



# STUDIES ON ETHNOMEDICINAL PLANTS PRACTICED BY THE TRIBALS OF SUDIKONDA FOREST AREA, EAST GODAVARI DISTRICT, ANDHRA PRADESH

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## ABSTRACT

*Ethnobotanical field survey was conducted among the tribal population of Sudikonda forest, East Godavari district. The study documented 28 plant species as many as genera and 24 families used by the tribals for curing various human ailments. 37 practices were reported. Plant part wise analysis, root is used in 15 practices followed by leaf (8), tuber (3), Stem bark, root bark and seed (2) each and others.*

**KEYWORDS:** Ethnomedicine, Tribals, Sudikonda, East Godavari

## INTRODUCTION

India has the world's second largest concentration of the tribal population, next to Africa. The Scheduled Tribe (ST) population in India is 84,326,246 constituting about 8.2% of country's total population of 1,026,103, 289 belonging to over 550 tribal communities which includes 93 Primitive Tribal Groups (PTGs) and 227 ethnic groups. There are 35 ST communities living in the state of which 12 belongs to PTGs. The main tribes of study area are Konda Reddi, Konda Dora, Koya Dora, Konda Kammara, Konda Kapu, Manne Dora and Valmikis. Konda Reddis are the only Primitive Tribal Group of the area and they constitute about 33% of the total population.

Sudikonda forest range, East Godavari district is located under latitude 17°15' – 18°02' N longitude 81° 30' – 82°36'E. It has an average elevation of 200-400 meters. The Sudikonda forest range consisting 3 sections and 13 Beats under the area of 154.88 Sq. Kms. The area spreads around in 10 mandals namely, 1) Jaggampeta 2) Gokavaram 3) Addateegala 4) Eleswaram 5) Rampachodavaram 6) Gangavaram 7) Rajavommangi 8) Y.Ramavaram 9) Maredumalli and 10) Yellavaram.

## METHODOLOGY

The methodology and mode of approach for ethno-medico-botanical enumeration was adopted from the classical works of Jones (1941), Jain (1981, 1987 and 1989), Croom (1983), Bellany (1993), Chadwick and Martin (1994), Martin (1995), and Cotton (1996). Emphasis was given mainly to intensive field work in the selected tribal areas.

The exploration tours have been planned in such a way that they cover almost all tribal hamlets (beats) of Sudikonda forest and surrounding plain area and villages of East Godavari

district, 3 – 6 times in every season. The present investigation the ethno-medico-botanical field survey is undertaken during the period 2006 – 2008. The intensive field trips were made in the interior parts of the Sudikonda forest i.e., hamlets (beats) and plain area of the surrounding villages of the above forest information was gathered about the plants, which have medicinal values from the tribals / villagers who secured from their hereditary and ancestral line. Each field trip was 6 – 8 days duration covering 2 – 10 plain villages and 2– 6 tribal hamlets forest. During monsoon, trucking on hilly area was found to be strenuous and sometimes impossible due to skidding on muddy soil and flooded streams. Even in accessible and thickly forested, high hill tribal hamlets (pockets) like, Sudikonda, Mallavaraum, Molleru, Vemulova, Pidata mamidi, Sitapalli, Folks peta and Bhimavaram have also been covered during this study. During field visit we collected the data on ethnomedicinal plants from tribal vaidhyas and local people. The voucher specimens were collected and deposited in the Herbarium of the Department of Botany, Andhra University, Visakhapatnam.

## ENUMERATION

The plants are arranged in an alphabetical order with their botanical name along with family name, vernacular name, method, mode and duration of treatment.

*Acacia chundra* Roxb.ex.Rottl. Mimosaceae Sandra The twigs are also used as toothbrush in the case of spongy infected gums.

*Alangium salvifolium* Linn.f Wanger in Engl. Alanginaceae Ankolam



Root decoction is used for fever and leaf extract for skin diseases. Leaves are used in rheumatic pains.

*Cardiospermum halicacabum* Linn. Sapindaceae Tapakaya teega

Root extract filtered and administered for menstrual disorders and white discharge.

*Cassia occidentalis* Linn. Caesalpiniaceae Kasantha  
Dried root mixed with that of *Tephrosia purpurea* ground with jaggery and the paste administered for paralysis.

*Cissampelos pareira* Linn Menispermaceae Adavibanka teega.  
Roots are used by tribals for dyspepsia, cough and for Snake bites.

*Dichrostachys cinerea* (Linn.) Wt. & Arn., Mimosaceae  
Veluthuru Chettu

Leaf paste applied for skin diseases, root bark crushed with black pepper and garlic the extract given for bone fracture.

*Erythroxylum monogynum* Roxb. Linaceae Pagadam chettu  
Leaf juice administered for jaundice by Koyas, leaves crushed with black pepper and the extract given to kill intestinal worms.

*Gmelina arborea* (Roxb.) Hort. Verbenaceae Gummudu  
Bark is used for fractures. The juice of the leaves is used in gonorrhoea, cough etc.

*Hemidesmus indicus* (Linn.) R. Br. Periplocaceae  
Sugandhipala.  
Root decoction is usually used by local people for curing high fever and skin diseases.

*Naringi crenulata* (Roxb.) Nicolson Rutaceae Torri velaga  
Stem bark crushed with that of *Strychnos potatorum* the extract mixed with a little salt and administered for dysentery and fever by Valmikis.

*Oroxylum indicum* (Linn.) Vent. Dec. Bignoniaceae Pampini  
Stem barks decoction administered for jaundice and epilepsy by Koyas.

*Phyllanthus amarus* (Linn.) Schum & Thonn Kongl.  
Euphorbiaceae Nela Usiri.  
Plant paste applied for scorpion-sting and for tooth ache and also mixed with curd given orally for jaundice.

*Piper nigrum* Linn. Piperaceae Miriyalu  
Root extract given orally for dysentery and as an emetic. Root paste used for tooth ache.  
Leaf juice given for cold and cough. Seeds used as a spice and as an ingredient in various medicines.

*Plumbago zeylanica* Linn. Plumbaginaceae Tella Chitramulan  
Root paste made into pills and orally administered for abortion and Root tied to the shoulder for malarial fevers.

*Pterocarpus marsupium* Roxb. Fabaceae Yegisa.  
Wood is used as an astringent and toothache the flowers are said to be used in fever, the bruised leaves are considered useful as an external application for boils, sores and skin diseases.

*Pueraria tuberosa* (Roxb.) DC. Prodr. Fabaceae Nela Gummadi  
Tuber extract mixed with a little sugar and administered for peptic ulcers and the tuber as vegetable for tribals.

*Rauvolfia serpentina* (Linn) Benth. ex. kurz. Apocynaceae Sarpagandhi  
Decoction prepared from root bark is usually taken by older people for relief and for controlling light blood pressure. Root yields reserpine which is used as a remedy in high blood pressure. Root paste is used for snake bite.

*Smilax zeylanica* Linn. Dioscoreaceae Firangi chettu  
Tubers crushed with long pepper and the extract administered for paralysis.

*Solanum anguivi* Lamk. Solanaceae Vankudu  
Leaves are applied locally to relieve pain. The juice of berries is used in sore-throat. Roots, seeds are also administered as an expectorant in asthma and cough.

*Sphaeranthus indicus* Linn. Asteraceae Bodataram  
The root and inflorescence powder with goat milk administered for impotency.

*Sterculia urens* Roxb. Sterculiaceae Kovela  
Stem bark ground with turmeric, the filtrate mildly heated and administered for Rheumatic pains and peptic ulcers.

*Strychnos potatorum* Linn Loganiaceae Induba  
Root bark or seed paste applied for snake bite and scorpion-sting. Stem crushed with black pepper and the decoction administered for asthma.

*Syzygium cumini* Linn Euphorbiaceae Neredu.  
Seed Powder is used in the treatment of diabetes.

*Tinospora cordifolia*: (Wild) Hook.f. Thoms. Menispermaceae Tippateega.  
The root is a powerful ametic and is used for visceral obstructions and its waters extract is used in leprosy. Decoction of the leaves is used in diabetes.

*Trianthema portulacastrum*: Linn. Aizoaceae Galijeru  
Leaves are made into paste and decoction control liver and kidney troubles.

*Trichosanthes dioica* Lark Caricaceae Avugudateega  
Tuber decoction administered for giddiness, fruit pericarp pastes mixed with breast milk and honey given for orally to infants for cough and fever.

*Vanda tessellata* (Roxb) Hook. Ex. G. Don in loud.,  
Orchidaceae Sanna rastram



Leaf juice poured into the infected ears by Koyas and also applied for skin diseases. The root paste is plastered for bone fracture.

*Wrightia arborea* Dennst. Apocynaceae Tedlapala Latex applied for Snake bite.

## DISCUSSIONS

Plants have been one of the most important sources of food, shelter and medicine since the dawn of human civilization. Until the middle of the 19<sup>th</sup> Century, plants were the main therapeutic agents used by humans, and even today almost 80% of the World Population rely to some extent on medicinal plants for their primary health care needs. The use of nearly 3000 plant species as food during the course of human civilization has been documented, but only about 150 species have been cultivated (NRC. 1982) and less than 10 plant species are meeting over 90% of the world food demand (Wilkes, 1981). Human survival still cannot be imagined without plants. The importance of plants is substantial and reflected in the large variety of products such as food, fodder, fibre, vegetables, medicinal plants, and aromatic plants. In the present investigation, Sudikonda Forest in and around the areas indicated that nearly 60% of the studies were related to medicinal plants and Ethno-medicine, underlining that Ethno-medicine is utmost important in the Sudikonda Forest of East Godavari District, Andhra Pradesh.

The present investigation documented 28 plant species as many as genera and 24 families used to cure asthma, abortion, boils, blood pressure, bone fracture, cough, diabetes, dysentery, dyspepsia, emetic, epilepsy, fever, gonorrhoea, infected gums, jaundice, kill intestinal worms, kidney problems, menstrual disorders, malaria, pain, paralysis, rheumatic pains, scorpion sting, snake bites, skin diseases, sores, tooth ache, ulcers, white discharge, by Konda reddis, Koyas, Konda Kapu, Konda Dora, and Valmikis of sudikonda forest inhabited tribals. Root is used in 15 practices followed by leaf (8), tuber (3), Stem bark, root bark and seed (2) each and others. Habit wise analysis shows the dominance of shrubs (9) followed by climber (8), trees (7) and herb (4). Further, scientific assessment of these medicines on phytochemistry, biological activity and clinical studies are necessary. This may provide a lead in the development of drugs to be used in the modern system of medicine.

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