



WILD EDIBLE PLANTS USED AS VEGETABLE BY RURAL COMMUNITIES OF PALGHAR DISTRICT, MAHARASHTRA, INDIA

Vaibhav K. Satvi¹ and C. L. Marathe²

¹JJT University Scholar , Viva College of arts, Science and Commerce, Virar.

²Vice principal, Viva's Utkarsh Jr.College Virar.



ABSTRACT

The present paper deals with the various wild vegetable plants used by tribals of palghar district. During present study 30 species of plants have been studied. These wild plants are either consumed full plant or particular part of the plant. They are consumed either cooked or raw. Present study reveals the use of leaves as vegetable of 12 species, rhizome of 03 species , fruits as vegetable of 07 species and other part used as vegetable of 08 species .Villagers believe the reported plants to be are very nutritious. Therefore recording and conservation of these wild plant resources is must for the nutraceutical studies as well as to protect and conserve plant biodiversity.

KEYWORDS: Wild Vegetable plants, Nutrition, Biodiversity, Palghar district, Tribals.

INTRODUCTION

All over the world about 300 species of plants have been recognized and being cultivated as agriculture for supply of food. However only 150 species being used on large scale. Human population over all the controlling measures increasing at its own rate. Satisfy the hunger of this growing population is the major challenge for Agriculturist, Nutritionist and plant breeders.

Tribals of different parts of the world use their local plant resources for different purpose like food, medicine shelter and others. About 800 species of wild & edible plants used in different floristic regions and are consumed by tribal communities (Sing & Arora, 1978).

Several works have been done on wild edible plants used by different communities of India, such as edible plants from Melghat forest Maharashtra (Bhogaonkar et.al 2010),Plant resources from Thane district Maharashtra (Marathe 2012), Wild edible plants from Arunachal Pradesh India (Tapan et.al 2017) Wild leafy vegetables from North East India (Saikia et.al 2013), Wild edible plants from Annamalai Coimbtore district Western Ghat (Ramchandran 2007), Dietary uses of wild plants in Skkim Himalalaya (Sunder day et.al 2004), Wild plants from Tripura India (Majumdar et.al 2009), and wild edible plant uses in Ahmednagar district Maharashtra (Khyade et.al 2009)

Palghar is one of the major tribal district of Maharashtra. Tribal communities in this region are Warli, Koli, Thakar, Katkari and Dhodia. These communities use plants from their locality as per seasonal availability. They have maintained valuable knowledge system of plant utilization. Their knowledge is needed to be document for future use in plant breeding and development of new varieties.

MATERIALS AND METHODS:

The field survey was undertaken during the period from 1st June 2016 to 1st March 2017. During this 9 months period all seasons of a year observed and studied the tribal areas of Palghar district Maharashtra.

Intensive field survey with the help of village heads and person who have knowledge of wild vegetable and fruits were undertaken for collection and to record their uses. The information collected on wild edible plants, Local name(s), part used and availability period were recorded in a data sheet following standard ethnobotanical methods (Jain and Rao, 1977). Authentic flora of Cook (1965), Flora of Gujarat (Shah, 1978) and Flora of Maharashtra (1996) were consulted for proper identification.

RESULTS AND DISCUSSION:

A total of 30 wild vegetable species belonging to 26 genera belonging to 21 families collected from the study area. Among 21 families Aracaceae had highest i.e. 4 species of wild vegetable plants. Three Families viz Convolvulaceae, Dioscoreaceae and Malvaceae had two wild vegetable plant species each. Remaining 17 families were presented by one species each. Among the wild vegetable plants recorded, one species i.e. *Ipomea aquatica* was aquatic. Plant species viz. *Canvalila gladiata* and *Mimordica indica* were climbers and four species *Cardia dichotoma*, *Goruga pinnata*, *Bhaunia malbarica* and *Randia uliginosa* were trees. Where as remaining 18 species of wild vegetable were herbs.

Two species from the recorded list found to have occurrence year round and remaining has seasonal occurrence. Various plant parts of these wild plant species were used by these ethnic groups for their dietary use. Use of young leaves as vegetable is at highest followed by the young fruits. Leaves of 12 species and fruits of 7 species from the collected species were used as Vegetable. However variety of parts are used as vegetable such as flower bud of *Hibiscus cannabinus*, rhizoeme of *Dioscorea*, inflorescence of *Amorphophyllous* Young flower and fruits of *Basella* and fleshy calyx of *Hibiscus sbdariffa*. Azolla (*Oscimum americanaum*, *Hibiscus sabdariffa* and *Gorigo pinnata* are used as flavouring agents in vegetable preparations. *Cordea dichotoma*, *Goruga pinata* and *Bamboosa* are made into pickles. Shewala available for a short period just before the first rain. Wild vegetable species viz. *Casia tora*, *Ipomea*, *Celosia*, *Comellena* found to occurred abundant in the their respective season. Whereas Loth (*Arum sessiliflorum*), Moredinda (*Leea microhphylla*) occurrence was rare. Species like Azolla (*Oscimum americanaum*), *Hibiscus cannabinus*, *Hibiscus sabdariffa*, *Amorphophyllous companulata*, *Coleus esculata* and *Basella alba* was found to be grown in kitchen garden too. Khurasini (*Gauzotia abyssinical*) is cultivated as crop for oil seed and leaves in this region. Some Plant parts like pods, flowers and leaves are dried under sun and preserved to be use in off season. Rhizome of *Dioscorea bulbifera* before use require specific treatment to remove unpleasant taste. These rhizomes are cut into pieces and kept for washing in the running water of river.

CONCLUSION:

Use of wild plant as food is the age old practice among the tribal people. Now a days the knowledge and practice of using wild plant as food is fast disaapering. Only the senior people of the community have this traditional knowledge. The traditional knowledge of wild food plant may serve as base line data for future research. A detail evaluation of nutritional content of potential species should be conducted for integration into the agriculture system based on the nutritive value and for conservation of important germplasm. So efforts must be taken to conserve wild food plants species and also the traditional knowledge for sustainable uses of biodiversity and food security.

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Table 1. Botanical details of vegetables used by tribes of Palghar district.

	Local Name	Botanical Name	Family	Month of Occurrence	Edible part used
1	Ambadi	<i>Hibiscus cannabinus</i> L.	Malvaceae	Dec.- Jan.	Flower bud
2	Abai	<i>Canavalia gladiate</i> (Jacq.) DC.	Fabaceae	Oct.- Mar.	Pod
3	Ajola	<i>Ocimum americanum</i> L.	Labiatae	Y R	Young leaves and flowers
4	Bhovara	<i>Ipomoea muricata</i> , (L.)Jacq.	Convolvulaceae	Sept.- Nov.	Fruits
5	Baphali	<i>Peucedanum grande</i> CB clark in Hook	Apiaceae	July- Aug.	Young leaves
6	Bhoker	<i>Cardia dichotoma</i> Forst. f.	Boraginaceae	Feb.- June	Young leaves
7	Chichurta	<i>Solanum anguivi</i> Lam.	Solanaceae	July- Feb.	Young leaves
8	Kawlu	<i>Chlorophytum tuberosum</i> (Roxb.) Baker	Agavaceae	June.- Sep	Young leaves
9	Kadukand	<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	July- March	Rhizome
10	Kakad	<i>Garugo pinnata</i> Roxb.	Burseraceae	Feb.-Aug.	Fruits
11	Kantorla	<i>Mimordica dioica</i> Roxb. ex Wild	Cucurbitaceae	Jun.- Oct	Fruits
12	Koral	<i>Bauhinia malbarica</i> Roxb.	Caesalpinaceae	Y.R	Young leaves/Shoot
13	Keni	<i>Commelina benghalensis</i> L.	Commelinaceae	Aug.-Sept	Young leaves/Shoot
14	Khapra	<i>Trianthema portulacastrum</i> L.	Aizoaceae	Aug.- April	Young leaves/Shoot

Table 1. Botanical details of vegetables used by tribes of Palghar district. Cont...

	Local Name	Botanical Name	Family	Month of Occurrence	Edible part used
15	Kurdu	<i>Celosia argentea</i> L.	Amaranthaceae	July-Oct	Young leaves
16	Khurasani	<i>Guizotia abyssinical</i> (L.F) Cass	Asteraceae	Aug-Oct	Young leaves
17	Lal Ambadi	<i>Hibiscus sabdariffa</i> L.	Malvaceae	Oct.- Dec.	Fruit(fleshy calyx)
18	Loth	<i>Arum sessiliflorum</i> Roxb.	Araceae	July- Sept.	Young Shoot
19	Madukand	<i>Dioscorea esculenta</i> (Lour.) Burkill	Dioscoreaceae	June- Dec.	Rhizome
20	Miki	<i>Cucumis setosus</i> Cogn	Cucurbitaceae	Sept-Oct	Fruits
21	Mordinda	<i>Leea macrophylla</i> Roxb. ex. Horn	Leeaceae	July- Oct.	Young Shoot
22	Nalbhaji	<i>Ipomea aquatic</i> Forsk.	Convolvulaceae	Sept.- Dec.	Young leaves
23	Pathari	<i>Launaea remotiflora</i> (D.C) Stebins	Asteraceae	July-Sept.	Young leaves
24	Pendhar	<i>Randia uliginosa</i> (Retz.) DC	Rubiaceae	May-June	Fruits
25	Shewla	<i>Amorphophallus commutatus</i> (Schott) Engl. in DC	Araceae	May- June	Young leaves/Shoot/flower bud
26	Suran	<i>Amorphophyllus companulatus</i> (Decne) Shivdasan	Araceae	Y.R	Rhizome
27	Takala	<i>Cassia tora</i> L.	Caesalpinaceae	Aug.- Feb	Young leaves
28	Tera (Alu)	<i>Colocasia esculenta</i> (L.) Schott	Araceae	July- Nov.	Leaves
29	Vasta	<i>Bambusa arundinaceae</i> (Retz.) Wild	Poaceae	July- Aug.	Young Shoot
30	Vel Bondi	<i>Basella alba</i> L.	Basellaceae	Y R	Young flower

Plate I



A - *Amorphyalus cmmutatus (schott) engl.in.DC*

B - *Garugo pinnata Roxb*

C - *Celosia argentea Linn*

D - *Randia uliginosa (Retz) DC*

E - *Ipomea aquatica Forsk*

F - *Chlorophytum tuberosum*