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ETHNOBOTANICAL SURVEY OF TRADITIONAL MEDICINAL PLANTS IN CUDDALORE DISTRICT, TAMILNADU

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Abstract

Traditional medicines practices are possibly the most ancient practitioners of traditional medicine in India and in general are the primary health-care providers to a majority of the rural population and a substantial segment of the urban population in the country. An ethno-botanical survey of traditional medicinal plants were used in the treatment of various diseases in village peoples in some villages of Cuddalore district, Tamilnadu was conducted. The information was collected on the basis of personal interviews with traditional healers and village elders. The investigation revealed that 84 plant species belonging to 34 families are commonly used in the treatment of different diseases. The collected medicinal plants have been arranged alphabetically according to botanical name, followed by common name, vernacular name along with organs used, mode of preparation and utilization. The medicinal plants were mostly used for the treatment of stomach ache, menstrual problem, skin disease, viral infection, head ache, fever and ulcers.

Key words: Ethnobotanical Survey**,** Traditional medicine, Diseases and Cuddalore district.

1. Introduction

Indigenous herbal medicines have been popular since time immemorial and recently have also commanded major attention worldwide due to their potential nutraceutical values (Bhat *et al.,* 2010). According to the World Health Organization, more than 80 % of the world population in developing countries depends primarily on plant based medicines for basic healthcare needs (Jain *et al.,* 2011). Herbal medicines have become more popular in the treatment of many diseases due to popular belief that green medicine is safe, easily available and with less side effects (Savithramma *et al.,* 2011) and recommended for the treatment of diabetes throughout the world.

Modern medicine has evolved from folk medicine and traditional system only after through chemical and pharmaceutical screening (Boopathi and Sivakumar, 2011). The efficacy depends on the use of proper plant part and its biological potency which in turn depends upon the presence of required quantity and nature of secondary metabolite in a raw drug (Vinoth *et al.,* 2011). 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 (Savithramma *et al.,* 2007; Pattanaik *et al.,* 2008; Kosalge and Fursule, 2009; Namsa *et al.,* 2009; Upadhyay *et al.,* 2010). The present survey of was taken to investigate the traditional fact plant materials found in 5 taluks of 15 villages in Cuddalore district.

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2. Materials and Methods

Cuddalore district is one of the famous places and it is located in east coast of Bay of Bengal in Tamilnadu, Southern India. The world Cuddalore actually means confluence in Tamil, which is a south Indian language. It is bestwed with evergreen vegetation. Since, its location is just south of Pondicherry and that too on the Bay of Bengal. It is surrounded by north area of Cuddalore district bounded by Villupuram district, south by Nagapattinam district and west by Perambalur district.

Cuddalore is well known for its temples. The major temples located here Shiva temple and Perumal temples. Cuddalore district has an area of 3,564 km^2 lies between $11^oC43'N$ and $79^o49'E$. The various types of soil found in the Cuddalore region are red loamy, coastal alluvium, delta alluvium and red laterite, deep black and red sandy. The mean annual rain fall is 1.079 mm and the dry season lasts for six months (January to June) and receives less than 60 mn rainfall on monthly average. The annual maximum and minimum temperature is 22.75 °C and 33.64 °C. The district populations there were 6 taluks (Kattumannarkovil, Chidambaram, Virudhachalam, Cuddalore, Panruti and Kurinchipadi), 13 blocks, 5 municipalities and 16 town panchayats in Cuddalore district (Area Map).

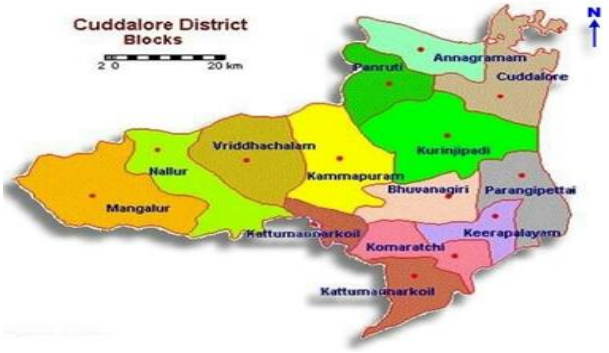

Fig.1. Geographical location of study area

Data Collection

Local traditional healer having a practical knowledge of plants is medicine were interview in 10 - 20 villagers of the district during January 2014 to May 2014. In the present study, an intensive survey was made in 15 villages of 5 taluk such as Cuddalore, Panruti, Kurinjipadi, Bhuvanagiri and Parangipettai of Cuddalore district. The data were collected field visit and the carefully interaction with the village peoples and by participating rural appraisal. Semi structural interviews were employed to generate data on medicinal plants and its traditional use.

The data was obtained from the informed constants of interviewed individuals. Interview of maximum of 15 traditional healers, and village elders who had been used the medicinal plants for curing the various health problems. They were considered to the authentication of collected information and incorporating in the present study; the collected data were confirmed and complied by repeated visit and general talk with the patients.

The medicinal plants were collected from the study area at the time of visit. They were identified with local name with the help of informants. The plants were verified for their names and uses with experienced elder and herbalists. The collected flowering plants were identified in taxonomically Flora of Madras presidency (Gamble, 1957).

3. Results and Discussion

In the present study, the medicinal plants were collected from 5 Taluk (Cuddalore, Panruti, Kurinjipadi, Bhuvanagiri and Parangipettai) and 15 villages in Cuddalore district. A total of 84 species belonging to 74 genera distributed in 34 families were identified in the medicinal plants. The collected plants have been arranged alphabetically according to botanical name, followed by common name, vernacular name along with organs used, mode of preparation and utilization (Table – 1 and Fig - 2).

The family Solanaceae with 15 species was by far the largest genera in the study areas, and Lamiaceae (6 species) and Euphorbiaceae (5 species) occupies the second position followed by Fabaceae, Amaranthaceae, Apocynaceae (4 species each), Acanthaceae, Rutaceae (3species each), Malvaceae, Mimosaceae, Meliaceae,

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Asclepidiaceae, Ceasalpiniaceae, Cucurbitaceae, Astraceae, Myrtaceae, Moraceae and Verbanaceae (2 species each), Alangiaceae, Cyperaceae, Caricaceae, Capparidiaceae, Sapindaceae, Vitaceae, Poaceae, Boraginaceae, Punicaceae, Sapotaceae, Passifloraceae Plubagonaceae, Violaceae Manispermaceae and Rhamnaceae (one species each).

During each field survey, they consented orally to document and publish the results for the study of society. After initial reconnaissance survey of the area in and discussions with the local people, a total of 15 resource persons, comprising of 11 males and 4 females were identified. These are locally referred to as "Vaidyas" and perform the duties of medicinal practitioner. Information on the habitat of the plant, local name of plant, plant part used for curing, method of dosage and administration were recorded.

Medicines were prepared in the form of powder, decoction, paste and juice. It was also observed that some plants were used in the form of preparation. Several plants were used in the form of powder. Some plants used in the form of decoction, paste, juice, in some cases fruits are used as medicine both in fresh and dried form. Among different plants parts used by village peoples in Cuddalore district, the leaves are most frequently used for the treatment of diseases. External applications and internal consumption are involved in the treatment of wounds, snake bite, headache and skin diseases.

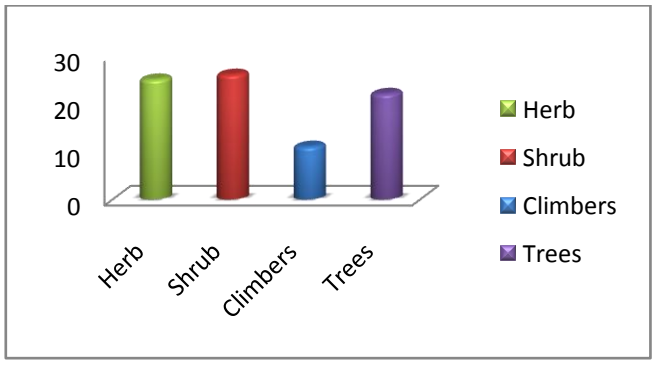

Fig – 2: Habitwise distribution of medicinal plants in the study area

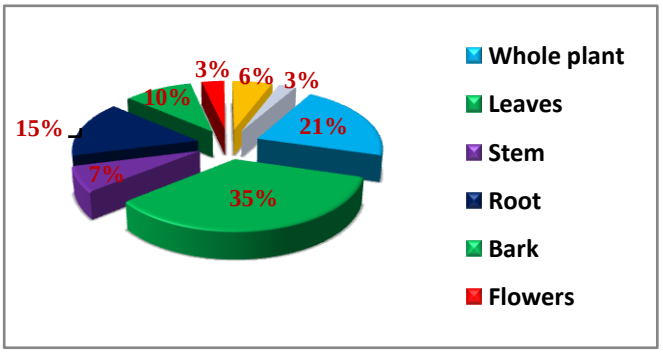

Fig – 3: Percentage of parts used from the medicinal plants

4. Conclusion

The present investigation revealed that the medicinal plants still play a vital role in the primary health care of the peoples. The information gathered from the village peoples is useful for the further researchers in the field of ethnobotany and taxonomy. This study offers a model for studying the relationship between plants and people, within the context of traditional remedies is obviously ensure therapeutically efficacy. This study also gathered broad spectrum of information concerning medicinal plants used by the village peoples. Due to lack of interest among the younger generation of the peoples as well as tendency to migrate to cities for lucrative jobs, we face the possibility of losing this wealth of knowledge in their near feature.

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