



**Original Article**

**Diversity of Medicinal Plants in and Around Etapalli Forest Range in Gadchiroli District**

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**ABSTRACT**

The present study deals with the diversity of medicinal plants and their use by the tribal people of Etapalli region of District Gadchiroli (M.S.), India. The people from this region with a vast knowledge of diversity and medicinal use of the plants. They use medicinal plants in the treatment of various human diseases. Etapalli is surrounded by dense forest and the people collect the medicinal plant by their traditional knowledge which is used for some common diseases. But due to deforestation, Grazing of animals, loss of biodiversity and indiscriminate exploitation of wild and natural resources many valuable herbs are at the stage of extinction. The present survey was conducted for documented for the diversity of medicinal plants. The present paper describes diversity of 97 different plant species belonging to 47 families.

**Keywords:** Medicinal plants, Diversity, Etapalli Forest.

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**INTRODUCTION**

Medicinal plants have been used by humans since prehistoric times. Exploitation of medicinal and aromatic plants as pharmaceuticals, herbal remedies, flavorings, perfumes and cosmetics, and other natural products has greatly increased globally (Rao and Arora, 2004). Nowadays, medicinal plants play an important role in India, both as preventive and curative measures. The majority of the tribal people in Gadchiroli district use plant-based traditional medicines for healthcare. Modern drugs still contains at least 25% drugs derived from plants and many others which are synthetic analogs built on prototype compounds isolated from plants (De Silva, 1997). Major portion of the study area is covered with forest and the chief vegetation type is dry-deciduous. The study aims to provide a list of plants occurring in Etapalli region of Gadchiroli district of Maharashtra state of India.

## Study Area

The present work was carried with the tribal community of Gond, Madiaya located in villages of Chandanveli, Nagulwadi, Jivangatta, Devda, Titola, Ettapalli, and Manger in district Gadchiroli. This district is situated on the North-Eastern region of the Maharashtra State, India and is well known for dense forest; having State borders of Andhra Pradesh and Chhattisgarh. Naxalite have taken shelter in the dense forest of this district. The Gadchiroli district which covers the total area of about 14412 Sq.Kms. The geographical location of Gadchiroli district is 18.43° to 21.50° N Latitude to 79.45° to 80.53° E Longitude. The District falls under assured and heavy rainfall zone. The rains are mainly received from South-West monsoon. The average rainfall is 1562mm. The climatic condition is extreme with temperature reaching 47.3°C in summer & 9.4°C in winter. Forests are rich in Teak, Ail, Tendoo, Dhavada, Anjan, etc. Ail and Anjan are suitable for rearing Tussar silk worms. Similarly good quality bamboo is abundantly available. From the socio-culture point of view the Gadchiroli district exhibit great ethnic and cultural diversity.

## METHODOLOGY

Field survey was conducted from October 2013 to July 2014. During the first contact with the local population I have identified the peoples with specialized knowledge of ethnomedicinal use of plants. Then I visited frequently to the forest of the study area along with some villagers who helped us to search the plants those are familiar with their uses especially for the medicinal value. They were also asked regarding detailed information about mode of preparation and blending of medicinal plants and their use as ingredients and were also asked about proper dose and length of medication. The name of plant and other information were documented. Since this kind of information indicates how a given medicine can be therapeutically efficient in terms of the right ingredients, the proper dose and right length of medication. According to them their knowledge of folk medicine was acquired mainly through parental heritage and experience about medicinal value of plant to heal themselves. The scientific name and species were identified using relevant and standard literature (Ugumge, 1985).

## Observation

A total of 97 medicinal plant species, belonging to 47 families were reported by Gond and Madiya communities for the treatment of different types of health problems (Table 1).

## DISCUSSION

The present study was design to investigate diversity of plants identified by local and tribal peoples of villages for their medicinal values. The family Fabaceae was represented by the highest number of species (9) followed by Moraceae (06 species), Euphorbiaceae and Mimosaceae (05 species), Anacardiaceae and Combretaceae (04 species), Acanthaceae Liliaceae Lamiaceae Rubiaceae, Apocynaceae (each 3 spp) and Malvaceae, Meliaceae, Malvaceae, Meliaceae, Rutaceae, Asteraceae, Poaceae, Cochlospermaceae, Cucurbitaceae, Oxalidaceae and Dioscoreaceae (2 spp each) and remaining families represent the single species. The local people and the tribal villagers are using these plants to cure many diseases like Wound healing, Cough, Diarrhea, Jaundice, Fever, Dysentery, Vomiting, Skin diseases, Fatigue, Blood purifier, Urinogenital disorder, Toothache, Hypertension, Headache etc. They also prepare plant product for the oral treatment and ointment etc. The part use of medicinal plant for treatment purposes are root, stem, leaves, fruits or whole plant use as a medicine. The extracts and the paste are the two main methods for treatments of diseases.

Many researcher works on medicinal plants in India and Maharashtra. Ahmed and Ahir *et al.*, (2011), Borkar *et al.*, (2012); Zingare (2012); Gedam (2012); Khonde *et al.*, (2012); Dhore *et al.*, (2012); Zingare *et al.*, (2013); Shirame and Hiwale (2013); Watile (2013);

Wadekar *et al.*, (2013); Ghoshal and Saoji, (2013); Puranik, (2013); Gond, (2013) and Pocchi, (2013).

**Table 1: medicinal plant species**

Sr. No	Family	Botanical name	Local name	Sr. No	Family	Botanical name	Local name
1	Tiliaceae	<i>Grewia hirsute</i>	Ghoturli			<i>Adathoa vasica</i>	Adulsa
2	Hypoxitaceae	<i>Curculigo orchiodes</i>	Kali-musli	8	Acanthaceae	<i>Justica betonica</i>	Tellaranthu
		<i>Cassia tora</i>	Tarota			<i>Hygrophila auriculata</i>	Untskatra
		<i>Pithocellobium dulce</i>	Chich bilai	9	Verbanaceae	<i>Vitex nigunda</i>	Nirgudi
		<i>Butea monosperma</i>	Palas	10	Rhamnaceae	<i>Zizyphus sp.</i>	Bor
		<i>Acacia nilotica</i>	Babul	11	Apocynaceae	<i>Vinca rosea</i>	Sadafuli
3	Fabaceae	<i>Pongamia pinnata</i>	Karanj			<i>Catharanthus roseus</i>	Jaganthi
		<i>Abrus precatorius</i>	Gunja			<i>Alstoea scholaris</i>	Saptarni
		<i>Butea superb</i>	Monthu fool	12	Combretaceae	<i>Terminalia bellirica</i>	Behada
		<i>Tephrosia purpurea</i>	Tagrse fool			<i>Terminalia arjuna</i>	Arjun
		<i>Mucuna pruriens</i>	Kachkur			<i>Anogeissus latifolia</i>	Dhawda
		<i>Ficus racemosa</i>	Umbar			<i>Terminalia chebula</i>	Hirda
4	Moraceae	<i>Feronia limonia</i>	Kawath	13	Asteraceae	<i>Chrysanthemum indicum</i>	Sevanthi
		<i>Ficus bengalensis</i>	Wad			<i>Tridax procumbens</i>	Kambarmodi
		<i>Ficus religiosa</i>	Pipal	14	Ebenaceae	<i>Diospyros melanoxylon</i>	Tendu
		<i>Ficus cunia</i>	Disak marha	15	Myrtaaceae	<i>Syzygium cumini</i>	Jambul
		<i>Ficus lacour</i>	Parad			<i>Cymbopogon citrates</i>	Gawti chaha
		<i>Phyllanthus emblica</i>	Awala	16	Poaceae	<i>Cyanodon dactylon</i>	Harari
5	Euphorbiaceae	<i>Euphorbia geniculata</i>	Bada dudhi			<i>Acacia leucophloea</i>	Hivar
		<i>Ricinus communis</i>	Yerandi			<i>Acacia catechu</i>	Khair
		<i>Jatropha gossypifolia</i>	Chandra jyoti	17	Mimosaceae	<i>Mimosa pudica</i>	Lajadu
		<i>Phyllanthus virgatus</i>	Dudhi			<i>xylia xylocarpa</i>	Surya
		<i>Semicarpus anacardium</i>	Biba			<i>Pithecellobium dulce</i>	Chich bilai
6	Anacardiaceae	<i>Mangifera indica</i>	Amba	18	Cochlospermaceae	<i>Flacurtai indica</i>	Kakai
		<i>Buchnanian lanzan</i>	Char			<i>Cochlospermum religiosum</i>	Gumgum
		<i>Semecarpus anacardium</i>	Jid cettu	19	Pinicaceae	<i>Punica granatum</i>	Darimb
7	Malvaceae	<i>Hibiscus cannabinus</i>	Aambadi	20	Zinziberaceae	<i>Curcuma longa</i>	Haldi
		<i>Sida cordata</i>	Bhui-chikna	21	Caesalpiniaceae	<i>Tamarandus indica</i>	Chinch
				22	Gamineae	<i>Dendrocalamus Strictus</i>	Bambu

Sr. No	Family	Botanical name	Local name	Sr. No	Family	Botanical name	Local name
23	Cucurbitaceae	<i>Momordica charantia</i>	Karella	33	Balanitaceae	<i>Balanites aegyptica</i>	Hingna
		<i>Citrullus colocynthis</i>	Indryan	34	Magnoliaceae	<i>Michelia champaca</i>	Chamapa
24	Aloeaceae	<i>Aloe barbadensis</i>	Korphad	35	Apocyanaceae	<i>Alstoea scholaris</i>	Saptarni
25	Papaveraceae	<i>Argemone Mexicana</i>	Dhatura	36	Rubiaceae	<i>Manilkara hexandra</i>	Khirani
26	Menispermaceae	<i>Tinospora cordifolia</i>	Gulvel			<i>Gardenia resinifera</i>	Dinkamali
		<i>Cocculus hirsutus</i>	Vasanbel			<i>Gardenia Gummifera</i>	Vidgu
27	Sapotaceae	<i>Madhuca indica</i>	Moha	37	Oleaceae	<i>Nyctanthes arboritristis</i>	Parijat
28	Leguminosae	<i>Bahunia racemosa</i>	Apta	38	Sterculiaceae	<i>Helicteris isora</i>	Murad-seng
29	Liliaceae	<i>Allium sativum</i>	Lasun	39	Oxalidaceae	<i>Oxalic curniculata</i>	Tipani
		<i>Gloriosa superba</i>	Karkari			<i>Biophytam sensitivum</i>	Lajari
		<i>Scilla hycinthiana</i>	Dhor kanda	40	Taccaceae	<i>Takka leontopataloid s</i>	Dhor-kanda
30	Arecaceae	<i>Phoenix sylvestris</i>	Sindhi	41	Periplocaceae	<i>Hemidesmus indicus</i>	Khobar-bel
31	Lamiaceae	<i>Ocimum sanctum</i>	Tulasi	42	Menispermaceae	<i>Cocclevis hirsutus</i>	Vasan-vel
		<i>Lenotis nepetifolia</i>	Bahikusjyar	43	Dioscoreaceae	<i>Dioscorea bulbifera</i>	Ran-mataru
		<i>Leucas aspera</i>	Guma			<i>Dioscorea hispida</i>	Tikhoor kanda
32	Bambaceae	<i>Bombex ceiba</i>	Kate-savar	44	Celasteraceae	<i>Celastrus paniculata</i>	Dhimarwel
				45	Capparidiaceae	<i>Capparis zeylanica</i>	Waghata

## CONCLUSION

Agricultural land expansion and a lack of cultivation practices limit the availability of medicinal plant resources in the area. Urgent action is required towards conservation (both ex-situ and in-situ combined) of medicinal plants and traditional knowledge before we lose them in the near future. Moreover, land use planning and development plan should also consider strategies that stimulate medicinal plant availability in the landscape and work towards increasing their cultivation to complement expand in-situ conservation efforts.

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