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Original Article

Ethnomedicinal wisdom of the Manavalakuruchi people in Kanyakumari District, Tamil Nadu

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Abstract

This research article deals with the ethnobotanical knowledge and the analysis of folk medicinal uses of Manavalakuruchi people in Kanyakumari District, Tamil Nadu. More than 150 plants species are used by the people and out of which only 50 species are mentioned here. The present population has little knowledge about the medicinal plants of that area because most of the knowledgeable, older persons have passed away and the younger ones are not received the traditional methods. However, as in the past, some empirical knowledge of medicinal plants among the people continues to be developed and transmitted orally from one generation to the next.
***Key words*:** Manavalakuruchi, ethnobotany, Kanyakumari District

Introduction

India has a rich tradition in medicinal plant study and is one of the twelve mega biodiversity centres and eighteen hot spots in Eastern Himalayas and Western Ghats apart from being known for ancient civilization and deep-rooted in tradition, is also known for its rich diversity, both cultural as well as biological (Ravikumar *et al*., 2000).

The world of herbal medicine encompasses aspect of modern western medicinal and pharmaceutical practice, ancient and modern belief systems, biology, chemistry and Agriculture. Pharmaceutical industries are interested in finding and exploitation the benefits of natural product (Gopalan and Henry, 2000).

Many people, especially in the poorer, underdeveloped countries, rely on wild plants for food, construction materials, fuel wood, medicine and many other purposes. Traditionally, the people in many local communities worldwide are extremely knowledgeable about plants and other natural resources, on which they are so immediately and intimately dependent. Unfortunately, much of this wealth of knowledge is today becoming lost as traditional cultures become eroded. Ethnobotanists can play very useful roles in rescuing this disappearing knowledge and returning it to local communities. In this way local ethnobotanical knowledge can be conserved as part of living cultural- ecological systems, helping to maintain a sense of pride in local cultural knowledge and practice and reinforcing links between communities and the environment, all of which may be thought of as essential steps in the promotion of conservation (Martin, 1995). It is, therefore, important that before this rich unwritten folk-lore on uses of plants and plant resources becomes lost forever through the recent accelerated 'civilization' of the aborigines (tribals), it should be properly documented and preserved (Rao and Henry, 1997).

People living in villages are using indigenous plants as medicines from long ago because this knowledge reaches to them through generation to generation, and is based on experience. Also villages are far away from cities and mostly there are no health facilities. Inhabitants are dominantly poor or middle class and the prices of synthetic drugs are rising day by day and they cannot withstand the sharply rising prices of synthetic drugs, so as a consequence, non-availability of expensive synthetic drugs (Shinwari and Khan,1998).

The objective is to establish a documentation of the plants used by Manavalakuruchi people of Kanyakumari district in Tamil Nadu with create awareness to

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the local communities about the conservation strategies of these valuable genetic resources.

Materials and Methods

Description of the Study Area

Tamil Nadu is the eleven largest states in India with a geographical area of 13005 sq. Kms and lies between 11° 00' to 12° 00' North latitudes and 77° 28' to 78° 50' East longitudes. The Manavalakuruchi in Kanyakumari districts lying between 77°5' and 77°40'E longitudes. 8°20'and 8°50'N latitudes. South west monsoon from June – September, and north east monsoon in October and November bring rain to this region, and annual rain fall varies at different places from 89 cm to 625 cm.

Documentation

For the documentation of indigenous medicinal plants, survey was carried out during the year June 2009 to July 2010. The indigenous medicinal plants have been described after gathering information regarding the preparation of drugs and methods of their administration along with doses from knowledgeable older person, and traditional herbal medicine practitioners who were having well-versed in traditional healing in Manavalakurichi village.

A total 10 selected inhabitant were interviewed. Out of ten, seven were male and 3 were female between the ages of 30 to 65 years. During the course of the study each informant was visited three times inorder to verify reliability of the data obtained.

Plants in triplicates were collected in its flowering stage from their natural habitats (Diane Bridson and Leonard forman, 1992). All plants were identified by using relevant floras (Gamble, 1935; Mathew, 1983). The identification of plant materials was confirmed with Herbarium specimen of St. Xavier's College, Palayamkottai, Tirunelveli District. Tamil Nadu

Results and Discussion

Plants have been used as traditional medicine for several thousand years. The exploration of ethnomedicinal survey was carried out by the researchers in Manavalakuruchi. There are 50 species belonging to 32 families were recorded. The species are arranged in chronological order (Table- 1 & Plate- 1)

Family Euphorbiaceae ranks at the top having 8 ethnomedicinal plant species, followed by Solanaceae (4sp), Rubiaceae (3 sp), Liliaceae (3 sp), Malvaceae (2 sp), Poaceae (2 sp), Asclepidaceae (2 sp) and Verbenaceae (2 sp species each. The remaining families had only one species each. Among the genera, *Euphorbia* (3sp) had the highest number of species, followed by *Acalypha, Allium*, *Phyllanthus* and *Capsiacum* (2sp each). The remaining genera had only one species. All the plants species and their parts are used in the treatment of various diseases represented in table-1).

The present study provides information about some therapeutic uses of 50 plant species. The plants are either used singly or in combination with some other plants or plant parts. Some plant species are claimed to be quite effective remedies for cutaneous affection of head, snakebite, diarrhea, malaria, cough and cold, and stomach troubles etc. Since the uses are based on empirical knowledge, the scientific study of all these herbal drugs is highly desirable to establish their efficacy for safe use.

Various areas of Manavalakurichi region are enriched with useful medicinal plants. However, resource based areas are facing severe biotic interference and require be protecting and conserving by community participation. Community participation can be initiated by giving incentives to local people and creating awareness about the useful properties of medicinal plants and their commercial values.

All members of community in the area, use medicinal plants. Some medicinal plants like *Azardirachta indica* A.. fruit and aerial parts are also used to cure "Skin diseases". *Phyllanthus amarus* is used to cure "Jaundice". *Aloe barbadensis* is used as tonic for general and sexual debility, induced fertility, bone fracture and sterility by different communities of the area.

Various parts of the plant are used in curing different ailments. During the research project it was noted that the medicinal plant wealth of Manvalakurichi, Kanyakumari District. Some medicinally important plant species are

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fast dwindling, mainly due to human interference. So, the area needs proper protection for the conservation and survival bio-resources.

Moreover to prevent the extinction of medicinal species, effects may be made to grow the sensitive species by acclimatizing them and if required them *in situ* as many species can be considered as an asset for human beings (Hamayun *et al*., 2003). Further research works should be formulized on base line of indigenous studies because there are still some diseases like "Cancer" and "AIDS", for which there are no identified cures. So ethnodirected studies can help in these research works (Ahmad & Ali, 1998).

Table -1: List of ethanomedicinal plants in study area

Scientific Name	Local Name	Family	Parts used	Mode of administration
Abrus precatorius L.	Kuntimani	Papilinaceae	Seed and leaves	Tonic, Expectorant, Snake bite
Abutilon indicum (L)	Thuthi	Malvaceae	Leaves and stem	Boils
Acalypha fruticosa Forssk.	Sirusinni	Euphorbiaceae	Leaves, Roots	Digestive troubles, Gonorrhoea
Acalypha indica L.	Kuppai meni	Euphorbiaceae	Whole plant	Toothache, ear ache, severe cough, ringwork and burns
Achyranthes aspera (Mill)	Nayuruvi	Amaranthaceae	Whole plant	Diuretic, Dropsy, piles, Skin eruptions, Foot diseases
Aegle marmelos (L.) Corr.	Vilvam	Rutaceae	Fruit, Leaf	Rheumatism, Dysentery,diabetes, gastro intestinal troubles
Allium cepa L.	Venkayam	Liliaceae	Modified Leaf	Foot &mouth diseases, intestinal worms, dysentery, diarrhea, scabies,constipation, indigestion,.
Allium sativum L.	Vella pondu	Liliaceae	Modified Leaf	Foot &mouth diseases, skin infection, rheumatism, snakebite, gastric troubles
Aloe barbadensis Mill	Sothu katalai	Liliaceae	Whole plant	Induced Fertiity, burns, bone fracture, sterility, Piles and Fever
Annona squamosa L.	Seetha palam	Anonaceae	Fruit	To destroy maggots, indigestion
Azadirachta indica A.Juss..	Vembu	Meliaceae	Leaves	Retention of urine, broken horns, burn, lympany, indigestion, snakebite, foot and mouth diseases, tetanus
Bambusa arundinaceae L.	Moongil	Poaceae	Shoot tip	Nervous disorders
Brassica juncea L.	Kaduku	Brassicaceae	Fruit	Internal parasites, stomachic, retention of placenta
Capsicum annuum L.	Vallmilgaai	Solanaeace	Dried fuit	Cuts and wounds
Capsicum frutescens L.	Kantharimilagu	Solanaceae	Fruits	Cough and Cold
Cathranthus roseus .L.	Nithya kalyani	Apocynaceae	Leaf and root	Anticancer
Centella asiatica (L.) Urban	vallarai	Apiaceae	Whole plant	Fever, sunstroke
Cissus quadrangularis L.	Thelligai	Vitaceae	Tender stem	Stomach ulcers
Citrus medica L.	Kattunarathai	Rutaceae	Fruits	Increased blood level.
Cynodon dactylon (L.) Pers	Arugampul	Poaceae	Leaf	Mastitis gastric troubles, internal injury, sprains, bone fracture, food poisioning, sunstroke, sprains, broken horn, clotting of blood
Datura innoxia (L.) Miller	Oomathai	Solanaceae	Leaves and seeds	Hydrophobia and earache
Euphorbia hirta L.	Ammanpacharisi	Euphorbiaceae	Whole plant	Purifies blood, skin diseases, coung, asthma and other respiratory disorders
Euphorbia nivulia Buch-Ham	Illaikalli	Euphorbiaceae	Leaf latex and root	Skin disorders, ear disorders, retention of urine, swelling, worm infection

Euphorbia thymifolia (L.)	Chinnamman pacharisi	Euphorbiaceae	Whole plant	Ring worm, wounds, asthma, skin diseases
Ficus benngalensis L.	Allamaram	Moraceae	Prop root	Toothache
Gymnema sylvestre (Retz.) R..Br.ex Schutt.	Sirukurinchan	Asclepidaceae	Leaf	Diabetes
Hemidesmus indicus (L.) R.Br.	Nannari	Asclepidaceae	Root	Stomach ulcers
Hibiscus rosa sinensis L.	Sembaruthi	Malvaceae	Leaf and Flower	Hair growth, reduced heat, Hair blackening and shinning, Skin infection
Justicia adhathoda L.	Adhathoa	Acanthaceae	Leaf	Fever, Bronchial asthma
Lawsonia inermis L.	Maruthani	Lythraceae	Leaves	Hair oil & hair growth
Mangifera indica L	Mangai	Anacardiaceae	Leaf	Burn injury
Murraya koengii L.	Kurry vebilai	Rutaceae	Leaf	Hair growth, headache, blackening of hair
Musa paradisiaca L.	Vallai	Musaceae	Fruit	Anaemia, indigestion, gastric troubles,lactation, scabies,bone fracture, diarrhea
Ocimum tenuiflorum L.	Krishnathulasi	Lamiaceae	Leaf	Cough and cold, Abscess
Phyllanthus amarus Schum & Thonn.	Kezhanelli	Euphobiaceae	Whole plant	Jaundice, diarrohoea, dysentery, intermittent fever, diseases of the urine genital system, scabies, ulcers and wounds
Phyllanthus emblica L.	Nelli	Euphobiaceae	Root bark, leaves	Jaundice, diarrhoea. Inflammation, dysentry and diarrhoea. Diabetes, cough, asthama, peptic ulcers, skin diseases, leprosy, anaemia, cordiac disorders and greyness of hairs
Piper nigrum L.	Nallamilagu	Piperaceae	Seed	Woung, cough, throat pain
Plumbago Zeylanica L.	Vellai sithira mulam	Plumbaginaceae	Leaf	Rheumatism, Cancer
Pongamia pinnata (L.).Merr	Pungu	Fabaceae	Stem bark	Chronic headache & backache
Psidium guajava L.	Koyya	Myrtaceae	Leaf and fruit	Digestion
Punica granatum L	Madhulam	Punicaceae	Outer skin of the fruit	Fever, indigestion, Menstrual disorders
Ricinus communis Linn.	amanaku	Euphorbiaceae	Seeds, leaves, and Bark	Boils, Swelling, Laxative and to start Labour pain
Rosa damascene Mill	Rosa	Rosaceae	Flower	Dysentery
Santalum album L.	Chandanam	Sandalaceae	Stem powder	Reduced body temperature, skin fairness
Syzygium cumini (L.) Skeels.	Navalpalam	Myrtaceae	Fruit	Induced digestion
Tectona grnadis L.f.	Tekku	Verbenaceae	Leaves	Bone fracture
Tinospora cordifolia (Willd.) Miers.Ex.Hook.F.Thoms.	Shindil kodi	Menispermaceae	Leaf	After delivery used as health tonic
Vitex negundo L.	Nochi	Verbenaceae	Leaf and stem	Cold,anticancer
Withania somnifera (L.) Dunal.	Amkulang	Solanaceae	Whole plant	Leucoderma, Diuretic and Analgestic
Zingiber officinale Rosc.	Inchi	Zingiberaceae	Rhizome	Indigestion, heatstroke, constipation, cough, dysentery, diarrohea,stomachache, skin diseases abdominal swelling,tetanus

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Plate -1: Ethanomedicinal plants in Manavalakurichi

Conclusion

Thus, the present study helped us to understand the Traditional Botanical Knowledge of Manavalakuruchi people. Further, they have to be trained and awareness should be given for the conservation of this biodiversity rich area. The deterioration of the wild flora of this area is to be blamed on population pressure and overgrazing. The demand of medicinal plants is increasing day-by-day within and outside the country and serious and effective measures are required to meet challenge. Therefore, there is an urgent need for a local inventory of medicinal plants, to identify the species that merit priority and to formulae strategy for the in-situ conservation and cultivation of these species.

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