

Study of Ethno-Medicinal Wild Edible Leafy Vegetables Used by Local Tribes in District Jashpur, Chhattisgarh.

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Abstract: The leaves of numerous cultivated and wild plants are used as vegetables in India. They are incredibly simple to grow and offer a very high preventive food value. The natural vegetation of Chhattisgarh plays a crucial role in the economy and way of life of the tribal and ethnic communities. In remote areas of Chhattisgarh, leafy vegetables are crucial to the nutritional needs of the native and tribal population. In addition to providing a substantial amount of food, leafy vegetables also significantly contribute to the population's nutrition all year long. An extensive survey of the leafy vegetables consumed by the tribal community in different parts of the Sanna district of Jashpur Chhattisgarh was conducted as part of the current investigation. According to this study, the state of Chhattisgarh uses roughly 36 species of plants as a source of leafy vegetables. There are 35 leafy plants used in ethnomedicine. they were dispersed across many life forms. They included 4 species of trees, 3 species of shrubs, 23 species of herbs, and 5 species of climbers, but it was astonishing to see during the survey that nearly 35 plant species were discovered to be employed in various parts of Sanna. Numerous vegetables are also used by the locals as a source of herbal treatments for ailments like arthritis, jaundice, colds and coughs, fever, headaches, bronchial asthma, ulcers, skin problems, and others.

Introduction

The study of the relationships between people and plants, particularly in tribal and traditional settings, is known as ethnobotany. Traditional medicine is seen by the World Health Organisation (WHO) as being crucial to achieving its health objectives. In India, 65% of the rural population predominantly uses medicinal plants to treat a variety of illnesses. Many of the therapeutic tools utilised in Indian medical systems come from plants that are also used as medicines. Due to their lower costs and absence of adverse effects, Indian medical systems continue to serve the bulk of the population. The use of herbal medicines is safer for treating a number of diseases. For their health care and disease treatment, rural Indians continue to rely on traditional medicine.[1].

The district headquarters is Jashpur, which is in the eastern region of Chhattisgarh and covers an area of 5322.65 square kilometres. It is located between 20° 2' at north latitude and 83° 16' at north longitude and 830 28' at east longitude. Jashpur Upperghat is located 1000m above sea level. The total annual precipitation is between 1200-2396mm, and the temperature ranges from 10°C in winter to 32°C in summer. 95 days of rain fall annually. The entire area of the deciduous woodlands is 889 square km.

The systematic investigation of the interaction between plants and people is known as ethnobotany. Many plants have both culinary and medical uses. Reserved people and villages utilise these plants as food to treat a variety of diseases. The floristic biodiversity in the Jashpur district is highly rich. Oraon/Kurunkh, Nagesia, Kanwar, Birhor, Baiga, Pahadi korwa, and Munda are important tribes in the Jashpur district, with Oraon being the most dominant. Tribal people's way of existence is reliant on the land. Their means of subsistence include farming, fishing, gathering forest goods, and doing any form of labour. Some tribal people in the Jashpur region reside in a very remote location where access to health care services is quite challenging; they eat only plants and survive in the forest itself.

The history of exploring for wild flora is as old as civilisation itself (2). plants include Fruits and veggies are of high grade. adequate dietary protein sources that we can employ for the nutrient content of food (3). The state of Chhattisgarh Only one state in the nation, 44.2%, (59772.2Heq) of the state's total area is occupied. the woodlands (4). The forest region of Sanna hilly region was examined to learn more about the distribution of medicinal plants which are edible and how they are used in ethnobotanical medicine. In this state, Sal and mixed forests make up a larger percentage than teak forests. The current study offers ethnomedical details on some significant plant species which are edible that the Oroan tribe of the Sanna, Jashpur district uses to treat the aforementioned numerous ailments.

Materials and Methods

Study Area

The current research region is primarily made up of tribal areas, and its economy is focused on farming and primarily agro-related industries. It is located in the northeastern part of Chhattisgarh State, India, and the state's three districts (Balrampur, Sarguja, and Raigarh) border the district of Jashpur. Surveys carried out in Sanna, Jashpur district's Oroan tribe-dominated areas between October 2022 and February 2022 provide the basis for the observations.

The knowledge gained from this study about the therapeutic leafy plants utilised by the indigenous tribes may aid in their preservation and widespread cultivation in the coming years. For the benefit of our future generations and in order to improve health care conditions, the value of these commercially significant leafy plants might be revitalised. The current endeavour will be highly helpful in preserving the area's important knowledge of tribal peoples' use of plants.



Figure 1. Study Area

Aim of the Survey: One popular technique for gathering information about local indigenous peoples of interest is survey research. The primary goal of the survey was to compile data on the various wild edible leafy vegetable plant species that the local tribal people consume. To identify and map the species of plants that grow leafy vegetables in Jashpur district. Leafy socio-economic development and ethnobotanical survey for leafy vegetable conservation practises. To research tribal people's traditional preservation practises, understanding of various nutrients in wild plants, and awareness of these nutrients (6). Group interviews were set up, as recommended by Jain (5), by bringing plants from a chosen locality and chatting or demonstrating local medicine men in the forest. Information on the plant, such as the local name, parts utilised, medicinal manufacturing procedure, doses, etc., was acquired from the tribal people and medicine men, or "Baidyas." The collected plant specimens have been taxonomically identified using references from reliable published literature and local flora.

Results and Discussions: 35 leafy vegetable plants used by tribal groups in Jashpur district have been identified by the current investigations. The total number of leafy plants that have been identified span 24 Families and have inhabited a variety of life forms, including 4 species of trees, 3 species of shrubs, 23 species of herbs, and 5 species of climbers. In this area, there were the most herb species. the botanical name, family, behaviour, plant parts, and traditional medical use of the plant. The plants surveyed for the current study are presented in the table below.

S.No .	Local Name	Botanical Name	Family	Habit	Edible Part	Ethano-medicinal uses
1	Bathua Bhaji	Chenopodium album L	Chenopodiaceae	Herb	Leaves and seeds	Sunstroke, skin diseases, dysentery, urinary problems

2	Bohar Bhaji	<i>Cordia myxa</i> Roxb.	Boraginaceae	Herb	Leaves, bark, fruits and seed	Stomach aches, coughs and chest pain, sleeping sickness, headaches, ulcers, fever, skin diseases, broken bones, to improve healing
3	Tinpania Bhaji	<i>Oxalis corniculata</i>	Oxalidaceae	Herb	Leaves	Burns, Insect Bites, Skin Problems and Snake Bites
4	Chana Bhaji	<i>Cicer arietinum</i> L	Papilionaceae	Herb	Leaves and seeds	Dyspepsia, constipation and snakebite
5	Charota Bhaji	<i>Cassia tora</i> L.	Caesalpiniaceae	Herb	Leaves and seeds	Skin diseases, leprosy, arthritis, ringworm, itching, snakebites
6	Chaulai Bhaji	<i>Amaranthus viridis</i> L.	Amaranthaceae	Herb	Leaves and stem	Diuretic, heart troubles, gonorrhea, eye infections
7	Chech Bhaji	<i>Chorchorus olitorius</i> L.	Tiliaceae	Herb	Leaves	The leaves are used as a plaster to reduce swellings
8	Chunchunia Bhaji	<i>Marsilea vestita</i> Hook & Grev.	Marsileaceae	Herb	Leaves	Cold, malaria, swelling, relieving pain, stop bleeding, skin problem, diabetes
9	Gumi Bhaji	<i>Portulaca oleracea</i> L.	Portulacaceae	Herb	Leaves, stem and whole plant	Fever, malarial fever, headache, urinary complaints, snake bites and wounds
10	Jhilllo Bhaji	<i>Lathyrus</i> sp.	Papilionaceae	Herb	Leaves	Fever, bodyache, coughs
11	Karmatta Bhaji	<i>Ipomoea aquatica</i> Frosk.	Convolvulaceae	Herb	Leaves	Coughs, fever, tonic, antidiabetic, jaundice, liver

12	Konar, Koliyari Bhaji	Bauhinia purpurea L.	Caesalpiniaceae	Tree	Leaves, Buds, Flower	Piles, diabetes, skin diseases, asthma, dysentery, diarrhea
13	Kusum Bhaji	Carthemnus oxycantha L.	Asteraceae	Herb	Leaves	Fever, jaundic, menstrual problems
14	Poi Bhaji	Basella rubra L.	Basellaceae	Climber	Leaves	Gonorrhea, intestinal disorders
15	Salsa, Sarla Bhaji	Trianthema portulacastrum L.	Aizoaceae	Tree	Leaves	Rheumatism and diabetes
16	Brahmi, Beng Saag	Centella asiatica	Apiceae	Herb	Leaves, Roots	Decoction of whole plant is used as tonic
17	Zirhul Bhaji	Lagerstroemia speciosa	Lythraceae	Shurb	Flower	Fever, malarial fever, headache, urinary complaints, snake bites and wounds
18	Munga Bhaji	Moringa oleifera Lam	Moringaceae	Tree	Leaves, Flower, Fruit	Heart disease, liver, spleen, dental disorders
19	Kena Bhaji	Commelina benghalensis	Commelinaceae	Herb	Flower, Leaves	Infertility in womens, eye ailments, sore throat and burns, diarrhea, stomach pain
20	Gol, Noniya Bhaji	Partulaca oleracea L.	Partulacaceae	Herb	Leaves, stem and whole plant	Diuretic, cough and sores, stomach pain, headaches, skin burn, skin diseases, earaches
21	Siliyari Bhaji	Celosia argentea L.	Amaranthaceae	Herb	Leaves, Flowers, Seeds & Roots	Snakebites, uterine bleeding, dysentery, diarrhea, hypertensions, bloodshot eyes, skin irritation, eczema
22	Kheda Bhaji	Amaranthus dubius Mart.	Amaranthaceae	Herb	Leaves & stem	Lactating mothers, haemorrhage, anaemia, kidney problems, fever

23	Kumda Bhaji	Cucurbita maxima Duch.	Cucurbitaceae	Climber	Leaves, Flower & Fruits	Anti-diabetic, anti-oxidant, anti-inflammatory, digestive problems
24	Kulthi Bhaji	Macrotyloma uniflorum	Fabaceae	Herb	Leaves	Anti-diabetic, anti-oxidant, anti-inflammatory and digestive problems
25	Ganthgobhi Bhaji	Brassica oleracea var. caularpa L.	Brassicaceae	Herb	Leaves & Stem	Cardiotonic, antelmintic, diuretic, stomachic
26	Kochai Bhaji	Colocasia esculenta L. Schott	Araceae	Herb	Leaves, Corms & Petiole	Stomatitis, hemorrhoids, cancer, weakness
27	Tiwara Bhaji	Lathyrus sativus L.	Fabaceae	Herb	Leaves, Stem & Seeds	Prolonged periods, paralysis
28	Burre Bhaji	Carthamus tinctorius L.	Asteraceae	Herb	Leaves, Flowers & Seeds	Heart diseases, lower cholesterol level, menstrual pains, measles, fevers and skin problems, rheumatism, tumours
29	Urla Bhaji	Cocculus hirsutus L.	Menispermaceae	Climber	Leaves, Roots & Stem	Stomach pain, female sterility, night blindness, skin infections, eczema, diuretic, tonic, fever
30	Kheksi Bhaji	Momordica dioica W.Roxb. ex Will.	Cucurbitaceae	Climber	Leaves, roots & tubers	Diarrhoea, diabetes, asthma, headache, piles, fever
31	Khatta/Lakra Bhaji	Hibiscus sabdariffa L.	Malvaceae	Shurb	Leaves	Dysentery, diarrhea, liver diseases, hypertension, skin diseases, stomach pain, digestions, high blood pressure
32	Patawa Bhaji	Hibiscus cannabinus L.	Malvaceae	Shurb	Leaves	Acidity, coughs, dysentery, blood and throat disorders, stomach pain, anaemia

33	Kanda Bhaji	<i>Ipomoea batatas</i> Lam.	Convolvulaceae	Herb	Leaves & Tubers	Asthma, burns, fever, stomach, distress and tumours, antidiabetic, antioxidant
34	Karela Bhaji	<i>Momordica charantia</i> L.	Cucurbitaceae	Climber	Leaves, Fruits, Roots & Seeds	To reduce blood sugar level, diabetes
35	Bhelva Bhaji	<i>Semecarpus anacardium</i> L.f.	Anacardiaceae	Tree	Leaves & Thalamus	Fruits, leaves are used for anticancer purpose

Photographs



Cucurbita maxima Duch. (23)

Moringa oleifera Lam (18)



Colocasia esculenta L. Schott (26)

Ipomoea batatas Lam. (33)





Basella rubra L. (14)

Centella asiatica (16)



Momordica

charantia L. (34)

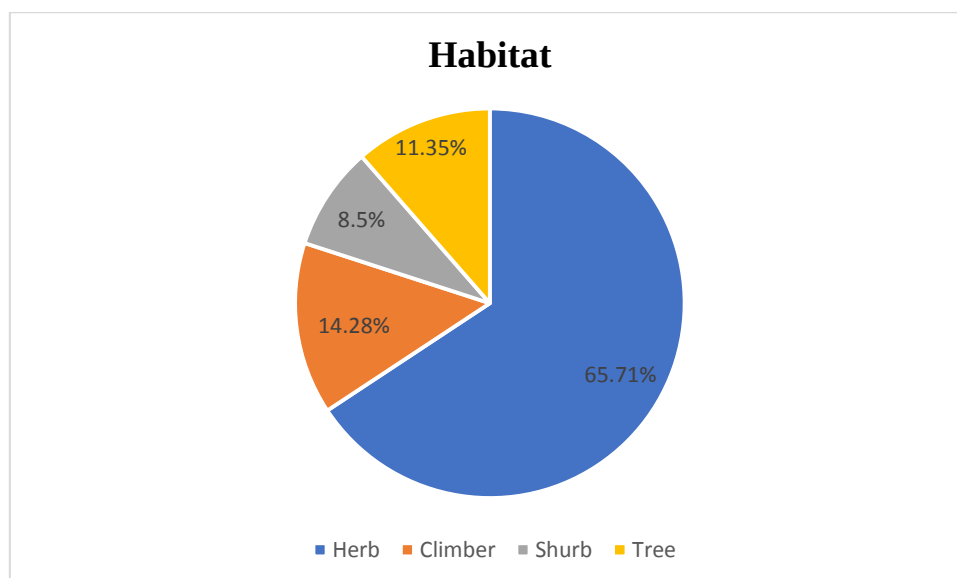


Figure – 2: Percentage of different plants habit collected in Jashpur district.

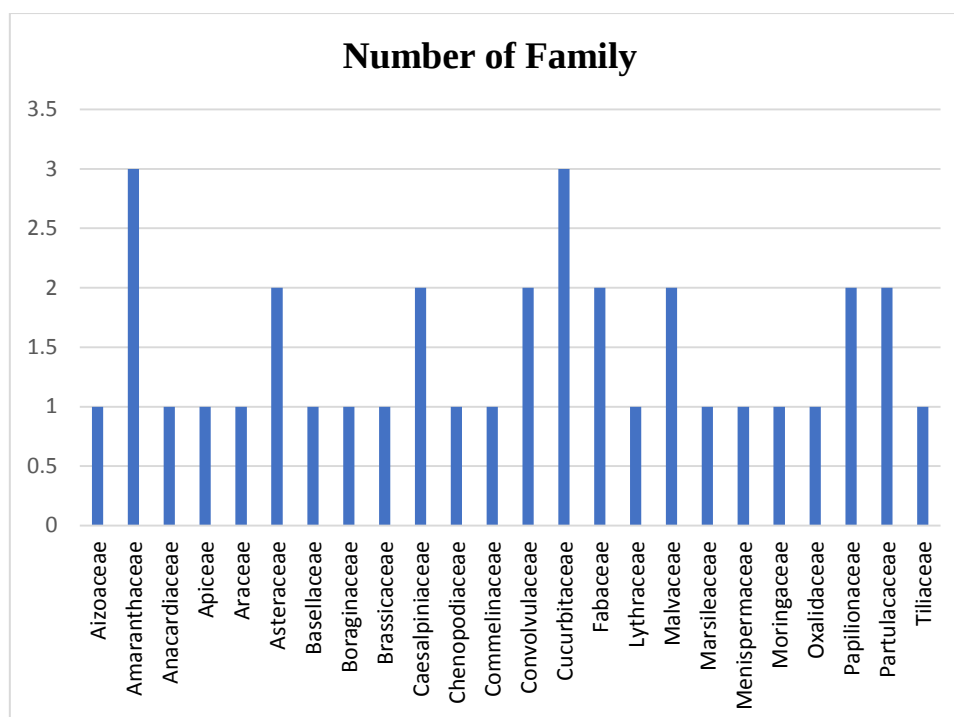


Figure- 3: Distribution of family of Ethno- medicinal edible leafy vegetables found in study area

Conclusion: The Jashpur district is blessed with a wide range of economically relevant ethnomedicinal plants and a rich floristic diversity. It is now acknowledged that ethnomedical studies on numerous tribal locations will be crucial in the future. These green vegetable plants are the basis of medicines. The local ethnic communities like Gond, Baiga, Pahari Korwa, Maria, and Oraon who collect them in large quantities and sell them in the local markets at lower prices to vendors and local residents in order to make a living are pushing many species to fall into red data categories in the near future, putting the diversity of these ethnomedicinal leafy plants in nature at risk.

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