Ind. J. Sci. Res. and Tech. 2012 1(1):7-11/Sudeesh ISSN:-2321-9262 (Online)
Online Available at: http://www.indjsrt.com
Research Article

ETHNOMEDICINAL PLANTS USED BY *MALAYARAYA* TRIBES OF VANNAPURAM VILLAGE IN IDUKKI, KERALA, INDIA

S. Sudeesh
School of Ecological Informatics, Indian Institute of Information Technology and Management – Kerala, Technopark Campus, Kariyavattom (PO), Thiruvananthapuram 695581, India
**Author for Correspondence*

ABSTRACT
Traditional knowledge is amorphous. The value of medicinal plants and herbs are being lost due to lack of awareness and deforestation. The present study aims to document the plants used by Malayaraya tribes Thodupuzha, Idukki district of Kerala, India. Medicinal uses and its current availability status of 31 plant species belonging to 27 families, regarding its botanical name, local name, family etc., utilized by Malayaraya Tribes are presented. Ethno medicinal studies supplemented with geospatial information have great significance in the collection of traditional knowledge, preparation of recorded data and in the conservation of endangered medicinal plant species.

Key Words: Malayaraya, Ethnobotanay, Medicinal Plants and Idukki

INTRODUCTION

Traditional knowledge encompasses tacit knowledge and practices of indigenous communities, it encompasses tacit knowledge and practices of indigenous communities and is often linked to customs of crop and animal husbandry, fisheries and human health. With its vast geographic expanse spread across different climatic regions and notified as indigenous, India abounds in traditional knowledge. However, this knowledge is diffuse and tends to get extinct as individuals/communities get more and more marginalized. Loss of traditional knowledge is recognized as of great global concern in the present Century (Ramirez, 2010). The Convention on Biodiversity (CBD) has provided an impetus for preservation of traditional knowledge due to which is slowly getting extinct. Traditional knowledge of medicinal plants and their use by indigenous cultures are not only useful for conservation of cultural traditions and biodiversity but also for community healthcare and drug development in the present and future (Pei, 2001). The tribal and rural populations of India are to a large extent depended on medicinal plants for healthcare.

Documenting the native knowledge through ethnobotanical studies is significant for the conservation and utilization of biological resources. Now 80% of the world's people depend on traditional medicine for their primary healthcare needs (WHO). There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases (Azaizeh et al., 2005)**.** A mechanism with high potential for protection of traditional knowledge is its documentation in databases and registers. Peoples Biodiversity Register, Traditional Knowledge Digital Library (TKDL), National Innovation Fund, and the Farmers Rights Information System (FRIS) are a few of the Indian attempts to capture traditional knowledge in databases. However, ethnographers are still far from exploiting the advances in information technology. Overwhelming majority of ethnographic research is descriptive. The challenge is to assimilate an amorphous entity, which is predominantly confined to virtual databases within the minds of people.

India is one of the richest floristic regions of the world and has been a diverse source of plant products and many of these plants species are used for medicinal purposes. The medicinal plants occupy an important position in the social- culture, and therapeutic arena of the India (Kurup et al., 1979). The tribal and rural population of the India are to a large extent depended on medicinal plants for health care. Traditional knowledge of human health and medicinal has recently become a global concern. The value of medicinal plants and herbs are being lost due to lack of awareness and deforestation. In Kerala, the diversified system of traditional practices prevails among the rural communities since time immemorial. The present study aims to document the plants used by Malayaraya tribes and the indigenous community/rural people of Thodupuzha, Idukki district of Kerala state. Medico-ethnobotany acts as a bridge between botany and tribal knowledge regarding medicinal plants (Jomy et al., 2010).

MATERIALS ANS METHODS

Vannnapuram village of Thodupuzha has a mixed population of Malayaraya tribes, nontribal community and rural people. More than 100 families of Malayaraya tribes are distributed in the village. The study area lies between 76°42’49. 41” E latitude and 9°42’49. 41’’ E longitude. Frequent field visits were conducted in Vannapuram village of Idukki districts, Kerala and information gathered about traditional knowledge of medicinal plants and awareness

among different age group at three villages viz. Pattayakudi, Edathana and Vanchikkal. The objective of this study was to interact with Malayaraya tribes and document their knowledge on medicinal plants.

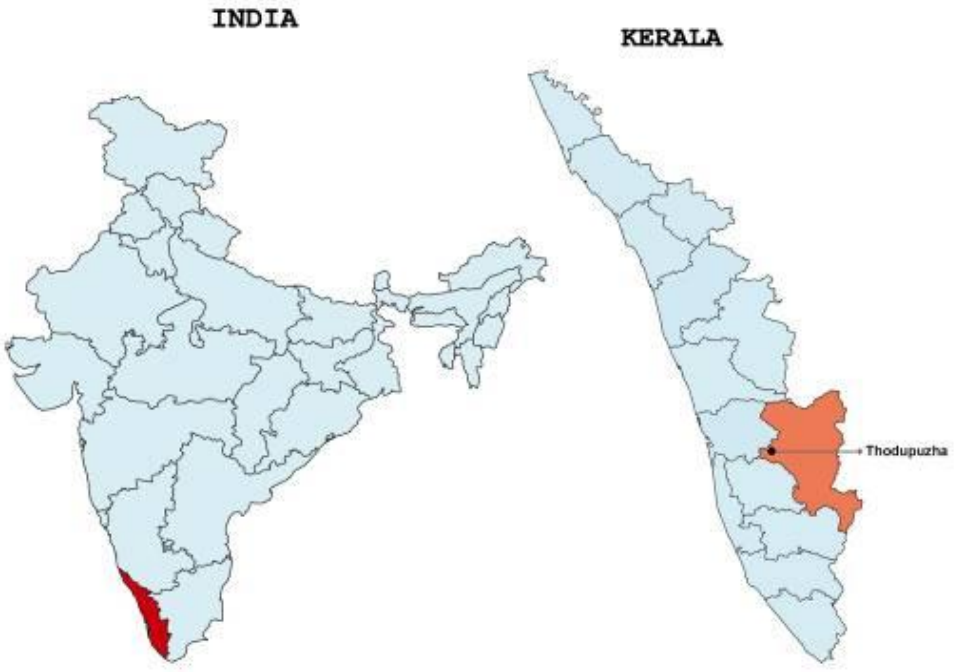

Figure 1: Location Map of Study Area

Information regarding medicinal plants was gathered by meeting Malayaraya tribes and rural people during field trips. Most of information was gathered from the elderly people, who have are experts in the usage of plants. Generally, tribes, who know about the herbal medicine, do not want to reveal all the information because they believe that when the medicinal plant is disclosed its medicinal properties will be lost. For this reason, information collected from the tribes is an important aspect of ethnobotanical study (Meena & Yaclav, 2010).

RESULTS AND DISCUSSION

Total 31 plant species belonging to 27 families have been enumerated. The data on ethnomedicinal plants such as the botanical name, local name, family and medicinal uses are presented (Table 2). Some of the plant species are illustrated in figures. These plants are being used by Malayaraya tribes and rural people of Vannapuram village in Idukki district of Kerala to treat various ailments such as injuries, wounds, cuts, fever, diarrhoea, ulcers, swelling, impotency, poisons, skin care, toothache, asthma, cough & cold. Now a day, population is expanding in villages and younger generations tend to discard their traditional life style. Therefore, much of this wealth of knowledge is being lost traditional culture is disappearing. Our study reveals the loss of traditional knowledge of medicinal plants is getting eroded in younger generation due to change the life style. The age group of 15- 30 shows growing disinterest in accruing the traditional knowledge of medicinal plants compared to other three age groups such as 30-45, 45-60 and above 60. The older age group has more awareness of medicinal plants (Table 1). Hence, documentation of traditional practices of herbal medicine would benefit of future generation (Rajith et al., 2010).

Table 1: Awareness of Medicinal plants among different age groups

Places	**Age group**			
	15-30 (Young adult)	30-45 (Adulthood)	45-60 (Middle adulthood)	Above 60 (Old age)
Pattayakudi	17%	35%	53%	75%
Edathana	21%	38%	58%	73%
Vanchikkal	25%	40%	60%	78%

CONCLUSION

The information was gathered directly from the tribal people of the study area. Since several plants are potential for modern drug development and further studies on the biomedical experimentation of these plants are suggested. Now a day's large numbers of medicinal plants are being threatened due to deforestation and urbanization. In these circumstances, ethnobotanical and ethnomedicinal studies have great significance in the collection of traditional knowledge, preparation of recorded data and in the conservation of endangered medicinal plant species. Due to lack of interest among the younger generation as well as their affinity to migrate to cities for profitable jobs, there is a possibility of losing this wealth of knowledge in the near future (Chellaiah et al., 2006). It thus becomes necessary to acquire and preserve this traditional system of medicine by proper documentation and identification of specimens. In this context, the help of new technologies like GIS (Geographic Information System) and Data Base Management System (DBMS), would certainly benefit.

Figures shows some of medicinal plants used by Malayaraya tribes in Vannapuram

Figure 2: Cardispermum halicacabum

Figure 3: Aerva lanata

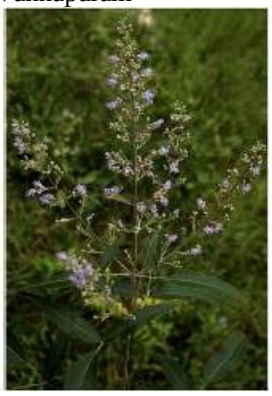

Figure 4: Vitex Negundo

Figure 5: Alstonia scholaris

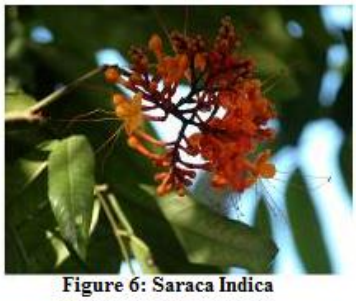

Figure 6: Saraca Indica

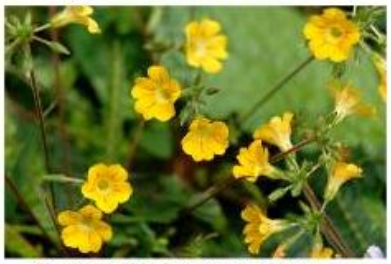

Figure 7: Biophytum sensitivum

Figure 8: Strychnos nux-vomica

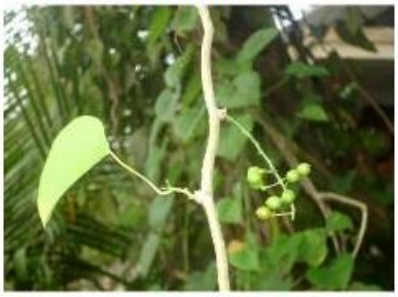

Figure 9: Tinospora cordifolia

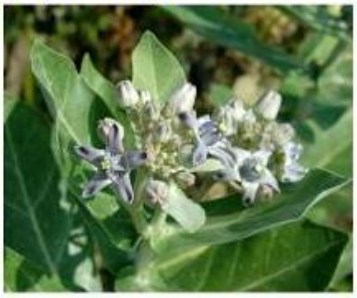

Figure 10: Calotropis gigantea

Table 2: Plants used by the Malayaraya community

Plant name	Local Name	Family	Part Uses	Diseases Cured	Availability
Sesbania grandiflora(L.) Pers.	Akatti	Leguminicae	Leaf, young friut, bark	Head ache, fever	Very rare
Aquilaria Agallocha Roxb.	Akil, Karakil	Thymelaeaceae	Fragrant resinous wood and oil	Skin related ailments, blood purifier	Rare
Aconitum heterophyllum Wall.	Athi vidayam	Ranunculaceae	Root - Rhizome	Kapha Pitha hara ,Aama pachana,Visha hara,Arshas	Rare
Tinospora cordifolia	Amritavalli	Menispermaceae	Stem, leaf & roots	Jwaram, trushna, pandu, kaamala, daaham, premeham	Very rare
Saraca indica Roxb.	Asokam	Leguminosae	Bark	Piles, diabetes,skin discoloration	Available
Azadirachta indica	Veppu	Meliaceae	Leaves,Flowers,seed	Antispetic and Malarial fever.	Available
Ricinus communis L.	Avanakku	Euphorbiaceae	Root, Leaves, Flowers, Seeds	Abdominal discomfort, constipation, body pain	Available
Aristolochia indica L.	Garudakodi	Aristolochiaceae	Whole plant.	Skin diseases, intestinal worms, arthritis and ulcers	Available
Derris indica Lam.	Pongu	Leguminosae	Leaf,friut, bark	Blood purification	Available
Datura stramonium L.	Ummam	Solanaceae	Seeds, Flowers, Leaves	Malarial fever,dandruff and falling hair ,asthma.	Available
Cardiospermum halicacabum Linn.	Uzinja	Sapindaceae	Seeds, rotts, Leaves	Fever, arthritis, amenorrhea, low back pain,	Available
Calotropis gigantea L.	Erukku	Asclepiadeceae	Root, Latex, Flower and Leaves	Skin diseases and joint inflammations	Available
Alstonia scholaris L.	Pala	Apocynaceae	Bark, latex	Fever, malaria	Available
Curculigo orchioides Gaertn.	Nilappana	Hypoxiodaceae	Tuber	Stomach pain after delivery	Available
Biophytum sensitivum L.	Mukkutti	Oxalidaceae	Leaves	Antiseptic, Anti-pyretic	Available
Solatium torvum sw.	Chunda	Solanaceae	Leaves	Abortion	Available
Lycoperisicon esculent	Kattuthakkali	Solanaceae	Fresh leaves	Ladies to stop menstruation	Very rare
Eclipta alba L. Hassk.	Kayyonni	Asteraceae	Whole plant	Rejuvenates hair, kidneys and liver	Available
Strobilanthes ciliatus Nees.	Karinkurinji	Acanthaceae	Root , Whole plant	Blood purifier	Available
Vitex Negundo L.	Karunocci	Verbenaceae	Whole plant	Rheumatism, bronchitis, cough	Rare
Hybanthus enneaspermus Linn.	Orilathamara	Violaceae	Whole plant.	Eye diseases, toxicities,Aphrodisiac, Diuretic	Rare
Kaempferia galanga L.	Kacholam	Zingiberaceae	Rhizomes	Skin diseases, wounds, fever,gastritis	Available
Terminalia chebula Retz.	Kadukka	Combretaceae	Mature and immature fruits	Reduses excess body fat,flatulence,	Rare
Aerva lanata Linn.	Cherula,	Amaranthaceae	Whole plant.	Urinary infection	Rare
Boerhaavia diffusa L.	Tazhutama	Nyctaginaceae	Leaves,roots	Fever, constipation, urinary infection, vesical stone	Available
Ocimum sanctum L.	Tulasi	Lamiaceae	Whole plant	Cough,fever,gastric distension, and skin diseases.	Available
Aloe barbadensis Mill.	Kattarvazha	Liliaceae	Leaves	Blood purification, ulcers, burns	Rare
Strychnos nux-vomica L.	Kanjiram	Loganiaceae	Seed, Bark, Root, Leaves	Improving memory power releave inflation and pain	Rare
Ensete superba Roxb.	Kalluvazha	Musaceae	Seed	White discharge, Kindney stone	Very rare
Alpinia calcarata Rox.	Chittaratha	Zingiberaceae	Rhizome	Plant pacifies vitiated vata, kapha, rheumatoid arthritis	Rare
Protasparagus recemosus Willd.	Sathaveri	Liliaceae	Arial parts	Fever	Available

ACKNOWLEDGMENT

I take this opportunity to express my heartfelt reverence to Dr.R. Jaishanker, Associate Professor, Mr. Radhakrishan. R, Assistant Professor, Mr. Saroj Kumar and Ms. Ponmani K.Sasidharan., Indian Institute of Information Technology and Management-Kerala, for his timely help and encouragement for this work. I also grateful to Mr. Joby Paul School of Environmental Sciences, M G University and Mr. Benny T.G, Govt. College Kottayam, for the constant support and advice to carry this work.

REFERENCES

Azaizeh H, Fulder S, Khalil K & Said O (2005). Ethnomedicinal knowledge of local Arab practitioners in the Middle East Region. *Fitoterapia,* **74**(1-2) 98-108.

Chellaiah M, Muniappan A, Nagappan R & Savarimuthu (2006). Medicinal plants used by traditional healers in Kancheepuram District of Tamil Nadu India. *Journal of Ethnobiology and Ethnomedicine,* **2(**43) 1-12.

Jomy A, Sreejesh KR & Bijeshmon PP (2010) Ethnogynecological uses of plants prevalent among the tribes of Periyar Tiger Reserve, Western Ghats. *Indian Journal of Traditional Knowledge,* **9**(1) 73-76.

Kurup PNV, Ram Das VNK & Joshi P (1979). Hand book of medicinal plants, Central Concil of Research Ayurvedic and Siddha, New Delhi, 211.

Meena KL & Yaclav BL (2010). Some traditional Ethnomedicinal plants of southern Rajasthan. *Indian Journal of Traditional Knowledge,* **9**(3) 471-474.

Pei SJ (2001). Ethnobotanical approaches of traditional medicine studies: Some experiences from Asia. *Pharmaceutical Biology,* **39** 74-79.

Rajith NP, Navas M, Muhammad TA, Manju MJ, Anish M, Rajasekharan S & George S (2010). A study on traditional mother care plants of rural communities of South Kerala. *Indian Journal of Traditional Knowledge,* **9**(1) 203-208.

Ramirez CR (2010). Ethnobotany and the Loss of Traditional Knowledge in the 21st Century. *Ethnobotany Research & Applications,* **5** 245-247.