

**Ethnomedicinal Use of Herb Species Khammam District,  
Andhra Pradesh, India****S. B. Padal**

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***Abstract:***

*This study presents first hand information about 64 prescriptions that were recorded during a field study of local traditional herbal practitioners and healers from villages at and around the tribal area of Khammam districts of Andhra Pradesh, India. The prescriptions discussed in this paper include various medicines prepared out of herbal plants in alleviating diseases that are suffered by tribal people of Khammam. Enumerated in this study are 64 herb species along with other ingredients used in the preparation of ethno medicine.*

***Key words:*** Ethno- medicinal herb species, Tribal people, Diseases, Traditional herbal practitioners, Khammam district, Andhra Pradesh.

### **1. Introduction**

Today the field of ethno botany requires a variety of skills: botanical training for the identification and preservation of plant specimens; anthropological training to understand the cultural concepts around the perception of plants; linguistic training, at least enough to transcribe local terms and understand native morphology, syntax, and semantics. Carter in 1950 envisaged ethnobotany as an ecological science capable of forging a link between geography, botany and ecology (Ford, 1978. P.43). In this respect, ethnobotany distinguishes itself from economic botany. When the former has holistic approaches to plants in relation to culture and human interaction with plants, the latter concerns more with the utility potential of plants. A more modern definition of ethno botany is given by Alcorn: study of direct interaction between humans and plants, concerned with the totality of place of plants in a culture. This definition gives a wider scope to ethnobotanic studies. Most studies have so far not taken this broad view of the subject. Among many other, contributions of Barrau (1961), Schultes (1962), Jain (1963, 1964, 1965, 1981, and 1989) and Altschul (1973) are notable in understanding the scope of ethnobotany. The ethnobotanical studies in India were given a boost with the publication of Glimpses of Indian Ethnobotany (Jain, 1981). This was the first book that gave a comprehensive view of current ethnobotanic studies in India.

### **2. Study area**

Khammam district came into existence on October 1, 1953. It was carved out from the taluks of Warangal and East Godavari districts and occupies an area of 16,029 km<sup>2</sup> covering 46 Mandal Praja Parishads. It lies between 16° 45' and 18° 35' North latitude and between 79° 47' and 80° 47' East longitude. The total population of the district is 25, 78, 927 of which 6, 82,617 (26.46%) are scheduled tribes as per 2001 census. The district presents a rough topography with dissected uplands and hills, which some times exceed 600 m. Temperature varies from 10 to 44° C. The average rainfall of the district is 1045 mm. The main tribes of the district are Koyas, Gonds/Naikpods, Lambadas and Konda Reddis. The district has more than 52.6% forest land with 5 divisions. Dry deciduous, moist deciduous, riparian, scrub and grass land forest types are predominant.

### **3. Material and Methods**

For the present investigation, documentation of information was made involving laymen, local people, village-heads forest dwelling tribes Vaidyas, etc. Records of ethno-

medicinal and economic importance of a particular plant species was documented using information about indigenous knowledge from various informants and participants; such as use of plant species (traditional medicine, cultural values, ecological and ethological association with local people and surrounding environs, etc.). The data collection was prioritized by on-site collection of a plant specimen from the field, followed by conformation with herbaria species, and preparation of database of ethnomedicinal plants used by local tribes. In case of unavailable species from the wild, the information about uses and significance of the particular species was obtained using demonstration of photographs from standard published monographs, books and/or technical manuals to the informant group. The unidentified plant species were brought to the laboratory for an appropriate identification using published literature, books and herbaria. The unconfirmed specimens were further confirmed by showing photographs to the key participants for enhancement of data.

S. No	Botanical name	Family	Vernacular name	Mode of administration
1.	<i>Acalypha indica</i> Linn.	Euphorbiaceae	Muripinda	HELMINTHIASIS: Half spoon of leaf juice mixed with equal amount of <i>Carum copticum</i> seed juice is administered only once.
2.	<i>Acanthospermum hispidum</i> DC.	Asteraceae	Pothoro konta	UTERUS CLEANING: Stem bark juice given orally on empty stomach for 6 days. Non-vegetarian should not be taken during treatment.
3.	<i>Achyranthes aspera</i> Linn.	Amaranthaceae	Duchheru	DOG BITE: Whole plant is ground along with long pepper and made into pills. One pill is administered daily.
4.	<i>Acorus calamus</i> Linn.	Araceae	Vasa	FEVER: Rhizome paste is applied all over the body and a pinch of rhizome or leaf paste is administered with a glass of water only once to keep away evil spirits causing fever.

5.	<i>Ageratum conyzoides</i> Linn.	Asteraceae	Pumpullu	ITCHINGS: Equal quantities of leaves and turmeric are ground into paste and mixed with triple the amount of coconut oil, boiled and applied on the affected areas.
6.	<i>Allium cepa</i> Linn.	Liliaceae	Neerulli	RHEUMATIC PAINS: Bulb paste mixed with mustard oil is massaged on the affected areas.
7.	<i>Alpinia galanga</i> (Linn.) Willd.	Zingiberaceae	Dumparasht ramu	RHEUMATISM: One or three g of tuber powder or half tea glass of tuber decoction mixed with honey is administered once a day.
8.	<i>Alternanthera sessilis</i> (Linn.) R.Br. ex DC.	Amaranthaceae	Ponnaganti koora	GALACTAGOGUE: About 50 g of boiled leaves are eaten once a day for 3 days or leaves are eaten as curry daily once for 5 days.
9.	<i>Amaranthus spinosus</i> Linn.	Amaranthaceae	Mulla thotakura	SCABIES: The root paste is applied on the wounds.
10.	<i>Ammannia baccifera</i> Linn.	Lythraceae	Agnivendra paku	SKIN DISEASES: Plant paste is applied on the affected areas.
11.	<i>Andrographis paniculata</i> (Burm. f.) Wall. ex Nees.	Acanthaceae	Nela vemu	JAUNDICE: Half tea glass of whole plant decoction mixed with 2 g of dried ginger powder is administered twice a day for 5-7 days.
12.	<i>Apium graveolens</i> Linn.	Apiaceae	Selere	IMPROVES EYE SIGHT: One spoon of fruit powder is administered daily once.
13.	<i>Argemone mexicana</i> Linn.	Papaveraceae	Balla rakasi	BOILS & *RINGWORM: Young fruit with rhizome of <i>Curcuma longa</i> is ground into paste and applied on the affected areas.
14.	<i>Basella rubra</i> Linn.	Basellaceae	Bacchali koora	DYSPEPSIA: Leaves are made into pickle by adding garlic and red chillies and eaten quite often.

15.	<i>Bidens pilosa</i> Linn.	Asteraceae	Rekkala rajju	WHITLOW: Poultice of young leaves mixed with that of <i>Momordica charantia</i> and one pepper grain are applied on the affected finger.
16.	<i>Boerhavia diffusa</i> Linn.	Nyctaginaceae	Atuka mamidi	BODY SWELLINGS: About 1-4 spoons of plant decoction is administered daily till cure.
17.	<i>Brassica nigra</i> (Linn.) Koch.	Brassicaceae	Varnavalu	SKIN DISEASES: Equal quantities of mustard and neem oils are mixed and applied on the affected areas.
18.	<i>Caladium bicolor</i> Vent.	Araceae	Rudra chama	SNAKE BITE: Quarter cup of tuber juice is given and a portion of it is applied on the bitten area immediately after bite.
19.	<i>Canna indica</i> Linn.	Cannaceae	Metta thamara	RINGWORM & *SCABIES: Tuber paste is applied on the affected areas.
20.	<i>Cannabis sativa</i> Linn.	Cannabinaceae	Ganjayi	BLOOD DYSENTERY: One spoon of plant decoction is administered daily twice till cure.
21.	<i>Cassia tora</i> Linn.	Caesalpinaceae	Tantepu mokka	BLOOD DYSENTERY: Leaves are boiled and made into pickle by adding garlic, green chillis and oil. It is eaten with rice.
22.	<i>Celosia argentea</i> Linn. var. <i>plumose</i>	Amaranthaceae	Errakodijuttu	ULCERS IN STOMACH: Leaves and flowers in equal quantities are made into juice and half glass of it is administered daily once.
23.	<i>Centella asiatica</i> (Linn.) Urban	Apiaceae	Saraswathi aaku	MEMORY POWER: The leaf paste mixed with <i>Glycyrrhiza glabra</i> is taken orally with water.
24.	<i>Chlorophytum arundinaceum</i> Baker	Liliaceae	Bhudenda	GALACTAGOGUE: Two spoons of tuberous root paste mixed in a glass of goat milk is administered daily twice for 3 days.

25.	Cleome gynandra Linn.	Cleomaceae	Ventumkura	PARALYSIS: Three to five drops of leaf juice is instilled into the ear opposite to the paralytic part. Thus if right area is affected it is poured into left ear and vice-versa.
26.	Cleome monophylla Linn.	Capparidaceae	Dumba mirapa	GALACTAGOGUE: Two spoons of leaf paste mixed in a glass of milk is administered daily twice for 3 days
27.	Cleome viscosa Linn.	Cleomaceae	Kukka vaminta	STOMACH PAIN: Two spoons of seed decoction is administered twice a day for 2 days.
28.	Coldenia procumbens Linn.	Boraginaceae	Hamsa paadu	LEUCORRHOEA: Half cup of root juice is administered daily once.
29.	Coleus amboinicus Lour.	Lamiaceae	Vamu aaku	JAUNDICE: Two to three drops of leaf juice is instilled into the eyes daily once.
30.	Coleus barbatus (Andr.) Benth.	Lamiaceae	Pashanabedhi	ASTHMA: One spoon of root paste is administered daily twice with water.
31.	Colocasia esculenta (Linn.) Schott	Araceae	Konda chama	VIGOUR & VITALITY: Fifty g of boiled corm eaten once a day for one month. Corms are used as vegetable.
32.	Corchorus olitorius Linn.	Tiliaceae	Kranthi	EAR PAIN: Two to three drops of crushed seed juice is instilled into the ears.
33.	Costus speciosus (Koen.) Sm.	Zingiberaceae	Bokacchika	GALACTAGOGUE: Rhizome is warmed and ground into paste. Three spoons of it is administered with one cup of milk in the morning and a portion of it is applied on the mammae.
34.	Crinum asiaticum Linn.	Amaryllidaceae	chalava dumpa	LEUKEMIA: One spoon of tuberous root paste is administered with water daily once.

35.	<i>Curcuma aromatica</i> Sal.	Zingiberaceae	Kasthuri dumpa	CHICKENPOX: One spoon of rhizome paste is administered with water and a portion of it is applied on the body.
36.	<i>Curcuma angustifolia</i> Roxb.	Zingiberaceae	Batripala	GALACTAGOGUE: Rhizome powder mixed with <i>Eleusine coracana</i> (ragi) powder and made into chapattis and given as food after delivery.
37.	<i>Curcuma caesia</i> Roxb.	Zingiberaceae	Nalla pasupu	JAUNDICE: Ten g of rhizome paste mixed with half cup of cow curd is administered in the morning on empty stomach.
38.	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	Bangaru theega	LEUCODERMA: Plant shade dried, powdered and mixed with coconut oil is applied on the affected areas.
39.	<i>Cyperus rotundus</i> Linn.	Cyperaceae	Tunga gaddi	COUGH: Shade dried tuber is made into soapnut seed sized pills. One pill is taken daily with water.
40.	<i>Datura metel</i> Linn.	Solanaceae	Nalla umetha	LEPROSY: Three fresh leaves are eaten daily thrice for twenty days.
41.	<i>Dysophylla quadrifolia</i> Benth.	Lamiaceae	Rati thulasi	CHICKENPOX: Dried leaves are burnt and the patient is exposed to the fumes and leaf paste is also applied to the body.
42.	<i>Eclipta prostrata</i> (Linn.) Mant.	Asteraceae	Guntagalagara	FILARIASIS: Whole plant is ground into paste and mixed with oil is applied on the affected areas.
43.	<i>Elephantopus scaber</i> Linn.	Asteraceae	Eddu adugu	TONGUE DRYNESS: One spoon of root paste is administered with water.
44.	<i>Elytraria acaulis</i> (Linn.f.) Lindau	Acanthaceae	Adaviddica	RINGWORM: Leaves ground with 3 pepper grains and paste is applied on the affected areas.
45.	<i>Emilia sonchifolia</i> (L.) DC.	Asteraceae	Garbapodu,	GALACTAGOGUE: One spoon of tuber paste is taken with water daily once for 5 days.

46.	<i>Eryngium foetidum</i> Linn.	Apiaceae	Kerala kotthimere	STOMACHACHE: Ten g of root paste mixed with 5 g of seed paste of <i>Elytraria cardamom</i> is administered twice a day.
47.	<i>Euphorbia heterophylla</i> Linn.	Euphorbiaceae	Pala chettu	GALACTAGOGUE: Young leaves and fruits are boiled and ground into paste with garlic is given orally daily once for a week.
48.	<i>Globba marantina</i> Linn.	Zingiberaceae	Konda pasupu	FEVER: Tuber paste is applied on the scalp to reduce high temperatures.
49.	<i>Heliotropium indicum</i> Linn.	Boraginaceae	Naga danti	DIABETES: Five ml of root or leaf decoction is administered daily.
50.	<i>Justicia glauca</i> Rottl.	Acanthaceae	kommu kura	BACKACHE: Leaf paste is applied on the affected parts.
51.	<i>Leonotis nepetiifolia</i> (Linn.) R. Br.	Lamiaceae	Pedha ranaberi	RHEUMATIC PAINS: Twenty g of plant is made into decoction with 50 ml of water and administered daily for three days.
52.	<i>Leucas cephalotes</i> (Roth) Spreng.	Lamiaceae	Tummi koora	SCORPION STING: Leaf paste is applied on the bitten area.
53.	<i>Martynia annua</i> Linn.	Martyniaceae	Thelukondi	SCORPION STING: Fruits are pounded with water and the paste is applied on the bitten areas.
54.	<i>Mentha spicata</i> Linn.	Lamiaceae	Pudina	STOMACHACHE: Handful of leaves are chewed or half glass of leaf decoction is administered once.
55.	<i>Nymphaea pubescens</i> Willd.	Nymphaeaceae	Erra Kaluva	MENORRHAGIA: Half cup of fruit juice is mixed with little amount of sugar and administered daily thrice.
56.	<i>Ocimum basilicum</i> Linn.	Lamiaceae	Jetti mokka	STOMACHACHE: Leaves are crushed and the extract is taken orally.
57.	<i>Oxalis corniculata</i> Linn.	Oxalidaceae	Senchulam	PAINS & PILES: One spoon of tuber powder is taken with water or milk.



58.	<i>Pimpinella heyneana</i> (Wall. ex DC.) Kurz	Apiaceae	Sugandhipal a	ALL TYPES OF PAINS: One spoon of root paste is administered with water.
59.	<i>Ruellia tuberosa</i> Linn.	Acanthaceae	Jurubula gadda	BONE FRACTURE & *SPRAINS: Leaves with those of <i>Sida cordifolia</i> are crushed and gently massaged and bandaged on the affected areas.
60.	<i>Urena lobata</i> Linn.	Malvaceae	Puliadugu mokka	STOMACHACHE: Root paste mixed with half cup of water is administered twice a day for 2 days.
61.	<i>Vernonia cinerea</i> (Linn.) Less.	Asteraceae	Sahadevi	WOUNDS: Equal amounts of leaves and rhizome of <i>Curcuma longa</i> are ground into paste and applied on the affected areas.
62.	<i>Vetiveria zizanioides</i> (Linn.) Nash	Poaceae	Vatti veru	MENORRHAGIA: Half cup of root decoction mixed with sugar is administered daily once.
63.	<i>Zingiber officinale</i> Rosc.	Zingiberaceae	Allam	BACKACHE: One spoon of small pieces of rhizome fried with ghee is administered daily before going to bed for 15-20 days.
64.	<i>Zingiber zerumbet</i> (Linn.) Smith	Zingiberaceae	Mahabari	DYSENTERY: Root tuber is ground into paste and administered orally along with water thrice a day to cure dysentery caused by witchcraft.

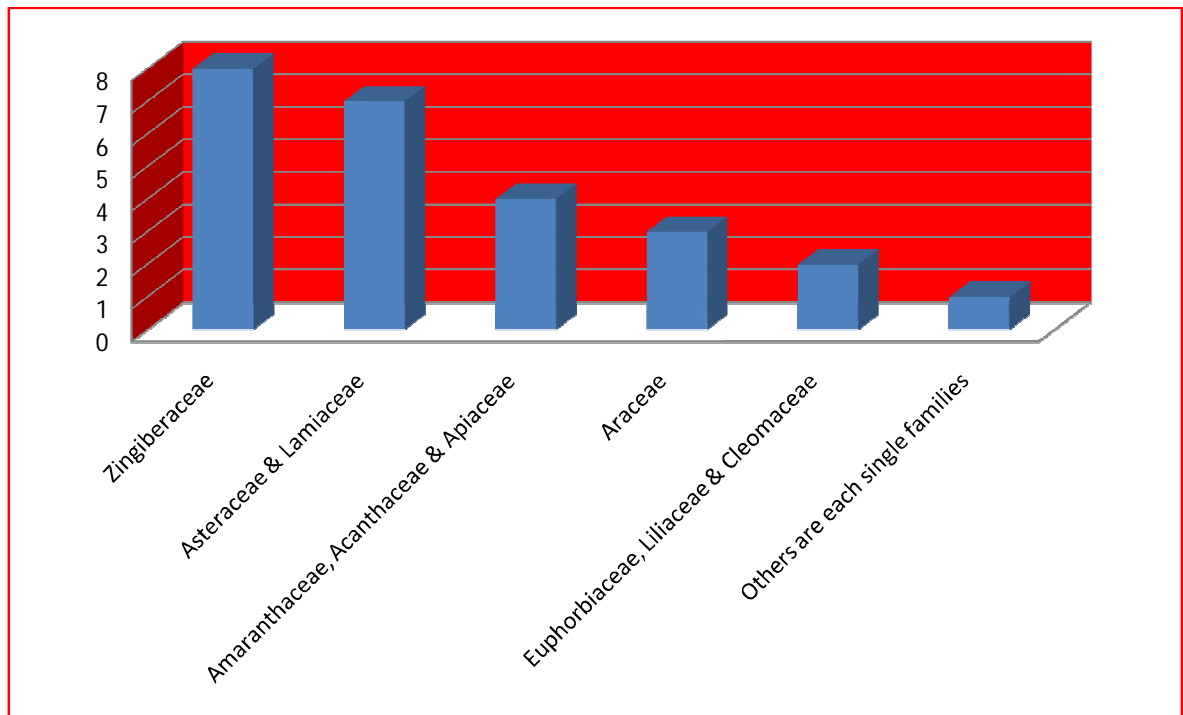
*Table 1: Ethnomedicinal herbal plant species used by tribal of Khammam district*

#### 4.Result And Discussion

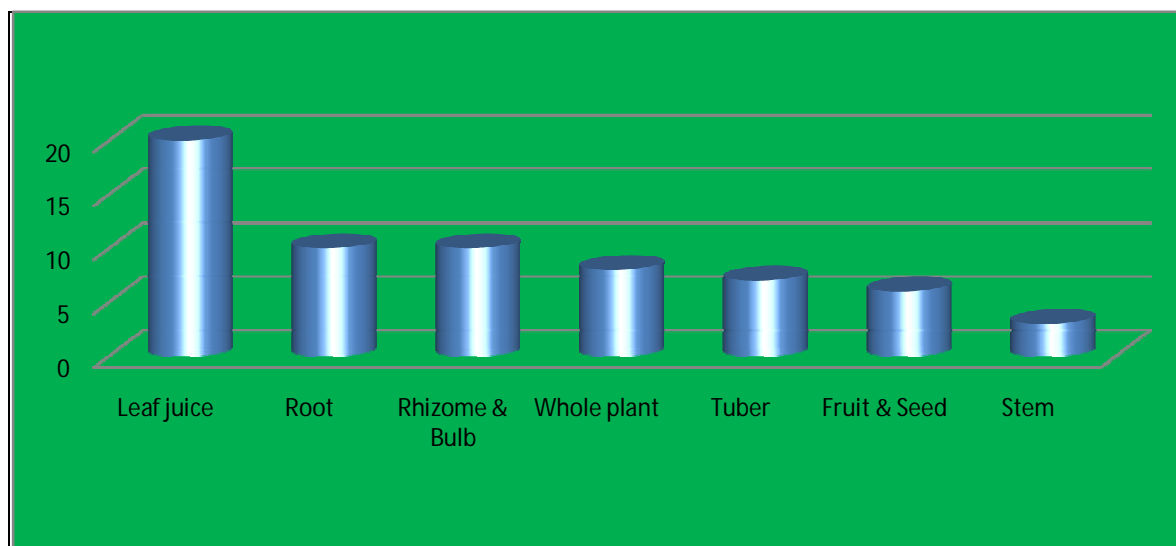
During the present Ethnobotanical study 64 Ethnomedicinal herbs plant species were reported by the informants for the 30 families, out of the 30 Ethnomedicinal plant families, Zingiberaceae represent 8 species, Asteraceae and Lamiaceae represent 7 species, and Amaranthaceae, Apiaceae and Acanthaceae represent 4 species. While the Euphorbiaceae, Liliaceae and Cleomaceae each 2 species, and remaining of the families each one single species. Zingiberaceae is the dominant family with 8 species (Fig.1). These 64 plant species were used to cure 36 ailments, i.e., abortifacient, body pains, bone

fracture, cough, dysentery, dyspepsia, fever, scorpion sting, skin diseases, snake bite rheumatism, stomach-ache, tooth- ache, diarrhea and asthma etc.,

Most remedies were taken orally; accounting for 60% of medicinal use, followed by external applies. Various plant parts or products viz. stem, leaf, root, tuber, rhizome, cloves, and whole plant were found to be employed to make different formulations. Leaves, Rhizomes and tubers used extensively followed by stem, Root, Seed, and Fruit (Fig. 2).



*Figure 1: Family Wise Analysis Of Ethnomedicinal Plants*



*Figure 2: Parts Wise Analysis Of Ethnomedicinal Plants*

## **5. Conclusion**

However, we feel that the indigenous knowledge and practices of the tribes on utilization of plant resources as medicine should be reported and preserved before they get lost due to increasing integration. In the information obtained, there were many details about the appropriate indication of each plant. This vast array of rare medicinal plants can be used for further research only if we ensure proper conservation of these endangered species. Thus researchers should observe ethno medical information before deciding which kind of screening should be used in the search of drugs for various diseases which may also be a potential source of modern drug industries.

## **6. Acknowledgement**

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