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ASCERTAINING THE ETHNO VETERINARY OF TRIBAL BOTANICAL KNOWLEDGE OF KADAYAM HILLS, WESTERN GHATS, INDIA

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ABSTRACT

In the present paper, plant species of angiosperms belonging to 19 genera of Solanaceae that occur naturally in the Tirunelveli Hills of western Ghats, India, were chosen for study. It was found that the uses of Solanaceae plants by the inhabitants of this region cover a number of broad categories including food, various kinds of poisons, medicines, sundry types of oils, waxes, rubbers, varnishes, compounds for paints and other industrial products.

KEYWORDS: Tirunelveli hills, Western Ghats, Solanaceae, Medicinal plants.

INTRODUCTION

Evolution of human life and culture has directly or indirectly been associated with and influenced by the surrounding environment. Primitive people live closely associated with nature and chiefly depend on it for their survival. Their dependence on plants around them made them acquire the knowledge of economic and medicinal properties of many plants by methods of trial and error. Consequently, they became the store-house of knowledge of many useful as well as harmful plants, accumulated and enriched through generations and passed on from one generation to another, without any written documentation. World wide, tens of thousands of species of higher plants and several hundred lower plants are currently being employed by human beings for such purposes as food, fuel, fibre, oil, herbs, spices, industrial crops and as forage and fodder for domesticated animals. (Heywood, 1992). Many people, especially in the poorer, underdeveloped countries, rely on wild plants for food, construction materials, fuel wood, medicine and many other purposes. Traditionally, the people in many local communities worldwide are extremely knowledgeable about plants and other natural resources, on which they are so immediately and intimately dependent. Unfortunately, much of this wealth of knowledge is today becoming lost as traditional cultures become eroded. Ethnobotanists can play very useful roles in rescuing this disappearing knowledge and returning it to local communities. In this way local ethnobotanical knowledge can be conserved as part of living cultural- ecological systems, helping to maintain a sense of pride in local cultural knowledge and practice and reinforcing links between communities and the environment, all of which may be thought of as essential steps in the promotion of conservation **(**Martin, 1995). It is, therefore, important that before this rich unwritten folk-lore on uses of plants and plant resources becomes lost forever through the recent accelerated civilization of the aborigines (tribals), it should be properly documented and preserved (Rao and Henry, 1997).

The health of every individual is directly dependent on the plant world. Out of the total Indian angiosperm flora of about 20,000 species, some 5,000 are economic species. Of the latter, some 3,000 are medicinal root plants; whereas 680 produce fruits of medicinal value. About 450 Indian medicinal plants are exported globally.

The richness and diversity of the tropical flora and fauna of India amazed the Europeans when they first arrived on this subcontinent. That this is so is evident from a reading of the text of the first work on Indian botany, *Coloquios dos simples*, a book which deals in part with the western Ghats of Peninsular India (cf. Clive 1984).

Solanum is the largest genus in the family Solanaceae and one of the sixth largest genera of flowering plants in the world, consisting of about 2000 species. *Aporusa lindleyana* has long been used traditionally for the treatment of jaundice, fever, headache and insanity. Significantly, the analgesic activity of a root extract of *A. lindleyana* was later proven by Krishnamoorthy *et al*., (1999).

During the field survey, the medicinal species of Euphorbiaceous were collected and documented. Information was obtained from the Tribals (Kanis) of Tirunelveli hills and the local Siddha, Ayurvedha practitioners and tabulated.

Study area and its tribal communities

The Tirunelveli hills lie between 77° 5 and 77°40 E and 8°20 and 8° 50 N from the southernmost segment of the Western Ghats. They extend through Papanasam R.F., Singampatti R.F., Kalakadu R.F., Mahendragiri R.F, Veerapuli R.F. and Ashamboo R.F., and into the present day Kanyakumari district of Tamil Nadu (Fig 1). The tops of these mountains are often compared to oceanic islands in having unusually large numbers of endemic species, this largely due to the isolation provided by the waters of Arabian Sea, Indian Ocean and the Bay of Bengal on three sides (Nayar, 1996; Gopalan and Henry, 2000). Otherwise, the western Ghats area as a whole is characterized by a profusion of different vegetation types, such as Southern Tropical Thorn Forest (foot hills to 20m), Southern Tropical Dry Deciduous Forest (200-400m), Grass Lands (+ 500m), Southern Tropical Moist Deciduous Forest (500-800m), Southern Tropical Wet Evergreen Forest (80-1500m), Subtropical Mountain Forest (7150m) and Grassy Swards at high altitudes (7100m).

The Kanis and Paliya tribes inhabit the villages of Petchiparai, Kallar and Mahendragiri in the Kanyakumari district and Kadayam, Sankarankoil, Puliarai, Papanasam, Courtallam, Sivagiri and Manjolai in the Tirunelveli District. They subsist on leaves, tubers and fruits of forest plants and on meat from wild, hunted animals. Wild plants provide the bulk of their medicines. Many changes can be expected in the future, however, since the younger generations of these communities are being more and more influenced by modern day social and living standards.

METHODOLOGY

Field trips were conducted during 2022 in the tribal and rural parts of the Tirunelveli hills. Data was collected regarding plant and plant parts used, local names and purposes and method of administration of the drugs. Information was obtained from tribal medicine men, old men and women, and other local rural informants. The actual application of plant remedies was also observed during field work. The plant specimens were identified using recent regional floras (Gamble, 1993 & 1994). Routine herbarium methods have been followed in preserving specimens.

RESULTS

The tribals and rural populaces use a variety of species from the forested as well as non forested geographic pockets of the study area. In the present paper, plant species of angiosperms belonging to 19 genera of the solanaceae were studied The uses of solanaceae plants in our own society cover a number of broad categories including food, various kinds of poisons, medicines, sundry types of oils, waxes, rubbers, varnishes, compounds for paints and other industrial products. Many plants of this family have been used in traditional Chinese medicine for more than 2000 years as anti-tumour drugs. According to Schroeder *et al*., (1980), plants of this family have been used to treat cancer, tumours, and warts from the time of Hippocrates (ca 400 BC).

CONCLUSION

As pointed out earlier, the field of ethnobotany is receiving more and more attention these days. However, it is still the molecular biologists whose work centers in the laboratory that garnishes more status and funding. Field ethno botanists have not yet received the same level of support and respect, primarily because interest in this field has only recently reemerged. Yet, the field is growing. New scientific journals and societies have begun to disseminate the studies of ethnobotanists to peers, other scientists, and policy makers worldwide. The current era is an exciting time to be an ethnobotanist. Ethnobotany issues are the focus of much public attention. Due to increased public interest and policy making in conservation, companies are looking for new plants and new approaches for the production of food, medicines, and energy sources. University departments are opening positions for interdisciplinary-trained ethnobotanists. The future looks promising for these dedicated scientists in a fascinating and vital field of research.

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