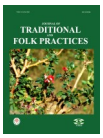
Volume 12 (01) June 2024, 64-68
ISSN 2278- 5906
https://doi.org/10.25173/jtfp.2024.12.1.117
http://jtfp.jntbgri.res.in



Journal of Traditional and Folk Practices

Case studies - Part IX: Healing art of tribal communities of Kerala, India

Vinodkumar T G Nair*, Saranya Mol S T and Suja S R

Ethnomedicine and Ethnopharmacology Division, KSCSTE Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram - 695 562, Kerala, India

*vaidyavinodkumar@gmail.com

Received: 11 May 2024 Accepted: 11 June 2024

Abstract

The healing art of tribal people of Kerala involves diverse prcatices, rituals and ceremonies for the wellbeing of all the members of tribal communities. Since it is confined to position specific knowledge of ethnic communities, abiding in a particular region, the knowledge is limited to the inheritable and non-genetic resources available within their surroundings. Those ethnic Traditional Knowledge (TK) encompasses the wisdom, knowledge, tutoring and experience of these communities and generally is orally transmitted from generation to generation. Overall it refers to gests of longstanding traditions and practices of certain indigenous or original communities. Along with deforestation, urbanization and modernization, the living habits of the tribal communities are changing rapidly that is evident on their lack of interest in TK which results in the gradual disappearing without any footprints. Hence, the need for systematic documentation of TK in order to protect, nurture and ensure legitimate utilization, protecting Intellectual Property Rights (IPR) of the tribal communities.

Keywords: Ethnobotany, Healing practices, *Irula* tribe, Systematic documentation, Traditional knowledge

1. Introduction

Traditional Knowledge (TK) refers to the knowledge, know-how, skills and practices that are developed, maintained and passed down from generation to generation within a community, often as part of its cultural or spiritual identity. It can be found in a wide variety of contexts like agricultural, medicinal, ecological, etc. (Anonymous, 2024). Tribal communities, with their close association with the natural surroundings they live, are invaluable custodians are habitual. They possess holistic understanding of local ecosystems, biodiversity and sustainable practices those have been passed over through generations, often serving as a foundation for community resilience and environmental stewardship.

As India has a rich history of traditional systems of medicine both codified such as Ayurveda, Siddha, Unani, Sowa-Rigpa and oral traditions, the healing art of ethnic communities can be considered as one of most ancient indigenous medicinal practices. For centuries, the medicinal and food practices of these ethnic communities helped people live healthy and holistic lives free of most modern diseases (Pushpangadan, 2011). These practices, grounded in a deep understanding of local ecosystems, also emphasize the importance of biodiversity conservation, as many medicinal plants are sourced from specific geographical regions, contributing to both health and environmental sustainability. Thus, the healing art of ethnic communities in India offer not only a rich source of empirical knowledge but also an important aspect of sustainable healthcare that continues to be relevant in contemporary medical research.

According to the Scheduled Tribes list of Kerala, 36 tribal communities are residing in the state, the majority of them being inhabitants of the western slope of the Western Ghats (Seetha, 2005). They have a broad spectrum of knowledge on traditional medicines for various ailments and health care. However, certain

hereditary beliefs religious norms among tribal communities hinder them from disclosing medicine secrets to their contemporaries, thus resulting in the loss of TK related to medicinal plants in the event of death of the knowledge holder. Since majority of the TKs are passed down orally to the successive generation, the lack of interest among youth also contributes to the gradual extinction of TK. In this context,, the study is planned to systematically document the TK related to plants used for food and medicine possessed by the elders of the tribal communities of Kerala before it is lost forever.

1. Healing art of tribal healer

In our pursuit of a systematic documentation of TK, we interviewed Raju Maniyan (Fig. 1), a member of the *Irula* tribal community, hailing from Ventavetti forest area in Mele Chavadiyur, Attapadi, Palakkad district, Kerala, India. As a traditional healer, he speaks the *Irula* dialect, which is a mix of Tamil and Kannada and has also become fluent in Malayalam through his interactions with the local people. His wife, Vebi Raju, also follows the medical tradition and assists him in preparing medicines. The couple has five children and they believe and hope one among them will continue this healing practice (Fig. 2).

The interview with him and his wife revealed their extensive knowledge of the medicinal plants that grow in their local environment and the nearby forest areas. He is recognized by the local residents and community members as a pediatrician, specializing in the traditional treatment of various ailments and health conditions affecting infants and children and also have vast knowledge on adult disease conditions. In addition to his medical practice, he engages in traditional farming to support his livelihood. During the the interview and discussion with Raju Maniyan, he disclosed preparation of two different types of medicated oils, one for relieving pain in musculoskeletal disease condition and medicated oil for skin diseases.

Fig. 1. Interview with the tribal healer Raju Maniyan

Fig. 2. The tribal healer Raju Maniyan with family

According to the religious beliefs of the *Irula* community, the preparations of medicated oils are unique. A traditional open one-point three-stone stove is used to prepare the oil. During the preparation of stone stove, in order to worship the Hindu God Ganapathi, a fresh dung that has been shaped into a triangle with few leaves of *Cynodon dactylon* (L.) Pers. (*Karukapullu*) on the top is placed above each stone stove and a sacred camphor flame or *aarti* is shown to the deity and then the stove is lit with firewood using *Gmelina arborea* Roxb. ex Sm. (*Kumil*) wood

1.1.1. Medicated oil for Mudukku vaatham (Musculoskeletal disease condition)

Thirteen medicinal plants are used to make the medicated oil which is used to treat musculoskeletal disease condition, locally called as *mudakku vaatham* by reducing joint pain and stiffness (Table 1). To prepare the oil, 500 ml of gingelly oil is boiled with chopped raw/fresh medicinal plants (excluding *Calotropis gigantea* (L.) W. T. Aiton) over a low flame until the foam disappears from the oil. Then, 20 ml each of oil from *Cocos nucifera* L., *Madhuca longifolia* (L.) J. F. Macbr., and *Pongamia pinnata* (L.) Pierre are added, along with crushed stem pieces of *Calotropis gigantea* (L.) W. T. Aiton. The mixture is well mixed and boiled again for 10-15 minutes over a low flame (Fig. 3).

Fig. 3. The tribal healer Raju Maniyan engaged in the preparation of medicated oil

The filtered oil should be applied daily, one hour before a warm shower to the affected area to relieve pain for 48 days. During the course of external application of the oil, fatty foods and red meat should be avoided as part of the dietary regimen. Additionally, a chutney made form young leaves of *Cissus quadrangularis* L., and *Vigna mungo* (L.) Hepper should be included in the meal for 15 days. The powdered residue left after the oil extraction can be stored for a long time in an airtight container which can be used to treat cuts and wounds by applying it to the affected area.

1.1.2. Medicated oil for skin diseases, migraine and knee pain

This oil is used for the treatment of skin diseases such as psoriasis, ringworm infection, athlete's foot, heat rashes and heel fissures, migraine and knee pain. The medicinal plants used in the preparation of this oil are listed in Table 2. The vital medicinal plant used in the formulation of oil is *Pongamia pinnata* (L.) Pierre, which has been scientifically proven for its antifungal and antibacterial properties (Wagh *et al.,* 2007; Manish *et al.,* 2019), anti-inflammatory effects (Singh and

Table 1. Medicinal plants used for the preparation of medicated oil for *mudakku vaatham*

Sl. No.	Scientific name	Local name	Family name	Plant(s) part used	Quantity
1	*Calotropis gigantea* (L.) W. T. Aiton (Plate 1 a)	*Erukk*	Apocynaceae	Stem	20 g
2	*Cereus hildmannianus* K. Schum.	*Dhoolu kalli*	Cactaceae	White fleshy stem	5 g
3	*Cocos nucifera* L.	*Thengu*	Arecaceae	Endosperm oil	20 ml
4	*Holoptelea integrifolia* (Roxb.) Planch. (Plate 1 c)	*Ayee maram*	Ulmaceae	Bark	25 g
5	*Indigofera tsiangiana* Metcalf (Plate 1 d)	*Bhoothasedi*	Fabaceae	Whole plant	15 g
6	*Jatropha curcas* L.	*Kattavanakk*	Euphorbiaceae	Root	25 g
7	*Madhuca longifolia* (L.) J. F. Macbr. (Plate 1 e)	*Iluppa*	Sapotaceae	Seed oil	20 ml
8	*Mimosa pudica* L.	*Thottasinnukki*	Fabaceae	Whole plant	20 g
9	*Pongamia pinnata* (L.) Pierre	*Punka maram*	Fabaceae	Bark Seed oil	30 g 20 ml
10	*Prosopis cineraria* (L.) Druce (Plate 1 f)	*Venni*	Fabaceae	Leaf and bark	30 g
11	*Sesamum indicum* L. (Plate 1 g)	*Ellu*	Pedaliaceae	Seed oil	500 ml
12	*Strobilanthes alternata* (Burm.f.) Moylan ex J. R. I. Wood	*Sathayotti*	Acanthaceae	Leaves	2-3 leaves
13	*Withania somnifera* (L.) Dunal (Plate 1 h)	*Amukkuram sedi/ Amikkilai*	Solanaceae	Leaf, stem and fruit	20 g

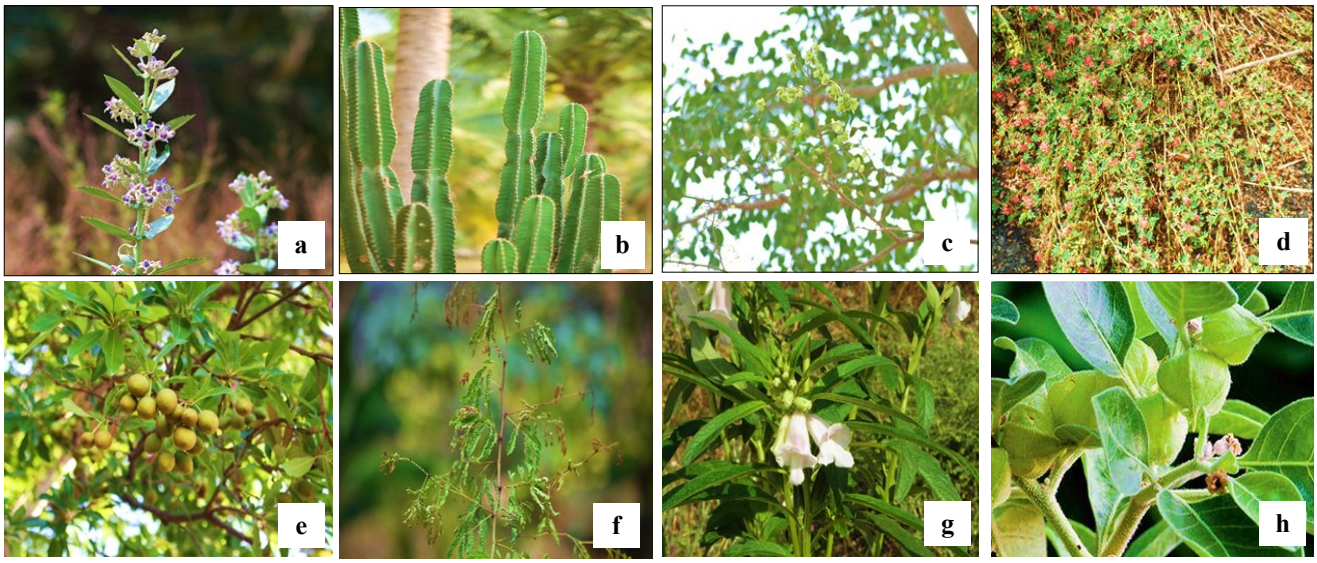


Plate 1. a. *Calotropis gigantea* (L.) W. T. Aiton; b. *Cereus hildmannianus* K. Schum.; c. *Holoptelea integrifolia* (Roxb.) Planch.; d. *Indigofera tsiangiana* Metcalf; e. *Madhuca longifolia* (L.) J. F. Macbr.; f. *Prosopis cineraria* (L.) Druce; g. *Sesamum indicum* L.; h. *Withania somnifera* (L.) Dunal

Table 2. Medicinal plants used for the preparation of medicated oil for skin diseases and knee pain

Sl. No.	Scientific name	Local name	Family	Part(s) used	Quantity
1	*Acorus calamus* L. (Plate 2 a)	*Vayambu*	Acoraceae	Dried rhizome	5 g
2	*Aloe vera* (L.) Burm.f. (Plate 2 b)	*Kattarvazha*	Asphodelaceae	Leaf gel	20 g
3	*Azadirachta indica* A. Juss. (Plate 2 c)	*Aryaveppu*	Meliaceae	Dried flower	5 g
4	*Cocos nucifera* L.	*Thengu*	Arecaceae	Endosperm oil	200 ml
5	*Curcuma zanthorrhiza* Roxb. (Plate 2 d)	*Kasthuri manjal*	Zingiberaceae	Dried rhizome	5 g
6	*Pongamia pinnata* (L.) Pierre (Plate 2 e)	*Punga maram*	Fabaceae	Fresh flower Root/bark Seed/seed oil	15 g 20 g 2 no./20 ml
7	*Terminalia chebula* Retz. (Plate 2 f)	*Kadukka*	Combretaceae	Dried fruit	2 no.

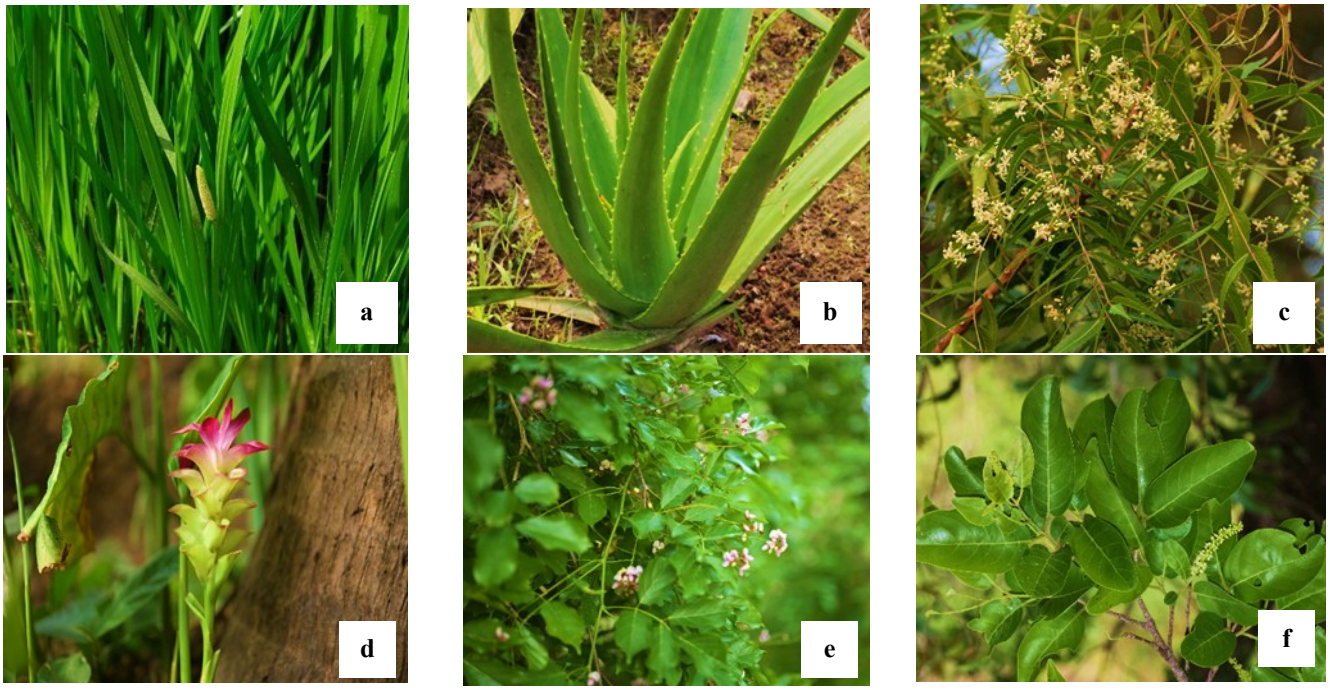


Plate 2. a. *Acorus calamus* L.; b. *Aloe vera* (L.) Burm.f.; c. *Azadirachta indica* A. Juss.; d. *Curcuma zanthorrhiza* Roxb.; e. *Pongamia pinnata* (L.) Pierre; f. *Terminalia chebula* Retz.

Pandey, 1996; Sreenivasan *et al.,* 2001) and antiviral activity (Rameshthangam and Ramasamy, 2007). During the preparation of the oil, crushed, dried rhizome of *Acorus calamus* L., dried fruit of *Terminalia chebula* Retz., and fresh flowers of *P. pinnata* are initially placed into a heated vessel, followed by the addition of 200 ml of coconut oil. The mixture is then boiled over medium heat. Once the oil begins to boil, the crushed dried root of *P. pinnata* is added and boiled for 10 minutes. Then, the leaf gel of *Aloe vera* (L.) Burm.f., and the crushed dried rhizome of *Curcuma zanthorrhiza* Roxb., are added and boiled for an additional 5 minutes. Either 20 ml of seed oil or two seeds of *P. pinnata* are then added to the oil and boiled for another 5 minutes. Finally, 5 g of dried *Azadirachta indica* A. Juss., flowers are added after the oil is removed from the flame. The resultant oil is filtered and stored in an airtight container for subsequent topical application as required.

Acknowledgments

Authors wish to thank Shri. Raju Maniyan and family and Gramapanchayat officials for their co-operation and support throughout the study. Thanks are due to the Scheduled Tribe Development Department and the Kerala Forests and Wildlife Department, Govt. of Kerala for necessary permission. We also thank Kerala State Council for Science Technology and Environment (KSCSTE), Govt. of Kerala for financial assistance and the Director, KSCSTE - Jawaharlal Nehru Tropical Botanic Garden and Research Institute for facilities provided.

References

Anonymous 2024. Traditional Knowledge. In: WIPO. https://www.wipo.int/web/traditional-knowledge/tk/index. Accessed on 04/04/2024.

Manish A G, Mounika N, Vasudha B and Narender B 2019. Assessment of antibacterial screening of *Pongamia pinnata* stem against bacterial species: An *in-vitro* approach. J. Drug Deliv. Ther.

9(1-s):181 - 184.

Pushpangadan P 2011. Ethnomedicine and traditional food habits of Kerala. Traditional and folk practices- contemporary relevance and future prospects. Edt. S Rajasekaran, P G Latha. Published by KSCSTE and JNTBGRI. 23- 32.

Rameshthangam P and Ramasamy P 2007. Antiviral activity of bis (2-methylheptyl) phthalate isolated from *Pongamia pinnata* leaves against white spot syndrome virus of Penaeus monodon fabricius. Virus Res. 126(1-2): 38-44.

Seetha Kakkoth 2005. The primitive tribal groups of Kerala: A situational appraisal. Stud. Tribes Tribals. 3(1): 47-55.

Singh R K and Pandey B L 1996. Anti-inflammatory potential of *Pongamia pinnata* root extracts in experimentally induced inflammation in rats. J. Basic Appl. Biomed. 4: 21-24.

Srinivasan K, Muruganandan S, Lal J, Chandra S, Tandan S K and Ravi Prakash V 2001. Evaluation of anti-inflammatory activity of *Pongamia pinnata* leaves in rats. J. Ethnopharmacol. 78: 151-157.

Wagh P, Rai M, Deshmukh S K and Durate M C T 2007. Bio-activity of oils of *Trigonella foenum-graecum* and *Pongamia pinnata*. African J. Biotech. 6(13): 1592 - 1596.