

Leafy Vegetables Used by Malappandaram Tribes of Achankovil, Kollam District

Parvathy Chandran^{1*} and J Lohidas²

Research Scholar, Department of Botany and Research, Centre, Scott Christian College Nagercoil - 629003. Tamil Nādu, *E mail: parvathypr25@gmail.com

Associate professor, Department of Botany and Research Centre, Scott Christian College Nagercoil - 629003. Tamilnadu

DOI : <https://doi.org/10.5281/zenodo.17139512>

ARTICLE DETAILS

Research Paper

Accepted: 21-08-2025

Published: 10-09-2025

Keywords:

Malapandaram, wild leafy vegetables, tribal diet, food security, conservation

ABSTRACT

In India, numerous wild plants are consumed as leafy vegetables, valued both for their nutritional richness and easy availability. For many tribal groups, including the Malapandaram of Achankovil (Kollam district), these species are central to daily diets and food security. The present work documents the diversity of wild leafy vegetables traditionally used by this community. Data were obtained through structured questionnaires, personal interviews, and close interaction with tribal informants. The study highlights species that are most commonly preferred and emphasizes the need for conservation of these lesser-known vegetables. Preserving both the plants and the associated traditional knowledge is crucial, as much of this heritage is at risk of being lost.

INTRODUCTION

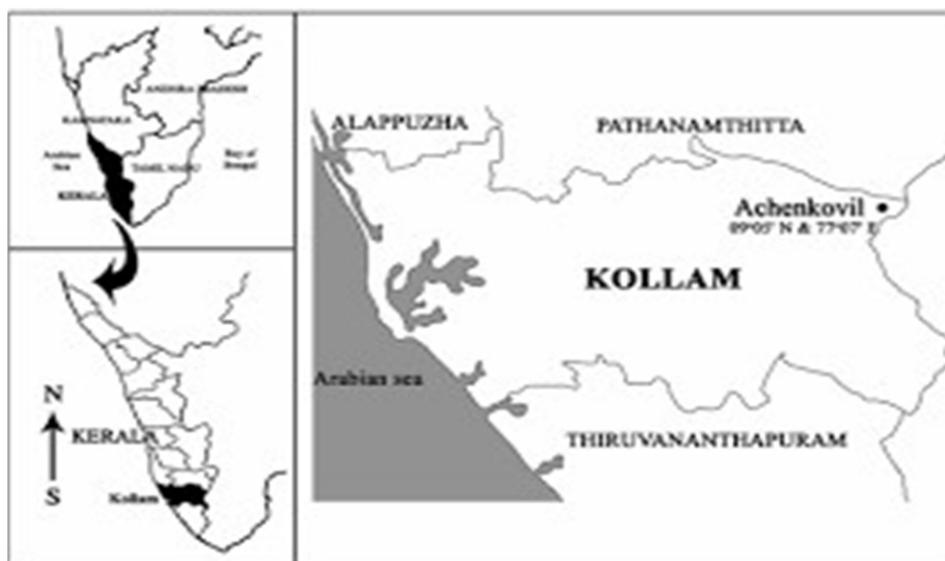
Green leafy vegetables comprise edible leaves from a wide range of plant species and are valued for their high content of vitamins, minerals, dietary fibre, and other bioactive compounds essential for maintaining good health. In many tribal and rural communities, these vegetables form a regular part of the daily diet and are often collected directly from forests and surrounding farmlands. Their availability and consumption patterns vary regionally, depending on ecological conditions and local traditions. Because they are inexpensive to obtain and require minimal cultivation, leafy greens are sometimes referred to as the “poor

man's vegetables." Despite this label, they play a vital role in supplying micronutrients such as iron, vitamin C, and other compounds that contribute to immunity and overall well-being (FAO, 2004; Aletor et al., 2002).

Wild edible plants, including uncultivated leafy vegetables, serve as an important supplement to food security, particularly during periods of scarcity or crop failure. In India, where rural populations are large, many households rely on these plants to diversify their diets and overcome food shortages. Unfortunately, several of these species are underutilized due to limited awareness of their nutritional value and the gradual erosion of traditional knowledge. For tribal communities such as the Malapandaram, the knowledge of edible wild plants has been transmitted orally through generations. However, modernization and migration to urban centres are causing younger members to lose connection with this heritage. Documenting and preserving information on wild leafy vegetables is therefore essential to ensure that both the species and the cultural practices associated with them are not lost to future generations.

STUDY AREA

The present investigation was carried out in the Achankovil tribal settlements of Kollam district, Kerala. The area lies close to Punalur and is positioned at approximately 09°05'N latitude and 77°07'E longitude, with an elevation ranging between 150 and 600 meters above mean sea level. The climate is tropical, with temperatures ranging from 18 °C in the winter to about 34 °C in the summer, and an annual rainfall that varies between 300 and 1,000 mm. The vegetation is diverse, including deciduous, semi-evergreen, and mixed evergreen forest types. Administratively, the settlement falls under Aryankavu Gram Panchayat within the Anchal Block Panchayat of Kollam district. It lies about 121 km north of Thiruvananthapuram and 80 km east of Kollam, close to Kotavasal in the Tirunelveli district of Tamil Nadu. At present, roughly ninety-five families reside in the Achankovil settlement.



METHODOLOGY

Field investigations were conducted between 2022 and 2023 in the tribal settlements of Achankovil, Kollam district, Kerala. Surveys were carried out during different seasons to capture the availability of leafy vegetables across the year. Information was gathered through structured questionnaires, semi-structured interviews, and informal discussions with tribal elders, village headmen (Moopan), and other knowledgeable community members. Each visit included 30–35 respondents, ensuring a wide representation of local knowledge.

Plant materials mentioned by informants were collected directly from the field. Specimens were pressed, dried, and preserved for herbarium preparation and later identified using standard taxonomic keys and reference floras. Whenever possible, photographs were taken and cross-verified with local informants as well as the forest department to ensure accurate identification. Observations on growth stages, especially flowering and fruiting, were also noted for proper confirmation of species.

In addition to field data, a review of published literature and relevant ethnobotanical studies was undertaken to support identification and provide comparative information. The documented leafy vegetables were arranged alphabetically with details including botanical name, family, vernacular name, growth habit, and plant part consumed (Table 1).

STUDY AREA





RESULT AND DISCUSSION

This investigation recorded twenty species of wild leafy vegetables traditionally consumed by the Malapandaram tribes of Achankovil, representing fifteen different plant families (Table 1). The most represented families were Amaranthaceae and Vitaceae, each contributing three species, followed by Euphorbiaceae with two species. The remaining families, including Begoniaceae, Sapindaceae, Menispermaceae, Cucurbitaceae, Asclepiadaceae, Convolvulaceae, Lamiaceae, Marsiliaceae, Onocleaceae, Oxalidaceae, Portulacaceae, and Apocynaceae, were each represented by a single species.

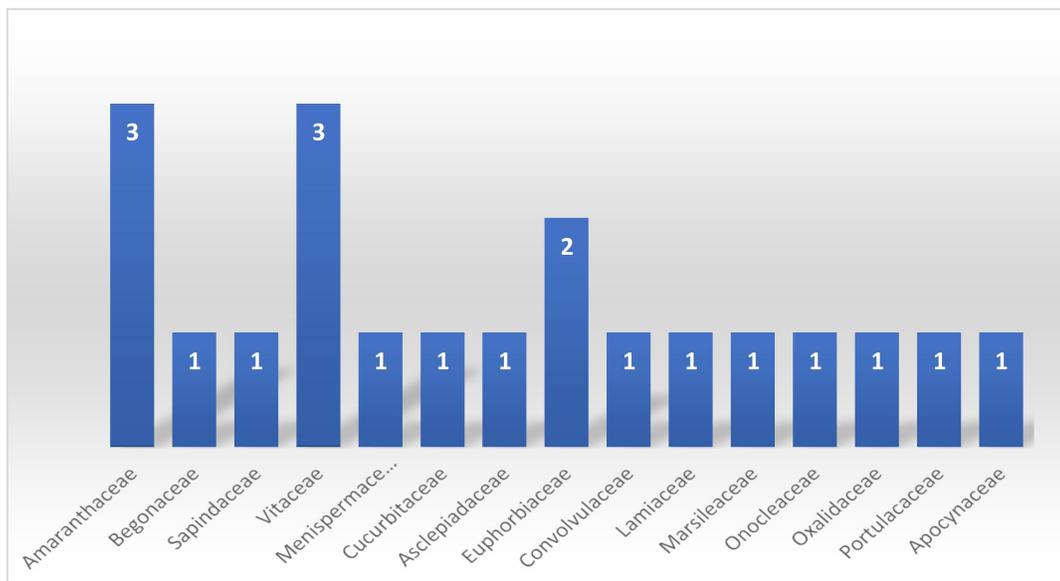
With respect to growth habit, the majority of species were herbs (60%), followed by climbers (30%). Shrubs and creepers accounted for 5% each. This distribution suggests that easily accessible and fast-growing plants form the bulk of edible leafy resources for the community.

Beyond nutritional aspects, the results highlight the importance of these plants in sustaining tribal food traditions. For the Malapandaram people, wild greens are readily available, chemical-free, and culturally valued. Unlike urban populations, which rely heavily on market vegetables that may be pesticide-laden,

tribal groups continue to maintain stronger connections with their natural environment, which likely contributes to their resilience and overall health.

However, the study also reveals an emerging concern. Younger members of the Malapandaram community are increasingly migrating to urban centres in search of education and employment. As a result, their knowledge of wild leafy vegetables and their dietary practices is diminishing. If these trends continue, much of the traditional wisdom associated with plant use may be lost. Documentation such as the present study can therefore serve not only as a scientific record but also as a cultural archive, ensuring that this valuable information is available for future generations and for conservation planning.

Distribution of leafy vegetable species belonging to different families. (fig1)



Diversity of green leafy vegetables (fig2)

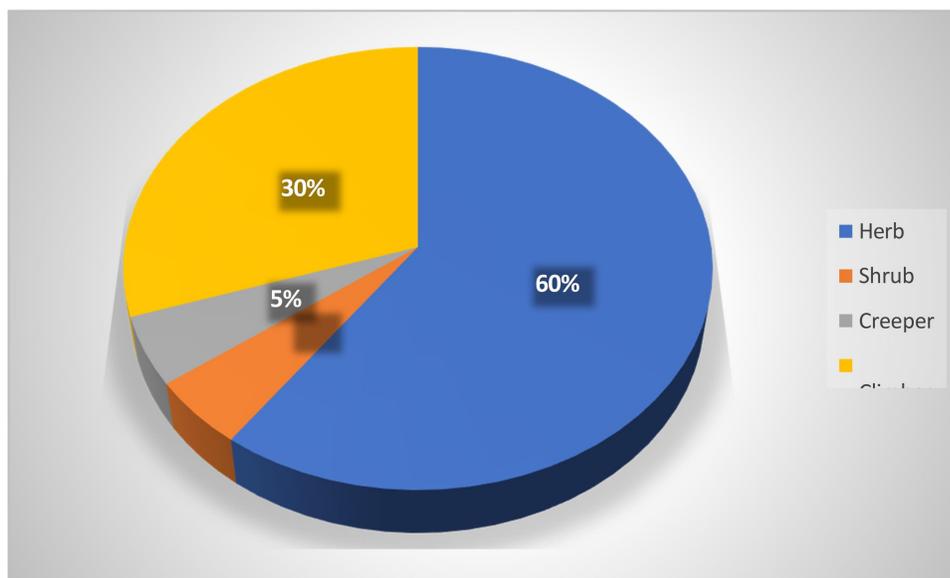


TABLE 1

SL NO	SCIENTIFIC NAME	FAMILY	LOCAL NAME	HABIT	EDIBLE PART OF PLANT USED AS VEGETABLE
1	<i>Achyranthes aspera</i> L.	Amaranthaceae	kadaladii	Herb	Tender leaves
2	<i>Alternanthera bettzickiana</i> (Regel) G. Nicholson	Amaranthaceae	chuvappan cheera	Herb	Tender leaves
3	<i>Alternanthera sessilis</i> (L.) R. Br. Ex DC.	Amaranthaceae	Ponnamkanni cheera	Herb	Tender leaves
4	<i>Begonia malabarica</i> Lam.	Begoniaceae	kalpulli	Herb	Leaves
5	<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Uzhinja	Climber	Tender leaves and shoots
6	<i>Cayratia pedate</i> (Wall.) Gagnep.	Vitaceae	Indravalli	Climber	Tender leaves
7	<i>Cissampelos pareira</i> L.	Menispermaceae	Malathangi	Climber	Tender leaves
8	<i>Cissus quadrangularis</i> L.	Vitaceae	changalam paranda	Climber	Tender leaves and shoots
9	<i>Coccinia grandis</i> (L.) Voight, Hort.	Cucurbitaceae	Koval	Climber	Tender leaves
10	<i>Cosmostigma racemosum</i> (Roxb.) wight	Asclepiadaceae	kanthari cheera	Creeper	Tender leaves
11	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Paal cheera	Herb	Tender Leaves
12	<i>Ipomoea aquatica</i> Forsk.	Convolvulaceae	Vayal cheera	Herbaceous trailing vine	Tender Leaves
13	<i>Leea indica</i> (Burm.f.) Merr.	Vitaceae	naakku	Large Shrub	Tender Leaves
14	<i>Leucas aspera</i> (Willd.). Link	Lamiaceae	Thumba	Herb	Tender leaves
15	<i>Marsilea quadrifolia</i> L.	Marsileaceae	Kammalcheppu	Herb	Leaves
16	<i>Matteuccia struthiopteris</i> (L.) Todaro	Onocleaceae	Churuli	Herb	Tender leaves

17	<i>Oxalis corniculata</i> L.	Oxalidaceae	Pulicheera	Herb	Tender Leaves
18	<i>Portulaca oleracea</i> L.	Portulacaceae	kozhuppacheera	Herb	Tender leaves and shoots
19	<i>Tragia involucrata</i> L.	Euphorbiaceae	Choriyanam	Herb	Tender leaves and shoots
20	<i>Wattakaka volubilis</i> (L.f.) Stapf	Apocynaceae	Kattukariveppu	Climber	Tender leaves

Wild leafy vegetables used by the malapandaram tribes of Achankovil Settlements in Kollam District



Achyranthes aspera *Alternanthera bettzickiana* *Alternanthera sessilis* *Begonia malabarica*



Cardiospermum halicacabum *Cayratia pedate* *Cissampelos pareira* *Cissus quadrangularis*



Coccinia grandis *Cosmostigma racemosum* *Euphorbia hirta* *Ipomoea aquatica*

*Leea indica**Leucas aspera**Marsilea quadrifolia**Matteuccia struthiopteris**Oxalis corniculata**Portulaca oleracea**Tragia involucrate**Wattakaka volubilis*

CONCLUSION

Wild leafy vegetables continue to play a crucial role in meeting the nutritional needs of the Malapandaram community. This study documented twenty species that form an integral part of their food system, reflecting both ecological diversity and cultural importance. With increasing pressures from urbanization, industrialization, and lifestyle changes, many of these species and the knowledge associated with their use are at risk of being forgotten. Active efforts are therefore required to conserve these plants in their natural habitats and to safeguard the oral traditions that preserve their value. Strengthening



awareness and documentation can help ensure that future generations benefit from this important resource, both as a dietary supplement and as a part of cultural heritage.

REFERENCE

Aletor, O.; Oshodi, A. and Ipinmoroti, A.K. (2002) Chemical composition of common leafy vegetables and functional properties of their leaf protein concentrates. *Journal of Food Chemistry*, 78: 63-68.

Food and Agricultural Organization of the United State Nations FAO (2004) The state of food insecurity in the world. Monitoring the progress towards the world food summit 2nd Millennium developmental goals Ann Rep Rome