

# Some Ethno Medicinal Plants Of Parnasala Sacred Grove Area Eastern Ghats Of Khammam District, Telangana, India

D.Srinivasa Rao\*, V.Shanmukha Rao, P.Prayaga Murthy, G.M.Narasimha Rao, and Y.Venkateswara Rao.

*Department of Botany, Andhra University, Visakhapatnam, Andhra Pradesh, India*

## Abstract

Sacred groves are small patches of native vegetation traditionally been protected on the grounds of religious faith, these are dedicated to deities or ancestral spirits worshiped by local tribes along with surrounding plants and trees. Parnasala is a significant mythological sightseeing destination of Bhadrachalam. It is also one of the popular villages of Andhra Pradesh known for its ancient tales and beliefs. This village is famous as the place where Lord Rama Stayed with his wife and Brother during his 14 years exile. Parnasala sacred grove is one of the important sacred grove of Khammam district. Parnasala spreads between Latitude 17° 93' 33'' N Longitude 80° 90' 00'' at about 183 feet's above sea level. The approximate area is nearly 100 acres, the sacred grove is having hilly terrain with imageaus ,ridges ,gorges and deep Valleys which support dry deciduous scrub forest with an under growth of grasses along with dry thorny and dry evergreen forests surround the fringe. In this area the main medicinal plants like *Aegle marmelos*, *Andrographis paniculata*, *Terminalia arjuna*, *Azadirichta indica*, *Terminalia bellerica*, *Ficus benghalensis*, *Cocculus hirsutus*, *Aerva lanata*, *Anogeissus acuminata* and *Anogeissus latifolia* etc are present in the particular sacredgrove area. They are the treasure house of rare and endangered species of animals and abode of many medicinal, endemic, endangered and economically important plants. Sacred groves are valuable gene pools and the first major efforts of the society to recognize and conserve biodiversity. They harbor many rare, endangered, endemic plants and animals and have been preserving many rare and endemic wild plant species, which potentially benefit mankind in medicine, agriculture and industry as a sources of natural products for drugs, food, fuel, fibre etc. The sacred grove with plant species diversity should be preserved and conserved as a mini spot of biodiversity. Hence exploration and conservation of medicinal plants diversity of these groves is therefore most important for the management and sustainable development in these fragile ecological and life support systems.

**Keywords:** Sacred groove, medicinal plants , Parnasala area, Khammam district.

## INTRODUCTION

Sacred groves are one of the finest examples of the traditional in situ conservation practices .which dates much prior to the modern concept of wild life reserves. Although sacred groves are important ecological centers to study the potential vegetation, they are less studied and least understood by the scientific community. Sacred grove represents the major efforts to recognize and conserve biodiversity traditionally. Sacred groves otherwise Sindhavana or Pavitravana are religiously protected forests and there is awide spread practice of not felling for fear of incurring the wrath of the presiding deties. They provide a country wide network of protected areas wherein inherent, diversity of flora and fauna is preserved for the best proposition for studying endemism. Sacred groves are relics from prehistoric time onwards. Conservation and natural resources in may taboos, rituals and other religions practices and sacred groves was such a traditional socio-cultural mechanism aiming at nature conservation that integrated socio cultural aspects for conservation. These are patches of natural near-climax pristine vegetation of trees and associate groups of organisms , managed as a part of local cultural tradition. These are the store houses of genplasm of wild yams, pepper, mango and a variety of Ayurvedic as well as folk medicinal plants Bhandari[1]. Sacred groves are important because about 60% of the regenerating species in them are medicinallay important and nearly 40% medicinal plants are unique to them [2]. Even though considerable study focusing on the

Ethnobotanical studies in Andhra Pradesh have been conducted by Several Authors like [3, 4, 5, 6,7 ,8 ,9 and 10] but the utilization of medicinal plants as asource of medicine amongst the tribal region of Parnasala sacred grove area has remained considerably neglected inthis part of the state.

### Study Area:

Parnasala is situated in the Dummugudem mandal in the Khammam District. The village is accessible by Road and Boats and is situated 32 km from the temple town of Badhrachalam.The Parnasala sacred grove area is located at 17<sup>0</sup> 93' 33'' N Latitudes and 80<sup>0</sup> 90' 00'' E longitudes an average elevation of this grove is 55 Meters ( 186 fts). According to legend it is said the Lord Sri Rama spent some of the 14 years of exile at this location. The locals believe that Sita the beloved consort of Lord Sri Rama bathed in the stream here and dried her clothes on Radhagutta, where the imprints are seen even today. When Lord Rama, Sita and Lakshmana went for their Vanvasa they stayed in this place called Panchavathi in the forest.. The local people believe that "SitaVaagu" a place nere by is the same location where Sita used to take bath, collect the kumkum and other necessities from the forest.

## MATERIAL AND METHODS

The extensive field studies carried out from August 2014 to December 2014 throughout the famous sacred grove area of Parnasala. The information on Ethnomedicinal uses, Habit, Vernacular names and mode of preparation is

collected from tribal doctors, elders and housewives in Sacred grove area. Tribal houses, fields, place of worships, gardens, and weekly markets are also visited. While carrying out the field work, help was taken from the traditional healers in the ethnomedicinal information, as they are familiar with the plants around them. Enquiries were made on type of plants they use and their usage in their daily life of tribal doctors, elders and housewives. The Ethnomedicinal plants were collected and identified with the help of regional floras like flora Flora of Andhra Pradesh[11] and Medicinal Plants of Andhra Pradesh[12]. The voucher specimens of all the plant taxa recorded with medicinal value were collected in quadruplicate samples and made into herbarium for following standard methodology.

**RESULTS AND DISCUSSION**

The medicinal information is tabulated like the plant scientific name, vernacular name family name, habit, mode of administration, and uses of the plant based drugs (Table.01). A Total number of medicinal plant species collected in our study from Parnasala Sacred grove is 85 species of 84 genera belonging to 42 families. Asteraceae family occupy in first place with 7 species, followed by Fabaceae 6 species, Asclepiadaceae 5 Species, Apocynaceae and Rubiaceae 4 Species, Euphorbiaceae, Combretaceae Malvaceae Rutaceae, Menispermaceae and Sterculiaceae having 3 species, Amaranthaceae, Caesalpiniaceae are 2 species, the remaining families are with only one species. Fig-2 The study revealed that the vidhyas of ethnic groups used 85 medicinal plant species to cure 70 types of diseases. According to the habit of plants herbs (33), Shrubs (15), Trees (20), and Climbers (17), where using to prepare medicine (Fig.3). Different parts of the medicinal plants are being used by the vidhyas among them Roots (31%) were used for the preparation of medicines predominantly followed by Leaves (27%), Stem bark (17%), Whole Plant(13%), Seeds (4%), Tubers and Fruits (3%) were mentioned in Fig-1. The most prevalent methods of drug preparation are Juice, Decoction Powder Paste. The majority of the remedies were prepared from freshly collected plant materials from the wild and mostly from a single species or sometimes they mixed with other plant materials. The study indicated that this area has plenty of medicinal plants to treat a wide spectrum of human ailments.

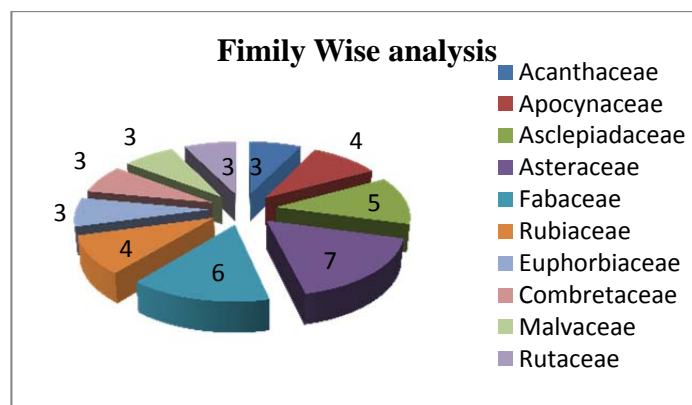


Fig-2: Family Wise Ethno medicinal Analysis

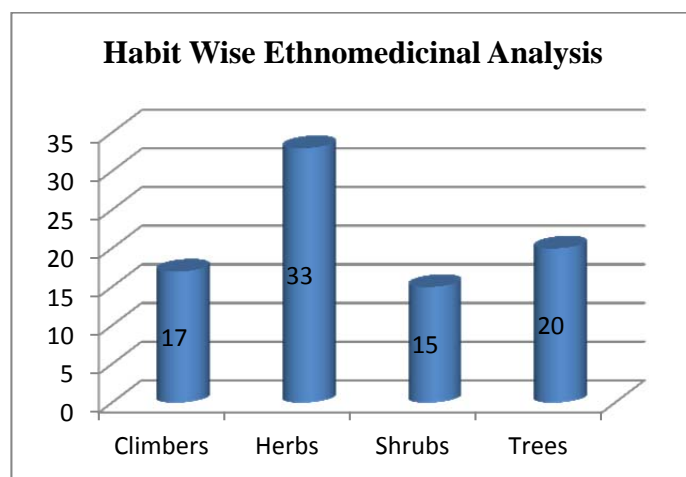


Fig-3: Habit Wise Ethno medicinal Analysis

**Some Ethnomedicinal Plants of Sacred grove area**



Fig-1 *Abrus precatorius*



Fig-2: *Aegle marmelos*

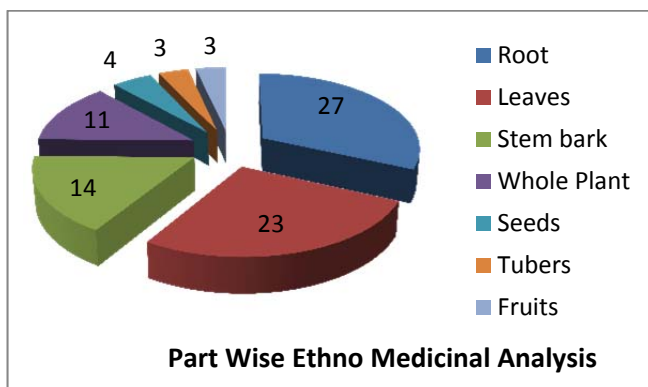


Fig-1: Part Wise Ethno medicinal Analysis



Fig-3: Cassia fistula



Fig-5 Madhuca longifolia



Fig-4 Centella asiatica



Fig-6 :Holarrhena antidysenterica

Table-1 Ethno medicinal Plants of Parnasala Sacred Grove area:

S.No	Botanical Name	Habit	Family	Vernacular Name	Medicinal Uses
1	<i>Abrus precatorius</i>	Herb	Fabaceae	Guruvinda	<b>Dysentery:</b> A spoonful of root paste with half spoon of honey is administered twice a day for 2 days.
2	<i>Abutilon indicum</i>	Herb	Malvaceae	Duvvenakaya	The <b>Bronchitis and Piles</b> :A decoction of the roots is given for chest conditions such as bronchitis. Seed paste and paste of leaves are applied locally to cure piles.
3	<i>Achyranthus aspera</i>	Herb	Amaranthaceae	Uttareni	<b>Jaundice:</b> Tender leaves along with the tender leaves of <i>Careya arborea</i> , <i>Mimosa pudica</i> and <i>Zizyphus mauritiana</i> are crushed to paste and the paste along with cow milk is administered for 7 days.
4	<i>Aegle marmelos</i>	Tree	Rutaceae	Maredu	<b>Cholera:</b> Stem bark grinds with <i>Piper nigrum</i> and filter the extract. 2spoonfuls of the extract is taken thrice a day for 3days.
5	<i>Aerva lanata</i>	Herb	Amaranthaceae	Kondapindikura	<b>Kidney Stones:</b> 10 ml of whole plant juice is given orally once a day for a period of 21 days to dissolve stones in kidneys.
6	<i>Ageratum conyzoides</i>	Herb	Asteraceae	Goatweed	<b>Itching:</b> Equal quantities of leaves and turmeric are ground into paste and mixed with triple the amount of coconut oil boiled and applied on the affected areas.

S.No	Botanical Name	Habit	Family	Vernacular Name	Medicinal Uses
7	<i>Albizia odoratissima</i>	Tree	Mimosaceae	Ganara	<b>Leprosy:</b> Bark is used for curing insect bites. It is also used to cure ulcers and leprosy.
8	<i>Alstonia scholaris</i>	Tree	Apocynaceae	Aduakulapala	<b>Rheumatoid Arthritis:</b> Leaf juice or decoction or powder of 2 spoons is administered orally once in a day till cure.
9	<i>Andrographis paniculata</i>	Herb	Acanthaceae	Karuvepa	<b>Diabetes:</b> Leaves powdered with leaves of <i>Syzigium jambolanum</i> , <i>Zizyphus rugosa</i> , <i>Aegle marmelos</i> , <i>Gymnema sylvestre</i> and tubers of <i>Corollocarpus epigaeus</i> (2:1 ratio) given with hot water for 20 days.
10	<i>Anisomelos malabarica</i>	Herb	Lamiaceae	Magabeera	<b>Eczeema:</b> The leaf juice is used as teether for the children. The leaf juice about 5ml twice daily is given to the children during teeth formation to counter the pain. A paste of the leaves is applied to cure eczeema.
11	<i>Argemone mexicana</i>	Herb	Pepavaceae	Brahmadandi	<b>Malaria:</b> Roots are ground with seeds and leaves and the extract two spoonfuls is given once a day for 4 days.
12	<i>Aristolochia indica</i>	Herb	Aristolochiaceae	Eswari	<b>Snake Bite:</b> Roots are ground with dried ginger <i>Zingiber officinale</i> the paste is applied on the bitten part.
13	<i>Atalantia monophylla</i>	Tree	Rutaceae	Adavinimma	<b>Rheumatism and Paralysis:</b> Seed oil is used for rheumatism and paralysis.
14	<i>Azadirachta indica</i>	Tree	Meliaceae	Vepa	<b>Constipation:</b> Leaves with roots of <i>Operculina turpethum</i> , seeds of <i>Piper nigrum</i> and <i>Ricinus communis</i> are taken in equal quantities and ground. 2 spoonfuls of paste mixed in a glass of hot water is administered daily twice for 3days.
15	<i>Azima tetracantha</i>	Shrub	Salvadoriaceae	Uppukampa	<b>Asthma:</b> Roots ground to paste along with the roots of <i>Abrus precatorius</i> and <i>Piper nigrum</i> and administered orally till cure.
16	<i>Bacopa monnieri</i>	Herb	Scrophulariaceae	Jalabrahmi	<b>The p Asthma and Epilepsy:</b> The Plant is astringent, bitter and cooling and is reported to improve the intelligence. It is used in the indigenous systems of medicine for the treatment of asthma, insanity, epilepsy .
17	<i>Bauhinia purpurea</i>	Tree	Fabaceae	Devakanchanam	<b>Rheumatoid arthritis:</b> Dried root powder with water in the ratio of 2:3 is administered till cure.
18	<i>Boerhaavia diffusa</i>	Herb	Nyctaginaceae	Atikamamidi	<b>Leucorrhoea:</b> 15 ml of decoction of plant is taken orally once a day for 3days.
29	<i>Butea monosperma</i>	Tree	Fabaceae	chettu moduga	<b>Antifertility:</b> Stem bark extracts with <i>Sesamum indicum</i> oil one spoonful twice a day is given from 4 <sup>th</sup> day of menstruation to 11 <sup>th</sup> day.
20	<i>Calotropis gigantea</i>	Shrub	Asclepiadaceae	Jilledu	<b>Epilepsy:</b> Roots crushed with the fruits of <i>Terminalia chebula</i> and the filtrate mildly heated and administered one spoonful once a day for 30 days.
21	<i>Calycopteris floribunda</i>	Climber	Combretaceae	Bandimurugudu	<b>Wounds and Boils:</b> Stem Bark paste is applied on the affected areas twice a day till cure .
22	<i>Cardiospermum helicacabum</i>	Climber	Sapindaceae	Buddakakara	<b>Leucorrhoea:</b> 5 ml of root extract is taken once a day for 15 days.
23	<i>Cassia fistula</i>	Tree	Caesalpiniaceae	Rella	<b>Conjunctivitis:</b> Stem bark with those of <i>Piper nigrum</i> and leaves of <i>Ocimum tenuiflorum</i> pound to paste and applied to the eyes of cattle.
24	<i>Cassia occidentalis</i>	Shrub	Caesalpiniaceae	Kasintha	<b>Jaundice:</b> Ten spoonfuls of leaf juice mixed with buttermilk is given thrice a day for 7 days.

S.No	Botanical Name	Habit	Family	Vernacular Name	Medicinal Uses
25	<i>Cassytha filiformis</i>	Climber	Lauraceae	Pachiteega	<b>Muscle pains:</b> The stem paste is mildly heated and gently massaged over the affected areas till cure.
26	<i>Centella asiatica</i>	Herb	Apiaceae	Saraswathi aku	<b>Memory:</b> Plant soaked in milk for 2 days ays then the leaves are taken out, dried and pound to powder. A pinch of this powder is administered daily for 1-2 months to improve memory.
27	<i>Cipadessa baccifera</i>	Shrub	Meliaceae	Ranaberi	<b>Chickenpox:</b> Leaves are ground with turmeric. Paste is applied on the affected areas.
28	<i>Cissampelos pareira</i>	Climber	Menispermaceae	Vishaboddi	<b>Chest Pain:</b> The extract mixed with a pinch of salt and administered in doses of two spoonfuls thrice a day till cure.
29	<i>Cleome viscosa</i>	Herb	Cleomeaceae	Kukkavaminti	<b>Paralysis:</b> 3 to 5 drops of leaf juice is installed in to the ear opposite to the paralytic part.
30	<i>Cocculus hirsutus</i>	Climber	Menispermaceae	Dusariteega	<b>Rheumatoid Arthritis:</b> 12 g o f roots crushed with 2 long pepper seeds are mixed in a cup of goat milk and the extract is taken daily once for a fortnight.
31	<i>Coldenia procumbens</i>	Herb	Boraginaceae	Hamsapadu	<b>Psoriasis:</b> The leaves of <i>Coldenia procumbens</i> along with whole plant of <i>Argemone mexicana</i> and rhizome of <i>Curcuma longa</i> in equal proportions are taken and burnt to make into ash. The resulting ash is mixed in coconut oil and made into a paste. This paste is applied continuously for about 30 days
32	<i>Combretum ovalifolium</i>	Climber	Combretaceae	Yedarateega	<b>Cattle:</b> Ropes for cattle are made
33	<i>Cordia dichotama</i>	Tree	Boraginaceae	Nakiri	<b>Mouth Freshner:</b> Bark; is a mouth freshner
34	<i>Curculigo orchoides</i>	Herb	Hypoxidaceae	Nelatadi	<b>Irregular Menstruation:</b> Tuber paste with curd is taken orally for three days. <b>Piles:</b> Two spoonfuls of tuber extract is administered twice a day till cure.
35	<i>Dalbergia paniculata</i>	Tree	Fabaceae	Pachari chettu	<b>Swellings:</b> Leaves are ground into paste; it is applied on the affected area.
36	<i>Datura metal</i>	Shrub	Solanaceae	Ummetta	<b>Asthma:</b> Root powder is mixed with honey and is given which acts as an anti-cognizant and gives quick relief.
37	<i>Derris scandens</i>	Climber	Fabaceae	Nallateega	<b>SSte S Peripheral Neuritis:</b> Stem Bark ground with bark of <i>Barringtonia acutangula</i> , <i>Casearia elliptica</i> , <i>Calotropis gigantea</i> and root of <i>Aristida funiculata</i> and this paste is made into pills. Pills are given for peripheral neuritis. Dosage: 2 pills per day for 1 week.
38	<i>Dodonea viscosa</i>	Shrub	Sapindaceae	Bandaru	<b>Le Epilepsy:</b> two drops of leaf juice put into the nostrils thrice a day for 15 days.
39	<i>Eclipta prostrata</i>	Herb	Asteraceae	Guntagalagari	<b>High Blood Pressure:</b> 5ml of plant decoction is given orally twice or thrice a day for three months. This therapy is prescribed to adult patients only. Minimum intake of spices, fat and salt is advised during treatment.
40	<i>Elytraria acaulis</i>	Herb	Acanthaceae	Edduadugu	<b>Menstrual Disorders:</b> Two spoonfuls of the leaf juice is administered twice a day for 9 days.
41	<i>Emilia sonchifolia</i>	Herb	Asteraceae	Sadamandi	<b>Galactagogue:</b> One spoon of stem paste is taken with water daily once for 5 days .
42	<i>Erythroxylum monogynum</i>	Shrub	Erythroxylaceae	Devadaru	<b>Dewarming:</b> The bark is used for dewarmig for children
43	<i>Eucalyptus globulus labelli</i>	Tree	Myrtaceae	Neredu	<b>Antiseptic:</b> Oil is obtained from leaves by steam distillation, is used locally for upper respiratory tract.
44	<i>Euphorbia hirta</i>	Herb	Euphorbiaceae	Pachabotlu	<b>Rheumatism:</b> Leaves are warmed and bandaged over the affected part by applying castor oil till cure.

S.No	Botanical Name	Habit	Family	Vernacular Name	Medicinal Uses
45	<i>Ficus benghalensis</i>	Tree	Moraceae	Marri	<b>Leucorrhoea:</b> Tender root used to treat leucorrhoea. <b>Rheumatism:</b> Milky juice of the bark is applied on the affected parts till cure
46	<i>Gloriosa superba</i>	Climber	Liliaceae	Diwali Gaddalu	<b>Asthma:</b> Leaf paste is heated and applied on the forehead and neck for 7 days. <b>Rheumatism:</b> Rootstock is crushed and boiled in sesamum oil for an hour. The oil is strained and applied on joints for about a month to get rid of the pain.
47	<i>Glycosmis pentaphylla</i>	Shrub	Rutaceae	Gonji	<b>Conjunctivitis:</b> Raw fruits are taken orally for 3days. <b>Peripheral Neuritis:</b> Root pounded with 21 long peppers along with water, 2 spoonfuls of the paste is administered per day for a period of 3days.
48	<i>Gymnema sylvestre</i>	Climber	Asclepiadaceae	Podapatri	<b>Diabetes:</b> Leaves powdered along with leaves of <i>Aegle marmelos</i> , <i>Andrographis paniculata</i> , <i>Syzygium cumini</i> , <i>Zizyphus rugosa</i> and the tubers of <i>Caralloccarpus Epigaeus</i> in 2:1 ratio. 1 spoonful of powder along with hot water is given twice a day for 1 week.
49	<i>Helicteres isora</i>	Shrub	Sterculiaceae	Melikaya	<b>Dysentery:</b> Fruits with that of seeds of <i>Trachyspermum roxburghinum</i> is made into decoction, 5ml of this decoction is administered twice a day for 3days. <b>Scorpion Sting:</b> Root decoction is given orally immediately after the snake bite.
50	<i>Hemidesmus indicus</i>	Climber	Asclepiadaceae	Sugandhapala	<b>Menstrual Disorders:</b> Roots crushed with <i>Allium sativum</i> , 2 spoonfuls of the extract is administered twice a day for 5 days. <b>Snake bite:</b> Root ground with <i>Allium sativum</i> and the paste applied immediately after snakebite.
51	<i>Holarrhena antidysenterica</i>	Shrub	Apocynaceae	Peddapala	<b>Asthma:</b> One teaspoonful of bark powder is given orally till cure. <b>Dysentery:</b> Roots pound to paste along with the roots of <i>Jatropha curcas</i> ad <i>Hemidesmus indicus</i> , 2 spoonfuls of the paste is administered twice a day for 3days.
52	<i>Holoptelia integrifolia</i>	Tree	Ulmaceae	Nemalichettu	<b>Abortion:</b> Root bark crushed with the roots of <i>Plumbago zeylanica</i> in 1:1 ratio, 3 spoonfuls of the extract given orally thrice a day for 5 days.
53	<i>Hybanthus enneaspermus</i>	Herb	Violaceae	Ratnapurusha	<b>Impotency:</b> 3 spoonfuls of whole plant extract is mixed with goats milk and administered once a day for 30 days.
54	<i>Hyptage benghalensis</i>	Climber	Malphigiaceae	Madhaviteega	<b>Scabies:</b> Leaves used in cutaneous diseases. Leaf juice insecticidal used for scabies.
55	<i>Ichnocarpus fruticens</i>	Climber	Apocynaceae	Palateega	<b>Epilepsy:</b> 2 spoonfuls of the root filtrate with <i>curcuma longa</i> is administered twice a day till cure.
56	<i>Ixora pavetta</i>	Shrub	Rubiaceae	Papidi, Korivi	<b>Muscle pain:</b> Root or stem bark crushed with garlic cloves, 3 spoonfuls filtrate is given twice a day for 5 days. <b>Skin Disease:</b> Leaf paste is applied on the affected parts.
57	<i>Justicia adathoda</i>	Shrub	Acanthaceae	Addasaram	<b>Cough:</b> One teaspoonful of the leaf extract is taken orally for 7 days. <b>Diarrhoea:</b> One spoonful of the leaf extract is taken twice a day till cure.

S.No	Botanical Name	Habit	Family	Vernacular Name	Medicinal Uses
58	<i>Madhuca longifolia</i>	Tree	Sapotaceae	Vippa	<b>Dysmenorrhoea:</b> Mustard seeds and roots pound to paste and made into pea nut sized pills, 2 pills administered once a day for 10 days. <b>Lactation:</b> Root or stem bark crushed with black pepper, 3 spoonful of the
59	<i>Oldenlandia corymbosa</i>	Herb	Rubisaceae	Vermela –vemu	<b>Jaundice and Gastric Problems:</b> The fresh Plant extract is given in jaundice and other liver complaints . The decoction is given in low fever with gastric problems.
60	<i>Pavonia zeylanica</i>	Herb	Malvaceae	Chirubenda	<b>Diarrhoea:</b> Two spoons of root decoction is administered daily twice for two days.
61	<i>Phyllanthus amaras</i>	Herb	Euphorbiaceae	Nelausiri	<b>Jaundice:</b> Plant paste mixed with curd 3 spoonfuls is given orally twice a day for 7 days.
62	<i>Physalis minima</i>	Herb	Solanaceae	Budima	<b>Urinary Problems:</b> Fruits used for urinary problems Leaves used for skin diseases . Leaves used to cure jaundice .
63	<i>Premna tomentosa</i>	Tree	Verbenaceae	Narava	<b>Rheumatic pains :</b> Root bark used for Rheumatic pains
64	<i>Pueraria tuberosa</i>	Climber	Fabaceae	Adivi gummadi	<b>Peptic Ulcers:</b> Tuber extract mixed with little sugar and administered in doses of 2 spoonfuls twice a day till cure. <b>Rheumatoid Arthritis:</b> Tuber paste is applied over the affected parts till cure.
65	<i>Solanum surattense</i>	Herb	Solanaceae	Errivanga	<b>Jaundice:</b> Root bark pound with stem bark of <i>Moringa oleifera</i> . 3 g of the paste given orally once a day for 6 days.
66	<i>Spermocoe hispida</i>	Herb	Rubiaceae	Madanachettu	<b>Diarrhoea and Toothache:</b> The Seeds gave demulcent properties and are given diarrhea and.Roots are prescribed as a mouth wash to cure toothache.
67	<i>Sphaeranthus indicus</i>	Herb	Asteraceae	Bodasaram	<b>Anthelmintic:</b> Seeds are pound into powder, this powder is mixed with warm water and administered one spoonful twice a day for 3days.
68	<i>Streblus aspera</i>	Tree	Moraceae	Barinika	<b>Rheumatoid Arthritis:</b> Dried roots pounded with the dried roots of <i>Holarrhena pubescens</i> and <i>Piper longum</i> . This powder is mixed with water and boiled along with a bit of earthen pot. This extract is taken orally till cure.
69	<i>Tarenna asiatica</i>	Shrub	Rubiaceae	Kommi	<b>Dysentery:</b> Stem bark crushed with that of <i>Jatropha curcas</i> , 2 spoonfuls of the extract is administered thrice a day for 3days. <b>Emetics:</b> Stem bark crushed to paste with the stem bark of <i>Wrightia tinctoria</i> and the paste is administered in doses of 3 spoonful per day.
70	<i>Terminalia arjuna</i>	Tree	Combretaceae	Yerumaddi	<b>Asthma:</b> Bark is boiled in water and the decoction is taken orally till cure. <b>Diabetes:</b> One spoonful of stem bark decoction is administered along with a pinch of <i>Saccharum officinarum</i> twice a day for 21 days.
71	<i>Thespesia lampas</i>	Tree	Malvaceae	Ganga ravi	<b>R Typhiod:</b> Rootjuice is administered orally for Typhoid. Dosage: 3 Spoonfuls thrice a day for a week. Seed powder with bark juice of <i>Schleichera oleosa</i> is administered orally to cure tuberculosis. Dosage: 1 Spoonful twice a day with hot water.
72	<i>Tinospora cordifolia</i>	Climber	Menispermaceae	Tippateega	<b>Stomach Ulcers:</b> 3 spoonfuls of tuber extract is given orally twice a day till cure. <b>Tonic:</b> Stem decoction used as tonic for resistance to various diseases like spine flue.
73	<i>Tragia involucrata</i>	Shrub	Euphorbiaceae	Dulagondi	The <b>Fever and Colds:</b> The roots are used for fever, cold and also used for pains in the legs and arms. The fruits are rubbed over the head with water to cure baldness.

S.No	Botanical Name	Habit	Family	Vernacular Name	Medicinal Uses
74	<i>Trianthema portulacastrum</i>	Herb	Aizoaceae	Nadaraku	<b>Diuretic and antidote:</b> Leaves are used for diuretic and antidote. A decoction of the herb is used as a vermifuge and is used for rheumatism
75	<i>Tribulus terrestris</i>	Herb	Zygophyllaceae	Palleru	<b>Sterility:</b> The root powder is mixed with equal quantity of sesamum seed powder and is taken with honey in doses of 1 spoonful twice a day for about 30 days.
76	<i>Trichosanthes tricuspidata</i>	Climber	Cucurbitaceae	Papara	<b>Dysmenorrhoea:</b> Tuber powder along with cow milk is administered in doses of two spoonfuls per a day for 3 days. <b>Ear ache:</b> Seeds are boiled with sesame oil and 2-3 days drops of oil is instilled into the ear.
77	<i>Tridax procumbens</i>	Herb	Asteraceae	Gaddichamanthi	<b>Cuts and Wounds:</b> Leaf paste is applied over the affected parts. <b>Jaundice:</b> Plant paste with jaggery is administered in doses of two spoonfuls per day for 7 days.
78	<i>Tylophora indica</i>	Herb	Asclepiadaceae	Mekameyani aku	<b>Asthma:</b> One tender leaf with 3 black pepper fruits is chewed on empty stomach once a day for 30 days. <b>Dysentery:</b> Root pound to paste, two spoonfuls of the paste is administered twice a day for 3 days.
79	<i>Ventilago denticulata</i>	Climber	Rhamnaceae	Yerrateega	<b>Stomach Pains:</b> Root bark extract with jaggery ( <i>Saccharum officinarum</i> ) administered for fever and stomach pain– 1 spoonful twice a day, till cure.
80	<i>Vernonia cinerea</i>	Herb	Asteraceae	Atikamamidi	<b>Leucoderma:</b> A spoonful of seed powder mixed with 2 black pepper fruits is administered once a day for 30 days. <b>Malarial Fever:</b> A spoonful of root decoction mixed with 2 black pepper fruits is administered once a day for 6 days.
81	<i>Waltheria indica</i>	Herb	Sterculiaceae	Nallabenda	<b>Pla Wounds and Ulcers :</b> Plant powder is applied externally for drying and healing of wounds and ulcers.
82	<i>Wattakaka volubilis</i>	Climber	Asclepiadaceae	Kalisa	Snake bite: Hand ful of tender leaves are crushed and eaten to get vomiting and also act as a antidote.
83	<i>Wrightia tinctoria</i>	Tree	Apocynaceae	Ankudu	<b>Asthma:</b> Latex with jaggery is taken internally in the form of pills of the Bengal gram seed size twice a day for about 15 days. <b>Obesity:</b> Bark along with <i>Cuminum cyminum</i> and garlic is used to reduce weight
84	<i>Xanthium strumarium</i>	Shrub	Asteraceae	Marulamatangi	<b>Boils:</b> 3ml of root extract is administered once a day for 2 days ays. <b>Cancer:</b> 10ml of root extract is given orally twice a day for 45 days.
85	<i>Zizyphus xylopyrus</i>	Tree	Rhamnaceae	Gotti	<b>Dental disorder:</b> Leaf decoction is used to gargle daily twice to cure bad smell, mouth ulcers and disorders

### CONCLUSION

In the past protection and conservation of the sacred grove were closely linked with the religious beliefs and traditional culture of the indigenous tribal communities all over the world [13]. Therefore it is extremely difficult if not possible to protect sacred groves indefinitely only on the basis of religious beliefs. There is a need to revitalize the age old ethos of conservation culture of traditional societies by supplementing with scientific knowledge about the crucial role these forest patches play in conserving biodiversity and providing large number of valuable good and vital ecological services to the people

living around the sacred groves. Therefore urgent interventions are required for the conservation of these forest patches. These plants are endowed with high medicinal value which should be specially protected so that many more species of bryophytes with exceptional therapeutic properties can be brought into light. The present study will be useful for researchers in the field of Ethanobotany, Ehanomedicine, Taxonomy, and Pharmacology for further studies. The tribals and local people who reside near and around the sacred groove still depend on the mediflora to cure various ailments This recognizes the need to conserve its biological resources.



Sacred groves depict cultural, traditional, sociological, biological, economical values and are the chief method of in-situ conservation of biodiversity.

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