

Analyze the Ethnobotanical status of edible fruits of Malayali tribes in Bodamalai hills, Namakkal (District), Southern Eastern Ghats, Tamil Nadu, India

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ABSTRACT

A survey was conducted to document the information regarding edible fruits Malayali tribes in Bodamalai hills, Namakkal (District) of Tamil Nadu during November 2013 – March 2014. The personal interviews was conducted with Malayali tribes between age of (30- 96). During the investigation 30 plants species were recorded as edible fruits, belong to 26 genera it's comes under 22 families, hence the study is being taken to conserve those edible fruits. Plants and bring out the knowledge of edible fruits using by tribes.

Key words: Ethnobotanical, Edible fruits, Malayali tribes, Bodamalai hills.

INTRODUCTION

Forests have a large and indispensable role to play in improving food security of tribes. Wild edible plants play an important role in the livelihood strategies of forest dwellers tribal populations. India has a 42 million of tribal population, of which around 60 percent live in forest areas, and they are depend on forests for various edible products throughout the year for their survival¹¹.

Many wild edible plants are used by the Malayali tribes in their daily diet. These are used either raw or cooked and consumed to compensate their day-to-day calories requirement. They are generally low in proteins and fats and many have a high moisture and low dry matter content. Rich sources of nutrients, vitamins and minerals occur in edible fruits and vegetables. Major contribution of fruits and

vegetables to human health contain large quantity of vitamin C, A, B6, and B12. Folic acid as well as good amount of dietary fibers and minerals¹. Sometimes the nutritional value of traditional wild plants is higher than several known common fruits⁸. Fruits and vegetables are important additional food source for the people of Bodamalai hills.

The forest of the Bodamalai hills provide a large number of plants whose fruits, seeds, tubers, shoots etc. Make an important contribution to the diet of the people, particularly those living near forest and other rural areas. These plants not only provide inexpensive food nut and also given several other useful products like medicine, fiber, fodder, dye, etc.

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The study indicates the extensive use of edible fruits by Malayali tribes in Bodamalai hills of Southern Eastern Ghats, Tamil Nadu.

MATERIALS AND METHODS

Study area

Bodamalai hills is situated in Southern Eastern Ghats comes under Rasipuram taluk, Namakkal district. Bodamalai hills is a 1,200 meters (3,937.0 ft) mountain in the Eastern Ghats of South India. It lies between 11°14'46" - 12°53'30" North latitude and between 77°32'52" - 78°53'05" East longitude and it has an elevation of 881 meters above sea level. Bodamalai is in an area with a humid subtropical climate. Only Malayali tribals are living in Bodamalai hills.

Malayali tribes

The Malayali call themselves vellalar gounder. Etymologically, the term Malayali is derived from the words Malai and al, which means 'hill-people'. The local people of different region also address them as Shevaroy Malai Makkal, Kolli malai Makkal and Javadimalai Makkal.

The field work in the villages of Bodamalai hills took place between November 2013 – March 2014. The interviews were conducted with the local language (Tamil). The detail of the edible fruits data were collected from village people, identified between the ages of 30-96. Intensive field surveys with the help of village heads and persons, the plants were collected given a field number identified with the help of Gamble and Fischer's Flora of Presidency of Madras (1935) and Flora of Tamil Nadu Carnatic⁶.

RESULT AND DISCUSSION

During the study it was observed and recorded that the tribal communities consume 30 edible fruits. According to their Binomial, family, local name and habits. (table.1). The study indicates the extensive use of edible fruits by Malayali tribes in Bodamalai hills of Eastern ghats, Tamil Nadu. The deficiency of food needs to be supplemented with edible fruits in their daily diet. They were well acquainted with the plants of surrounding forests and know what to eat and how to separate harmful substances from the edible part of plants.

Among them 26 genus, 30 species, and 22 families, in that Rutaceae (4) is dominate than other family, Anacardiaceae (2), Euphorbiaceae (2), Myrtaceae (2), Moraceae (2), Rhamnaceae (2), Rubiaceae (2), Alangiaceae, Annonaceae, Arecaceae, Bignoniaceae, Bormeliaceae, Cactaceae, Caesalpiniceae, Caricaceae, Cucurbitaceae, Elaeocarpaceae, Fabaceae, Flacourtiaceae, Musaceae, Punicaceae, and Verbenaceae, rest of the families were represented by each species.

Regular consumption of fruits like *Alangium lamarckii*, Thwaites., *Ananas comosus*, (Linn.) Merr. *Annona squamosa*, Linn. *Clausena dentat.* Wild., *Dolichandrone spathaceae*, (L.F.) K. SCHUM., *Elaeocarpus serratus*, Linn, *Ficus glomerata* Roxb, *Flacourtia indica* (Burm.f.) Merr. *Lantana camara*, L. *Morinda pubescens*, SM. *Opuntia stricta*, Lamarck, *Phyllanthus emblica*, Linn, *Pithecellobium dulce*, (Roxb.) Benth. *Syzygium cumini*, (Linn.) Skeels. And *Ziziphus oenoplia*, Mill. were observed from the tribes.

List of plants used as a edible fruits by Malayali tribes of Bodamalai hills

S.No.	Binomial	Habit	family	Local name	uses
1	<i>Alangium lamarckii</i> , thwaites.	tree	Alangiaceae	Alinji	Raw
2	<i>Anacardium occidental</i> , Linn.	tree	Anacardiaceae	Muntiri	Raw
3	<i>Ananas comosus</i> , (Linn.) Merr.	herb	Bromeliaceae	Annasip pazham	Raw
4	<i>Annona squamosa</i> , Linn.	shrub	Annonaceae	Sitappazham	Raw
5	<i>Artocarpus heterophyllus</i> , Lam.	tree	Moraceae	Palamaram	Raw
6	<i>Borassus flabellifer</i> , L.	tree	Arecaceae	Nungu/Panam pazham	Raw
7	<i>Carica papaya</i> , L.	tree	Caricaceae	Pappali	Raw
8	<i>Citrus reticulate</i> , Blanco.	shrub	Rutaceae	Kamalap pazham	Raw
9	<i>Citrus limonum</i> , (Linn.) Burm.	shrub	Rutaceae	Elumiccai	Raw
10	<i>Citrus aurantifolia</i> , (christm) Swingl.	shrub	Rutaceae	Nathagai	Raw
11	<i>Clausena dentat</i> (Wild.)	tree	Rutaceae	Nana pazham	Raw
12	<i>Cucumis sativus</i> , Linn.	tree	Cucurbitaceae	Vellarikkay	Raw
13	<i>Dolichandrone spathaceae</i> ,	tree	Bignoniaceae	Vilpadri	Raw

	(L.F.) K. SCHUM				
14	<i>Elaeocarpus serratus</i> , Linn.	trees	Elaeocarpaceae	Karu pazham	Raw
15	<i>Flacourtia indica</i> (Burm.f.) Merr.	tree	Flacourtiaceae	Sothakalu pazham	Raw
16	<i>Ficus glomerata</i> , Roxb.	tree	Moraceae	Atthi pazham	Raw
17	<i>Lantana camara</i> , L.	shrub	Verbenaceae	Unnchedi	Raw
18	<i>Mangifera indica</i> , L.	tree	Anacardiaceae	Mamaram	Raw
19	<i>Morinda pubescens</i> , (J.E. Smith) var.	shrub	Rubiaceae	Nuna	Raw
20	<i>Musa paradisiaca</i> , L.	shrub	Musaceae	Vazhaikkay	Raw
21	<i>Opuntia stricta</i> , Lamarck.	shrub	Cactaceae	Patachara pazham	Raw
22	<i>Phyllanthus emblica</i> , Linn.	tree	Euphorbiaceae	Perunelli	Raw
23	<i>Cicca acida</i> , Merrill.	tree	Euphorbiaceae	Seru nelli	Raw
24	<i>Pithecellobium dulce</i> , (Roxb.) Benth.	tree	Fabaceae	Kodukkappuli	Raw
25	<i>Psidium guajava</i> , Linn.	Tree	Myrtaceae	Koyya	Raw
26	<i>Punica granatum</i> , L.	shrub	Punicaceae	Maadulai	Raw
27	<i>Randia malabarica</i> , Lam.	tree	Rubiaceae	Kara pazham	Raw
28	<i>Syzygium cumini</i> , (Linn.)Skeels.	tree	Myrtaceae	Naval	Raw
29	<i>Tamarindus indica</i> , Linn.	tree	Caesalpiniceae	Puli	Raw/ cooked
30	<i>Ziziphus oenoplia</i> , Mill.	tree	Rhamnaceae	Surai pazham	Raw
31	<i>Zizyphus jujube</i> , Lam.	tree	Rhamnaceae	Ilantai	Raw

CONCLUSION

Tribal people through their traditional knowledge infer what to eat and what not to eat. But the use of the 30 plant species edible fruits plants is still continued when they are available. Useful edible plants in ethnic ecosystems shows a trend of utilization of locally available resources, both in areas with high plants diversity and marginal habitats.

Now-a-days the traditional knowledge is declining due to lack of interest in the present generation and also absence of records about the useful plant. Hence, the truthful indigenous knowledge is immediately required to be documented and validated for serving future generations and their nutritional values should be analyzed.

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