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Research Article

ETHNOBOTANICAL SURVEY OF SHESHACHALA HILL RANGE OF KADAPA DISTRICT, ANDHRA PRADESH, INDIA

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ABSTRACT
An ethnobotanical survey was carried out among the ethnic groups of Yerukala,Yanadi,Sugali tribals inhabited in Sheshachala hill range of Kadapa District, Andhra Pradesh, India during 2005-2007. A total of 60 plant species (belonging to 33 families) of ethnobotanical interest upon enquiry from these tribal informants between the ages of 50 to 82 years were reported. All the plants need to be evaluated through phytochemical investigations to discover their potentiality as drugs. The study shows a high degree novelty in the use of plants among the tribal people reflecting the revival of interest in traditional medicine.

***Key Words**: Ethnomedicine, Sheshachala Hill Range, Kadapa District, Yerukala, Yanadi, Sugali Tribes*

INTRODUCTION
India is rich in ethnobotanical information. The 500 tribal communities, belonging to 227 ethnic groups present perhaps the richest heritage of India. Diversity of flora in India richly contributes to plant medicine. Ethnomedicine deals with direct relationship of plants with man. Large numbers of wild plants are used by them for treatment of various ailments and diseases. The abstract relationship of man with plants includes faith in the good or bad powers of plants, taboos, avoidances, sacred plants, worship and folklore (Jain 1987). Different workers have documented the uses of medicinal plants from different parts of Andhra Pradesh (Chandra et al., 2010, Hemdri et al., 1987a & b) The literature revealed that there are only few attempts on ethnobotanical studies of this region (Jeevan Ram et al., 2007; Madhusudan Rao, 1989; Venkata Raju et al 1989).The main focus of the present study is to ascertain the detailed information on the use of plants and their therapeutic medical practices popular among Sugali, Yerukala, Yanadi tribals of study area.

Study area
Seshachala hills are present in eastern part of Kadapa district. Kadapa is one of the districts of Andhra Pradesh in Rayalaseema region. It is located in 14-28 N-78-52E. The district consists of 50 revenue mandals. Seshachala hills traverse through the Eastern part of Kadapa District. The Seshachala hills are surrounded on East and South by Chittor district, North by Rajampeta revenue division and West by Velikonda hills. The tribal inhabitants of the study area mainly consist of Yerukala, Yanadi, Sugali tribes. The forest provides ample scope and exerts profound influence on economy and socio-cultural activities of the tribes that live in adjacent villages.

MATERIALS AND METHODS
The field work in the Sheshachala hill range of Kadapa District was carried out during 2005-2007. The tribes namely, Sugali, Yerukala, Yanadi are living in the study area comprises 3.2 % of district population. There were 110 informants between the ages of 50 – 82. Emphasis was given to register ethnomedicinal knowledge possessed by tribal people especially the elders (above 50 of age). Local informants with the knowledge of medicinal plants were selected based on the experience in the preparation of medicines, the way they acquired knowledge on the medicinal plants and their ability to treat a specific disease. The ethnobotanical uses of plants were collected by using structured

questionnaires. Ethnobotanical data were collected according to the methodology suggested by Jain (1991). The detailed information regarding herbal names, parts used, purpose, mode of administration and medicinal uses were recorded in Table 1. The information thus collected was cross checked with the information from neighboring herbalists and also with the available literature (Madhusudan Rao, 1989). The methods of plant collection and preparations of herbarium have been followed by Jain and Rao (1997) and were identified taxonomically (Gamble and Fischer 1915-1936). The identified plant specimens were then confirmed by comparing with the types specimens in Madras herbarium (MH), Coimbatore, India. The voucher specimens were deposited in Yogi Vemana University herbarium, Kadapa.

RESULTS AND DISCUSSION

The results of the present survey are presented in Table 1. A total of 60 plant species (belonging to, 52 genera and 33 families) of ethnobotanical interest were reported. For each species the following ethnobotanical information were provided: botanical name, vernacular name, family, plant parts used and their use in treatment of diseases. The dominant families of ethnobotanical importance are Euphorbiaceae (6 species), Lamiaceae (4 species), Fabaceae (3 species), Apocynaceae (3 species), Solanaceae (3 species), Combretaceae (3 species), Caesalpinaceae (3 species), Asclepiadaceae (3 species), Aristolochiaceae (2 species), Liliaceae (2 species), Rutaceae (2 species) and Meliaceae (2 species). The medicinal plants based on their use in treatment of 32 different diseases were found to be very valuable such as Jaundice, rheumatism, asthma, diabetes, piles, leucoderma, paralysis, snake bite, urinary disorders etc. The 60 medicinal plants were reported to be used in curing 32 diseases, of which 6 species each for used in the treatment of asthma and wounds, four each for treating fever, diabetes, gynic problems, deworming and three each in treating jaundice, sprains, tooth pain and ear pain etc. Information on plant species regarding botanical name, local name, family and medicinal uses are presented. The entire plant parts of Euphorbia antiquorum were used in the treatment of cancer. Most of the herbal remedies are taken externally in the form of extract and decoction. A significant finding of this study is that, most of the plants collected in Seshachala hill range of Kadapa District are the first reports. Among the different plant parts used for the preparation of medicine the leaves were the most important and frequently used and majority of the remedies reported in the present study are by administering the leaves orally.

Table 1. Description of Medicinal properties of plants collected from Sheshachala hill range of Kadapa District, Andhra Pradesh, India.

S. No.	Botanical Name	Vernacular Name	Family	Medicinal uses
1	*Abrus precatorius* L.	Guriginja	Fabaceae	Root extract used for the treatment of conjenctive and irritation of eye. Decoction of leaves reduce body heat.
2	*Abutilon indicum* (L.) Sweet	Adavibenda	Malvaceae	Root extract control gas trouble.
3	*Achyranthes aspera* L.	Utahareni	Amaranthaceae	Decoction of leaves cure wounds.
4	*Aegle marmelos* (L.) Corr	Maredu	Rutaceae	Extraction of bark reduces swellings.
5	*Aloe vera* (L.) Burm.f.	Kalabanda	Liliaceae	Pulp of leaves promotes menstrual flow and works as a good laxative.
6	*Alstonia scholaris* (L.) R.Br.	Palachettu	Apocynaceae	Decoction of leaves kills lice on head.

7	*Andrographis paniculata* (Burm.f.) Nees	Nelavemu	Acanthaceae	Decoction of leaves cures jaundice.
8	*Anisomeles malabarica* (L.) Sims.	Mogabeera	Lamiaceae	Decoction of leaves control cold and fever.
9	*Aristolochia bracteolata* Lam.	Gadidagadapa	Aristolochiaceae	Decoction of leaves kills worms in stomach.
10	*Aristolochia indica* L.	Pachaeswari	Aristolochiaceae	Root extract removes white patches on face and cures mouth ulcers. Decoction of leaves cure typhoid fever.
11	*Asparagus racemosus* Willd.	Pilliteegalu	Liliaceae	Tuberous root extract give relief from stomach ache and cure wounds.
12	*Atalantia monophylla* (L.) Corr.	Kolamukki	Rutaceae	Seed oil externally used for rheumatism and paralysis.
13	*Basella alba* L. *Var alba*	Bachali	Basellaceae	Decoction of leaves cures all types of pains.
14	*Buchanania axillaris* (Desr.) Ramam.	Sara chettu	Anacardiaceae	Decoction of bark regulates menstrual cycle and also used for abortion.
15	*Butea monosperma* (Lam.)Taub.	Moduga	Fabaceae	Decoction of leaves kills worms in stomach; decoction of leaves with milk is a good food for pregnant ladies.
16	*Caesalpinia bonduc* L.	Gacha	Caesalpinaceae	Extract of stem relieves swelling of tentacles.
17	*Carissa carandas* L.	Kalivi	Apocynaceae	Leaf extract controls gas trouble.
18	*Cassia auriculata* L.	Thangedu	Caesalpinaceae	Leaf extract cures fractures, Flower extract reduce diabetes.
19	*Cassia fistula* L.	Rela	Caesalpinaceae	Leaf extract reduce neck pain.
20	*Cissus quadrangularis* L.	Nalleru	Vitaceae	Extraction of stems cures piles.
21	*Croton scariosus* Bedd.	Erribilla	Euphorbiaceae	Decoction of leaves cures fits.
22	*Datura metel* L.	Nalla ummetha	Solanaceae	Decoction of leaves cures peduculosis and also functions against dog bite.
23	*Enicostemma littorale* auct.	Nelagorimidi	Gentianaceae	Decoction of leaves is good medicine for snake bite and leucoderma.
24	*Euphorbia antiquorum* L.	Janku	Euphorbiaceae	Extraction of stem cures joint pains and disorders of indigestion.
25	*Euphorbia hirta* L.	Reddivarinanu balu	Euphorbiaceae	Entire plant material used in cancer treatment.
26	*Euphorbia nivulia* Buch. - Ham.	Akujemudu	Euphorbiaceae	Milky extract of stem cures cuts in foot and also cure wounds caused by fire.
27	*Gymnema sylvestre* (Retz.) Schult.	Podapathri	Asclepiadaceae	Decoction of leaves especially useful in diabetes treatment.
28	*Cleome gynandra* (L.)	Tellavamiti	Cleomaceae	Extract of leaves relieves head ache and joint pains.
29	*Heliotropium indicum* L.	Danthi	Boraginaceae	Extraction of root bark cures diabetes.

30	*Hemidesmus indicus* (L.)R.Br. *Var indicus*	Sugandi pala	Asclepiadaceae	Decoction of roots gives relief from asthma and toothache and also used for making sharbat (nannari) i.e. cool drink.
31	*Jatropha gossypiifolia* L.	Adavi kanuga	Euphorbiaceae	Leaf extract is used to cure wounds.
32	*Justicia adhatoda* L	Addasaramu	Acanthaceae	Decoction of leaves relief cough and asthma.
33	*Lantana camara* L.	Pulikampa	Verbinaceae	Leaf extract relieves sprains.
34	*Leucase aspera* (Willd.) Link	Tummi	Lamiaceae	Extraction of leaves cures eczema and eye diseases.
35	*Melia azedarach* L.	Turaka vepa	Meliaceae	Decoction of leaves kills worms in stomach and dissolves tumors in stomach.
36	*Ocimum basilicum* L.	Rudrachettu	Lamiaceae	Decoction of leaves cures ear pain.
37	*Ocimum sanctum* L.	Tulasi	Lamiaceae	Decoction of leaves reduces ear ache and fever.
38	*Piper longum* L.	Pippili	Piperaceae	Extraction of stem cures abdominal disorders and also prevents pregnancy.
39	*Plumbago zeylanica* L.	Chitramulam	Plumbaginaceae	Extraction of leaves regulates menstrual period, stops pregnancy and also used to cure anemia and wounds.
40	*Plumeria rubra* L.	Deveganneru	Apocynaceae	Leaf extracts control asthma and swellings.
41	*Ricinus cummunis* L.	Patcha amudam	Euphorbiaceae	Decoction of leaves cures jaundice and root extract cures joint pains.
42	*Rubia cordifolia* L.	Isabaddi	Rubiaceae	Dried root extract improve blood and also helps in free delivery.
43	*Sansevieria roxburghiana* Schult. & Schult. f.	Chaga	Agavaceae	Decoction of leaves cure ear pain. and leaf extract cure mumps.
44	*Sapindus emarginata* Vahl	Kunkudu	Sapindaceae	Extraction of leaves cures jaundice.
45	*Sida rhombifolia* L.	Attibala	Malvaceae	Leaf extract is useful for dental carries or decay of tooth.
46	*Solanum surattense* Burm.f.	Nelamulaka	Solanaceae	Decoction of fruits cures pedeculosis, removes stones in urinary bladder.
47	*Solanum trilobatum* L.	Uchi	Solanaceae	Decoction of leaves kills worms in stomach.
48	*Soymida febrifuga* (Roxb.) Juss.	Somi	Meliaceae	Decoction of leaves relief rheumatism.
49	*Sphaeranthus indicus* L.	Bodasaramu	Asteraceae	Extraction of roots relieves migraine.
50	*Sterculia urens* Roxb.	Kondacheniga	Sterculiaceae	Bark is used for dysentery.
51	*Strychnos nux-vomica* L.	Nagamusti	Loganiaceae	Bark of root is used for cholera and stem bark is used for cure dysentery and dyspepsia. Extraction of leaves

				cure skin diseases.
52	*Syzygium cumini* (L.) Skeels	Neredu	Myrtaceae	Extraction of leaves cures wounds
53	*Tecoma stans* (L.) Kunth.	Kondapindi	Bignoniaceae	Juice of leaves cure ulcers and kills worms in stomach.
54	*Tephrosia purpurea* (L.) Pears.	Vempali	Fabaceae	Decoction of roots control stomach ache.
55	*Terminalia chebula* Retz.	Karakkaya	Combretaceae	The decoction of bark cures fractures, ulcers, asthma, cough and jaundice. The juice of fresh leaves cures ear pain. .
56	*Terminalia arjuna* (DC.) Wt.&Arn.	Tellamaddi	Combretaceae	Plant extraction gives relief from urinal problems and decoction of leaves cures diabetes.
57	*Terminalia bellirica* (Gaertn.) Roxb.	Thandra	Combretaceae	Extraction of bark relieves sprains. Seed extract cures asthma.
58	*Tinospora cordifolia* (Willd.) Hook.f. & Thomas.	Tippatheega	Menispermaceae	Extraction of leaves improve fertility and decoction of leaves cures malaria fever.
59	*Tylophora indica* (Burm.f.) Merr	Mekachettu	Asclepiadaceae	Decoction of leaves cures asthma.
60	*Wrightia tinctoria* R.Br.	Palavareni	Apocynaceae	Extraction of leaves and roots relieve tooth pain and wounds. It also regulates menstrual cycle.

Conclusions

The popular use of herbal remedies among the tribal people in Seshachala hill range of Kadapa district reflects the revival of interest in traditional medicine. The scientific validation of these remedies may help in discovering new drugs from the plant species. The information on therapeutic uses of plants may provide a great potential for discovering of new drugs and promoting awareness among the people to use them as remedy in health care system.

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