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## Ethnobotanical documentation of a sacred Grove- Palakurumba temple, Olavanna in Kozhikode district, Kerala

**Reshma K and Indulekha P**

### Abstract

The study undertaken here covers the habit, floral characters and ethno medicinal properties of a number of endangered medicinal plants observed and collected from a sacred grove, Palakurumba temple, Olavanna in Kozhikode District, Kerala.

**Keywords:** Ethno medicine, endangered, sacred grove

### 1. Introduction

Sacred groves have existed all over the world from time immemorial as patches of densely wooded areas, harboring unique flora and fauna with perennial water sources in the vicinity. Many sacred groves have been preserved as sustainable resources and are considered as valuable gene pools and the first major effort to recognize and conserve biodiversity. (Brandis, D, 1897, Chandran. M.D.S and Gadgil. M, 1993, Chandrashekhra. U.M and S. Sankar, 1998) [2, 3, 12, 4].

The age-old system of having a temple, a tank and associated sacred grove explains the ancient method of water harvesting and sharing in villages of Kerala. As an ecosystem they help in soil and water conservation, besides preserving the biological wealth. Induchoodan. N.C. 1992 [6] The various religious philosophies have contributed significantly in the conservation of forest, biodiversity and landscapes by promoting customary norms, practices Jain S. K., 1991 and beliefs. Sacred groves represent the religious practice of conserving biodiversity with strong beliefs, customs and taboos and are treasure houses of rare and endemic species. Jayarajan, M, 2004 [8], Khan *et al*, 2008 [10], Subash Chandran, M.D and Gadgil, M 1993 [12, 3], Chopra R.N., Nayar S.L. and Chopra I.C., 1956 [5], Joshi S.G., 2000) [9]

The main objectives of the study were to conduct a survey of the sacred grove, collection and identification of plants, to detect the external influences leading to the degradation of sacred groves. It is very important to document and assess of floristic wealth effectively in all possible areas of a country to safeguard the awareness of public and to prevent the traditional knowledge repository to lose permanently.

### 1.1 Study area

Palakurumba Sree Bhagavathi Temple is a temple situated in Olavanna in Kozhikode District, Kerala state. The grove is spread across a semi-circle in the hill top around the Bhagavathi temple in about 3 hectares of area. The thick vegetation including the large trees, lianas, woody shrubs, herbs resemble a typical forest.

### 2. Materials and methods

Preliminary surveys of the region were done along with the enquiries and interactions with the local people. This was helpful in gathering information about the traditional healing powers of the plants. Plants were collected from the study area to prepare the herbarium sheets. Herbarium is prepared by following the standard procedure of pressing and drying of specimens, mounting, labeling, and storage of specimens. The plants were categorized into five categories according to IUCN conservation status- endangered, vulnerable, low risk, least concern and not evaluated. Anonymous, 1994 [1], Rao. P 1996) [11]

### 3. Results

In the present investigation, 26 medicinal plants were collected and their medicinal properties and IUCN status were documented.

Table 1

No.	Botanical Name	Family	Local/Common name	Habit	Medicinal uses	IUCN status
1	<i>Cyclea peltata</i>	Menispermaceae	Pada-kelengu, Padathaali	Twining shrub	skin diseases, snake bites, dermatosis	Not evaluated
2	<i>Hopea parviflora</i>	Dipterocarpaceae	Thampakam	Tree	Antimicrobial	vuln
3	<i>Ancistrocladus heyneanus</i>	Ancistrocladaceae	Mothiravalli	Liana	Dysentery	vuln
4	<i>Gomphia serrata</i>	Ochnaceae	Chavetti, valarmani, chokkatti	Small Tree	Stomachic, and antiemetic.	Least concern
5	<i>Adenanthera pavonina</i>	Mimosaceae	Manchadi, Coralwood	Tree	diarrhoea inflammation antibacterial	vuln
6	<i>Desmodium triquetrum</i>	Fabaceae	Adakkachokki	Erect shrub	protection to the liver	vuln
7	<i>Antidesma acidum</i>	Euphorbiaceae	Areppazzhachedi	Shrub	against wounds	Low risk
8	<i>Carallia brachiata</i>	Rhizophoraceae	Karakkandan	Tree	oral ulcers, inflammation of the throat	Low risk
9	<i>Syzygium caryophyllatum</i>	Myrtaceae	Kattunjavai Cherujnara	Large shrub	diarrhea, diabetes, leucorrhoea	end
10	<i>Memecylon umbellatum</i>	Melastomataceae	Kashavu Iron wood	Shrub/ small tree	Gonorrhoea to treat bruises.	Low risk
11	<i>Osbeckia chinensis</i>	Melastomataceae	Kattukadali	herb	anti-hyperglycemic	Low risk
12	<i>Chassalia curviflora</i>	Rubiaceae	neelakurinja	Erect shrub	Ear and eye disease, ulcers, sour throat	Low risk
13	<i>Ixora elongata</i>	Rubiaceae	Jungle flame, Kattuthechi	shrub	antioxidative, antibacterial, gastroprotective	Low risk
14	<i>Morinda umbellata</i>	Rubiaceae	Kudalchurukki	Shrub	Gastric problems	Low risk
15	<i>Mussaenda frondosa</i>	Rubiaceae	Vellila	Shrub	Cough, bronchitis	Low risk
16	<i>Spermacoce latifolia</i>	Rubiaceae	Vellatharavu	herb	antimicrobial, larvicidal,	Low risk
17	<i>Hemidesmus indicus</i>	Asclepiadaceae	Ananthamoola, sarasaparilla	shrub	skin infections, rheumatism and urinary problems	Low risk
18	<i>Ichnocarpus frutescens</i>	Apocynaceae	parvalli	liana	rheumatism, asthma, cholera	Low risk
19	<i>Asystasia chelonoides</i>	Acanthaceae	murikoottipacha	herb	Skin allergies. antihelminthic rheumatism,	Low risk
20	<i>Clerodendrum infortunatum</i>	Verbenaceae	Periyalam	shrub	asthma, cough, diarrhoea, rheumatism, fever and skin diseases	Low risk
21	<i>Dysophylla quadrifolia</i>	lab	Panikula	herb	abdominal pain	Low risk
22	<i>Pogostemon purpurascens</i>	Lamiaceae	Poothachida	herb	uterine haemorrhage, snake-bite	Low risk
23	<i>Zingiber nimmonii</i>	Zingiberaceae	Mal inchi	herb	antimicrobial	Low risk
24	<i>Dioscorea alata</i>	Dioscoreaceae	Kandi kkiZHangu	Twine	laxative and vermifuge	Low risk
25	<i>Smilax zeylanica</i>	Smilacaceae	Arikanni, vailankanni	climber	treatment of ulcers.	
26	<i>Pothos scandans</i>	Araceae	anaparua	Climbing shrub	Convulsions and epilepsy.	Low risk
27	<i>Hypolytrum nemorum</i>	Cyperaceae	Veerakkaitha	Herb	cough-medicine	Low risk

#### 4. Discussion

In the present study of Palakurumba Kavau, the sacred grove under study was found to be immensely rich with flora and fauna. The human disturbance factors were found to be very less. This indicates that the local people are aware of the significance of the sacred groves as a valuable ecosystem.

The study of medicinal plants in sacred groves is recognized as an effective way to discover future medicines and a valuable step towards their conservation. The use of herbs to treat disease is almost universal among villages and rural areas and is often more affordable than purchasing expensive modern pharmaceuticals. Today many medicinal plants face extinction or severe genetic loss, but detailed information is lacking and for most of the endangered medicinal plant species, no conservation action has been taken. The present study is a preliminary survey of the valuable medicinal plants in and around our locality.

For most countries, there is nor even a complete inventory of medicinal plants. Much of the knowledge on their use is held

by traditional societies, whose very existence is now under threat. Little of this information has been recorded in a systematic manner. More effort should be carried out to ensure that medicinal plants are taken from the wild, they are taken on the basis that is sustainable.

#### 5. Conclusion

A few steps may be taken for the conservation of the sacred groves in general. Creation of awareness among local people and they should be made to realize that the conservation of groves is crucial for their sustenance. It is equally important to understand traditions and beliefs as well as to have scientific awareness in order to protect and conserve these unique forest patches. Important sacred groves should be brought under the Protected Area Network with the participation of the local administrative bodies to ensure their proper conservation. Anthropogenic activities like collection of firewood, dumping of waste and many antisocial elements are to be discouraged. These forest patches are no longer free from anthropogenic

pressure. The disappearance and/or degradation of sacred groves not only symbolize the loss of the rich flora and fauna but also its rich culture associated with the grove. Thus conservation of biodiversity of these sacred groves is an urgent need.

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