



## Relevance of Practicing Ethnobotany in Modern Era

<sup>1</sup>Pramod Kumar N\*, <sup>2</sup>Niya T. Sivan, <sup>1</sup>Renjusha A.P.

1. Department of Botany, N.S.S. College, Ottapalam, Palakkad, Kerala-679103  
2. Scientist (trainee), Akay Natural Ingredients Pvt. Ltd., Malaiyidamthuruth, Aluva, Kerala-683561

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### Abstract

Ethnobotany deals with direct application of plants and their parts for curing diseases, which is associated with the tribes and traditional physicians who were elder persons practiced their traditional knowledge for curing several ailments including snake bite. This knowledge helped to protect our rich biodiversity as well. They have an idea about the plants in our surroundings, their correct identity, uses and other aspects like propagation. In contrary the modern man is not aware of our rich biodiversity and their importance in our day to day life, resulted in the depletion of our biodiversity and the associated knowledge. Efforts are needed to conserve our rich biodiversity and traditional knowledge. The present study is an attempt to gather the ethno botanical importance some common plants with their correct identity.

### 1. Introduction

From the ancient period itself, humans are depending upon the nature for their healing. The natural remedies help them to cure both physical and mental disorders. Man in ancient times thought himself as a part of nature and lived in perfect harmony with nature. The modern man in contrast, by exploiting the nature and natural resources for his benefits, resulted in the destruction of environment. The over exploitation of natural resources by man, resulted in irreparable loss of considerable biodiversity even before it was fully known (Mohanan & Daniel, 2005). Only 1.5 million of the estimated 30 million species are known to man and of which about 25 % are at the risk of extinction within the next two or three decades (Dutta, 2000). A growing

global concern initiated in the mid nineteenth century led to a conference by the IUCN on conservation and utilization of natural resources.

Taxonomic studies play a very important role in the conservation of biodiversity. Only by classification and naming we can use the natural resources and transfer the knowledge to the next generation. India is one of the countries where ethnobotanical knowledge existed from time immemorial. The country has about 53 million tribes; it is perhaps the largest country possessing a good treasure of accumulated indigenous tribal knowledge (Pushpangadan, 1994). There are three major sources of ethnobotanical knowledge in our country. They are Archaeological sources-include mural paintings, drawings, remains of ancient constructions etc. Traditional sources- include ethnobotany of indigenous religions and medical practices and are

based on old works in Sanskrit. Tribal sources – Tribals are the aborigines who first inhabited the land. They have their own indigenous knowledge and is associated with their environment. Written records of the use of plants for human and animal diseases can be traced back to the Rigveda (5000-1600 BC), the earliest scripture of the Hindus (Jain, 1994). The Vedic Aryans were familiar with a lot of medicinal plants. The Indian indigenous system of medicine named Ayurveda, dating back to the Vedic ages (1500 – 800 BC) became most popular within the country and abroad. Most of the Ayurvedic formulations are mainly depending upon the medicinal plants. According to Ayurveda, every plant is medicinal for a vaidya who is treating with his logic. In Charaka Samhitha Sutra sthana, Acharya mentions about the importance of ethnobotanical survey and its validation. One should regularly go for ethnobotanical surveys, document the knowledge and validate it for the future uses.

Ethnobotany is the direct use of plants by man. The ethnobotanical knowledge is therefore associated with the elder generation and tribes who lived in a time where the modern medical facilities were less developed. In Kerala earlier there existed several traditional physicians called 'Vaidyan' who were authoritative in the use of local plants for healing many diseases including snake bite. The first monumental treatise 'Hortus Indicus Malabaricus' by Van Rheedee, itself an evidence for this. He composed the text with the help of local physicians like Itti Achutan, Ranga Bhat, Vinayaka Pandit, Appu Bhat etc. (Mohanani & Daniel, 2005).

## 2. Methodology

Ethnobotanical knowledge is associated with the tribals and traditional physicians called Vaidyan, is collected by interviewing with those people and also referring the related texts. The study is an outcome of ethnobotanical interest together with the taxonomical knowledge.

## 3. Observation

### 1. *Centella asiatica*

#### Family-Apiaceae

- Habit : Creeping Herb
- Local Name: Kodangal, Kudakan
- Sanskrit name : Mandookaparni
- Uses: Hepato protective, Brain stimulant
- Useful part :Entire Plant
- Method- The whole plant make chutney with coconut, pepper and salt taken for reducing Pitha, also is hepatoprotective, the leaf juice mixed with ghee is applied over the skin lesions. It can apply over keloids also.

### 2. *Boerhaavia diffusa*

#### Nyctaginaceae

- Habit : Diffuse Herb
- Local Name: Thazhuthama
- Sanskrit name : Punarnava
- Uses: Diuretic, anti-inflammatory, brain stimulant
- Propagation: Stem cuttings
- Useful part : Roots
- Method-The roots or mature stem along with cumin boiled in



- water is good for reducing Urinary infection, and is diuretic, given for Urinal Tract Infections associated with pregnancy also for inflammations of foot

### **3. Curcuma longa** **Zingiberaceae**

- Habit : Perennial Herb
- Local Name: Manjal
- Sanskrit name : Haridra
- Uses: Antidot, skin diseases, Anti diabetic, Antioxidant rich.
- Useful part : Rhizome
- Method- Rhizome make a paste with water and applied for insect bite, and made chutney with gooseberry and coconut is good remedy for diabetes. Juice mixed with indian goose berry taken daily will prevent and cure diabetes.

### **4. Curcuma amada** **Zingiberaceae**

- Habit : Herb
- Local Name: Mango Ginger
- Sanskrit name : Amragandhi haridra
- Uses: for making pickles, chutney
- Useful part : Rhizome
- Method- The Rhizome made a chutney with coconut is good remedy for gastritis

### **5. Elephantopus scaber** **Asteraceae**

- Habit : Herb
- Local Name: Anachuvadi
- Uses: Treatment of Dysentery
- Propagation: Seeds
- Useful part : Roots
- Method- The root part along with leaf base is grinded with rice and make dosa is good remedy for amoebic dysentery. Same can be used for the management of haemorrhoids.

### **6. Desmodium gangeticum** **Fabaceae**

- Habit : Herb
- Local Name: Orila
- Sanskrit name : Shaali parini
- Uses: Ingredient in Dasamoola, treatment of Fever,
- Useful part : Roots
- Propagation : Stem & Seeds.
- Method- Roots of the plant boiled with cumin seeds is taken to regain the vigour after fever, milk boiled with roots can be given for infants. This milk can be used an alternative for breast milk. Root decoction is good for heart.

### **7. Kaempferia galanga** **Zingiberaceae**

- Habit : Perennial Herb
- Local Name: Kacholam



- Sanskrit name : Sati
- Uses: Expectorant, anti vomiting, anti rheumatic & anti helminthes.
- Useful part : Rhizome & leaves
- Method-The rhizome boiled with cumin is given for worms in infants, and rhizome or tender leaves made a paste and applied on the stomach for worms and stomach pain. Powder can be applied over head as thalam in case of insomnia.

#### 8. *Andrographis paniculata* Acanthaceae

- Habit : Annual Herb
- Local Name: Kiriyaath, Nilaveppu
- Sanskrit name : Kaalamegha
- Uses: Anti cough, hepato protective, anti rheumatic & anti diabetic.
- Useful part : Leaves
- Method-The leaves made decoction with cumin or ginger is good remedy for fever, cough and fatty liver. The decoction of leaves with *Tinospora* stem is good remedy for fever and also reduces the blood glucose levels and also increases the resistance power body during fever and similar situations.

#### 9. *Curculigo orchoides* Hypoxidaceae

- Habit : Perennial Herb

- Local Name: Nilappaana
- Sanskrit name : Musali
- Uses: component of dasapushpa, body nourisher, aphrodisiac.
- Useful part : Tuberous roots
- Method- The powdered tubers is taken to promote health and is a good remedy for male sterility.

#### 10. *Phyllanthus amarus* Euphorbiaceae

- Habit : Annual Herb
- Local Name: Kizhar nelli
- Sanskrit name : Bhoomyamalaki
- Uses: Liver tonic, anti diabetic.
- Method-Entire plant made a paste and taken with cow's milk for jaundice, the plant boiled in water, taken for gastrouble, fatty liver and cough.

Propagation : Seeds

#### 11. *Coleus zeylanicus* Lamiaceae

- Habit : Annual Herb
- Local Name: Eruveeli
- Sanskrit name : Hribera
- Uses: For digestive disorders, Fever.
- Useful part : Whole plant
- Method-The stem boiled in water is good for cooling the body and thirst associated with



- diabetes. The leaf juice is an excellent medicine for cough in children. It can be given along with palm candy.

### 12. *Tinospora cordifolia* Menispermaceae

- Habit : Perennial Climber
- Local Name: Chittamruthu
- Sanskrit name : Guduchi
- Uses: Coolant, Blood purifier, anti diabetic, Fever.
- Useful part : Mature stem
- Methods-The mature stem after removing the papery outer bark is boiled and taken for fever and cough. Juice can be taken daily for preventing diabetes. Decoction prepared out of whole plant is useful in gouty arthritis.

### 13. *Aristolochia indica* Aristolochiaceae

- Habit : Perennial climber
- Local Name: Eeswaramooli, Urithookki, Karalakom
- Sanskrit name : Iswari
- Uses: Anti dot, skin diseases, rheumatism
- Useful part : Stem & leaves
- Methods- The leaves taken for insect bites and also paste are applied externally.

### 14. *Piper longum* Piperaceae

- Habit : Perennial Herb
- Local Name: Thippali
- Sanskrit name : Pippali
- Uses: Expectorant, Digestive stimulant, Cough & Fever
- Useful part : Dried fruit
- Methods- Powdered dried fruits is mixed with honey given for cough. Fruits are helpful in correcting digestion.

### 15. *Asparagus racemosus* Liliaceae

- Habit : Perennial Twiner
- Local Name: Satavari
- Uses: Coolant, burning sensation of hand, foot, stimulates lactic glands.
- Useful part : Tuberos roots
- Method-The tuberos roots is boiled in milk along with cumin is given to promote the secretion of lactic glands, and good remedy for burning sensation of forehands and legs. Tuber powder along with hot water will prevent urinary infection.

### 16. *Cissus quadrangularis* Vitaceae

- Habit : Perennial Climber
- Local Name: Changalamparanda
- Sanskrit name : Asthi srngala

- Uses: Osteoarthritis, tennis elbow, asthma, high cholesterol, irregular or difficult menstruation, osteoporosis and ulcers.
- Useful part : Stem & leaves
- The stem made chutney with coconut, taken for Osteoporosis. Gruel can be prepared using the juice and useful in various joint disorders.

### 17. *Punica granatum* Punicaceae

- Habit : Shrub
- Local Name: Mathalanarakam
- Sanskrit name : Dadima
- Uses: Diarrhoea and stomach complaints, anticancerous, increases skin complexion.
- Useful part : Fruit & Fruit rind
- Method-The fruit juice together with the yellow rind is good for reducing the gastritis and digestive disorders

### 18. *Myristica fragrans* Myristicaceae

- Habit : Small Tree
- Local Name: Jathi maram
- Sanskrit name : Jaathi phala
- Uses: Indigestion, Aphrodisiac.
- Useful part : Seeds & Aril
- Method-The aril and endosperm is boiled with buttermilk and turmeric is good

remedy for indigestion and gastritis. Endospermum paste mixed with honey will cure diarrhoea.

### 19. *Aegle marmelos* Rutaceae

- Habit : Small Tree
- Local Name: Koovalam
- Sanskrit name : Bilva
- Uses: component of dasamoola, vomiting and headache, diabetes.
- Useful part : Roots
- Method-The roots after removing the bark is boiled in water with cumin and ginger is good remedy for vomiting, indigestion and vomiting associated with pregnancy. Fruit juice is taken for correcting indigestion.

### 20. *Benincasa hispida* Cucurbitaceae

- Habit : Annual Twiner
- Local Name: Kumbalam
- Sanskrit name : Kushmanda
- Uses: Reduces acidity, cardiac tonic.
- Useful part : Fruits
- Method- The sliced fruits after removing the seeds boiled with water and add coconut milk and is taken regularly for cardiac diseases. The juicy central placenta is good remedy for burns. The placenta can be





- placed over lower abdomen for urine incontinence. Candy prepared with fruit pulp can be given for kids for preventing neurological diseases.

## 21. *Drynaria quercifolia* Polypodiaceae

- Habit : Epiphyte
- Local name : Thudinthapaala kizhangu
- Sanskrit name : Aswakarthri
- Useful part : Rhizome
- Uses : Good for bones
- Method: Soup can be prepared after removing the hairs over rhizome. It is good for bones and taken as a regular drink for osteo porotic condition. The drink is an energizer also.

## 22. *Glycosmis pentaphylla* Rutaceae

- Habit : Shrub
- Local name : Paanal
- Sanskrit name : Aswa shaanghotaka
- Useful part : Root, leaves
- Uses : Anti microbial, insect repellent
- Method: Water boiled with leaves can be taken as bathing water for infants. It prevents various skin diseases. Leaf juice can be taken for vomiting. Root is useful in various ayurvedic formulations like paanal veraadhi kashayam.

## 23. *Ampelocissus indica* Vitaceae

- Habit : Climber
- Local name : Chembravalli

- Sanskrit name : Shonita lata kanda
- Useful part : Tubers
- Uses : Anti inflammatory, wound healing, anti microbial
- Method: Tuber paste can be applied for healing the fistula. It is used in karappan kashayam and vetra pallavadi yogam in Yogamrtham, an Ayurvedic regional text book.

## 24. *Syzygium zeylanicum* Myrtaceae

- Habit : Shrub to small tree
- Local name : Keeripazham
- Sanskrit name : Sveta jambu
- Useful part : whole plant
- Uses : Analgesic
- Methods: Boiled water with whole plant can be taken for bath to reduce the joint pains. Fruits are edible and a good source for various nutrients.

## 25. *Blepharis maderaspatensis* Acanthaceae

- Habit : Herb
- Local name : Murikootti, elumbotti
- Sanskrit name : Uttingana
- Useful part : Whole plant
- Uses : Anti-inflammatory , anti-nociceptive, anti-oxidant, wound healing, anti-diuretic , anti-cancerous
- Method: In fracture management : Paste made up of leaves of *B. maderaspatensis*, egg white , onion and black gram is applied over the fractured area. In crack foot: Leaves of *B. mederaspantensis* is



processed in mustard oil is applied over crack foot.

*Plant Sources*. Oxford & IBH. Publishers. New Delhi.

#### 4. Conclusion

Efforts are needed to conserve our rich biodiversity, which is possible only by knowing the identity of a particular species and its importance in our daily life. Modern man is not aware of the importance of the medicinal plants, which is free off side effects and ecofriendly. One should always observe the nature and learn from it. Ethnobotanical surveys are important in enriching and supporting our current system of medicines. Proper documentation and validation of such knowledge will help future generation in health aspects.

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