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# Ethnomedicinal Plant Diversity of Gondpipari Tehsil of Chandrapur District, Maharashtra, India

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**ABSTRACT:** The present paper is an attempt to record the available figure of ethnomedicinal plants of Gondpipari tehsil of Chandrapur district Maharashtra, India. Therefore, a qualitative survey was carried out during January 2023 to December 2023 to enlist and document the different ethnomedicinal plant use by the peoples of Gondpipari with their traditional knowledge from several years. Gondpipari is blessed with nature and it is covered with dense forest biodiversity of the plant, But Due to over exploitation and deforestation, there may be chance to extinct several valuable ethnomedicinal plant. In India and world there are several examples of civilization and cultural society where medicinal plants were used for the treatment of several human diseases. Numbers of the plants enlisted in this paper are used for medicinal treatments like *Adhatoda vasica*, *Andrographis paniculata*, *Tridax procumbence*, *Tinospora cordifolia*, *Terminalia Billerica*, *Vitex negundo*, *Bahunia racemosa*, *Butea monosperma* and many more. In the present study of total 51 ethnomedicinal plants were enlisted which are traditionally use by Gondpipari tribal people to cure numbers of disease from several years. Out of the total 51 plants enlisted belongs from different family like Acanthaceae, Asteraceae, Fabaceae, Liliaceae, Cucurbitaceae, Poaceae, Solanaceae, Moraceae, Myrtaceae and others. Basic aim of this study is to provide data of ethnomedicinal plants of the Gondpipari region.

**KEYWORDS:** Ethnomedicinal plants, Biodiversity, Gondpipari, medicinal uses.

## I. INTRODUCTION

Ethnobotany includes the studies of the biological, economic and the cultural interrelationships between human beings and plants, specifically, it is concerned with knowledge about plants and their use by tribal people to cure their health problem (Allen A.C. 2000)[1]. From the prehistoric time, ethnobotany has more and more been recognized discipline which is important which can play a very essential role in the advancement of many aspects of scientific, sociological, and historical studies. Generally, In the locality of tribal people there are generally not more than two or three vaidu which are local practitioners of the traditional medicine are present (M.M. Patel 2016)[18], they are also term as bhagat these local practitioners with their traditional knowledge cure number of diseases by using medicinal plant. In India such practitioner uses 2500 different ethnomedicinal plant for the treatment of several disease, (Pie 2001)[21]. The process include collection, identification, and documentation of ethnomedicinal plants data on biological resources are inevitable steps for bioprospecting and it is very significant in revealing locally available medicinal plant species basically for the identification of medicinal property of crude drugs. From the prehistoric time, the study of traditional knowledge on the ethnomedicinal uses of plants, has revealed many today's important drugs. (Teklehaymanot et.al.,2007)[27]. Worldwide it is observed that about 85%of the traditional ethnomedicines used during the primary symptoms of disease. In India, 2500 plant species belong to 1000 genera are being used in traditional, indigenous systems of medicine of which majority of these plants belongs to higher angiospermic flowering plants of 159 different families. Gondpipari is a Taluka place located in Chandrapur district of Maharashtra State, India. It belongs to Vidarbha region and Nagpur Division. It is located 52 KM towards East from District headquarters Chandrapur. consist of 156 Villages of which Fulora is the smallest Village and Gondpipari is the biggest Village where Numbers of tribals and rural communities live which depend upon traditionally available medicinal plants of their local area for the treatment of their various disease. The knowledge and practice of such type of treatment is transmitted from generation to generation since Vedic time. The present study was carried out to collect precious knowledge of indigenous ethnomedicinal plant used by tribale people, ethnic group mankind of Gondpipari tehsil.

## II. METHODOLOGY

Gondpipari is a taluka place of Chandrapur district of Maharashtra state. It belongs to Vidarbha region and Nagpur division. Rajura, Mul, Kagaznagar and Chandrapur is the nearest cities to Gondpipari. The district Chandrapur is

located in the eastern edge of Maharashtra, bounded by Nagpur, Wardha and Bhandara on the northern side, Yawatmal on the western, Gadchiroli on the eastern and Adilabad of Andhra Pradesh on the southern side. Total area of district is 11.442 sq.km which is 3.73% of total area of state, eastern and western boundaries are well defined by Wainganga and Wardha river. Gondpipari tehsil lies in Chandrapur district located in the eastern edge of Chandrapur, having total area 749.55 sq.km. It is situated near the bank of Pranhita 22.3km apart southeast and Andhari river 11.2km apart northeast. The Gondpipari is situated about 193 metre (646 feet) above sea level, that is elevation is 193 meter or 646 feet and is at 19.67345 North latitude and 79.676 East longitude. Out of total population 89.36% people live in urban area whereas 10.64% live in rural area with population density 106 per sq.km. The traditional knowledge of tribal peoples of ethnomedicinal plants for treating the various diseases was collected from the peoples especially traditional healers called *vaidu* and villagers also from medicinal practitioners. The present survey was done at the Gondpipari region with the regular field visit and group discussion with local peoples from January 2023 to December 2023. Monthly visit and meeting of local and tribal people of villages were carried out for gathering the information about ethnomedicinal plants and documenting their knowledge for future generation. The data on ethnobotany has been identified and confirmed with the help of regional flora and relevant scientific literature (Cooke, T. 1903[3], 1907[4], 1908[5]), Hooke, R.A. 1872-1977[7]), Kumar, et al. 2007[13], Naik, V.N. 1998[15], Sharma, et al. 1996[23], Singh, N.P. and Karthikeyan, S. 2001[24], 2002[25]).

### III. RESULTS AND DISCUSSION

In the present survey an effort has been taken to collect the data of ethnomedicinal plants by the field work which includes field visit and discussion with the local tribal people and villagers of Gondpipari region of Chandrapur district and also documentation of the medicinal plant used by these people for the treatment of various diseases and suffering, which revealed 51 different ethnomedicinal plants belonging to 29 families out of which dominant family includes Fabaceae followed by Apocynaceae, Moraceae, Asteraceae, Poaceae and Asclepiadaceae. The enlisted ethnomedicinal plants were used by the villagers and medical practitioners of the village called *vaidu* from their prehistoric time and the knowledge was transferred from generation to generation about the method of treatment and plant parts to be used to cure various diseases and others suffering includes cut and wound healing. *Vaidu* uses the plant as whole part or used only leaves or root, some time they use it in the different combination with other plants too. The other family includes Acanthaceae, Asteraceae, Asclepiadaceae, Solanaceae, Anacardiaceae, Solanaceae, Sapotaceae, Zingiberaceae, Trapaceae, Verbenaceae, Malvaceae, Lamiaceae, Cucurbitaceae, Oleaceae, Rutaceae, Phyllanthaceae and others. The ethnomedicinal plants recorded during the study were mostly herbaceous species some are trees, shrubs, twiners and few are climbers. In the grass family include *Cymbopogon citratus* which are used in cough and cold. Species like *Andrographis paniculata*, *Tinospora cordifolia*, *Curcuma longa*, *Ocimum sanctum* and others are very effective in fever like malaria and Typhoid. Ethnomedicinal plants like *Momordica charantia*, *Syzygium cumini*, *Catharanthus roseus*, are found to be very effective in the serious disease of urban people like diabetes. The plant like *Tridax procumbens*, *Withania somnifera*, *Psidium guajava*, *Annona squamosa*, *Aloe vera*, *Trapa natans*, *Murraya koenigii* are very effective in digestion issues and weight loss. *Withania somnifera* also has potential to cure problems like impotency and seminal debility diseases and is effective for the treatment of the same (Kambale et al. 2010[10]; Jagtap et al. 2020[9]). whereas plants like *Plumbago zeylanica* and *Pergularia daemia* are useful in menstrual disorder, asthma, blood pressure related problems and also are found to be as antidotes against scorpion and snake bites (Marathe and Deshmukh 2020)[14]. Tribal people of Gondpipari region and the nearby places depend upon the forest products for their livelihood they collect plant products like fruit, honey, gum food products, wood for burning and medicinal plants for treatment of diseases, from prehistoric times local tribal people collect knowledge from their ancestors about the forest environment and nature, they have more advanced and accurate knowledge about the nature, forest ecosystem, ethnomedicinal plants and their sustainable utilisation as compared to urban people or literate persons of cities. There are many researchers who published their research work on ethnomedicinal plants used by tribal people of different regions of Maharashtra as well as in other states of India and world tribal residential places of forest areas. The researchers like Prasad (2009) [22], Iqbal et al., (2010) [8], Ahiein et al. (2011)[2], Halberstein, R.A. 2005[6], Zingare (2012)[30], Zingare et al., (2013)[31], Wadekar et al., (2013)[26], Khonde et al., (2012)[11], Kumar, N. et al. 2012[12], Patil, H.S. and Yadav, S.R. 1991 [16], Parrotta J.A. 2001[17], Parveen et al. 2007[19], Parada et al. 2009[20], Yadav, et al. 2006[28] and Yadav, S.R. and Sardesai, M.M. 2002[29] investigated and worked on ethnomedicinal plants at different districts of Maharashtra and other states of India and World.

TABLE-1 : List of the plants with their botanical name, families, local name, and name of Disease/ medicinal uses.

Sr. no.	Botanical Name of plant	Family	Local Name	Medicinal use/ Diseases
1	<i>Azadiracta indica</i>	Meliaceae	Kadu limb	Antibacterial, Dental disorder, skin diseases.
2	<i>Hemidesmus Indicus</i>	Apocynaceae	Kawalichya mulya	Typhoid. Blood purifier
3	<i>Murraya koenigii</i>	Rutaceae	Godlimb	Stimulant, Digestive
4	<i>Cynodon dactylon</i>	Poaceae	Harari	Astringent
5	<i>Michelia champaca</i>	Magnoliaceae	Champa	Expectorant
6	<i>Pithecellobium dulce</i>	Fabaceae	Vilayati chinch	Antioxidant
7	<i>Pergularia daemia</i>	Asclepiadaceae	utarand	Uterine and menstrual trouble, Asthma
8	<i>Plumbago zeylanica</i>	Plumbaginaceae	Chitrak	Blood pressure, Digestion, Diarrhea.
9	<i>Nyctanthes arbor-tristis</i>	Oleaceae	Parijat	Rheumatism
10	<i>Bauhinia racemosa</i>	Fabaceae	Sona tree	Wound healer
11	<i>Feronia limonia</i>	Rutaceae	Kawath	Uterine problem
12	<i>Cymbopogon citratus</i>	Poaceae	Gawati Chaha	Cough and cold
13	<i>Trapa natans</i>	Trapaceae	Singhada	Dysentery, Diarrhea
14	<i>Diospyros melanoxylon</i>	Ebenaceae	Tembhurni	Cough, Asthma
15	<i>Abrus precatorius</i>	Fabaceae	Gunja	Skin problem, Scorpion bite
16	<i>Annona squamosa</i>	Annonaceae	Sitafal	Weight loss
17	<i>Pongamia pinnata</i>	Fabaceae	Karanj	Healing cuts and wounds
18	<i>Dendrocalamus strictus</i>	Poaceae	Bambo	Tuberculosis, Cough
19	<i>Momordica Charantia</i>	Cucurbitaceae	Karela	Diabetes, Blood purifier
20	<i>Zizyphus sp.</i>	Rhamnaceae	Bor	Digestive, Source of Vit. B
21	<i>Terminalia bellirica</i>	Combretaceae	Baheda	Vomiting
22	<i>Aloe vera</i>	Liliaceae	Korphad	Stomach disorder, skin problem
23	<i>Acacia nilotica</i>	Fabaceae	Babul	Dental issue, toothache
24	<i>Allium sativum</i>	Liliaceae	lasan	Cough cold, anti -inflammatory
25	<i>Ocimum sanctum</i>	Lamiaceae	Tulasi	Fever, cough cold
26	<i>Hibiscus cannabinus</i>	Malvaceae	Ambadi	Sunstroke
27	<i>Vitex negundo</i>	Verbenaceae	Nirgudi	Bone fractur, anti-inflammatory
28	<i>Alstonia scholaris</i>	Apocynaceae	Saptparni	Insect bites and sneak bite
29	<i>Adhatoda vasica</i>	Acanthaceae	Adulsa	Cough cold
30	<i>Andrographis paniculata</i>	Acanthaceae	Bhuinam	Fever, typhoid, malaria
31	<i>Tinospora cordifolia</i>	Menispermaceae	Giloy	Fever, liver disorder
32	<i>Cassia tora</i>	Fabaceae	Tarota	Diabetes, constipation
33	<i>Tamarindus indica</i>	Fabaceae	chinch	Source of vit. B, C, Digestive
34	<i>Mangifera indica</i>	Anacardiaceae	Amba	Diarrhea, Dysentery
35	<i>Withania somnifera</i>	Solanaceae	Ashwagandha	Constipation, nervous breakdown
36	<i>Calotropis procera</i>	Apocynaceae	Rui	Dysentery, skin problem
37	<i>Nerium indicum</i>	Apocynaceae	Kaner	Leprosy, snake bite, ring worm
38	<i>Catharanthus roseus</i>	Apocynaceae	Sadafuli	Diabetes. Cardio tonic, stomachic
39	<i>Tridax procumbence</i>	Asteraceae	Kambbar modi	Dysentery, leucorrhoea
40	<i>Spilanthes paniculata</i>	Asteraceae	Akkarkara	Toothache, headache, throat problem

41	<i>Syzygium cumini</i>	Myrtaceae	Jambul	Diabetes
42	<i>Terminalia arjuna</i>	Combretaceae	Arjun	Urinogenital disorder, cardio tonic
43	<i>Psidium guajava</i>	Myrtaceae	jam	Digestive, mouth problem
44	<i>Tectona grandis</i>	Lamiaceae	Sagwan	Snake bite
45	<i>Ficus religiosa</i>	Moraceae	pipal	Skin diseases
46	<i>Ficus bengalensis</i>	Moraceae	wad	Wound healing, Antidiabetic
47	<i>Mimosa pudica</i>	Fabaceae	lajadu	Stimulant, digestive
48	<i>Butea monosperma</i>	Fabaceae	Palas	Diabetes . stomach ulcer
49	<i>Curcuma longa</i>	Zingiberaceae	Haldi	Antibacterial, skin problem, wound healing
50	<i>Phyllanthus emblica</i>	Phyllanthaceae	Awala	Source of Vit C, digestive, skin and hair tonic
51	<i>Madhuca indica</i>	Sapotaceae	Moha	Wound healing



#### IV. CONCLUSION

The conservation and protection of ethnomedicinal plant are very much essential since numbers of plant species are became under treat and endangered due to over exploitation, commercially harvesting deforestation, overgrazing and urbanisation. Their for the study in the field of ethnobotany is important to make available data of medicinal plant for future generation. The knowledge of ethnomedicinal plant and the traditional method of treatment is significance sinch knowledge and the culture of tribal people are eroding day by day, only few communities and some nongovernmental organisations are taking an effort to conserve it. Hence, the present study was carried out basically to collect data and documentation of medicinal plants which will be beneficial to pharmaceutical industries, medicinal practitioner, ayurvedic medicine industries, researchers, taxonomist, and other people related with plant study. No such study has been carried out at the region of Gondpipari of Chandrapur district and also many places of remote area are untouched in ethnomedicinal research work where the peoples still use medicinal plants to cure various ailment, disease and different suffering related with health, there for the study was carried out for the documentation of ethnomedicinal plant used by of medicinal practitioner of remote area and information will defiantly going to be beneficial to people of India and world.

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