



**TRADITIONAL MEDICINAL PLANT KNOWLEDGE OF THE PALIYAR TRIBE IN
KADAYANALLUR FOREST REGION**

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Principal Field Investigator & PG Scholar, Department of PG Gunapadam, Government Siddha Medical College, Palayamkottai. DOI: <https://doi.org/10.5281/zenodo.20442990>

How to cite this Article: Dr. P. J. Mahaboob Jarina^{*1}, Dr. Antony Duraichi R.², Dr. Essakkyandian G.³ (2026). Traditional Medicinal Plant Knowledge Of The Paliyar Tribe In Kadayanallur Forest Region. European Journal of Biomedical and Pharmaceutical Sciences, 13(6), 234–238.

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Article Received on 04/05/2026

Article Revised on 25/05/2026

Article Published on 01/06/2026

ABSTRACT

Background: Ethnomedicinal practices serve as a foundational pillar for primary healthcare and economic stability among rural and indigenous populations in India. The Paliyars are a nomadic dravidian tribal group inhabiting the biologically diverse South Western Ghats of Tamil Nadu and Kerala. Due to rapid urbanization, deforestation, over-exploitation, and a lack of formal institutional transmission among the younger generations, this valuable indigenous knowledge system is facing a critical risk of extinction. This study systematically documents the traditional medicinal plant knowledge of the Paliyar community within the Kadayanallur Forest Region to facilitate cultural preservation and future pharmacological validation.

KEYWORDS: Ethnomedicine, paliyar Tribe, Kadayanallur Western Ghats, Phytomedicine, Indigenous knowledge.

INTRODUCTION

Ethnomedicine is one of the system of medicine that is widely practiced among the tribal and aboriginal populations of our country for the treatment of ailments^[1] Rural and ethnic populations in India possess extensive knowledge of local medicinal plants used for treating common ailments. These plants contain bioactive compounds with diverse pharmacological effects and serve as both primary healthcare and economic resources for communities. The PALIYARS a nomadic Dravidian tribal group of approximately 9,500 members residing in the South Western Ghats of Tamilnadu and Kerala, rely on such traditional plant-based medicine. However limited formal education and the migration of younger generations have hindered the transmission of this indigenous knowledge. Additionally, over exploitation, deforestation, and rapid urbanization threaten the plant resources themselves. Therefore, systemic documentation of this traditional ethnomedicinal knowledge is crucial for both cultural preservation and future pharmacological research.

MATERIALS AND METHOD

The study area is located in Tamilnadu, specifically in Tenkasi district, around the Kadayanallur Taluk Range Forest Areas (Fig). Geographically, the study area lies approximately between 9°08'15.5"N Latitude and 77°18'12.7E Longitude. The region comprises more than 40 families, with nearly 180 individuals belonging to the paliyar community. A total of 25 informants (19 Females and 6 Males) aged 30 and 70 years, were selected for the study.

RESULTS AND DISCUSSION

A total of 70 medicinal plant species distributed across 25 botanical families were documented. Analysis of botanical growth habits revealed that herbs were the predominant life form (54%, 38 species), followed by trees (17 species), shrubs (8 species), and climbers (7 species). Approximately 66% of the recorded species were reported to be readily accessible in the immediate surroundings. In terms of ethno-pharmacological preparation, the community predominantly utilized fresh plant parts, with leaves emerging as the most frequently exploited anatomical component, followed by fruits,

flowers, seeds, and roots. The documented flora is actively employed to treat a wide array of ailments, ranging from gastrointestinal disorders (e.g., *Aristolochia indica* for dysentery) and metabolic conditions (e.g.,

Gymnema sylvestre for diabetes) to critical emergency interventions like snake and scorpion bites, as well as complex gynecological and obstetric practices such as labour induction.

S. NO	PLANT NAME AND BOTANICAL NAME	FAMILY	USES	PREPARATION	ROOT OF ADMINISTRATION
1	Perumver (<i>Thottia siliquosa</i>)	Aristolochiaceae	Diarrhoea	Decoction	Internal
2	Karudaver (<i>Aristolochia indica</i>)	Aristolochiaceae	Stomach pain, diarrhoea, dysentery	Decoction	Internal
3	Malaithangi (<i>Cessampelos pariera</i>)	Menispermaceae	Stomach pain	Powder	Internal
4	Nannari (<i>Hemidesmus indicus</i>)	Asclepiadaceae	Stomach pain	Powder	Internal
5	Omam (<i>Trachyspermam ammi</i>)	Apiaceae	Abdominal bloating	Decoction	Internal
6	Inji (<i>Zingiber officinale</i>) Vellulli (<i>Allium sativum</i>) omam	Zingiberaceae, Liliaceae, Apiaceae	Abdominal bloating	Inji&poondu juice with omam decoction	Internal
7	Ranakalli (<i>Kalonchoe pinnata</i>)	Crassulaceae	Kalladaipu	Leaf is ground & prepared as karkam.	Internal
8	Pulichakeerai (<i>Hibiscus cannabinus</i>)	Malvaceae	Neeradaippu	Leaves are ground & prepared as karkam.	Internal
9	Japan banana (<i>Musa basjoo</i>)	Musaceae	Kalladaippu	Stemwater	Internal
10	Agasakarudan (<i>corollocarpus epigaeus</i>)	Cucurbitaceae	Snake bite	Tuberous root is ground with water	Internal
11	Pambanerupattai	Not specified	Snake bite	Bark is ground with water	Internal
12	Eechuramooli (<i>Aristolochia indica</i>)	Aristolochiaceae	Snake bite	Root is prepared as decoction and administered	Internal
13	Kuppaimeni (<i>Acalyphaindica</i>)	Euphorbiaceae	Scorpien bite	Leaf juice	Internal
14	Chunnambu	Lime stone	Other bites	Paste	External
15	Sirukurinjan (<i>Gymnema sylvestre</i>)	Asclepiadaceae	Diabetes	Leaves are dried and powdered	Internal
16	Thatpoot fruit (<i>Passiflora edulis</i>)	Passifloraceae	Diabetes	Fresh Fruit	Internal
17	Thavittukai (<i>Grewia tillifolia</i>)	Malvaceae	Diabetes	Fresh Fruit	Internal
18	Naval (<i>Sycygium cumini</i>)	Myrtaceae	Diabetes	Seed is dried powdered	Internal
19	Vallarai (<i>Centella asiatica</i>)	Apiaceae	Cold, cough	Leaf juice	Internal
20	Thoothulai (<i>solanum xanthocarpum</i>)	Solanaceae	Cold, cough	Leaf juice	Internal
21	Thulasi (<i>Ocimum sanctum</i>)	Lamiaceae	Cold, cough	Leaf juice	Internal
22	Oomathai (<i>Datura metal</i>)	Solanaceae	Wheezing	Dried leaf is folded like a cigar and used for fumigation/ inhalation	Inhalation
23	Unnu (<i>Grewia tillifolia</i>)	Malvaceae	Labour induction ;To stimulate uterine contractions and easy delivery	The mucilage gum obtained from bark is mixed with water to form a jelly like preparation and administered orally at onset of labour pain	Internal
24	Sirukurinjan (<i>Gymnema sylvestre</i>)	Asclepiadaceae	Tooth pain	Leaves are chewed then spit it	
25	Kandankathiri <i>Solanum xanthocarpum</i>	Solanaceae	Tooth caries	Nimbam oil is heated with kandankathiri seeds	External

26	Palkasu poo (bidens species)	Asteraceae	Tooth pain	Flowers are chewed and spit it	External
27	Kodiveli (Plumbago zeylanica)	Plumbaginaceae	Knee joint pain	Juice is externally applied on the affected area	External
28	Kuppaimeni (Acalypha indica)	Euphorbiaceae	Knee joint pain	Leaves ground with salt and prepared into paste	External
29	Sitramutti (Sida cordifolia)	Malvaceae	Knee joint pain	Medicated oil is prepared with gingelly oil	External
30	Murungai	Moringaceae	Antenatal care	Decoction	Internal
31	Ammanpacharisi (Euphorbia hirta)	Euphobiaceae	Dysmenorrhea	Leaf juice is administered orally	Internal
32	Kalayathampattai (Lannea coromendalica)	Anacardiaceae	Menorrhagia	Bark decoction is administered orally	Internal
33	Kurunthatti (Sida cordifolia)	Malvaceae	Leucorrhoea	Leaf decoction is administered orally	Internal
34	Varikummati (Citrullus colocynthis)	Cucurbitaceae	Alopecia	Heated in flame and the fleshy part is applied on the affected area	External
35	Aavarai (Cassia auriculata)	Ceasapiniaceae	Fungal infection	Decoction or juice is taken orally and applied	Internal & external
36	Thagarai (Cassia tora)	Ceasalpiniaceae	Itching	Seed paste is applied on the affected area	External
37	Poovarasu (Thespesia populnia)	Fabaceae	Fungal infection	Seed paste is applied on the affected area	External
38	Kuppaimeni (Acalypha indica)	Euphobiaceae	Scabies	The leaf paste applied on the affected area	External
39	Amman pacharisi (Euphorbia hirta)	Euphobiaceae	Body weakness	Grind the leaves added with salt prepared into chutney	Internal
40	Pirai (Strebulus asper)	Moraceae	Heel pain	Latex	External
41	Marul (Sansevaria roxburgiana)	Asparagaceae	Ear Pain	Juice	External
42	Thumbai (Anisomelus malabarica)	Lamiaceae	Cold, cough	Juice	Internal
43	Chukku (Zingiber Officinale)	Zingiberaceae	Preventive medicine of cold and diarrhoea	Ingredients are rubbed on the paladai and is feed internally with mother's milk	Internal
	Adhimadhuram (Glyciriza glabra)	Fabaceae			
	Vasambu (Acorus calamus)	Fabaceae			
	Manjal (Curcuma longa)	Zingiberaceae			
44	Veliparuthi (Lantana camara)	Verbenaceae	Cold, cough	Leaves are grinded with salt & filtered as juice	Internal
45	Virali [Dodonea viscosa]	Sapindaceae	Fever, Cold, cough	Leaves of specified species are prepared into decoction	Inhalation
	Thulasi [Ocimum sanctum]	Lamiaceae			
	Aavarai [cassia auriculata]	Ceasalpiniaceae			
46	Musumusukkai (Mukia maderaspatena)	Cucurbitaceae	Fever,Cold cough	Leaves of specified species are prepared into decoction	Inhalation & internal
	Eucalyptus (Eucalyptus globules)	Myrtaceae			
	Nochi (Vitex negunda)	Verbenaceae			

47	Kinatradi poondu (<i>Tridox procumbens</i>)	Asteraceae	Lacerated wound	Leaves are prepared into karkam	External
48	Kalayathampattai [<i>Lannea coromandelica</i>]	Anacardiaceae	Fracture	Bark is tied on the affected area & decoction poured into the surface of the tie	External
49	Uthiyanpattai	Anacardiaceae	Menorrhagia	Decoction	Internal
50	Kodiveli (<i>Plumbago zeylanica</i>)	Plumbaginaceae	Knee joint pain	Juice is applied on the affected area	External
51	Kuppaimeni (<i>Acalyphaindica</i>)	Euphorbiaceae	Kneejoint pain	Ground with salt and prepared into paste	External
52	Sitramutti (<i>Sida cordifolia</i>)	Malvaceae	Knee joint pain	Oil is prepared with gingelly oil	External
53	Kayam (<i>Ferula asafoetida</i>)	Apiaceae	Abdominal illness	Mixed with water	Internal
54	Naval (<i>syzygium cumini</i>)	Myrtaceae	Fishing	Crushed bark	
55	Sombu-(<i>Foeniculum vulgare</i> (s) karuppatti, vennai	Apiaceae,	Antenatal care	Decoction	Internal prepared with sombu, karuppatti then filter it and butter added
56	A)pacharisi (<i>Oryza sativa</i>) B)venthayam (<i>Trigonella Foenum graecum</i>) C) Chukku (<i>Zingiberofficinale</i>) D) poondu (<i>Allium sativum</i>)	A)Poaceae B)Fabaceae C)Zingiberaceae D)Liliaceae	Antenatal care	Falsepain	Internal
57	Virali [<i>Dodoneaviscosa</i>] Thulasi [<i>Ocimum sanctum</i>] Aavarai [<i>cassia auriculata</i>]	Sapindaceae Lamiaceae Ceasalpiniaceae	Fever, Cold, cough	Leaves of specified species are prepared into decoction	Inhalation

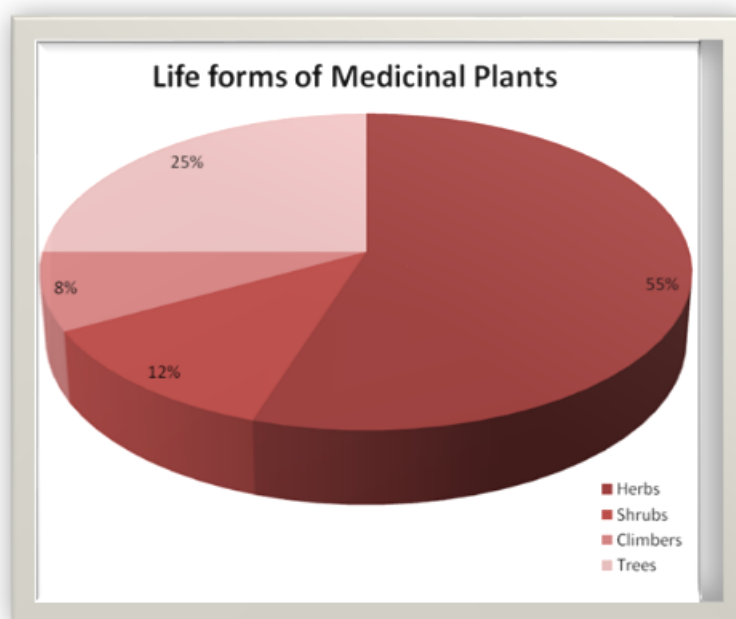


Figure 1.1.

Figure 1.1: Analysis of life forms revealed that herbs constituted the predominant habit, accounting for 55% of the total species documented.

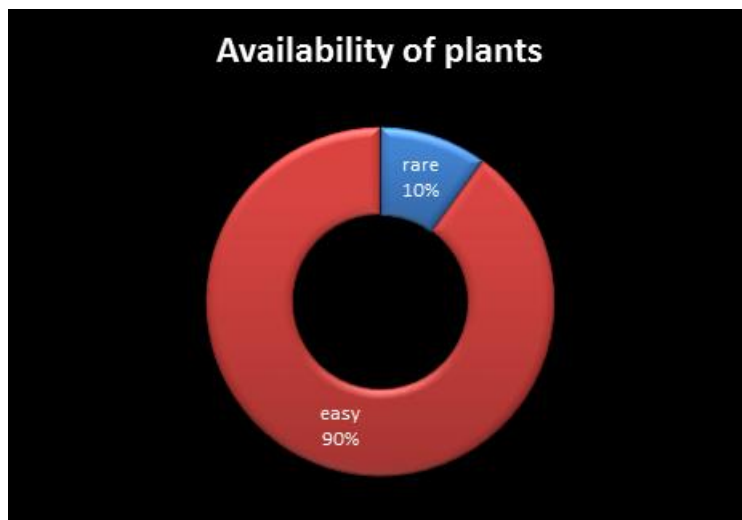


Figure 1.2

Figure 1.2: Availability of plants: Percentage distribution and availability status of documented ethnomedicinal plant species in the Kadayanallur Forest Region.

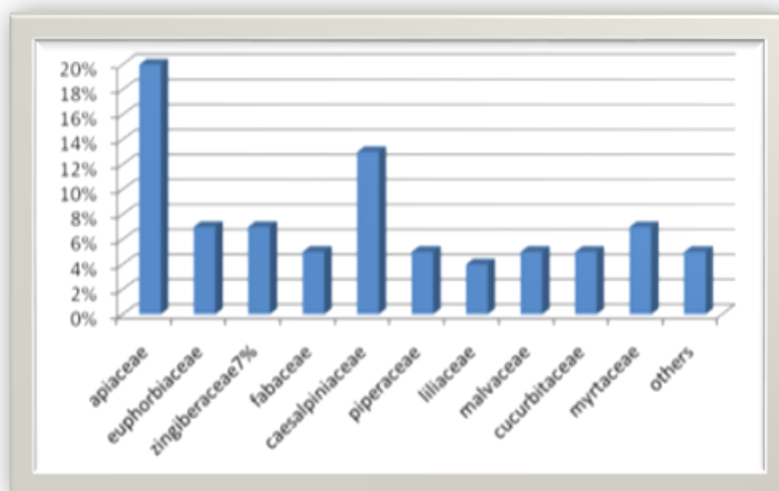


Figure 1: Families of Plants.

Figure 2: Taxonomic distribution of documented ethnomedicinal plant species across major botanical families in the Kadayanallur Forest Region. The documented 70 medicinal plant species were distributed across 25 botanical families, with a significant predominance observed in major families such as Apiaceae, Euphorbiaceae, and Fabaceae.

CONCLUSION

The findings underscore that the Paliyar tribe retains an extensive, highly specialized functional knowledge of the local flora for healthcare. The documented species represent a vital repository of bioactive natural compounds with prospective pharmacological value. Immediate and structured biocultural conservation strategies, alongside rigorous phytochemical evaluation, are strongly recommended to preserve these vulnerable ethnomedicinal systems and explore their potential in modern drug discovery.

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