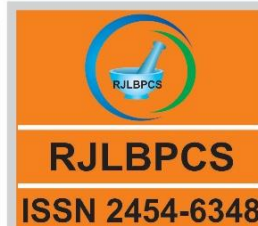




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ETHNOBOTANICAL SURVEY AT PULIANGUDI IN TIRUNELVELI DISTRICT, TAMILNADU, INDIA

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ABSTRACT: Ethnobotanical survey on medicinal plants existing in Puliangudi village, Tirunelveli district was done through field trips from 2017 - 2018. Investigation of ethno-medicinal plants was done and over a 200 plant species were found out and 56 species of which were found to be used in various ethnomedical preparations. The out-dated medicinal data was unruffled from the medicinal experts above the age of fifty. They are active in the traditional structure of medicine by using locally available medicinal plants to cure several illnesses. Present status and causes for drop of these practices have been analyzed through personal interviews and providing questioners. Efficiency and curative ability of herbal preparations provided by the traditional medical experts have also been assessed through feedback collection from the beneficiaries in the surrounding villages.

KEYWORDS: Ethno-medicinal plants, Puliangudi, TamilNadu.

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1. INTRODUCTION

Medicinal plants have significant assistances in the medicinal system of local people groups as the main source of medicine for the major of the rural populace. Plants have not only nutritive value but also medicinal and ritual or mystic values [1]. The ethnomedicinal curative systems vary across ethnic groups. According to the World Health Organization more than 3.5 billion folks in the emerging countries trust on medicinal plants as constituents of their therapeutic products [2]. The

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vast bulk of people (70-80%) in India check with the Traditional Medical Practitioners (TMPs), commonly termed as Registered Indian Medicinal Practitioners for their healthcare needs [3, 25, 26,]. Traditional medicine has remained into emphasis for consulting the goals of a broader attention of primary healthcare supply, not only in India but also, in all nations of the world. It is the first-choice healthcare dealing for at least 80% of Indians who grieve with high fever and other common ailments [4]. Thus, medicinal plants are broadly used in the cure of many anthropological and livestock illnesses in diverse parts of the world. In India, 80% of the folks use therapeutic plants and plant medicines certain over eras. Furthermore, medicinal plants endure the most important and occasionally the only spring of therapeutics [5]. Medicinal plants play an important role in the expansion and progression of modern trainings by helping as a initial point for the development of innovations in drugs [6]. The data and use of plants is an essential part of numerous ethnic countryside ethos in India, the level of which has not yet been deliberate in depth [1, 22, 23,]. Medicinal florae have a main role in the everyday life of the people groups in the district of Tirunelveli, Tamilnadu. It was experiential that these palatable plants are appreciated as complement diet.

2. MATERIALS AND METHODS

Ethnomedicinal data were collected from all groups of people of Puliangudi by interactive communication with the medicine headman and the nearby people having a detailed knowledge of plants, and was confirmed by different sets of people of Puliangudi residing in different places of the area of examination. The methodology take on by previous workers were followed [7]. The information was precisely entered in the field notepad and the ticket specimens were collected and identified by referring to the standard flora [8, 9, 10, 11, 12, 13]. All the voucher samples were well preserved in the form of herbarium and deposited in St.John's college, Palayamkottai, Tamilnadu.

3. RESULTS AND DISCUSSION

There are a good number of medicinal plants data in Puliangudi that are used to treat numerous diseases by the people in the area. The tribal and rural populace of India is highly reliant on medicinal plant treatment for meeting their healthcare requirements. This concerned the attention of several botanists and plant scientists who focused vigorous research in the direction of the reawakening of several medicinal plants and there was a squirt of scientific writings. In the present effort the ethnomedicinal facet of 56 plants species belonging in to 36 families collected from the tribal people of Puliangudi for the treatment of various illnesses like stomach disorders, poisonous bites, cuts, rheumatics, cough, asthma, fever and diabetes, etc., The enumerated plants dispersed among Amaranthaceae (5 species), Solanaceae, Poaceae (4 species), Malvaceae (3 species), Euphorbiaceae, Mimosaceae, Asteraceae, Liliaceae, Ceasalpiniaceae, Asclepiadaceae, Cucurbiaceae, Piperaceae (2 in each) and remaining 28 families (one species in each) were gathered

from the Puliangudi village of the Thirunelveli district, Tamilnadu (Table:1). The plants were set up to be used in different forms such as juice, extracts, decoction, paste, infusion, powder, etc., among the utilization of plant material 53% were leaves, 39% were fruits, and remaining were the plant products such as root, flower, seed, tuber, bark, bulb, latex, etc., in the enumeration all the studied plant species have been arranged alphabetically, along with their binomial, family, vernacular name and mode of utilization.

Table 1: Ethnomedicinal uses various plants of Puliangudi people

S.No	Botanical Name	Habit	Vernacular Name	Family	Therapeutics
1.	<i>Abutilon indicum</i> (L.) Sweet.	Shrub	Thuthi	Malvaceae	Leaves are consumed for cold, cough and other related complaints.
2.	<i>Acacia sinuate</i> (Lour.) Merr.	Climber	Chiyakkai	Mimosaceae	Fruit powder bath is used to cure skin itching.
3.	<i>Achyranthes aspera</i> L.	Herb	Naiyuruvi	Amaranthaceae	Leaves are consumed for urinary complaints
4.	<i>Aegle marmelos</i> (L.) Correa.	Tree	Vilvam	Rutaceae	The fruit resin is directly applied on hair as hair cleaner.
5.	<i>Aerva lanata</i> (L.) A. L. Juss. ex Schultes	Herb	Sirupoolai	Amaranthaceae	Leaves are consumed for curing urinary complaints
6.	<i>Allium cepa</i> L.	Herb	Siruvegayam	Liliaceae	Bulb paste is mixed with turmeric powder as a remedy for cuts and wound pain.
7.	<i>Aloe vera</i> (L.) Burm.f.	Herb	Sothukatthalai	Liliaceae	Fleshes on the inner side of the leaves were used for hair growth.
8.	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.	Herb	Ponnaganni	Amaranthaceae	Boiled leaves are consumed for curing eye trouble and leukemia
9.	<i>Amaranthus spinosus</i> L.	Herb	Mullukkeerai	Amaranthaceae	Leaves are consumed with food for improving eye sight.
10.	<i>Amaranthus viridis</i> L.	Herb	Kuppaikeerai	Amaranthaceae	Leaves are consumed with food for improving eye sight.
11.	<i>Amorphophallus paeoniifolius</i> (Dennst.) Nicol.	Herb	Karunaikilangu	Araceae	Boiled tubers are consumed to cure piles disorder
12.	<i>Andrographis paniculata</i> (Burm.f.) Nees.	Tree	Nilaveembu	Acanthaceae	Leaves are boiled in water orally for curing dengue fever
13.	<i>Annona squamosa</i> L.	Tree	Sithapalam	Annonaceae	Seeds are consumed with food as a sexual stimulant.
14.	<i>Aristolochia bracteolata</i> Lam.	Climber	Aduthinnapalai	Aristolochiaceae	Leaf juice is consumed to reduce stomach worms.
15.	<i>Bambusa</i>	Tree	Moongil	Poaceae	Meristematic tissues are

	<i>arundinacea</i> Willd.				eaten for reducing body temperature.
16.	<i>Borassus flabellifer</i> L.	Tree	Panai	Arecaceae	Boiled fruits are consumed to reduce stomach disorders.
17.	<i>Calotropis gigantea</i> (L.) Dryand.	Shurb	Erukkalai	Asclepiadaceae	Latex used to cure rabies, stomach pain
18.	<i>Capsicum annuum</i> L.	Herb	Milagaai	Solanaceae	Fruits are used to reduce blood pressure.
19.	<i>Cardiospermum halicacabum</i> L.	Climber	Mudakkathaan	Sapindaceae	Leaf juice is consumed for curing paralysis and also to quicken relief from stomach ailments.
20.	<i>Cassia auriculata</i> L.	Shurb	Aavarai	Caesalpiniaceae	The extract of the petals are taken orally for digestion.
21.	<i>Centella asiatica</i> (L.) Urban.	Herb	Vallarai	Apiaceae	Leaf juice is consumed for curing leucorrhoea and also as a memory booster.
22.	<i>Cissus quadrangularis</i> L.	Shurb	Pirandai	Vitaceae	Leaves are ground well into a paste and directly applied on the hair before bath for controlling dandruff.
23.	<i>Coccinia cordifolia</i> (L.) Cong	Tree	Kovai	Cucurbitaceae	Leaf juice is consumed for curing Diabetes
24.	<i>Commelina benghalensis</i> L.	Herb	Kanankeerai	Commelinaceae	The whole plant juice is used to cure burns, boils, leprosy, nervous disorders, and swellings.
25.	<i>Crotalaria verrucosa</i> L.	Shurb	Gilugilupai	Fabaceae	Fruit powders mixed with hot water are consumed to cure scabis.
26.	<i>Cynodon dactylon</i> (L.) Pers.	Herb	Arugampullu	Poaceae	The whole plant juice is used for cleaning stomach and cooling the body temperature.
27.	<i>Datura matel</i> L.	Herb	Oomathai	Solanaceae	Mature fruit is consumed for curing the stomach and also to relieve stomach troubles.
28.	<i>Dioscorea alata</i> L.	Herb	Vallikilangu	Dioscoreaceae	Boiled tubers are consumed as food.
29.	<i>Eclipta prostrate</i> L.	Herb	Karisilanganni	Asteraceae	Leaves are grained to apply on the head as a hair dye.
30.	<i>Elettaria cardamomum</i> (L.) Maton.	Herb	Ellakai	Zingiberaceae	Fruits are consumed to treat ulcer
31.	<i>Enicostemma axillare</i> (Lam.) A. Raynal.	Climber	Vellarugu	Gentianaceae	Leaf paste is applied on the cheek to remove the cheek worms.
32.	<i>Hemidesmus indicus</i> (L.) R. Br. ex Schult.	Climber	Nannari	Asclepiadaceae	Root boiled and extracted is mixed with honey and put in a vessel after three days and consumed orally for 30 days as a blood purifier.
33.	<i>Hybanthus</i>	Herb	Orithalthamarai	Violaceae	Plant juice is consumed

	<i>enneaspermus</i> (L.) F.Muell.				with milk as a sexual disorder.
34.	<i>Moringa oleifera</i> auct.	Tree	Murungai	Moringaceae	Boiled leaves juices are consumed for increasing sperm count.
35.	<i>Mukia maderaspatana</i> (L.) M.J.Roem.	Climber	Musumusukai	Cucurbitaceae	Little leaf juice is consumed for cold and cough.
36.	<i>Oriza sativa</i> L.	Herb	Nellu	Poaceae	Seeds are a main ingredient in food.
37.	<i>Pedaliium murex</i> L.	Herb	Perunerinji	Pedaliaceae	Leaf juices are applied for cuts and wounds.
38.	<i>Phyllanthus amarus</i> Schumach. & Thonn.	Herb	Keellanelli	Euphorbiaceae	The plant juice and boiled rice are mixed with goat milk for 7 days to control jaundice.
39.	<i>Piper longum</i> L.	Herb	Thipli	Piperaceae	Fruit smoke is inhaled to treat cold.
40.	<i>Piper nigrum</i> L.	Climber	Milagu	Piperaceae	Fruit powder is mixed with hot water are consumed as any food poisonous reduced.
41.	<i>Ricinus communis</i> L.	Shurb	Aamanakku	Euphorbiaceae	The stem bark paste mixed with goat milk is given orally to the pregnant women for a smooth delivery.
42.	<i>Sida cordifolia</i> L. (Burn.F) Borss.	Herb	Nilathutti	Malvaceae	Leaf juices are applied for cuts and wounds.
43.	<i>Solanum nigrum</i> L.	Herb	Kuttythakkali	Solanaceae	Fruits are consumed for stomach ulcer and also to have a quick relief of their related troubles.
44.	<i>Solanum torvum</i> Sw.	Shurb	Sundakkai	Solanaceae	Fruits are boiled with hot water and consumed to cure stomach ulcer.
45.	<i>Tamarindus indica</i> L.	Tree	Puli	Caesalpiniaceae	Bark is burnt and mixed with coconut oil and directly applied on the fire injured spots for curing.
46.	<i>Tinospora cordifolia</i> (Willd.) Miers.	Climber	Seenthalkodi	Menispermaceae	Leaves and fruit along with butter milk are taken internally for piles.
47.	<i>Tribulus terrestris</i> L.	Herb	Nerunji	Zygophyllaceae	Boiled leaf are consumed to treat paralysis
48.	<i>Trichodesma indicum</i> (L.) R. Br.	Herb	Kavilthumbai	Boraginaceae	Leaf crushed juices are a remedy for cold and cough.
49.	<i>Tridax procumbens</i> L.	Herb	Thathasedi	Asteraceae	Leaf paste is applied for scabies, sore, cuts and wounds and also to quicken healing.
50.	<i>Vetivera zizanioides</i> (L.) Nash.	Herb	Vetiver	Poaceae	Dried root hairs are boiled with coconut oil for applying on the head for hair growth and dandruff.
51.	<i>Vitex negundo</i> L.	Shurb	Nochili	Verbenaceae	Young leaves are ground

					and mixed with buffalo curd and taken orally for 30 days to cure wound and swelling.
52.	<i>Pithecellobium dulce</i> (Roxb.) Benth.	Tree	Kodukkapuli	Mimosaceae	The leaf juice is taken twice a day for seven days to cure stomach ulcer.
53.	<i>Punica granatum</i> L.	Tree	Madhulam	Punicaceae	Fruits are consumed to treat irregular menstrual disorders.
54.	<i>Sida acuta</i> Burm. F.	Herb	Arivalmanaipundu	Malvaceae	Leaf juices are applied for cuts and wounds.
55.	<i>Syzygium cumini</i> (L.). Skeels.	Tree	Naaval	Myrtaceae	Fruits are consumed to treat stomach ulcer and diabetic complaints.
56.	<i>Ziziphus mauritiana</i> Lam.	Shurb	Illandai	Rhamnaceae	Fruits are consumed to treat indigestion.

The ethnic people life is interlaced around forest ecology and forest resources. There were found to be the fountain of gathered experience and knowledge of native vegetation, which can be utilized, in numerous intergraded tribal expansions. They are dependent on plants for their living and collected tubers, barks, roots, rhizomes, flowers, fruits seeds, leaves, gums, honey, wax, etc., and their traditional conducts of treatment of disease and various sicknesses. Data on some very valuable medicines known to the tribal populations through know-how of ages is usually passed on from group to another [14, 15, 16, and 17]. The tribal habits of life is swiftly breaking of under the effect of improved communication services and still more under the various tribal welfare scheme of the government [9, 18, 19]. As the tribal population is slowly adapting modern conducts of life, their heritage of traditional knowledge in plants will almost immediately be lost forever. For the ethno botanist, the inspiring and urgent task is to record for future generations; whatever is treasured in the traditions of the tribes, their way of life, their information of plants before all these vanish before the close of century. In the current study 56 plant species belonging in to 36 families were used by tribe, Puliangudi village of Tirunelveli district, Tamilnadu were predictable. At present these valuable mixtures are under thoughtful threat due to their habitat obliteration, overexploitation instability of cultivation and several anthropogenic and natural meddling. This recommended that the consciousness about the medicinal plants and its preservation approaches for the sustainability of our network through the use and conservation by establishing them on the barren hill grades and waste lands [20, 21, 24, and 27].

4. CONCLUSION

Our study discloses that plants are still a main source of medicine for the indigenous communities of most of the shares of our surveyed area, as modern health care amenities are still not adequate. This report may characterises a useful and abiding document, which can subsidise to preserve knowledge on the use of medicinal plants in the study area and also stimulate the interest of future

generations on traditional healing practices. The information provided in the paper is imperfect and there is a scope to pledge further ethnobotanical study amid the communities to gather data as far as possible. The medicated claims incorporated in the study need to be assessed through phytochemical and pharmacological studies to ascertain their potentiality as drugs. It is crucial need for detailing these before such treasured knowledge becomes difficult to get to and extinct.

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CONFLICT OF INTEREST

Authors have no any conflict of interest.

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