

Study of Some Ethno-Medicinal Wild Edible Plants Used for Several Strong Diseases in District Jashpur (Chhattisgarh)

Chandni Afsana^{1*}, Deepa Biswas²

¹Research scholar, Department of Botany, Kalinga University, Naya Raipur (C.G.), India. ²Associate Professor, Department of Botany, Kalinga University, Naya Raipur (C.G.), India.

ABSTRACT

Wild edible plants playing important role in the nutrition, hygien, medicinal and conventional lifestyles of the people. The area of Jashpur is rich biodiversity and tribal culture, dependent for sustenance on wild edible plants. These are not only consumed in the Jashpur area, but are also sold in local markets for the benefit of different sections of plants used in different types of diseases. The Survey was conducted on Jashpur district several villages where meeting with local medicine men, Baiga, Vaidya, local people and collect the data regarding to ethnomedicinal wild edible plants. In this study during field survey total 20 ethno medicinal wild edible plant species were identified which are used by the tribal or local people of Jashpur district Chhattisgarh. A total of 20 species belonging to 17 families were documented from the study area. Out of the recorded species were 5 herbs, 3 shrubs, 2 rhizome, 3 climbers, and the rest 7 were trees. Plant parts such as leaves, fruit, young twigs, shoots, rhizomes, roots, flowers, seeds, etc. These plants are also used for medicine as well as food people community.

Keywords: Nutrition, Traditional, Biodiversity, Ethnomedicinal, Community.

INTRODUCTION

Ethnobotany is the organized study of the relationship between plants and human. Many plants are edible and ethnomedicinal. These plants are used as food for curing various types of disease by reserved people and villagers. Jashpur district is very reach for their floristic bio-diversity. The significant tribes of Jashpur district are: Oraon/Kurunkh, Nagesia, Kanwar, Birhor, Baiga, Pahadi korwa and Munda, amongst which Oraon is the dominant tribe. The way of life of tribal people depends upon the land. Agriculture, fishing, collection of forest products, labour of any kind is

their livelihood. Some tribal people of Jashpur area live in a very remote area where it is very difficult to get health related facilities; they live in the forest itself and used plants for their food and medicine.

The history of search for wild plants is as old as the history of civilization (1). Plants such as vegetables and fruits have good quality, satisfactory edible protein so that we can use them for nutritional value in food (2). Chhattisgarh is the only state of the country where about 44.2% (59772.2Heq) of the total area of state occupied by the forest (3). To research the distribution

*Address of Correspondence: Chandni Afsana, Research scholar, Department of Botany, Kalinga University New Raipur (C.G.), India. E-mail- chandniafsana7@gmail.com

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pattern and ethno botanical usage of medicinal plants, the forest division of the northern hilly region of Chhattisgarh was surveyed. The proportion of Sal and the mixed forest in this state is more than that of the teak forest.

OBJECTIVES OF THE PRESENT STUDY

The main objectives of prepared these proposed research work is highlights the wild edible plants and there ethnomedicinal uses by tribal's in Jashpur district of Chhattisgarh the main objectives of the present study are follows:

- Study to survey the use of ethno medicinal wild edible plants among tribal people of entire Jashpur District.
- Documentations of ethno medicinal wild edible plants use by tribal's of Jashpur district

Ethno botany openly means, all side of direct kinship of plants with human, Human has been using plants since time of his embossing on this planet. He receive the information becomes an integral part of his culture in India very old time mentions are there in Rig-Veda and Atharva Veda about the uses of plants.

A total 122 plant species from 94 genera and 56 families have been recorded as wild edible plants (4). In the last five decades, the genetic

diversity of different crops and the extinction of forest species in the area have declined rapidly (5). There were 22 edible roots and tuberous plants belonging to different families, primarily used by Bastar tribes (6). 61 species of plants consisting of corms, tubers, leaves, flowers, fruits and seeds used by tribes, food recorded (7).

It is very necessary to have a suitable documentation of medicinal plants (8). 41 wild species from Northeast India that are used by ethnic communities as food supplements are reported (9). Wild food plants use common household food and make a significant contribution to the food security of the tribal people in many parts of the Pendra road (10). Fruits are a significant source of minerals, fiber and vitamins that provide important nutrients for human health (11). The requirement for food is mainly fulfilled by agriculture, but roots, tubers, leaves, flowers and forest fruits are also collected as supplementary foods (12). These publications cover not only wild edible plants, but also medicinal aspects that have already been documented, but there is a lack of accurate knowledge on food plants. This paper discusses plant species that are collected and consumed for food and medicinal purposes.

MATERIAL AND METHODS

Study Area:



Figure 1: Chhattisgarh State Map



Figure 2: Jashpur District Map

The present study area is mainly tribal areas and the economic structure of study area is based on agricultural activities and predominantly agro-based industry. It is situated in north-eastern corner of Chhattisgarh state in India and the three district of state (Balrampur, Sarguja and Raigarh) adjoining with Jashpur district. Jashpur district is located between 22°17' north to 23°15' north latitudes and 83°30' east to 84°24' east longitudes. Jashpur district has a total geographical area of 5838.00 sq.km. This study area has a north-south longitude of around 150 km. And 85 km is its east-west breadth.

The district having 8 tehsils and 8 CD blocks which are namely- Bagicha, Duldula, Jashpur, Kansabel, Kunkuri, Manora, Pathalgaon and Pharsabahar. The total 427 Gram Panchayats in Jashpur district, which is covering in all 8 CD blocks. Geographically study area divided into two categories, the first is northern hilly belt which is called the upper Ghat and the second is southern part which is called Nichghat.

Survey and collection of plant:

Ethnobotanical survey has been carried out in several villages or tribal areas in Jashpur district Chhattisgarh during January 2020 to August 2020. First-hand information on food plants was collected from experienced tribals, vaidyas and herbalist. There were a long list of plants but here only 20 plants are listed. The plants are classified by botanical name alphabetically, followed by local name, family, edible section, plant-using tribes, and habitat. Wherever the plants are eaten or used by tribals, the use of plants as food as well as medicinal purpose is given in brief.

The primary data will be acquired through schedule survey method whereas as a research tools the interview and observation method will also be used to obtain primary data from the head of some household of sample villages. The plants were assembled flowering and fruiting condition in the field. Photographs have taken on the spot and collected plant materials like flower, fruit, leaf or few leaves with twig, and root for herbarium preparation.

Identification of plant: The plant specimen

were collected and identified by referring slandered local flora (Central Flora).

RESULTS

In this study during field survey total 20 ethno medicinal wild edible plant species were identified. Used by the tribal or local population of the Chhattisgarh district of Jashpur (Table 1). A total of 20 species from the study area belonging to 17 families were recorded. Herbs (5 in number), shrubs (4 in number), rhizomes (1 in number), climbers (3 in number), and the remaining 7 trees were among the reported organisms.

DISCUSSION

Plant parts such as leaves, berries, shoots, young twigs, roots, rhizomes, flowers, seeds, etc. are used by the tribal people culture for food or medicinal purposes, the plant taxa investigated have been described in tabular form along with the botanical name, local name, family, habitat and edible part and there have also been recorded medicinal uses by various parts of plants (Table-1). Tribal informants were consulted and given valuable information on wild edible plants and their utility for different nutritional and other purposes.

CONCLUSION

Different parts of plants are used by people for medicinal and for the purpose of eating in which leaves (32%), fruits (23%), stem (7%), young stem (2%), roots (2%), rhizome (4%), flowers (11%), seeds (14%), and whole plant (5%). Most are collected by women, men and children. Some plant test are sweet However, some of the plant have side effect causing material are cause diarrhea, abdominal pain, and headache, constipation. Etc Although cultural norms and religion values play an important role in the conservation of wild edible plants, population pressure and its associated impact contribute much to the disappearance of the these plants. Thus community's participation is the suggested solution for the sustainable use and conservation of the wild edible plants in District Jashpur Chhattisgarh.

Table 1: List of Ethno medicinal wild edible used by tribals of Jashpur district

S.No	Botanical Name	Local Name	Family	Plant s Habit	Edible part	Medicinal uses of plant
1	Amaranthus viridus	Cholai Bhaji	Amaranthaceae	Herb	Leaves and stems	fever, pain, asthma, diabetes
2	Amorphophallus paeoniifolius	Zimikanda	Araceae	Shrub /Herb	Stem and corms	pain-killing, anti-inflammatory, digestive, parasitic worms, inflammation, coughs
3	Averrhoa carambola	Sweet star fruit	Oxalidaceae	Tree	Fruits	Leaves are applied externally in the treatment of ringworm and chickenpox. Roots are used to treat muscle pain and headaches.
4	Bauhinia variegata	Kachnar	Fabaceae	Tree	Leaves, flower, fruit and seed	Anti-bacterial, anti-fungal, anti-malarial, pain reducing and fever reducing. tumors, wounds, cough, and bleeding disorders
5	Bryophyllum pinnatum	Patharchati	Crassulaceae	Herb	Leaves	earache, burns, abscesses, ulcer, insect bites, diarrhea and Lithiasis
6	Buchanania cochinchinensis	Char	Anacardiaceae	Tree	Seed	Roots are useful in treatment of diarrhea. Leaves are used in the treatment of skin diseases. Fruits are used in treating cough and asthma
7	Cassia tora	Charota	Caesalpiniaceae	Shrub	Seeds, leaves, whole plant	It has been used for treating skin like ringworm, itching and psoriasis diseases, snakebites.

8	Chenopodium album	Bhtua	Chenopodiaceae	Herb	Seeds, leaves, shoot, and flowers.	Leaves are applied to insect bites, sunstroke, rheumatic joints and swollen feet as a wash or poultice, while a decoction for carious teeth is used. In treating urinary problems, the seeds are chewed and are considered useful for relieving the discharge of semen through the urine.
9	Chorchorus olitorius	Chech bhaji	Tiliaceae	Herb	Leaves and seed	Leaves are used for ascites, pain, piles, and tumor, Cystitis, dysuria, fever.
10	Citrullus lantus	Wild melon	Cucurbitaceae	Climber	Leaves flower and fruit	Seed are used in urinary passages and bed wetting, seed are used in paralyzes tapeworms and roundworms.
11	Coccinia Grandis	Kundru	Cucurbitaceae	Climber	Leaves flower and fruit	In diabetes, roots and leaves are used; plants are crushed and externally applied to infected regions to relieve headache pain and rheumatism.
12	Colocasia esculenta	Arbi	Araceae	Rhizome	Leaves and rhizome	Plant is use for several disease asthma, arthritis, diarrhea, internal hemorrhage, neurological disorders, and skin disorders
13	Diospyros melanoxylon	Tendu	Ebenaceae	Tree	Fruits	Bark decoction is used in the treatment of diarrhea, dried flowers is useful in urinary, skin and blood diseases.
14	Emblica officinalis	Amla	Euphorbiaceae	Tree	Fruits	It is used to reinforce teeth, hair and nails, as well as to regulate sugar in the blood. It is also used for bleeding, haemorrhoids, anaemia, diabetes, diarrhoea, dysentery, jaundice anaemia, and

						dyspepsia.
15	Madhuca longifolia	Mahua	Sapotaceae	Tree	Fruits, flower and leaves	Mahua flower bearing cycle is March-April. The flower sheds at dawn as it becomes mature. New mahua flowers contain various phytochemicals and are sweet in taste. The fresh flowers are usually picked and dried under direct sunlight for 2-3 days and placed in gunny bags in natural surroundings.
16	Marsilea quadrifolia	Water clover	Marsileaceae	Herb	young stem and leaves	The plant is anti-inflammatory, diuretic, depurative, febrifuge and refrigerant, the plant is also applied externally in the treatment of snakebites and skin injuries, including abscesses.
17	Momordica dioica	Kheksa	Cucurbitaceae	Climber	Fruit, shoot, leaves and roots	In bleeding piles and urinary problems, they are added. As a vegetable, the tuberous root is cooked and root paste is spread over the body as a fever sedative.
18	Osmium tenuiflorum	Basil	Lamiaceae	Herb	whole plant	In the Ayurvedic tradition, a pungently herbal, warming, antiseptic herb is a very essential herb; it causes swelling; reduces fevers; relaxes spasms; relieves pain; prevents bacterial infections; improves the immune and nervous systems; reduces inflammation; and helps the digestive system.
19	Physalis angulata	Chirpoti	Solanaceae	Herb	Leaves and fruits	The leaves have been used to treat diseases of the stomach. The plant is used to promote reproduction in the Pacific

						Islands; to treat infertility in women; and to treat dengue fever. The leaves are analgesic, diuretic, relaxant and parasiticidal.
20	Schleicher a oleosa	Kosam	Sapindace ae	Tree	Leaves and fruit	The oil obtained from the seed is applied externally in herbal medicine to treat itching, acne and other skin problems. To treat vomiting and stomach issues, leaf decoction is made.



Figure 3: *Momordica dioica*



Figure 4: *Citrullus lantus*



Figure 5: *Osmium tenuiflorum*



Figure 6: *A. paeoniifolius*



Figure 7: *Chorchorus olitorius*



Figure 8: *Schleicher a oleosa*



Figure 9: Tribal's Photograph taken by researcher (me) from Gala village, block Pathalgaon, District Jashpur

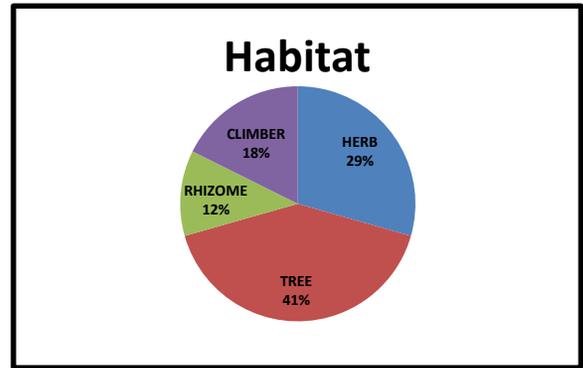


Figure – 10: Percentage of different plants habit collected in Jashpur district.

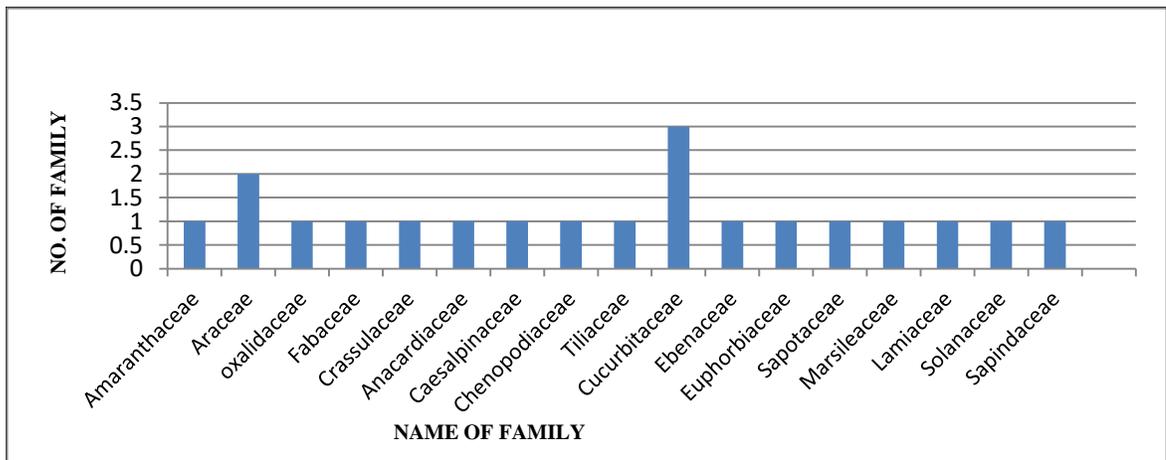


Figure- 11: Distribution of family of Ethno- medicinal edible plants found in study area

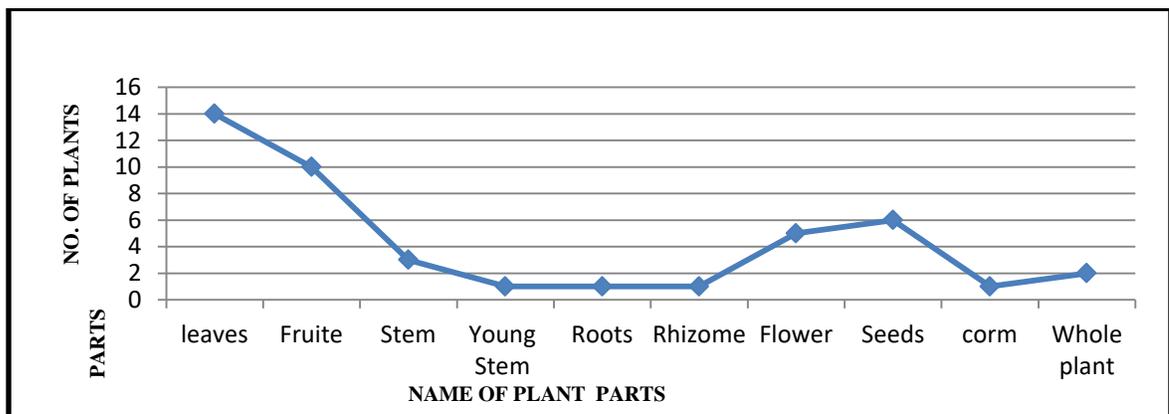


Figure- 12: Number of edible parts of the plants

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CONFLICT OF INTEREST

There is no conflict of interest in this present study. This research work is not a part of any other studies and it is our original work.

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