



*Research Paper*

**WILD EDIBLE PLANT SPECIES OF ALAMATTI HILL RANGE AND SUB REGIONS, VIJAYAPUR DISTRICT OF KARNATAKA, INDIA**

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**Abstract**

An ethanobotanical study of wild edible plant species survey of Alamatti hill range and sub region , Vijayapur district of Karnataka conducted during March 2018 to November 2020. The purpose of this survey was to document the ethanobotanical study of wild edible plant species. There are about 40 species of angiosperms belonging to 30 genera and 23 families of wild edible plant species were documented.

Key words: Wild edible plant species, Alamatti hill range and sub region, Vijayapur, Karnataka.

**INTRODUCTION**

Be Information of wild edible plant species is declining drastically day by day. The wild edible plant species are known for their importance in food and nutritional value. If information is not collected it may be lost in near future. In Ramayana Seeta matha spent time in this hill i.e. Seethimani hill, still Lava and Kusha ponds are visible in this hill. Old lady Shabari fed wild edible sweet Zizyphus fruit near to this hill. Zizyphus is xerophytic and most dominant plant in this region. The present study was initiated with an aim to identify Ethno wild edible plant species in Alamatti hill range and sub region of Vijayapur district of Karnataka

**MATERIALS AND METHODS**

**Ethanobotanical Data collection**

Ethno wild edible plant species survey conducted on March 2018 to November 2020 in Vijayapur district. For this, frequent field trips were conducted. Data and information recorded in the standard questionnaire. Prior Informed Consent (PIC).

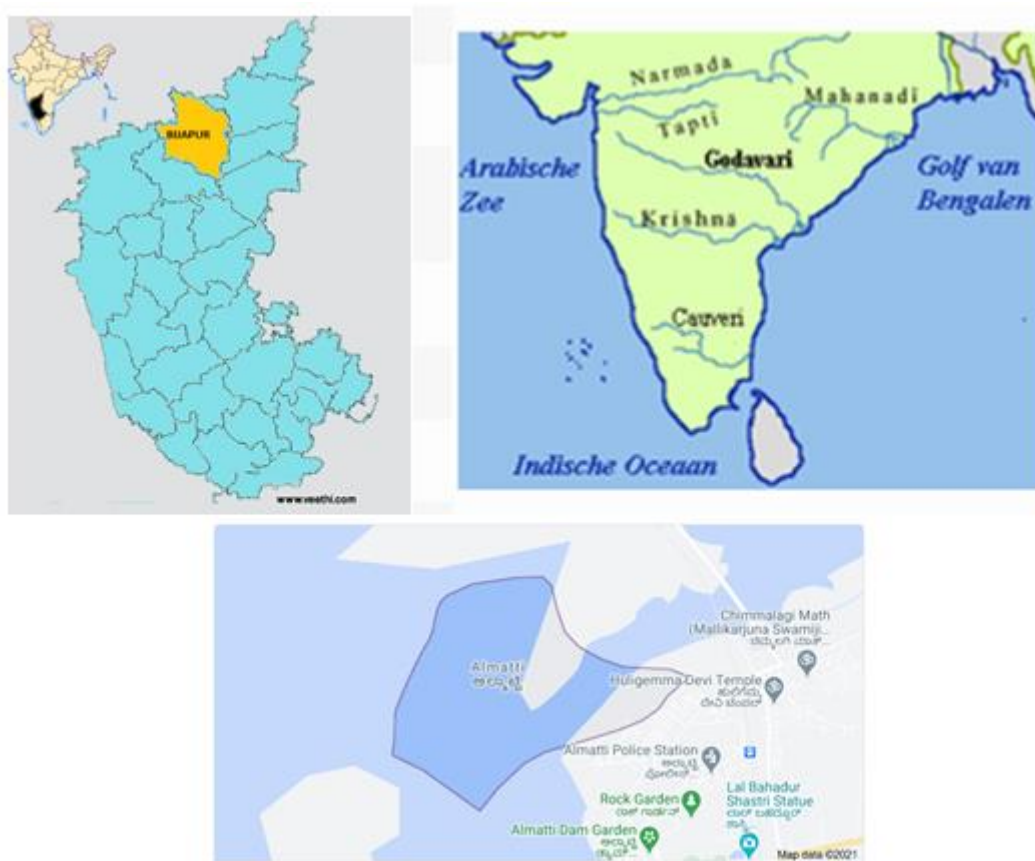
### **Vocher specimen collection and identification**

Collected data and information include, scientific name, family, vernacular name, time of availability, edible part, habit and mode of consumption. Ethno wild edible plant species were photographed in the field. Plant specimens were identified consulting with experts, by referring Flora of Gulbarga District <sup>(11)</sup>, three volumes of the Flora of Presidency of Madras<sup>(4)</sup>. The voucher specimens were stored at the herbarium centre, Department of post graduate studies and Research in Botany, Karnataka State Akkamahadevi womens university, Vijayapur.

### **Study Area**

Alamatti is a small village in Basavan bagewadi taluk in Vijayapur district of Karnataka state, India. A major dam has been constructed across the Krishna river Alamatti. Alamatti dam is also known as Lal Bahadur Shastri dam. It is a Hydrolytic project on the Krishna River in North Karnataka. Krishna River is the fourth biggest river in terms of water inflows. The river is almost 1288 kilometers long. The Alamatti dam is the main reservoir of the Upper Krishna Irrigation Project, the 290 MW power stations is located on the right side of the Alamatti Dam. The facility uses vertical Kalpan turbines. It is one of the major source of irrigation for Maharastra.

Alamatti is occupied by three types of soils viz, black soil, red sandy soils and mixed soils. The soil of Alamatti area is rich in content of basalt rock, magnetite, magnesium, aluminium and iron oxide. The temperature varies between 42° c during summer and 15°c winter season respectively. In May month mean maximum temperature is 40°c. Alamatti is consists of the dry and arid tract of the Deccan Plateau. The climate of this region is arid, tropical and steppe type. The Alamatti receives normal rainfall 578.0 mm and the vegetation of this region is mainly dry and deciduous and may broadly as vegetation on plains. The natural vegetation near Alamatti Dam area is like dry and hot having rich flora.



**Fig.1: Map of the study area**

## RESULTS AND DISCUSSION

In the present account, there are about 40 species of angiosperms belonging to 30 genera and 23 families of wild edible plant species were reported. The predominant family is Amaranthaceae with 6 species, Ramnaceae with 5 species, Fabaceae and Portulocaceae with 3 species, Asteraceae with 2 species and remaining have the one species. Data obtained from the survey is compiled in Table 1. All plant species scientific name, family, vernacular name, time of availability, edible part and mode of consumption are provided. Different plant parts were used as wild edible. Among these leaves and fruits were used (17%), followed by seeds (4%), shoot(Leaves and Stem) with (2%), decreasing order. Most dominant wild fruit of this area is *Zizyphus*, vegetable are *Amaranthus*, *Portulaca* and *Launaea*. 94 wild edible plants documented in pelagonia region, 26 wild edible plants documented by Hakki Pikki Tribes of Angadihalli, Hassan District<sup>(2)</sup>, 66 Wild edible plants and ayurvedic formulation documented in Hassan District, Karnataka<sup>(3)</sup>, 7 wild edible plants nutritional analysis has done<sup>(5)</sup>. selected 24 wild edible vegetables documented by Hyderabad-Karnataka region of Karnataka<sup>(6)</sup>, 105 Wild edible plants documented in old Mysore district<sup>(8)</sup>. 93

wild edible plants documented among two communities in Malia Madashwar<sup>(9)</sup>. 64 Wild edible plants documented by kokni tribe of nasik district. 24 Ethno botanical survey of commercial wild edible plants survey has done in bidar<sup>(12)</sup> Karnataka documented Ethno-veterinary medicinal plant species study has done in Vijayapur<sup>(5)</sup>. But wild edible study in Alamatti Hill range area still has not been reported. By looking other reference *Rhynchosia minima(L.)Dt*, *Abelmoschus ficulneus (L.)Wt.* and *Vinga frutescens* is first reporting wild edible plants .

**Table 1: Wild edible plant species of Alamatti hill range and sub regions, Vijayapur dist.**

S.No	Scientific name	Family	Local/ Vern name	Time of availability	Habit	Edible part	Mode of consumption
1.	<i>Abelmoschus ficulneus (L.)Wt.</i>	Malvaceae	Kadubende	September to December	Herb	Fruit	Fruit eaten as raw or used as curry
2.	<i>Amaranthus spinosus</i>	Amaranthaceae	Rajageeri	September to January	Herb	Leaves	Leaves cooked as vegetable
3.	<i>Amaranthus caudatus</i>	Amaranthaceae	Kepuhuvina rajageeri	September to January	Herb	Leaves	Leaves cooked as vegetable
4.	<i>Amaranthus polygonoides</i>	Amaranthaceae	Haravipalle	September to January	Herb	Leaves	Leaves cooked as vegetable
5.	<i>Amaranthus viridis</i>	Amaranthaceae	Rajageeripalle	September to January	Herb	Leaves	Leaves cooked as vegetable
6.	<i>Basella alba L.</i>	Chenopodiaceae	Bilibasale	Throughout the year	Climber	Leaves	Leaves cooked as vegetable
7.	<i>Basella rubra</i>	Chenopodiaceae	Karibasale	Throughout the year	Climber	Leaves	Leaves cooked as vegetable
8.	<i>Capparis decidua (Forsk.)Edgew</i>	Capparadaceae	Nematyan kanthi	October to January	Shrub	Fruit	Fruits used in preparation of pickles
9.	<i>Carissa carandas</i>	Apocynaceae	Kavalikaayi	August to September	Shrub	Fruit	Raw fruits are eaten with salt. Ripen fruits also eaten
10.	<i>Cassia tora</i>	Caesalpinaceae	Thagate	August to December	Herb	Leaves	Leaves fried used as curry
11.	<i>Celosia argentea L.</i>	Amaranthaceae	Annepalle		Herb	Leaves	Leaves cooked as vegetable
12.	<i>Chenopodium album</i>	Chenopodiaceae	Haravipalle	December to February	Herb	Leaves	Leaves cooked as vegetable
13.	<i>Chenopodium murale</i>	Chenopodiaceae	Chakutha		Herb	Leaves	Leaves cooked as

							vegetable
14.	<i>Digeria muricata(L.)Mart</i>	Amaranthaceae	Goraji pale	September to December	Herb	Leaves	Leaves cooked as vegetable
15.	<i>Feronia elephantum Lam.</i>	Rutaceae	Balloomka ayi	November to March	Tree	Fruit pulp	Fruit pulp mixed with Jaggary and eaten
16.	<i>Ficus glomerota Roxb</i>	Moraceae	atthikaayi	January	Tree	Fruit	Fruit is edible
17.	<i>Glossocardia bosvallea (L.f.)Dc.</i>	Asteraceae	Kadu sabbasagi	August to November	Herb	Leaves	Leaves fried used as curry
18.	<i>Launaea pinnatifida Cass</i>	Asteraceae	Hattharaki		Herb	Leaves	Tender leaves are eaten raw
19.	<i>Momordica cymbalaria Fenzl.ex</i>	Cucurbitaceae	Karchikaa yi	October to January	Climber	Fruit	Fruit fried and used as curry
20.	<i>Opuntia dillenii(Ker-Gawler)Haw</i>	Cactaceae	Rotagalli	February to April	Shrub	Fruit	Fruits are edible
21.	<i>Oxalis corniculata L.,Sp</i>	Oxalidaceae	Pullam purchi	October to December	Herb	Leaves	Leaves are eaten raw it has a sore taste
22.	<i>Phoenix sylvestris(L.)Roxb</i>	Araceae	Ichchal gida	Throughout the year	Tree	Fruit	Fruits are edible and stem latex is used to drink
23.	<i>Pithaclobium delces</i>	Mimosaceae	Ilachi kaayi	November to January	Tree	Fruit (Aril)	Fruits are edible
24.	<i>Portulaca oleraceae L.,Sp</i>	Portulocaceae	Doddagoli	July to September	Herb	Shoot	Leaves cooked as vegetable
25.	<i>Portulaca quadrifida L.,Mant</i>	Portulocaceae	Sannagoli	July to September	Herb	Shoot	Leaves cooked as vegetable
26.	<i>Rhynchosia minima(L.)Dt</i>	Fabaceae	Kadu huruli	September to December	Herb	Seeds	Seeds are eaten raw or cooked used like curry
27.	<i>Saccharum spontaneum(L,)</i>	Poaceae	Kadu kabbu	September to November	Shrub	Stem	Green stem yield juice is chewed
28.	<i>Salvadora persica L.,Sp</i>	Salvadoraceae	Devvinagi da		Tree	Fruit	Fruits are edible
29.	<i>Sesamum prostratum Retz</i>	Pedallaceae	Kadu ellu	September December	Shrub	Fruit	Seeds are edible
30.	<i>Solanum nigrum L.</i>	Solanaceae	Kachi kaayi	September January	Herb	Fruit	Fruit cooked and used as a curry
31.	<i>Tamarindus indica</i>	Fabaceae	Hunase gida	December to March	Tree	Leaves Flowers Fruit Seeds	1.Younger leaves and flowers used as raw 2.Seeds are fried and

							eaten 3.Pulp eaten raw or used in curry
32.	<i>Terminalia catapa</i>	Combretaceae	Kadu Badami		Tree	Seed	Fruit are edible
33.	<i>Trianthema portulocastrum</i>	Portulocaceae		June to November	Herb	Leaves	Leaves cooked as vegetable
34.	<i>Tribulus terrestris L.</i>	Zygophyllaceae	Neggina mullu	July to December	Herb	Leaves	Leaves cooked as vegetable
35.	<i>Vinga frutescens</i>	Fabaceae	Kadu hesaru	September to December	Herb	Seeds	Seeds used as raw
36.	<i>Zizyphus rugosa Lam</i>	Ramnaceae	Barekaayi	November to January	Tree	Fruit	Fruits are edible
37.	<i>Zizyphus xylopyrus Will</i>	Ramnaceae	Barekaayi	November to January	Tree	Fruit	Fruits are edible
38.	<i>Zizyphus jujuba</i>	Ramnaceae	Barekaayi	November to January	Tree	Fruit	Fruits are edible
39.	<i>Zizyphus nummularia W&amp;A</i>	Ramnaceae	Barekaayi	November to January	Tree	Fruit	Fruits are edible
40.	<i>Zizyphus oenoplia Mill</i>	Ramnaceae	Barekaayi	November to January	Tree	Fruit	Fruits are edible

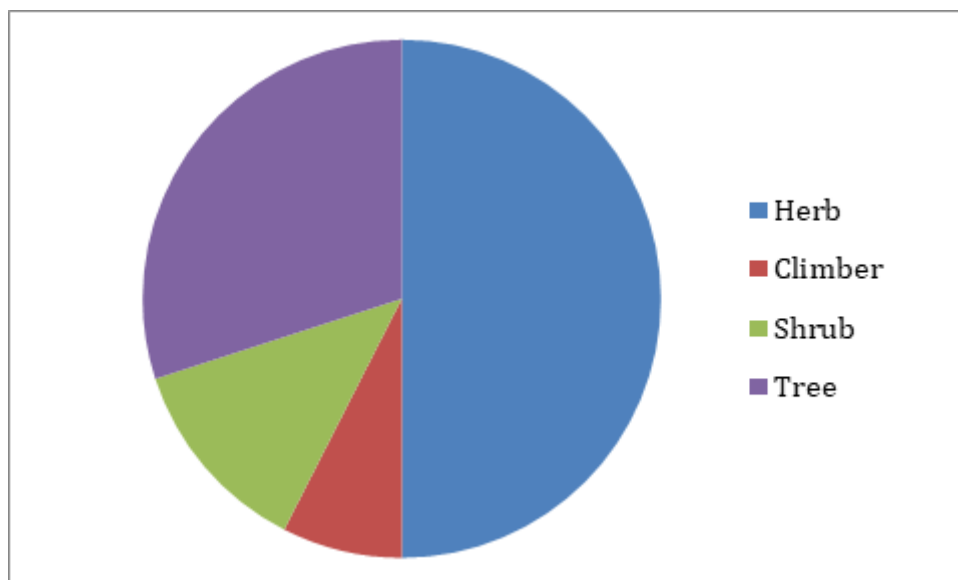


Fig-2 Wild edible plant species Habitwise

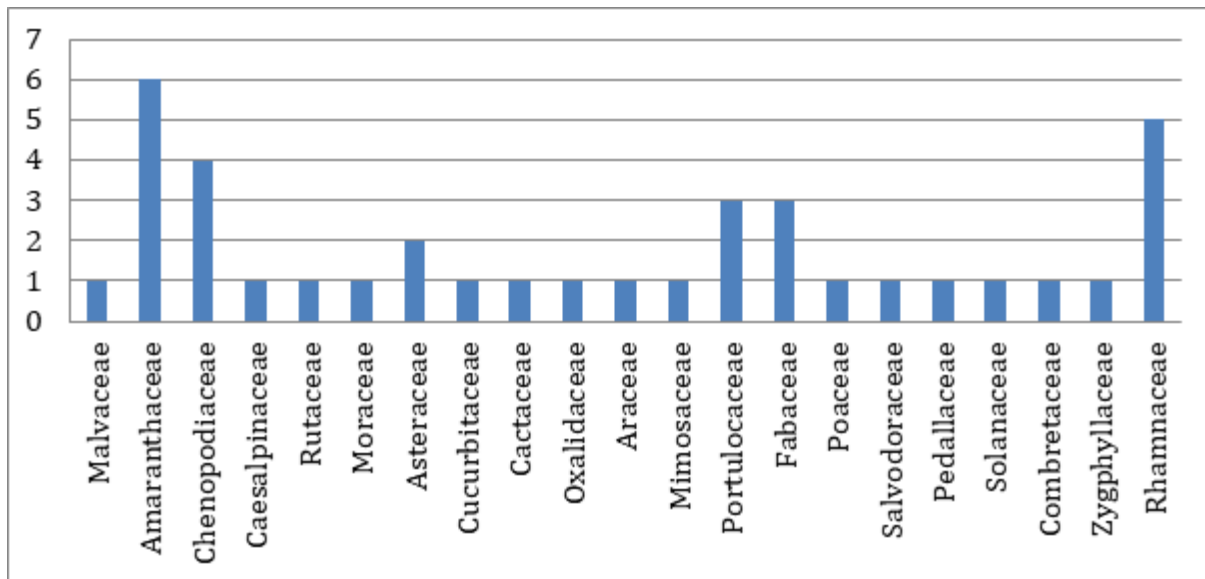


Fig 3. Major Plant Families Of wild edible



Fig 4. .Major plant parts of wild edible



**Fig 5. Wild Edible plants**

## CONCLUSIONS

Ethno wild edible plants species survey conducted on March 2018 to november 2020 in Alamatti hill range area, Vijayapur district. The main purpose of this survey was to document the wild edible plant species. There are about 40 species of angiosperms belonging to 30 genera and 23 families were reported found to be used. scientific name, family, vernacular name, time of availability, edible part, habit and mode of consumption are provided. The study suggests that the present information on wild edible plant species Alamatti hill range area of Vijayapur district may be used for phytochemical and pharmacological research in future for the development of new sources.



## ACKNOWLEDGEMENTS

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## REFERENCES

1. Besnik Rexhepi, Ani Bajrami, Behxhet Mustafa. Ethnobotanical study of wild edible plants in pelagonia region (southwestern macedonia). *International Journal of Advances in Science Engineering and Technology*, 2018. Volume-6, Issue-1, pp-57-61
2. G.M. Prashanth Kumar, N.Shiddamallayya , Ethanobotanical Study of Less Known Wild Edible Plants of Hakki Pikki Tribes of Angadihalli, Hassan District, Karnataka. *Journal of Medicinal Plants Studies* 2015; 3(5): 80-85
3. G.M. Prashanth Kumar, N.Shiddamallayya, Wild edible plants of Hassan District, Karnataka: A role in ayurvedic formulation. *International Journal of Herbal Medicine* 2016; 4(1): 16-24
4. Gamble J.S. and Fischer C.E.C, Flora of the Presidency of Madras, (1984), Vol. I-III, BSI,
5. Gotruvalli manjunatha prashanth kumar, Lava chikkappaiah, shiddamallayya nagayya. Nutritional analysis of edible wild plants used by hakki pikki tribes of hassan district, karnataka, india. *Int J Pharm Pharm Sci*, Vol 8, Issue 8, 390-393
6. Hanumantappa Bherigi Nayaka. Medicinal uses of selected wild edible vegetables consumed by Hyderabad-Karnataka region of Karnataka State in India. *Asian Journal of Pharmacy and Pharmacology* 2020; 6(1): 70-75
7. Laddimath Arati. Ethno-veterinary medicinal plant species of Vijayapur (Bijapur) district of Karnataka, India, *Journal of Medicinal Plants Studies* 2019; 7(6): 06-09
8. N. Nandini and N. Shiddamallayya .Wild edible plants of old Mysore district, Karnataka, India. *Plant Sciences Feed*, 2014; 4(4):28-32.
9. R.P. Harisha and S. Padmavathy. Knowledge and use of wild edible plants in two communities in Malia Madashwar. *International Journal of Botany*.6 (2)64-72. 2013
10. Sachin D Kuvar<sup>1</sup> and R D Shinde. Wild edible plants used by kokni tribe of nasik district, Maharashtra. *Journal of Global Biosciences*. Volume 8, Number 2, 2019, pp. 5936-5945

11. Seetharam Y.N., Kotresha K. and Uplaonkar S.B.. Flora of Gulbarga district, Gulbarga University, Gulbarga. (2000)
12. Sujata M. P and A. H. Rajasab. Ethno botanical survey of commercial wild edible plants of bidar district, karnataka, India. *Indian Journal of Plant Sciences*.2016. Vol.5 (2) , pp. 74-84