

TRIBAL ETHNOMEDICINAL STUDIES ON WARORA TAHSIL OF CHANDRAPUR DISTRICT, MAHARASHTRA STATE

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Abstract : An aboriginal tribe Adivasi called Mana, Gond and Pardhan dwells in Warora taluka of Chandrapur district. In spite of the community being drifted from their natural way of life due to agro-rural development activities, a few aged tribal men are still able to furnish traditional ethno-medicinal data. So far no ethno-botanical studies are conducted in this area. Therefore a detailed study on tribal medicine in this area is undertaken. During this work 23 species are collected having remedial effect belonging to 17 families of dicotyledons and monocotyledons were documented. The family Cucurbitaceae is dominant family with three species followed by Family Caesalpiniaceae, Verbenaceae and Convolvulaceae with two species each, family Simourobaceae, Moraceae, Fabaceae, Euphorbiaceae, Cochlospermaceae, Menispermaceae, Sapotaceae, Meliaceae, Balanitaceae, Araceae, Bombacaceae, Anacardiaceae, and Asclepiadaceae represented by one species each. The analysis of plant parts used for treatment reveals that leaves and roots of 08 Plants were used followed by stem and bark of 07 plants, seeds of 05 plants, fruits of 04 plants, flowers of 3 plants, entire plant of 2 and gums of 2 plants and corm and latex of one plant each were employed by tribals of Warora tahsil of Chandrapur district.

IndexTerms - remedies, ethnomedicinal, families, tribals

I. INTRODUCTION

Ethnobotany has emerged as an important branch of study which focuses on the utility of different plant species and their properties as food, medicine and for other uses (Allen *et al.*, 1990, Cotton, 1997). Plants are the great source of medicine especially in traditional medicine, which were useful in the treatment of various diseases (Bako, *et al.*, 2005). The use of plant species of the Himalaya, as medicine has been known for long time and about 1748 medicinal plants were reported from Indian Himalaya (Samant *et al.*, 1998).

Harney, N.V. (2013) reported ethnomedicinal plant diversity of Bhadrawati tahsil of Chandrapur district in which he reported 62 plant species. Bodele, S.K., *et al.*, (2015) reported 49 plant species belonging to 49 genera and 30 families from Chimur tahsil of Chandrapur district. Harney N. V. (2015) reported ethnomedicinally important 62 plant species of Mohar village of Chandrapur district. Reddy M.B. (2012) reported 61 wild edible plants of Chandrapur district.

Phani Kumar, G. *et al.*, (2010) reported ethnobotanical observations of Euphorbiaceae species from Vidarbha region of Maharashtra state. Acharya, R.M., (1985) reported the medicinal plants which was used for primary health care in rural areas in Wardha district. Shende, *et al.*, (2012) investigated the ethnobotanical importance of 108 plants of Hinganghat tahsil. Rajurkar, *et al.*, (2013) also studied the 14 ethnogynecological plants from Samudrapur tahsil of Wardha district. Mhaiskar, *et al.*, (2014) was reported the 20 plants with respect to rarely used vegetables and their medicinal uses against the different diseases from Hinganghat tahsil of Wardha district. Dube, (2015) had investigated the plants used against Jaundice were 23 and 52 plants against the Dysentery. Ramteke, *et al.*, (2016) had studied some medicinal woody dicots of Wardha district and Shende, *et al.*, (2015) had documented 35 plants species employed by tribals of Wardha district for remedy of rheumatism and diseases related with muscular disorders. Tiwari, V.J. (2016) reported the ethnopharmacological survey of Gond Tribe of Gondia district of Maharashtra State and reveals that seeds of *Trichosanthes cucumerina* var. *cucumerina* (TCC) are used to cure tonsillitis and fever. Tiwari, V.J. (2017) reported the ethnopharmacological study of Madia-Gond Tribe of Gadchiroli district of Maharashtra State reveals that fourteen ethnomedicinal plants are used to cure various ailments. Tiwari, V.J. (2017) reported the ethnopharmacological study of Baiga Tribe of Madhya Pradesh reveals that *Flacourtia indica* syn. *F. ramontchi* fruit is used to cure liver disorders and its bark is used to cure malarial fever.

Warora tahsil in Chandrapur District of Maharashtra State is sandwiched between Samudrapur tahsil of Wardha District in the west and Bhadrawati and Chimur tahsil of Chandrapur District in the east. Warora is on Chennai-new Delhi trunk line. In Warora tahsil, each village is located with 2 to 3 a family belongs to adivasi community. Some of the villages like Kokewada, and Borgaon (Bhosale) showing dominant inhabitant belong to Mana community. An aboriginal tribe called Adivasi dwells in taluka. In spite of the community being drifted from the natural way of life due to agro-rural development activities a few aged tribal men are still able to furnish traditional ethno-medicinal data.

Demographics of Warora Tahsil:

Marathi is the Local Language here. Also People Speaks Hindi, and English. Total population of Warora Taluka is 165,843 living in 36,794 Houses, Spread across total 168 villages and 82 panchayats. Males are 85,622 and Females are 80,221. Total 41,971 person's lives in town and 123,872 lives in Rural. Warora. Total Adivasi population of tahsil is 56903 of which Schedule castes (SC) are 14994 and Schedule tribes are (ST) 34486. The % of SC is 9.04 and % of ST is 20.79 of total population.



1 Map of Chandrapur District

Figure:

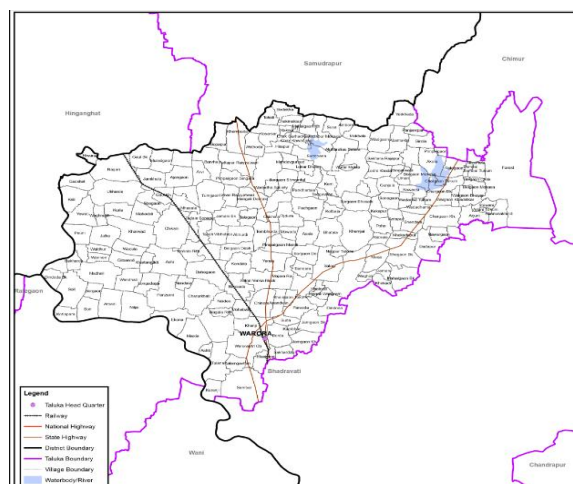


Figure: 2 Map of Warora Taluka

II. MATERIALS AND METHODS

The Survey of different localities of Warora tahsil was conducted during January 2016 to December 2017 at regular intervals and information of the plants regarding their medicinal uses were recorded from 'Vaidus' (medicine-man), elderly person, shepherds, and the uses of plants in specific rituals and the custom traditions were noted as per the methodology suggested by Lipp, (1989). Regular periodical field work is conducted covering all the seasons so as not to miss seasonal elements having pharmaceutical value and collected a large number of specimens. Ample field notes recorded pertaining to frequency, abundance, edaphic and morphological characters. Local tribal men are contacted to record data related to medicinal uses, drug preparation and mode of administration etc. After identification, samples are properly processed, mounted on herbarium boards and deposited in herbarium of R. S. Bidkar College, Hinganghat. The collected plants were identified with the help of flora of Nagpur district (Ugemuge, 1986), flora of Maharashtra (Almeda, 1996).

III. OBSERVATIONS

Table: 1 Details of medicinal use of plant parts.

Sr. No.	Part used	Number of Plants
1	Leaves	08
2	Roots	08
3	Stem and bark	07
4	Seeds	05
5	Fruits	04
6	Flowers	03
7	Entire plant	02
8	Gums	02
9	Corn	01
10	Latex	01

Table: 2 Enumeration of data collected

Coll.No	Botanical Name	Family	Vern Name	Habit	Parts used	Method
01.	* <i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Maharukh	Trees	Stem bark	Stem bark warmed and applied to give relief from rheumatic complaints.
02.	<i>Caesalpinia bonduc</i> (L.) Roxb.	Caesalpiniaceae	Gargoti	Trees,	Seeds	The seeds are used in the form of powder and paste to treat pain, indigestion, dysentery, piles, worms, cough, diabetes and skin diseases.
03	* <i>Citrullus colocynthis</i> (L.) Schrader	Cucurbitaceae	Indravan	Herb.	Root and fruits	The root and fruits of Indravan is used in the form of powder to treat jaundice, scrotal enlargement, warts, alopecia, arthritis, amenorrhoea,, inducing abortion, inducing vagina secretion, roots made into powder and mixed with jaggery is useful in jaundice: The root should be mixed with pippali (<i>Piper longum</i>) and jaggery and taken for arthritis.
04	* <i>Clerodendrum phlomidis</i> (Linn) L. F.	Verbenaceae	Takal	Shrub	Leaves	Warmed leaves applied for relief from rheumatic and filarial swellings.
05	* <i>Coccinia grandis</i> (L.) Voigt	<i>Cucurbitaceae</i>	Tondali	Climber	Root tubers	Root tubers well ground and juice (Milk) warmed with <i>Foeniculum vulgare</i> and it is applied for curing rheumatic pains.
06	* <i>Delonix elata</i> (L.) Gamble	Caesalpiniaceae	Sankesura	Trees	Leaves	Leaves warmed with pepper, grind to prepare pills taken inside to give relief from rheumatic swellings.
07	* <i>Ficus bengalensis</i> L.	Moraceae	Wad	Tree	Latex	Latex applied to give relief from joint pains and muscular pains.
08	* <i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Karanji	Trees,	Leaves	Decoction of karanji, nimba (<i>azadirachta indica</i>) and nirgundi (<i>Vitex negundo</i>) kalka cleans and heals wound Abscess. The seeds of karanji, after removing the outer layer, are powdered, impregnated with the juice of snuhi leaves and dried in the sun. Oil extracted from this is used externally as well as internally. It destroys abscess, both internal and external Kustha and worms In leprotic wounds, oil of karanji or mustard should be applied Poultice of leaves applied to give relief from rheumatic arthritis.
09	* <i>Ricinus communis</i> L.	Euphorbiaceae	Erاند	Shrub	Seeds	Paste of seeds applied in curing joint-swellings and in rheumatic arthritis.
10	* <i>Trichosanthes cucumerina</i> L.	Cucurbitaceae	Ranpadval	Climber.	Root tuber	Root tuber grind well and juice is mixed with <i>Foeniculum vulgare</i> powder warmed and made in to paste. It is applied 2-3 days for cure on joint swellings.
11	* <i>Vitex negundo</i> L.	Verbenaceae	Nirgudi	Shrub	Root and leaves	Root and leaves warmed and applied to cure joint swellings and in rheumatic pains.
12	<i>Cochlospermum religiosum</i> (L.) Alston	Cochlospermaceae	Gongal	Tree	Leaves, flowers and gum	The leaves, flowers and gum of Gongal is used to treat cough, diarrhoea, dysentery, pharyngitis, gonorrhoea, Jaundice and syphilis.
13	<i>Tinospora cordifolia</i> (Willd.)	Menispermaceae	Gulwel	Climber	Stem, root and leaf	The stem, root and leaf is used in the form of juice and decoction to treat fever, irregular fever, chronic fever,

	Hook.F. & Thoms.					jaundice, thirst vomiting, arthritis, skin diseases, cough, as rejuvenative for purifying breast-milk, eye diseases.
14	<i>Madhuca indica</i> Gmel.	Sapotaceae	Moh	Tree	Flowers, bark and fruit	The Flowers, bark and fruit is used in the form of juice and decoction to treat intrinsic haemorrhage, sprue, thirst, eczema, cyst, fracture, eye diseases, diseases pertaining to head, hiccough, vomiting, scrofula, ear diseases, poisoning and as tonic.
15	<i>Melia azedarach</i> L.	Meliaceae	Bakneem	Tree	Root and Bark	Root and Bark is used traditionally to treat various ailments such as piles, mouth ulcer, skin problems, dandruff, gout, inflammation etc. The root and the bark are used as an anthelmintic, vermifuge, cathartic, emetic and for intermittent fevers and dysentery.
16	<i>Balanites aegyptiaca</i> (L.) Delile	Balanitaceae	Hingan	Tree	Fruit, Stem bark and Seed oil	Fruit, Stem bark and Seed oil are used for treating intestinal worm infections, leucoderma and psychiatric disorders
17	<i>Amorphophallus bulbifer</i> Blume	Araceae	Suran	Herb	Corm	A gel prepared from the flour has been used for detoxification, tumour-suppression, blood stasis alleviation and phlegm liquefaction and also for the treatment of asthma, cough, hernia, breast pain, burns.
18	<i>Bombax ceiba</i> L.	Bombacaceae	Katsawar	Tree	Root, gum, bark, leaves, flowers, fruit and seeds.	The root, gum, bark, leaves, flowers, young fruit and seeds is used to treat dysentery, haemoptysis of pulmonary tuberculosis, influenza, menorrhagia, burning sensation, strangury, blood impurities, skin eruptions, splenomegaly, chronic inflammations, ulcers, gonorrhoea and for restoring skin colour.
19	<i>Buchanania lanzan</i> Spr	Anacardiaceae	Charoli	Tree	Bark and seeds.	The seed kernel and bark is used in the form of decoction to treat intrinsic haemorrhage, diarrhoea with blood and as tonic to Grown up child who has left the breast-milk should be given sweet bolus prepared of Charoli (kernels), madhuka, (<i>Glycyrrhiza glabra</i>) honey, parched paddy and sugar candy. It acts as saturating and tonic. Kernels of the Charoli made into a powder and used with milk as an aphrodisiac, in case of fever and burning sensation. dysentery: powder of the bark mixed with honey is useful in dysentery with blood.
20	<i>Gymnema sylvestre</i> R.Br.	Asclepiadaceae	Gulmar	Climber	The leaves and root	The leaves and root is used in the form of powder, paste and decoction to treat inflammation of glands, enlargement of spleen, indigestion, constipation, jaundice, piles, sinusitis, cough, respiratory diseases, feeling of heaviness in head, urinary stone, malarial fevers. Powder of the

						leaves is used in diabetes.
21	<i>Cuscuta chinensis</i> Lam	Convolvulaceae	Amarbel	Climber	Entire plant and seeds	<i>Cuscuta</i> plant is used for treating constipation, liver, spleen diseases, diarrhoea, inflammation etc. It is used in producing traditional medicines for the treatment of headache, labour pain, bone fracture, fever, and rheumatism. It is commonly used as an anti-aging agent, anti-inflammatory agent, pain reliever and aphrodisiac or sexual enhancer.
22	<i>Evolvulus alsinoides</i> L.	Convolvulaceae	Vishnukranta/ Shankhapushpi	Herb	Entire plant	Plant is used to treat mental disorders, nervous weakness, insomnia, fever, cough, asthma and skin diseases. It helps is a general tonic and gives good health
23	<i>Asteracantha longifolia</i> (L.) Nees	Acanthaceae	Talimkhana	Herb	Whole plant	Treatment of general debility, jaundice, distention of abdomen, swelling, difficulty in urination, impotency, diuretic and aphrodisiac. It is beneficial against glucose disturbances (Diabetes) and against liver problems.

IV. RESULTS AND DISCUSSION

During this work 23 species are collected having remedial effect belonging to 17 families of dicotyledons and monocotyledons were documented. The family Cucurbitaceae is dominant family with three species followed by Family Caesalpiniaceae, Verbenaceae and Convolvulaceae with two species each, family Simouroubaceae, Moraceae, Fabaceae, Euphorbiaceae, Cochlospermaceae, Menispermaceae, Sapotaceae, Meliaceae, Balanitaceae, Araceae, Bombacaceae, Anacardiaceae, and Asclepiadaceae represented by one species each (Table: 2).

The analysis of plant parts used for treatment reveals that leaves and roots of 08 Plants were used followed by stem and bark of 07 plants, seeds of 05 plants, fruits of 04 plants, flowers of 3 plants, entire plant of 2 and gums of 2 plants and corm and latex of one plant each were employed by tribals of Warora tahsil of Chandrapur district (Table: 1).

During these studies a good number of ethno-medicinal plants are collected. However in this article 23 species having remedial effect are enumerated due to frequent use of plants by the tribals. Latest name followed by relevant synonyms if any, local name and collection number are given. Habit and ethno-medicinal data are furnished for each species. *Ailanthus excelsa*, and *Caesalpinia bonduc*, are under threatened condition owing to degradation of scrub jungles, removal of countryside natural hedges and implementation of agro-rural development schemes correlated with the report of Bharath Kumar *et al.*, (2010). *Cochlospermum religiosum* (L) Alston of family Cochlospermaceae commonly known as Gongal roots were frequently used and practiced by some traditional healer in this area to cure jaundice correlated with the report of Katrahali, K.S. (2011).

These observations were well supported by the previous studies of Kimiyme *et al.*, (2011) who stated that the plants had a medicinal value and cure diseases. Bhogaonkar *et al.*, (2010) documented 42 plant species belonging to 23 families consumed by the tribal and Dhore *et al.*, (2010) explored 25 wild edible plants species belonging to 15 families. Mali *et al.*, (2006) have reported 20 angiosperm species. Phani, and Ashok Kumar., (2009) reported 25 medicinal plants. Ramteke, *et al.*, (2016) have reported electronic data base of 329 medicinal plants belonging to 76 families used for numerous health ailments from Wardha district.

V. CONCLUSION

A critical study of 23 plants having medicinal properties collected from Warora tahsil revealed that 10 plants represented by asteric (*) *Ailanthus excelsa* Roxb., *Citrullus colocynthis* (L.) Schrader, *Clerodendrum phlomidis* (Linn) L.F., *Coccinia grandis* (L.) Voigt, *Delonix elata* (L.) Gamble, *Ficus bengalensis* L., *Pongamia pinnata* (L.) Pierre, *Ricinus communis* L., *Trichosanthes cucumerina* L., and *Vitex negundo* L. are first hand report as pain killer plants used by local ethnic tribe. In addition to the already known conventional uses for these 10 plants additional pharmaceutical uses as reported by Adivasis also are given. Two species i.e. *Ailanthus excelsa* and *Caesalpinia bondice* are under threatened state (Bharath Kumar *et al.*, 2010). They need to be conserved in this area and propagated for their proper utilization and to prevent further exploitation.

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