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Study on Healing Climbers Used by the *Lambadi* Tribes of Etturnagaram Wildlife Sanctuary, Telangana State, South India

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ABSTRACT

The ethno medicinal climbing plants used by the Lambadi Tribes of Etturnagaram Wildlife Sanctuary Telangana, southern India are documented in the survey for six months from March 2016 to August 2016. Twelve species of Climbers were found used by the tribal groups. Frequent interviews were conducted among the target group Lambadi Tribes, especially the ethno medicine practitioners.

Key words: Lambadi Tribes, Ethno Medicine, Climbers, Wildlife sanctuary

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Introduction

In recent years, the growing demand for herbal product has led to a quantum group in volume of plant materials trade within and across the countries. An estimate of the international market of medicinal plants related trade at US $ 60 billion per year growing at the rate of 7 percent only. Though India has rich biodiversity, the growing demand is putting a heavy strain on the existing resources (Mukeiji B. 1953). Commercial over-harvesting does the most harm, though pollution, competition from invasive species and habitat destruction all contribute. "Commercial collectors generally harvest medicinal plants with little care for sustainability (Sahu,1982)

Around 70 percent of India's medicinal plants are found in tropical areas mostly in the various forest types spread across the Western Ghats and Eastern Ghats, the Vidhyas, Chotta Nagpur Plateau, Aravlis and Himalayas. Although less than the 30% of the medicinal plants are found in the temperate and alpine areas and higher attitudes they include species of high medicinal value (Saxena,1986).

Studies showed that a larger percentage of known medicinal plants indicate that they are distributed across various habitats. One third is trees and equal portion shrubs and the remaining one-third herbs, grasses and climbers (Selvi, 2004). A very small proportion of medicinal plants is lower plants like developed countries due to growing recognition of natural products, being non-narcotic, having no side effects, easily available at affordable prices and sometime the only source of health care available to the poor. Medicinal plant sector has traditionally occupied an important position in the socio cultural, spiritual and medicinal arena of rural and tribal lives of India (Gold, 1999).

Regarding the survey of medicinal plants in South India, a few reports by Gold Jamila (1999), Annie (2002), Shah and Singh (1990), Selvi, (2004), Subha Nanthini (2007), Shakiela (2008) and Biju (2008) were available. But still there are so many pockets in south India could be surveyed for the search of new Traditional medicines. So the present study was undertaken for the survey of the healing climbers used by the Lambadi Tribes of Etturnagaram Wildlife sanctuary, Telangana State.

Material and Methods

Geography of the Location

The Etturnagaram wildlife sanctuary is located in the Warangal District of Telangana State. (Map.1.)The location which the snake found lies between 17°29'16" and 18°36'20"N and 78°49'49" and 80°40'13"E. The division has a geographical area of 8,687.81 km2 which is 67.6% of the total area of the district (12,847 km^2). Elevation is between 266 and 518 m, with a general SE slope along which surplus waters drain into the river Godavari. The climate is tropical, generally dry with temperature ranging from 15°C to 45°C and annual rainfall of 1182 mm, received mainly through south-west monsoon. Soils are primarily black cotton, loamy, sandy, and red chalaka. The area under forest cover is 2,310 km2, 27% of the total geographical area of the

division. The forest canopy density categories are moderately dense forest (953 km2), open forest (1015 km2), scrub (91 km2), and non-forest (244 km2). The forest division has six ranges: Bhupalapally North, Eturnagaram, Tadvai, Pasra, Mulugu, and Warangal. The research area was in Tadvai and Eturnagaram ranges which include Eturnagaram Wildlife Sanctuary.

Plant collection and identification

This data is collected during the study period from March 2016 to August 2016 from the *Lambadi* Villages. During this period, weekly collections were taken from flowering plants during early morning. Every time, fresh collected materials were exhibited to the taxonomic expert to get the taxonomic information about the plants. The photographs of selected plants were also taken during the field trips. The habitual data were recorded in the field note book. Polythene bags were used to keep the collected materials in fresh condition. Hand lens was used for recording the morphological characters. The collected plants were brought to the herbarium room for preservation and further identification.

The collected plants were identified correctly and confirmed by referring various flora like The flora of Nilgiri and Pulney Hill top by Fyson (1921), The flora of presidency of madras by Gamble and Fischer (1957). In addition to the above flora Joseph (1981), Nair and Hentry. 1983, Sasidharan (2004) and J W Prakash *et al* (2006) were referred.

Identified plants were verified and by the herbarium of TBG&RI, Palode, Thiruvananthapuram. The plant specimens and their medicinal uses, Habit, useful part, for which the particular plant is thoroughly verified with Koushik P. 1988**.** The data gathered through interviews was verified with the available literature (Yoganarasimhan and Chelladurai, 2000; Parota, 2001; The relevant information about the local names, their morphological useful parts and rural medicinal uses for the treatment of various diseases were gathered from the villagers, herbal plant collectors and local vaidyars from in and around village of the study area.

Result and Discussion

Binomial : ***Abrus precatorius* Linn.**

Family : **Fabaceae (Papilionaceae)**

Plant description : A deciduous climber with 12 to 16 pairs of leaflets. Lvs. linear or oblong. Fl. white, tinged with pink, pod oblong; Sd. red with a black eye. **RJ & BPN 440.**

Rural medicinal Use : Leaves are chewed along with sugar is good for severe cough. Seeds are dried and milled and are inhaled is good for head ache.

Traditional medicinal use : Seeds used in affections of nervous system. Seed paste applied locally in sciatica, stiffness of shoulder joints and paralysis. Roots, leaves and seeds are used to cure eye diseases, arthritis and leprosy. Root powder is taken orally along with cow's milk to

treat scorpion sting and snake bite. Seed extract is a good anti carcinogen. Decoction of fresh leaves and roots are used to treat coughs, colds and colic.

Binomial : ***Aristolochia indica* Linn.**
Family : **Aristolochiaceae**

Plant description: Climbers or twinners with greenish – white grooved stem and long, twisted slightly tuberous roots. Lvs. ovate. Entire with undulate margins. Fl. pale green with inflated base and narrow cylindrical tube. Fr. an oblong capsule. Sd. flat and winged **RJ & BPN 387.**

Rural medicinal use : Roots and leaves are used in snake-bite poisoning, fever Cholera and other stomach ailments. The dried root powdered and given with honey to treat leucorrhoea.

Traditional medicinal use : The roots useful in ulcers, inflammations, leprosy, skin diseases, intestinal worms, cardiac debility, fever, abdominal disorders and all types of poisonous bites and stings. Leaves are used to treat cholera, bowel complaints and fever in children. The seeds are good for inflammation, dry cough and dyspnoea in children.

Binomial : ***Cissus quadangularis* Linn.**
Family : **Vitaceae**

Plant description : A tendril climber. Lvs. opposite, simple. Fl. Small, greenish and in cymes. Fr. Ovoid, red berries. Sd. Ellipsoid. **RJ & BPN 509**

Rural medicinal use : Shoot paste is good for treating burns.

Traditional medicinal use : The plant is useful in skin diseases, leprosy, ophthalmopathy, ulcers, tumours, epilepsy and swellings. Shoots are useful in scurvy, asthma, burns and wounds. Powdered roots and stem paste are very specific for bone fractures.

Binomial : ***Coccinia grandis* (L) Voigt.**
Family : **Cucurbitaceae**

Plant description : A perennial, much branched handsome tendril climber, Rt. sometimes tuberous; Lvs. deltoid or sub rotund, angled or lobed, bright green above and pale beneath, Fl. white, large, unisexual; Fr. berries with white streaks, bright scarlet red when ripe; Sd. ovoid, compressed, yellowish grey. **RJ & BPN 418**

Rural medicinal use : Fruits are generally advised to take as a vegetable especially to jaundice patients to control their bilirubil level in the blood

Traditional medicinal use : The leaves are useful in vitiated conditions of kapha and pitta The fruits are useful in burning sensation, leprosy, skin diseases, intermittent fever, agalactia, asthma,

cough, bronchitis, consumption and jaundice.

Binomial : ***Dioscoria alata* Linn.**
Family : **Dioscoreaceae**

Plant properties : A climber with 4-winged St. twining to the right having scattered broad-based prickles and underground tubers without long stalks and of varying shapes; Lvs. opposite or rarely alternate, broadly ovate or rounded, cordate, with a broad sinus having five nerves; Fl. unisexual, rachis of male spike winged; Fr. capsules broadly obcordate. **RJ & BPN462.**

Rural medicinal use : The tubers are boiled in water and is given for general debility for diabetes patients.

Traditional medicinal use : The tubers are useful diabetes, leprosy, gonorrhoea, strangury and helminthiasis.

Binomial : ***Gymnema sylvestre* (Retz.) R.Br.**
Family : **Asclepiadaceae**

Plant description : A large, woody, much branched climber with pubescent young parts; Lvs. simple, opposite, elliptic or ovate, more or less pubescent on both sides, base rounded or cordate; Fl. small, yellow in umbellate cymes; Fr. Slender. **RJ & BPN 466.**

Rural medicinal use : Leaves are given along with other medicines to diabetic patients.

Traditional medicinal use : The plant is useful in inflammations, hepatosplenomegaly, dyspepsia, constipation, jaundice, haemorrhoids, strangury, renal and vesical calculi, helminthiasis, cardiopathy, cough, asthma, bronchitis, intermittent fever, amenorrhoea, conjunctivitis and leucoderma. The fresh leaves when chewed have the remarkable property of paralysing the sense of taste for sweet and bitter substances for sometime.

Binomial : ***Ipomea digitata* Linn.**
Family : **Convolvulaceae**

Plant properties : A branched climber with large tuberous roots. Lvs. Palmately lobbed, glabrous, prominent nerves beneath. Fl. Purple. Fr. Ovoid capsules. **RJ & BPN 439**
Rural medicinal use : Root paste is applied to treat various skin infections.

Traditional medicinal use : The roots are used in emaciation in children, consumption, leprosy, helminghiasis, bronchitis, fever, general debility and burning sensation.

Binomial : ***Piper betle* Linn.**
Family : **Piperaceae**

Plant properties: A perennial dioecious root climber, stems semi-woody, much thickened at nodes; Lvs. large, broadly ovate, slightly cordate, shortly acuminate, acute, entire, glabrous, yellowish or bright green, shining on both sides; male spikes dense, cylindrical, female spikes pendulous, bracts triangular-rotundate, rachis pilose; Fr. rarely produced, immersed in the fleshy spikes forming nodule-like structures. **RJ & BPN 511**

Rural medicinal use : Chewing of leaves alone is a good mouth cleaner

Traditional medicinal use: The plant is useful in bronchitis, asthma, catarrh, cough, leprosy, dipsia, alcoholism, syncope, otalgia, fever, halitosis, impotency, rheumatism, dyspepsia, pharyngopathy, colic, diarrhoea and laryngitis.

Binomial : ***Piper longum* Linn.**
Family : **Piperaceae**

Plant properties: A slender aromatic climber, rooting at the nodes and are swollen; Lvs. alternate, lower ones brow ovate, cordate, upper ones oblong, oval, all entire, smooth, thin with reticulate venation, veins raised beneath; Fl. in solitary spikes; Fr. berries, small, red when ripe, completely sunk in solid fleshy spike. **RJ & BPN 517**

Rural medicinal use : Decoction made from spikes and roots are used in treating fever, asthma, cough, etc. Dried spikes are used with ginger, thulasi, is powdered and is good for sour throat

Traditional medicinal use: The roots are useful in gout, lumbago, dyspepsia, apoplexy, stomachalgia, and splenopathy. The dried spikes are are useful in anorexia, dyspepsia, flatulent colic, asthma, bronchia hiccough, gastropathy, epilepsy, fevers, gonorrhoea, haemorrhoids, gout and lumbago.

Binomial : ***Piper nigrum* Linn.**
Family : **Piperaceae**

Plant properties: A stout glabrous climbing perennial, rooting at the nodes; Lvs. simple, alternate, cordate, very variable in breadth, broadly ovate; Fl. minute in spikes, usually dioecious, fruiting spikes very variable in length; Fr. ovoid or globose, one-seeded berries, bright red when ripe, seeds globose, testy thin, perisperm hard and white. **RJ & BPN 358**

Rural medicinal use : Decoction of dried fruits along with jagerry and dried ginger, *Ocimum* leaf is good for fever, cold, sour throat, cough and general debility.

Traditional medicinal use: The fruits are useful in arthritis, pharyngodynia, asthma, fever, cough, catarrh, dysentery, dyspepsia, flatulence, hiccough, haemorrhoids, urethrorrhea and dermatopathy.

Binomial : ***Trichosanthus cucumerina*** **Linn.**
Family : **Cucurbitaceae**

Plant properties: An annual tendril climber with very slender, long, furrowed stems and tendrils; Lvs. simple, lobed, base deeply cordate, thin, membranous; Fl. white, unisexual, males in axillary racemes near the apex, females axillary, solitary; Fr. upto 4 min length, green when young, or pale green or white striped, containing many seeds in the fleshy pulp; Sd. hard. **RJ & BPN 404.**
Rural medicinal use : Fruits are given as a fibre supplement to those who have constipation.

Traditional medicinal use: The roots and seeds are useful in syphilis and verminosis. The leaves are cooling. The fruits are useful in, dipsia, burning sensation, anorexia, dyspepsia, flatulence, constipation, helminthiasis, fever and general weakness. The fruits are very tasty as a vegetable.

Binomial : ***Vigna vexillata Benth.***
Family : **Fabaceae**

Plant properties: A suberect or twining perennial with short slender stem and several long branches clothed with spreading or deflexed reddish brown hairs; Lvs. 3-foliate, petioles fairly long, leaflets ovate or ovate-rhomboid, entire or often lobed, acute, silky hairy on both sides; Fl. Yellow and papilionaceous in axillary racemes; Fr. nearly cylindric, greenish pods; Sd. dark grey. **RJ & BPN 345**

Rural medicinal use : Root poultice is applied in leprosy.

Traditional medicinal use: The roots are useful in dyspepsia, pyrexia, diarrhoea, skin diseases, leprosy, inflammations, seminal weakness, burning sensation, colic, flatulence, haemorrhages, cough, haemoptysis, agalactia, emaciation, consumption, facial paralysis, hemiplegia, fever and general debility.

It is evident that the area has good healing plants diversity. This is in correlation with Annie (2002). The traditional medical practitioners “Vaidyars” have good knowledge about phyto-medicine. They were well versed in various illness and they can diagnose the disease by observing symptoms of the patients.

One of the serious threats we face is the degradation of tradition knowledge on medicinal plants. This is observed in present study also like that in various other parts of the country (Jain 1988, Farooque and Saxena 1996, Silori and Rana, 2000). Popularity and accessibility of modern medical aids, transformation in life style to more urban and lack of knowledge among the common people are the reasons for this degradation.

CONCLUSION

The study area is rich in diversity of Healing plants. The traditional local vaidyans knows how to apply the plants. Such indigenous knowledge is relatively cheaper than modern systems of medicine, reliable and risk factors on side effects are comparatively less. However, modernization, lack of knowledge on those factors and accessibility to modern hospitals has led the common people to rely on English medicine and it became the largest industry all over Kerala. Even though the treatment rates in such hospitals are higher, people has to go to such places to satisfy their health needs. It is in such a condition, the study gives hope to common man. From the present study it is found that traditional knowledge and resources are there in a hand's reach. But the use of such resources is lesser. Most of the physical ailments have local curatives. This knowledge has been validated by other Indian medical systems also. Hence the use of such traditional knowledge, the spreading of that information, the application of those information and conservation of such resources should be done. For that awareness must be created among the children as well as grownups.

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