



Research Article

## ETHNOBOTANICAL SURVEY OF MEDICINAL PLANTS USED BY TRADITIONAL HEALERS FROM KILIYUR, PATTIPADI, IN YERCAUD HILLS, SALEM DISTRICT

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### ABSTRACT

An ethnobotanical survey was conducted among tribes in the Yercaud hills in the Eastern Ghats. According to our study, the documentation of herbal medicine and indigenous knowledge can be used as a tool to conserve and sustainably use herbal medicine in the area. This can be done by validating these plant preparations for various ailments. Based on interactions with traditional medicine practitioners; it has been observed that a total of 57 medicinal plants belonging to 28 families are used to cure various diseases.

**Keywords:** Yercaud hills, Herbal medicine, Ethnobotanical, Diseases, Medicinal plants.

### INTRODUCTION

A lot of interest has been shown recently in the use of ethnobotanical data in medicinal plant research (WHO, 2008). A forest-based raw material such as medicinal plants is slowly disappearing because of agricultural clearing, land for settlements, and developing activities. In addition, the village folk developed their own medicinal knowledge for treating diseases with herbs, which they only remember. Hence, the study was conducted to gather scattered knowledge and identify medicinal plants' potential in the area. The medicinal uses of plants were collected from five herbalists in the village and twenty-five knowledgeable adults. The taxonomic name of the plants was identified by Dr.S.Murugesan, department of botany, Periyar University, India. A plant's botanical name is followed by its family name, followed by a local or vernacular name, parts of the plant used, and the proposed therapeutic action. In recent decades, there has been an increasing interest in medicinal plants and their traditional uses around the world because they may lead to new discoveries. Traditional medicinal preparations were always derived from plants, whether in the form of crude extracts, mixtures, or simple plant parts. According to WHO, about 80% of the world's population, especially in rural areas depends on herbal medicine for

their healthcare needs. These remedies are taken internally or applied externally in the form of past, decoction, powder, and extract. Plants have traditionally been the source of all medicinal preparations, whether they be simple plant parts or crude extracts, or mixtures. Plant-derived medicines provide profound therapeutic benefits as well as being more affordable than synthetic drugs (Iwu *et al.*, 1999). Herbal medicines dominated our pharmacopeia 200 years ago and almost 25% of drugs prescribed worldwide came from plants (Ernst, 2005). The increasing population also leads to the encroachment of forest resources, which is detrimental to herbal medicines. A study was conducted to document medicinal plant uses and associated indigenous knowledge for the management of various ailments among different population groups living in the Yercaud hills. This is part of an initiative to document phytochemical and pharmacological data for future pharmacological studies, which could lead to the discovery of new drugs. Medicinal plant species may also preserve indigenous people's cultural heritage for the next generation since elders have passed them on orally for generations (Yahaya *et al.*, 2004).

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## MATERIAL AND METHODS

### Study area

Yercaud Hills range of the Eastern Ghats situated in Salem district in Tamil Nadu. It is situated at an altitude of 1515 meters (4970 ft) above sea level and the highest point in Yercaud is the Servarayan temple, at 5,236 feet (1,623 m). They are located between 110C 45' 56" N latitude and 780C 17' 55" E longitude. The temperature ranges from 130 C to 290 C on the peaks and 250 C to 400 C at the foothills. The average annual rainfall is around 1500 mm – 1750 mm. The soil is deep and non-c6alcareoces. The forest types range from green to moist deciduous (Champion & Seth, 1968). Southern East portion of the Eastern Ghats in Tamil Nadu consists of several broken hill ranges viz. The study area is Pattipadi and keleyur, a tribal people village situated in yercaud hills at Salem (Dt). Yercaud (Figure 1) hill is situated towards the northeast of Salem town within the geographical limit. The hills form a compact block consisting of several hill ranges and contain twisted ridges and ravines running in the North East and

South West directions, enclosing many narrow valleys of rivers viz., Kallar, Varattur, Kambalai, and Anaimaduvu.

### Data collection

To obtain information from tribal practitioners, we investigated the study area. A total of six herbalists or traditional healers were identified to gather ethnomedicinal information through direct interviews. The purpose of these interviews was to collect information about the plants used to treat several diseases, their local names, their parts used for treatment, the methods of preparation, and how the drugs were administered.

## RESULT AND DISCUSSION

Based on the interaction with traditional medicine practitioners it has been observed that plants in the Shervaroy Hills are used to cure various diseases. We have arranged the plant species in (Table 1) alphabetically. Plants are categorized by their botanical names, followed by their local and family names.



**Figure 1.** View of Yercaud hills.

**Table 1.** Ethnomedicinal data of medicinal plant species gathered in Yercaud hills.

Botanical Name	Local Name	Family	Plants parts	Medicinal uses
<i>Argemonmexicona</i>	Bhrahmadandu	Papaveraceae	Stem	Antidote poisonous bite
<i>Andrographis affinis</i>	Kodikkurunthu	Acanthaceae	Leaf	Leaf paste mixed with cow's milk used in liver ailments
<i>Anamirta cocculus</i>	Kakkaikolli	Menispermaceae	Seed	Seeds are used for epilepsy, night sweats, and as a stimulant
<i>Andrographis alata</i>	Periyanangai	Acanthaceae	Leaf	Jaundice
<i>Andrographis lineate</i>	Periyanangai	Acanthaceae	Leaf	Leaf juice mixed with cow's milk for 5 days regularly in liver diseases

<i>Andrographis macrobotrys</i>	Uppali	Acanthaceae	Leaf	Fresh leaf juice is given orally thrice a day for one week to treat liver disorders
<i>Andrographis paniculata</i>	Nilavembu	Acanthaceae	Whole plant	jaundice and liver complaints
<i>Aliospermum montanum</i>	Red physic nut	Euphorbiaceae	Root	Root is used for abdominal pain and piles.
<i>Aloe barbadensis</i>	Katralai	Liliaceae	Whole plant	Powder of different parts of plants is given tablet form
<i>Artemisia nilagirica</i>	Makkippu	Asteraceae	Leaf	The drugs obtained from the leaf have been used for malaria
<i>Asparagus racemosus</i>	Shatavari	Liliaceae	Root	The roots are useful in nervous disorders
<i>Andrographis serpyllifolia</i>	Kaatuppoorankodi	Acanthaceae	Leaf	stomach pain
<i>Azadirachta indica</i>	Vembu	Meliaceae	Bark	Decoction of the bark, sugar is given internally in jaundice
<i>Boerhaviadiiffusa L.</i>	Mukkurattai	Nyctaginaceae	Root	The root powder mixed with cow's milk is used for jaundice
<i>Caralluma umbellata</i>	Paraikalli	Apocynaceae	Leaf	It is used to cure diabetes and fat accumulation.
<i>Ceasalpinia pulcherrima</i>	Mayirkonrar	Fabaceae	Seeds	Seeds are edible.
<i>Clome viscosa</i>	Naaivalai	Capparidaceae	Leaf	Fresh leaf juice mixed with hot water is used for jaundice.
<i>Coffea Arabica</i>	Coffee	Rubiaceae	Seed	Seeds are made in powder. this powder used to make a coffee
<i>Cassia fistulata</i>	Sarakondrai	Caesalpinaceae	Flower	A powdered flower is used to cure liver ailments
<i>Cymbopogon citrates</i>	Elumichai	Poaceae	Leaf	Oil for skin diseases
<i>Desmodium gangeticum</i>	Oorilai	Fabaceae	Whole plant	Headaches, diarrhea
<i>Drymaria cordata</i>	Mudavattukal	Caryophyllaceae	Leaf	Snakebite
<i>Eclipta alba</i>	Manjalkarisalankanni	Asteraceae	Leaves	Decoction of leaves mixed with hot water used in liver disorders
<i>Ecliptaprostrata</i>	Karisalankanni	Asteraceae	Leaf	Jaundice
<i>Emblica officinalis</i>	Nelli	Euphorbiaceae	Fruit	Fruit is consumed orally to control jaundice
<i>Eucalyptus globules</i>	Karpooramaram	Myrtaceae	Stem	to cure body aches
<i>Euphorbia hirta</i>	Amman pacharisi	Euphorbiaceae	Leaf	heal wounds
<i>Erythrina indica</i>	Kalyanamurungai	Fabaceae	Leaf	Liver troubles, dysentery joint pain
<i>Erythroxyllum monogynum</i>	Sembulichan	Erythroxyllaceae	Bark	Bark is made into chrisim to apply on the affected part externally
<i>Ficus glomerata</i>	Attimaram	Moraceae	Whole plant	powder and mixed with milk to drink orally
<i>Geranium</i>	Vetchi	Geraniaceae	Leaves	Essential oils are obtained from the leaves
<i>Gloriosa superba</i>	Kanthal	Colchicaceae	Flower	It has been used to treatment of snake bites, open wounds, ulcers
<i>Grewia disperma</i>	Uduppai	Tiliaceae	Fruit	Unripe and ripped fruits eaten
<i>Gymnemasylvestre</i>	Sarakondrai	Asclepiadaceae	Whole plant	Diabetes
<i>Hemidesmus indicus</i>	Nannari	Asclepiadaceae	Root	rheumatic complaints
<i>Indigofera aspalathoides</i>	Sivanarvembu	Fabaceae	Whole	Different parts of plants are given

<i>Jatropha curcas</i>	Kattamanakku	Euphorbiaceae	plant Leaf	orally in tablet form Leaf and bark juice is mixed salt applied in skin diseases
<i>Justiaadhatoda</i>	Adathoda	Acanthaceae	Leaf	cough, cold, and asthma
<i>Justicia tranquebariensis</i>	Thavasimurungai	Acanthaceae	Leaf	cold and cough and leaf paste reduces pain in the swellings
<i>Leucas aspera</i>	Thumbai	Lamiaceae	Whole plant	Headache
<i>Nilgiranthus ciliates</i>	Kurinji	Acanthaceae	Leaf	glandular swellings
<i>Ocimum sanctum</i>	Thulasi	Lamiaceae	Leaf	dry cough
<i>Phyllanthus amarus</i>	Keelanelli	Euphorbiaceae	Root	Jaundice
<i>Piper longum</i>	Tippili	Piperaceae	Fruits	Different parts of plants are given orally in tablet form
<i>Piper nigrum</i>	Kurumilagu	Piperaceae	Fruit	Cough
<i>Santalum album</i>	Sandanum	Santalaceae	Bark	Different parts of plants are given orally in tablet form
<i>Solanum trilobatum</i>	Thoothuvalai	Solanaceae	Leaf	The leaf is used to cough, and cold.
<i>Tephrosia purpurea</i>	Kolingi	Fabaceae	Leaves	Different parts of plants are given orally in tablet form
<i>Terminalia arjuna</i>	Marudam	Combertaceae	Bark	Different parts of plants are given orally in tablet form
<i>Terminalia bellerica</i>	Thanrikk	Combertacea	Bark	Different parts of plants are given orally in tablet form
<i>Terminalia chebula</i>	Kadukai	Combertaceae	Bark	Different parts of plants are given orally in tablet form
<i>Thespesia populnea</i>	Poovarasumaram	Malvaceae	Bark	Different parts of plants are given orally in tablet form
<i>Vinca rosea</i>	Nithiyakalyani	Apocynaceae	Leaves	Anticancer
<i>Vitex agnus</i>	Seemainochi	Laminaceae	Leaves	Eye diseases and stomachache
<i>Vitex negundo</i>	Nochi	Laminaceae	Leaves	Malaria
<i>Vitex trifolia</i>	Moovilainochi	Laminaceae	Leaves	Pain killer
<i>Vetiveriazizanoides</i>	Vettiver	Poaceae	Root	Stomach ache and Diaphoretic

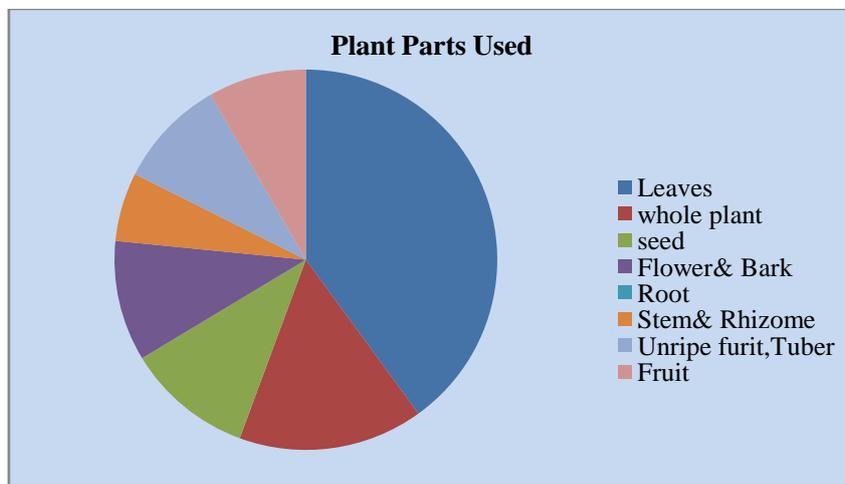


Figure 2. Plant parts used.

A variety of plant species are found to be of use to ethnic and local communities (Figure 2). The ethnomedicinal studies have clearly demonstrated that, instead of trying to identify the active components and pharmacological actions of plants through a massive collection of plants from natural sources, it is better to start investigating the efficacy of plants based on their use in folk medicine, since most of the commercially proven drugs used in modern medicine were initially used in crude form in traditional or folk healing practices (Fabricant and Farnsworth, 2001).

### CONCLUSION

In the study area, medicinal plants are plentiful to treat both simple and complicated human ailments. Traditional people in the studied part of Yercaud hills Salem district continue to use medicinal plants because well-trained healers have good interactions with patients and this would improve the quality of healthcare. The people claim to be familiar with the signs and symptoms of various common diseases and ill conditions and also claim to be able to cure them with local plant remedies.

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