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Research Article

Wild Edible Vegetables from Western Assam

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Abstract: Being a part of the state of Assam all the districts of Western Assam are also very much suitable for growth and survival of several diversified plant species. This part is found to be rich by its wild edible plants as a whole and wild edible vegetable in particular. A large number of wild plants are used by various communities of various districts of Western Assam from time immemorial. In this paper an attempt has been made to document all the aspects of wild vegetables including botanical name, local name, family, mode of preparation if possible medicinal properties also. So, the objective of this paper is to document the wild plant species used as vegetable by various communities of different districts of Western Assam. The tribal as well as other common peoples of this region commonly use some wild plants in their regular dish. They consume these plants or plant parts after boiling or frying or preparing curry or chutneys or as raw. Various plant parts of course are consumed following various processes which vary according to species or parts of the plant as well as it vary according to the tribes and communities who use the items. Leaves of some plant species are fried after cutting finely, flowers are also seen to be consumed for some species, in some cases rhizome, corm, stolon, and petiole of leaves inflorescence or even the whole plant. Thus it varies according to the consumable plant species. Though these plants are used as vegetable but they bear some medicinal properties besides being nutritious. The study records 75 species of such plants which are consumed following different processes in different districts of this Western part of Assam.
Keywords: Western Assam, edible, vegetables, consume.

INTRODUCTION

Western Assam is a rich diversified region of the state of Assam. Being a part of the state of Assam the western Assam part is also very much suitable for growth and survival of several diversified plant species. This part is found to be rich by its wild edible plants as a whole and wild edible vegetable in particular[1-2]. Wild food plants are important in many indigenous communities around the world. A large number of wild plants are used by various communities of various districts of Western Assam from time immemorial[3-17].

In this paper an attempt has been made to document all the aspects of wild vegetables including botanical name, local name, family, mode of preparation if possible medicinal properties also. So, the objective of this paper is to document the wild plant species used as vegetable by various communities of different districts of Western Assam.

The tribal as well as other common peoples of this region commonly use some wild plants in their regular dish[2]. They consume these plants or plant parts after boiling or frying or preparing curry or chutneys or as raw. Various plant parts of course are consumed following various processes which vary according to species or parts of the plant as well as it vary according to the tribes and communities who use the items.

Leaves of some plant species are fried after cutting finely, flowers are also seen to be consumed for some species, in some cases rhizome, corm, stolon, and petiole of leaves inflorescence or even the whole plant. Thus it varies according to the consumable plant species. Though these plants are used as vegetable but they bear some medicinal properties besides being nutritious.

STUDY AREA

Western Assam is located at the extreme western part of Assam it extends from $89^0 49' 20''$ E longitude to $91^0 48' 16''$ longitude and $25^0 27'$ N latitude to $26^0 54''$ latitude covering lower Brahmaputra valley. Within this area we have seven districts out of which Barpeta and Nalbari districts were visited for extensive data collection. Nalbari with a longitudinal extension of $91^o 15' 8''$ E to $91^o 30' 42''$ E and latitudinal extension of $26^o 12'$. N to $26^o 45' 10''$ N latitude and an area of 2257 sq.km. Barpeta district $90^o 45' 11''$E longitude to $91^o 50' 4''$ longitudes and $26^o 25' 5''$ N latitude to $26^o 45''$ latitude with an area of 3345sq.km. The total population of

Western Assam is 707421 which are 27 percent of Assam's total population covering an area of 15.619 sq.km. Which constitutes about 20 percent of the total area of Assam? It covers eight districts-Dhubri, Kokrajhar, Bongaigaon, Chirang, Goalpara, Barpeta, Baksa and Nalbari.

MATERIALS & METHODS:

The study was carried out from 2012 to 2014. Here Primary data were collected by using a typical questionnaire in various localities of Western Assam. Collected were done in various fields and household survey were also done, extensively by frequent visit in different seasons. Household survey had been done to document the edible wild vegetables they use. This survey was conducted in various villages of the study area; Ethno botanical informations were also collected.

The collected specimens were made into herbarium by following the standard herbarium method (Jain and Rao 1977) [1]. Then these were identified following literature and were confirmed by comparing them with BSI (Shillong) herbarium and Central National Herbarium (Kolkata).

Data Collected about plants included-vernacular name, mode of preparation, medicinal property etc. Photographs were also taken for some specimens. Ultimately data were analyzed and made into tabular form.

RESULT & DISCUSSION

In the present study about 75 wild plant species of 62 genera belonging to 44 families are found to be used as vegetable. Some of which are often collected from nearby forests or other wastelands or home-yards. Some of these are often sold in the nearby local markets.

The family Amaranthaceae is showing highest number of species which are used as vegetable (7 species). Amaranthaceae is followed by Araceae (6species), then Papilionaceae with 4 species. It is followed by Euphorbiaceae having 3 species.

Most of the wild plants used as vegetable are bearing remarkable medicinal properties. Besides being rich sources of nutrients, vitamins, minerals they substitute costly vegetables particularly at the time of scarcity. As they are growing in natural condition so they are free from the danger of insecticide or pesticides.

The analyzed results are made into tabular form and presented in the following table – I.

Sl. No.	Botanical Name	Family	Vernacular Name	Parts used	Mode of preparation/
1	Achyranthes aspera L	Amaranthaceae	Ubhotakata	Leaves	Young leaves are fried and eaten
2	Alocasia indica (Lour) Koch	Araceae	Kochu	Root stock, tubers or petiole	They are made into carry specially with fish
3	Alpinia galanga (L) wild	Zingiberaceae	Tora	Rhizome	Made into carry usually with fish
4	Alternanthera philoxeroides	Amaranthaceae	Panikaduri	Leaves or tender shoots	Tender leaves are fried and consumed
5	Alternanthera sessilis (L.) R. Br.ex DC	Amaranthaceae	Matikaduri	Tender shoots	Leaves & lender shoots are used as green vegetable.
6	Amaranthus spinosus L.	Amaranthaceae	Khutura/ Kata-khutura	Tender shoots or stem rarely	Cut finely and fried
7	Amaranthus. viridis L.	Amaranthaceae	Khutura	Tender shoots	Cut finely and fried is called king of green vegetables
8	Amorphophallus bulbifera	Araceae	Olkochu	Corm, tender leaves, leaf petiole	Corms made into curry specially with fish
9	Amorphophallus paeonifolius (Dennst.) Nicolson	Araceae	Olkochu	Corm, tender leaves, leaf petiole	Corm and petioles into curry, leaves into snacks
10	Anthocephalus chinensis (Lam)	Rubiaceae	Kodom	Receptacular heads	Eaten raw
11	Antidesma acidum Retz	Euphorbiaceae	Abu-tenga	Euphorbiaceae	Leaves

12	Baccaurea ramiflora Lour	Euphorbiaceae	Leteku	Leaves and flowers	Fried and consumed
13	Bambusa tulda Roxb	Poaceae	Bah	Tender shoots	Made into curry or pickled
14	Bauhinia acuminata L.	Papilionaceae	Kanchan	Flowers	Made into pokoras
15	Bauhinia purpurea L	Papilionaceae	Kurian	Flowers	do
16	Bauhinia variegata L	Papilionaceae	Boga-Kanchan/Kurol		Do
17	Boerhavia diffusa L	Nyctaginaceae	Punornoba sak	Leaves and tender shoots	Fried and consumed
18	Bombax ceiba L.	Bombacaceae	Simolu	Flowers, fleshy calyx	Made into snacks
19	Canavalia cathertica Thou.	Papilionaceae	Kamtol-urohi	Fruits	Cooked and eaten
20	Cassia siamea Lam	Caesalpinaceae		Flowers	Flowers are fried
21	Celosia argentea L.	Amaranthaceae	Leheti sak	Tender shoots	Tender shoots
22	Ceratopteris thalictrodes (L.)	Parkeriaceae	Cirolia	Tender fronds	Fried and consumed
23	Chenopodium album L	Chenopodiaceae	Jilmil-sak	Tender shoots	Cut finely and eaten as green vegetable
24	Cissus repens L.	Vitaceae	Harjora-lota	Young shoots	Leaves and tender shoots can be consumed as vegetable.
25	Cleome gynandra L	Capparidaceae	Bhutmula	Leaves	As green vegetable
26	Cleome viscosa L.	Capparidaceae	Hulchul	Tender shoots	As vegetable
27	Commelina benghalensis L.	Commelinaceae	Konasimolu	Leaves	Fried mixing with other leafy vegetable
28	Costus speciosus (Koen) sm.	Costaceae	Jomlakhuti	Rhizome	As vegetable
29	Crassocephalum crepidioides (Benth.)S.Moore	Asteraceae	Bon paleng	Leaves	As vegetable with other leafy vegetable
30	Deeringia amaranthoides (Lam.) Merr.	Amaranthaceae	Methok-theka/ Rangoli-lota	Young shoots	Fried form
31	Dillenia indica L.	Dilleniaceae	Ou-tenga	Fruits	Cooked following different processes
32	Dillenia pentagyna Roxb.	Dilleniaceae	Oxi	Flower buds and fruits	In fried form
33	Dioscorea alata L.	Dioscoriaceae	Kathalu	Tubers	Made into curry
34	Dioscorea bulbifera L.	Dioscoriaceae	Kathalu	Tubers	Consumed preparing curry
35	Dioscora. Esculenta (Lour. (Burk.	Dioscoriaceae	Kathalu	Tubers	Curry especially with fish
36	Diplanzium esculentum (Retz.) Sw	Woodsiaceae	Dhekiya	Fronds	Fried, sometimes with eggs.
37	Emilia sonchifolia (L.) DC	Asteraceae		Leaves	Fried as green vegetable
38	Enhydra fluctuans Lour.	Asteraceae	Helosi-sak	Tender shoots	Fried, very much medicinal
39	Euphorbia hirta L.	Euphorbiaceae	Gakhiroti-bon	Leaves	Fried form
40	Euryale ferox Salisb	Nymphaeaceae	Nikori	Seeds	In roasted or raw form
41	Houttuynia cordata Thumb.	Sauruaceae	Mosondori	Tender shoots	Curry or chutney

42	Ipomoea aquatica Forsk	Convolvulaceae	Kolmou-sak	Tender shoots	Fried and consumed
43	Marselia minuta L.	Marseliaceae	Pani-tengesi	Leaves usually	After frying
44	Marselia quadrifolia L.	Marseliaceae	Pani-tengesi	Leaves	Fried form
45	Melastoma malabathricum L.	Melastomaceae	Phutuki	Leaves and flowers	Fried
46	Momordica charantia L	Cucurbitaceae	Titakerela	Fruits and leaves	Fried and eaten
47	.Momordica cochinchinensis Spreng.	Cucurbitaceae	Bhatkerela	Fruits or leaves	Curry or fried form
48	Monochoria hastata (L.) Solms	Pontedariaceae	Jonaki-phul/Khowa-meteka	Flowers	Making snacks
49	Murdannia nudiflora (L.) Brenan	Commelinaceae		Leaves	Leaves
50	Lasia spinosa L.	Araceae	Chengmora	Stem and rhizome	Extracting juice and preparing curry
51	Murraya koenigii	Rutaceae	Narosingha	Leaves	In different forms
52	Homalomena aromatica	Araceae	Gonkosu	Petioles	Extracting juice and preparing usually with Cat fish
53	Adhatoda vasica	Acanthaceae	Bahka	Flowers	Preparing snacks
54	Nelumbo nucifera Gaertn.	Nelumboaceae	Podum	Petiole and seeds	Seeds raw, petioles making curry
55	Nymphaea nouchali Burn.f.	Nymphaeaceae	Bhet	Usually flower peduncle	Preparing curry
56	Oenanthe javanica (Bl.) DC	Apiaceae		Leaves	Fried and consumed
57	Oroxylum indicum (L) Vent.	Bignoniaceae	Bhatghila	Flowers	Fried form
58	Ottelia alismoides (L.) Pers	Hydocharitaceae			Leaves
59	Oxalis corniculata L	Oxalidaceae	Tengeshi	Tender shoots	In different forms
60	Oxalis debilis H.B.K. var. corymbosa	Oxalidaceae	Bor-tenghesi	Tender shoots	Fried mixing with other leafy vegetables
61	Paederia foetida L.	Rubiaceae	Bhedailota	Leaves	Extracting juice and preparing curry
62	Parkia timoriana (A. DC.) Merr.	Mimosaceae	Monipuri-urohi	Fruits	Cutting finely and frying
63	Phlogacanthus thyrsifrmis	Acathaceae	Ronga-bahak	Flowers	Preparing curry usually applying the local alkali(Khar)
64	Phyla nodiflora (L.) Greene	Verbenaceae		Leaves	Fried form
65	Physalis minima L.	Solanaceae	Pokmou	Tender shoots	As green vegetable
66	Portulaca oleracea L	Portulacaceae	Malbhog-sak	Tender shoots	Fried form slightly sour
67	Pteris ensiformis Burn.f.	Pteridaceae		Tender fronds	In fried form
68	Sagittaria trifolia L.	Alismaceae	Zathipotia/Panikola	Tuber	Preparing curry
69	Sarcoclamys pulcherrimaGaud.	Urticaceae	Mesaki	Leaves	Curry usually with Pig meat

70	Solanum nigrum L.	Solanaceae	Pokmou	Tender shoots	Fried with other leaves
71	Spondias pinnata (L.f.) Kurz	Anacardiaceae	Amora	Fruits	Preparing curry
72	Stellaria media (L.) Villars	Caryophyllaceae	Thotnisak	Tender shots	Fried form
73	Synedrella nodiflora (L.) Gaertn	Asteraceae		Leaves	AS green vegetable
74	Typhonium trilobatum (L.) Schott.	Araceae	Soma-kochu	Leaves, petioles and tubers	Preparing curry and into chutney applying Black cumin and garlic
75	Spilanthes panculata Wall. ex DC	Asteraceae	Sonborial	Tender shoots	Mixing with others bearing pungent property

Enhydra fluctuans Lour.

Murraya koenigii

Marselia quadrifolia L.

Oroxylum indicum (L) Vent

Sagittaria trifolia L.

Paederia foetida L.

Sarcoclamys pulcherrimaGaud

Boerhavia diffusa L

Canavalia cathertica Thou.

CONCLUSION:

Thus it is seen that a good number of plants are used as vegetable in this part of Assam. These have significant role in the socio-economy of locality. But from the experience of the people of the study area it can be said that the plant species they are using as wild vegetable are gradually decreasing in number and quantity. This may be due to environmental degradation which again definitely due to various anthropogenic activities. So, people should be conscious enough to take necessary steps for conservation and protection of this floristically rich region of the state of Assam.

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