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An Annotated Checklist of the Medicinal Plants from Thalamalai Hills, Namakkal District, Tamilnadu, India

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Abstract

An Ethno botanical study was undertaken to collect the information from Thalamalai Hills of Eastern Ghats, Namakkal District in Tamilnadu. The traditional knowledge of traditional healer and medicinal practices on medicinal plants was collect through questionaries' and personal interviews during field trips. The study area field visits conducted during November 2015 to March 2016. The present study related that the traditional healer use 43 species of plants distributed in 25 families were used to treat various disease. The documented medicinal plants were used to cure different aliments such as Skin disease, Snake bite, Fever, Malaria, *etc*… This studies show that the peoples still continue to depend on medicinal plants, however the traditional healer are on the decline because the younger generation of the people have no interest and knowledge of this form of medicine as they have started moving towards the towns and cities. Therefore, it is necessary to document the plants to effectively conserve these. This is first attempt medicinal plants record to Thalamalai Hills, Namakkal district in Tamilnadu.
Keywords: Ethnobotany, Thalamalai hills, Medicinal plants, Eastern Ghats

1.Introduction

Globally, about 85% of the traditional medicines used for primary healthcare are derived from plants [1]. India is one of the twelve mega-biodiversity countries of the World having rich vegetation with a wide variety of plants with medicinal value. In many countries, scientific investigations of medicinal plants have been initiated because of their contribution to healthcare. Herbal medicines have good values in treating many diseases including infectious diseases, hypertension, etc. That they can save lives of many, particularly in the developing countries, is undisputable [2]. Even today many local and indigenous communities in the Asian countries meet their basic needs from the products they manufacture and sell based on their traditional knowledge. Herbal drugs obtained from plants are believed to be much safer; this has been proved in the treatment of various ailments [3]. Nearly 80% of the world population use traditional medicine, mainly medicinal plants, to cure illnesses and ailments [4]. Ethno botany is the scientific study of the relationship that exists between people and plants. Since the beginning of civilization, people have used plants as medicine [5]. Use of herbal medicines in Asia represents a long history of human interactions with the environment. Plants used for traditional medicine contain a wide range of substances that can be used to treat chronic as well as infectious diseases. A vast knowledge of how to use the plants against different illnesses may be expected to have accumulated in areas where the use of plants is still of great importance [6]. Many investigators are of the view that there should not be any further delay in the recording of useful data concerning ethno medicine

and Phytotherapeutic practices by ethnic groups lest such vital information would be lost permanently as primitive populations become more and more acculturated to modern life styles and technological changes. A great deal of attention has been devoted to medico-ethno botanical research in folk society in recent time [7]. They are in need of these medicinal plants, which are found in plenty around their habitations. They know the practical usage of these Medico-ethno botanical plants only by experience. The intimate knowledge of local tribal communities about their medicinal plants is clearly visible when we observe different local names by which these plants. Some individuals are able to tell the properties, habitat of the plants, morphology, and collection time, phenology and able to identify poisonous plants too. The present study was undertaken to explore the wild medicinal plant use for various disease and disorders by gathering knowledge from the traditional healers of Thalamalai Hills in Namakkal district.

2. Material and Method

2.1 Study Area

The study was conducted in the Thalamalai hills in Vadavathur Village, Senthamangalam Taluk, Namakkal District of Tamil Nadu, India. Thalamalai hills located at 75 Km from Tiruchirappalli, and way of Tiruchirappalli to Namakkal Highway via Kulakudi, Papanallur, Neliyampatti villages. The hill situated at 6580.87 hector (65.80 Square Km) and 2300 to 2400 feet (700 meter) above the sea level and Latitude- 11° 5' 6" N, Longitude- 78° 20' 18" E (South West). Thalamalai is a part of Eastern Ghats, this Hill get it is name because it resembles the head of person (In Tamil means Thala). There is a temple at the top of the hill for Lord Vishnu. This hill also known as Siragiri (Parts of Kolli Hills). The hill has hot and partly cloudy climate condition. The minimum temperature is 23°C and maximum is 30°C.

2.2 Survey

The ethno botanical survey was carried out during November 2015 to March 2016 and all the information‘s were gathered from the local traditional healer of Thalamalai hills and these information were selected applying both questionnaire and Random sampling techniques. This questionnaire about the traditional healer and medicinal plants and uses. The collected medicinal plants were identified and authentication with taxonomically using, The Flora of Tamil Nadu Carnatic, Matthew, K.M Vol. I (1981), II (1982), III (1983), The Identified plants species were then confirmed to the Rapinet Herbarium, St. Joseph’s College, Tiruchirappalli. Flora of the Presidency of Madras, J S Gamble vol. I-III (1957).

2.3 Data Analysis

The ethno botanical data has been analyzed using quantitative methods of data analyses. Descriptive statistics like percentage and frequency method to analyze the data.

3. Results and Discussion

The result of present study shown that 43 species of medicinal plants were reported the survey and having discussion with local traditional healer and local peoples. These medicinal plants belong to 39 genera and 25 families. The plants are arranged alphabetically (**Table 1)** which represents their botanical names, family, local name, useful part and ethno botanical uses for different diseases. Most of the herbal medicines came from herbs, trees, many of which also have other uses such as providing timber and protection of the environment.

Table 1: Plants details

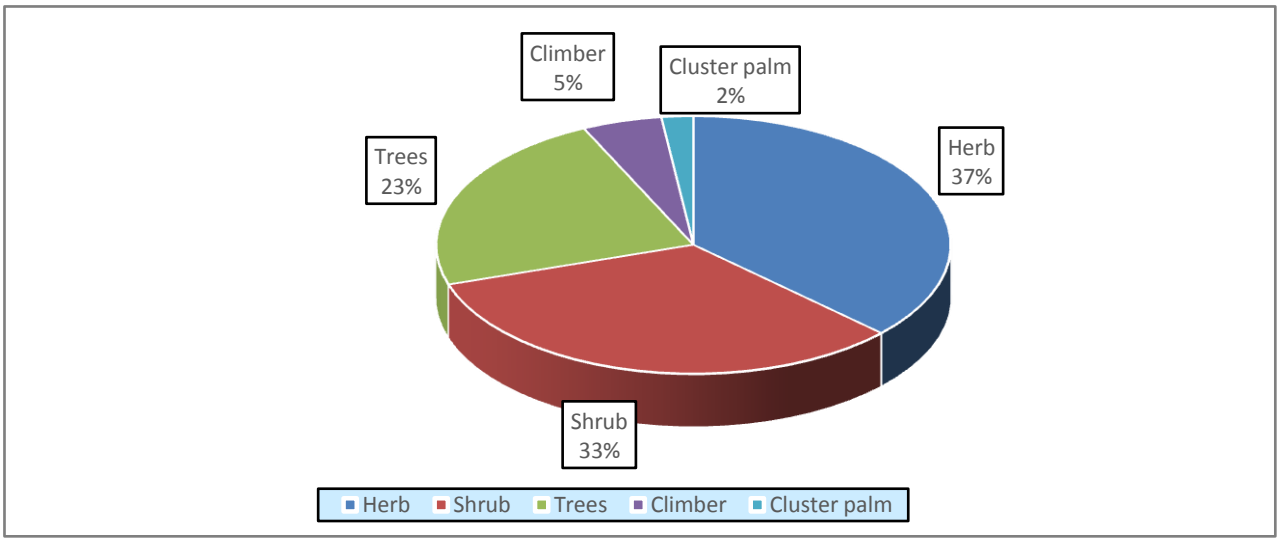
S. No	Botanical name	Family	Vernacular name	Parts of used	formed	Habit	Medicinal use
1	*Acalypa Indica* L.	Euphorbiaceae	Kuppaimeni	Leaves	Juice	Herb	Scabies, Expell worms, pulmonary tuberculosis
2	*Acanthospermum hispidium* DC.	Asteraceae	kommbu mull	Leaves	Juice	Herb	skin ailments, fever
3	*Agele marmelos* (L) Correa	Rutaceae	Vilvam	Leaves	Juice	Tree	Diabetes, dyspepsia, chronic diarrhea, heart diseases
4	*Anisomeles malabarica* L.	Lamiaceae	Peyimarutti	Roots	Powder	Shrubby herb	Astringent, carminative, tonic.
5	*Andrographis paniculata* (Burm. f)	Acanthaceae	Siriyanagai	Leaves	Powder	Shrub	Debility, fever, bleeding during periods
6	*Anisochilus carnosus* (L.F) Wallich	Lamiaceae	Karpuravalli	Leaves	Juice	Herb	Cold, Cough, Refrigerant

Table 1 Continue…….							
7	*Artocarpus heterophyllus* Lam	Moraceae	Paala	Fruit	Fresh	Tree	Curing fever, boils and skin diseases
8	*Azadirachta indica* (L) Juss	Meliaceae	Veembu	Leaves	Juice	Tree	Chicken pox, skin disease.
9	*Calotropis gigantea* L.	Asclepidaceae	Eeruku	Latex	Powder	Shrub	Wounds
10	*Celosia cristata* L.	Amaranthaceae	Kozhi poo	Leaves	Juice	Herb	Cools the Blood, clear the Heat, Stop the Bleeding
11	*Clausens dentata* (Willd)	Rutaceae	Kattukarveppilai	Leaves	Juice	Shrub	Intestinal disorders, intestinal worms
12	*Clesanthus collinus* Hook.F	Euphorbiaceae	Nilaippalai	Leaves	Juice	Tree	Arrhythmias
13	*Clitoria ternata* L.	Fabacee	Sangu poo	Roots	Powder	Climber	Nervous system, Digestive system, Respiratory system, Urinary system.
14	*Commelina longifolia* L.	Commelinaceae	kaanavazhai	Whole plants	Juice	Perrnial herb	Astringent, dysentery, fever
15	*Commelina bengalensis* L.	Commelinaceae	Kaanavazhai	Whole plants	Juice	Pernnial herb	Fever, Laxative, Snake bite
16	*Crotalaria medicagniea* L.	Fabaceae	Kilukiluppai	Root	Powder	Herb	Coughing up blood, lung diseases
17	*Dodonaea viscosa* L.	Sapindaceae	Virali	Leaves	Juice	Tree	Sore throat, fever.
18	*Euphorbia hirta* L.	Euphorbiaceae	AmmamPaccharisi	Whole plants	Juice	Herb	Asthma, amoebic dysentery
19	*Gloriosa superba* L.	Liliaceae	Kalapaikilangu	Rhizome	Powder	Climber	
20	*Grewia tentax* (Forssk)	Tiliaceae	Palicamaram	Leaves	Juice	Shrub	Colds and Chest complaints.
21	*Hugonia mystax* L.	Linaceae	Mothirakanni	Roots	Powder	Climbing shrub	Astringent, anthelmintic
22	*Jatropha gossypifolia* L	Euphorbiaceae	Siriyaaamanaku	Leaves	Juice	Shrub	Purgative, dysentery
23	*Kirganelia reticulata* US. Poir	Phyllanthaceae	karu-nelli	Roots	Powder	Shrub	Astringent, antidiarrhoeal, diuretic
24	*Leuca saspera* (Willd)	Lamiaceae	Thumbai	Flower	Powder	Shrub	Skin diseases, curing fever
25	*Moringa olerifora* Lam	Moringaceae	Murungai	Leaves	Juice	Tree	Antitumor, cholesterol lowering
26	*Ocimum sanctum* L.	Lamiaceae	Karuntulasi	Leaves	Juice	Herb	Respiratory Syndrome, cold, fever, cough
27	*Oxalis corniculata* L.	Oxalidaceae	Paliakiri	Leaves	Juice	Herb	Fever, skin rashes
28	*Phyllanthus amarus* L.	Phyllanthaceae	Keelanelli	Leaves	Paste	Shrub	jaundice, leucorrhoea, dyspepsia
29	*Phoenix pusila* Roxb.	Arecaceae	Eechamaram	Fruits	Dried	Cluster palm	Cardiac debility, peptic ulcer
30	*Pongamia pinnata* L.	Fabaceae	Pongaimaram	Bark	Decoction	Tree	Piles, wounds
31	*Pouzalzia zeylanica* L.	Urticaceaee	Kallurukki	Leaves	Juice	Herb	Anthelmintic, gonorrhoea
32	*Povonia odarata* (Willd)	Malvaceae	Avipattam	Roots	Powder	Perninal herb	Fragrant Swamp Mallow
33	*Pterolobium hexapetalum* (Roth)	Fabaceae	KaruIndu	Leaves	Paste	Shrub	Diarrhoea, constipation and piles
34	*Rhus mysorensis* G Don.	Anacardiaceae	Chippaamaram	Leaves	Paste	Shrub	Skin disease
35	*Santalum album* L.	Santalaceae	Santhanam	Bark	Paste	Tree	Inflamed skin
36	*Senna auriculata* (L.) Roxb	Fabaceae	Avaram	Leaves	Juice	Shrub	Laxative properties, diabetes
37	*Solanum nigrum* L	Solanaceae	Manathakkali	Leaves	Decoction	Annual herb	Skin diseases, rheumatism, and gout
38	*Solanum trilobatum* L	Solanaceae	Thuduvalai	Leaves	Juice	Herb	Asthma, Lung disorders
39	*Tarenna asiatica* L	Rubiaceae	Kottam	Leaves	Juice	Tree	Cough, chest pain
40	*Tridax procumbens* L	Asteraceae	Vettukayapoondu	Leaves	Juice	Herb	Antiseptic
41	*Ziziphus mauritiana* Lam	Rhamnaceae	Elanthai	Fruits	Powder	Tree	Ulcers; diarrhea
42	*Ziziphus oenoplia* (L) Mill	Rhamnaceae	Suraiilantai	Root	Powder	Shrub	Astringent bitter, anthelmintic, digestive
43	*Ziziphus rugosa* Lam	Rhamnaceae	Totari	Bark	Powder	Shrub	Ulcer, Skin disease, Cough

Table 2: Habit of medicinal plants used to treat human aliments in (Figure 2)

Habit	Number	Percentage%
Herb	16	37 %
Shrub	14	33 %
Trees	10	23 %
Climber	2	5 %
Cluster palm	1	2 %

Figure 2: Percentage of Medicinal plants usage according to Habits



4. Discussion

During the few decades there has been an increasing interest in the study of medicinal plants and their traditional use in different parts if India and there many reports on the use of plants in traditional healers or tribal peoples of Namakkal district. But this is first attempt medicinal plants record to Thalamalai Hills, Namakkal district in Tamilnadu, India. Mostly they are used for Skin disease, Snake bite, Fever, Malaria and various diseases from the medicinal plants either Powder or Capsule formed (inside the medicinal plant powder). In combination of powder formed such as *Andrographis paniculata* Burm. f, (Acanthaceae), *Azadirachta indica* (L) Juss, (Meliaceae), *Acanthospermum hispidium* D.C(Asteraceae). In this area only one particular traditional healer given the natural medicine to the local peoples.

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