

# Traditional Uses Of Plants By The Tribal Communities Of Salugu Panchayati Of Paderu Mandalam, Visakhapatnam, District, Andhra Pradesh, India.

<sup>1</sup>S.B.Padal, <sup>2</sup>P. Chandrasekhar & <sup>3</sup>Y. Vijakumar

1. Department of Botany, Mrs. A.V.N. College, Visakhapatnam-530001, Andhra Pradesh, India.
2. 3. Department of Botany, Govt. Degree V. S. Krishna College, Visakhapatnam, Andhra Pradesh, India.

## ABSTRACT:

An ethnomedicinal survey was carried out in Parvathipuram, Agency, Vizianagaram District, and Andhra Pradesh, India. For documentation of important plants and information from local community about their medicinal uses. The indigenous knowledge of local traditional uses was collected through questionnaire and personal interviews during field trips. The identification and nomenclature of the listed plants were based on The Flora of Andhra Pradesh. A total of 95 plants species were identified by taxonomic description and locally by ethnomedicinal knowledge of people existing in the region. Plant specimens collected, identified, preserved and mounted were deposited in the department of botany, Andhra University, Visakhapatnam for future references.

**Key Words:** Traditional uses, tribal communities, ethnomedicinal plants, salugu panchayati, paderu Mandalam, Visakhapatnam district.

## I. INTRODUCTION

The Indian sub-continent is unique in the richness of plant wealth. In India, 15,000 higher plant species occur, of which 9,000 wild plants used by the tribals, for their requirements. Out of the 7,500 wild plants used for medicinal purposes by the tribals, about 950 species found to be new claims and worthy for the scientific investigation. Many wild plants are used as edibles by the tribals. Almost all the plants are used -as cordage, pesticides, fodder, fibre and gum.

Recent investigators showed interest on investigating about medicinal plants and collection of folklore claims. Many traditional medical systems are mainly using the herbs. Many scientists of different disciplines have paid good attention in screening the medicinal plants used in different traditional systems. So the scientists have succeeded in exploring good number of healing agents.

Rao (1958) made observations on the vegetation of the Rampa and Gudem agency tracts of Eastern Ghats. Pal and Banerjee (1971) reported less-known plant foods among the tribals of Andhra Pradesh and Orissa. Nisteswar and Kumar (1980) emphasized utilitarian values of medical-folklore of Rampa agency. Nisteswar and Kumar (1983) recorded folklore medicine of Addateegala agency tracts of East Godavari district. Rama Rao and Henry (1996) reported the ethnomedicinal practices of tribal communities in Srikakulam district.

An important prerequisite for proper utilization of raw materials of the country is the survey of its natural resources and the preparation of an inventory. It is necessary that we should have full knowledge regarding the occurrence, frequency, distribution and phenology of various plants for their proper utilization. The forests of Andhra Pradesh have great potentiality both from the economic and botanical points of view. The State is one of the timber and non-timber rich forests in India.

## II. STUDY AREA

Salugu Panchayat is an interior pocket of the Paderu Mandal. The altitude in this region ranges from 600 to 900 m. The panchayat consists of 24 villages and hamlets belonging to different tribal groups like the Bagata, Valmiki, Nookadoras, Kondadoras, Konda Kammaras and Khonds. The total population of the panchayat is 2,500. Apart from paddy, agriculture is primarily on dry land. Minor cereals, millets, pulses, red gram, and oilseeds like niger and castor, are the main cash crops. Shifting cultivation is widely practiced in this panchayat.

Collection of NWFPs (Non-timber wild forest products) is widespread in the villages of Salugu Panchayat. The area has rich natural forests consisting of mango, tamarind, jack, custard (*Annona squamosa*), lemon, cleaning nut or induga (*Strychnos potatorum*), karaka, kanuga, gum karaya (*Sterculia urens*), adda leaves for plate making, rosewood (*Dalbergia latifolia*) and bamboo. Tamarind is collected by men and women. On average a family earns Rs. 200 to 600 (US\$ 6 to 18) per tamarind tree. In this area, tribals collect NWFPs nine months out of the year. Women collect adda leaves and may spend 7 hours a day collecting the leaves when they are in season. These leaves are dried for 2 days, packed into 50 kg shoulder loads for men and 30 kg for women to be carried to the weekly market. A shoulder load of leaves fetches anywhere between Rs. 50 (US\$ 1.50) and Rs. 120 (US\$ 3.60) depending on the season and quality of the leaves. Each tribal household requires 20 to 25 headloads of firewood for cooking and keeping themselves warm in the winter. While women gather fallen branches and twigs, men cut trees for firewood. Cattle are taken up to 5 to 6 km into the forest for grazing. Children and women graze the cattle 20 days per month and the men take the cattle out the remaining 10 days. It is not uncommon for women and children to collect NWFPs while they are out with the cattle in the forest.

### III. MATERIAL AND METHODS

The field work in the Parvathipuram hill range of Visakhapatnam District was carried out during 2012-2013. The tribes namely, Sugali, Yerukala, Yanadi are living in the study area comprises 3.2 % of district population. There were 50 informants between the ages of 40 – 60. 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, 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 Andhra University herbarium, Visakhapatnam.

**Table.1. Traditional uses of ethnomedicinal plants of Salugu Panchayati**

S.No	Scientific name	Family	Vernacular name	Habit	Plant parts	Disease
1.	<i>Abelmoschus moschatus</i> Medik.	Malvaceae	Adavibenda	Herb	Seed	Fever
2.	<i>Abrus precatorius</i> Linn.	Fabaceae	Guriginja,	Straggler	Seed	Contraceptive
3.	<i>Acacia mangia</i> Willd	Mimosaceae	Acash	Tree	Stem bark	Paralysis
4.	<i>Acacia nilotica</i> (Linn.) Willd.	Mimosaceae	Nalla thumma	Tree	Stem bark	Diarrhoea
5.	<i>Acalypha indica</i> Linn.	Euphorbiaceae	Kuppinta	Herb	Leaf	Skin disease
6.	<i>Acanthospermum hispidum</i> DC.	Asteraceae	Pothoro konta	Herb	Leaves	wounds
7.	<i>Achyranthes aspera</i> Linn.	Amaranthaceae	Uthareni	Herb	Root	Jaundice
8.	<i>Acorus calamus</i> Linn.	Araceae	Vasa	Herb	Rhizome	Cough
9.	<i>Actinopteris radiata</i> (Swartz) Link.	Actinopteridaceae	Mayurasikha	Herb	Root	Snake bite
10.	<i>Adhatoda zeylanica</i> Medik.	Acanthaceae	Addasaram	Shrub	Leaf	Cough
11.	<i>Adiantum philippense</i> Linn.	Adiantaceae	Challi	Herb	Root	Cough
12.	<i>Aegle marmelos</i> (Linn.) Correa	Rutaceae	Maredu	Tree	Fruit	Dysentery
13.	<i>Ageratum conyzoides</i> Linn.	Asteraceae	Pumpullu	Herb	Leaves	Itching
14.	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Pedda manu	Tree	Stem bark	Cough
15.	<i>Alpinia galanga</i> (Linn.) Willd.	Zingiberaceae	Dumpa rashtramu	Herb	Tuber	Rheumatism
16.	<i>Basella rubra</i> Linn.	Basellaceae	Bacchali koora	Herb	Leaves	Piles
17.	<i>Bauhinia purpurea</i> Linn.	Caesalpiniaceae	Goddu koora	Tree	Bark	Leucorrhoea
18.	<i>Bauhinia vahlii</i> Wight & Arn.	Caesalpiniaceae	Adda chettu	Lian	Bark	Dysentery

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19.	<i>Benincasa hispida</i> (Thunb.) Cogn.	Cucurbitaceae	Budida gummadi	Creeper	Fruit	Stomachache
20.	<i>Bidens pilosa</i> Linn.	Asteraceae	Rekkala raju	Herb	Leaves	Whitlow
21.	<i>Bixa orellana</i> Linn.	Bixaceae	Jaffra	Tree	Root	Fever
22.	<i>Boerhavia diffusa</i> Linn.	Nyctaginaceae	Atuka mamidi	Herb	Root	Jaundice
23.	<i>Bombax ceiba</i> Linn.	Bombacaceae	Buruga	Tree	Root	Fertility
24.	<i>Boswellia serrata</i> Roxb. ex Colebr.	Burseraceae	Induga,	Tree	Bark	Diarrhoea
25.	<i>Bridelia montana</i> (Roxb.) Willd.	Euphorbiaceae	Sankumanu	Tree	Bark	Jaundice
26.	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Moduga	Tree	Bark	Wounds
27.	<i>Caladium bicolor</i> Vent.	Araceae	Rudra chama	Herb	Tuber	Snake bite
28.	<i>Calycopteris floribunda</i> Lam.	Combretaceae	Adavijama	Shrub	Bark	Wounds
29.	<i>Canna indica</i> Linn.	Cannaceae	Metta thamara	Herb	Tuber	Ringworm
30.	<i>Canna edulis</i> Linn.	Cannaceae	Metta thamara	Herb	Tuber	Throat pain
31.	<i>Carica papaya</i> Linn.	Caricaceae	Boppayi	Tree	Fruit	Galactogauge
32.	<i>Cascabela thevetia</i> (Linn.) Lipp.	Apocynaceae	Paccha ganneru	Tree	Leaves	Skin disease
33.	<i>Cassia alata</i> Linn.	Caesalpiniaceae	Seema avisa	Shrub	Leaves	Eczema
34.	<i>Cassia auriculata</i> Linn.	Caesalpiniaceae	Thanthem	shrub	Leaves	Dysentery
35.	<i>Cassia fistula</i> Linn.	Caesalpiniaceae	Rela	Tree	Fruit	Jaundice
36.	<i>Ceiba pentandra</i> (Linn.) Gaertn.	Bombacaceae	Tella buruga	Tree	Bark	Skin disease
37.	<i>Celosia argentea</i> Linn. var. <i>plumose</i>	Amaranthaceae	Errakodijuttu	Herb	Leaves	Ulcers
38.	<i>Cipadessa baccifera</i> (Roth) Miq.	Meliaceae	Phaladonda	Shrub	leaves	Chikenpox
39.	<i>Cissampelos pareira</i> Linn.	Menispermaceae	Chiru boddhi	Climber	Root	Stomachache
40.	<i>Cissus quadrangularis</i> Linn.	Vitaceae	Nalleru	Climber	Stem	Paralysis
41.	<i>Coldenia procumbens</i> Linn.	Boraginaceae	Hamsa paadu	Herb	Leaves	Rheumatism
42.	<i>Corchorus olitorius</i> Linn.	Tiliaceae	Kranthi	Herb	Seed	Ear pain
43.	<i>Cordia dichotoma</i> Forst. f.	Boraginaceae	Banka nakkeri	Tree	Leaves	Jaundice
44.	<i>Costus speciosus</i> (Koen.) Sm.	Zingiberaceae	Bokacchika	Herb	Rhizome	Galactogogue
45.	<i>Crotalaria laburnifolia</i> Linn.	Fabaceae	Pedda giligicha	Shrub	Root	Snake bite
46.	<i>Crotalaria pallida</i> Dryd.	Fabaceae	Kandiri	Shrub	Seeds	Narcotics
47.	<i>Curculigo orchioides</i> Gaertn.	Hypoxidaceae	Nela tadi	Herb	Root	Headache
48.	<i>Curcuma aromatica</i> Sal.	Zingiberaceae	Kasthuri	Herb	Rhizome	Skin disease
49.	<i>Curcuma angustifolia</i> Roxb.	Zingiberaceae	Batripala	Herb	Rhizome	Galactogogue
50.	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	Bangarutheeg	Herb	Plant	Piles
51.	<i>Datura innoxia</i> Mill.	Solanaceae	ummetha	Shrub	Leaf	Itching
52.	<i>Desmodium gangeticum</i> (Linn.) DC.	Fabaceae	Bhumi ippa	Shrub	Root	Rheumatism
53.	<i>Desmodium pulchellum</i> (Linn.) Benth.	Fabaceae	Kondaanteeth	Shrub	Leaves	Wounds
54.	<i>Diplocyclos palmatus</i> (Linn.) Jeffrey	Cucurbitaceae	Linga donda	Climber	Root	Tooth decay
55.	<i>Dillenia indica</i> Linn.	Dilleniaceae	Revadachettu	Tree	Bark	Stomachache

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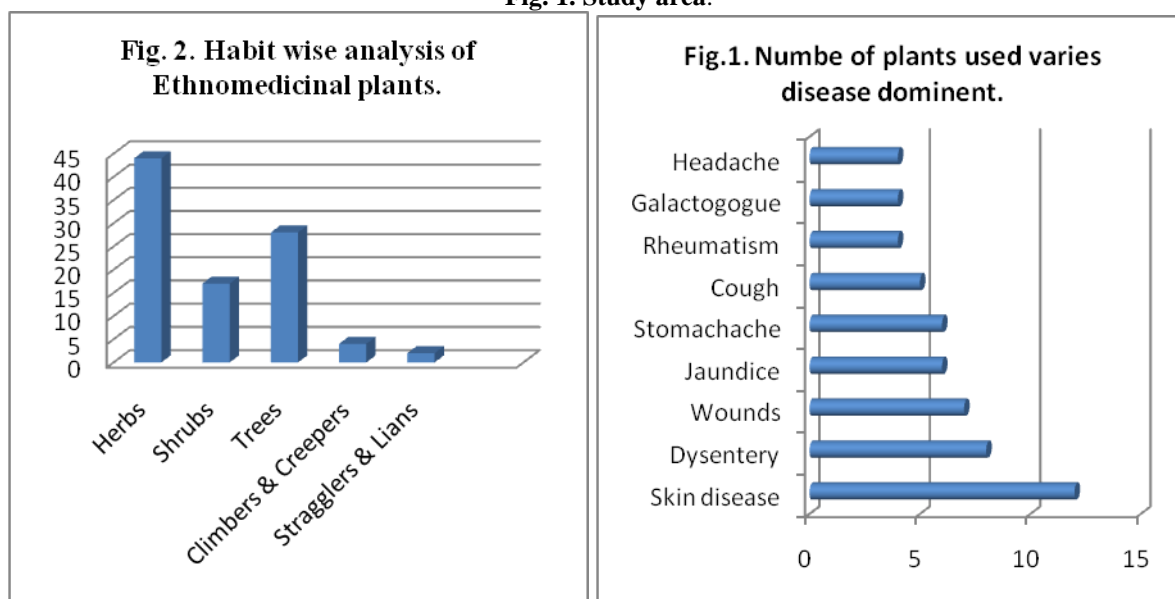
56.	<i>Dysophylla quadrifolia</i> Benth.	Lamiaceae	Rati thulasi	Herb	Leaves	Chickenpox
57.	<i>Elephantopus scaber</i> Linn.	Asteraceae	Eddu adugu	Herb	Root	Tooth decay
58.	<i>Elytraria acaulis</i> (Linn.f.) Lindau	Acanthaceae	Adavi diddica	Herb	Leaves	Ringworm
59.	<i>Emilia sonchifolia</i> (L.) DC.	Asteraceae	Garbapod	Herb	Tuber	Fits
60.	<i>Eryngium foetidum</i> Linn.	Apiaceae	Keralakothimere	Herb	Root	Stomachache
61.	<i>Erythrina variegata</i> Linn.	Fabaceae	Badita	Tree	Bark	Backache
62.	<i>Euphorbia hirta</i> Linn.	Euphorbiaceae	Bottu mokka	Herb	Plant	Wounds
63.	<i>Euphorbia ligularia</i> Roxb.	Euphorbiaceae	Chettu jamudu	Tree	Latex	Backache
64.	<i>Euphorbia nivulia</i> Buch.-Ham.	Euphorbiaceae	Akujamudu	Tree	Latex	Cuts
65.	<i>Euphorbia tirucalli</i> Linn.	Euphorbiaceae	Kada jamudu	shrub	Latex	Galactogauge
66.	<i>Evolvulus alsinoides</i> Linn.	Convolvulaceae	Neelam puvvu	Herb	Plant	Asthma
67.	<i>Ficus benghalensis</i> Linn.	Moraceae	Marri	Tree	Leaf	Skin allergy
68.	<i>Ficus hispida</i> Linn. f.	Moraceae	Boddamarri	Tree	Leaf	Ringworm
69.	<i>Ficus microcarpa</i> Linn.f.	Moraceae	Juvvi	Tree	Bark	Dysentery
70.	<i>Gloriosa superba</i> Linn.	Liliaceae	Nabhi	Herb	Tuber	Backache
71.	<i>Glycosmis pentaphylla</i> (Retz.) DC.	Rutaceae	Konda gilugu	Tree	Leaf	Wounds
72.	<i>Glycyrrhiza glabra</i> (Retz.) DC.	Fabaceae	Athimadhuram	Shrub	Root	Cough
73.	<i>Gmelina arborea</i> Roxb.	Verbenaceae	Gummadu	Tree	Leaf	Headache
74.	<i>Helicteres isora</i> Linn.	Sterculiaceae	Nulidhada	Shrub	Fruit	Dysentery
75.	<i>Heliotropium indicum</i> Linn	Boraginaceae	Naga danti	Herb	Leaves	Dog bite
76.	<i>Hibiscus vitifolius</i> Linn.	Malvaceae	Kondapathi	Shrub	Root	Tumour
77.	<i>Hoya pendula</i> R. Br.	Asclepiadaceae	Pala thiga	Shrub	Root	Jaundice
78.	<i>Indigofera tinctoria</i> Ali	Fabaceae	Chala pachi	Herb	Leaves	Asthma
79.	<i>Jatropha curcas</i> Linn.	Euphorbiaceae	Dola chettu	Shrub	Latex	Wounds
80.	<i>Justicia glauca</i> Rottl.	Acanthaceae	kommu kura	Herb	Leaf	Backache
81.	<i>Lawsonia inermis</i> Linn.	Lythraceae	Gorintaku	Shrub	Leaf	Headache
82.	<i>Leonotis nepetifolia</i> (Linn.) R. Br.	Lamiaceae	Pedha ranaberi	Herb	Flowers	Cuts
83.	<i>Leucas cephalotes</i> (Roth) Spreng.	Lamiaceae	Tummi koora	Herb	Leaves	Headache
84.	<i>Limonia acidissima</i> Linn.	Rutaceae	Velaga	Tree	Fruit	Dysentery
85.	<i>Madhuca indica</i> Gmel.	Sapotaceae	Ippa	Tree	Bark	Dog bite
86.	<i>Marsilea quadrifolia</i> Linn.	Marsileaceae	Chenchalam koora	Herb	Leaves	Skin disease
87.	<i>Martynia annua</i> Linn.	Martyniaceae	Telukondi	Herb	Fruit	Scorpion sting
88.	<i>Mucuna pruriens</i> (Linn.) DC.	Fabaceae	Dula dama	Herb	Fruit	Dysentery
89.	<i>Musa paradisiaca</i> Linn.	Musaceae	Arati	Herb	Tuber	Dysentery
90.	<i>Strychnos potatorum</i> Linn. f.	Loganiaceae	Induga	Tree	Root	Skin disease
91.	<i>Tephrosia procumbens</i> Buch.-Ham.	Fabaceae	Vempali	Herb	Root	Stomachache
92.	<i>Thalictrum foliolosum</i> DC.	Ranunculaceae	Piyaranga	Herb	Root	Rheumatism

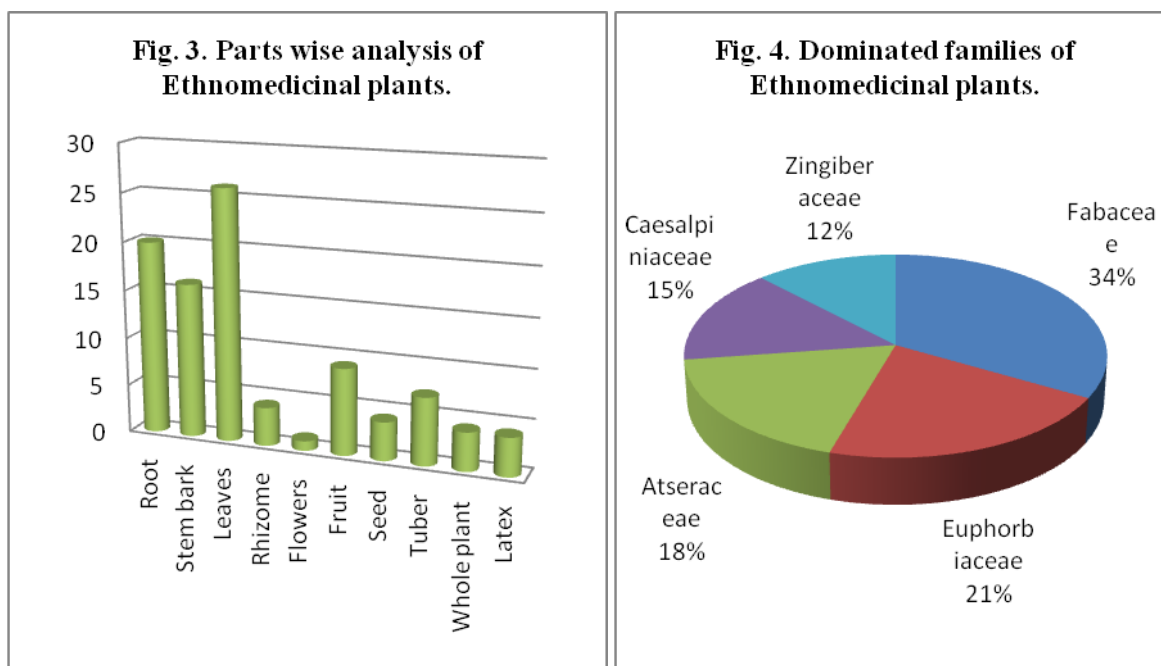
93.	<i>Urena lobata</i> Linn	Malvaceae	Puliadugu	Herb	Root	Stomachache
94.	<i>Vernonia cinerea</i> (Linn.) Less.	Asteraceae	Sahadevi	Herb	Plant	Fever
95.	<i>Zizyphus mauritiana</i> Lam.	Rhamnaceae	Regu	Tree	Fruit	Cold

#### IV. RESULT AND DISCUSSION

The results of the present survey are presented in Table 1. A total of 95 plant species (belonging to 82 genera and 50 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 Fabaceae (11 species), Euphorbiaceae (7 species), Asteraceae (6 species), Caesalpiniaceae (5 species), Zingiberaceae (4 species), Malvaceae, Acanthaceae, Rutaceae, Boraginaceae, Moraceae and Lamiaceae (3 species), Cannaceae, Mimosaceae, Amaranthaceae, Cucurbitaceae, and Bombacaceae, (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, etc. The 95 medicinal plants were reported to be used in curing 32 diseases, of which 12 species each for used in the treatment of Skin diseases, eight each for treating dysentery, seven each in treating wounds, six for each in treating jaundice and stomachache, 5 species treating in cough, four for used in treating rheumatism, Galactogauge, and headache etc. Information on plant species regarding botanical name, local name, family and medicinal uses are presented. The 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 Salugu Panchayati hill range of Visakhapatnam 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.

Fig. 1. Study area.





## V. CONCLUSIONS

The popular use of herbal remedies among the tribal people in Parvathipuram hill range of Visakhapatnam 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.

## VI. ACKNOWLEDGEMENT

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