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Ethnomedicinal Observations from the Maha-Mutharam and Yamanpally Tribal Villages of Karimangar, East Forest Division of Andhra Pradesh, India

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ABSTRACT

Several field trips were conducted during years 2003-2005 to document the ethnobotanical remedies for various ailments of the ethnic tribes inhabiting the Maha-Muttaram and Yamanpally villages of Karimnagar East forest division of Andhra Pradesh, India. In the present study, we report more than 20 ethno-medicinal plants from the tribal people. Our collections of ethno-medicinal plant specimens from this area were deposited in the Kakatiya University Herbarium (KUH), Warangal, India.

Keywords: Ethnomedicine, Maha-Mutharam, Yamanpally, Andhra Pradesh.

INTRODUCTION

In a developing country such as India, where the major portion of the population is residing in rural and tribal areas that have their own cultural specific medical heritage, it is probably advisable for policy makers and health care planners to reside awhile in the tribal areas and the rural areas since stiff resistance is often met to the setting up of health care programs. When local people shift to using synthetic medicines, healing traditions are eroded and traditional knowledge is lost in the process. It is thus important to document and understand the medical heritage of a changing culture before it is lost entirely to future generations. (K.S. Brumot & T.S. Naidu, 2007). Among the scheduled tribes of Andhra Pradesh, *Erukalas*, *Gonds*, *Koyas* and *Banjaras* are the major communities in the Karimnagar district. Of several natural forest ecosystems in the district, Ramagiri and Mahadevpur are well known for their medicinal flora. Kapoor & Kapoor (1980) were the first to publish a note on the medicinal plant wealth of Karimnagar district. Later, Hemadri (1990) reported the scientific and common names of 436 medicinal plants of the district, but did not give any other specifics. Ravishankar (1990) studied the ethnobotany of both the Karimnagar district and the adjacent Adilabad district. An estimation of local dependency on forest was made by Reddy V.M. (1996) and Rao *et al.* (1998). Rao *et al.* (1998) reported 30-33 plants used in ethno-medicine by the tribes of Mahadevpur. C.S. Reddy *et al.* (2001) made an attempt to study the ethnoveterinary medicinal plants used by the *Gonds* of Karimnagar district. Naqvi (2001) recorded not more than 150 ethno medicinal plants from the Karimnagar district in his Ph.D. thesis. In the present work, an attempt is made to present some interesting ethnomedicinal observations recorded in Maha-Mutharam and Yamanpally villages of Karimnagar East forest

division of Andhra Pradesh, India.

STUDY AREA

The Karimnagar district lies on the northern part of Andhra Pradesh state, approximately between the 18° N - 19° N long. and 78° 30'E - 80° 31'E. lat. The district is bounded on the north by Adilabad district, on the west by Medak District, on the North West by Nizamabad, on the South by Warangal District and on the East by Godavari the River. The forests in the district are grouped into two divisions, viz. Karimnagar East Division and Karimnagar West Division. The east division is formed with five ranges, viz. Azamnagar, Bhupalapalle, Chintakani, Mahadevpur and Manthani while the west forest contains four ranges, viz. Jagitial, Karimnagar, Raikal, and Sircilla. The forest of this district falls under Tropical dry deciduous and Tropical thorn forest types consisting of mixed teak and miscellaneous type of corporation. The dominant tribes in the study area are *Koya (Dorasattam)* and *Gond*. The scheduled tribe population is concentrated in the Revenue mandals of Maha-mutharam, Mahadevpur, Malharrao, Ellareddypet, Husnabad, Kataram and Sarangapur. At the Mahadevpur forest range, *Nayakpod* (Padmanayaka) and *Koya (Dorasattamu)* occur among Local tribes with different customs, cultures and socio economic backgrounds. Of these, the *Koyas* are mainly settled cultivators, but depend largely upon the near by forests for non-timber forest products. The *Nayakapods* are primarily agriculturists and shifting cultivators. They also collect forest produce. *Lambadas*, a gypsy non-local tribe, are largely workers at places settled by agriculturists. For the present study, the authors collected ethnomedicinal data in the tribal villages of Maha-Mutharam and Yamanpally.

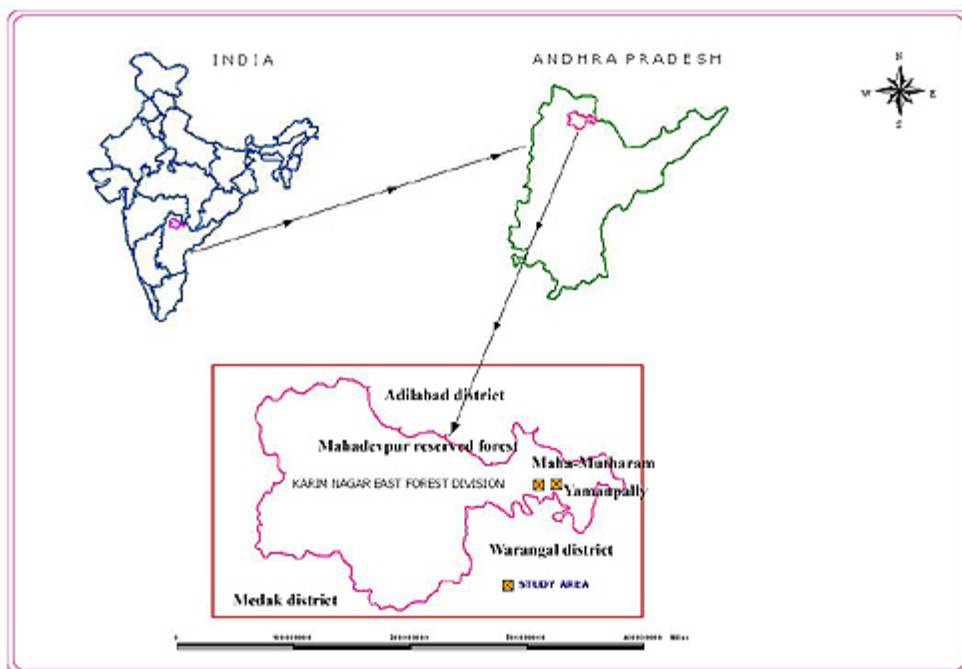


Figure 1. Map showing the Karimnagar East forest division and study area (Maha-mutharam & Yamanpally villages)

METHODOLOGY

Our ethnobotanical survey included repeated interviews with aged ethnic people, local herbal healers, shepherds and tribal headmen, *etc.* in different seasons for two consecutive years. Several field trips were conducted

between the years 2003 and 2005 to record the medicinal utilization of the plants by the tribal communities. The data were collected through questionnaires and discussions among the tribal people in their local language. The information on useful plant species, parts used, local names and mode of utilization was collected. The data collected were further verified and cross-checked with different tribal communities. The plant specimens were pressed and deposited in the Herbarium of the Botany Department (KUH) at Kakatiya University, Warangal, Andhra Pradesh, India. The sorted information on ethnomedicinal knowledge of tribal inhabitants is enumerated alphabetically by the botanical names of the plants, in addition to the plant family, local (*vernacular*) names, habit, habitat, phenology and ethnomedicinal uses.

ENUMERATION

1. *Abrus precatorius* L. (Fabaceae)

Local name: *Guruvinda*

Habit: Stragglers.

Habitat: In hedges and among bushes in open lands.

Fl.&Fr.: July-Dec.

Ethnomedicinal uses: Seed paste is applied on swellings to heal.

2. *Azima tetraantha* Lam. (Salvadoraceae)

Local name: *Uppu-chekka*

Habit: Straggling, armed, bushy shrub.

Habitat: In hedges, thorny scrub jungles.

Fl.&Fr.: Dec.- May

Ethnomedicinal uses: Root bark is ground with the stem bark of *Dichrostachys cineraria* and fermented. This is taken with one glass of juice in early morning on an empty stomach for the treatment of Rheumatism.

3. *Buchanania axillaris* (Desr.) Ramam (Anacardiaceae)

Local name: *Pedda morli*

Habit: Medium sized tree.

Habitat: Occasional in hilly forest areas in all districts.

Fl.&Fr.: June-Dec.

Ethnomedicinal uses: The gum is swallowed in the form of tablets for the treatment of chest and body pains.

4. *Calycopteris floribunda* (Roxb.) Poiret in Lam. (Combretaceae)

Local name: *Teega dhari, Bontha teega*

Habit: Scandent climbing shrub.

Habitat: Common in dry deciduous forests.

Fl.&Fr.: Feb.-May.

Ethnomedicinal uses: The root bark is ground with roots of *Eclipta prostrata* L. and used in the treatment of Snake bite.

5. *Cassia fistula* L. (Caesalpiaceae)

Local name: *Rela*

Habit: Small deciduous tree.

Habitat: Common in deciduous forests.

Fl.&Fr.: Mar.-Dec.

Ethnomedicinal uses: Stem bark paste is applied on Scorpion bites.

6. *Cassia occidentalis* L. (Caesalpiaceae)

Local name: *Namili vittulu*

Habit: Erect glabrous under-shrubs.

Habitat: Common in all plains.

Fl.& Fr.: Throughout the year

Ethnomedicinal uses: A paste made from the ground seeds of this plant is used for the treatment of *conjunctivitis*.

7. *Cassia tora* L. (Caesalpiaceae)

Local name: *Tagirisa*

Habit: Annual herbs.

Habitat: Common in all plains, fallow lands, and in forest undergrowth.

Fl.& Fr.: Sept.-Dec.

Ethnomedicinal uses: The leaves are cooked and eaten as a remedy for *anemia*.

8. *Celastrus paniculatus* Willd. (Celastraceae)

Local name: *Maneti teega*

Habit: Climbing shrub.

Habitat: Common in dry forests.

Fl.&Fr.: Apr.-Dec.

Ethnomedicinal uses: Oil is expressed from the seed and used in the treatment of knee-pains and paralysis.

9. *Ceriscoides turgida* (Roxb.) Tirvengadam (Rubiaceae)

Local name: *Tella velaga kaya*

Habit: An armed deciduous tree.

Habitat: Occasional in dry deciduous forests

Fl.: & Fr.: Mar.-Jul.

Ethnomedicinal uses: The fruits are cooked and eaten to relieve *Anemia* and constipation.

10. *Cissus quadrangularis* L. (Vitaceae)

Local name: *Nalleru*

Habit: Rambling shrubs.

Habitat: Common in scrub jungles, wastelands.

Fl.& Fr.: June-Dec.

Ethnomedicinal uses: The entire plant is crushed and bandaged on wounds.

11. *Lannea coromandelica* (Houtt.)Merr. (Anacardiaceae)

Local name: *Dumpidi*

Habit: Large deciduous tree.

Habitat: Common in deciduous forests.

Fl.&Fr.: Mar.-May.

Ethnomedicinal uses: The stem bark is ground into paste and applied on wounds for use as a *galactagogue*.

12. *Litsea glutinosa* (Lour.) C.B. Robinson (Lauraceae)

Local name: *Nara mamidi*

Habit: Moderate sized evergreen, very variable tree.

Habitat: Common in hill forests.

Fl.&Fr.: June-April.

Ethnomedicinal uses: The crushed stem bark is bandaged on broken limbs.

13. *Madhuca indica* J. Gmelin (Sapotaceae)

Local name: *Ippa chettu*

Habit: Large deciduous tree.

Habitat: Abundant in forests, occasional on hills and in villages.

Fl.&Fr.: March-Sept.

Ethnomedicinal uses: The stem bark is crushed in cow urine and taken as a remedy for arthritis.

14. *Phyllanthus emblica* L. (Euphorbiaceae)

Local name: *Usiri*

Habit: Medium sized tree.

Habitat: Common in dry deciduous forests/cultivated.

Fl.&Fr.: Oct.-Dec.

Ethnomedicinal uses: The fruit juice is mixed with Garlic juice and applied in drops for dental problems.

15. *Phyllanthus reticulatus* Poiret in Lam. (Euphorbiaceae)

Local name: *Pulicheru*

Habit: Large shrub.

Habitat: Common in hedges and at the foot hills of forests.

Fl.&Fr.: July-March

Ethnomedicinal uses: The roots of *Phyllanthus reticulatus* and the bark of *Aegle marmelos* (*Maredu*) is ground with the fruits of *Feronia elephantum* (*Velaga kaya*) in water and given for the relief of *Diarrhea*.

16. *Plumbago zeylanica* L. (Plumbaginaceae)

Local name: *Chitramoolamu*

Habit: Annual erect herb.

Habitat: Occasional in waste lands, hedges and forests.

Fl.&Fr.: Sept.-Dec.

Ethnomedicinal uses: The ground roots are mixed with water and the resultant paste is used in the treatment of wounds and warts.

17. *Pongamia pinnata* (L.) Pierre (Fabaceae)

Local name: *Kanuga*

Habit: Medium sized, evergreen tree.

Habitat: Common along river banks, often planted.

Fl.&Fr.: Feb.-Oct.

Ethnomedicinal uses: The seed paste is used as a remedy for *scabies*.

18. *Shcleichera oleosa* (Lour.) Okem. (Sapindaceae)

Local name: *Pusuku*

Habit: Large deciduous tree.

Habitat: Common in dry deciduous forests.

Fl. & Fr.: Jan.-Apr.

Ethnomedicinal uses: Ground stem bark is mixed with milk and applied to wounds.

19. *Soyimida febrifuga* (Roxb.)A.Juss. (Meliaceae)

Local name: *Somida*

Habit: Lofty glabrous tree.

Habitat: Common in the dry forests of most districts.

Fl.&Fr.: Apr.-Oct.

Ethnomedicinal uses: The crushed bark is mixed with water and taken orally to control *dysentery* and cough.

20. *Urginea indica* (Roxb.) Kunth. (Lilliaceae)

Local name: *Nalla ulligadda, Adavi ulligadda*

Habit: Bulbous herb.

Habitat: Occasional in plains and on hills.

Ethnomedicinal uses: The crushed bulbs are taken orally to relieve fever.

RESULTS AND DISCUSSION

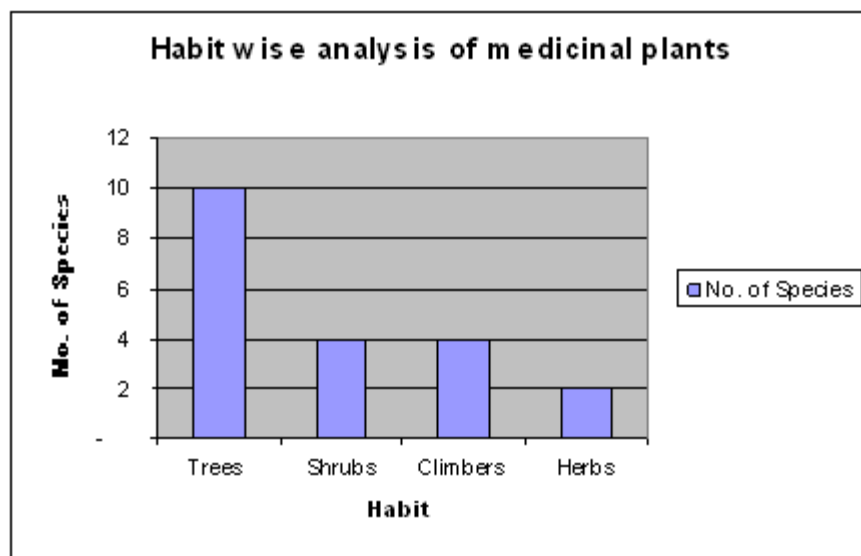


Figure 2. Graph showing habit wise analysis of medicinal plants

All told, the authors recorded 20 medicinal plants including six ethno-veterinary species that were being used by the tribal people of our study area. These were being used largely for the treatment of chest pain, anemia, snakebite, scorpion bite, conjunctivitis, diarrhea, indigestion and rheumatism. Ten of the species were trees, 4 each were shrubs and climbers, and 2 were herbs. Three of the species belonged to the Caesalpiniaceae, while two each were members of the Euphorbiaceae, Papilionaceae and Anacardiaceae. The remaining plant families were represented by only one species each. With regard to the frequency of plant parts used in preparations, stem bark was most often used followed by roots, leaves, fruits, seeds and bulbs. Examples of the way in which preparations were administered include the making of a root paste from *Plumbago zeylanica* for pain relief; the use of leaf juice from *Bauhinia racemosa* as an "eye dropper" in conjunctivitis; the making of gum tablets from *Buchanania lanzan* for the treatment of chest pain; the use of the oil expressed from the seeds of *Celastrus paniculatus* for the alleviation of rheumatism; the use of root paste from *Calycopteris floribunda* for the treatment of snake bite; the application of the crushed bark of *Cassia fistula* on scorpion bites; and, the use of the seed paste of *Pongamia pinnata* for the treatment of scabies. The great majority of the medicinal plants are used singly in the manufacture of preparations rather than in particular combinations. The data brought forth from this investigation provides a basic source of information on ethnopharmacognosy for future studies aimed at the conservation, cultivation, improvement of traditional medicine and economic welfare of the rural and tribal populations of this region.

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