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Research Article

FLORA USED OTHER THAN MEDICINAL PURPOSES BY MALAIYALI ETHNIC IN PALAMALAI OF SALEM DISTRICT

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ABSTRACT

An ethnobotanical survey was carried out among the Malaiyali ethnic in lower Palamalai Hills, North-west of Salem District. The study mainly focused on the common plant used by the malaiyali ethnics in the reserve for various non-medicinal purpose (Mat, net and rope making, construction, hedge, religious, decorative, to ward off evil spirits, fish poison, and leech repellents) through structured questionnaires and consultations with very old and knowledgeable tribals. Of the Collected plants, a total of 30 plant species were identified as economically important plants and a good number of plants are used for religious purpose. The investigation underlines the potential of ethnobotanical research and needs to document the traditional knowledge pertaining to the use of plants for greater benefit of mankind.

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INTRODUCTION

India is one of the twelve mega-biodiversity countries of the World having rich vegetation with a wide variety of plants with medicinal value. The tribal population of the country, as per the 2001 census, is 8.43 Crore, constituting 8.2% of the total population (Ministry of Tribal affairs). With enormously diversified living ethnic groups and rich biological resources, India represents one of the great emporia of ethno-botanical wealth (Pal, 2000). Plants provide human kind with our most basic resources, food, medicines, fiber and a whole array of other useful products (Kuttum, *et al.*, 2011). A part from plants being used against a number of diseases as traditional medicine, plants are also used as building materials, fodder, weapons and other commodities of economic importance (Ayyanar, *et al.*, 2010). The wood, bark, leaves, fruits, seeds and roots of trees yield food, fodder, shelter, medicine, fiber, resin, oils and other numerous products used for subsistence of people living in rural and tribal areas (Saujanendra Swain, 2013).

This indigenous knowledge on the usage of plants for various purposes is passed verbally for generations (Kadavul and Dixit, 2009). Because of modernization, all of this ethnobotanical knowledge is declining day by day, so there is an urgent need to document this knowledge (Murthy, 2012 and Randa and Youssef, 2013.). Hence, the present work was focused on the

documentation of ethnobotanical status of the study area and to know the extent of utilization of plants for non-medicinal purposes (NMPs) by Malayali tribals of Palamalai Hills, Salem Dt, Tamil Nadu, India. The Malayali tribes here after presented as tribes.

MATERIAL AND METHOD

Palamalai hill range is located in the North-West of Salem District, Tamilnadu which is covered by thick reserved forest (Fig.1). It comes under Southern Tropical Dry Deciduous forests-Dry Deciduous Dense Scrub. The access to Palamalai hills is in Mettur Taluk, Salem District. Palamalai Hills Forest Division consists of 5 beats Kolathur beat, Mettur beat, Nerunjipettai beat, Ramanpatti beat and Periyakulam beat. Palamalai lies between 11°45' latitude and 77°44' longitude E with an altitude of 1050-1100 M above MSL. The study area of Palamalai hills cover 9464 hectares which consists of a small range of hills with steeper and rockier outer slopes. The temperature of the hill during summer is around 34°C and during winter is around 30°C. The annual rainfall of this hill ranges between 44 and 85 mm.

At the top, the hill consists of 31 villages and are included under the Mettur beat. The ethnic people of the Palamalai are called as 'Malayalis' The tribal use the wild plants in a variety

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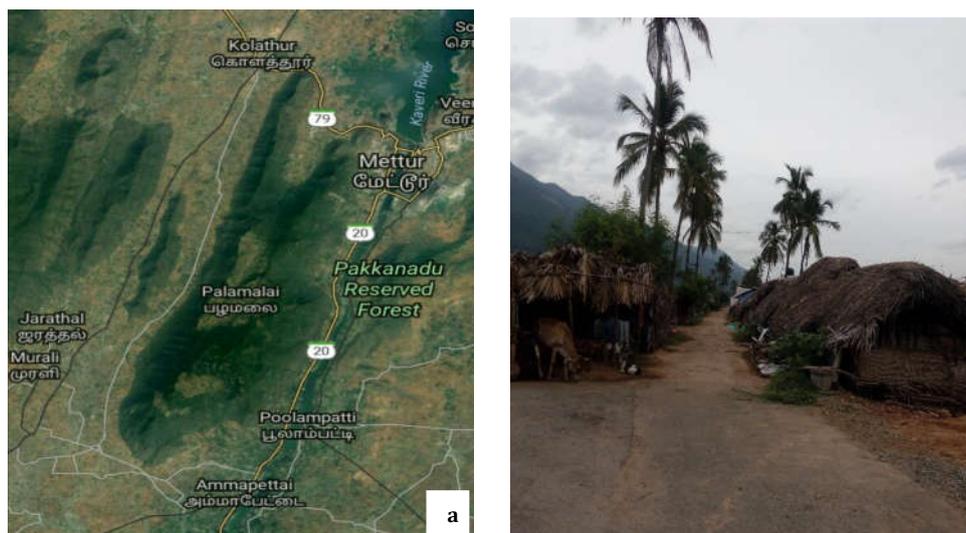


Figure 1 Showing (a) Palamalai map (b) one of the village (Navappatti) Salem district

Table 1 List of plant species used by Malayali ethnic for non-medicinal purposes in Palamalai of Salem district of Tamil Nadu

S. No	Name of the plant	Family	Local name	Habit	Non medicinal uses
1.	<i>Anogeissus latifolia</i> (Roxb. Ex DC.)	Combretaceae	Vekkalimaram	Tree	Wood for construction huts
2.	<i>Terminalia catappa</i> L.	Combretaceae	Vadhammaram	Tree	Wood used to made for decoration things
3.	<i>Terminalia arjuna</i> W & A.	Combretaceae	Maruthamaram	Tree	Wood for construction purposes
4.	<i>Terminalia bellirica</i> Roxb.	Combretaceae	Thandimaram	Tree	Stem for constructions and to prepare plough
5.	<i>Terminalia chebula</i> Retz.	Combretaceae	Kadukkaimaram	Tree	Wood for construction purpose
6.	<i>Lantana camara</i> L.	Verbinaceae	Unnichedi	Shrub	Used ornamental purposes
7.	<i>Tectonag randis</i>	Verbinaceae	Teak	Tree	Wood is used for making furniture
8.	<i>Vitex negundo</i> L,	Verbinaceae	Notchi	Shrub	Whole plant used as hedge
9.	<i>Citrus lemon</i> L.	Rutaceae	Elumichchai	Shrub	Fruits used for making pickle
10.	<i>Citrus sinensis</i> L.	Rutaceae	orange	Small tree	Fruits are edible
11.	<i>Coriandrum sativum</i> L.	Apiaceae	koththamalli	Herb	Green leaves used for making chatni
12.	<i>Cuminum cyminum</i> L.	Apiaceae	Seeragam	Herb	Seed Used to making aroma oil
13.	<i>Abrus precatorius</i> Linn.	Fabaceae	Kundumani	Shrub	Seeds used for making jewelry
14.	<i>Hibiscus cannabinus</i> L.	Malvaceae	Pulichakeerai	Herb	Stem bark make to ropes
15.	<i>Hibiscus rosasinensis</i> L	Malvaceae	Semparithai	Shrub	Flower used to prepare to hair oil
16.	<i>Melaleuca citrine</i> (Curtis) Dum.Cours.	myrtaceae	Bottlebrush	Tree	Grown as ornamental purpose
17.	<i>Psidium guayava</i> L.	myrtaceae	koyya	Small tree	Fruits are edible
18.	<i>Cestrum nocturnum</i> L.	Solanaceae	Iravumalli	Tree	Leaves used as a fertilizers
19.	<i>Solanum tuberosum</i> L.	Solanaceae	Urulaikilangu	Herb	Tubers are edible
20.	<i>Manjifera indica</i> L.	Anacardiaceae	Mamaram	Tree	Wood and stem bark used for construction work
21.	<i>Annona squamosal</i> L.	Annonaceae	Seetha	Tree	bark is used to make cordage
22.	<i>Catharanthus roseus</i> G. Don.	Apocynaceae	Nithyakalyani	Herb	Whole plant used as ornamental plant
23.	<i>Cyperus rotundus</i> L.	Cyperaceae	Korai	Shrub	Leaves used to make a broom
24.	<i>Codiaeum variegatum</i> (L.) A.Juss	Euphorbiceae	Croton	Shrub	Used as ornamental Purposes
25.	<i>Menta arvensis</i> L.	Lamiaceae	Puthina	Herb	Green leaves used for making chatni
26.	<i>Haldeinia cordifolia</i>	Rubiaceae	Manjakadambai	Tree	Stem to prepare plugh
27.	<i>Moringa olifera</i> L.	Moringaceae	Murungai	Tree	Wood and stem bark used for construction work
28.	<i>Nephrolephis sps.</i>	Nephrolepidaceae	Fern	Herb	Used as bio pesticide.
29.	<i>Nelum bosps</i>	Nympheaceae	Thamarai	Aquatic Herb	Grown in pool as ornamental plant
30.	<i>Bambusa arundinaceae</i> L.	Poaceae	Moongil	Tall Shrub	Wood used for construction work
31.	<i>Cardiospermum halicacabum</i> L	sapindaceae	Mudakkathan	Herb	Green leaves used for making pickle
32.	<i>Hybanthus enneaspermus</i> F. Muell	violaceae	Orithalthamarai	Aquatic Herb	Grown in pool as ornamental plant
33.	<i>Cosciniun fenestratum</i> Colebr.	Zigiberaceae	Maramanjai	Herb	Tuber used as cosmetic purposes

of ways especially for food and medicine. While working out the flora of the district, data on the purposes of the plants is gathered form healers, local people Out of all a few interesting flora of other then non-medicinal purposes of plants are discussed here.

The botanical identify of the collected plants were identified with the help of Several field trips were conducted over years covering all Kuttikaradu, Nattamanalam, Perumpallam, JJ nagar, Koorandiputhur, Thammankaradu, Madhayankuttai, Amokottai and Sekkanur, Located around the Navappatti taluk.



1. *Abrus precatorius* Linn., 2. *Anogeissus latifolia* Roxb. ExDC., 3. *Cestrum nocturnum* L., 4. *Codiaeum variegatum* L. A. Juss., 5. *Hibiscus cannabinus* L., 6. *Lantana camara* L., 7. *Terminalia arjuna* W & A., 8. *Terminalia bellirica* Roxb., 9. *Terminalia catappa* L.

Figure 2 Showing family wise classification of collected plant species in the study area

Samples collected include stems twigs, leaves, bark, flowers etc., and details regarding the samples were recorded from the local people. Samples were photographed from the natural habitats and recorded for future references. They were then tagged and numbered for herbarium preparation (Kumaran *et al.* 2014).

RESULTS AND DISCUSSION

Ethno botanical survey

Frequent field surveys were carried out in Navappatti Panjayath union in Salem District, Tamil Nadu in different seasons during April to September 2017. The data were collected through general conversations and questionnaires with the elder people (Fifteen informants between the ages of 32-65 years). The information was gathered from them was recorded in field notebooks.

The collected plants were identified by their vernacular names through consultations with the local people, photographed and sample specimens were collected for the preparation of herbarium (Fig.2). The Flora of Presidency of Madras (Gamble, 1935) and The Flora of Tamil Nadu Carnatic (Matthew, 1983) were used to ascertain the nomenclature.

The present study focused mainly on the plant species used by the Malayali ethnic for various non-medicinal uses. There ported plants were arranged according to their scientific name and family, local names are recorded during the field work along with habit and uses. During the study period, 33 species of plants belonging to 31 genera and 22 families were identified as non-medicinal and food plants which are used by the Malayali ethnic in Palamalai hill, Salem district of Tamil Nadu (Table 1).

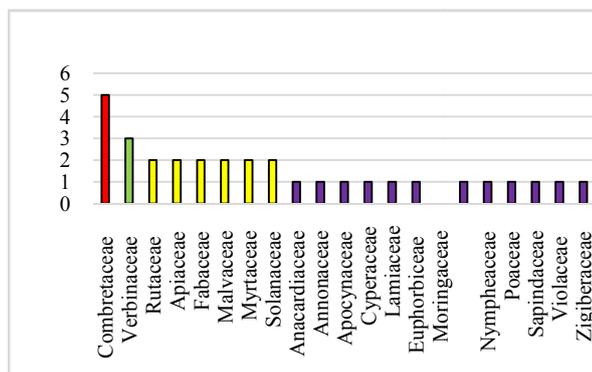


Figure 3 Family wise classification of collected plant species in the study area

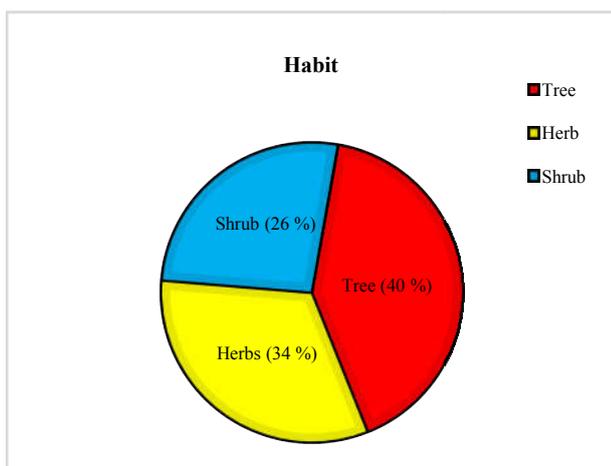


Figure 4 Pie diagram showing different habit of plants used other than medicinal purpose

The plants listed mainly belong to followed by Combretaceae (5), Verbinaceae (3), Rutaceae (2), Apiaceae (2), Fabaceae (2), Malvaceae (2), Myrtaceae (2), Solanaceae (2), Anacardiaceae (1), Annonaceae (1), Apocynaceae (1), Cyperaceae (1), Euphorbiceae (1), Lamiaceae (1), Moringaceae (1), Nephrolepidaceae (1), Nympheaceae (1), Poaceae (1), Sapindaceae (1), Violaceae (1) and Zigiberaceae (1) in Fig 3, From the study, it was observed that fourteen taxa are trees (40%), twelve are herbs (34%), Eight are shrubs (26%) (Fig.4). Of the plants parts used as food by the Malayali ethnic are leaves, fruits, seeds and underground parts such as tuber, rhizome, root and corm are mostly used as food. Leafy vegetables are grown as wild weeds. Other Malayali tribes have a food like plant underground parts are root *Crataeva religiosa* Tuber *Decalepis hamiltonii* (Patharaj *et al.*, 2015). *Azadirachta indica*, *Cassia absus*, *Cassia auriculata* and *Tridax procumbens* are commonly used by many people for treating skin diseases by the Malayali Tribe of Palamalai Hills, Salem District, Tamil Nadu have also been used to treat various ailments (Kumutha *et al.*, 2016) and various plants used to cure livestock diseases Palamalai hills Salem district (Alagesh boopathi 2012). Besides the medicinal and food value, plants also play an important role in the socioeconomic life of Malayali tribes ethnic have grown some of the plants as sacred plants in the vicinity of their houses and temples. In main theme of in non-medicinal purposes plants used Palamalai hills Tribes ethnic also use a number of plants for various economic

uses viz., construction purposes and for hedge; some of the plants for, food, bio fertilizers, fodders, ornamental, fire wood, construction of household implements etc.

CONCLUSION

Traditional plant use and knowledge thereof is still essential to the Palamalai tribals and Malayali ethnic living in the hill station in Salem district of Tamil Nadu. With changes in life style and associated decline of the use of plants, the ethno-botanical knowledge might continue to decline. The preservation of some rituals especially concerning economically important plants is noteworthy in the area and the study revealed that the Palamalai tribals and Malayali ethnic are using many forest resources for their day-to-day life.

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