

# Traditional Medicine among the Palliyars of Palani Hills, Western Ghats, India

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## Abstract

*From the advent of humankind, plants have been employed in traditional medicine for several thousand years. An ethnobotanical survey was undertaken to gather information from Palliyars on the use of medicinal plants in Dindigul district of Tamil Nadu. The indigenous knowledge of local traditional healers and the native plants used for the medicinal purposes were collected through questionnaire and personal interviews. A total of 48 plant species belonging to 39 families were used to treat various ailments. The information gathered from the Palliyars were arranged by ailments followed by plant botanical name as well as local names along with family, parts used, method of preparation of medicine, dosage, and ingredients were documented in study area. The phyto-ethno-restorative overview of Palni hills gives significant benchmark information of therapeutic plants in the region for future protection perspectives.*

**Keywords:** Ethnobotany, Palliyar, Palni Hills, Western Ghats.

## Introduction

From the advent of human beings, plants have been used for various ailments. During the course of evolution especially in the nomadic phase of life primitive man heavily relied on green plants for his survival and began to analyze the property of utilizing plants by experimentation and acquired distinctive helpful properties. Later he got advanced with the information on numerous helpful and hurtful plants. This advanced information has been moved starting with one age then onto the next with no composed records. This vocal data has colossal significance, which has been safeguarded steadily as special kinds of mystery. India is an emporium of medicinal plants and it is sitting on a gold mine of well-documented and well-practiced knowledge of traditional medicine. Tamil Nadu is home to 30 tribal communities among them Palliyars are pre-dravidian scheduled tribes living in forest thickets (Dahmen, 1908; Thurston, 1909). The explanation behind their reliance on therapeutic plants for the essential medical care is fundamentally because of adequacy,

simple accessibility, absence of present day medical care exercises, social inclinations and to their exceptionally century old relationship with the plants. Apart from very few studies (Ganesan et al., 2004; Mayilsamy & Rajendran, 2014) complete documentation of traditional medicine prevalent among the Palliyars of Palni hills is unavailable. Subsequently the current investigation is planned to tap the undiscovered ethnomedicinal wisdom of Palliyar tribals of Palni Hills of Western Ghats.

### **Materials and Methods**

Geographically, the rocks of Palni Hills are an archaen formation (i.e. made up of gneissic rocks). The gneissic rocks are referred to as charnockite and consist of mica, feldspar and quartz. The climate is hot and dry. The relatively cool season is December, January and part of February. During this period, there is heavy dew formation at nights and mornings are foggy. The hottest months are April-May. The rainfall regime is a tropical dissymmetric type with the bulk of rain received during the retreating monsoon period (October – December). Some rain is also received during the South-west monsoon but the amount of rain fall is uncertain (Matthew, 1999). The vegetation of Palni Hills covers tropical thorn forests, dry deciduous forests, semi evergreen forests, evergreen forests, shola forests, riparian forests and grasslands (Matthew, 1999; Kottaimuthu 2015).

Detailed ethnobotanical surveys were conducted from 2012 to 2015 to know the ethnomedicinal wisdom existed among the Palliyars of Palani Hills. Adhering to standard strategies (Schultes, 1960; Jain 1989), escalated interviews were completed with the older folks. Later the gathered information was cross-checked and validated by rehashed inquiries with different herbalists. The plants recorded with ethnobotanical information were identified with help of “Flora of Palni Hills” (Matthew, 1999). All the collections were deposited in Saraswathi Narayanan College Herbarium, Madurai.

### **Results and Discussion**

Most of the information furnished here was found to be new when compared with available literature (Arinathan et al., 2003; Muthukumarasamy et al., 2003a,b & 2004; Karuppusamy 2007; Maruthupandian et al., 2011). In the current investigation 48 medicinal plants distributed under 39 families have been recorded; of these, 21 were herbs, 11 climbers, 9 trees and 7 shrubs. Among the different plant part used by the Palliyars of Palni hills, the leaves were most commonly utilized for the treatment of various ailments followed by bark, fruit, seed, tuber and rhizome (Table 1). The most common health ailments in the study area were gastro-intestinal problems (diarrhoea, dysentery, flatulence, indigestion, stomach problem and ulcer), respiratory problems (asthma, cough and fever), diabetes and skin problems.

### **Conclusion**

The present study accepts more noteworthy significance in improving our customary information about the plants utilized by the Palliyars of Palani Hills and calls for the threat assessment and conservation of ethnomedicinal plants for future posterity.

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**Table 1: List Ethnomedicinal Plants used by Palliyars in Traditional Medicine**

Family	Binomial	Parts used	Uses
Acanthaceae	<i>Blepharis maderaspatensis</i> (L.) Roth.	Leaves	Flatulence
Achariaceae	<i>Hydnocarpus pentandrus</i> (Buch.-Ham.) Oken	Seeds	Rheumatic pains
Amaranthaceae	<i>Achyranthes aspera</i> Blume	Leaves	Piles
Apiaceae	<i>Hydrocotyle javanica</i> Thunb.	Leaves	Jaundice
Aristolochiaceae	<i>Aristolochia tagala</i> Cham.	Roots	Poisonous bites
Asclepiadaceae	<i>Gymnema elegans</i> Wight & Arn.	Leaves	Diabetes
Asparagaceae	<i>Asparagus racemosus</i> Willd.	Roots	Lactogouge
Begoniaceae	<i>Begonia malabarica</i> Lam.	Leaves	Indigestion
Burseraceae	<i>Canarium strictum</i> Roxb.	Fruits	Eczema

Caesalpiniaceae	<i>Bauhinia racemosa</i> Lam.	Stem bark	Dysentery
Chenopodiaceae	<i>Chenopodium ambrosioides</i> L.	leaves	Psoriasis
Cleomaceae	<i>Cleome viscosa</i> L.	Leaves	Migraine
Combretaceae	<i>Terminalia cheubula</i> Retz.	Fruits	Gastric trouble
Convolvulaceae	<i>Argyreia pomacea</i> (Roxb.) Choisy	Fruit	Piles
Convolvulaceae	<i>Evolvulus alsinoides</i> L.	Leaves	Fever
Cucurbitaceae	<i>Corallocarpus epigaeus</i> (Rott.) C.B. Clarke	Tuber	Poisonous bites
Ehretiaceae	<i>Ehretia matthewii</i> Kottaim.	Stem bark	Dysentery
Euphorbiaceae	<i>Acalypha fruticosa</i> Forssk.	leaves	Stomach pain
Euphorbiaceae	<i>Euphorbia indica</i> Lam.	leaves	Lactogouge
Euphorbiaceae	<i>Tragia bicolor</i> Miq.	Leaves	Constipation
Fabaceae	<i>Abrus precatorius</i> L.	seeds	Poisonous bites
Fabaceae	<i>Desmodium gangeticum</i> L.	roots	Asthma
Fabaceae	<i>Mucuna atropurpurea</i> DC	seeds	Bone fracture
Hypoxidaceae	<i>Curculigo orchioides</i> Gaertn.	Rhizome	Infertility
Lamiaceae	<i>Leucas biflora</i> (Vahl) R.Br.	Leaves	Head ache; Fever
Lamiaceae	<i>Plectranthus barbatus</i> (Lour.) Spreng.	Leaves	Cold
Lobeliaceae	<i>Lobelia heyneana</i> Roemer & Schultes.	Leaves	Psoriasis
Malvaceae	<i>Urena lobata</i> L.	Roots	Stomach pain
Meliaceae	<i>Cippadessa baccifera</i> (Roth) Miq.	Leaves	Dysentery
Menispermaceae	<i>Cissampelos pariera</i> L.	Roots	Leucorrhoea
Mimosaceae	<i>Mimosa pudica</i> L.	Leaves	Psoriasis
Phyllanthaceae	<i>Breynia vitis-idaea</i> (Burm.f.) C.E.C.Fisch.	leaves	Tooth-ache
Phyllanthaceae	<i>Phyllanthus amarus</i> Schum. & Thonn.	leaf	Jaundice
Plumbaginaceae	<i>Plumbago zeylanica</i> L.	Root	Abortion
Poaceae	<i>Bambusa arundinacea</i> (Retz.) Willd.	Leaves	Bone fracture
Polygalaceae	<i>Polygala javana</i> DC.	Whole plant	Poisonous bites
Portulacaceae	<i>Portulaca quadrifida</i> L.	Whole plant	Poisonous bites
Rubiaceae	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Fruits	Dandruff

Rutaceae	<i>Glycosmis mauritiana</i> (Lam.) Tanaka	Leaves	Dysentery
Sapindaceae	<i>Cardiospermum canescens</i> Wall.	Leaves	Joint pains
Scrophulariaceae	<i>Sopubia delphinifolia</i> (L.) Don.	Leaves	Poisonous bites
Solanaceae	<i>Solanum anguivi</i> Lam.	Root	Diarrhoea
Sterculiaceae	<i>Helicteres isora</i> L.	Fruit	Diabetes
Sterculiaceae	<i>Pterspermum canescens</i> Roxb.	Stem bark	Bone setting
Sterculiaceae	<i>Waltheria indica</i> L.	Roots	Dysentery
Verbenaceae	<i>Gmelina asiatica</i> L.	Fruits	Dandruff
Vitaceae	<i>Cissus quadrangularis</i> L.	Whole plant	Indigestion
Zygophyllaceae	<i>Tribulus terrestris</i> L.	Whole plant	Urinal problems