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## An ethnobotanical study on the wild vegetable plants consumed by ethnic communities of Junnar Tehsil, in Pune district of Maharashtra, India

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### Abstract

Wild plants and their parts mainly root, corm, stem, leaves, and sometimes whole plants are directly utilized as a seasonal cuisine. Among all, it has been directly utilized as a traditional medicine. Wild vegetables are a reviving, tasty, and inexpensive source of vitamins, minerals, and proteins for users. However, the current situation shows that their utilization and knowledge are reducing over time. Therefore, there is an urgent need to investigate ethnic knowledge and expertise on edible plants' nutritional and therapeutic benefits. It is necessary to take action against exploiting these plant species and conservation priorities would be taken through biotechnological interventions. This study shows that the ethnic groups and forest dwellers have extensive traditional knowledge of the medicinal importance of wild edible plants and their use. The present study was carried out in the tribal communities of Junnar tehsil in Pune (Maharashtra), with a particular emphasis on Katkari, Thakar, Mahadev Koli, Dongar Koli, and Bhil tribes. This is an endeavor to preserve the important ethnomedicinal knowledge of these tribes in the Junnar tehsil. In the present study, a total of 97 species from 84 genera belonging to 52 families have been investigated as wild edibles. Due to their high-value of potentialities, these wild vegetables could be used in pharmaceutical industry and vegetable crop sources in agriculture.

**Keywords:** Wild edible vegetable, tribe communities, ethnomedicinal and traditional knowledge

### Introduction

Maharashtra State is known for its unique plant biodiversity with geographic features and diverse climatic conditions. In this state, abundant natural plant resources are noticed in heavy rainfall areas <sup>[14]</sup>. Various tribal communities and local peoples still depend on wild edible plants as well as seasonal vegetables. The ethnobotanical study reveals the direct traditional and natural connection between indigenous people and plants. It is a novel field of study that examines indigenous traditional knowledge and methods for protecting and utilizing wild plants for human health and nutrition <sup>[13]</sup>. Since ancient times, wild plants have been used as a source of food, fiber, gum, resin, oil, shelter, clothing, medicine, and other things. Tribals and other local people living in and around the forest areas utilize several wild plants as food <sup>[11]</sup>. Tribal communities may access wild edible plant species used as food from a variety of natural habitats, which are neither cultivated nor domesticated <sup>[18]</sup>. About 9500 wild plants are used by Indian tribes for their various purposes, among these 3900 wild plant species are utilized as edibles, although the majority of these plant species remain underutilized <sup>[6]</sup>. Due to their extensive history of connection with forests, local tribal communities are knowledgeable about the availability of wild food resources <sup>[8]</sup>. They may have a lot of benefits in addition to their traditional use of food. They are consumable and have enhanced nutritional value, including vitamins, proteins, carbohydrates, and microelements. In addition to minerals like sodium, potassium, magnesium, iron, calcium, and phosphorus. These are the high-potential sources of secondary metabolites with the highest antioxidant capabilities. The study of wild edible plants has a high impact on improving the natural food sources that have been exploited with the aid of religious knowledge <sup>[2]</sup>. Certain seasonal wild plants are healthy and boost immunity during the rainy season. These edible plants are also affordable, tasty, and nutrient-dense. Additionally, a lot of people find temporary work, which allows them to make extra money by picking these vegetables and selling them to adjacent cities and urban areas <sup>[16]</sup>.

Wild edible plants may have the ability to help the expanding population fulfill its rising demand for food. This edible plant knowledge is fast disappearing because the public typically ignores it [23, 12]. For their sustainable use and conservation in the future, wild edible plants require significant study on their conservation and perhaps even production [10].

The current study will help determine the medicinal and dietary qualities of wild edible plants. The variety of these plant resources must be documented to analyze their nutritional and therapeutic significance in the future. Therefore, now is the ideal time to preserve ethnobotanical knowledge, gather data, and raise awareness among tribes living in tribal areas so that they can protect medicinally important wild edible plants and their habitats before they become extinct. Hence, it is necessary to gather and examine the ethnobotanical wealth of wild edible plants from the forest inhabited by tribal communities of Junnar tehsil of the Pune district of Maharashtra.

## Materials and Methods

### Study Area

Junnar tehsil is a part of Pune District, which is located in the range of northern Western Ghats of Maharashtra state. Junnar tehsil is known for a large population of tribal communities. In the present study, the Schedule Tribe (ST) was 20.3% of the total population in Junnar Taluka of Maharashtra. total 80,922 tribal population from various tribal communities such as Katkari, Thakar, Mahadev Koli, Dongar Koli, and Bhil tribes were reported. The ethnobotanical studies are carried out from Junnar; it is geographically located at 19.2032° N latitude and 73.8743° E longitude. The Junnar Tehsil has a unique natural plant biodiversity as well as a rich reservoir of

medicinal plants with associated traditional practices. This study was conducted in 12 villages such as Anjanawale, Alame, Ambe, Amboli, Aptale, Ghatghar, Hadsar, Hatvij, Ingloon, Katkale, Khireshwar and Taleraan in Junnar Tehsil of Pune district, Maharashtra state, India. The whole 12 villages area was surrounded by dense forest.

### Methodology

In order to document the utilization of medicinal plants, a total of 12 field surveys were carried out from June 2021 to May 2023 in the study area. The surveys were spread across seasons to get maximum information and also to cross-check the information provided by the local informants during the earlier visits [22]. During each field survey, at least two to three days were spent with the local Tribal people. The frequent visits made it possible to develop a good rapport with the elderly people and traditional healers (or Vaidos), thereby making it possible to acquire detailed information about medicinal plants and their uses [3].

This Information on wild edible plant species is the outcome of ethnobotanical field surveys and interviews among old tribal peoples, ethnic men, and women. Data collection was made in different places i.e., forests, barren lands, roadsides, agricultural farms, and nearby localities. Plant specimens were collected and identified with the help of different floras and manuals [5, 19, 20]. Notes were recorded on scientific names, families, local names, useful plant parts, and their utilization of plant species. The identified plants are arranged alphabetically with botanical and family names [11]. The acquired information was cross-checked with available literature [1, 4, 9] about these medicinal plants and their ethnobotany.

**Table 1:** Traditional underutilized seasonally available wild edible plant species from Junnar Tehsil.

Botanical Name	Family	Local Name	Plant Parts used	Habit	Plants use
<i>Trianthema portulacastrum</i> L.	Aizoaceae	Patharchatta	Leaves	Herb	Used as vegetable
<i>Acyranthus aspera</i> L.	Amaranthaceae	Uttarani	Young leaves	Herb	Used for vegetable
<i>Amaranthus spinosus</i> L.	Amaranthaceae	Khattibhaji	Leaves	Herb	Leaves used as vegetable
<i>Amaranthus viridis</i> L.	Amaranthaceae	Tandulja	Leaves	Herb	Cooked as vegetable
<i>Digera muricata</i> (L.) Mart.	Amaranthaceae	Tanduli	Leaves	Herb	Leaves are used as vegetable.
<i>Mangifera indica</i> L.	Anacardiaceae	Amba	Ripe fruit	Tree	Eaten raw and used in making pickles
<i>Annona reticulata</i> L.	Annonaceae	Ramphal	Ripe Fruit	Tree	Eaten as raw
<i>Annona squamosa</i> L.	Annonaceae	Sitaphal	Ripe Fruit	Tree	Eaten as raw
<i>Trachyspermum ammi</i> L.	Apiaceae	Ova	Leaves	Herb	Leaves are used to prepare chutney
<i>Caralluma adsendens</i> (Roxb.)	Apocyanaceae	Makadshingi	Stem	Herb	As vegetable
<i>Carissa carandas</i> Wight.	Apocynaceae	Karvand	Fruit	Shrub	Unripe fruits used to prepare chutney
<i>Holarrhena pubescens</i> (Buch- Ham.) Wall. ex. G. Don.	Apocynaceae	Kuda	Flower, Fruits	Shrub	Cooked as vegetable
<i>Ceropegia bulbosa</i> Roxb.	Apocynaceae	Kharputi	Corm	Climber	Cooked as vegetable.
<i>Ceropegia sahyadrica</i> Ansari.	Apocynaceae	Pandhari kharchudi	Leaves, Tuber	Herb	Cooked as vegetable
<i>Ceropegia rollae</i> Hemadri	Apocynaceae	Kharpudi	Leaves, Tuber	Herb	Cooked as vegetable
<i>Amorphophallus paeonifolius</i> Dernt.	Araceae	Jimikanda	Tender shoot, Leaves, Corm	Herb	Cooked as vegetable
<i>Amorphophallus bulbifer</i> (Roxb.) Blume.	Araceae	Raan Suran	Corm	Herb	Used as vegetable
<i>Ledebouria revolute</i> (L.f.) Jessop	Asparagaceae	Bhuikanda	Corm, Leaves	Herb	Cooked as vegetable
<i>Chlorophytum tuberosum</i> (Roxb.) Baker.	Asparagaceae	Safed musali	Leaves	Herb	Leaves are used as vegetables during monsoon.
<i>Asperagus racemosus</i> Willd.	Asperagaceae	Shatavari	Leaves	Climber	Asa vegetable
<i>Acmella paniculata</i> Wall (ex.DC.) R.K. Jansen	Asteraceae	Akkalkara	Leaves	Herb	Asa vegetable
<i>Carthamus tinctorius</i> L. Willd.	Asteraceae	Rankardai	Leaves, Seeds	Herb	Leaves and extracted oil from seeds are Used for cooking purposes.
<i>Glossocardia bosvallia</i> (L.f) DC.	Asteraceae	Jangalishepu	Leaves	Herb	Used as vegetable
<i>Launaea procumbens</i> (Roxb.)	Asteraceae	Pathri	Leaves	Herb	Cooked as vegetable
<i>Vernonia anthemintica</i> L. Willd.	Asteraceae	Donger jira	Leaves	Herb	Used for vegetable

<i>Begonia crenata</i> Drynad.	Begoniaceae	Ambada	Leaves Flower Stem	Herb	Entire plant used as vegetables.
<i>Cordia dichotoma</i> L.	Boraginaceae	Bhokar	Fruits	Tree	Used as edible
<i>Cassia fistula</i> L.	Caesalpiniaceae	Bahava	Flower, Seeds	Tree	Cooked as vegetable
<i>Tamarindus indica</i> L.	Caesalpiniaceae	Chinch	Leaves fruit	Tree	Fruits eaten raw and leaves are cooked as vegetables.
<i>Capparis zeylanica</i> L.	Capparidaceae	Waghati	Fruit	Shrub	Used as vegetable
<i>Terminalia bellirica</i> Roxb.	Combretaceae	Behda	Seeds	Tree	Eaten raw
<i>Terminalia arjuna</i> L.	Combretaceae	Arjun tree	Fruit, seeds	Tree	Eaten as raw
<i>Terminalia chebula</i> Retz.	Combretaceae	Hirda	Fruit	Tree	Eaten as raw
<i>Commelina benghalensis</i> L.	Commelinaceae	Kankauaa	Tender Shoot, Leaves	Herb	Used as vegetable
<i>Brassica compestris</i> Linn.	Cruciferae	Kali mohari	Leaves, Seeds	Herb	Used in vegetable
<i>Coccinia grandis</i> L. (Voigt)	Cucurbitaceae	Tandale	Fruits	Climber	As vegetable
<i>Momordica dioica</i> Roxb. ex Willd.	Cucurbitaceae	Kartule	Leaves, Fruit	Climber	Young leaves and fruits are used as vegetable
<i>Citrullus colocynthis</i> L.	Cucurbitaceae	Kadu- indravani	Fruit, leaves	Climber	Used as vegetable
<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Dangkanda	Tuber	Climber	Cooked as vegetable
<i>Diospyros melanoxylon</i> (Roxb.)	Ebenaceae	Tembhurni	Ripe fruit	Tree	Eaten as raw
<i>Elaeagnus conferta</i> Roxb.	Elaeagnaceae	Aamboli	Ripe fruit	Tree	Eaten as raw
<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Amla	Fruit	Tree	Eaten raw and used in making pickles
<i>Abrus precatorious</i> L.	Fabaceae	Gunj	Leaves	Shrub	Leaves eaten as raw
<i>Cajanus scarabaeoides</i> L.	Fabaceae	Rantur	Seeds	Shrub	Eaten as raw or cooked as a vegetable
<i>Senna occidentalis</i> L.	Fabaceae	Rantakla	Young leaves	Shrub	Young leaves are used as a vegetable
<i>Sesbania grandiflora</i> L.	Fabaceae	Hadga	Leaves, flowers, Pod	Tree	Used as vegetable
<i>Teramnus molis</i> Benth.	Fabaceae	Ran- udid	Pods	Climber	Used as vegetable
<i>Careya arborea</i> (Roxb.)	Lecythidaceae	Kumbi	Fruit	Tree	Fruits are eaten by tribals
<i>Drimia indica</i> (Roxb.)	Liliaceae	Junglikanda	Bulb, Leaves	Herb	Leaves and Corms are Used as vegetable
<i>Gloriosa superba</i> L.	Liliaceae	Aagnishikha	Leaves, Tuber	Shrub	Used as vegetable
<i>Woodfordia fruticosa</i> L. Kurz.	Lythraceae	Dhayati	Flower	Shrub	Used as vegetable
<i>Hibiscus cannabani</i> L.	Malvaceae	Ambadi	Leaves	Herb	As vegetable
<i>Hibiscus sabdariffa</i> L.	Malvaceae	Lal ambadi	Leaves, Flower	Herb	Leaves are eaten as a vegetable
<i>Abelmoschus ficulneus</i> L.	Malvaceae	Ranbhendi	Fruit	Herb	Cooked as vegetable
<i>Abelmoschus moschatus</i> Medic.	Malvaceae	Kasthoori bhendi	Fruit	Herb	Cooked as vegetable
<i>Acacia catechu</i> (L.f.) Willd	Mimosaceae	Khair	Gum	Tree	Used in Paan masala with betel leaf
<i>Pithecellobium dulce</i> (Roxb.) Benth.	Mimosaceae	Chichbilayati	Pods, Seeds	Tree	Pods are used as eaten raw and seeds are used in vegetable
<i>Artocarpus hetrophyllus</i> Lamk.	Moraceae	Phanas	Fruit	Tree	Cooked as vegetable Or eaten raw
<i>Ficus racemosa</i> L.	Moraceae	Umber	Ripen fruit	Tree	Eaten as raw.
<i>Moringa oleferia</i> Lam.	Moringaceae	Shevga	Leaves, Flower Pods	Tree	Cooked as vegetable
<i>Ensete superbum</i> (Roxb.)	Musaceae	Rankeli	Rhizome, fruit	Herb	Rhizome and fruit are eaten
<i>Myristica fragrans</i> Houtt	Myristicaceae	Jayphal	Seeds, Seedcoat	Tree	Used as a spice
<i>Syzygium cumini</i> L. Skeels	Myrtaceae	Jambhul	Ripe fruit	Tree	Eaten raw
<i>Psidium friedrichsthalianum</i> (O. Berg) Nied	Myrtaceae	Jangali Peru	Fruit	Tree	Used as edible
<i>Oxalis corniculata</i> L.	Oxalidaceae	Tinpatti, Ambushi	Leaves	Herb	Used as vegetable
<i>Sesamum orientale</i> L.	Pedaliaceae	Rantil	Seeds	Herb	Seeds are edible
<i>Hemidesmus indicus</i> L.R. Br.	Periplocaceae	Khapribela	Tuber	Climber	Cooked as vegetable
<i>Phyllanthus reticulatus</i> Poir	Phyllanthaceae	Bhuiawala	Fruit	Herb	Used as vegetable
<i>Bambusa vulgaris</i> Schrad.	Poaceae	Bambu	Tender shoot	Tree	Cooked as vegetable
<i>Dendrocalamus strictus</i> (Roxb.) Nees	Poaceae	Bamboo	Tender shoot	Tree	Cooked as vegetable
<i>Cymbopogon martini</i> (Roxb.) W. Watson.	Poaceae	Rohisa	Leaves	Herb	Leaves are used as substitute for tea powder
<i>Cymbopogon citratus</i> (D.C) Stapf.	Poaceae	Gavati chaha	Leaves	Herb	Leaves are used in making tea.
<i>Setaria glauca</i> Beauv.	Poaceae	Kolara	Seeds	Herb	Seeds are edible
<i>Panicum miliaceum</i> L.	Poaceae	Varai	Seeds	Herb	Seeds are edible
<i>Paspalum scrobiculatum</i> L.	Poaceae	Harik	Seeds	Herb	Seeds used as cereals
<i>Rumex vesicarius</i> L.	Polygonaceae	Ambatchukka	Leaves	Herb	Used as vegetable
<i>Portulaca oleraceae</i> L.	Portulacaceae	Ghol	Leaves	Herb	Used as vegetable
<i>Portulaca quadrifida</i> L.	Portulacaceae	Chigal	Leaves	Herb	Used as vegetable
<i>Anagalis arvensis</i> L.	Primulaceae	Raan draksh	Fruit	Climber	Eaten as raw
<i>Tinospora cordifolia</i> (Thunb.) Miers	Ranunculaceae	Gulvel	Leaves, Stem	Climber	Used as energy boost drink for tribal
<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	Bhor	Ripe fruit	Tree	Eaten as raw
<i>Dentella repens</i> L.	Rubiaceae	Kadubhaji	Leaves	Herb	Used as vegetable
<i>Aegle marmelos</i> Corr.	Rutaceae	Bel	Fruit	Tree	Raw fruit pulp is edible
<i>Limonia acidissima</i> L.	Rutaceae	Kawath	Fruit	Tree	Eaten raw and used in making pickles
<i>Murraya paniculate</i> L. Jack	Rutaceae	Raan Kadipatta	Leaves	Tree	Used in vegetable, and chutney.
<i>Cardiospermum helicacabum</i> L.	Sapindaceae	Kapalphuti	Ripen fruit	Herb	Eaten as raw

<i>Madhuca longifolia</i> (Koen.) Mac. Var.	Sapotaceae	Mahuva	Ripe fruit	Tree	Eaten raw and cooked as a vegetable
<i>Bacopa monnieri</i> L. Penn.	Scrophulariaceae	Brahmi	Leaves	Herb	Cooked as vegetable
<i>Solanum nigrum</i> L.	Solanaceae	Ranwange	Fruit	Herb	Used for vegetable
<i>Solanum lycopersicon</i> L.	Solanaceae	Wild tomato	Fruit	Herb	Used for vegetable
<i>Sterculia urens</i> Roxb.	Sterculiaceae	Kahandol	Seeds	Tree	Seeds are roasted and eaten
<i>Grewia asiatica</i> L.	Tiliaceae	Phalsi	Fruit	Tree	Ripe fruits are edible
<i>Grewia tillifolia</i> Vahl.	Tiliaceae	Dhaman	Fruit	Tree	Ripe fruits are edible
<i>Costus speciosus</i> (Koen.)	Zingiberaceae	Kevkanda	Leaves, Tuber	Herb	Cooked as vegetable
<i>Curcuma pseudomontana</i> Graham.	Zingiberaceae	Raan Halad	Rhizome	Herb	Rhizomes are used as a vegetable
<i>Zingiber officinale</i> Rosc.	Zingiberaceae	Ale	Rhizome	Herb	Rhizome is edible
<i>Tribulus terrestris</i> L.	Zygophyllaceous	Sarata	Leaves	Herb	Leaves are used as a vegetable

## Results and Discussion

In the present study, data analysis shows that the Katkari, Dongar Koli, Mahadeo Koli, Bhil and Thakar tribe's communities of study areas possess tremendous knowledge of

wild edible plants. In the study area, a total of 97 plant species from 84 genera belonging to 52 families have been recorded as wild edible plants (Data depicted in Tab. 1.).

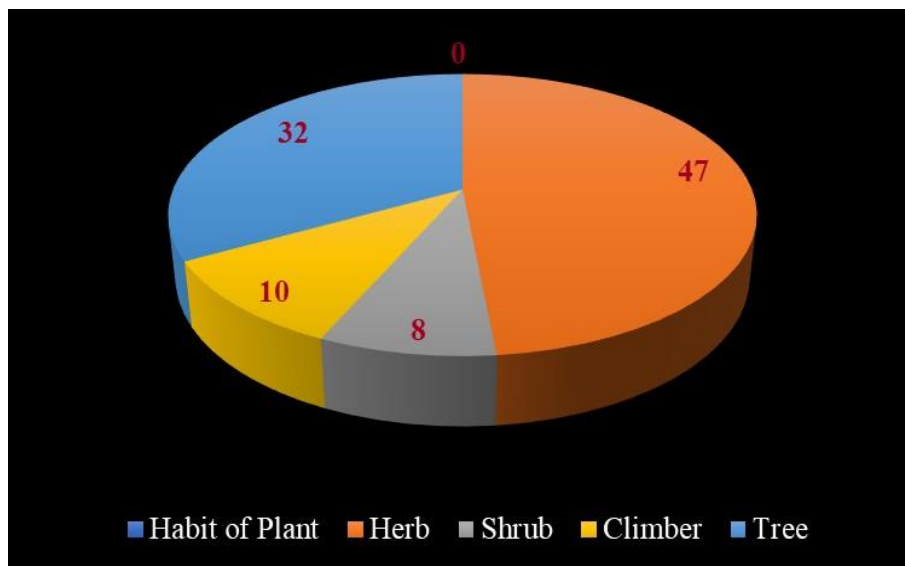
**Table 2:** Number of genera and species of wild edible plants from Junnar Tahsil.

Sr. No	Family	No. of Genera For each family	Number of species (For each Family)
1	Aizoaceae	1	1
2	Amaranthaceae	3	4
3	Anacardiaceae	1	1
4	Annonaceae	1	2
5	Apiaceae	1	1
6	Apocynaceae	4	6
7	Araceae	1	2
8	Asparagaceae	3	3
9	Asteraceae	5	5
10	Begoniaceae	1	1
11	Boraginaceae	1	1
12	Caesalpinaceae	2	2
13	Capparidaceae	1	1
14	Combretaceae	1	3
15	Combretaceae	1	1
16	Cruciferae	1	1
17	Cucurbitaceae	3	3
18	Dioscoreaceae	1	1
19	Ebenaceae	1	1
20	Elaeagnaceae	1	1
21	Euphorbiaceae	1	1
22	Fabaceae	5	5
23	Lecythidaceae	1	1
24	Liliaceae	2	2
25	Lythraceae	1	1
26	Malvaceae	2	4
27	Mimosaceae	2	2
28	Moraceae	2	2
29	Moringaceae	1	1
30	Musaceae	1	1
31	Myristicaceae	1	1
32	Myrtaceae	2	2
33	Oxalidaceae	1	1
34	Pedaliaceae	1	1
35	Periplocaceae	1	1
36	Phyllanthaceae	1	1
37	Poaceae	6	7
38	Polygonaceae	1	1
39	Portulacaceae	1	2
40	Primulaceae	1	1
41	Ranunculaceae	1	1
42	Rhamnaceae	1	1
43	Rubiaceae	1	1
44	Rutaceae	3	3
45	Sapindaceae	1	1
46	Sapotaceae	1	1
47	Scrophulariaceae	1	1
48	Solanaceae	1	2
49	Sterculiaceae	1	1

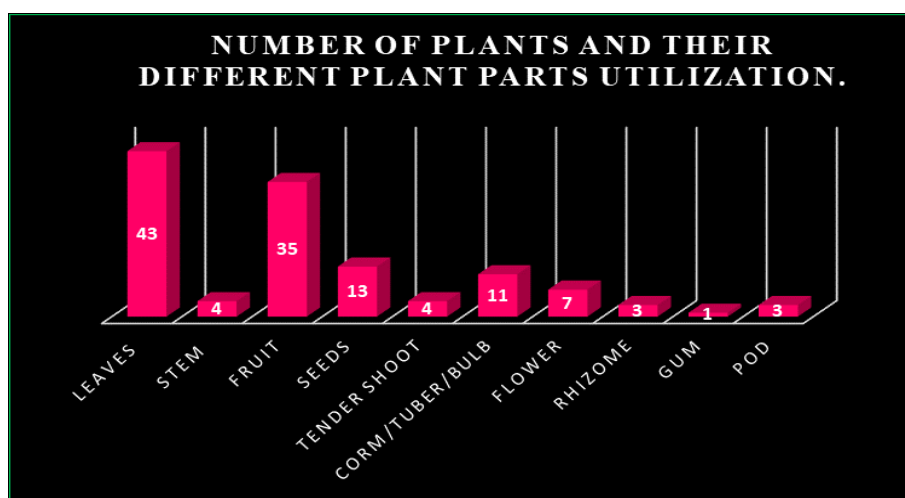
50	Tiliaceae	1	2
51	Zingiberaceae	3	3
52	Zygophyllaceous	1	1

(Data depicted in Tab. 2.) The most widely utilized species belong to Poaceae (7), Apocynaceae (6), Asteraceae (5), Fabaceae (5), Amaranthaceae (4), and Malvaceae (4). The families Asparagaceae, Combretaceae, Cucurbitaceae, Rutaceae, and Zingiberaceae represent (3) species each, and

the remaining families are represented by one or two species each. While analyzing the life forms of the wild edible plant species, it was noticed that there are around (97) wild edible plant species reported; among them (47) are herbs, (8) shrubs, (10) climbers, and (32) trees.



**Fig 2:** Number of different plants represents their habits.



**Fig 3:** Number of plants and their uses of different plant parts.

Among the 97 plant species, 33.95% of plant species contribute as vegetables by their fruit, 45.59% by leaf, 12.61% by seeds, 10.67% by corm or tuber or bulb, 6.79% by flower, 3.88% by stem, 3.88

% by tender shoot, 2.94% by rhizome. 2.94% by pods and 0.97% by gum of plant. It is evident from (Fig.3) that most of the wild edible species are used as vegetable/chutney, followed by raw/ripe fruits, pickles, and roasted seeds.

Most of edible plant parts used as leaves, tuber, and fruits are consumed after cooking (*Amaranthus spinosus*, *Amaranthus viridis*, *Ceropegia bulbosa*, *Ceropegia sahyadrica*, *Chlorophytum tuberosum*, *Carthamus tinctorius*, *Glossocardia bosvallia*, *Launaea procumbens*, *Begonia crenata*, *Capparis zeylanica*, *Momordica dioica*, *Dioscorea bulbifera*, *Cajanus scarabaeoides*, *Sesbania grandiflora*, *Teramnus molis*, *Hibiscus cannabaniis*, *Abelmoschus*

*ficulneus*, *Moringa oleifera*, *Bambusa vulgaris*, *Rumex vesicarius*, *Portulaca oleraceae*, *Murraya paniculate*, *Solanum nigrum*, *Solanum Lycopersicon*). Some of the edible parts are roasted seeds (*Vernonia anthemintica*, *Terminalia bellirica*, *Brassica compestris*, *Sesamum orientale*, *Setaria glauca*, *Panicum miliaceum*, *Paspalum scrobiculatum*, *Sterculia urens*). Some of the plant's parts are directly consumed as fresh (*Syzygium cumini*, *Tamarindus indica*, *Artocarpus hetrophyllus*, *Elaeagnus conferta*, *Ficus racemose*, *Ensete superbum*, *Psidium friedrichsthalianum*, *Grewia asiatica*, *Grewia tilifolia*, *Madhuca longifolia*, *Aegle marmelos*, *Ziziphus mauritiana*, *Cordia dichotoma*, *Annona reticulate*, *Annona squamosa*.)

Many plants products are stored after proper preparation and used all year around, some of them are, (*Limonia acidissima*, *Phyllanthus emblica*, *Carissa carandas*, *Mangifera indica*,

*Myristica fragrans*, *Zingiber officinale*, *Curcuma pseudomontana*.) This study reveals that tribal and rural people living in remote areas depend on wild edible plants and have a huge knowledge of wild plants and their utilization.

### Discussions

There have been the first attempts to compile a list of the wild edible plants in the Junnar region of Maharashtra State. Wild edible plants are a major source of sustenance for many rural communities around the world [21]. According to ethnobotanical research, there are more than 7000 species of wild plants that have been used as human nourishment. These unusual wild edible plants are providers of proteins, lipids, and a wealth of trace elements and micronutrients [7]. But because of the invasion of foreign cultures, this traditional knowledge is gradually decreasing day by day [11]. Large amounts of vitamins C, A, and B complex, as well as nutritional fibers and phytochemicals, are present in wild plant vegetables. The components of wild vegetables also shield our bodies from different forms of malnutrition and nutrient problems, so they can be referred to be protective foods [15]. The global population is now expanding quickly, and current agricultural production cannot meet everyone's needs for food. Under these conditions, people will be facing a health and nutrition crisis. However wild edible plant species are the superior option to supply the food demand [6]. Therefore, the documentation, conservation, and production of unconventional wild edible plant resources will significantly impact food security and sustainability in upcoming future generations [8]. But regrettably, only old people's memories still contain information about this untamed gem, and it may soon be lost forever.

The current study will be helpful in the documentation of this special knowledge as well as our tradition. It is possible to domesticate these species for use in agriculture by studying wild edible plants. A small-scale food web that creates employment opportunities for numerous tribal communities or locals in rural areas will be throughout the selling, processing, and preparation of food products from wild edible plant species. Therefore, the documentation of edible wild plants and their ethnobotanical practices is better comprehended for increasing the adequate traditional knowledge.

### Conclusion

Further study is needed for the documentation of wild edible plants used by tribes, and the traditional knowledge of their uses. Wild edible plants have better nutritional potential to meet the recommended dietary allowances, but special awareness among the villagers is necessary for the conservation of these edible plants. Modernization has proved that the rapid decline of traditional knowledge about wild edible plants is due to a lack of interest expressed by the younger generations in getting involved in documenting traditional practices. Hence more such studies need to be undertaken in various tribal areas to document the perception of these wild plants. So, there is an immense need to document the indigenous knowledge of wild edibles for future generations and to encourage people to cultivate wild edible plants in their home gardens. Further research on the cultivation and utilization of wild vegetables would help the tribal and rural people to have better nutrition.

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### References

1. Agharkar SP. Medicinal Plants of Bombay Presidency. Edn 1, Scientific Publishers, Jodhpur. 1953;1:15-20.
2. Bhagat R, Chambhare M, Mate S, Dudhale A, Zaware B. Prospective wild edible fruit plants from part of northern Western Ghats (NWG), Mulshi (MS), India. Journal of Medicinal Plants Studies. 2016;4(1):15-19.
3. Bhosle S, Ghule V, Aundhe D, Jagtap S. Ethnomedical Knowledge of Plants used by the Tribal people of Purandhar in Maharashtra, India. Ethnobotanical Leaflets. 2009;13:1353-61.
4. Chopra R, Chopra I, Verma B. Supplement to the glossary of Indian medicinal plants. Edn.12. Council of Scientific and Industrial Research, New Delhi; c1969.
5. Cooke T. The Flora of Presidency of Bombay, Edn 2, Vol.3, Botanical Survey of India, Calcutta; c1958.
6. Deshpande S, Pawar U, Kumbhar R. Exploration and documentation of wild food plants from Satara district, Maharashtra (India). Inter. J ourl of Food Sci and Nutr. 2019;4(1):95-101.
7. Grivetti L, Ogle B. Value of traditional foods in meeting macro- and micronutrient needs: The wild plant connection. Nutr. Res. Rev. 2000;13(1):31-46.
8. Jain AK, Tiwari P. Nutritional value of some traditional edible plants used by tribal communities during emergency with reference to Central India. Ind. J ourl. Trad. Knowl. 2012;11(1):51-57.
9. Jain SK. Dictionary of Indian folk medicine and ethnobotany, Medicine Environment Science, Deep Publications; c1991.
10. Koti M, Katrahalli K. Wild edible fruits and vegetables of Yadahalli Chinkara Wildlife Sanctuary, Bagalkot, Karnataka, India. J ourl of Global Biosci. 2021;10(9):8998-9008.
11. Lokhande K. Ethnobotanical Survey on Wild Edible Plants Used by Tribals & Rural People of Arjuni/Mor Taluka, Gondia District, Maharashtra State, India. Adv in Zoology and Botany. 2020;8(3):209-217.
12. Naik R, Borkar S, Bhat S, Acharya R. Therapeutic potential of wild edible vegetables - A Review. J ourl of Ayur and Integ Med Sci. 2017;2(6):85-97.
13. Pawar CD. Ethnobotanical Studies of Wild Edible Plants Used by Tribal of Jawhar Taluka, Palghar (M.S.). IJSRST. 2021;9(6):301-309.
14. Rahangdale SR, Rahangdale SS. Potential Wild Edible Plant Resources from Maharashtra: Future Prospects for Their Conservation and Improvement. Life Sci Leaflets. 2014;57:73-85.
15. Noopur K, Chauhan J, Kumar L, Chandegara A. Vegetables: A source of nutritional security: A Review. Indian Res J ourl of Ext Edu. 2023;23(4):21-27.
16. Setiya A, Narkhede S, Dongarwar N. Exploration and documentation of some wild edible plants used by the aboriginals from Gadchiroli District (M.S.) India. International Adv Resea Jour in Sci, Engin and Technol. 2016;3(7):24-35.
17. Patil MV, Patil DA. Ethnobotanical Studies on The Tribals of Nashik District. Maharashtra. Indian J ourl of Traditional Knowledge. 2005;4(3):287-290.

18. Shirsat RP, Koche DK. A Report on Wild edible fruits used by the Tribal Communities Inhabiting Near Katepurna Wildlife Sanctuary, Maharashtra, India. *Biosc. Biotech. Res. Comm.* 2020;13(2):535-540.
19. Singh NP, Karthikeyan S. (Eds.). *Flora of Maharashtra State, Dicotyledones*, BSI, Calcutta; c2000, 1.
20. Singh NP, Lakshiminarasimhan P, Karthikeyan S, Prasanna PV. *Flora of Maharashtra State, Dicotyledones*, BSI, Calcutta; c2000, 2.
21. Sundriyal M, Sundriyal R, Sharma E. Dietary use of wild plant resources in the Sikkim Himalaya, India. *Economic Botany.* 2003;58(4):626-638.
22. Uniyal S, Singh K, Jamwal P, Lal B. Traditional use of medicinal plants among the tribal communities of Chhota Bhangal, Western Himalaya. *Journal of Ethnobiology and Ethnomedicine.* 2006;2(14):1-8.
23. Borse RD, Gunjal MB. Wild edible vegetables from western hilly region of Ahmednagar, Maharashtra, India. *IJFANS.* 2022;11(7):621-628.