

# AN ETHNO-BOTANICAL INVESTIGATION ON WILD EDIBLE PLANTS OF BONGAON SUBDIVISION, NORTH 24 PARAGANAS DISTRICT OF WEST BENGAL, INDIA

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**Abstract:** The present study deals with the ethno-botanical exploration, recognition concerns and future prospects of the wild edible plant species consumed by different local communities inhabiting in the Bongaon subdivision area of North 24 Paraganas district, West Bengal, India. A total of 30 plant species belonging to 24 families were reported from that survey area. A scientific study of wild edible plants is essential for indicative the possible sources of medicine. Also could be utilized at the time of scarcity of cultivated foods in addition to a source of food for the increasing population.

**Key words-** Wild edible plants, ethno-botany, traditional medicine, local communities, Bongaon subdivision.

## INTRODUCTION:

Edible parts of wild plants are the nature's precious gift to mankind. Plants are the one of the most important source of food since ancient times. Wild plants provide a vital job to fulfillment of the diet of local habitat. Wild edible plants are not only important for their food quality but also a large contribution to the population's nutrition throughout the year (Sasi and Rajendran, 2012; Katewa, 2003; Grivetti and Ogle Britta, 2000; FAO, 1999). In recent times wild edible plants play an important role in throughout the world as an economical source of nutritious food. These plants are also extremely useful for folk communities as ethno-medicine. 'Wild food' the term is used to explain plant wealth exterior of agriculture lands. Wild foods are included into the normal living strategies of many rural people, changing cultivation, continuous croppers or hunter gatherers (Bell, J. 1995). Indigenous knowledge of wild edible plants is significant for sustaining exploitation of those plant species (Jasmine et al, 2007). A very little attention has been made till now towards the growth and development research of such type of precious plants. To identify the wild edible plants, an investigation has been done in the area of Bongaon Subdivision, of West Bengal. It was found that 30 wild plants belonging to 24 families are used, collected, marketed, and cooked as vegetables by the local communities, as a source of food as well as potent herbal medicine.

## MATERIALS AND METHODS:

The work was based mainly on ethno-botanical field work in areas mainly inhabited by of Schedule Cast people communities such as Sardar, Bagdi, Namasudra and Tribes such as Munda communities. The study areas are Panchberia, Ganganandapur, Thakurnagar, Ichapur, Gaighata areas in Bongaon Subdivision, North 24 Paraganas District of West Bengal, which is situated on 23.07°N latitude and 88.82°E longitude. The wild plants utilized as edible source of food as well as used for medicinal purpose were recorded through personal interview with the folk healers, local aged people practicing herbal medicines and interested in that topic during various field trips during the month of May, 2016 to October, 2017. Subsequently the medicinal values of the concerned plants were ascertained using appropriate medical terms. At first, 31 plants were observed in those areas. Some specimens were dissected and some of the collected specimens were preservation and the rest worked out following standard taxonomic methods and authentic literature (Prain, 1903; Bennet 1987).

**RESULTS AND DISCUSSIONS:**

A total number of wild edible plants found 30 plants of 24 families. In this findings out of 30 plant species 25 herbs and 5 trees were observed. From the collected data sheets an organized table was prepared (table: 1).

Table: 1. List of wild edible plants of Bongaon subdivision

Serial No.	Scientific Name	Habit	Family	Local Name (Bengali)	Used Plant Parts	Ethnobotanical uses
1.	<i>Enhydra fluctuans</i> Lour.	Herb	Asteraceae	Hincha	Shoot, leaves	Blood purifier
2.	<i>Ipomoea aquatica</i> Forsk.	Herb	Convolvulaceae	Kalmisak	Leaves, twigs	Blood purifier
3.	<i>Centella asiatica</i> (L.) Urban	Herb	Apiaceae	Thankuni	Whole plants	All types of digestive problems
4.	<i>Amaranthus viridis</i> L.	Herb	Amaranthaceae	Notesak	Stem, leaves	Inflammation
5.	<i>Colocasia esculenta</i> Schott.	Herb	Araceae	Kachu	Corm, leaves	Analgesic, blood purifier
6.	<i>Oxalis corniculata</i> L.	Herb	Oxalidaceae	Amrulsak	Leaves	Sourness, digestive problems
7.	<i>Nymphaea alba</i> L.	Herb	Nymphaeaceae	Saluk	Leaves, flower	Antiinflammatory, Analgesic
8.	<i>Paederia foetida</i> L.	Herb	Rubiaceae	Gadalpata	Leaves	Digestive problems, dysentery and Diarrhea.
9.	<i>Typhonium trilobatum</i> (L.) Schott	Herb	Araceae	Kharkonpata	Leaves	Laxative, piles, blood purifier
10.	<i>Hygrophila auriculata</i> (Schumach.) Heine.	Herb	Acanthaceae	Kulekhara	Leaves, flowers	Diuretic, Anti-inflammatory
11.	<i>Coccinia grandis</i> (Linnaeus) Voigt	Herb	Cucurbitaceae	Telakuch	Leaves, Fruits	Skin diseases, anti-diabetic
12.	<i>Vitex negundo</i> L.	Herb	Lamiaceae	Nishinda	Leaves	Skin diseases, wounds
13.	<i>Bacopa monniera</i> (Linn.)	Herb	Scrophulariaceae	Brahmi	Leaves	Improves memory power, anxiety

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14.	<i>Glinus oppositifolius</i> (L.) A. DC	Herb	Aizoaceae	Gimasak	Shoot, leaves	Cough and cold
15.	<i>Luffa cylindrica</i> (Linnaeus) Roemer	Herb	Cucurbitaceae	Dhudul	Shoot, fruits	Asthma, Bronchitis, Skin diseases
16.	<i>Dioscorea alata</i> L.	Herb	Dioscoreaceae	Bon-alu	Tubers	Piles, digestive problems
17.	<i>Marsilea quadrifolia</i> L.	Herb	Marsileaceae	Shusnisak	Whole plants	Insomnia, anxiety
18.	<i>Amaranthus spinosus</i> L.	Herb	Amaranthaceae	Kata-notey	Leaf, Shoots	Inflammation, skin problems
19.	<i>Cleome viscosa</i> L.	Herb	Capparaceae	Bon-sorse/hurhura	Leaves, Flowers	Skin diseases, Fever, Digestive problems
20.	<i>Boerhavia diffusa</i> L.	Herb	Nyctaginaceae	Punarnava	Leaves	Anti-inflammatory, wounds
21.	<i>Chenopodium album</i> L.	Herb	Chenopodiaceae	Bothuasak	Stem, leaves	laxative
22.	<i>Alocasia indica</i> (Lour.) Spach.	Herb	Araceae	Man-kachu	Petioles, stems	Blood purifiers, laxative
23.	<i>Musa acuminata</i> Colla	Herb	Musaceae	kola	Stem, Inflorescence	Digestion problems, ulcers
24.	<i>Artocarpus heterophyllus</i> Lamarck	Tree	Moraceae	Kathal	Fruit, Inflorescence	Anti inflammatory
25.	<i>Moringa oleifera</i> Lamarck	Tree	Moringaceae	Sajne	Flowers, Fruits	Digestion problems, blood purifier
26.	<i>Tamarindus indica</i> Linnaeus	Tree	Leguminosae	Tetul	Fruits	Stomach problems, laxative
27.	<i>Azadirachta indica</i> Jussieu	Tree	Meliaceae	Neem	Leaves	Skin Diseases, Liver troubles
28.	<i>Polygonum Plebeium</i> R.Br.	Herb	Polygonaceae	Chamtisak	Leaves, Shoots	Digestive problems

29.	<i>Ficus glomerata</i> Roxb.	Tree	Moraceae	Dumur	Fruits	Anti inflammatory, Insect bite
30.	<i>Leucas aspera</i> Spreng.	Herb	Lamiaceae	Drone	Flowers	Insect bites, worm problems

### CONCLUSIONS:

It is essential that special attention should be paid to them in order to retain and improve the quality and quantity of this important source of food supply as well as potent medicine. For this reason immense multidisciplinary research is needed to advance cultivation techniques and quality improvement of these types of precious plants.

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### REFERANCES

- [1] Attisso MA.P hytopharmacology and Phytotherapy. In: Bannerman RH, Burton J, (eds.), Traditional Medicine and Health Care Coverage. 1983. World Health Organization, Geneva.
- [2] Bell, J. 1995. The hidden harvest .In seedling. *The quarterly News letter of Genetic Resources Action International*.
- [3] Bennet, S.S.R. 1987 .Name Changes in Flowering Plants of India and Adjacent Regions, *Triseas Publishers, Dehra Dun, India*.
- [4] FAO ; 1999 .Use and potential of wild plants. (Information Division, *Food and Agricultural Organization of the United Nations, Rome, Italy*).
- [5] Jain, S.K. and Rao, R.R. 1977. A hand book of field and herbarium methods, *Today and Tomorrow's Printers and Publishers, New Delhi and Calcutta*.
- [6] Jasmine, T.S., Jeeva, S., Febreena, G.L., Mishra, B.P., & Laloo, R.C. 2007. Wild edible plants of Meghalaya, North-East India. *Natural Products Radiance* 6: 410-426.
- [7] L.E. Grivetti and M. Olga Britta. 2000. Value of traditional foods in meeting macro-micronutrient needs: the wild plant connection. *Natl Res. Rev.* 13:31-46.
- [8] Mondal, Tamal. 2012. Ethno-botanical investigation on important wild edible herbs of Siliguri Subdivision of Darjeeling District, West Bengal, India. *Journal of Today's Biological Sciences : Research & Review (JTBSRR)*. Vol.1. 19-22.
- [9] Mondal Tamal, & Dali Majumder. 2014. An investigation on ethno-medicinal plants of bongaon subdivision, north 24 paraganas district, West Bengal, India. *International Journal of Current Research*, 6(11),

10052-10054. Retrieved from <http://www.journalcra.com/article/investigation-ethno-medicinal-plants-bongaon-subdivision-north-24-paraganas-district-west-be>

[10] Prain, D.1996.Bengal Plants (Vol 1 & 2),Bishen Singh Mahendra Pal Singh, DehraDun ,India.

[11] S.S.Katewa .2003.Contribution of some wild food plants from forestry to the diet of tribal of Southern Rajasthan.*Ind.Forest*.129 (9): 1117-1131.

[12] Sasi,R. and A.Rajendran.2012.Diversity of wild fruits in Nilgiri hills of the Southern Westran Ghats – Ethnobotanical aspects.*IJABPT* ,Vol 3 issue 1,82-87.

