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 indispensables 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 survival.

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 minerals. Sometimes the nutritional value of traditional wild plants is higher than several known common fruits. 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.
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 Madres (1935) and Flora of Tamil Nadu Carnatic.6.

**RESULT AND DISCUSSION**

During the study it was observed and recorded that the tribal communities consume 30 edible fruits. According to their Binominal, 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), Myrtaeas (2), Moraeae (2), Rhamnaeae (2), Rubiaeae (2), Alangiaceae, Annonaceae, Arecaeae, Bignonieae, Bormeliaceae, Cactaeae, Caesalpinieae, Caricieae, Cucurbitaeae, Elaeocarpaeae, Fabaeae, Flacourtiaceae, Musaeae, Punicieae, and Verbeneae , rest of the families were represented by each species.

Regular consumption of fruits like Alangium lamarckii, Thwaites., Ananas comosus, (Linn.) Merr. Amnona 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

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

