STUDY OF ETHNO-MEDICAL PLANTS OF KATEPURNA WILD LIFE SANCTUARY FROM AKOLA AND WASHIM DISTRICTS OF MAHARASTRA

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ABSTRACT

Ethnobotany as an interdisciplinary science and it link, to all plant concern sciences. Ethnobotany has tremendous scope in the world along with India. There are numerous tribes in India used wild medicinal plants to cure their diseases and disorder but yet numbers of traditional medicinal plants are undocumented. Very few universities and research center give attention on ethnobotany. Present study includes 23 species, from 20 genus belonging to 16 Families which are used by locals of Katepurna Wild Life Sanctuary. The present study tried to understand the life style and treatment system of locals in Katepurna region of Vidrbha of Maharashtra.

Introduction

The term ethno-science originated from a combination of ethnology and science. It has been used in different disciplines related to local community based knowledge and practices including ethno-ecology, ethno-botany, ethno-medicine, ethno- pharmacology, ethno-zoology, ethno-agronomy and other related disciplines (Martin, G.J., 1995, Rist, S. and Dahdouh-Guebas F., 2006). ethno-botany is description of the various methods by which local people utilize plants, study of direct interrelations between humans and plants (Bennett, B.C., 2005).

Drugs obtained from plants are believed to be much safer and exhibit a remarkable efficacy in the treatment of various diseases (*Sharma et al*., 2013). The World Health Organization has estimated that 80% of the populations of developing countries being unable to afford pharmaceutical drugs rely on the plant based traditional medicines to sustain their primary health care needs (*Balakrishnan et al*., 2009). The traditional knowledge of the indigenous people not only comprises the information about the food value of the plants, but also their specific medicinal uses (*Leonti et al*.,2003).

After fulfilling the primary needs like food and shelter, man has sought for a suitable remedy among plants for curing various diseases WHO (2002). Traditional medicine is defined as indigenous medicine that is used to maintainhealth and to prevent, diagnose, and treat physical and mental illnesses differently from allopathic medicine based on theories, beliefs, and experiences WHO (2012). According to Sofowora (Sofowora 1982) about 60-85% of the population in every country of the developing world has to rely on traditional medicine.

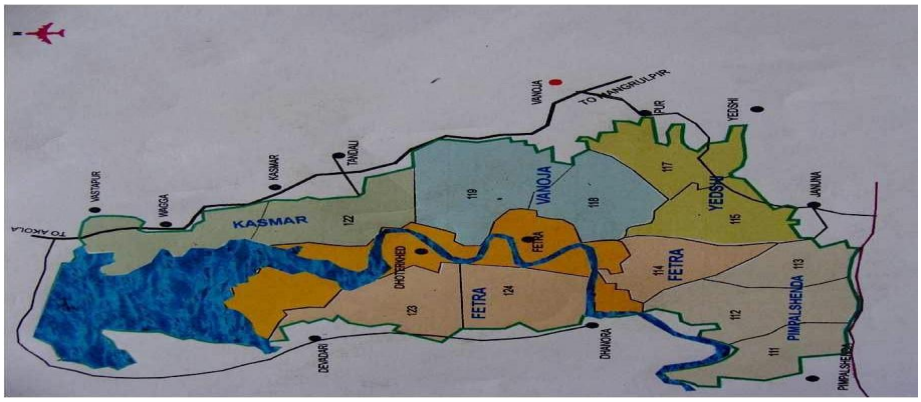
From 1960, Dr. S.K. Jain from BSI started intensive field work among the tribal of Central India. He devised methodology for ethno-botany particularly in the Indian context. The publications from this group in the early sixties triggered the ethno-botanical activity in many other centers, particularly among botanists, anthropologists and medical practitioners in India (Jain, 1997; Pushpangadan, 1986,).

There are many publications reporting ethno-botanical uses of plants by locals such as Gupta et al reported 53 plants

used by tribal from Bhandara district (Gupta *et al* 2009), Somkuwar *et al* reported 121 plants from Sawantwadi region of Maharashtra (Somkuwar *et al* 2012*)*, Survase and Raut reported 50 plants from Marathwada region of Maharashtra (Survase and Raut 2011). This is in accordance with other general observation which has been reported earlier in relation to medicinal plant studies (Kirtikar and Basu, 2001; Gogte, 2000;). Dr S. P. Rothe has reported 24 plant species from 23 families used by locals from katepurna wildlife sanctuary. He also reported 26 medicinally important exotics from Vidarbha region in 2011(Rothe 2003&2011). Total 30 plant species were studied by Dr. D. G. Bhadange. (Bhadange2011).

Materials and Methods

Study Area:-



The Washim district falls within the medium rainfall zone of Maharashtra and has an average rainfall of 828 mm. The general climate of the district is hot and dry. The temperature ranges between 6°C and 45°C. The major sources of water in the district are three rivers– Arunavati, Painganga, and Morna, and ground water. Agriculture is the main source of live hood of the people of Washim district. The Katepurna wildlife Sanctuary in Akola- Washim districts of Maharashtra is an exotic sanctuary dotted with an abundance of flora and fauna. Positioned in Akola- Washim district in Vidarbha region of the state of Maharashtra, the sanctuary lies in close proximity to the catchments area of Katepurna reservoir.

Methods

An extensive plant exploration was conducted during 2015-2017 for the study of medicinal plants from the Study area. The etnobotanical information in present study was obtained through field studies and personal interview of peoples living in this region. The collection of data in the study area was done through interview with the respective locals. All information of plants along with medicinal properties was documented on the spot. Information regarding wild medicinal plants was collected from locals such as vaidyas, Hakims, Ayurveda practioner.

Ethnobotanical aspect was studied with the help of the literature of Prajapati *et.al* (2007), Jain(1997), Jaynnarayan *et.al* (2012),.The wild medicinal plants were collected from sanctuary in and around the locality of villages. The elder people have valuable ethnobotanical knowledge than Youngers. Ethnobotinical survey was conducted during study period, and collected data was documented monthly. Wild medicinal plants were identified with the help of taxonomic manual, key, flora and book, Naik (1998). The collected data from locals was cross checked by interviewing different peoples

of the same and various localities. Presentations of data collected from locals are arranged and the list of wild medicinal plants is enclosed in the present project.

Results

The plants were arranged in the alphabet order with their botanical name, family, and local name. The Present study illustrate to documentation of some wild medicinal plants. Present studyincludes 23 species, 20 genus belonging to 16 Families. The present study tried to understand the life style and treatment system of locals in Katepurna region of Vidrbha of Maharashtra.

S.N.	Name Of Plant	Family	Mainly used for
1	*Acacia nilotica L.*	Mimosaceae	acidity, temperature diarrhoea; toothache and payria
2	*Annona Squamosa*	Annonaceae	young leaves as anti- diabetic activity
3	*Argemone mexicana* L.	Papaveraceae	skin diseases leprosy and in inflammation. malaria fever cough and ulcer
4	*Acacia leucophioema L.*	Mimosaceae	Dysentery
5	*Bombax ceiba L.*	Bombaceae	Dysentery, piles, fissures, dysentery, blood impurities and against T.B.
6	*Butea monosperma L.*	Papilionaceae	Diarrhea, dysentery, intestinal, worms, facture, ulcer, tumour, diabetes, leprosy, andskin diseases
7	*Calotropis procera L.*	Asclepidaceae	dog bite and in cough and asthma
8	*Cassia fistula L.*	Caesalpiniaceae	purgative, cooling and skin diseases ringworms, constipation and fever
9	*Cordia dichotoma*	Boraginaceae	Gases, cough, urinary trouble and constipation.
10	*Clitoria ternatia L.*	Papilionaceae	The flowers juice is used for controlling diabetes
11	*Datura innoxia*	Solanaceae	rheumatic or glandular swellings, leaves and seeds were once smoked for treating asthma. Roots decoction is good remedy for toothache.
12	*Ficus benghalensis*	Moraceae	latex helpful to cure cuts & wound. The roots of bark contains anti-diabetic agents. Aerial root is styptic, aphrodisiac, tonic and useful in gonorrhoea, dysentery, Inflammation on liver, leaves are useful in biliousness.
13	*Ficus religiosa L.*	Moraceae	Bark is used rheumatism tetanus internally
14	*Ficus racemosa L*	Moraceae	Fruit of the plant used as appetizer. Extract of fruit used in diabetes, it is used for leucoderma and healing wound.
15	*Lantana camara L*	Verbenaceae	for treatment of tetanus, malaria, gastropathy and dysentery.
16	*Limonia acidissima L.*	Rutaceae	Fruit pulp of these plants is carminative and used in stomachic, tonic, leprosy and skin diseases
17	*Madhuca indica*	Sapotaceae	Flower with other plant used to cure tonsil and headache and over strangury, verminosis and haemoptysis,.
18	*Mimosa pudica*	Mimosaceae	Flower in the mixture of milk control paralysis. Leaves with ghee apply on piles, body inflammation and in diabetic.Roots in addition to other plant used in acidity, cough, jaundice and constipation.
19	*Nerium oleander L.*	Apocynaceae	Oil prepared from the root bark is used for skin diseases.
20	*Pongamia pinnata*	Papillionaceae	control of ulcer, gonorrhoea, and leprosy. It is also used against diabetes and skin diseases
21	*Ricinus communis L*	Euphorbiaceae	Oil of the seeds used as purgative, bark of plant used in skin inflammation and rashes.
22	*Punica grantum L*	Punicaceae	Leaf used for leucorrhoea and fruit used for control of asthma disesases
23	*Tectona grandis L.*	Verbinaceae	treatment of hyper acidity, pitta, and dysentery and skin diseases

Conclusion

The present research concludes that even though the allopathic medicine used to cure various diseases and disorders of human, domesticated animal andplant diseases, locals use plant as singly or in combination with other plants as alternative source. Present study provides information of wild medicinal plant which will be helpful to conservation of traditional etnomedicinal knowledge as well as for progress of local's peoples.

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