

Ethnobotanical Notes on Some Wild Plants for Non-Medicinal Purpose by the Tribals and Rurals of Chitrakoot District (U.P.)

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Abstract: An ethnobotanical survey was carried out among the tribals and rurals of Chitrakoot district during different season of February 2013 to July 2014. The study mainly focused on the wild plants used by the tribals and rurals for various non-medicinal purposes (mat, net, broom, baskets and rope making, construction, dye and tannin, gum and resin, industrial purposes, hedge/fencing, religious, to ward off evil spirits, insect repellents etc.) through the consultation with the old and knowledgeable people. A total of 27 plant species belonging to 26 genera and 19 families were identified as economically important plants. With respect to the habit, 9 plants are herbs (1 plant is bamboo), 5 plants are shrubs and 13 are trees. Of these are used for 4 plants are basketry, 3 brooms, 2 mats, 2 nets and 4 ropes, 6 plants as fencing, 3 plants for dying and tanning, 9 plant as religious, 4 plants for evil spirits, 2 as insect repellent, 2 fertilizer, 1 alcoholic drink, 3 toothbrush, 1 plates and bowls, 1 soil erosion, 4 plants household and building material and other miscellaneous uses of these plants are also recorded. Non-medicinal uses of plants with their Botanical name, local name of plant species, Family, part used and non-medicinal uses are described in detail. The investigation underlines the potential of ethnobotanical research and needs to document the traditional knowledge pertaining to the uses of plants for greater benefit of mankind.

Keywords: Ethnobotany, Religious, Fencing, Evil spirits, Traditional Knowledge, Chitrakoot

1. Introduction

Chitrakoot district lies between 24°12' and 25°12'N latitude and 80°58' and 81°34' E longitude. The larger part is included in the district Chitrakoot of U.P. and the district Satna of M.P. Distance covered by from East to west is 62 km and north to south is 57.5 km. The majority of the population living here is tribal. The main tribal communities are Kols, Gonds etc. They are extremely hard working and can survive without the help of modern facilities.

India has a rich tradition of plant-based knowledge distributed amongst a vast number of ethnic groups (Anthropological survey of India, 1994). Apart from plants being used against a number of diseases by many indigenous communities in traditional medicine, plants are also used in building materials, fodder, weapons and other commodities of economical importance. Worldwide, ten thousands of species of higher plants and several hundred lower plants are currently used by human beings for a wide variety of purposes such as, households, rituals, food, fuel, fiber, medicine, oil, spices, as forage and fodder for domesticated animals (Heywood, 1992). But due to entrance of market economy, urbanization, industrialization and pollution, forests are disappearing faster than any other biome in the world. The tribal people are economically backward ethnic group and constitute separate socio-cultural groups (Nagda, 2004).

Some ethnobotanical work on non-medicinal plants have been done in different parts of the country (Singh *et al.*, 2002; Pandey and Gupta, 2003; Kant and Dutt, 2005; Gaur, 2008; Ayyanar and Ignacimuthu, 2010; Sharma *et al.*, 2012). To fill up the gaps in our knowledge the present study was carried out on useful plants, which are being used by the tribals of the district for non-medicinal purpose.

2. Materials and Methods

The information about the non-medicinal and other economic uses of plants were recorded by personal interviews with the vaidyas, foresters, dwellers, herbalists, cowherds, goatherds, shepherds and old experienced villagers living in the tribal and rural areas under study. The collected plants were identified by their vernacular names through consultations with the local people, photographed and sample specimens were collected for the preparation of herbarium. Herbarium has been deposited in the herbarium at Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Satna (M.P.).

3. Results

Ethnobotanical Enumeration

The plant species were enumerated with its botanical name, family, local name, part used and uses. The plant species have been arranged alphabetically on the basis of their botanical name (Table-1).

4. Discussion

The present study reports the usage of 27 plant species belonging to 26 genera of 1 Monocot and 18 Dicot families. These plant resources were used for preparation of broom, mat, basket, measuring device of grains, insecticide to store grains etc. and rituals like marriage, worshipping different trees by local people of Chitrakoot. Important and authentic ethnobotanical literature was consulted to verify information (Kumar and Yadav, 2004, 2010; Chhetri, 2005; Mohanty *et al.*, 2011; Sandhya Sri *et al.*, 2011; Shanmugamet *et al.*, 2012; Shingh and Krishna, 2012; Singh *et al.*, 2014).

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References

- [1] Anthropological Survey of India. (1994)*People of India*.Project report for 1994, Government of India, New Delhi.
- [2] Ayyanar, M. and Ignacimuthu, S. (2010) Plants used for non-medicinal purposes by the tribal people in KalakadMundanthurai Tiger Reserve, Southern India. *Ind. J. Trad.Knowl.*, 9 (3): 515-518.
- [3] Chhetri, R.B. (2005) Ethnobotany of bio-fencing in Dhulikhel region in Nepal.*Ethnobotany*, 17: 176-178.
- [4] Gaur, R.D. (2008) Traditional dye yielding plants of Uttarakhand, India.*Natural Product Radianc*e, 7 (2): 154-165.
- [5] Heywood, V.H. (1992) Conservation of Germplasm of wild species. In: O.T. Sandlund, K. Hindar and A.H.D. Brown, (eds.) Conservation of Biodiversity for Sustainable Development. Scandinavian University Press, Oslo.: 189-203.
- [6] Kant, S. and Dutt, H.C. (2005) Dye yielding plants of Neeru Catchment in Doda, Jammu and Kashmir, India. *Ethnobotany*, 17: 197-199.
- [7] Kumar, A. and Yadav, D.K. (2004) Significance of Sacred plants in Shraddh Ritual (Pindadan) in Gaya Bihar. *Ethnobotany*, 16: 103-107.
- [8] Kumar, A. and Yadav, D.K. (2010)Ethnomedicinal, mythological and socio-economical aspects of bamboos in Hoshangabad district (Madhya Pradesh).*Ethnobotany*, 22: 97-101.
- [9] Mohanty, N.; Das, P.K. and Panda, T. (2011) Use of plant diversity in household and rituals by tribal people of Dhenkanal district, Odisha, India.*J. Appl. Pharmaceutical Sci.*, 01 (04): 79-82.
- [10] Nagda, B.L. (2004) Tribal population and health in Rajasthan.*Stud. Tribes Tribals*, 2: 1-8.
- [11] Pandey, A. and Gupta, R. (2003) Fibre yielding plants of India (Genetic resources, perspective for collection and utilisation).*Natural Product Radianc*e, 2(4): 194-204.
- [12] Sandhya Sri, B.; Rao, J.K. and Reddi, T.V.V.S. (2011). Plants used in magico-religious beliefs by the tribals of Visakhapatnam district, Andhra Pradesh. *Ethnobotany*, 23: 100-105.
- [13] Shanmugam, S.; Muthurajo, G.; Annadurai, M.; Dhanasekaran, M. and Gobinathan, S. (2012)Ethnobotanical study on the plants used for the preparationand of baskets and ropes by Paliyar Tribes of Pachalur in Dindigul district of TamilNadu, India. *Life Science Leaflets*, 4: 27-30.
- [14] Sharma, G.L.; Singh, R.P.; Chauhan, A.K.S. and Mishra, J.K. (2012) Some economic and medicinal plants used by tribals in Ashok Nagar and Guna districts of M.P. *Ind. J. L. Sci.*, 1 (2): 115-117.
- [15] Singh, K. and Krishna, G. (2012)Ethnobotanical observation on Angul district of Odisha, India.*J. Econ. Taxon. Bot.*, 3(4): 781-808.
- [16] Singh, N.K.; Singh, D.P. and Pande, Y.N. (2002) Ethnobotanical studies on Socio-economic upkeep of Tharus of TulsipurTahsil of Balrampur district (U.P.). *Flora and Fauna*, 8 (2): 94-96.
- [17] Singh, A.; Dangwal, L.R. and Singh, T. (2014) Some lesser known fibre yielding weeds used by Gujjar and Bekarwal tribes of district Rajouri, Jammu and Kashmir. *J. Appl. and Natural Sci.*, 6 (1): 127-130.

Table 1: Enumeration of some wild plants for non-medicinal purpose used by the tribals of Chitrakoot District,U.P

Sr. No.	Botanical name	Family name	Local name	Medicinal uses
1.	<i>Abutilon indicum</i> L.	Malvaceae	Kanghi/ Kakai	Stem yield strong coarse fiber used in making ropes and nets.
2.	<i>Acacia Arabica</i> Willd.	Mimosaceae	Desi Babool	Dry branching is used to prepare fencing surrounding the crop lands. Stem used in preparation of Plough (Hal). Dried stem used as fuel. Plant is used for tanning and dyeing leather black, tooth brushes (chewsticks), trees tapped for arabic gum. Because of its resins, it repels insects and water.
3.	<i>Aeglemarmelos</i> (Linn.) Corr	Rutaceae	Bel/ Belpatra	Leaves are dried and burnt in the houses and in the cowsheds to ward off evil spirits. In India, Bael tree is considered to be very sacred because it is associated with Lord Shiva.The fruit, flowers and leaves of the tree are all sacred to Shiva in Shivratri, Haritalika, SawanSomwar etc. Leaves are also considered as symbol of Goddess „Durga“.
4.	<i>Albizzialesbek</i> (Linn.) Benth	Mimosaceae	Sirisha	Saresh- a type of gum is obtained from Siris.
5	<i>Ammanibaccifera</i> Li nn.	Lythraceae	Aginbuti/ Ban mirich /Jungli mehendi	Dried leaves are burnt and the patient is exposed to the smoke to ward off evil spirits.
6	<i>Argemonemexicana</i> Linn	Papaveraceae	Peelikateeli/ Satyanashi	Leaves are used to take out evil spirits by rotating around the body and over the head of the patient.
7.	<i>Bambusaarundinacea</i> (Retz.) Willd./ <i>Dendrocalamu</i> <i>sstrictus</i> (Roxb.) Nees, Linnaea	Poaceae	Bans/ Lathi Bans	The Culm is used for making various types of baskets (locally called „Tokari“ or „Tokani“), ladders, hats and fans. <i>Bansuri</i> is actually a flute made of bamboo. Culm strips are generally used for making partition wall, boundary wall, hut wall, gate wall etc. It is frequently used for making fish catching implements. Bamboo is largely used in paper and Agarbatii

				making industries also. Bamboo stocks are used for making “Marwa” (Mandapa) in Hindu marriage ceremonies. Among the Hindu communities, after death, the dead body carries on „Arthi”, which is made of Bamboo.
8.	<i>Buteamonosperma</i> (Lamk.) Taub.	Fabaceae	Tesu	Leaves used for making Pattal (Plates) and Dona (Bowls).Leaves are collected and used for thatching the huts and cow sheds. Stem yields gum. Wood is generally used as fuel wood. The colour obtains by boiling flowers. It is used in „Holi”. Wood considered sacred and used performing „Havana” and also for making sacred utensils. Leaves also with the leaves of <i>Desmostachyabipinnata</i> and <i>Ziziphusjuba</i> are used in the worship of HarChhataPooja (A traditional festival in Kshakshthi Tithi in Bhadrpad Month).
9.	<i>Calotropisprocera</i> Aiton.	Asclepiadaceae	Madar	Stem bark yield fiber which is used in making coir and rough nets. Fruit fibres and seed hairs may be used for filling cushions and for making rope. Woody parts of this plant were burned to make charcoal, which was previously an ingredient for gunpowder. Leaves also served as fertilizer dug into the ground around the roots of an ailing palm tree, they helped to make the tree more vigorous.
10.	<i>Cynodondactylon</i> (Linn.) Pers.	Poaceae	DoobGhash	It is believed to have originated from the hair of Lord Vishnu and the drops of „Amrita”; hence it is supposed to be sacred and pure. It is used at the place of worship to purify the place and marries ceremonies, Shradh rituals.
11.	<i>Dalbergiasisoo</i> (Roxb.)	Fabaceae	Shisham	Tender leaves are chewed for cooling purposes in summer season. Green branches of plants are used in making baskets. Sharply pointed stem piece is use to insert a nose string as a bridle through a bullock nostrils. Wood used for making of door, furniture & measuring device of grains. Wood used in preparation of cart, plough, „Data”, seed drill.
12.	<i>Daturastramonium</i> Linn.	Solanaceae	Safed dhatura	Leaves and fruits used in worshipping the God Shiva in MahaShivaratri, Teez other festival.
13.	<i>Desmostachyabipinnata</i> L.	Poaceae	Kush Ghas	Hindus wear the ring of “Kush” on the finger for purification of the body at the time of worship and rituals. It is supposed to be equal to gold which is very pure for ritual purposes.
14.	<i>Diospyrosamelanoxylon</i> (Roxb.)	Ebenaceae	Tendu/ Biripatta	Wood used to avoid evil soul.
15.	<i>Eucalyptus globules</i> Labill.	Myrtaceae	Safeda	Green branches of plants are commonly used to make baskets. Pulp of stem is being used in the manufacture of paper. Wood for construction purposes.
16.	<i>Ficusbenghalensis</i> Linn.	Moraceae	Bargad/ VataVriksha	Banyan tree symbolizes the Trimurti-Lord Vishnu, Lord Shiva and Lord Brahma. The tree also symbolizes life and fertility in many Hindu cultures. That is the reason, banyan tree is worshiped by those who are childless and this tree should never be cut. In VataSavitriParva woman worship this tree.
17.	<i>Ficusreligiosa</i> (L.)	Moraceae	Pipal	Plant is worshipped as a symbol of God „Vishnu” and water is offered on a particular day (Shradh) to get good health. Women worship the tree to bless them with a son tying red thread or red cloth around its trunk or on its branches. Whole plant to propitiate against planet Saturn.
18.	<i>Ipomoea fistulosa</i> Mart. ex Choisy	Convolvulaceae	Besharma	Whole plant used for fencing. The plant is used as a hedge on boundaries to protect the cultivated plants from animal grazing.
19.	<i>Lantana camara</i> Linn.	Verbenaceae	Caturang	The strong wiry basal stem is useful for making traditional baskets. Large conical baskets are also prepared which are used as shelter shed for young goats and poultry. Stem are used as toothbrush and live fencing. Leaves are used for compost.
20.	<i>Madhucaindica</i> Gmelin.	Sapotaceae	Mahuwa	Flowers and fruits are raw materials of the local liquor. Wood is used for making comb and other things. Roasted fruits are used in HarChhataPooja.
21.	<i>Malvastrumcoromandelianum</i> (Linn.) Garcke.	Malvaceae	Kharenti	Stem bark yield fiber used in making coir, brooms and ropes.
22.	<i>Opuntiadillenii</i> Haw.	Cactaceae	Nag-phani	It is grown on outskirts of field to prevent the entry of both human beings and animals.
23.	<i>Phoenix dactylifera</i> L.	Arecaceae	Khajoor	Dried Leaves are used in making of broom and mats and thatching purposes. Leaves are also used in making Maur (A traditional Topi used in marries ceremony).
24.	<i>Saccharumspontanum</i> Linn.	Poaceae	Kaans	The mature leaves including small portion of culms are used in making ropes, pullas (a traditional mat) and brooms. Plants are commonly used as a rope to tied fodder plants and fuel woods. It is grown on outskirts of field to prevent soil erosion and as a live fence. Aerial part of the plant is used in preparation of head rests.
25.	<i>Terminaliaarjuna</i> W. & A.	Combretaceae	Arjuna	Wood used for construction purposes. The young fruits are used for tanning and dyeing.

26.	<i>Vitexnegundo</i> Linn.	Verbenaceae	Indrani	The leaves serve as febrifuge. The branches of this plant are kept over stored grains to keep of insects.
27.	<i>Ziziphusjuba</i> (L.) Gaertn.	Rhamnaceae	Ber	Whole plant used as hedge. Stem used in agricultural implements „Sati“, Plough, „Data“ and is an excellent fuel.