Annexure-9

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SHORT COMMUNICATION

Phytotherapy associated with Jaundice in Chitradurga District, Karnataka

V.T. HIREMATH[1*], T.C. TARANATH[2]

[1]Department of Botany, HPPC Govt. First Grade College, Challakere, Chitradurga district, Karnataka State

[2]PG Department of Studies in Botany, Karnatak University, Dharwad-580 003

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Abstract: India has one of world's richest medicinal plant heritages. The wealth is not only in terms of the number of unique species documented, but also in terms of the tremendous depth of traditional knowledge for the uses of human & livestock health and also for agriculture. The medicinal plant species are used by various ethnic communities for human and veterinary health care, across the various ecosystems from Ladakh in the trans-Himalayas to the southern coastal tip of Kanyakumari and from the deserts of Rajasthan and kachch to the hills of the Northeast. Chitradurga, is the central district of Karnataka state with much racial and socio-cultural diversity. Beda's, Besthas, Gollas, lambanis, are the tribes who are intimately associated with the local forests and traditional knowledge. Local traditional healers having practical knowledge of medicinal plants either for self-medication or for treating others often visit the surrounding forests to collect plant species. The present survey was conducted to collect information about plants used to treat Jaundice in different villages of Challakere taluk of Chitradurga district. Based on personal interviews in normal discussion and observation using questionnaire during study visits, ethno botanical data viz., local name, mode of preparation, medicinal uses were collected. The traditional health healers used 28 plant species, under 24 genera and 20 families to treat Jaundice. The survey also revealed that among the different plant parts used, whole plant is frequently used in 8 species, followed by root (6 species), stem (4), leaves (3 species), flower (2 species) and bark (1 species). The investigation concluded that, there is an urgent need to assess the medicinal plant diversity and conserve the traditional knowledge by proper documentation.

Keywords: Bedas; Gollas; Hakki-Pikki; Jaundice; Ethno medicine.

Introduction

India has one of world's richest medicinal plant heritages. The wealth is not only in terms of the number of unique species documented, but also in terms of the tremendous depth of traditional knowledge for the uses of human & livestock health and also for agriculture. The medicinal plant species are used by various ethnic communities for human and veterinary health care, across the various ecosystems from Ladakh in the trans-Himalayas to the southern coastal tip of Kanyakumari and from the deserts of Rajasthan and kachch to the hills of the Northeast.

Plants have been used in traditional medicine for thousands of years (Abu-Rabia 2005). The knowledge of medicinal plants has been accumulated in the course of many centuries based on different medicinal systems such as Ayurveda, Unani and Siddha. In India it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular sources of medicine (Pei 2001). Medicinal plants are the basic health care of rural households form the resource base for rapidly growing pharmaceutical industry and cosmetic. The ancient civilization including China, Egypt and Indus valley revealed the utilization of medicinal plants by them (Kirtikar and Basu 1935). In recent years, there has been a tremendous range of interest in the medicinal plants especially those used in traditional systems of medicines. Drugs obtained from plant are believed to be much safer

*Corresponding author: (E-mail) hiremath2047@gmail.com

and exhibit a remarkable efficacy in the treatment of various ailments (Siddiqui et al. 1995). The folk medicinal traditions play a reflecting and prominent role in human and environment interaction (Chopra et al. 1956). It is estimated that 70 to 80 % of the people worldwide rely chiefly on traditional health care system and largely on herbal medicines (Farnsworth et al. 1985, 1991; Pei Shengii 2002; Shanley, et al. 2003). Several workers have reported the utility of plants for the treatment of various ailments (Goel et al. 1981; Hebbar et al. 2004; Katz et al. 2007; Leach 2007). The main objective of this study was to assess and document the diversity of ethno medicinal plants of Chitradurga forests used by the local health healers followed in healing ailments. Many ethno-botanical studies have been reported in several parts of India to document the traditional knowledge that has been vanishing (Rajan et al. 2002; Ganesan et al. 2004; Sandhya et al. 2006; Ignacimuthu et al. 2006). Therefore documenting indigenous knowledge through ethno botanical studies is important for the conservation of biological resources and their sustainable utilization. The main objective of this study was to assess and document the diversity of ethno-medicinal plants of Chitradurga forests used by the local health practitioners.

Materials and Methods

Description of the study area

The area of investigation, Challakere taluk of Chitradurga lies between longitudes 76° 01' and 77□01' and latitude 13□34' and 15□02' north at an elevation of 1152 m above mean sea level. Chitradurga is one of the central districts of Karnataka state with much racial and socio cultural diversity (Figure 1). The geographical area of the district is 8,388 square kilometers, which accounts for 4.37 % of the state's geographical area. As per the physio-agronomic classification of the areas within the state; Chitradurga belongs to South-Eastern cool and equitable maidan zone. The terrain is not uniform and is characterized by vast stretches of undulating plains with dry deciduous to scrub forests.

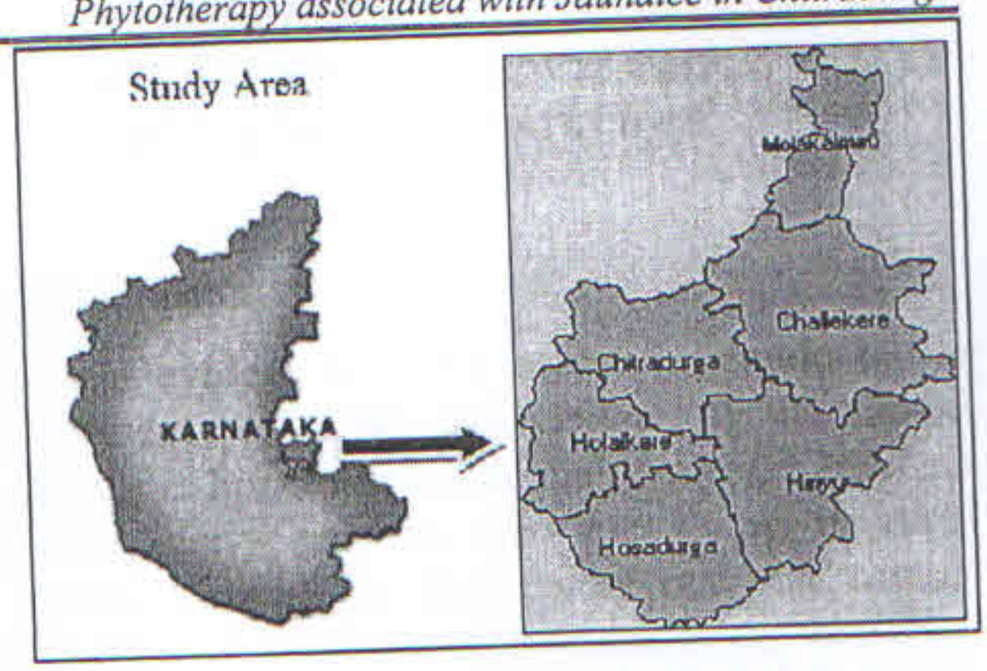

Figure 1: Map of the study area.

Ethnobotanical Survey and Traditional Practitioners

The present investigation is an attempt to survey ethno medicinal plants of Challakere forest, Chitradurga. Local traditional healers for treating others were often visiting the surrounding forest of the district to collect plant species. A total of 30 health healers were identified between the ages of 40 and 80 years for the survey. Periodic field surveys were carried out in Challakere taluk of Chitradurga to collect data by the tribal people, (Bedas, Bestha, Golla,Kuruba,Jenu kuruba, Lambani, Hakki-pikki), local vaidyas, village elders and native medicine men through personal communication using questionnaire. Our questionnaire allowed descriptive responses on the plant prescribed, part used, medicinal uses, mode of preparations like decoction, paste or powder etc. The local health practitioners were requested to collect specimens of the plants they knew or to show the plant species on site.

The health healers themselves or had tradition of healing in their families and had knowledge of the medicinal use of the plants. The wealth of medicinal plant knowledge among the people of this district is based on hundreds of years of beliefs and observations. This knowledge has been transmitted orally from generation to generation. Standard methods were followed for the collection of plant materials, mounting, preparation and preservation of plant species. Voucher specimens were collected identified, by referring standard flora (Hooker 1978; Gamble 1936; Saldhana 1984).

Results and Discussion

The present survey was conducted with respect to Jaundice in different villages of Challakere taluk of Chitradurga district, based on personal interviews in normal discussion and observation using questionnaire during study visits. Ethno botanical data viz., local name, mode of preparation, medicinal uses were collected. The traditional health healers used 28 plant species, under 24 genera and 20 families to treat Jaundice. The survey also revealed that among the different plant parts used, whole plant is used in maximum preparations (*Curcuma longa* Valeton., *Swertia chirayita* Roxb., *Tinospora cordiafolia* (Willd) Hook. f. & thomson, *Pluchea lanceolata* Lam., *Piper nigrum* L., *Embelia ribes* N. Burman., *Scindapsus officinalis* Schott., *Hitchenia caulina* (Grah) Baker) followed by root (*Lawsonia inermis* L., *Acorus calamus* L., *Ficus hispida* L. f., *Piper longum* L., *Zingiber officinale* Roseae), seeds (*Elettaria cardomomum* (L) Maton., *Coriandrum sativum* L., *Phyllanthus emblica* L., *Terminalia bellarica* (Gaertnar) Roxb., *Terminalia chebula* Retz. and *Piper nigrum* L.) Stem (*Saccharum officinalis* L., *Curcuma domestica* Valeton., *Aconitum heterophyllum* Wall., *Morinda umbellate* L.) leaves (*Azadirachta indica* Juss., *Lawsonia inermis* L., *Balanitis roxburghii* L). (Figure 2).

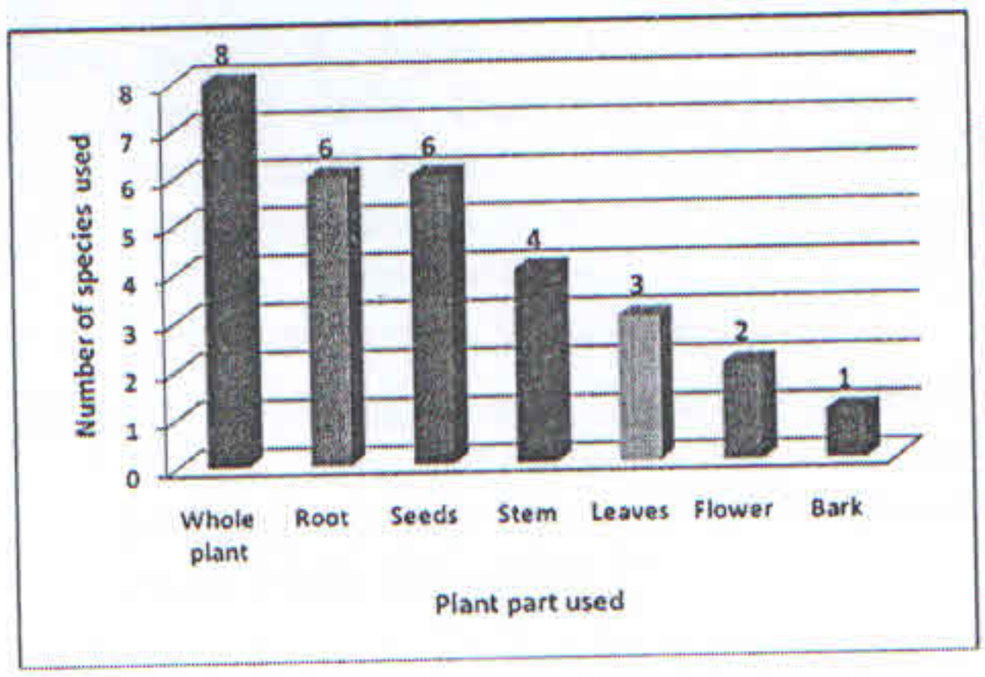

Figure 2: Plant parts used to prepare ethnomedicine to treat Jaundice.

The investigation concluded that, there is an urgent need to assess the medicinal plant diversity and conserve the traditional knowledge by proper documentation. The great majority of the identified species was also associated with beliefs and myths and/or used as food.

Conclusion

It is evident from the interviews conducted in different villages; knowledge of medicinal plants is limited to traditional healers, herbalists and elderly persons who are living in rural areas. This study also points out that certain species of medicinal plants are being exploited by the local residents. It is concluded that even though the accessibility of western medicine for simple and complicated diseases is available, many people in the Chitradurga district still continue to depend on medicinal plants, at least for the treatment of some simple diseases such as cold, cough, fever, headache, poison bites, skin diseases and tooth infections. The present day traditional healers are very old. Due to lack of interest among the younger generation as well as their tendency to migrate to cities for jobs, there is a possibility of losing this wealth of knowledge in the near future. It thus becomes necessary to acquire and preserve this traditional system of medicine by proper documentation and identification of specimens by conserving the local plant diversity.

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