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Ethno botanical Resource of *Phyllanthus* species from Paddy field in Thiruvarur District, Tamil Nadu. India.

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ABSTRACT

Ethno botanical survey in Euphorbiaceae family *Phyllanthus* species in Thiruvarur District, Tamil Nadu in south India. Thiruvarur District all place in upland and lowland sites the extensive and intensive field survey in different months in 2014-2015. During the study period survey in medicinal plants selected seven important paddy growing blocks of Thiruvarur District such as Mannargudi, Needamangalam and Valangaimaan upland blocks and lowland site in Kudavasal, Nannilam, Thiruvarur, Thiruthuraiipoondi in irrigation facility is lacking. The field stripes in each site are medicinal plants were collected. During the period identified in 8 *Phyllanthus* species are medicinally important to cure in different diseases for human beings directly. The local people especially the elder have authentic information on medicinal values of different plant parts such as leaves, fruits, seeds, stem, bark, and roots. They use the drugs of different plant parts in the form of paste, powder, juice, decoction, and also in crude form, with other additives like honey, ginger, goat milk, and coconut water. The medicinal formulations of these *Phyllanthus* species are used in treatment of different diseases in humans. In the present study was revealed the distant variation within the species of *Phyllanthus*.

Keywords: Paddy field, *Phyllanthus* species, Euphorbiaceae, Medicinal properties.

INTRODUCTION

The *Phyllanthus* species is most important plant in the world. In many countries around the world, *Phyllanthus* species are used in folk remedies [1]. The genus *Phyllanthus* has long history of use in the treatment of liver, kidney and bladder problem, diabetes and intestinal parasite [2]. The *Phyllanthus* species medicine traditional and natural product so take in all age people. The importance of medicinal plants and their importance in the pharmaceutical industry [3,4]. The *Phyllanthus* species medicinal plants have been utilized in jaundice peasant and Stanley cure in the diseases. Traditional medicine plays an important role in maintaining the physical and psychological wellbeing of local people in India. Earlier many medico botanical studies were carried out Andhra Pradesh [5-11] with documentation of first-hand information on medico botanical studies of a specific group of related species, i.e. *Phyllanthus* (Family: Euphorbiaceae) and has about approximately 800 species and which are found in tropical and subtropical countries of the world [12,13]. The name '*Phyllanthus*' means "leaf and flower" and named so because of its appearance where flower, fruit and leaf appears fused [14]. *Phyllanthus* has a long history of use in tropical countries in indigenous medicine for the treatment of liver ailment; they were examined during several researches.

MATERIALS AND METHODS

Study area:

Thiruvarur district extends over an area 2097.09 sq. Km is situated in the south eastern portion of Tamil Nadu. It is bounded on the north by Nagapattinam and Thanjavur district on the east the Nagapattinam district on the south by the Bay of Bengal, Thanjavur and Pudukkottai district and on the west by Thanjavur district. The average maximum and minimum temperature ranges from summer highest day temperature in between 28° C to 36° C average

temperature with respectively. The district lies between 10° 22' and 11° 07' N latitude and 75° 45' E longitude. The study was based on extensive and intensive fields surveys made during different months of rainy season 2014-2015. During the course of field study the authors have selected 7 important paddy growing blocks in Thiruvavur District. Frequent field tribes were different month in each site for collection in *Phyllanthus* species. The collected *Phyllanthus* species plants were pressed, dried, preserved and properly identified with the help of available literature and monographs by [15-19] and confirmed from authentic regional herbaria at Rabinat Herbarium, Trichirappalli-24 and deposited then in the Department of Botany, M.R. Government Arts College, Mannargudi, Thiruvavur District, Tamil Nadu.

RESULTS AND DISCUSSION

In the present investigation is survey to ethno medicinal uses under in eight *Phyllanthus* species are used in ethno medicinal uses in rural people such as *Phyllanthus amarus*, *Phyllanthus debilis*, *Phyllanthus flatarnus*, *Phyllanthus maderaspatensis*, *Phyllanthus reticulatus*, *Phyllanthus tenellus*, *Phyllanthus urinaria*, and *Phyllanthus virgatus*. All the species to cure in various ailments such as cough, fever, jaundice, body pain, asthma, dysentery, cooling to body temperature, and etc. in human beings. Most of the ailments are treated with a single species while others by a mixture of ingredients. Majority of drug samples are taken orally, followed by external and internal application. Among the test samples *Phyllanthus amarus* is used in the treatment of a maximum number of ailments followed by *Phyllanthus debilis*, *Phyllanthus flatarnus*, *Phyllanthus maderaspatensis*, *Phyllanthus tenellus*, *Phyllanthus reticulatus*, *Phyllanthus urinaria* and *Phyllanthus virgatus*, for one ailment each. Through review of literature reveals that *Phyllanthus amarus*, *Phyllanthus debilis*, *Phyllanthus maderaspatensis*, *Phyllanthus reticulatus* and *Phyllanthus virgatus* are the popular drug yielding plants [20-22] as practiced by a majority of herbal practitioners. The critical analysis on ethno medicinal properties revealed hither to unknown medicinal properties of a good number of test species, indicated with asterisk in the enumeration. The unknown information revealed that the tribal medicines are used for treatment of different ailments such as anemia, diabetes, malaria, tuberculosis and whooping cough (*Phyllanthus amarus*) diuretic, jaundice (*Phyllanthus debilis*), purgative (*Phyllanthus maderaspatensis*), bone fracture, insect bite, psoriasis and small box (*Phyllanthus reticulatus*), fever and head ache (*Phyllanthus virgatus*). Studies on phytochemical analysis of crude samples and biological evaluation are in progress, to confirm the folk claims.

Enumeration:

The plant species are arranged in alphabetical order in species. The enumeration of plant contains scientific name, use of part, medicinal uses. The medicinal uses are characterized with details such as the parts used singly, combination with other ingredients or mingled with plant extract, methods of preparation and mode of administration were carefully recorded in the field. The following is the list of 8 plant species was studied (Table-1). Due to more need of ethno medicinal plants and more earnings, local villagers have motivated for conservation and cultivation of these plants.

Table-1 Ethno botanical resource of *Phyllanthus* species from paddy field in Thiruvavur District, Tamil Nadu. India

S.No	Botanical Name	Use of parts	Medicinal uses
1.	<i>Phyllanthus amarus</i>	Whole plant	The whole plant powder mixed with any one in coconut water, honey and ginger, take in empty stomach continue in three days cure in jaundice. The root powder and add sugar in preparation low temperature with spoiled in decoction take to cure in pain and fever.
2.	<i>Phyllanthus debilis</i>	Leaves	Fresh leaf juice takes in empty stomach in continue three days to cure in diuretic.
3.	<i>Phyllanthus flatarnus</i>	Leaf & root	Leaf extract was mixed with ginger extract takes to cure jaundice peasant to cure in the diseases. Root decoction to cure in fever and body pain and hypertension.
4.	<i>Phyllanthus maderaspatensis</i>	Leaves	Leaf paste applied in the head to cure in headache.
5.	<i>Phyllanthus reticulatus</i>	Leaves	Leaf paste is used hair wash in body cooling and eye problems.
6.	<i>Phyllanthus tenellus</i>	Whole plant	The whole plant juice takes in empty stomach cure in jaundice and kidney problems. The leaf decoction continues three days cure in stomach pain and peptic ulcer.
7.	<i>Phyllanthus urinaria</i>	Leaf & Root	Leaf decoction takes in children's to cure in cough and liver tonic. Root decoction takes in kidney peasant to cure in kidney problems
8.	<i>Phyllanthus virgatus</i>	Whole plant	The plant powder mixed in goat milk take in human beings to cure in dysentery and hepatic protective activity. Leaf paste applied on affected areas till cure itching.

1. *Phyllanthus amarus*



2. *Phyllanthus debilis*



3. *Phyllanthus Flatarnus*



4. *Phyllanthus maderaspatensis*



5. *Phyllanthus reticulatus*



6. *Phyllanthus tenellus*



7. *Phyllanthus Urinaria*



8. *Phyllanthus virgatus*



CONCLUSION

The paper provides some new and interesting ethno medicinal uses of *Phyllanthus* species employed by aborigines of Thiruvarur District for the treatment of Jaundice, dysentery, body pain, fever and headache and etc. The traditional medicinal plant used in the poor people safety and efficacy. It is an important to document the indigenous knowledge relevant to Euphorbiaceae family from Thiruvarur district, Tamilnadu, India. For the help of the local people the recorded plant species should be taken care of and also steps be taken for conservation of important plant species of the in our area.

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