An ethno botanical survey of medicinal plants in Sillalai, Jaffna, Northern Province, Sri Lanka

Pholtan Rajeev Sebastian Rajamanoharan

Abstract
An ethno botanical survey was undertaken to record information on medicinal plants from traditional medical practitioners (TMP's) in Sillalai, Jaffna and to identify the medicinal plants used for treating diseases. TMP's who were the main informants were interviewed using semi-structured questionnaires and open-ended conversations. Field trips were made to the sites where TMP's harvest plants. The survey identified and recorded 300 plants species from 27 plant families, used for treating diseases in Sillalai, Jaffna. The Leguminaceae was the most represented plant family while medicinal plants used. The leaf was the most commonly used plant part while concoction and decoction were the most common method of traditional drug preparation. Most medicinal plants (52.7%) are harvested from the wild and commonly available, 27.3% of medicinal plants were cultivated selected areas, 20% rarely present and 0.3% identified first time in Sri Lanka. Knowledge of the use of plants as medicines remains mostly with the older generation with few youth showing an interest. First identified plant was confirmed by a taxonomist. A huge number of plants species are used for treating different diseases in Sillalai, Jaffna. The conventional ethno medicinal plants were mostly used for fever, dysentery, skin diseases, poison bites, wounds, piles, Diabetes Mellitus and rheumatism.

Keywords: Medicinal plants, traditional healers, chemical constituents.

1. Introduction
Human and Animals live in equilibrium with the natural plants surrounding them, using these plants as sources of food and intuitively or through years of trials and error, as medicine. Traditional medicine refers to health practices, knowledge and beliefs incorporating plants, animals and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being [1, 2, 27, 43].

According to the WHO, about 80% of the population of the world depends on traditional medicine, mostly herbal remedies, for their primary health care needs [3, 34]. A medicinal plant is any plant, which in one or more of its organs contains active ingredients which can be used for therapeutic purposes or contain foundation compounds that can be used for the synthesis of useful drugs [38]. The absence or inaccessibility of modern healthcare services, affordability, and cultural acceptance under certain circumstances, effectiveness than their modern counterparts has caused a large percentage of the population to rely mostly on plant based traditional medicines for their primary health care needs. These factors and a growing interest in the use of natural products and folk medicine have resulted to an increase in the demand for medicinal plants [42]. This increase in demand puts a threat on natural resources. Knowledge on the use of medicinal plants is enormous but if this is not rapidly researched and recorded, indications are that it will be lost with succeeding generations [17].

Medicinal plant is defined as any substance with one or more of its organ containing substances that can be used for therapeutic purposes or which can be used as precursors for the synthesis of antimicrobial drugs [37, 38]. It is estimated that there are about 250,000 – 500,000 species of plants on earth [4], of which a relatively small percentage (1-10%) of these are used for
food by humans and animals. It is possible that more serve medicinal purposes [23] of which a relatively small percentage (1-10%) of these are used for food by humans and animals. It is possible that more serve medicinal purposes [23]. Medicinal plants contain numerous biologically active compounds such as carbohydrates, proteins, enzymes, fats and oils, minerals, vitamins, alkaloids, quinones, terpenoids, flavonoids, carotenoids, sterols, simple phenolic glycosides, tannins, saponins, polyphenols, to mention a few which have medicinal activities. Therefore the documentation of the traditional therapeutic know-how could lead to the discovery of new drugs as well as contribute to the conservation, sustainable management and use of plant resources. Ethnobotanical investigations have been reported for parts of Northern Province of Sri Lanka but no investigation has ever been carried out in Sillalai, Jaffna. It is therefore necessary to carry out a survey to document the plants used for medicinal purposes in Sillalai, Jaffna.

2. Materials and methods

2.1 Study site: The study was carried out in Sillalai, Jaffna, located in the place is situated in Northern Province, Sri Lanka, its geographical coordinates are 9°47’0” North latitude and 79°57’0” East longitude and its original name (with diacritics) is Sillalai. It is distanced approximately 16 km from Jaffna and 2 km from Pandateruppu. It is bounded on the North by Mathagal, on the East by Pandateruppu, on the South by Chulipuram and on the West by part of the Mathagal coasted area. The area has rich soil and bright sunlight, and important natural resources which are abundantly available in this region and responsible for the development of rich vegetation having variable medicinal properties [14].

Geographical coordinates: 9°47’0” North, 79°57’0” East [14]
Geographical location: Northern, Sri Lanka, Asia [14]
Original name: Sillalai (figure. 1, 2)

In Sillalai mostly peasant farmers who grow vegetables, rice and betel as cash crops and some deal with fishing also.

2.2 Data collection

In order to assess the consumption of indigenous medicinal plants, survey was carried out during the year, 2012 in the areas of Sillalai, Jaffna district in Northern Province, Sri Lanka. To get maximum information the survey was widened diagonally during the following rainy season. Sillalai have so many famous Traditional Medical Practitioners in twenty years ago. Their families and generations are displaced to other station for various reasons therefore Traditional Medical Practitioners (TMP’s) generations were the main informants in the survey. The information on medicinal uses of the indigenous plants has been described after gathering it from local people, experienced aged rural folk, traditional herbal medicine practitioners, local herbal drug sellers and the information collected from the available literature. A total of 215 inhabitants were interviewed. Randomly people were selected of which 110 men and 105 women of age 35
and above were interviewed in their local language, that is, Tamil. In addition, direct plant observation and identification was done with the help of local healers known as ‘Maruthuvar’. Author also as a Doctor and have enough knowledge about medicinal plants in Sri Lanka. Plants recorded in the results were mentioned by at least two TMP’s as treating the same disease in order to confirm its use. Fertile specimens of the plants were collected in the field using standard botanic methods [101]. Together with the TMP’s. The collected specimens were identified at the National Herbarium in Royal Botanical Garden, Peradeniya, Sri Lanka and voucher specimens were deposited at the herbarium of the Royal Botanic Garden, Sri Lanka. Voucher specimen numbers along with other details are given in and the collected data contains the list of plants of different families with their traditional uses, plant parts used and their mode of administration which are listed in alphabetical order.

3. Results & Discussion
A total of 300 medicinal plant species from 27 families 60 rare medicinal plants and 01 first identified Medicinal plant in Sri Lanka used for treating most of all health problems were identified in the survey. The most represented plant family in the list of medicinal plants is the Leguminosae with 29.6% of the medicinal plants species followed by Euphorbiaceae, Malvaceae and Moraceae with 18.5% each.

Identified plants Families are: Acanthaceae, Amaranthaceae, Anacardiaceae, Apocynaceae, Asclepiadaceae, Asteraceae, Burseraceae, Caricaceae, Cucurbitaceae, Euphorbiaceae, Labiatae, Leguminosae, Liliaceae, Lythraceae, Malvaceae, Meliaceae, Menispermaceae, Mimosaceae, Moraceae, Nyctaginaceae, Papaveraceae, Poaceae, Rubiaceae, Rutaceae, Sapindaceae, Verbenaceae, and Zingiberaceae.

Major chemical constituents for few medicinal plants as follows

1. *Abutilon indicum* Don. Sweet (SI/J/NP/SL/mal/002) Malvaceae Thuthi Alkaloids, flavonoids, steroids, triterpenoids, glycosides and water soluble galactomannan have been isolated from leaves, stem, root bark and seeds (Vandana Sri et al., 1997).


3. *Atalantia monophylla* Corr. (SI/J/NP/SL/rt/001) Rutaceae Kattu elemtichai Atalaphylline and Atalaphylline alkaloids extracted from the root bark (Gururaj et al., 1981). Limonoids, atalantin and the others, dehydroalatantin and cycloepiatalantin were obtained by Dreyer et al. (1976).

4. *Abras precatorius* Linn. (SI/J/NP/SL/fah/001) Fabaceae Kuntrimani Toxic lectin and abrin agglutinin from the seeds and two triterpenoid saponins 1 and 2 were isolated from the aerial parts of the plant (Albert et al., 2001; Anam, 2001). The sweet-tasting oleanane glycoside, glycryrrhizin and cycloartane glycosides, namely abrusosides A-E were extracted from it leaves (Choi et al., 1989). Two new alkaloids methyl ester of N, 3-dimethylthryptophan etho cation and precatorine and addition, hysphorine, choline and trigonelline were isolated from the seeds (Ghosal & Dutta, 1971).

5. *Asparagus racemosus* Wild (SI/J/NP/SL/lil/003) Liliaceae, Thaneervittan kilangu, Asparins, asparosides, curillins, curillosides and shavatamins have been isolated from the root (Patricia et al., 2006). (Sankaranarayanan, 2008)

The total number of medicinal plants followed by trees (22.7%), shrubs (19.7%), and climbers making up the remaining 15%. The leaves were the most commonly used plant part followed by the aerial parts of herbs (30.7%), Creepers-7.3%, Cacti-1.3%, Aquatic plants -2.3% and parasitic plants- 1%

Whole plant -31%, Root - 37.7%, Leaves-53.7%, Seed-14%, Fruit-15.7%, Bark-6.7%, Bulb-1%, Stem-0.7%, Oil-3.3%, Salt-1%, Flower-3%, Latex-1.7%, Tuber-5.3% and Rhizome-2.3% were plant parts used in medical preparations.

Many plants have multiple medicinal uses and many diseases are treated using a combination of more than one plant. Decoctions were the most common method of preparation and most of the medicines are administered orally with topical administration in the case of skin diseases or wounds.

Medicinal plants were harvested from the wild, from farms and fallows and some home gardens. From the list of medicinal plants, 27.3% are cultivated exclusively for medicinal purposes and domesticated crops and fruits from farms, fallows or grown in compounds (table 3), 52.7% are collected entirely from the wild, 20% are rare medicinal plants and 0.3% (only 01 plant) was identified firstly in Sri Lanka. All of these are medicinal plants. From the responses to the questionnaire, it was provided that medicinal preparations offered for sale are made by infusion, decoction, tincture, macerations, poultices, concoction, powder and pastes for internally or externally. Treatment recipes for some of the common ailments which affect people in the Sillalai, Jafina are presented below:

1. *Abutilon indicum* Don. Sweet (SI/J/NP/SL/mal/002) The juice of the plant is used for blood dysentery, fever, and allergy. Fried leaves are used as a remedy for jaundice, piles, ulcer and leprosy.

2. *Aristolochia bracteolata* Lam. (SI/J/NP/SL/ari/001) The root powder is combined with honey and is given internally given in the case of syphilis, gonorrhea, boils, foul ulcers and other skin diseases. The bruised leaf is mixed with castor oil and is applied externally, in obstinate cases of eczema, to children’s legs.

3. *Atalantia monophylla* Corr. (SI/J/NP/SL/rt/001) The leaves are boiled with water externally and used for rheumatoid pain and glandular swelling. The essential oil of the fruit is used for joint pain.

4. *Abras precatorius* Linn. (SI/J/NP/SL/fah/001) The decoction of roots has been used as a folk medicine for diuresis and the relief of fever, sore throat, bronchitis and hepatitis.

5. *Asparagus racemosus* Wild (SI/J/NP/SL/lil/003) The decoction obtained from the root has been used to cure blood diseases, diarrhoea, dysentery, cough, bronchitis and general debility. The root is boiled with cow milk used for increasing milk secretion during lactation.

6. *Achyranthes aspera* Linn. The young shoots of the plant are fried with the bulb of Allium sativum and are used along with sesame oil internally in the case of dog bites and other poisonous cases. Burned root ashes are applied on the teeth which are infected with worms for reducing pain and as well as

[31]
to expel the dead worms out. The juice extracted from the leaf is used to treat primary infection of tuberculosis.

   The tea forms of the root decoction are used in the treatment of leucorrhoea and gonorrhoea [44].

8. *Barleria prionitis* Linn.
   The juice of the leaf is used to treat cataract and fever. The dried bark is used in cough treatment and the leaves are chewed to relieve toothache. The paste of the root is applied to disperse boils and glandular swellings. Leaves are also used by some tribal communities for treatment of piles and to control irritation and stiffness of limbs, enlargement of scrotum and sciatica.

   The decoctions of roots are used for the treatment of dyspepsia, jaundice, enlargement of spleen, abdominal pain and as an anti-stress agent.

10. *Clerodendrum phlomoides* Linn.
    The juice of the leaves is used as an alternative and bitter tonic. The decoction of the root is slightly aromatic and astringent and is used as a demulcent in gonorrhoea. It is also given to children during convalescence of measles. The fresh juice of the leaves is used to treat mental tension and mental disturbance.

11. *Coleus aromaticus* Benth.
    The leaf juice is used for the treatment of headache, fever, epilepsy and dyspepsia. The decoction of the leaves is administered in the case of chronic cough and asthma.

12. *Cissampelos pareira* Linn.
    The paste of the root is used as an external application and has the property of wound healing, antidote, fistula, pruritis, skin disorders and snake poison. Internally roots are useful in the case of anorexia, indigestion, abdominal pain, gastric disorders, diarrhoea and dysentery. Traditionally the plant used for blood purification and anti-inflammatory properties.

    The oil of the seeds and roots are beneficial in the treatment of wounds and scabes. The plant is also recommended in leprous nephritis.

    The leaf juice is internally used in the case of general weakness and energetic during dysentery and diarrhoea and also to relieve general body pain, antidote against poisoning, stimulant, and antiscorbutic.

15. *Cleome gynandra* Linn.
    A decoction or infusion of boiled leaves and/or roots has been administered to facilitate childbirth. Bruised leaves, which are rubefacient and vesicant, are also used to treat neuralgia, rheumatism and other localized pains. Sap from leaves has been used as an analgesic particularly for head ache, epileptic fits and ear ache.

    The juices obtained from leaf are internally useful in blood vomiting. Externally the plant is applied on chronic wounds.

    The stem and roots are used for the treatment of rheumatism, skin infections and diarrhoea. The plant decoction is useful in the case of pains of hepatic or splenic origin, uterine colic and other disorders involving smooth muscles. It is also used as an antipruritic in skin rashes and for the treatment of sore throat, dermatitis and haemorrhoids.

    The whole plant extracts are used to treat brain disorders like insanity, epilepsy, memory enhancement and nervous debility. The strong decoction is internally used in the case of intermittent fever.

    The whole plant is internally and as well as externally used in the case of deworming.

20. *Enicostemma littorale* Blume
    The decoctions attained from the leaves are used in rheumatism, abdominal ulcers, hernia, swelling, itches and insect poisoning.

21. *Euphorbia hirta* L.
    The decoction of the flowers and fruits are used in the treatment of asthma and respiratory tract infections and sometimes the extracts are combined with bronchial sedatives. The latex is externally applied for wounds.

22. *Garcinia indica* (Thouars) Chois
    The aerial extract has been used as a pink and purple food colouring agent and as well as a spice to give a sour and sweet taste. In addition to food usage, it has also been used as a cosmetic ingredient, inflammation and other disorders.

23. *Hibiscus rosa-sinensis* Linn.
    The soaked petal along with coconut oil is externally applied for alopecia. The leaves and flowers are observed to be promoters of hair growth and it aids in healing of ulcers.

24. *Helicteres isora* Linn.
    The decoction of the root is mixed with turmeric powder and is applied externally to treat cuts and wounds. The fruit is boiled with sesame oil, cooled and then the filtered oil (2 to 3 drops) is poured into the ear for antalgic disease.

25. *Ixora coccinea* Linn.
    The decoction yielded from the flowers is used in the treatment of dysentery, leucorrhoea, dysmenorrhoea, haemoptysis, bronchitis and scabies.

    The roots soak with coconut oil and they used for chronic eczema, acute tumour, psoriasis. Root is chewed for toothache and abscess.

    The leaf juices are used to treat asthma and allergic. Root extract combined with Cuminum cyminum is used treat spermatorrhea.

28. *Mimosoides pudica* L.
    The leaves extracts are used in the treatment of headache, migraine, insomnia, diarrhoea, dysentery, fever, piles and fistula. The leaf and stem has been used in the treatment of scorpion sting. Root popularly used against cobra bite by snake charmers and Bejs. Root powder combine with cow milk used for aphrodisiac.

29. *Mucuna pruriens* L. DC.
    The dried seed is boiled with cow milk, and then the seed is dried in sunshine, after which the seed is powdered and combined with cow milk which is effective in treating male sterility and nervous diseases.
30. *Oroxylum indicum* Linn.  
Its seeds decoction have been used as an analgesic, antitussive and anti-inflammatory agent for the treatment of cough and bronchitis.  
31. *Phyllanthus niruri* Linn.  
Two new securinega-type alkaloids, isobubbialine, epibubbialine and as well as the three known alkaloids, phyllanthine, securinine and norsescurininewere isolated from the leaves.  
32. *Piper betle* Linn.  
Betel leaves are used for chewing and are credited with many medicinal properties such as digestive, stimulative, carminative and aphrodisiac. The fresh leaves immersed with sesame oil, then warmed with flame is applied for head ache and lactogogue.

33. *Pandanus amaryllifolius* Linn.  
Tender shoots are directly eaten in the case of severe jaundice. The oil obtained from the leaf is described as stimulant and antispasmodic and is effective against headaches, rheumatism, and epilepsy and as a cure for sore throats.  
34. *Rhinacanthus nasutus* (L.) Kurz  
The root powder is combined with lime juice and is applied for ring worm and skin diseases. The leaf extract is externally used for chronic wounds.  
35. *Scoparia dulcis* Linn.  
The leaf extract is used to treat respiratory, gastric and hepatic disturbances diabetes and hypertension.  
36. *Sida cordifolia* Linn.  
The leaves are used in for the treatment of stomatitis, blennorhea, asthmatic bronchitis, and nasal congestion (Balbach, 1978). The roots possess diuretic and tonic properties and administered for nervous disorders such as hemiplegia and facial paralysis.  
37. *Solanum nigrum* Linn.  
The leaves are used in for the treatment of stomatitis, blennorhea, asthmatic bronchitis, and nasal congestion (Balbach, 1978). The roots possess diuretic and tonic properties and administered for nervous disorders such as hemiplegia and facial paralysis.  
38. *Solanum pseudocapsicum* R. Br.  
Annual herb, up to 35-120 cm tall or more; Stems erect to spreading, sharply angled, sparsely to densely hairy along the stems, the entire plant looking like a lax inflorescence; Primary inflorescences arranged in lax axillary Cymes spread along the stems, the entire plant looking like a lax inflorescence; leaves of the apex of the branches, upper most ones narrowly triangular – subulate with a thin White margin 04-05 X 0.5 mm. Flowers Solitary, Corolla tubular 12-14 mm long, tube ± 5 mm long, two lipped, lips up to 07 mm long, Purple in Colour, Lower lip larger, with two Stamens attached, throat White with dark Purple markings; bracts 02, linear spathulate, much unequal, 07-15 mm long, acute; bracteoles in 02 valvate pairs, unequal – sub equal, scarious on margins, acute. Calyx lobes linear, 3.5-04 mm long, hairy, acute valvate. Corolla tube cylindrical, 04-05 mm long, lips sub equal, puberulous; upper lip elliptic Oblong, 05-07 mm long, entire or notched; lower lip slightly longer than upper, deflexed, slightly crested with 03 acute lobes. Staminial filaments 05 mm long, hairy; Ovary oblong, apically pubescent; Style -1 cm long. Capsule ellipsoid, 01-1.2 cm long, basally solid and hairy, acuminate. Seeds Orbicular, 02-05 mm across; with shortly stalked minutely papillate concentrated to the edge.  

**First identified Medicinal Plant in Sillalai, Jaffna, Sri Lanka.**  
**Botanical Name:** *Peristrophe Paniculata* (Forssk) Brummitt.  
**Family:** Acanthaceae  
**Common Name:** Naganandha  
**English:** Panicled Peristrophe.  
**Sinhala:** unknown  
**Tamil:** Naganandha  
**Status:** Native.

**Description:** Annual herb, up to 35-120 cm tall or more; Stems erect to spreading, sharply angled, sparsely to densely hairy with up to 02 mm Long spreading hairs. Leaves on 01-1.7 cm long petioles; Lamina Ovate – elliptic to lanceolate, 04-06 X 1.5-04 cm, densely lanceolate, Leaf – blades 04-06 X 1.5-04 cm, densely lanceolate, Leaf – blades papillate concentrated to the edge.  


**Status:** Native.

**Description:** Annual herb, up to 35-120 cm tall or more; Stems erect to spreading, sharply angled, sparsely to densely hairy with up to 02 mm Long spreading hairs. Leaves on 01-1.7 cm long petioles; Lamina Ovate – elliptic to lanceolate, 04-06 X 1.5-04 cm, densely lanceolate, Leaf – blades narrowly Oblong with prominent veins, pubescent especially on nerves beneath, basally round to acute, acute to acuminate at the apex.  


**Status:** Native.
A tall, slender, prickly, climber with stems twining to the left. Leaves alternate, 3-5 foliate. Bulbils globose or cylindrical, usually plentiful. Tubers almost invariably single, texture and shape variable, skin brown, yellow or purplish, flesh, firm in ovoid tubers covered with bristly roots and soft in elongated tubers with few roots, pale cream or lemon yellow with purple flecks.

The first identifies varieties with soft, esculent tubers borne close to the surface of the soil, the second with tubers, deeply buried, and the third yielding hard tubers, nauseous and unpleasant to eat. As the species includes both poisonous and innocuous forms, tubers should be consumed only after repeated boiling and washing. The nutritive value of edible tubers is nearly the same as different species of yams Dioscorin (C13H19O2N) is abundant in Dioscorea hispida and its tubers when consumed in large enough quantities cause paralysis of the respiratory organs and even and are used for washing silk, wool and hair, and as fish poison. It used in the treatment of rheumatoid arthritis and rheumatic fever [44].

A herbaceous, Parasitic, leafless twiner. Commonly seen at Sillalai. The wood is reported to be suitable for tool handles & ornamental work. The sapwood is grayish, heartwood small, orange yellow. Containing yellow resinous matter. Very hard & heavy. Records of its occurrence in the sub Himalayan tracts of Punjab & Himalayas & Deccan peninsula up to an altitude of 1200 m. It is a much-branched, armed shrub or woody climber, with oblong, elliptic or obovate leaves, white flowers, and globose deep purple, fleshy edible berry occurring sparsely in the dry region as Sillalai in Jaffna district. The plant is parasitic by Cassytha filiformis. The plant is credited with Anti pyretic & Antiseptic properties. It is useful in skin diseases. The juice of inner bark of the root is used for scabies & eczema[44].

Constituents: Glycosides, Anthocyanins, Flavonoids, Amino acids, Phenolic acid[44].

It is a large straggling, thorny shrub or small tree. Found in eastern Himalayas & Deccan peninsula up to an altitude of 1200 m. Records of its occurrence in the sub Himalayan tracts of Punjab & Uttar Pradesh lack confirmation. Bark orange-brown. Pedaling off in thin flakes. Leaves obovate or elliptic oblong. Flowers in heads, small, dioecious, fruiting heads fleshy. Lobed 1.25 cm in diam. The plant is found in open places and as hedges. It has a slow rate of growth with a mean annuas girth increment of 1.3 cm. The sapwood is grayish, heartwood small, orange yellow. Containing yellow resinous matter. Very hard & heavy. The wood is reported to be suitable for tool handles & ornamental cabinet work & is good fuel. Bark & wood have been reported to be used in Darjeeling Terai for dying silk yellow [44].

A rambling, scendent shrub. With yellow tomentose branches and short, horizontal branches which are leafless below and provided near the ends with a pair of circinate hooks, leaves simple, alternate stipulate, 3.8-6.3 cm long, 2.5-3.8 cm broad, elliptic-obovate, obtuse or subacute, entire, reticulately veined, veins conspicuous on both sides, glabrous, base tapering; petioles 1.5 cm long, hairy, stipules lanceolate; flowers regular, bisexual, white in axillary divaricate shortly pedunculate corymbose cyme. Calyx shallow & lobed. Lobed triangular. Petals 4 (rarely 5) triangular. Calyptra deciduous cohering at the apex. Disk large, cup shaped, exceeding the ovary. Berry about the size of a pea. Subglobose or often 4 lobed, 2-4 seeded cream coloured when ripe. Seed’s hemispheric, smooth with a deep circular pit closed by a thin membrane on the flat lower face [44].

A large straggling, thorny shrub or small tree. Found in eastern Himalayas & Deccan peninsula up to an altitude of 1200 m. Records of its occurrence in the sub Himalayan tracts of Punjab & Uttar Pradesh lack confirmation. Bark orange-brown. Pedaling off in thin flakes. Leaves obovate or elliptic oblong. Flowers in heads, small, dioecious, fruiting heads fleshy. Lobed 1.25 cm in diam. The plant is found in open places and as hedges. It has a slow rate of growth with a mean annuas girth increment of 1.3 cm. The sapwood is grayish, heartwood small, orange yellow. Containing yellow resinous matter. Very hard & heavy. The wood is reported to be suitable for tool handles & ornamental cabinet work & is good fuel. Bark & wood have been reported to be used in Darjeeling Terai for dying silk yellow [44].
Uses: The bruised roots are used externally to reduce inflammatory swellings and as an antidote to snake-bite poisoning. Internally they act as an anthelmintic and febrifuge

Botanical Name – Scutia myrtina  
Family Name – Rhamnaceae  
Tamil Name – Thudari

A climbing straggling shrub armed with sub-opposite recurved prickles found in the Jaffna peninsula from Mathagal and in Sillalai. Leaves elliptic obovate or crenate, coriaceaus flowers small white in axillary umbles; berries globose, smooth, white or black. Fruit is also enhances the immunity power of the patients. For example, coconut oil is combined with some medicinally important plant leaves like *W. tinctoria, C. alata, H. rosa-sinensis* and *C. inophyllum* for treatment of skin diseases

Medicinal preparations attained from either a part of a single plant or a single whole plant such as *B. diffusa, B. prionitis, C. fruticosa, E. alsinooides, E. acaulis* and *E. littorale* are used in the treatment of jaundice, indigestion, fever, general weakness and deworming of intestine. *Aloe vera* is used to treat malaria, gastritis, stomach ache, wounds and skin diseases. Roots of *Aristolochia bracteolata, Asparagus racemosus, Withania somnifera* are used to treat male sterility, syphilis and gonorrhea. The leaves, roots and flowers of *Clerodendrum phlomidis, Helicteres isora, Melothria maderaspatana* are used to treat spermatorrhea, indigestion, analgesic diseases and also in wound healing.

Medicinal plants play an important role in providing knowledge to the researchers in the field of ethno botany and ethno pharmacology. The observations of present study showed that traditional medicine plays a significant role among the local people of Sillalai, Jaffna. Besides this, in other districts of Northern Province, practitioners are practicing the traditional system of medicine namely Siddha and Ayurveda.

In Sillalai, Jaffna, the traditional medicinal system is very efficient, supportive and successful in treating Skin disorders, pediatrics and rheumatism. On interviewing six local traditional healers of Sillalai, Jaffna informed that the young tender shoots of *Pandanus* spp, along with over-night soaked boiled rice water is given to patients in early morning who suffer from severe jaundice for curative purpose because the leaves of *Pandanus* spp. are a natural antioxidant and *Pandanus* extracts are capable of retarding oxidation. The leaves of the plant *Phyllanthus niruri* is combined with white goat milk and taken with empty stomach in three doses for effective treatment of severe jaundice and liver diseases and it also enhances the appetite. In recent research, this plant has gained world - wide attention due to its effectiveness against Hepatitis B. In the modern research, this plant is found to contain an antiviral activity extended to the human immunodeficiency virus.

Data collected from the Sillalai, Jaffna district were compared with available data in other districts of Northern Province like Mullaitivu and Vavuniya. An interesting observation was that some medicinally important plants such as *Achyranthes aspera, Mukia maderaspatana, A. indica, Abrus precatorius, H. rosa-sinensis, Mimosa pudica, B. diffusa and Solanum nigrum* were found to be practiced as important medicinal plants in other district for the treatment of various diseases like dog bites, skin diseases, cold, fever, deworming, wounds and hydrocele. Apart from this, medicinal plants like *E. alsinooides, Helicteres isora* and *Ocimum basilicum* are practiced among the tribal of Sillalai for their medicinal value to treat venereal diseases, fever and cold and also as a hair growth promoter.

Most young people are not interested in traditional medical practice because it is less profitable compared to growing cash crops. The influence of western culture, rural-urban migration in search for better educational and job opportunities and the commonly held view by young people that traditional medicine is superstitious and something for the poor and uneducated may result to a loss of this rich and useful knowledge which has accumulated over several generations.
5. Conclusions
There is always a hunt for rich ethno botanical knowledge for ethno botanical studies of medicinal plants. Further, this research has placed on records the local uses of medicinally important plants which were interviewed among 215 local people of Sillalai, Jaffna district. The traditional healers are the main source of knowledge on medicinal plants. In Sillalai, Jaffna district, many local people are going for agriculture and sustainable harvesting of plants with medicinal value which helps not only in conservation of these traditional medicinally important plants but also in marketing of these plants and their products for economic growth of the people. Finally, to conclude, this research article will attract the attention of ethno botanists, phyto-chemists and pharmacologists for further critical investigation of medicinal plants present in the districts of Northern Province, Sri Lanka.

6. Acknowledgements
I wish to thank the Traditional Medical Practitioners and Public in Sillalai, Jaffna for serving as key informants for this study. I am also grateful thanks for the contribution made by Dr. D.S. Wijesundara. Director General, National Botanical Garden, Peradeniya, Sri Lanka, who taxonomically identified and confirmed first plant in Sri Lanka from Sillalai. My thanks also go to Dr. (Mrs.) Vivian Sathiyaseelan, senior Lecturer, Materia Medica section, unit of Siddha Medicine, University of Jaffna.

7. Appendix

8. Limitations
This research carried only identified medicinal plants and there uses only. First identify medicinal plant in survey area – Sillalai. This plant identified only but not process of chemical analysis and further analyses because not available in Jaffna area and too much of cost for analysis in private sector. Future researchers can analysis of phyto-chemical and other measures. Didn’t carried Traditional Medical practitioners’ (TMPs) experiences were true or not that is very complicated and very huge research. Future researches can do TMP’s experiences proof by each medicinal plant research.

9. References
4. Balick MJ, Cox PA. Plants, People, and Culture: The
34. Rates SMK: Plants as a source of drugs.
42. Toxicon 2001; 39:603-613.