

**AN ETHNOBOTANICAL SURVEY OF MEDICINAL PLANTS FROM
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ABSTRACT

Medicinal plant species are precious and are used for production of several drugs. These plants are traditionally used to treat different ailments. The present investigation deals with the observations on ethno-medicinal uses of plant wealth of Thirukazhukundram Thaluk, Kancheepuram District, Tamilnadu. Medicinal plants have played an important role in treating and preventing a variety of diseases throughout the world. India is one of the most medico-culturally diverse countries in the world where the medicinal plant sector is part of a time honoured tradition that is respected even today. The ethnobotanical information was collected through interviews among local traditional healers in the study area. The essential uses of the herbal drugs were as jaundice, asthma, dyspepsia, snake bite, diabetes, stomachache problems, anthelmintic, leprosy, diarrhoea, scorpion bite, urinary diseases, antipyretic and skin diseases. Traditional uses of 42 plant species spread over 26 families are described under this study. The medicinal plants used by them are arranged by Scientific name, Family name, Common name and Therapeutic uses. The present investigation revealed that the medicinal plants still play a vital role in the primary health care of the people.

KEYWORDS: jaundice, asthma, dyspepsia, snake bite, diabetes, stomachache problems and etc.**INTRODUCTION**

According to the World Health Organization (WHO) about 65–80% of the world's population in developing countries depends essentially on plants for their primary healthcare due to poverty and lack of access to modern medicine.^[1] In recent years, use of ethnobotanical information in medicinal plant research has gained considerable attention in segments of the scientific community.^[2] An interest in medicinal plant has been fuelled by the rising costs of prescription drugs in the maintenance of personal health and well-being and the bioprospecting of new plant-derived drugs.^[3] During the last few decades there has been an increasing interest in the study of medicinal plants and their traditional use in different parts of India. In the recent years number of reports on the use of plants in traditional healing by either tribal people or indigenous communities of India is increasing.^[4,5,6,7,8] Medicinal plants are now more focused than ever because they have the capability of producing several benefits to society indeed to mankind, especially in the line of medicine.^[9] Plant based medicines have been in use against various disorders since time immemorial.^[10] Any parts of plant: root, stem, stem bark, leaves, flowers and seeds etc., which have in one or more its organs constituents that can be utilized for therapeutic use, are called medicinal plants.^[11] Knowing the importance of ethno medicine, this survey was conducted in the Thirukazhukundram Thaluk,

Kanchipuram District, Tamilnadu, and aimed to report the prevalence, role and the necessity of the consideration of conservation status of knowledge of these traditional medicinal plants.

Key Facts of Medicinal Plants

Medicinal plants play a key role in the human health care system. About 80% of the world populations rely on traditional medicines which are predominantly based on plant material.^[12] It is estimated that about 7,500 plants are used in health traditions in mostly rural and tribal villages of India. Out of these, the real medicinal value of over 4,000 plants are either little known or unknown to the mainstream population.^[13]

MATERIALS AND METHODS

In the present study “Medicinal Plants Diversity of Thirukazhukundram Thaluk, Kanchipuram District, Tamilnadu”, Traditional uses of 43 plant species spread over 26 families are described under this study are identified as traditional folklore medicinally used species in Thirukazhukundram. Plants are enumerated with botanical names; family, local names (Tamil) and uses of different plant part in various ailments tabulated and their pictures are depicted. During the survey, the uses of medicinal plants by local communities were analyzed. It was also recorded that some plants used as a medicine in this region are not used elsewhere in the country.

RESULTS AND DISCUSSION

Indigenous knowledge of folk is the important source of locating bio-resources of that locality. However people of the modern generation learn from their ancestors on the basis of keen observation only. The people have been using plant remedies against various ailments from time immemorial without knowing their effective constituents.^[14] Major issues like consistently increasing human habitation surrounding the sacred grove areas, poverty, illiteracy among large sector of the population, continuous area shrinking, over exploitation, site degradation and land conservation are to be considered while assessing the conservation significance of each scared grove sites.^[15] Fortunately scared grove sites help to preserve the biodiversity along with cultural values and religious taboos.

Local people conserve the forests through a strict code of conduct on religious beliefs for several generations without any local administration and clearly defined management policy will make any minimal resources extraction.^[16] Cultural transformation, eroding cultural values and both view about nature especially among young generation has made this traditional management worse in many scared groves.^[17]

The people in the vicinity of the forest have a good knowledge of useful plant species especially the knowledge on medicinal plants. Traditional beliefs and practices are deeply rooted in their culture in such a way that they attribute most of the complicated ailments and other misfortunes to supernatural origin due to soul loss, spells or curses cast by evil spirits by the displeasure.^[18] The local people use the plants and their parts for the treatment of ailments following the traditional practices. The most popular medicinal preparation is infusion, decoction, paste or juice. The medicinal uses of the same species may vary from one village to the next village. This may be due to diversity in culture, tradition and isolation of one area to other. This knowledge is, however, being eroded with introduction of modern

medicines. During the last few years, some initiatives have been taken for the sustainable management of medicinal plants and their resources.^[19]

Despite the implementation of various activities for the conservation of the species and documentation of the species, there is a still gap in policy, plan and implementation of programs, capacity building activities in an integrated manner. Though some initiatives have already been taken for conservation and sustainable utilization of the useful species, less priority is given to conserve these resources in an integrated manner. Therefore, appropriate national policy, action plan and program related to the conservation and sustainable uses of the plants should be formulated taking into consideration both the needs of the people and sustainable management of resources. Many parts of the biogeographically areas of the country still remained unexplored. Hence, it is strongly recommended that major thrust should be given to an intensive inventory and documentation of useful species, their chemical constituents, habitats, and potential utilization as raw materials.

The study indicates that there seem to be a good potential for their sustainable utilization. Therefore, emphasis should be given to implement some pilot programmes for plantation, domestication and cultivation of useful species. This will help in providing additional income to local people. The people of these villages have comprehensive knowledge about plants and their potential uses. The traditional knowledge should be documented and conserved. Moreover, top priority should be given to in-situ conservation of the species. Such steps will not only contribute to protect the habitats but also help to maintain the ecological processes. Emphasis should also be given to conserve the habitats and useful species in ex-situ conservation. Attempt should be made to launch special programmes for raising people's awareness about conservation and utilization of species.

Table Shows the list of major medicinal plants and its details in Thirukazhukundram Thaluk, Kancheepuram District, Tamilnadu.

S.No	Botanical Name	Family	Local Name (Tamil)	Medicinal uses
1	<i>Adhatoda vasica</i> Nees	Acanthaceae	Adathodai	Bronchitis, Leprosy, Heart troubles, Asthma, Cough, Sore eyes and Gonorrhoea
2	<i>Andrographis paniculata</i> (Burm. f.) Wallich ex Nees	Acanthaceae	Nilavembu	Powdered leaf is mixed with cow or goat's milk and taken orally to treat diabetes.
3	<i>Achyranthes aspera</i> L.	Amaranthaceae	Naayuruvi	To treat cuts and Wounds.
4	<i>Mangifera indica</i> L.	Anacardiaceae	Maamaram	The latex from leaf and stem bark is used to treat heel cracks.
5	<i>Catharanthus roseus</i> G. Don.	Apocynaceae	Nithyakalyani	Whole plant is powdered and mixed with cow's milk and taken orally to treat diabetes.
6	<i>Nerium oleander</i> Sol.	Apocynaceae	Arali	Juice prepared from the stem bark is boiled with gingelly oil and two drops are poured into ear to treat ear pain.
7	<i>Gymnema sylvestre</i> R. Br	Asclepiadaceae	Sirukurinchan	Leaf powder is mixed with cow's milk and taken orally to treat diabetes. The root powder is taken orally and also applied on the bitten spot to treat snake bite.
8	<i>Eclipta prostrata</i> L.	Asteraceae	Karisalanganni	Leaf powder is mixed with coconut oil & applied on the hair regularly for healthy and black hair.

9	<i>Cassia auriculata</i> L.	Caesalpiniaceae	Aavarai	Flowers are crushed and mixed with goat's milk and taken orally to prevent white discharge in women.
10	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Puliya maram	Dried fruits are taken orally to treat eye infections.
11	<i>Commelina benghalensis</i> L.	Commelinaceae	Aduthinna thalai	Leaf paste is used as emollient for leprosy and the leaf juice is applied on wounds.
12	<i>Coccinia grandis</i> (L.) J. Voigt.	Cucurbitaceae	Kovai	Leaf Juice is mixed with butter and applied topically to treat skin diseases.
13	<i>Phyllanthus amarus</i> Schum. & Thnn.	Euphorbiaceae	Keezhanelli	Fresh leaves are ground and mixed with a cup of cow or goat's milk and taken internally to cure jaundice.
14	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Nelli.	Fruit powder is mixed with cow's or goat's milk and taken orally to treat cold and cough.
15	<i>Ricinus communis</i> L.	Euphorbiaceae	Amanakku	The leaf juice is taken orally or washed leaves are tied on the breast to increase secretion of milk in women. The oil prepared from the seeds is applied on lower stomach to get relief from stomachache.
16	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Amman Pachcharsi	Asthma, respiratory infections
17	<i>Euphorbia tirucalli</i> L.	Euphorbiaceae	Kodikalli	Asthma, dropsy, leprosy, biliousness, leucorrhoea, dyspepsia, jaundice and colic.
18	<i>Jatropha curcas</i> L.	Euphorbiaceae	Kaatumanku	Sciatica and dropsy.
19	<i>Acalypha indica</i> L.	Euphorbiaceae	Kuppai meni	Plant paste ground with salt is applied externally to scabies. Leaf juice is given in cough and cold
20	<i>Clitoria ternatea</i> L.	Fabaceae	Sangu Pushpam	Root powder is mixed with water and taken orally to treat indigestion, eye diseases and headache.
21	<i>Pongamia pinnata</i> (L.) Pierre.	Fabaceae	Punga maram	Juice of root is mixed with equal amount of coconut milk, boiled and applied topically to cure wound and gastric trouble.
22	<i>Ocimum sanctum</i> L.	Lamiaceae	Thulasi, Tulsi	Leaves are crushed with onion bulbs and the juice is taken orally to treat cough, cold and headache.
23	<i>Aloe vera</i> L.	Liliaceae	Sothukathalai	Sap mixed with oil is heated and the mixture is applied on hair for hair growth and good sleep.
24	<i>Lawsonia inermis</i> L.	Lythraceae	Maruthani	Leaf powder is mixed with coconut oil and applied topically to treat cuts and wounds.
25	<i>Abutilon indicum</i> L.	Malvaceae	Thuthi	Leaf juice and root are taken orally to treat dental problems.
26	<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Semparuthi	Paste of fresh leaves is applied on the hair for healthy and black hair.
27	<i>Sida acuta</i> Burn.	Malvaceae	Arival manai poondu	Leaf paste is applied topically to heal cuts, wounds and to get relief from headache.
28	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Vembu	Leaf paste is applied topically on the body to treat small pox, rheumatism and skin diseases. The young twigs are used as toothbrush to develop strong teeth.
29	<i>Mimosa pudica</i> L.	Mimosaceae	Thottasurungi	Pinch of leaf paste is applied topically to treat cuts and wounds.
30	<i>Ficus benghalensis</i> L.	Moraceae	Alamaram	Stem latex is applied topically on heel cracks. Young stem is used as tooth brush.
31	<i>Ficus religiosa</i> L.	Moraceae	Arasu	Dried leaf powder is mixed with water and taken orally to get relief from body pain.
32	<i>Moringa oleifera</i> Lam.	Moringaceae	Murangai	The leaf is taken as food and it reduces body heat and to treat indigestion and eye diseases. Flower is taken as food and it gives chillness to Eyes and increases sperm production in men.
33	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Naval maram	Paste of stem bark is applied topically to treat swellings. The ripe fresh fruits are taken orally to reduce body heat.
34	<i>Zizyphus mauritiana</i> Lam.	Rhamnaceae	Ilandai	Leaf and bark decoction is boiled and it is used to take bath to treat severe body pain. Dried bark powder is applied topically to treat wounds.
35	<i>Morinda tinctoria</i> Roxb.	Rubiaceae	Nuna	Leaf juice is given orally to children before food for easy digestion.
36	<i>Citrus aurantifolia</i> (Christm.) Swingle. L.	Rutaceae	Elumitchai	Decoction of leaves is inhaled to get relief from fever, headache and cold.
37	<i>Murraya koenigii</i> (L.) Sprengel	Rutaceae	Karuveppilai; Karivembu	Juice of tender leaves is taken orally to arrest vomiting.
38	<i>Cardiospermum halicacabum</i> L.	Sapindaceae	Mudakkathan	Root is boiled with oil and applied on head before bath to treat throat infection and headache.
39	<i>Datura metel</i> L.	Solanaceae	Oomathai	Few drops of leaf juice is poured into ear to treat earache.
40	<i>Solanum nigrum</i> L.	Solanaceae	Manathakkali	Whole plant parts are taken as food to treat cough.
41	<i>Solanum torvum</i> Sw.	Solanaceae	Sundaikkai	Leaf juice is taken orally to reduce body heat.
42	<i>Cissus quadrangularis</i> Linn.	Vitaceae	Pirantai	Young stem is crushed and eaten as appetizer.

Pictures shows the list of major medicinal plants and its details in Thirukazhukundram Thaluk, Kancheepuram District, Tamilnadu.



Adhatoda vasica Nees



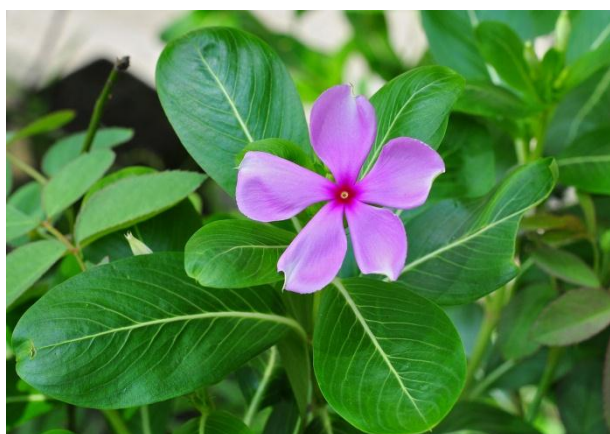
Andrographis paniculata (Burm. f.) Wallich ex Nees



Achyranthes aspera L.



Mangifera indica L.



Catharanthus roseus G. Don.



Nerium oleander Sol.



Gymnema sylvestre R. Br



Eclipta prostrata L.



Cassia auriculata L.



Tamarindus indica L.



Commelina benghalensis L.



Coccinia grandis (L.) J. Voigt.



Phyllanthus amarus Schum. & Thnn.



Phyllanthus emblica L.



Ricinus communis L.



Euphorbia hirta L.



Euphorbia tirucalli L.



Jatropha curcas L.



Acalypha indica L.



Clitoria ternatea L.



Pongamia pinnata (L.) Pierre.



Ocimum sanctum L.



Aloe vera L.



Lawsonia inermis L.



Abutilon indicum L.



Hibiscus rosa-sinensis L.



Sida acuta Burn.



Azadirachta indica A. Juss.



Mimosa pudica L.



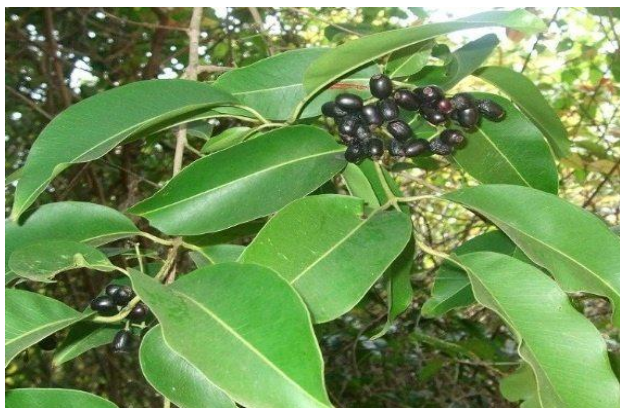
Ficus benghalensis L.



Ficus religiosa L.



Moringa oleifera Lam.



Syzygium cumini (L.) Skeels



Zizyphus mauritiana Lam.



Morinda tinctoria Roxb.



Citrus aurantifolia (Christm.) Swingle. L.



Murraya koenigii (L.) Sprengel



Cardiospermum halicacabum L.



Datura metel L.



Solanum nigrum L.

*Solanum torvum* Sw.*Cissus quadrangularis* Linn.**REFERENCE**

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