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Ethnobotanical documentation of medicinal plants among the Oraon tribe of Chhattisgarh

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Abstract

The present study focuses on documenting the ethnobotanical knowledge of the Oraon tribe residing in the Raigarh district of Chhattisgarh, India. The Oraon tribe, known for its rich traditional heritage, utilizes a wide variety of local plants for medicinal purposes to treat common and chronic ailments. Field surveys were conducted across different locations such as Madhuban Para, Tamnar, Urdana, Lakha, and surrounding areas through direct interaction with local healers and community members. A total of 36 medicinal plant species belonging to 23 families were identified and recorded. Among these, the Fabaceae family was found to be the most dominant. Various plant parts including roots, stems, leaves, flowers, fruits, and seeds were reported to be used in the treatment of diseases such as fever, cough, cold, skin infections, snake bites, digestive disorders, jaundice, respiratory problems, and pain relief. The findings highlight the Oraon tribe's extensive dependence on plant resources and their deep-rooted traditional knowledge in healthcare. This study emphasizes the importance of documenting indigenous practices for the conservation of ethnobotanical heritage and suggests the potential of these plants for further pharmacological investigation and sustainable community development

Keywords: Chhattisgarh, Ethnobotany, Economic, Oraon, Tradition.

Introduction

The Oraon tribe, predominantly found in central and eastern India, particularly in the Raigarh district of Chhattisgarh, has a rich tradition of ethnobotanical knowledge. This knowledge encompasses the use of plants for medicinal, nutritional, and economic purposes, contributing significantly to their livelihood and cultural heritage. Ethnobotany focuses on the relationship between people and plants, emphasizing the economic aspects of plant use. This study explores the ethnobotanical practices of the Oraon tribe, highlighting how their traditional knowledge sustains their economy and preserves biodiversity. Naidu et al. (2014) have mentioned that the Oraon are an indigenous tribal community primarily found in the states of Jharkhand, Chhattisgarh, Odisha, West Bengal, Bihar, and Madhya Pradesh in India, along with Raigarh district, Chhattisgarh. Singh and Bharti (2015) reported that the relationship between the Oraon tribe and trees is deeply ingrained, highlighting their reliance on forest resources. They mentioned that ethnobotany, which explores the connection between humans and plants, reveals the Oraon tribe's traditional practices in the Raigarh district. Sikarwar (2017) stated that the Oraon tribe occupies a significant area of Chhattisgarh, maintaining cultural homogeneity and a unifying social structure. The author explained that the term "tribe" refers to a "social group" characterized by a defined area, dialect, and cultural traditions. The origins of the name "Oraon" are unclear. Some Oraons say that the name is derived from Ur (chest), because they believe they were born of the blood from the chest of a holy man. Many see the name as a disparaging one given by casteconscious Hindus who considered the tribe unclean. The Oraons themselves use the name "Kurukh," possibly after a mythical Oraon king called Karakh.

Understanding the ethnobotany of the Oraon tribe is crucial for several reasons. First, it helps in documenting and preserving traditional knowledge that is at risk of being lost due to modernization and changing lifestyles. Second, such studies can guide sustainable development policies by show casing how indigenous practices contribute to biodiversity

conservation. Finally, this research can help identify potential plant species that could be commercialized, thereby improving the economic status of the Oraon tribe and other similar communities. Despite the significant research conducted, several gaps persist in the ethnobotanical studies of the Oraon tribe. First, there is a lack of comprehensive quantitative data on the economic contributions of plant resources. Second, the impact of market dynamics on traditional practices remains unexplored. Third, there is insufficient research on the transmission of ethnobotanical knowledge generations within the tribe. Addressing these gaps is essential for a complete understanding of the economic and cultural relevance of ethnobotanical practices among the Oraon tribe (Bisai et al (2023)).

Materials and Methods

Prior information of location, plants, location of river, waterfall and pond were taken from villagers and local

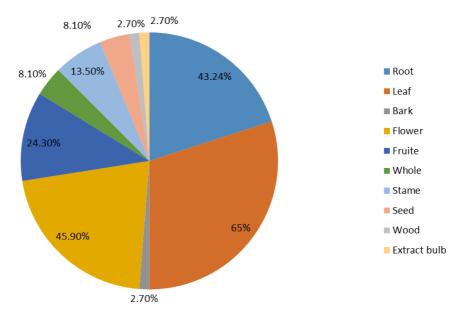
people. Survey was conducted in grassland, roadsides, nurseries, gardens, crop field and bare lands. All necessary equipment's were carried i.e scissors, secateurs, polythene bags, marker and rubber bands. Plants were collected in polythene bags with a information tag of area, date of collection, location and local name of the plant name. Photographs were clicked at various angles. Proper interaction was made with tribal people, and medicinal uses were properly noted. Samples were properly pressed, dried under herbarium plant press between blotting paper and are changed at short intervals in the alternate days and subsequently at longer intervals till the specimens were completely pressed and dried. The completely dried and pressed specimens were carefully placed in herbarium file. Plants were identified and confirmed from taxonomists and various sources.

Result

	Common		Place of	Dlant naut	I
Botanical name	Common name	Family	collection	Plant part used	Medicinal uses
Asian spider	Cleome viscosa	Cleomaceae	Madhuban para	Seed, leaf	Stomach disorders, asthama, ear problem
Azadirachta indica	Neem	Meliaceae	Dharamjay garh	Stem, leaf	Teeth pain, skin diseases, fever
Bauhinia variegata	Koynar	Fabaceae	Nikle mahadev	Flower, leaf	Goiter, Ulcer, diabetes and skin diseases
Benicia hispida	Ash gourd	Cucurbitaceae	Madhuban para	Fruit	Weight loss, Digestion, cooling and healthy skin and hair
Bryophyllum calycinum	Pathathar Chatta	Crassulaceae	Lakha	Root, leaf	Healing wounds, skin problems,controlling high blood pressure, pain, reducing inflammation
Buchanania lanzan	Chironji	Anacardiaceae	Tamnar	Fruit	Digestion, strengthening bones
Calotropis gigantea	Aak	Apocynaceae	Madhuban para	Flower, leaf, root	Ear problem, skin diseases, pain
Carica papaya	Papaya	Caricaceae	Lakha	Flower, leaf, root, fruit	Digestion
Cascabella thevetia	Champa	Apocynaceae	Madhuban para	Flower, leaf, Root, Fruit	Heart disease
Catharanthus roseus	Sadabahar	Apocynaceae	Tamnar	Flower, leaf, root	Cancer, Diabetes
Clitoria ternatea	Aprajita	Fabaceae	Gharghoda	Flower, leaf, root	Fever, immunity
Commelina benghalensis	Kena bhaji	Commelinaceae	Urdana	Leaf	Leprosy and disorders related to the nervous system
Cucurbita maxima	Makhana	Cucurbitaceae	Madhuban para	Flower, leaf, fruit	Antioxidant, vitamins, Nutrient, Digestive and urinary health care
Delonix regia	Gulmohar	Fabaceae	Pussor	Flower	In pain
Eclipta alba	Bhringraj	Asteraceae	Madhuban para	Flower, leaf, root	Hair growth, Liver problem, Skin Problem
Hibiscus rosa - sinensis	Madhar	Malvaceae	Madhuban para	Whole plant	Hair care, skin care
Impatiens balsamina	Garden balsam	Balsaminaceae	Urdana	Seed, Leaf, Flower	Jaundice, snake bites,antibacterial, antimicrobial antifungal, antioxidant
Luffa cylindrica	Dodka	Cucurbitaceae	Urdana	Fruit	Blood sugar control, Kidney stone, Headaches
lxora chinensis	Chinese lxora	Rubiaceae	Madhuban para	Flower, leaf, root	Ear Problum, skin diseases, pain
Magifera indica	Mango	Anacardiaceae	Kharsiya	Fruit	Diarrhea, respiratory problem
Mimosa pudica	Touch me not	Fabaceae	Pali	Stem, root, leaf, bark	Stomach, snakebite, Diarrhea
Mirabilis jalapa	Gulabash	Nyctaginaceae	Madhuban para	Flower, Leaf, root, fruit	Skin disease
Momordica charantia	Karela	Cucurbitaceae	Madhuban para	Flower, leaf, root, fruit	Blood sugar, weight management, Digestive health, skin and hair, detoxification immune system
Moringa oleifera	Munga	Moringaceae	Bade Rampur	Stem, root,	Fever, skin health, hair and digestion

				leaf, bark	
Nyctanthes arbor- tristis	Parijat	Oleaceae	Madhuban para	Flower, leaf, fruit, root	Digestion, skin, fever, malaria, pain
Ocimum tenuiforum	Tulsi	Lamiaceae	Madhuban para	Whole plant	Cold, respiratory problems, digestion, immunity booster
Persicaria glabra	Water lily	Nymphaeaceae	Urdana	Flower, leaf, root	Fever, pneumonia, jaundice
Phullostachyes edulis	Bamboo	Poaceae	Nagar van	Whole plant	Fever, chronic pain
Phyllanthus niruri	Bhumi Amla	Phyllanthaceae	Lakha	Root, leaf	Liver health, jaundice, hepatitis
Shorea robusta	Sal	Dipterocarpaceae	Lailunga	Stem	Dental problem
Sida acuta	Baliyari	Malvaceae	Lakha	Leaf	Swelling, Bone Pain, dental problem
Solanum lycopersicum	Tomato	Solanaceae	Madhuban para	Fruit	Lowering cholestrol and blood pressure
Solanum melongena	Bhata	Solanaceae	Madhuban para	Fruit	Brain, heart, weight management
Trianthema portulastrum	Horse purslane	Azoaceae	Madhuban para	Seed, Leaf, Flower	Antioxidant
Tridax procumbens	Bhringraj	Asteraceae	Bade Rampur	Flower, leaf, root	Skin infection, Wound healing
Vigna mungo	Black gram	Fabaceae	Madhuban para	Fruit	Urinary inflammation, antibacterial

Plant Parts Used



Graph 1: Plant parts used.

Conclusion

The survey marked that the Raigarh district has many medicinal plants for treating various human disease like cough, cold, skin disease, fever, snake bite various pain, headache, tooth problem and also some seviour diseases like Jaundice, digestive and urinary problem and leprosy. Total 36 medicinal plants are documented with their medicinal importance from 23 families. Maximum plants are reported from fabaceae family. Plant root, stem, leaves, flowers and entire plant show medicinal properties for treating various diseases.

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