Malvaceae)

Local Name-Bhendi
Sanskrit Name-Parisha
English Name- Tulip tree
Uses

- Dysentery: Root decoction 30-50 ml given orally twice daily for 2-3 days in dysentery.
- Leucoderma: Seed oil applied locally in leucoderma.
- Hemorrhoids: Decoction of bark 30-50 ml twice daily for 3-5 days given in Hemorrhoids.

Table –I
Ethno-Medicinal uses of Plants enlisted from Survey area of Mhadei Wildlife Sanctuary

SL No	Botanical Name	Local Name	Family	Useful Parts	Disease
	<i>Anisomeles malabarica</i> R.Br.	<i>Kalothumbo</i>	Lamiaceae	Leave juice	Scorpion sting, Colic pain. Fever and dyspepsia.
	<i>Butea monosperma</i> (Lam.) Kuntze. Syn:- <i>B. frondosa</i> Koenig & Roxb	<i>Palas, khakaro palas</i>	Fabaceae	Flower & Seed paste	Dysentery
	<i>Croton oblongifolius</i> Roxb	<i>Ghansurang, Gansari</i>	Euphorbiaceae	Root Paste	Constipation & Snake bite
	<i>Glycosmis pentaphylla</i> Correa. Syn:- <i>G.cochinchinensis</i> Pierra.	<i>Kirmira, Menki</i>	Rutaceae	Leaves Juice	Fever
	<i>Leea macrophylla</i> Roxb. ex Hornem	<i>Dinda, Jino</i>	Leeaceae	Root paste	Male sexual debility
	<i>Naregamia alata</i> W & A	<i>Bhui naringa, Pitmada</i>	Meliaceae	Leaves paste	Itching scalp
	<i>Achyranthes aspera</i> Linn	<i>Aghado</i>	Amaranthaceae	Root decoction	Diarrhea
	<i>Calotropis gigantea</i> (Linn)R. Br	<i>Rui, Madar, Dhavi-rui</i>	Asclepiadaceae	Latex	Scorpion sting & snake bite
	<i>Celastrus paniculatus</i> Wild	<i>Kanguni, Malkamgon</i>	Celastraceae	Seed oil, Root paste	Eczema, Itching, Body pain
	<i>Hemidesmus indicus</i> Linn. R. BR	<i>Uparsal</i>	Asclepiadaceae	Root paste	Mouth ulcer
	<i>Holarrhena antidysenterica</i> Wall. Ex DC.	<i>Kuda, Kudaga</i>	Apocynaceae	Root paste	Worm infestation in child
	<i>Leucas cephalotus</i> Spreng	<i>Tumbo</i>	Lamiaceae	Fried leaves	Insufficient breast milk
	<i>Moringa oleifera</i> Lamk.	<i>Shevga, Noshing</i>	Moringaceae	Stem bark	Eczema
	<i>Sterculia urens</i> Roxb.	<i>Kadayo, Pandruk</i>	Sterculiaceae	Gum	Dysentery
	<i>Bryophyllum pinnatum</i> Kurz. Syn- <i>B.calycinum</i> Salisb. , <i>Kalanchoe pinnata</i> Pers	<i>Panphuti</i>	Crassulaceae	Leaves paste	Hotness on scalp, dysentery .
	<i>Thespesia populnea</i> Linn Soland ex corr.	<i>Bhendi</i>	Malvaceae	Seed oil, Root & bark decoction	Leucoderma, dysentery, hemorrhoids.

DISCUSSION

Present survey provide information on therapeutic properties of plant drugs use for common health problems, Recorded 16 species are belongs to 12 families found to be used by local healers traditionally in the treatment of wide range of diseases like Scorpion sting, Colic pain, Fever, Dyspepsia, Dysentery, Constipation, Male sexual debility, Eczema, Body pain, Mouth ulcer, Worm infestation, Hemorrhoids and also in case of insufficient breast milk etc. Most of information about uses is not documented earlier; it was observed that two plants are useful in scorpion sting, two are claimed to be useful in snake bite, three plants in dysentery, two plants are in fever and in skin diseases. Generally they use the plant and plant part either in raw form or by making juice, paste, decoction, fried form for therapeutic application. Decoction was their primary choice in many of medicinal use. In this study it was also observed that some plants use

single and some are use in combination too. The compiled data were compared with available literature in different Western Ghats region of India on Medicinal plants [4-13]. The information gathered from the healers will be helpful to other researcher in the field of Botany, ethno-botany, taxonomy, pharmacology for further advancement in drug research.

CONCLUSION

The study area has great diversity of medicinal plant and the people, healers have rich knowledge of Ethno-medicinal uses found in their surroundings. There is an urgent need to study and document this precious knowledge for the prosperity and posterity of human civilization. Conservation and scientific verification of such medicinal plant require for greater significance. Further studies need to collect information on new species of this area.

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