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Ethnobotanical studies on medicinal plants used by sugalis of yerramalais in kurnool district, Andhra Pradesh, India

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Abstract

In India, the use of different parts of several medicinal plants to cure specific ailments has been practiced since ancient times. Ehanobotanical studies were carried out to collect information on the use of medicinal plants by the tribal community (Sugalis) who live in the forests of Yerramalais of Kurnool district, Andhra Pradesh, India. The present paper deals with identification of 40 medicinal plants, with local names used by Sugalis for different diseases. The information about different types of medicinal plants used by them for various diseases recorded orally by interviewing the elders, Vaidyas (doctors) of that tribe by visiting their habitats called Thandas. Collected plants are stored in the Departmental Herbarium of Osmania College, Kurnool. Most of the medicinal plants are taken in as roots, tubers, stem and leaves, are taken orally with or without combination of other plants, external applications like paste, fumigation. Most of plants used by them are Herbs (42%), shrubs (20%), Trees (33%).and Climbers (5%) The most striking feature of tribal life is their simplicity. The forest is able to provide them with everything. Professionally they are peasants, food-gatherers, hunters, small farmers, and, nomads. Sugalis use medicinal plants mainly for viral fevers, skin deceases, snake & scorpion bites and stomach problems. It is observed that the urban educated people are more aware of good effects of herbal medicine over allopathic medicine than the rural people. Due to the degraded forests and depleted resources, they are migrating to urban areas for livelihood. So there is a danger of losing knowledge of medicinal plants for human welfare. Hence there is an urgent need to document and popularize the value of herbal medicine among the rural people through Vana Samrakhak Samithi and other agencies.

Keywords: Ehanobotany, Sugalis, Thandas, Yerramalais, Easteren ghats.

Introduction

India is well known for significant geographical diversity which has the formation of different habitats and vegetation types, Plants especially trees are companions of man [1-3]. Forests are civilization lungs, the trees in them are the basis for life survival on this planet [4]. Plants have been used by man for both prevention and cure of various diseases [5-8]. With the advent of human

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civilization, many systems of therapy have been developed primarily based on plants. Ayurveda, Sidda, Unani, etc. traditional systems of medicines are developed on the basis of medicinal plants [9-11]. The plant-based traditional medical systems continue to provide the *primary health care* to more than three-quarters of the world's population. The World Health Organization has estimated that over 80% of the global populations rely chiefly on traditional medicine [12].

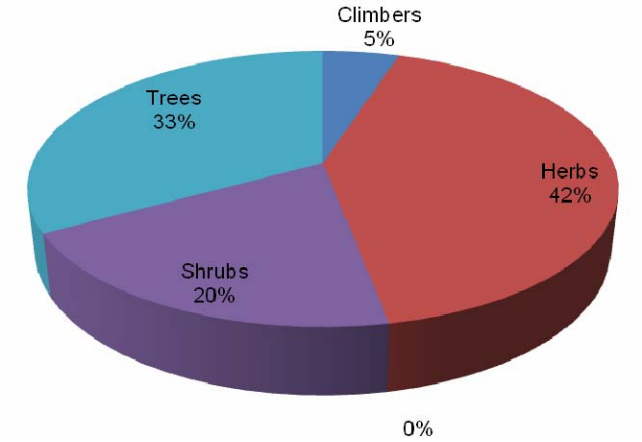

Fig: 1 Medicinal Plants of Yerramalai's habit wise distribution

It is fact that natural forest are progressively sinking due to overexploitation, makes it obligatory to investigate scientifically and document our floristic wealth in order to use the same, rationally for development without destruction of the biological diversity [13]. They have degraded our surrounding to the extent of driving many species to extinction and threatening, the survival of thousands of others [14] Today continued deforestation and environmental degradation in many parts of forest brought about depletion of medicinal plants[15]. Most of the tribal people use different parts of the medicinal plants (Fig.2) to cure their deceases. Many medicinal plants occurring have yet to be subjected to rigorous chemical screening and pharmacological investigation.

Kurnool district is present in Andhra Pradesh, situated between eastern longitudes of 76 58'-78 56' and northern latitude of 14 54'-16 14'. The district is bounded by Prakasam district on the east, Anantapur and Kadapa district on the south while Bellary district of Karanataka state forms the western boundary. Yerramalais receives very low rainfall and they come under the southern thorn forest. The Eastern Ghats are a series of discontinuous low ranges running generally northeast–southwest parallel to the coast of the Bay of Bengal. The Nallamalais forms a series of parallel ranges in the Eastern Ghats of Andhra Pradesh. The region falls under tropical monsoon climate rainfall from both south-west monsoon and north–east retreating monsoon. Kurnool district is situated between eastern longitudes of 76^0 58'-78^0 56' and northern latitudes of 14^0 54'-16^0 $14^{'}$. Yerramalai forest (Fig.4) show deciduous forest at Racherla, north Dhone, Gani and L.thanda, Betham cherla, Ramallakota forest etc.

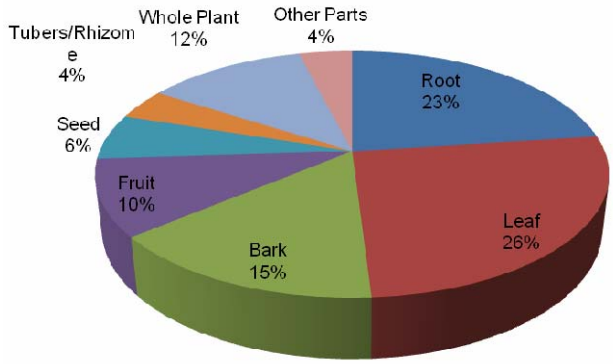

Fig: 2 Medicinal Plants of Yerramalai's- Comparitive account of plant parts used in medicine

Tribals like any other group of population live in and depend upon environment .the present paper deals with the Sugalis (also called Banjaras) (Fig.3) ,one of the largest and advanced nomadic tribes of Andhra Pradesh, inhabiting the Yerraamalais range of Eastern Ghats of Kurnool district of Andhra Pradesh.Amidst the Yerramalai forest near kalva bugga, Bugga Rrameswara temple is (Fig.3) present where sugalis worship.The data were collected from 15 Sugali settlements namely, Alayabad Thanda, Lakshaiahkunta Thanda, Gummitham Thanda, Sugali metta (Fig.4) Chinnarajupalem Thanda, Undutla Lobai. with 48 families carrying

agriculture, pastoralism as the mainstay of their economy in Dhone. Madhavaram, Peapaly, Veldurthy, Nadyal, Bethamcherla, Banaganapalli mandlas respectively of Kurnool District of Andhra Pradesh. However, the Kurnool part of Yerramlais is relatively unexplored and little work has been done in context of ethnobotany. So the present study was undertaken on information of ethnobotanical plants used by Sugalis of Kurnool district,

Fig 3. Tribals (Banjaras)

Fig 4. Yerramalai forest

Materials and Methods

Since the tribal societies are store houses, accumulated experience and knowledge on indigenous vegetation, the present information is an outcome of Ehanobotanical studies carried out for two years. A survey was concentrated on tribal pockets. Besides, local people (Local Vaidyas or Traditional healers, villagers and House wives) were also contacted. About 15 villages were interviewed. During the interview, the 12 informants whose age ranged form 50 to 70 years old, displayed specimens of medicinal plants. Some informants were taken to the field to locate the medicinal plants .First hand information on their traditional medicine was recorded. Repeated enquiries were made to understand their knowledge, methods of diagnosis and treatment of deceases. Data were collected on the specific parts of the plants used, collection, method of usage of the drug, dosage administration and the purpose for which is used. The medicinal plants are identified with the help of the floras (Gambel, Fischer, Ellis and T. Pullaiah) and finally confirmed with the herbarium of S.K University, Anantapur. The collected plants are stored in the Herbarium of Osmania College, Kurnool. Data was collected on the specific parts of the plants used, collection, processing and preparation of drug, dosage administration.

Conclusion

In ancient times, humans lived in the lap of nature and attributed divine qualities to it. It is fact that natural forests are progressively shrinking due to overexploitation, makes it obligatory to investigate scientifically and document our floristic wealth in order to use the same, rationally for development without destruction of the biological diversity [16]. Ethnobotanical research can provide a wealth of information regarding both past and present relationships between plants and the traditional societies Indigenous herbal treatment is a part of the culture and dominant mode of therapy in most of the developing countries. . Many medicinal plants occurring have yet to be subjected to rigorous chemical screening and pharmacological investigation.

Table 1 list of medicinal plants used by sugalis of yerramalis forest

Sno	Scintific name	Ver name	Family	Part used	Purpose
1	Abutilon indicum	tutturu benda	Malvaceae	Leaves	demulcent, rheumatism
2	Althaea rosea (L.) Cav	japali theetham	Malvaceae	root	astingent
3	Abrus precatorius	guriginja	Fabceae	root	cough,cold
4	Aristolochia indica	Nall eswari	Aristolocaceae	Root	sorpion bite, moggotted wounds
5	Ammania buccifer	agnijawal	Lytraceae	whole plant	snake bite
6	Andrographis paniculata	nelavemu	Acanthaceae	whole plant	fever, cough, bronchitis, diabetic
7	Argyria nervosa (Burm.f.) Boj-hurt	samudra pala	Convolvulaceae	root	rhematism
8	Bauhinia varigata	madapaku	Fabceae	Flowers	luxative, leucoderma, vaginal discharge
9	Butea monosperma (Lamak)	Moduga	Fabceae	seed	anthelminitc, herpis, aphrodiasiac
9	Cassua italica	nelavemu	Caesalpinaceae	whole plant	jaundice, allergy, measles
10	Caesalpinia bonduc (L.) Roxb	gaccha	Caesalpinaceae	seed	
11	Costus speciosus (J.Koinig) smith	Koingi	Costaceae	Rhizome	antiinflamatory, antiarthritic activity
12	Cissampelos pareira	advibanka teega	Menispermaceae	Root	antiperiodic, purgative, snake-bite
13	Cardiospermum halicabum	buddha kakara	Sapindaceae	root	laxative, rheumatism, piles
14	Calotropis gigantea	Tella gilledu	Asclepiadaceae	Root	
15	Capparis sepiaria	nall uppi	Capparidaceae	stem bark	tuberculosis
16	Cassia fistula	rela	Caesalpinaceae	leaves	bone fracture
17	Cardiospermum halicacabum	budda kakara	Sapindaceae	root	laxative, rheumatism, piles
18	CisssusvitigianaL	adavi draksha	Vitaceae	stem	repellent
19	Cadba fruitcosa	sekurirhi	Capparadaceae	leaves	oral cortaseptice, antifertility
20	Corallocarpus epigaeus	pamudonda	Cucrbitaceae	Root tuber	smake bite
21	Coldenia procumbens L.	papavinasanam	Ehretiaceae	leaves	rhematic swellings
22	Decalepis hamiltonii	nannari	Asclepiadaceae	Root powder	antidiabetic, blood purofier, appetizer
23	Gyrocarpus americana	tella poliki	Hernandiaceae	stem bark	cancer
24	Gymnema sylvestre(Retz).r.Br	podapatri	Asclepiadaceae	leaves	anitdibitc, livertonic, cardiotonic
				Flower	diuretic, rheumatism
25	Hyptis suaveolens (L.) Poit.	danti tulasi	Labiatae	Leaves	antispasmodic, anti-rheumatic
26	Helicteres isora L.	gubada	Sterculiaceae	seed, root	diabetic,
27	Leonitis nepetifolia (L.) R.Br.	ranaberi	Labiatae	whole plant	febrifuge
28	Justicea adathoda	addasaram	Acanthaceae	leaf	antispasmodic, asthama.
29	Rhinacanthus nasutus (L) Kurz	nagamalle	Acanthaceae	root	anti tumour
30	Physalis minima L.	buddha bhusha	Solanceae	fruit	diuretic
31	Pterocarpus marusupium	yegi	Fabacea	Heart wood	leucoderma, urine astingent
32	Strynos nuxvomica	Mushti	Strychbnacea	wood, root	fever, rhematism
33	Tiiacora acuminata (Lam)	kappa theega	Menispermaceae	root	scorpion bite
34	Tragea plukenetii R. sm	duradagendaku	Euphorbiaceae	root	scorpion bite
35	Tinospora cordifolia	tippa teega	Tiliacea	stem	jaundice, chonic fever
36	Writia tinctoria (Roxb.) r.Br	palkodisa	Apocynacea	stem bark	skin diseases
37	Wattakaka volubilis (L.f.) Stapf	peddagurja	Asclepiadaceae	leaf	snake bite
38	Writia tinctoria (Roxb.) r.Br	palavareni	apocyanceae	stem bark	snake bite
39	Wlatheria indica	nallbenda	Sterculiaceae	root	internal haemorrhage, thirst
40	Xanthium indicum	shankeswari	Asreraceae	whole plant	diabetic,

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