



**International Journal of Biology, Pharmacy  
and Allied Sciences (IJBPAS)**

*'A Bridge Between Laboratory and Reader'*

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**ETHNO SHRUBS USED BY THE *LAMBADI* TRIBES OF ETTURNAGARAM  
WILDLIFE SANCTUARY, TELANGANA STATE, SOUTH INDIA**

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**ABSTRACT**

The ethno medicinal Shrubs used by the *Lambadi* Tribes of Etturnagaram Wildlife Sanctuary Telangana, India are documented in the survey for six months from March 2016 to August 2016. Forty four species of Shrubs were found used by the tribal groups. The relevant information about the morphological useful parts and rural medicinal uses for the treatment of various diseases were gathered through the frequent interviews among the target group *Lambadi* Tribes, herbal plant collectors and local vaidyars from in and around village of the study area.

**Keywords:** *Lambadi* Tribes, Ethno Medicine, Shrubs, Wildlife sanctuary, Interviews

**INTRODUCTION**

India is thus endowed with the world's 12 richest biodiversity, cultural and traditional system in respect to medicinal plants. It has 16 agro climatic zones having 45,000 plant species of which 15,000 - 20,000 proved to have medicinal values. The

rich flora is the potential strengths of India (Ramakrishna. 2013). Indigenous herbal treatment is a part of the culture and dominant mode of therapy in most of the developing countries. These traditional phyto-remedies, with a considerable extent of

effectiveness, are socially accepted, economically viable and mostly are the only available means. Still, one-third of the modern pharmaceutical preparations have botanical origin (Prakash, *et. al.*, 2008).

Indigenous herbal treatment is a part of the culture and dominant mode of therapy in most of the developing countries. These traditional phyto- remedies, with a considerable extent of effectiveness, are socially accepted, economically viable and mostly are the only available means. Still, one-third of the modern pharmaceutical preparations have botanical origin (Raju and Mamidala, 2015) Medicinal plants have always been considered a healthy source of life for the people. Therapeutical properties of medicinal plants are very useful in healing various diseases (Laila *et.al.*, 2009). The use of plant-based medicine is as old as human history. Most cultures in the world have traditionally developed expertise on plant-based therapy. This expertise has been developed down the countries by empirical methods (Agra et al., 2008).

There are more than 8000 medicinal plants listed in different classical and modern texts on

medicinal plants. Around 960 medicinal plants are in active use in all India trade and around 2000 species are documented in Indian Systems of Medicine like Ayurveda, Unani and Siddha. Similarly, around 4000 species are used by rural communities in local health practices (Geetha *et.al.*, 2007)

India enjoys the benefits of a varied climate, from Alpine in the Himalayas to the tropical wet areas in the south and arid regions in Rajasthan. Such climatic conditions have given rise to rich and varied flora in the Indian sub-continent (Rawat and Uniyal, 2003).

Around 50 percent of all the higher flowering plant species of India are used in curing various ailments. In 1993, the Government of India estimated that between 60-80% of India's population rely on medicinal plants for health care. Rural population in India relies on herbal traditional medicines for their primary health care (Bandyopadhyay, 1993; Kohistan, 1994 and Khan, 2002). Medicinal plants are particularly important to the rural poor, who are able to harvest these

from the wild to meet their primary health care needs (Chetan, 2009). Millions of rural households use medicinal plants in a self-help mode. Over one and a half million practitioners of the Indian system of medicine use the oral and codified streams use medicinal plants in preventive and curative applications.

Regarding the survey of medicinal plants in India, a few reports by Gold Jamila (1999), Annie (2002), Selvi et al. (2004), Selvi, (2004), Subha Nanthini (2007), Shakiela (2008) and Biju (2008) Kapkoti et al. (2014) 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 shrubs used by the Lambadi Tribes of Eturnagaram Wildlife sanctuary, Telangana State.

## **MATERIALS AND METHODS**

### **Geography of the Location**

The Eturnagaram wildlife sanctuary is located in the Warangal District of Telangana State. 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 km<sup>2</sup> which is 67.6% of the total area of the district (12,847 km<sup>2</sup>). 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 chhalaka. The area under forest cover is 2,310 km<sup>2</sup>, 27% of the total geographical area of the division. The forest canopy density categories are moderately dense forest (953 km<sup>2</sup>), open forest (1015 km<sup>2</sup>), scrub (91 km<sup>2</sup>), and non-forest (244 km<sup>2</sup>). The forest division has six ranges: Bhupalapally North, Eturnagaram, Tadvai, Pasra, Mulugu, and Warangal. The study area was in Tadvai and Eturnagaram ranges which include Eturnagaram Wildlife Sanctuary (Map 1).

### **Plant collection and identification**

This data is collected during the study period from March 2016 to August 2016. 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 floras 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 Sasthri (1987) Sasidharan (2004) and J W Prakash *et al* (2006) Singhet *al.* (2014).

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 Kirthikar and Basu (1980).

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

Forty four shrub species were found in the research area. The description, medicinal use, Traditional medicinal use were reported.

Binomial: *Ageratum conysoides*

Linn.

Family: **Asteraceae**

**Plant description:** Hairy shrub. Lvs. opposite, more or less hairy on both sides. Fl. are pale and are arranged as head. Fr. achenes. **RJ & BPN 526.**

**Rural medicinal use:** Juice of leaves is used as a lotion for eyes. The juice is also used in treating fresh cuts and wounds.

**Traditional medicinal use:** The roots are useful in renal and vesical calculi

and pharyngopathy. They are commonly used for hemorrhoids, wounds and sores.

Binomial: *Anisomeles malabarica*

Linn.R.Br.

Family: **Lamiacea**

**Plant description:** Densely white woolly, gregarious aromatic shrub. Lvs. oblanceolate. Fl. purple. **RJ & BPN 533.**

**Rural medicinal use:** Juice of whole plant is taken internally to check stomach diseases.

**Traditional medicinal use:** It is useful in halitosis, epilepsy, hysteria, amentia, anorexia, dyspepsia, colic, flatulence, intestinal worms, fever, swellings and diarrhea.

Binomial: *Caesalpinia pulcherrima*

(L) Sw.

Family: **Fabaceae**

**Plant description:** It is a shrub. Lvs. Bipinnate. Fl. is borne in racemes up to 20 cm long, each flower with five yellow, orange or red petals. Fr. is a pod. **RJ & BPN 442**

**Rural medicinal use:** Leaf juice is used to cure fever.

**Traditional medicinal use:** The juice from the leaves is said to cure fever, the juice from the flower cures sores,

and the seeds cure bad cough, breathing difficulty, and chest pain. Four grams from the root is also said to induce abortion in the first trimester of pregnancy.

Binomial: *Calotropis gigantea* R.Br.

Family: **Asclepiadiaceae**

**Plant description:** A large hard much-branched milky shrub, Lvs. and fl. covered with loose soft white wool; Lvs. opposite, subsessile, ovate, cordate at base; Fl. beautiful lilac, rosy or purple tinted in ambulate lateral cymes: Fr. fleshy follicles, green, Sd. with abundant white coma. **RJ & BPN 396**

**Rural medicinal use:** Latex is applied externally on the affected part for a few days to cure sore and scabies.

**Traditional medicinal use:** The dried whole plant is useful in cutaneous diseases, intestinal worms, cough, ascetic and anasarca. The powdered root promotes gastric secretions and is useful in asthma, bronchitis and dyspepsia. The leaves are useful in the treatment of paralysis, arthralgia, swellings and intermittent fevers. The flowers are useful in asthma, catarrh, anorexia,

inflammations and tumours. In large doses it is purgative and emetic.

Binomial: *Canthium parviflorum*

Lam.

Family: **Rubiaceae**

**Plant description:** A thorny subscandent shrub with spreading branches. Lvs. simple, small, opposite with interpetiolar stipules and axillary spines; Fl. yellowish white, 4-merous, small, in axillary cymes, corolla tube short; Fr. oblong-ellipsoid or compressed drupes, yellow when ripe. **RJ & BPN 392**

**Rural medicinal use:** The leaves are crushed and mixed with rice flour and made into some local dishes is given to ladies after their delivery as part of their post delivery care.

**Traditional medicinal uses:** The roots and leaves are useful in vitiated conditions of kapha, diarrhoea, strangury, fever, leucorrhoea, intestinal worms and general debility.

Binomial: *Capsicum annuum* Linn.

Family: **Solanaceae**

**Plant description:** A suffrutescent annual shrub. Lvs. simple, of varying shapes, entire, acuminate, usually wrinkled; Fl. white or violet, in clusters of two or more; Fr. long,

cylindric, ovoid, obtuse or oblong, red when ripe with smooth shiny surface; Sd. many, yellow, smooth, round, discoid with a spinescent protuberance on the edge. **RJ & BPN 383**

**Rural medicinal use:** Fruits are ground with alcohol and mixed with raw egg and given to cure internal injuries caused by accidents and fights.

**Traditional medicinal use:** The fruits are useful in cephalalgia, gout, arthritis, sciatica, hoarseness, anorexia, dyspepsia, flatulence, cough, cardiac debility, malarial and intermittent fevers, dropsy, cholera, and indolent ulcers.

Binomial: *Capsicum frutescens* L.

Family: **Solanaceae**

**Plant description:** A suffrutescent annual shrub. Lvs. simple, of varying shapes, entire, acuminate, usually wrinkled; Fl. white or violet, in clusters of two or more; Fr. long, cylindric, ovoid, obtuse or oblong, red when ripe with smooth shiny surface; Sd. many, yellow, smooth, round, discoid with a spinescent protuberance on the edge. **RJ & BPN 383**

**Rural medicinal use:** A weak infusion can be used as a gargle to treat throat complaints

**Traditional medicinal use:** The dried fruit is a powerful local stimulant with no narcotic effect, it is most useful in atony of the intestines and stomach. It has proved efficacious in dilating blood vessels and thus relieving chronic congestion of people addicted to drink. It is sometimes used as a tonic and is said to be unequalled in warding off disease. The fruit is a strong rubefacient stimulating the circulation, aiding the removal of waste products and increasing the flow of nutrients to the tissues. It has also been powdered and placed inside socks as a traditional remedy for those prone to cold feet. The fruit is also antihemorrhoidal, antirheumatic, antiseptic, carminative, diaphoretic, digestive, sialagogue and stomachic.

Binomial: *Carissa carandas* Linn.

Family: **Apocynaceae**

**Plant description :** A large dichotomously branched evergreen shrub with short stem and strong thorns in pairs, bark light grey, scaly;

Lvs. simple, opposite, elliptic or obovate, shortly mucronate, glabrous, shining and coriaceous; Fl. white, in pubescent terminal corymbose cymes; Fr. ellipsoid or globose berry, purplish black when ripe enclosing two or more seeds. **RJ & BPN 428**

**Rural medicinal use:** Decoction of leaves given in intermittent fever.

**Traditional medicinal use :** The roots are useful in stomach disorders, intestinal worms, scabies and pruritus. The unripe fruit is useful in hyperdipsia, diarrhoea, anorexia, and intermittent fevers. The ripe fruit is useful in anorexia, burning sensation, skin diseases, scabies and pruritus.

Binomial: *Cassia angustifolia* Vahl.

Family: **Caesalpiaceae**

**Plant description:** A shrub or undershrub. Lvs. paripinnate, leaflets 5-8, ovate-lanceolate, glabrous; Fl. yellow, many in axillary racemes; Fr. flat legumes **RJ & BPN 441**.

**Rural medicinal use:** Leaves are taken as vegetable, is given for constipation

**Traditional medicinal uses :** The leaves are useful in constipation, abdominal disorders, leprosy, skin diseases, leucoderma, splenomegaly,

hepatopathy, jaundice, helminthiasis, dyspepsia, cough, bronchitis, typhoid- fever, anaemia and tumours.

Binomial: *Cassia auriculata* Linn

Family: **Caesalpiaceae**

**Plant description :** A much branched shrub with reddish brown branches; Lvs. with subulate glands between all the 8-12 pairs of leaflets and a pair of large obliquely cordate stipules at their bases; Fl. bright yellow in sub-terminal axillary corymbs; Fr. pods, flat, thin, papery, pale brown, deeply depressed between the sd, transversely veined. **RJ & BPN 460**

**Rural medicinal use:** The decoction of bark is used as enemas

**Traditional medicinal use:** The roots are useful in skin diseases, leprosy, tumours, asthma and urethrorrhoea. The leaves are recommended for leprosy, skin diseases and ulcers. The flowers are used in diabetes, urethrorrhoea, nocturnal emissions and pharyngopathy. The seeds are useful in diabetes, chyluria, ophthalmia, dysentery, diarrhoea, swellings, abdominal disorders, leprosy, skin diseases, worm infestations and chronic purulent conjunctivitis.

Binomial: *Cassia occidentalis* Linn

Family: **Caesalpiaceae**

**Plant description:** A diffuse offensively odourous undershrub with furrowed subglabrous branches. Fl. Yellow in short racemes. Fr. Cylindrical or compressed, transversely septate and glabrous pods. Sd. Ovoid, compressed, hard, smooth and shiny dark olive green or pale brown. **RJ & BPN 401**

**Rural medicinal use:** Roots are ground and made into paste and is applied in the site of scorpion sting.

**Traditional medicinal use:** The plant is useful in cough, bronchitis, constipation, fever, epilepsy, leprosy, wounds, ulcers, scorpion sting and fever.

Binomial: *Clerodendron viscosum*

Vent.

Family: **Verbenaceae**

**Plant description:** A large gregarious twiny-vinous shrub. Lvs large, entire, hairy on both sides; Fl. white, tinged with pink in terminal panicles; Fr. globose drupes. **RJ & BPN 503**

**Rural medicinal use:** The leaf paste are useful as antibiotic against skin diseases.

**Traditional medicinal use:** The leaves are useful in helminthiasis, ascarides, abscesses, tumours, leprosy, skin diseases, indolent ulcers, cough, bronchitis, inflammations, intermittent fevers, malarial fever, general debility and proctoptosis.

Binomial: *Coccinia cordifolia* L.

Family: **Cucurbitaceae**

**Plant properties:** A slender much branched leafless yellow intertwining parasite on shrubs and trees almost covering them, without contact with the soil; Fl. in clusters; Fr. capsules, Sd. black. **RJ & BPN 492.**

**Rural medicinal use:** The plant is used in making decoction against jaundice.

**Traditional medicinal use :** The plant is useful in jaundice, myalgia, cough, bronchitis, strangury, cephalalgia, fever and paralysis. The seeds are carminative, depurative, and are also applied as an anodyne.

Binomial: *Datura metal* Linn.

Family: **Solanaceae**

**Plant properties:** An erect, succulent, spreading annual shrub. Lvs. triangular ovate in outline, unequal at the base; Fl. large,

solitary, short pedicelled. Fr. subglobose capsules Sd. numerous, smooth, yellowish brown. **RJ & BPN 531**

**Rural medicinal use:** A poultice made out of the leaves is used for mumps and painful swellings.

**Traditional medicinal use:** The plant is useful in asthma, cough, fever, ulcers and skin diseases. The roots are used to treat bites from rabid dogs and are also used to cure insanity. The leaves are narcotic, anodyne and antispasmodic. The juice of the leaves is used for epilepsy, cephalalgia and dandruff. The seeds are aphrodisiac, narcotic and antispasmodic, and are useful in odontalgia, otalgia, gastropathy and skin diseases, and are good to treat dandruff and lice.

Binomial: *Desmodium gangeticum*

(Linn) DC

Family: **Solanaceae**

**Plant properties :** An erect, diffusely branched undershrub, with a short woody stem and numerous prostrate branches provided with soft grey hairs; Lvs. unifoliate, ovate Fl. white, purple or lilac in elongate lax, terminal or axillary racemes; Fr.

moniliform, jointed glabrescent pods, Sd. compressed reniform. **RJ & BPN342**

**Rural medicinal use** : Root paste is mixed with coconut oil and are applied in regions with inflammations.

**Traditional medicinal use:** The roots are useful in haemorrhoids, dysentery, strangury, fever, gout, inflammations, cough, asthma, bronchitis, cardiopathy and debility.

Binomial: *Hemidesmus indicus*

**R.Br.**

Family: **Asclepiadaceae**

**Plant properties:** A perennial, slender, laticiferous, twining or prostrate, wiry shrub with woody root-stock and numerous slender, terete stems having thickened nodes; Lvs. simple, opposite. Fl. greenish purple crowded in subsessile cymes in the opposite leaf-axils; Fr. slender follicles, cylindrical. Sd. flattened, black, ovate-oblong, coma silvery white. **RJ & BPN 470**

**Rural medicinal use:** The paste obtained from tender leaf is used in wounds.

**Traditional medicinal use:** The roots are useful in burning sensation,

leucoderma, leprosy, skin diseases, pruritus, asthma, bronchitis, hyperdipsia, ophthalmopathy, hemicrania, epileptic fits, dyspepsia, helminthiasis, diarrhoea, dysentery, haemorrhoids, strangury, leucorrhoea, syphilis, abscess, arthralgia, fever and general debility. The leaves are useful in vomiting, wounds and leucoderma. The stems are useful in inflammations

Binomial: *Hibiscus rosa-sinensis*

**Linn.**

Family: **Malvaceae**

**Plant properties:** An evergreen woody unarmed glabrous showy shrub, with pale grey or whitish bark; Lvs. simple, bright green, ovate, entire below, irregularly and coarsely serrate towards the top, glabrous on both sides, minute stellate hairs on the nerves beneath; Fl. showy, solitary and axillary. **RJ & BPN 475**

**Rural medicinal use:** Leaves are ground into paste and is applied in hair to remove dirt and dandruff.

**Traditional medicinal use:** The roots are useful in cough, venereal diseases, menorrhagia, pruritus and fever. The leaves are useful in burning sensation, hepatopathy,

fatigue, abscesses, expulsion of the placenta, skin diseases, fever, constipation and pruritus. The flowers useful in boils, inflammations, epilepsy, cerebropathy, dysentery, haemorrhoids, urethrorrhea, diabetes, cardiac debility, haemoptysis, menorrhagia, seminal weakness, skin diseases, leprosy and pruritus.

Binomial: *Holostemma ada-kodien*

Schultes

Family: **Asclepiadaceae**

**Plant properties:** A handsome, laticiferous twining shrub with large conspicuous Fl.; Lvs. simple, opposite, cordate; Fl. purple in axillary umbellate cymes; Fr. thick follicles, cylindrical, bluntly pointed.

**RJ & BPN 471 .**

**Rural medicinal use :** Root tubers are ground into paste with milk is applied in eye infections.

**Traditional medicinal use:** The roots are seful in ophthalmopathy, orchitis, cough, burning sensation, stomachalgia, consumption, fever and *tridos*. The leaves, flowers and fruits are eaten as a vegetable.

Binomial: *Indigofera tinctoria* L.

Family: **Fabaceae**

**Plant properties:** A branching shrub Lvs. with 7-13 leaflets, green when fresh and greyish black on drying, tender branches bluish red in colour; Fl. many in nearly sessile lax spicate racemes which are much shorter than the leaves, red or pink; Fr. cylindrical pods, pale greenish grey when young and dark brown on ripening with 10-12 seeds. **RJ & BPN 429.**

**Rural medicinal use :** The juice expressed from the leaves is useful in the treatment of hydrophobia

**Traditional medicinal use :** The roots, stems and leaves are useful for promoting the growth of hair and in gastropathy, splenomegaly, cephalalgia, cardiopathy, chronic bronchitis, asthma, ulcers and skin diseases. The juice expressed from the leaves is useful in the treatment of hydrophobia. An extract of the plant is good for epilepsy and neuropathy. The plant possesses anti-toxic property.

Binomial: *Ixora coccinea* Linn.

Family: **Rubiaceae**

**Plant description:** A glabrous shrub with a few branches. Lvs. simple, opposite, decussate, elliptic, sessile, coriaceous. Fl. Scarlet in dense sessile cymes. Fr. Globose, fleshy,

smooth, crowned with persistent calyx. Sd. concave on ventral surface. **RJ & BPN 348**

**Rural medicinal use:** Flowers are made to paste is applied to sores and ulcers.

**Traditional medicinal use:** The roots are useful in fever, gonorrhea, diarrhea, dysentery, sores and skin diseases. The leaves are useful in diarrhea. The flowers are useful in dysentery, bronchitis, ophthalmopathy, sores and ulcers.

Binomial: *Jasminum angustifolium*  
(Linn.) Willd.

Family: **Oleaceae**

**Plant properties:** A small scandent shrub with glabrous stems; Lvs. simple, small, ovate, acute, rounded at base. Fl. on long slender pedicles, white, corolla tube Fr. didymous berries, ripe carpets broadly ovoid.

**RJ & BPN 497**

**Rural medicinal use:** Leaf juice is applied against minor poisoning.

**Traditional medicinal use:** The roots are useful for application in ringworm and herpes, and are recommended for ophthalmopathy, ulcerative stomatitis, leprosy,

pruritus and leaves are used as an emetic in cases of poisoning.

Binomial :  
*Jasminum sambac* (Linn.) Ait

Family :  
**Oleaceae**

**Plant properties:** A sub erect or sometimes climbing shrub with pubescent branchlets; Lvs. simple, opposite, variable in shape, usually broadly ovate or acute, entire, nearly glabrous. Fl. white very fragrant, solitary or in 3-flowered terminal cymes. **RJ & BPN 357**

**Rural medicinal use:** Flower juice is dropped in eyes for eye infection.

**Traditional medicinal use:** Roots and leaves are used in ophthalmopathy. Flowers are used as purgative and lactifuge. Leaves are used in skin diseases, ulcers and fever

Binomial: *Justicia adathoda* Nees

Family: **Acanthaceae**

**Plant properties:** A large glabrous shrub; Lvs. opposite, short-petioled, broad, Fl. In short, dense and condensed spikes; Fr. capsules with a long solid base. **RJ & BPN 445**

**Rural medicinal use:** The roots along with the leaf-juice are used in phthisis, cough.

**Traditional medicinal use:** Leaves are good for irritable cough and for bleeding in diarrhea. Flowers are used in ophthalmic. The roots along with the leaf-juice are used in phthisis, cough, haemoptysis and asthma.

Binomial: *Lantana camera* L.

Family: **Verbenaceae**

**Plant properties:** A large scrambling evergreen, strong smelling shrub with stout recurved prickles; Lvs. opposite Fl. small, orange, in heads and prominently capitate; bracts conspicuous, persistent; Fr. flesh drupes. **RJ & BPN 407**

**Rural medicinal use:** A decoction of fresh roots is used for all types of dysentery

**Traditional medicinal use:** It is useful in tetanus, malaria, epilepsy and gastropathy. Powdered leaves are used for cuts, wounds, ulcers and swellings. An infusion of the leaves is good for bilious fever and eruptions. The fruits are useful in fistula, pustules, tumours and rheumatism.

Binomial: *Lawsonia inermis* Linn

Family: **Lythraceae**

**Plant properties:** A glabrous much-branched deciduous shrub. Lvs. simple, opposite, entire, lanceolate, petioles very short or absent: Fl. white, or rose-coloured, fragrant, in large terminal pyramidal paniced cymes, Fr. globose capsules, tipped with the style and supported by the persistent calyx, seeds numerous, smooth, pyramidal. **RJ & BPN 502**

**Rural medicinal use:** Leaf paste is used as a herbal hair dye. The roots are made into paste is used in skin diseases.

**Traditional medicinal use:** The roots are useful in burning sensation, dipsia, leprosy, skin diseases, strangury, amenorrhoea, dysmenorrhoea, and premature greying of hair. The leaves are useful in wounds, ulcers, strangury,, cough, bronchitis, burning sensation, cephalalgia, hemicrania, lumbago, rheumatalgia, inflammations, diarrhoea, dysentery, leprosy, leucoderma, scabies, boils, hepatopathy, splenopathy, anaemia, haemorrhages, haemoptysis, fever, ophthalmia, amenorrhoea,

dysmenorrhoea. falling of hair, greyness of hair and jaundice. The flowers are intellect promoting and are useful in cephalalgia, burning sensation, cardiopathy, amentia. insomnia. and fever.

Binomial: *Manihot esculenta* Crantz

Family: **Euphorbiaceae**

**Plant properties:** A shrub with stems and branches of varying colour, marked by leaf scars and cluster of tuberous roots; Lvs. palmate, pale green, lobes lanceolate, acuminate, entire; Fl. yellow or greenish white, unisexual, in terminal cymes; Fr. capsules containing 3 seeds. **RJ & BPN 371**

**Rural medicinal use :** The root tubers are dried and made into a powder and the powder is used in treating fowl ulcers.

**Traditional medicinal use:** The tuberous roots are useful in anorexia, dyspepsia. Constipation, wounds, foul ulcers and general debility.

Binomial: *Mimosa pudica* Linn.

Family: **Mimosaceae**

**Plant properties:** A diffuse prickly undershrub, Lvs. bipinnately compound, rachis clothed with ascending bristles; Fl. pink, in

globose heads, peduncles prickly, usually in axillary pairs all along the branches; Fr. bristly pods, flat, straw colored. **RJ & BPN 463**

**Rural medicinal use :** Leaves are ground with salt and coconut oil and the paste is applied in inflammations.

**Traditional medicinal use:** The roots are useful in leucoderma, vaginopathy, metropathy, ulcers, dysentery, inflammations, burning sensation, hemorrhoids, jaundice, asthma, fistula, smallpox, strangury, spasmodic affections and fevers. The lvs are bitter, sudorific and tonic, and are useful in hydrocele, hemorrhoids, fistula, conjunctivitis, cuts and wounds and hemorrhages. The whole plant is used internally for vesical calculi and externally for oedema, rheumatism, myalgia and tumor of the uterus.

Binomial: *Mussaenda frondosa* Linn.

Family: **Rubiaceae**

**Plant properties:** A handsome erect or scandent shrub with grey bark; Lvs. simple, opposite, ovate, acuminate at apex, densely soft white tomentose beneath, transverse nervules obscure; Fl. yellowish green outside and orange green within, in

terminal cymes, one of the calyx lobes becomes enlarged into white foliaceous structure; Fr. subglobose or ovoid green berries. **RJ & BPN 433**

**Rural medicinal use** : The plant is made into decoction and it is used for treating bronchitis.

**Traditional medicinal use:** The plant is useful in cough, bronchitis, fever, inflammation, wounds and ulcers, leucoderma, pruritus, ophthalmopathy, jaundice, metropathy and uropathy.

Binomial: *Nerium indicum* Mill.

Family: **Apocynaceae**

**Plant properties:** A large glabrous evergreen shrub with milky latex; Lvs. three in a whorl, shortly stalked, linear, dark green and shiny above; Fl. red, rose -coloured or white, fragrant; Fr. follicles.

**RJ&BPN 432**

**Rural medicinal use** : Root decoction is givento treat ringworm infection.

**Traditional medicinal use:** The roots are useful in cardiac asthma, strangury, renal and vesical calculi, chronic stomachalgia, arthralgia, leprosy, pruritus and ulcers. The root

bark is very specific for ringworm. The leaves are a powerful repellent and are used for scabies, haemorrhoids and vitiated conditions of *vdta*. The juice of the tender leaves is good for ophthalmia with copious lacrimation. The flowers are reported to have the property of purifying the air.

Binomial: *Nyctanthes arbor-tristis*

Linn.

Family: **Oleaceae**

**Plant properties:** A hardy large shrub. Lvs. simple, opposite, ovate, densely pubescent beneath with appressed hairs. Fl. small, white with bright orange corolla tubes, in trichotomous cymes; Fr. capsules, compressed, separating into two, one-seeded segments. **RJ&BPN 488.**

**Rural medicinal use** : Flower juice is used as eye drops to treat eye infections.

**Traditional medicinal use:** The leaves are useful in obstinate sciatica, inflammations, dyspepsia, helminthiasis, pruritus, dermatopathy, chronic fever, bronchitis, asthma, cough, strangury, constipation, hepatopathy, haemorrhoids, greyness of hair and

baldness. The flowers are useful in inflammations, ophthalmopathy, flatulence, colic, dyspepsia, splenomegaly, greyness of hair and baldness. The seeds are very useful in baldness, scurvy and affections of the scalp.

Binomial: *Ocimum kilimandscharicum* Guerke

Family: **Lamiaceae**

**Plant properties:** An aromatic undershrub with pubescent quadrangular brancniets: Lvs. simple, opposite, ovate or oblong, narrow at the base, deeply serrated, acute, pubescent on both surfaces; Fl. in racemes with a densely pubescent axis, Fr. oblong nutlets, brownish black. **RJ&BPN 482. Rural medicinal use** : Leaves are used in steam inhalation for acute cold. The leaf decoction along with other herbs is taken to relieve cold, cough, fever, etc.

**Traditional medicinal use:** The leaves are useful in cough, bronchitis, catarrh, halitosis, bacterial and vira: infections, foul ulcers and wounds, anorexia and ophthalmopathy.

Binomial: *Ocimum sanctum* Linn.

Family: **Lamiaceae**

**Plant properties:** An erect much branched softly pubescent undershrub. Lvs. simple, opposite, elliptic, oblong, entire, serrate, pubescent on both sides, minutely gland dotted, petioles slender, hairy. Fl. purplish in elongate racemes. Fr. Nutlets. **RJ&BPN 408**

**Rural medicinal use** : Leaves are used in steam inhalation for acute cold. The leaf decoction along with other herbs is taken to relieve cold, cough, fever, etc.

**Traditional medicinal use:** The plant is useful in cardiopathy, haemopathy, leucoderma, asthma bronchitis, catarrhal fever, otalgia, hepatopathy, vomiting, lumbago, hiccough, ophthalmia, gastropathy in children, genito-urinary disorder ringworm, verminosis and skin diseases.

Binomial: *Plumbago zeylanica* Linn.

Family: **Plumbaginaceae**

**Plant properties:** A pretty subscandent perennial shrub with semi-woody striate stems and flexible branches; Lvs. simple, alternate, oblong, Fl. bright red, in long terminal spikes, the calyx ribs covered with stipitate, bifarious and

subsessile glands, corolla tube slender. **RJ&BPN 512.**

**Rural medicinal use** : Root tubers are ground into paste is applied on the site of filariasis.

**Traditional medicinal use:** The roots are useful in dyspepsia, colic, inflammations, cough, bronchitis, helminthiasis, haemorrhoids, elephantiasis, chronic and intermittent fever, leprosy, leucoderma, ringworm, scabies, hepatosplenomegaly, arnenorrhoea, odontalgia and anaemia.

Binomial: *Polyalthia longifolia*

(Sonn.) Thwaites

Family: **Annonaceae**

**Plant properties:** A tall handsome evergreen tree, bark smooth, greyish brown, thick; Lvs. simple, green, shining with undulate margins; Fl. yellowish green in fascicles; Fr. a bunch of small ovoid one-seeded berries. **RJ&BPN 410.**

**Rural medicinal use** : The bark is beaten well to take juice, and the extract is good for minor poisons.

**Traditional medicinal use:** The bark is useful in fever, skin diseases, diabetes, hypertension and helminthiasis.

Binomial: *Punica granatum L.*

Family: **Punicaceae**

**Plant properties:** A large deciduous undershrub; Lvs. opposite, glabrous; Fl. scarlet red or sometimes yellow, mostly solitary; Fr. globose, crowned by the persistent calyx, Sd. angular with red, pink or whitish fleshy testa.

**RJ&BPN 355**

**Rural medicinal use** : Fruit is good for all stomach ailments.

**Traditional medicinal use:** The root and stem bark are good for tapeworm and for strengthening the gums. The flowers are useful in ophthalmodynia, ulcers, pharyngodynia and hydrocele. An extract of the flowers is very specific for epistaxis. The fruits are useful in anaemia, hyperdipsia, pharyngodynia, ophthalmodynia, pectoral diseases, splenopathy, bronchitis and otalgia.

Binomial: *Rauvolfia serpentina*

(Linn.) Benth. Ex.

Family: **Apocynaceae**

**Plant properties:** A small erect shrub with red pedicels and calyx; Lvs. three in a whorl, thin, glabrous, bright green above; Fl. white often tinged with violet in irregular corymbose cymes; Fr. drupes,

purplish black when ripe. **RJ&BPN 421.**

**Rural medicinal use** : Roots are ground in water is given as an antidote. It is also given to pregnant ladies at the time of their delivery for easy contraction of uterus and hence delivery will be easy

**Traditional medicinal use:** The roots are reputed for hypertension, and is useful in strangury, fever, wounds, colic, insomnia, epilepsy, giddiness and dyspepsia. The decoction of the root is used to increase uterine contractions. The juice of the leaves is used as a remedy for the removal of opacities of the cornea.

Binomial: *Rhinocanthus nasuta*

(Linn) Kum

Family: **Acanthaceae**

**Plant properties:** An undershrub with obscurely angled spreading stems and branches; Lvs. simple, opposite, elliptic-lanceolate, entire, acute, nearly glabrous; Fl. white, solitary or 2-3 together on the branches of terminal panicles; Fr. narrow, pointed, velvety pubescent, Sd. tuberculate, glabrous, black. **RJ&BPN 465.**

**Rural medicinal use** : The leaf paste is applied for heat pricks.

**Traditional medicinal use:** The plant is useful in, obesity, helminthiasis, septic ulcers, leprosy, eczema, ringworm, dhobie's itch, prickly heat, herpes, scurvy, inflammation and cancer.

Binomial: *Rosa centifolia* Linn.

Family: **Roasaceae**

**Plant properties:** A small, erect, prickly shrub with unequal, large, hooked prickles and many bristles; Lvs. compound, alternate; Fl. usually pink, very fragrant, very double on long slender pedicels. Sd. small, pendulous. **RJ&BPN 464**

**Rural medicinal use** : Rose water is used as eye drops for infections.

**Traditional medicinal use:** The roots are useful in intestinal ulcers, rickets, haemorrhages and diarrhoea. The leaves are useful in treating wounds, ophthalmic, hepatopathy and haemorrhoids. The flowers are useful in inflammations, cough, asthma, bronchitis, wounds, ulcers, halitosis, amentia, dyspepsia, flatulence, colic, skin diseases, hyperhidrosis, cardiac debility, fever and general weakness. The rose water is cooling, fragrant,

emollient and ophthalmic, and is good for hyperhidrosis, halitosis and ophthalmopathy.

Binomial: *Sida rhombifolia* L.

Family: **Malvaceae**

**Plant properties:** An erect, woody, perennial undershrub with strong wiry flexuose branches with stellate Lvs. short-petioled, Fl. yellow or white, axillary, solitary or in pairs; Lvs. are reduced on the flowering branches; Fr. a depressed, globose. Schizocarp. **RJ&BPN 437**

**Rural medicinal use** : Leaf decoction is used in arthritis

**Traditional medicinal use:** The stems are used internally in dermatopathy. The roots are used in diarrhoea, tuberculosis, leucorrhoea, strangury, burning sensation and dipsia.

Binomial: *Sida spinosa* Linn.

Family: **Malvaceae**

**Plant properties:** A small, erect, grey, pubescent, branched undershrub with a slender erect stem, Lvs. with 2 spiny projections at the nodes adjacent to the place of insertion; Fl. pale to cream white, axillary and solitary on slender peduncles. **RJ&BPN 473**

**Rural medicinal use** : The root decoction is good for treating arthritis and fever.

**Traditional medicinal use:** The roots are administered in debility, fever, malarial fever, haemorrhoids and swellings.

Binomial: *Solanum indicum* Linn.

Family: **Solanaceae**

**Plant properties:** A much branched, common, very prickly undershrub. Lvs. simple, large, ovate, subentire, prickly on both sides, base cordate, often unequal; Fl. cymes, peduncles steliately hairy and prickly; Fr. berries, reddish or dark yellow; Sd. smooth. **RJ&BPN 395**

**Rural medicinal use** : Root decoction is given for diarrhea and leaf decoction is given for fever

**Traditional medicinal use:** The roots are useful in odontalgia, dyspepsia, flatulence, colic, diarrhoea, pruritus, leprosy, skin diseases, strangury, bronchitis, amenorrhoea, dysmenorrhoea, fever and vomiting. The leaves and fruits are useful in odontalgia, pruritus.

Binomial: *Tabernaemontana coronaria* (Jacq.) Willd.

Family: **Apocynaceae**

**Plant properties:** A glabrous, evergreen shrub with milky latex; Lvs. simple, opposite, elliptic and smooth. Fl. white, sweetly fragrant. **RJ&BPN 498**

**Rural medicinal use :** The flowers are squeezed to take juice and is used as eye drops in conjunctivitis.

**Traditional medicinal use:** The roots are useful in odontalgia, paralysis, strangury, and melalgia . The flowers are cooling and fragrant and are useful in burning sensation, ophthalmitis and dermatopathy. The latex has an anti-inflammatory effect on wounds.

Binomial: *Vitex negundo* Linn.

Family: **Verbinaceae**

**Plant properties:** An aromatic large shrub or with quadrangular branches; Lvs. opposite, exstipulate, long petioled. Fl. bluish purple in panicles; Fr. Globose. four-seeded drupe, black when ripe. **RJ&BPN 485**

**Rural medicinal use :** Leaf juice mixed with *Ricinus* oil is good for back pain and inflammations.

**Traditional medicinal use:** The roots are useful in cephalalgia, otalgia, arthritis, inflammations, dyspepsia,

colic, verminosis, flatulence, dysentery, uropathy, wounds, ulcers, bronchitis, cough, malarial fever, haemorrhoids, dysmenorrhoea, leprosy, dermatopathy, ophthalmopathy and general debility. The leaves are useful cephalalgia, sprains, orchitis, gout, splenohepatomegaly, otorrhoea, inflammations and ulcers. The bark is useful in odontalgia. verminosis and ophthalmopathy. The flowers are useful in diarrhoea, cholera, fever, haemorrhages. hepatopathy and cardiac disorders.

Binomial: *Withania somnifera* (Linn. Dunal)

Family: **Solanaceae**

**Plant properties:** An erect branching undershrub. Lvs. ovate Fl. greenish or lurid yellow in axillary fascicles; Fr. globose berries which are orange coloured when mature, enclosed in a persistent calyx. **RJ&BPN 350.**

**Rural medicinal use :** A paste of the roots and bruised leaves are applied to carbuncles, ulcers and painful swellings.

**Traditional medicinal use:** The tuberous roots are useful in

leucoderma, constipation, insomnia, tissue-building and nervous breakdown. The leaves are bitter and are recommended in fever, painful swellings and ophthalmitis.

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.

The method of applying healing plants varies according to the nature of ailment. In majority of cases, decoction of leaves, stem, fruit and root is drunk. Sometimes decoction is rubbed or applied externally for wounds or infected part of the body. Paste of plant parts are also used externally. In some cases combinations of plants are used for best results. The finding agrees with the finding of Biju, (2008).

## **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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