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Traditional Knowledge and Utilization of Wild Edible Vegetables among Indigenous Communities in Dibrugarh and Tinsukia Districts, Assam

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Abstract | **Original Research Article**

Wild edible plants have long played a vital role in the subsistence and cultural practices of indigenous communities across Northeast India. This study focuses on the documentation of wild edible vegetables traditionally used by the Kachari tribe in the Dibrugarh and Tinsukia districts of Eastern (Upper) Assam. Fieldwork was carried out over a period of three years, from 2023 to 2025, with particular emphasis on the month of June & July considered a peak season for the availability of many wild plant species. Data collection involved ethnobotanical surveys, guided field walks, and semi-structured interviews with local elders, foragers, and community members who possess traditional ecological knowledge passed down through generations. The study identified a wide variety of wild edible vegetables, many of which are foraged from nearby forests, wetlands, and fallow lands. These plants not only contribute to the nutritional needs of the community but are also deeply embedded in the culinary practices and seasonal food traditions of the Kachari people. Some species were found to have medicinal properties as well, reflecting a holistic approach to health and food among the tribe. The findings underscore the cultural and ecological significance of wild edible vegetables and point to the urgent need for their documentation and conservation in the face of rapid environmental and socio-economic changes. By highlighting the knowledge of the Kachari tribe, this research contributes to the broader understanding of sustainable food systems and indigenous practices in Northeast India. It also calls for further interdisciplinary studies and community-led initiatives to preserve this invaluable traditional knowledge for future generations.

Keywords: wild edible vegetables, Kachari tribe, Dibrugarh, Tinsukia, Assam.

INTRODUCTION

Wild edible plants have long played a crucial role in the diets and livelihoods of indigenous communities across the world. These naturally growing plant resources not only serve as supplementary food during times of scarcity, but also provide essential nutrients, variety in diet, and important links to traditional knowledge systems. In recent years, there has been a growing interest in the study of wild edible vegetables due to their potential in supporting food security, sustainable diets, and conservation of biodiversity. Northeast India, known for its ecological richness and ethnic diversity, is home to many indigenous communities who have developed deep-rooted knowledge about the flora of the region. Among them, the Kachari tribe of Assam stands out for their strong cultural and ecological connection with the land. For generations, the Kachari people have been gathering wild edible vegetables from forests, wetlands, and village surroundings using them not only as food but also as medicine and part of traditional culinary practices. Many of these plant species are seasonal, and their availability is often linked to specific months, particularly the monsoon season.

This study focuses on the documentation and ethnobotanical understanding of wild edible vegetables used by the Kachari tribe in the Dibrugarh and Tinsukia districts of Eastern (Upper) Assam. Field surveys were carried out between 2023 and 2025, with a special emphasis on the month of June & July, when many wild vegetables are found in abundance. Through direct engagement with local knowledge holders including elders, women, and traditional foragers this research aimed to record the plant species used, their local names, habitats, methods of preparation, and cultural relevance.

By documenting this traditional ecological knowledge, the study not only contributes to the

conservation of biocultural heritage but also highlights the role of wild edibles in promoting sustainable food systems. As modern agricultural practices and lifestyle changes continue to alter traditional ways of living, such research becomes essential in preserving indigenous wisdom and encouraging the responsible use of local biodiversity.

STUDY AREA

The study was carried out in Dibrugarh and Tinsukia districts of Eastern (Upper) Assam, India regions known for their rich biodiversity and strong presence of indigenous communities, particularly the Kachari tribe. Dibrugarh is located between 27°05′ to 27°42′ N latitude and 94°33′ to 95°29′ E longitude, while Tinsukia lies between 27°14′ to 27°48′ N latitude and 95°14′ to 96°02′ E longitude. Both districts have a tropical monsoon climate with heavy rainfall, especially during the months of June to September. The month of June & July was chosen for the survey, as it marks the peak season for the availability of wild edible vegetables. The study focused on rural areas and forest edges where the Kachari people continue to collect and use wild plants in their daily lives.

MATERIALS AND METHODS

The study was conducted from 2023 to 2025, focusing mainly on the month of June & July, when wild edible vegetables are abundantly available. Field visits were made to selected villages in the Dibrugarh and Tinsukia districts of Assam, inhabited by the Kachari tribe. Data were collected through semistructured interviews, direct observations, and guided field walks with knowledgeable community members, including elders and foragers. Plant specimens were photographed, documented, and later identified using regional floras and reference materials. Local names, parts used, methods of preparation, and cultural significance were recorded. The information was cross-verified through repeated visits and discussions with multiple informants to ensure accuracy.

RESULTS AND DISCUSSION

The survey recorded a total of 89 species of wild edible vegetables, distributed across 72 genera and 51 plant families. The Araceae family was the most represented, contributing 10 species, which reflects its ecological abundance and cultural importance in the diets of the Kachari tribe. These plants were mostly found in natural habitats such as forests, roadside areas, riverbanks, and fallow lands. The majority of them are seasonal and are primarily collected during the month of July, aligning with local knowledge about peak availability. Community members reported using different parts of the plants—including leaves, shoots, stems, and inflorescences in daily meals, often as curries, boiled vegetables, or traditional fermented preparations.

In addition to their role in nutrition, several species were also noted for their medicinal uses, particularly in treating stomach disorders, skin infections, and fevers. The study highlights how the Kachari tribe continues to maintain a strong connection with nature and traditional food systems. However, with increasing urban influence and habitat degradation, this rich ethnobotanical knowledge is slowly declining. Protecting this knowledge through documentation and community involvement is essential for both cultural preservation and future food security.

Table: List of plant species

SI NO.	SCIENTIFIC NAME	FAMILY	LOCAL NAME (ASSAMESE)	PART USED
1.	*Amaranthus viridis* L.	Amaranthaceae	Khutura	Tender shoots
2.	*Amaranthus spinosus*	Amaranthaceae	Kaitia khutura	Tender shoots
3.	*Phlogacanthus thyrsiformis*	Acanthaceae	Tita kochi	Young shoots & flowers
4.	*Sagittaria trifolia* L.	Alismaceae	Zathipotia	Tubers
5.	*Lasia spinosa*	Araceae	Chengmora	Stem & rhizome
6.	*Enhydra fluctuans*	Asteraceae	Helosi	Tender shoots
7.	*Deeringia amaranthoides*	Amaranthaceae	Rangoli lota	Young shoots
8.	*Celosia argentea* L.	Amaranthaceae	Leheti bon	Tender shoots
9.	*Amorphophallus bulbifera*	Araceae	Ol kochu	Corm, tender shoot, leaf petiole
10.	*Alternenthera sessilis* L.	Amaranthaceae	Matikanduri	Tender shoots
11.	*Alternenthera philoxeroides*	Amaranthaceae	Panikanduri	Tender shoots
12.	*Alocasia indica*	Araceae	Kochu	Whole plant
13.	*Achyranthus aspera* L.	Amaranthaceae	Ubhotakata	Leaves
14.	*Alocasia accuminata* (L) Schott.	Araceae	Kochu	Whole plant
15.	*Colocasia esculanta*	Araceae	Kochu	Whole plant
16.	*Calamus tenuis* Roxb.	Araceae	Bet	Young shoots
17.	*Centella asiatica* (L). Urbon.	Apiaceae	Bor manimuni	Whole plant
18.	*Alocasia odora* Roxb.	Araceae	Dahi kochu	Whole plant
19.	*Amaranthus hybridus*	Amaranthaceae	Moricha	Stem & leaves

20.	*Eryngium foetidium* L.	Apiaceae	Bongali dhunia/nemedho	Leaves
21.	*Justicia adhatoda*	Acanthaceae	Bahak tita	Flowers
22.	*Spilanthus paniculata*	Asteraceae	Malkathi	Young leaves
23.	*Spondius pinnata*	Anacardiacear	Amora	Tender shoot, flower bud & young fruits
24.	*Adrographis paniculata*	Acanthaceae	Kaalmegh	Shoot & leaves
25.	*Diplazium esculantum*	Athyriaceae	Dhekia	Young Leaves
26.	*Alocasia macrorrhiza* (Lour)	Araceae	Maan kochu	Whole plant
27.	*Xanthosoma sagittifolium* L.	Araceae	Boga kochu	Whole plant
28.	*Xanthosoma nigrum* L.	Araceae	Kola kochu	Whole plant
29.	*Hydrocotyle sibthorpioides* Lamk.	Apiaceae	Horu manimuni	Whole plant
30.	*Oroxylum indicum* (L). Vent.	Bignoniaceae	Bhatghila	Young shoot &flowers
31.	*Basella alba* (L).	Basellaceae	Puroi	Young shoots
32.	*Brassica oleracea*	Brassicaceae	Bon lai	Leaves
33.	*Chenopodium album*	Chenopodiaceae	Jhilimil	Tender shoots
34.	*Cleome gynandra*	Cleomaceae	Bhutmula	Leaves
35.	*Cleome viscosa* L.	Cleomaceae	Hulchul	Tender shoots
36.	*Commenlina benghalensis* L.	Commenlinaceae	Kon simolu	Leaves
37.	*Ipomoea aquatica*	Convolvulaceae	Kolmou	Tender leaves
38.	*Drymaria cordata*	Caryophyllaceae	Lai jabori	Tender leaves
39.	*Dillenia indica* L.	Dilleniaceae	Ou tenga	Fruits
40.	*Dioscorea alata* L.	Dioscoreaceae	Kath alu	Tubers
41.	*Dioscorea bulbifera* L.	Dioscoreaceae	Jopora alu	Tubers
42.	*Dioscorea esculanta*	Dioscoreaceae	Mua alu	Tubers
43.	*Antidesma acidum* Retz.	Euphorbiaceae	Abu tenga	Leaves & fruits
44.	*Euphorbia hirta* L.	Euphorbiaceae	Gakhiroti	Leaves
45.	*Sesbania grandifolia* L. Poin.	Fabaceae	Bokfull	Flowers
46.	*Caseasia glomerata* Roxb.	Flacourtiaceae	Tel bhukuri	Young shoots
47.	*Hydrolea zeylanica*	Hydrophyllaceae	Leheti bon	Young shoots
48.	*Gmelina arboroea* Roxb.	Lamiaceae	Gomari	Flowers
49.	*Leucus aspera*	Lamiaceae	Doron bon	Leaves & stem
50.	*Vitex negundo* L.	Lamiaceae	Posotia	Leaves
51.	*Asparagus racemosus* Willd.	Liliaceae	Satmul	Young shoots
52.	*Mentha viridis* L.	Lamiaceae	Podina	Young leaves
53.	*Perilla ocimoides* L.	Lamiaceae	Sukloti	Young leaves
54.	*Smilax macrophylla* Roxb.	Liliaceae	Tikoni barua	Fruits
55.	*Mellastoma malabathricum* L.	Mellastomaceae	Phutuki	Leaves & flowers
56.	*Marselia minuta* L.	Marseliaceae	Pani tengesi	Leaves
57.	*Marselia quadrifolia*	Marseliaceae	Pani tengesi	Leaves
58.	*Artocarpus heterophyllus* Lamk.	Moraceae	Kothal	Young fruits
59.	*Hibiscus subdarifa* L.	Malvaceae	Tengamora	Young leaves
60.	*Melia indica*	Meliaceae	Mohaneem	Leaves
61.	*Musa spp.*	Musaceae	Kol gos	Young flowers & stem
62.	*Moringa ollifera*	Moringaceae	Sajina	Young leaves
63.	*Nymphaea nouchali* Burm.	Nymphaeaceae	Boga bhet	Fruits & roots
64.	*Nymphaea rubra*	Nymphaeaceae	Ronga bhet	Fruits & roots
65.	*Boehmeria diffusa*	Nyctaginaceae	Punarnaba	Young shoots
66.	*Nelumbo nucifera*	Nelumbonaceae	Podum ful	Petiole & seeds
67.	*Oxalis debilis*	Oxalidaceae	Bor tengesi	Tender shoots
68.	*Oxalis corniculata*	Oxalidaceae	Horu tengesi	Tender shoots
69.	*Piper longum*	Piperaceae	Pipali	Fruits
70.	*Canavalia cathertica*	Papilionaceae	Urohi	Fruits
71.	*Ceratopteris thalictroides*	Parkeriaceae	Cirolia	Tender fronds
72.	*Momordica hastata* (L). Solms.	Pontederiaceae	Khua metaka	Flowers
73.	*Bambusa spp.*	Poaceae	Bah	Young leaves
74.	*Polygonum microcephalum* P. Don.	Polygonaceae	Madhusuleng	Young leaves

75.	*Polygonum chinense*	Polygonaceae	Pirali paleng	Leaves
76.	*Pteris ensiformis*	Pteridaceae	Dhekia	Young leaves
77.	*Portulaca oleracea* L.	Portulacaceae	Malbhuk khutura	Leaves & stem
78.	*Hedyotis diffusa*	Rubiaceae	Bihlonghoni	Leaves
79.	*Paederia foetida* L.	Rubiaceae	Bhedai lota	Leaves & tender twigs
80.	*Murrya koenigii* (L). Spreng.	Rutaceae	Norosingha	Leaves
81.	*Anthocephalus chinensis*	Rubiaceae	Kodom	Receptacular head
82.	*Houttuynia cordata* Thumb.	Saururaceae	Machundari	Leaves
83.	*Solanum nigrum* L.	Solanaceae	Laskochi	Tender shoots
84.	*Solanum torvum*	Solanaceae	Hati bhekuri	Fruits
85.	*Solanum lycopersium*	Solanaceae	Kon bilahi	Fruits
86.	*Solanum indicum*	Solanaceae	Bhot bengena	Fruits
87.	*Bacopa monnieri*	Scorphulariaceae	Brahmi	Whole plant
88.	*Corchorus capsularis*	Tiliaceae	Mora pat	Tender shoots
89.	*Clerodendrum colebrookianum*	Verbanaceae	Nephaphu	Tender shoots

1.*Clerodendrum colebrookianum*

2. *Phlogacanthus thyrsiformis*

3. *Xanthosima sagittifolium* L.

4. *Murrya koenigii* (L). Spreng .

5. *Solanum nigrum*

6. *Bambusa spp.*

7. *Spilanthus paniculata*

8. *Diplazium esculantum*

9. *Houttuynia cordata* Thumb.

10. ***Oxalis corniculata***

11. ***Dioscorea bulbifera***

12. ***Alternenthera sessilis*** **L.**

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