

Ethnobotanical survey of medicinal plants in Deori Tehsil, Gondia Dist., MS, India

Shahare Prashant C¹, Baghele Bharatbhushan N² and Rahangdale Megha D³

Assistant Professor, ¹Department of Botany | ²Department of Zoology, D. B. Science College, Gondia, MS, India

³Assistant Professor, Department of Botany, C. J. Patel College, Tirora, MS, India

¹E-mail: pcshahare@gmail.com | ²E-mail: drbaghelebhushandbsc2021@gmail.com | ³E-mail: megha.734@gmail.com

Manuscript Details

Available online on <https://www.irjse.in>
ISSN: 2322-0015

Cite this article as:

Shahare Prashant C, Baghele Bharatbhushan N and Rahangdale Megha D. Ethnobotanical survey of medicinal plants in Deori Tehsil, Gondia Dist., MS, India, *Int. Res. Journal of Science & Engineering*, 2023, Special Issue A13: 51-54.

<https://doi.org/10.5281/zenodo.10516313>

Article published in Special issue of National Conference on "New Frontier of Biological Sciences (NCNFBS-2023) jointly organized by Internal Quality Assurance Cell (IQAC) and Biological Society, Shri. Shivaii Education Society Amravati's Science College, Pawni, Dist. Bhandara, Maharashtra, India, date, April 26, 2023.



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>

ABSTRACT

This ethnobotanical literature survey is part of study in Deori tehsil, Gondia District investigating the herbal treatments used for the local tribal people's health conditions. Deori tehsil is one of the prominently categorized with tribal population in Gondia dist. which includes mostly Gond, Gowari, Halba and Kawar tribes with great records. The traditional healers can be renowned by the community in which they provide women and child health care by using herbs. They have varied knowledge on the use of plants and herbs for medicinal and nutritional purposes. The study was carried out among tribal villages of Deori tehsil from November 2021 to September 2022 were conducted in the study area. Result reveals about 32 medicinal plants used to treat several diseases. In this study total 32 plant species were reported of various families which are commonly used by the tribal people's to cure some common diseases viz. headache, skin diseases, abortion, menstrual trouble, lactation, sterility, urinary troubles, delivery problems, Dysentery, toothache, vomiting and many more. Ethnobotanical information were gathered through group discussions with traditional medical practitioner of the study area.

Keywords: Ethnobotany, Traditional medicine, Medicinal plants.

Introduction

The World Health Organisation (WHO) reported that approximately 80% of the populations of developing countries rely on traditional medicine for primary health care [1]. In India almost 95% of medications are plant-based formulations from the traditional system of Unani, Ayurveda, Homeopathy and Siddha and their associate material largely depended on wild harvested plants [2].

Utmost of the plant's compounds employed in recent medicine were first discovered through Ethno-botanical investigations. Growing world-wide interest in the use of phytopharmaceuticals as complementary or alternative medicine, either to prevent or to ameliorate many diseases, has been noted in recent years. Therefore, documentation of the indigenous knowledge through Ethnobotanical studies is important for both viz, conservation and initialization of biological resources [3]. There are some 130 plants derived compounds which currently used in western medicine and 74% of these have been discovered through follow up research work to verify the authenticity of the information concerning the folk/ethnomedical use of plants [4]. The present study includes the medicinal plants used for tribal people's health conditions and treatment of various diseases.

Methodology

The present study was undertaken in the Deori Tehsil, Gondia district, MH. Deori tehsil (fig.II) is one of the prominently categorized with tribal population in Gondia dist. which includes mostly Gond, Gowari, Halba and Kawar tribes with great numbers.

The ethno-botanical data was collected using questionnaire, interviews and discussions in among local tribal peoples.

Results and Discussion

The study focuses mainly on ethnobotanical plants species reported by the local people in and around the study area for their medicinal uses. Present data is the general result of ethno-botanical survey conducted from November 2021 to September 2022. Result reveals about 32 medicinal plants used to treat several diseases (Table 1). Among which some are promoted by local peoples. The prevalence of the practices of traditional medicine is generally found at the places where the amenities of modern society are not available. Many natural barriers or poor economical contextual force them to depend on herbal healing and forest resources. It is evident that many valuable herbal drugs have been discovered by knowing that particular plant was used by the ancient folk healers for the treatment of some kind of ailment [5]. Similar results are supported by the findings of Binoj Kumar and Balakrishnan, [6] and Kumar & Chaturvedi, [7], Kamble *et. al.* [8].



Fig. 1: Map of Maharashtra state, Gondia Dist. ii. Map of Deori Tehsil, Gondia Dist.

Table 1. Ethno-botanical observations of Some Important Plants from Deori Tehsil of Gondia District. MH

Sr. No.	Botanical Name	Family	Local Name	Plant Part's used	Medicinal Uses Local knowledge
1	<i>Abrus precatorius</i> L.	Fabaceae	Gunj	Root	Abortifacient
2	<i>Achyranthes aspera</i> L.	Amaranthaceae	Kuthri	Leaf and Seeds	Cold and cough
3	<i>Anagallis arvensis</i> L.	Primulaceae	Ran Draksh	Whole Plant	Used as wound healing remedies.
4	<i>Bacopa monnieri</i> (L.)	Scrophularaceae	Bramhi	Whole Plant	Hair growth, good for sleep & shampoos
5	<i>Calotropis gigantiana</i> (L) R Br	Asclepiadaceae	Rui	Latex	Skin diseases
6	<i>Cassia fistula</i> L.	Caesalpiniaceae	Amaltas	Stem & Bark	Headache
7	<i>Catharanthus roseus</i> (L.)	Apocynaceae	Sadafuli	Whole plant	Anti diabetic
8	<i>Centella asiatica</i> (L.)	Apiaceae	Mandukparni	Whole Plant	Wound healing & in stretch marks cream
9	<i>Cissus quadrangularis</i> L.	Vitaceae	Harsankar	Twig	Rheumatic pain
10	<i>Citrullus colocynthis</i> (L)	Cucurbitaceae	Indraban	Fruit, Leaf	Delivery tonic
11	<i>Cyperus rotundus</i>	Cyperaceae	Nagarmotha	Roots	Sun-tanning, astringent & antiinflammatory
12	<i>Datura metel</i> L.	Solanaceae	Dhotra	Root	Pimples, Boils
13	<i>Diospyros melanoxylon</i> Roxb	Ebenaceae	Tendu	Bark, Leaf & Flower	Cures urinary troubles
14	<i>Erythrina variegata</i> L.	Fabaceae	Panjara	Stem bark	Indigestion.
15	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Dudhanali	Leaf	Urinary disorders, itches, gonorrhoea
16	<i>Euphorbia thymifolia</i> L	Euphorbiaceae	Sher	Whole plant	Relieve joint pains, anti-inflammatory agent, applied on bone
17	<i>Evolvulus alsinoides</i> L.	Convolvulaceae	Shanka veli	Whole plant	Hair growth
18	<i>Ficus bengalensis</i>	Moraceae	Vad	Fruit	Wound healing & foot crack

					cream
19	<i>Gloriosa superba</i> L.	Liliaceae	Kal lavi	Roots	Piles
20	<i>Gymnema sylvestre</i> (Retz) R. Br. Ex Schultes.	Asclepiadaceae	Gulvel	Leaf	Anti-diabetics
21	<i>Ipomoea obscura</i> (L) Ker-Gawl	Convolvulaceae	Pingali	Leaf	Anti-hepatic
22	<i>Madhuca indica</i> (Koenig) Macb	Sapotaceae	Mahua	Vegetative bud	Anti dysentrics
23	<i>Murraya koenigii</i> Spreng.	Rutaceae	Kadipatta	Bark	Fever
24	<i>Oxalis corniculata</i> L.	Oxalidaceae	Tipani	Whole plant, Leaf	Piles, Skin diseases
25	<i>Phyla nodiflora</i> (L) Green	Verbenaceae	Gour mundi	Whole plant	Delivery tonic
26	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Awala	Fruit	Used in weakness, cough, control vomiting, removing dandruff
27	<i>Spilanthus calva</i> DC	Asteraceae	Akkalkada	Roots	Cold
28	<i>Terminalia arjuna</i>	Combretaceae	Arjun	Bark	Diuretic, Cardio tonic
29	<i>Terminalia bellerica</i> Roxb.	Combretaceae	Behda	Fruit	Hair tonic & for graying of hairs
30	<i>Terminalia chebula</i> Retz.	Combretaceae	Hirda	Fruits	Cough
31	<i>Tinospora cordifolia</i> (Willd) Hook. f. & Thoms.	Menispermaceae	Gulvel	Whole plant	Vomiting
32	<i>Vitex negundo</i> L.	Verbenaceae	Nirgudi	Roots	Anti-asthematics

Conclusion

In the present study it is observed that the same plants or parts of plants used for different purposes by local tribes. Total 32 plant species observed from 24 families. Ethnobotanical plant parts are used as Cold and cough Anti diabetic, Skin diseases, Headache, Diuretic, Cardio tonic, tea, Hair growth, Anti hepatic, Delivery tonic, cures urinary troubles, Urinary disorders, itches, gonorrhoea, relieve joint pains, anti-inflammatory agent, applied on bone, used in weakness, control vomiting, removing dandruff, Abortifacient, Indigestion, Piles, Fever, Anti dysentrics, Pimples, Boils, Delivery tonic, Anti asthematics and Rheumatic pain. It is thus imperative that modern scientific studies be done on these medicinal plants so that the plants may be used as remedies in a more rational and scientific manner. In this way such ethnobotanical studies empower the transfer of knowledge on plants-based treatment to the future generation.

Conflicts of interest: The authors stated that no conflicts of interest.

References

1. WHO Traditional Medicinal Strategy. World Health Organization, Geneva, 2002, 2002-2005.
2. Satyavati GV, Gupta AK, Tandon N. Medicinal Plants of India. Indian Council of Medical Research, New Delhi, India, 1987. pp. 289-299.
3. Muthu C, Ayyanar M, Raja N, Ignacimuthu S. Medicinal plants used by traditional healers in Kancheepuram district of Tamil Nadu, India. *J. Ethnobiol. Ethnomed.*, 2006, 2: 43.
4. Farnsworth NR. Screening of plants for new medicine. In: Biodiversity. Wilson E. O. (Ed) National Acad. Press. Washington. 1988, 63-97.
5. Ekka RN. and Dixit VK. Ethno-pharmacognostical studies of medicinal plants of Jashpur district, Chattisgarh, *International Journal of Green Pharmacy*, 2007, 1(1): 2-4.
6. Binoj Kumar, MS and Balakrishnan NP. Ethnobotanical studies of the genus *Euphorbia* L. (Euphorbiaceae) *J Econ Taxon Bot. Additional series*, 12, Maheshwari JK (Ed) Ethnobotany in South Asia Scientific Publishers, Jodhpur (India), 1996, 46-49.
7. Phani Kumar and Chaturvedi A. Ethnobotanical Observations of Euphorbiaceae Species from Vidarbha region, Maharashtra, India. *Ethnobotanical Leaflets*, 2010, 14:674-80.
8. Kamble et al. Indigenous Traditional knowledge (ITK) from forest dwellers of Gondia District, Maharashtra. *Journal of Ecobiotechnology*, 2011, 3(10):14-18

Publisher's Note

IRJSE remains neutral with regard to jurisdictional claims in published maps and institutional affiliations