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Research Article

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SURVEY OF WILD EDIBLE PLANTS FROM PACHAMALAI HILLS IN EASTERN GHATS OF TAMIL NADU INDIA.

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ABSTRACT

This paper reports wild edible plants investigation performed during 2015 and 2016 to collect, identify and document information on the wild edible plants traditionally used by the tribes in India. Wild vegetables formed the largest group which included young leaves and buds, inflorescence, unripe/ripe fruits and seeds. Many wild edible plants are also used for medicinal purposes. The purpose of the study was to document the traditional wild edible plants used by Malayali tribals. Tribals are mostly eat wild vegetables leaf varieties, which grow in wild and depend on such natural products in addition to their food. A survey was conducted to document the information regarding leafy vegetables, fruits and medicine used by the tribes inhabiting in Peramballur Taluk of Tami Nadu. Present investigation revealed that there are 50 angiospermic plants belonging to 21 genera of 34 families are commonly consumed as leafy vegetable and fruits cite information regarding the leaf vegetables, their botanical names along with respective families, vernacular names have been mentioned. Comprehensive information should be carried out on the nutritional status of these plant species. Attention should also be made on proper exploitation and utilization of these plants

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1. INTRODUCTION

Forests have a large and indispensable role to play in improving food security of tribes. Wild edible plants are important in the livelihood strategies of forest dwellers/tribal populations. While these foods are not widely accessible, locally they are of great relevance for nutrition and food security in many countries (Sarvalingam *et al.*, 2014). India has a tribal population of 42 million, of which some 60 percent live in forest areas and depend on forests for various edible products. Forests have a large and indispensable role to play

in improving food security of tribes Wild edible plants are important role in the livelihood strategies of forest dwellers/tribal (Rekka and Senthil Kumar, 2014) populations because they help the people to meet one of their most important basic needs the food. While these foods are not widely accessible, locally they are of great relevance for nutrition and food security in many countries.

The human life and culture has directly or indirectly been influenced by their surroundings. (Shanmugam and Muthuraja, 2012). They have inherited rich traditional knowledge of surrounding plants used as food. The food plants that are

cultivated or grow wild play an important role in sustaining human life for survival. Many wild plants constitute a part of food as vegetables of rural and urban populace to a certain extent. These plants are much more important than is generally assumed in the food supplies of many countries. (Yesodharan and Sujana, 2007) Some wild foods are used as staples or as basic components of substantial meals. Many plants used in industrialized countries today were originally identified an developed.

2. METHODOLOGY

The present study was undertaken in the Survey of Pachamalai Hills, Perambalur District, Tamil Nadu (Vivekraj and Anandgideon, 2015). The hills is situated 2000 to 3000 feet above mean sea level (MSL) and lies between 78.31' East and 11.28' North latitude. Pachamalai hills is a part of Eastern Ghats in Tamil Nadu and it contain 59.5 percent forest area and 40.5 percent cultivation land with human settlement. Survey is one of the renueue zones in Pachamalai hills and Malayali tribal people were found living around 800 ft.at sea level.

2.1 STUDY AREA:

A number of field visits were conducted in the study area every month, throughout the year of study. Systematic field trips for botanical survey were undertaken during December 2015 and June

2016 in survey of Pachamalai hills (Fig 1). A Survey was conducted in the study area together information regarding medicinal properties of plants their uses and local names Questionnaires based interviews and conversation were held with aged nomads. Some information was also obtained from existing literature related to medicinal plants. Collected plant materials was processed and identified at (Mathew, 1983). The Flora Rapinet Herbarium with help of flora of Tamil Nadu. The specimens were preserved in Rapinet Herbarium at Tiruchirappalli.

3. RESULT AND DISCUSSION

The present investigation revealed that the Malayali tribal of the Pachamalai region were using 50 plant species belonging to 21 genera 34 families were surveyed, the ethno medicinal was enumerated below in the alphabetical order and represented in table 1 to 3. For each species, correct binominal names, common names, family names medicinal uses are given in table. *Amaranthacease*, *Moroceae* in 5 species. With 3 species in *Euphorbiaceae* other 2 species *Anacardiacease*, species in 3 family and 25 family represented by single species which active applications by the Malayali tribe living in and around Perambalur District have been recorded.

Fig 1 Location of plant survey



Table 1: Edible leaf yielding plants of Pachamalai Hills used by Malayali tribes

S.No.	Botanical Name	Family	Vernacular name	Habit	Form of uses/Recipe	Collecting Season
1	<i>Alternanthera tenella</i> (L) Colla	Amaranthaceae	Vellponnankanni	Herb	Leaves and leafy of all the these plants are Cut into small pieces and cooked with salt, chilly and gamished by mustard seeds, curry	Rainy
2	<i>Amaranthus sessilis</i> L.	Amaranthaceae	Ponnankanni	Herb		Rainy
3	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Mullukeerai	Herb		Rainy
4	<i>Coccinia grandis</i> (L) wight	Cucurbitaceae	Kovai	Claimer		Rainy
5	<i>A. Viridis</i> L.	Amaranthaceae	Kuppaikerai	Herb		Rainy
6	<i>Solanum nigrum</i> L.	Solanaceae	Manathakkali	Herb		Round year
7	<i>Leptadenia reticulata</i> wight & Am.	Asclepiadaceae	palai	Herb		Rainy
8	<i>Cleome monophylla</i> L.	Capparidaceae	vellai	Herb		Rainy
9	<i>Murrayakaeeri gil</i> (L.) spreng	Rutaceae	Kariveppilai	Sherb		Rainy
10	<i>Artrocapusaltilis</i>	Moroceae	Currypillai	Sherb		All Season
11	<i>Amaranthus buam</i>	Amaranthaceae	Tundu Keerai	Herb		All Season
12	<i>Halicacabum</i> L.	Spindaceae	Mudakathan	Climber		All Season
13	<i>Cantela asiaaticat</i> L.	Apiaceae	Valarai	Herb		All Season
14	<i>Hibiscus Cannabinus</i> L.	Malvaceae	Pulichai	Herb		All Season

Table 2: Edible fruit yielding plants of Pachamalai Hills used by malayali tribes

S.No.	Botanical Name	Family	Vernacular name	Habit	Form of uses/Recipe	Collecting Season
1	<i>Anacardium occidentale</i> L.	Anacardiaceae	Mundhiri	Tree	Ripe fruits eaten	Summer
2	<i>Annona Squanosa</i> L.	Anonaceae	Seithapalam	Tree	Ribe fruits eaten	Summer
3	<i>Annas comousus</i>	Bromeliaceae	Annasipalam	Herb	Ripe fruits eaten	Summer
4	<i>Artocarpus hirsutus</i> , Lam.	Moraceae	Kattupala	Tree	Raw fruits cooked and eaten	Summer
5	<i>Carica Papaya</i> L.	Caricaceae	Pappali	Tree	Ribe fruits eaten	All Season
6	<i>Citrus limon</i> L.	Rutaceae	Yelumichai	Sherb	Ribe fruits eaten	All Season
7	<i>Phyllnthus emplica</i> L.	Euphorbiaceae	Mallainelli	Tree	Pickled	Summer
8	<i>Manilkara Zapopa</i>	Sapotaceae	Sapota	Tree	Ribe frits eaten	All Season
9	<i>Mangifera indica</i> L.	Anacardiaceae	Mamaram	Tree	Ripe fruits eaten	Summer

10	<i>Morinda Pubescens</i> J.E Smith	Rubiaceae	Nuna	Tree	Ribe fruits eaten	Summer
11	<i>Musaparadisiaca</i> L.	Musaceae	Vazhai	Sherb	Ribe fruits eaten	All Season
12	<i>Opuntia dillenii</i> , Mill.	Cactaceae	Sappathikalli	Herb	Ripe fruits eaten	Summer
13	<i>Phoenix farinifra</i> , Roxb	Palamaceae	Icham	Shrub	Ribe fruits eaten	Summer
14	<i>Psidium guajava</i> L.	Myrtaceae	Koyya	Tree	Ribe fruits eaten	All Season
15	<i>Punicagranatum</i> L.	Punicaceae	Madhulai	Tree	Ribe fruits eaten	All Season
16	<i>Securinega leucopyrus</i> (wild). Mull Arg.	Euphorbiaceae	Poolapazhalam	Shrub	Ribe fruits eaten	Summer
17	<i>Syzygium Cumini</i> (L)Skeels	Myrtaceae	Navall	Tree	Ribe fruits eaten	Summer
18	<i>Tamarindus indica</i> L.	Caesakouruaceae	Puli	Tree	Raw fruits eaten	Summer
19	<i>Zizyphus jusuba</i> , Lamk.	Rhyamnaceae	Yellantai	Tree	Ribe fruits eaten	Summer
20	<i>Zizyphus oenoplia</i> , Lamk.	Rhyamnaceae	Surai pazham	Shrub	Ribe fruits eaten	Summer

Table 3 Medicinal plants

S.No.	Botanical Name	Family	Vernacular name	Habit	Form of uses/Recipe	Collecting Season
1	<i>Solanum surattense</i> Burl.	<i>Solanum</i> ceae	Kandam kathri	Herb	Fruits are useful to cure Teeth.	Round year
2	<i>Azadirachta indica</i> A.Juss	Meliaceae Vembu	Vembu	Tree	It is one of the traditional medicines. Leaf paste is applied on skin to treat acne it is generally use for boils.	Round year
3	<i>Aloevera</i> (L)Burm	Liliaceae	Chothrukathralai	Sherb	Leaves raw juices	All Season
4	<i>Cynodon dactylon</i> (L) Pers	Poaceae	Arugam Pullu	Herb	Leaves raw juices	All Season
5	<i>Eucalyptus globulus labill</i> (L) Her.	Myrtaceae	Thailamaram	Tree	Leaves added to hot water before taking bath reduces body pain and head ache	Round year
6	<i>Ficus bengalensis</i> L.	Moraceae	Alamaram	Tree	Worm and larvae found on the infected wounds of cattle are eradicated by using the paste made of leaves ad latex.	Round year
7	<i>Ficus racemosa</i> L.	Moaraceae	Aththi	Tree	Fruit is edible and fruit juice is taken for urinary troubles.	Round year
8	<i>Ficus religiosa</i> L.	Moraceae	Arasamaram	Tree	Leaves are used for ulcers and cough. Root is used for indigestion	Round year

					and fever.	
9	<i>Justicia adhotoda</i> L.	Acanthaceae	Adathodai	Herb	Leaf extract given orally reduce diarrhea and dysentery.	Round year
10	<i>Mukia Maderaspatana</i> Roem.	Cucurbitaceae	Musumusukkai	Clmiber	Leaf, Fruit is an edible and used for the treatment of cold, cough and piles.	Round year
11	<i>Ocimum tenuiolium</i>	Lamiaceae	Thulasi	Herb	Leaves raw juices	All Season
12	<i>Piper betle</i> L	Piperaceae	Vettrillai	Clmiber	Leaves raw juices	All Season
13	<i>Piper nigrum</i> L	Piperaceae	Milagu	Clmiber	Seed raw jucies	All Season
14	<i>Pithecellobium dulce</i> (Roxb.) Baenth	Mimosaceae	Kodukkapuli	Tree	It is and edible fruit. It is used for ulcers and diabetes	Round year
15	<i>Vinca roseus</i> L.	Apocynaceae	Nithyakalyani	Herb	Whole plant is used for curing sore throat, respiratory tracts.	Round year
16	<i>Vitex negundo</i> L.	Verbenaceae	Nochi	Tree	Leaves boiled in vapour is inhaled twice a day to get relief from headache ,fever cold and cough.	Round year

4. CONCLUSION

This study will generate wide interest regarding the region, its sustainable uses and preservation of folk knowledge. This work will help greatly about local knowledge of people regarding the wild edible use of plants and will help to understand that how local people of Pachamalai hills make use of these plant indigenous names of plant provided by local inhabitants will help to study and understand the plants of this area for future studies. By varying trends of medicinal use and by the death of old people, knowledge related to medicinal plants is going towards extinction and this effort will surely help to safeguard the folk knowledge of medicinal plants prevailing in this area. Survey of Pachamalai Hills of Eastern Ghats in Tamil Nadu, South India, will act as reference for future studies in this regard.

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