



Survey on Ethno-medicinal Plants from Ambabarwa Forest, District Buldhana (M.S), India

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ABSTRACT

Ambabarwa forest in Maharashtra is geographically located between 21°13'20.3" North latitudes and 76°38'55.2" East longitudes in the Satpuda ranges. The region is rich in various plants used by the area's residents. Traditional knowledge about the use of ethnomedicinal plants has a significant effect on the health of residents. However, the documentation of the said knowledge is obscure. In present investigation through survey of the Ambabarwa region, along with interviews with the tribal community, about 52 medicinal plant species are listed, which used as remedies against diseases like diabetes, cold cough, Arthritis, fever, leucoderma, etc. Notable plant species in the region are *Butea monosperma*, *Dolichandrone falcata*, *Hemidesmus indicus*, *Pergulariadaemia*, *Argemone mexicana*, *Acorus calamus*, and *Ficus religiosa* etc.

Keywords: Traditional, Ethno-medicinal plants, Ambabarwa forest, Buldhana

INTRODUCTION

Since primitive time a number of Indian medicinal plants have been used worldwide. There are many remarks about the Indian medicinal plants in a number of historical documents. Indian aloe is very widely used in India for cosmetics, medicinal and nutraceutical purposes (Krishnan *et al.*, 2018). Plant resources have been remain an essential part of human society throughout history. The World Health Organization (WHO) estimated that about 80% of the developing world's population use traditional herbal medicines (Aziz *et al.*, 2018).

The Emperor Shen Nung circa 2500 BC written the Chinese book on roots and grasses "Pen T'Sao," treats 365 drugs (dried parts of medicinal plants), many of which are used even today such as *Rheirhisoma*, camphor, *Theae folium*, *Podophyllum*, the great yellow gentian, ginseng, jimson weed, cinnamon bark, and ephedra (Petrovska, 2012).

In India different communities use more than 50% of the plant species of any ecosystem in ethnomedicine and in general over 7500 species are used in primary health care (Pradhan & Badola, 2008).

Nowadays, there has been a tremendous range of interest in the medicinal plants especially those used in Ayurveda and other traditional systems of medicines. Drugs obtained from plant are believed to be much safer and exhibit a remarkable efficacy in the treatment of various illness (Korpenwar, 2012). From the prehistoric times, humans have used natural products, such as plants, animals, microorganisms, and marine organisms, in medicines to alleviate and treat diseases on the basis of fossil records (Yuan *et al.*, 2016).

METHODOLOGY

Study Area:

The present ethno-medicinal study has been carried out in Ambabarwa forest in Buldhana district of Maharashtra which is geographically located between 21°13'20.3" North latitudes and 76°38'55.2" East longitudes in the Satpuda ranges. The study area is surrounded by villages residing ethnic community like Bhil, Bhilala, Nihal, Tadvi Bhil which having source of traditional medicinal knowledge.

Material and methods

During the survey frequent field trips were arranged in order to collect information about ethno medicinal plant species. With purpose to collect information and

record the indigenous practices by local ethnic community. The data was collected using the questionnaire for interview and discussion with local tribes, who are using medicinal plant to cure the various health issues. The interviews were taken with local tribal peoples in different villages individually, out of this the total of 47 informants including 31 men and 16 women were interviewed during survey. The data was confirmed by repeated questions to various respondents.

Collection and identification of ethno-medicinal plants:

During the field visits, the medicinal plants were collected and shade dried. The fully dried specimens were mounted on herbarium sheets in the department of Botany, G. S. Science, Arts and Commerce College, Khamgaon Dist. Buldhana (M.S.). Plants were identified with the help of available literature and Floras (Patil *et al.*, 2011; Cooke, 1958; Naik, 1998; Singh and Karthikeyan, 2000). After correct identification of plant specimen, the specimens were deposited in departmental herbarium.

RESULTS AND DISCUSSION

The investigation data of ethno medicinal plants consist of 49 plant species belonging to 48 genera of 30 families, studied during August 2021 to January 2022. Information regarding their Vernacular Name, scientific name, family, habit, plant part used, method of Consumption, used internal/external, diseases/ailment are listed in table 1.

Table 1: Observation of Ethno-Medicinal Plants and their traditional efficacy to treat various Diseases/Ailment in Ambabarwa Forest.

Sr. No	Scientific Name	Vernacular Name	Habit	Plant Part used	Method of Consumption	Used Internal/ External	Diseases/ Ailment
1	<i>Acorus Calamus</i> (L.), Acoraceae	Vekhand	Herb	Root	Root powder with milk	Internal	Cold, cough
2	<i>Aegle marmelos</i> (L.) Corr., Rutaceae	Bel	Tree	Fruit	Whole fruit	Internal	Stomache
3	<i>Amorphophallus paeoniifolius</i> (den st.) nicolson, Araceae	Shakar kand	Shrub	Rot Bulb	Powder with water	Internal	Knee pain
4	<i>Anacyclus pyrethrum</i> (L.), Asteraceae	Akkalkada	Herb	Root	Root extract	Internal	Weakness
5	<i>Argemone Mexicana</i> (L.), Papaveraceae	Bilayati	Herb	root	Root powder with betel leaf	Internal	Typhoid
6	<i>Boerhavia diffusa</i> (L.), Nyctaginaceae	Punarnava	Herb	Whole plant	Powder with water	Internal	Swelling on liver

7	<i>Butea monosperma</i> (Lamk) Taub., Fabaceae	Palas	Tree	Bark, leaves	extract	Internal	Diabetes
8	<i>Calotropis gigantea</i> (L.), Apocynaceae	Rui	shrub	Flower	Eating of flower	Internal	Woughing cough
9	<i>Carica papaya</i> (L.), Caricaceae	papaya	Tree	Leaves	leaves extract	Internal	Dengue
10	<i>Catharanthus roseus</i> (L.) G. Don. Apocynaceae	Sadaphuli	shrub	Leaves	Leaves extract	External	Black spot on face
11	<i>Cissus quadrangular</i> (L.), Vitaceae	kandvel	Tree	Whole plant	powder with ghee	Internal	Gap in spinal cord
12	<i>Corallocarpusepigaeus</i> , Cucurbitaceae	Mirachikand	Climber	Root Bulb	Powder of Root Bulb in water	Internal	Stomach related problem in animal
13	<i>Curcuma longa</i> (L.), Zingiberaceae	Halad	Herb	Root	Root powder	External	wound healing
14	<i>Datura innoxia</i> (Mill.), Solanaceae	Dhatura	Shrub	Leaves	Paste	External	Tonsils
15	<i>Dolichandrone falcate</i> (Wall. Ex DC.) Seem., Bignoniaceae	Medshingi	Tree	leaves	leaves extract	Internal	Diabetes
16	<i>Echinops echinatus</i> (Roxb.), Asteraceae	Untakatara	Herb	Root	powder with water	Internal	Piles
17	<i>Ficus benghalensis</i> (L.), Moraceae	Wad	Tree	Bark	Powder with water	Internal	Stomach related problem in animal
18	<i>Ficus benghalensis</i> (L.), Moraceae	Wad	Tree	Areal root	Paste	External	wound healing of heel
19	<i>Ficus Religiosa</i> (L.), Moraceae	Pimple	Tree	Leaves	Leaves extract with jiggery and rock salt	Internal	Blood Clot
20	<i>Glycyrrhiza glabra</i> (L.), Fabaceae	Jesthamadh	Herb	stem	powder with water	Internal	Mouth ulcer and cough
21	<i>Hemidesmus indicus</i> (L.), Apocynaceae	Anantmul	Herb	Leaves	Leaves extract with milk	Internal	Jaundice
22	<i>Jasminum Officinale</i> (L.), Oleaceae	Chameli	Shrub	Leaves	Chewing of Leaves	Internal	Mouth Ulcer
23	<i>Justicia adhatoda</i> (L.), Acanthaceae	Adulasa	Shrub	Leaves	Leaves extract	Internal	Cold, cough
24	<i>Kalanchoe pinnata</i> (L.), Crassulaceae	Panfuti	Shrub	Leaves	Leaves extract	Internal	Acidity, kidney stone
25	<i>Limunia acidissima</i> (L.), Rutaceae	Kavath	Tree	Leaves, Fruit	Leaves extract, Fruit	Internal	Dysentery
26	<i>Luffa acutangula</i> (L.), Cucurbitaceae	Dodaka	climber	Leaves	leaves extract	Internal	Jaundice
27	<i>Madhuca longifolia</i> (Koen.) Macbr., apotaceae	Moh	Tree	seed	Seed powder	Internal	Dysentery
28	<i>Mentha arvensis</i> (L.), Lamiaceae	Pudina	Herb	Leaves	Leaves extract	Internal	Digestion, loss of appetite
29	<i>Pongamia pinnata</i> (L.) pierre, Fabaceae	Karanj	Tree	Leaves	Leaves extract	External	Joint pain
30	<i>Moringa oleifera</i> (L.), Moringaceae	Shevga	Tree	Leaves	Leaves extract	Internal	Diabetes
31	<i>Murraya koenigii</i> (L.) Spreng., Rutaceae	Kadipatta	Tree	Leaves	Chewing of leaves	Internal	Diabetics, Cholesterol
32	<i>Ocimum sanctum</i> (L.), Lamiaceae	Tulas	Herb	Leaves	leaves paste	External	Skin disease
33	<i>Pergularia daemia</i> (L.), Apocynaceae	Utaran	Climber	Leaves	Leaves powder in curd	Internal	Jaundice
34	<i>Plumbago zeylanica</i> (L.), Plumbaginaceae	Chitrak	Climber	Root	Root powder in water	Internal	Vitiligo, white spot on skin.

35	<i>Prosopis cineraria</i> (L.), Fabaceae	Sondal	Tree	Leaves	Paste with ghee	External	<i>Herpes zoster</i>
36	<i>Psidium guajava</i> (L.), Myrtaceae	Peru	Tree	Leaves	Chewing of leaves	Internal	thyroid
37	<i>Punica granatum</i> (L.), Lythraceae	Dalimb	shrub	Leaves	Chewing of leaves	Internal	Mouth ulcer
38	<i>Ricinus communis</i> (L.), Euphorbiaceae	Arandi	Tree	Leaves	Leaves extract with milk	Internal	Jaundice
39	<i>Rubia cardipholia</i> (L.), Rubiaceae	Manjisth	Herb	Root	Root paste	External	Acne, Black spot, Pimple
40	<i>Saraca asoca</i> (Roxb.) De Wilde, Fabaceae	Ashok	Tree	Leaves	Leaves extract	Internal	Cancer
41	<i>Scaphium affine</i> (Mast.) pierre, Malvaceae	Niranjan	Tree	Fruit	Overnight soaked in water	Internal	Piles
42	<i>Smilax china</i> (L.), Smilacaceae	Chopchani	Shrub	Leaves, bark, root	Powder with water	Internal	arthritis
43	<i>Solanum nigrum</i> (L.), Solanaceae	Makoe	Herb	Laves	Leaves extract	Internal	weakness
44	<i>Syzygium cumini</i> (L.), Myrtaceae	Jambhul	Tree	Leaves	Leaves extract	Internal	Diabetes
45	<i>Terminalia arjuna</i> (Roxb.), Combretaceae	Arjun	Tree	Bark	Bark paste	External	Wound healing
46	<i>Tinospora cardifolia</i> (L.), Menispermaceae	Gudvel	Climber	Stem	Stem Extract	Internal	Typhoid
47	<i>Vachellia nilotica</i> (L.) Willd, Fabaceae	Teli babhul	Tree	Pod	Pod powder with ghee	Internal	Back pain
48	<i>Vitex negundo</i> (L.), Lamiaceae	Nirgud	shrub	Leaves	Leaves extract	External	Joint pain
49	<i>Withania somnifera</i> (L.), Solanaceae	Ashwagand ha	Herb	Fruit	Whole fruit	Internal	Diabetes
50	<i>Zingiber officinale</i> (Roxb), Zingiberaceae	Adrak	Herb	Root	Bulb Extract	Internal	Cold, cough

CONCLUSION:

The present study concludes that the traditional knowledge and information of ethno-medicinal plant used by the local ethnic and native peoples from Ambabarwa forest for curing various chronic diseases was not yet properly documented. There is, therefore, an urgent need of documentation and conservation by local community, now a day's ethno-medicinal plants are diminishing due to lack of awareness and human activity. It is very essential to collect traditional knowledge and information of ethno-medicine and develop a database for future research and potency to develop novel drugs.

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