



Wild Edible plants Used by Tribals of North-east Chhattisgarh (Part-I), India

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Abstract

The present study was carried out in North – East Chhattisgarh to document the diversity, indigenous uses and availability status of wild edible plants. The tribes of this region are dependent up to a large extent on wild resources for their food and other daily needs. The region is rich in wild edible plant resources. A total of 80 species belonging to 65 genera and 40 families were documented from the study area. Out of the recorded species 29 were herbs, 11 shrubs, 25 trees and the rest 15 were climbers. Among the documented plants, 15 were abundant, 44 common and 21 uncommon to this area. Plant parts such as leaves, shoots, young twigs, roots, rhizomes, tubers, flowers, fruits, seeds, etc. are used for food by the tribal people. The study will be helpful in developing a comprehensive data base on wild plant resources, strengthening the food security in area and in conserving the traditional knowledge for the prosperity of the remote areas.

Keywords: Wild edible plants, Tribes, Chhattisgarh, India.

Introduction

Chhattisgarh state is situated at 80°15' to 84°24' E longitude and 17°46' to 24° 5' N latitude. The state is flourished with hilly regions and plains. The annual rainfall is 60 inches in average. The major crop grown in the state is rice. Chhattisgarh is known as herbal state because state has very rich flora and fauna. The total forests area of the state is about 44%. The state is well known in the whole country for its Sal forests. Teak, Bamboo, Saja, Sarai, Haldi etc. are also found in abundance in addition to Sal. Tribal people totally depend on the forest for their food and other purposes.

The present study is covered north- east region of Chhattisgarh. Jashpur district is situated at the north-eastern corner of the state between 22° 17' to 23° 15' N latitude and 83° 30' to 84° 24' E longitude. The total length (north-south) and breadth (east-west) of this district is about 150 km and 85 km respectively. It occupies a total area of 6,205 square km and its population is 852,043 (Census, 2011). Geographically the district is divided into two parts – the northern Upper Ghat and the southern Nichghat. Upper Ghat, a hilly belt, is covered with dense forests and mountains, however; Nichghat is generally flat but also has many big mountains.

Tribes of Chhattisgarh contribute around one-third of the total population of the state which is about 10 percent of the tribes in India. Scheduled castes (SCs) and scheduled tribes (STs) together represent more than 50 percent of the state's population. The population of SC and ST was 11.6% and 31.76% during 2001 census, which has been now changed to 12.8% and 30.62%

(Census, 2011) of the state total population respectively. Gond, Kanwar, Oraon, Khairwar, Bhatra, Korwa, Hill-Korwa, Birhor, Nagesia, Kol etc. tribes are found in this region.

The major occupation of tribal people is agriculture, although forest and their products are also essential livelihood of tribals and folk people, meeting their multifarious requirements like food, medicine, fibres etc. Food requirement is fulfilled mainly through agriculture, but they also collect roots, tubers, leaves, flowers and fruits from the forest as supplementary foods.

Ethnobotanically the state is not well studied, only notable published works are there¹⁻¹³. These publications cover only medicinal aspects, or a few other ethnobotanical aspects. However, the detailed information on food plants is lacking. The present paper deals with wild plant species which they collect and consume for edible purpose.

Materials and Methods

Ethnobotanical survey has been carried out in several villages or tribal pockets of the north-east Chhattisgarh during August 2012 to September 2014. First-hand information on food plants was collected from experienced tribals. There were a long list of plants but here only 80 plants are listed. The plants are listed alphabetically by botanical name, followed by local name, family, consumable part, tribes using the plants, lifeform. Uses of plants as food are given in brief, wherever the plants are consumed by specific tribes. Photographs have taken on the spot. The specimens have been deposited in Govt. Navin College, Balrampur, Surguja District, Chhattisgarh.

Table-1
Wild edible plants Used by tribals of North-east Chhattisgarh

Botanical Name	Common Name	Family	Eaten Part and methods of use	Tribes	Life Form
<i>Abelmoschus moschatus</i> medic	Janglibhindi	Malvaceae	Tuberous roots are edible.	Gond	S
<i>Adhatoda zeylanica</i> Medikus	Adusa	Acanthaceae	Young shoots and leaves are cooked as vegetable	Nagesia	S
<i>Aegle marmelos</i> (L) Correa.	Bel	Rutaceae	Ripe fruit pulp is eaten.	Kol	T
<i>Alangium salvifolium</i> (L.f.) Wang.	Ankol	Alangiaceae	Flowers and fruits are eaten as vegetable.	Korwa	T
<i>Amaranthus caudatus</i> L.	Kedar chua	Amaranthaceae	Young twigs and leaves are cooked as vegetable	Hill-Korwa	H
<i>A. spinosus</i> L.	Kauchua	Amaranthaceae	Leaves are used as vegetable	Korwa	H
<i>A. tricolor</i> L.	Chua	Amaranthaceae	Leaf cooked as vegetable and seed flour is used to make <i>chapaties</i>	Khairwar	H
<i>Ampelocissus tomentosa</i> (Heyne ex Roth) Planch.	Bakridhoto	Vitaceae	Fruits are edible.	Korwa	Cl
<i>Angelica glauca</i> Edgew.	Choru	Apiaceae	Dry seed and root is used as Spice.	Hill-korwa	H
<i>Annona squamosa</i> L.	Sitaphal	Annonaceae	Ripe fruits are eaten	Gond	S
<i>Anthocephalus indicus</i> (Lam.) A.Rich.ex.Walp.	Kadam	Rubiaceae	Fruits are eaten	Oraon	T
<i>Antidesma acidum</i> Retz.	Derango	Euphorbiaceae	Leaves used as vegetable and dried leaves as khatai. Fruits are eaten.	Birhor	S
<i>Asparagus racemosus</i> Willd.	Satawar	Liliaceae	Roots are eaten.	Gond	Cl
<i>Bacopa monnieri</i> (L.) Pennell	Brahmi	Scrophulariaceae	Leaves are eaten as vegetable.	Kanwar	H
<i>Bambusa arundinacea</i> Willd.	Bans	Gramineae	Young shoots are eaten as vegetable.	Korwa	H
<i>Basella rubra</i> L.	Poin	Basellaceae	Leaves are eaten as vegetable.	Birhor	Cl
<i>Bauhinia purpurea</i> L.	Kachnar	Caesalpiniaceae	Young leaves are used as vegetable.	Khairwar	T
<i>B. racemosa</i> Lam.	Kachnar	Caesalpiniaceae	Young flowering buds are used as vegetable	Gond	T
<i>B. vahlii</i> Wight and Arn.	Orra	Caesalpiniaceae	Roasted seeds are eaten.	Nagesia	Cl
<i>Begonia picta</i> Sm.	Patharchati	Begoniaceae	Leaves are eaten as vegetable.	Korwa	H
<i>Boerhavia diffusa</i> L.	Khaprailbhaji	Nyctaginaceae	Young leaves are eaten as vegetable.	Oraon	H
<i>Bombax ceiba</i> L.	Semal	Bombacaceae	Young fruits are eaten as vegetable.	Birhor	S
<i>Buchanania lanzan</i> Spreng.	Char	Anacardiaceae	Ripe fruits and seeds are edible	Birhor	S
<i>Butomopsis latifolia</i> Kunth.	Chanti	Butomaceae	Leaves are eaten as vegetable	Oraon	H
<i>Caesulia axillaries</i> Roxb.	Muchri	Asteraceae	Leaves are eaten as vegetable	Gond	H
<i>Cajanus scarabaeoides</i> (L.) du Petit-Thou.	Banhirwa	Fabaceae	Cooked seeds are eaten as vegetable.	Korwa	S
<i>Canscora diffusa</i> (Vahl.) R.Br.	Khakhabhaji	Gentianaceae	Whole plant are eaten as vegetable	Oraon	H

Botanical Name	Common Name	Family	Eaten Part and methods of use	Tribes	Life Form
<i>Careya arborea</i> Roxb.	Pindar	Barringtoniaceae	Fruits are cooked and eaten	Oraon	T
<i>Carissa carandas</i> L.	Kaaraunda	Apocynaceae	Fruits are eaten and also used for pickle.	Birhor	S
<i>Cassia alata</i> L.	Baba Chakoda	Caesalpiniaceae	Flowers are cooked and eaten as vegetable	Gond	S
<i>C. fistula</i> L.	Amaltas	Caesalpiniaceae	Flowers are eaten as vegetable.	Birhor	T
<i>C. mimosoides</i> L.	Jirhul	Caesalpiniaceae	Leaves are used as vegetable.	Korwa	T
<i>C. renigera</i> (Wall) Gagnep.	Khilbiri	Caesalpiniaceae	Flowers are eaten as vegetable	Nagesia	T
<i>C. tora</i> L.	Chakora	Caesalpiniaceae	Young leaves are used as vegetable.	Korwa	H
<i>Catunaregam spinosa</i> (Thunb) Tiru	Kharhar	Rubiaceae	Young fruits are eaten as vegetable.	Khairwar	T
<i>Celastrus paniculata</i> Willd.	Kujur	Celastraceae	Flowers are used as vegetable.	Oraon	Cl
<i>Celosia argentea</i> L.	Silyari	Amaranthaceae	Leaves used as vegetable.	Birhor	H
<i>Centella asiatica</i> L.	Brahmi	Apiaceae	Leaves are eaten as vegetable.	Birhor	H
<i>Chenopodium album</i> L.	Baithu	Chenopodiaceae	Leaves used as pot vegetable	Korwa	H
<i>C. foliosum</i> (Moench) Ascherson	Baithu	Chenopodiaceae	Leaves used as pot vegetable	Birhor	H
<i>Citrullus colocynthis</i> Schrad.	Jangli Kundru	Cucurbitaceae	Ripe fruits are eaten.	Gond	Cl
<i>Cleome viscosa</i> L.	Jakhiya	Cleomaceae	Seeds are used as condiments	Khairwar	H
<i>Cocciniagrandsis</i> (L.) Voigt	Kandaroi	Cucurbitaceae	Young shoots made into vegetable	Korwa	Cl
<i>Commelina attenuate</i> Koin.	Kana	Commelinaceae	Leaves are eaten as vegetable.	Oraon	H
<i>C.benghalensis</i> L.	Naladdo	Commelinaceae	Leaves are eaten as vegetable.	Nagesia	H
<i>Corchorus capsularis</i> L.	Chench	Tiliaceae	Leaves are used as vegetable.	Khairwar	H
<i>C. fascicularis</i> L.	JangliChench	Tiliaceae	Leaves are eaten as vegetable.	Birhor	H
<i>Cosmostigma racemosum</i> L.	ChotaKonga	Asclpiadaceae	Flowers are edible.	Gond	Cl
<i>Crotalaria incana</i> Rottl.	Jangli sun	Fabaceae	Flowers are cooked as vegetable.	Korwa	H
<i>C. juncea</i> L.	Sun	Fabaceae	Flowers are eaten as vegetable.	Oraon	H
<i>C.orixensis</i> Willd.	Mahadevkorr a	Fabaceae	Fruits are eaten.	Birhor	H
<i>Cucumismelo</i> L.	Dimbo	Cucurbitaceae	Fruits are eaten.	Khairwar	Cl
<i>Dendrocalamus strictus</i> (Roxb.) Nees	Bans	Poaceae	Young Shoots is used as vegetable.	Oraon	H
<i>Dilleniaaurea</i> J.E.Smith.	Kumbhi	Dilleniaceae	Fruits are cooked and eaten as vegetable.	Nagesia	T
<i>Dioscorea alata</i> L.	Bankanda	Dioscoreaceae	Tuber is cooked as vegetable.	Oraon	Cl
<i>D. belophylla</i> Voigt ex Haines	Genthi Kanda	Dioscoreaceae	Raw or boiled tubers are eaten as vegetable. Its bitterness is removed when it is boiled with ash.	Korwa	Cl

Botanical Name	Common Name	Family	Eaten Part and methods of use	Tribes	Life Form
<i>D.bulbifera</i> L.	Nappa Kanda	Dioscoreaceae	Boiled tubers are eaten as vegetable. Its bitterness is removed in running or sometimes ash is added.	Khairwar	Cl
<i>D. triphilla</i> L.	Lakra kanda	Dioscoreaceae	boiled tubers are eaten as vegetable. Its bitterness is removed when it is boiled with ash.	Birhor	Cl
<i>Diospyros melanoxylon</i> Roxb.	Tela	Ebenaceae	Ripened fruits are eaten	Oraon	T
<i>D. peregrina</i> Gaertn.	Makad Tendu	Ebenaceae	Ripened fruits are edible	Gond	T
<i>Eretia laevis</i> Roxb.	Suruh matha	Ehretiaceae	Young leaves are cooked and eaten as vegetable.	Oraon	T
<i>Emblca officinalis</i> Gaertn.	Amla	Euphorbiaceae	Fruits are eaten	Korwa	T
<i>Emilia sonchifolia</i> (L.) DC.	Khapraban	Asteraceae	Leaves are cooked and eaten as vegetable.	Birhor	H
<i>Erycibe paniculata</i> Roxb.	Kari	Convolvulaceae	Ripened fruits are eaten.	Khairwar	Cl
<i>Eryngium foetidum</i> L.	Kishun jeera	Apiaceae	Whole plant used as spices and also mixed in preparation of curry and sauce.	Nagesia	H
<i>Euphorbia microphlla</i> Heyne ex Roth.	Lal chinti	Euphorbiaceae	Leaves used as Vegetable.	Oraon	H
<i>Ficus cunia</i> Ham.ex.Roxb	Podai	Moraceae	Fruits are edible	Oraon	T
<i>F. racemosa</i> L.	Gular	Moraceae	Fruits are edible	Korwa	T
<i>F. religiosa</i> L.	Pakri	Moraceae	Fruits are edible	Khairwar	T
<i>F. semicordata</i> Buch-Ham.ex Sm.	Ghui	Moraceae	Fruits are eaten	Gond	T
<i>F. tomentosa</i> Roxb.	Khakhsi	Moraceae	Fruits are edible	Birhor	T
<i>Gardenia latifolia</i> Ait.	Papra	Rubiaceae	Ripened fruits are edible	Korwa	T
<i>G. resinifera</i> Roth.	Malin lasa	Rubiaceae	Fruits are eaten	Oraon	T
<i>Grewia hirsuta</i> Vahl	Gursakri	Tiliaceae	Ripen fruits are edible	Khairwar	T
<i>G. flavescens</i> Juss.	Gursakri	Tiliaceae	Ripened fruits are edible	Korwa	T
<i>G. abutilifolia</i> Vent.	Bhursa	Tiliaceae	Fruits are edible	Nagesia	S
<i>G. tiliaefolia</i> Vahl.	Sasapoda	Tiliaceae	Fruits are edible	Oraon	S
<i>Hibiscus subdariffa</i> L.	Ttepa	Malvaceae	Fruit pulp are eaten and also leaves are eaten as vegetable.	Gond	H
<i>Holarrhena antidysenterica</i> Wall.	Korya	Apocynaceae	Boiled flowers are cooked and eaten as vegetable.	Birhor	T
<i>Holostemma rheedianum</i> Spreng.	Konga	Asclepiadaceae	Flowers are eaten.	Oraon	Cl

Result and Discussion

Agriculture is the main occupation of tribals of state, for food they mostly depend on agriculture. Rice is the main part of their diet. Apart from rice they also consume wheat, millets, pulses

and vegetables. Besides these crops and seasonal vegetables, they also depend on the wild plants occurring in the area for supplementary food of the total 80 plant species which are used for tribal consumption, 42 Species are used as vegetable, 27 as fruits and 14 species for other purposes such as spices and

condiments, sauce etc. Some species are also consumed for more than one way.

It is observed that the maximum use of plant parts by tribals of north – east part of this state are the fruits (28 species) followed by leaves (23 species) and underground parts (08 species) Flowers (10 species), seed and gum (05species) and shoots and whole plant (06) respectively. Several species in which more than one plant parts are consumed.

Conclusion

The plant species used as edible are listed in Table-1. Among these species 05 species like- *Hibiscus sps.*, *Ficus cunia*, *F. tomentosa*, *Erycibe paniculata* and *Celosia argentea* are new reports in this area. However, the other species are already reported in other research papers. Maximum plants are wild. Most of these plants have medicinal values as well, so storage and further development of their germplasm should be ensured.

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