

Ethnomedicinal Plants and Associated Traditional Knowledge of Jogimatti Forest, Chitradurga District, Karnataka, India

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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 communalities 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 district at its extreme limits is situated between longitudinal parallels of 76⁰ 01' and 77⁰ 01' east of Greenwich and latitudinal parallels of 13⁰ 34' and 15⁰ 02' North of Equator. 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 throughout the district and is characterised by vast stretches of undulating

plains with chains of hills. General elevation of the district is between 500 m to 600 m above mean sea level. The forests of the division do not present a complex diversity either in their distribution or in composition. The forests are being retrogressed to various stages of degradation because of biotic influences like excessive grazing, lopping for fodder and fuel and unregulated felling, unscientific collection of medicinal plants by the health healers.

The present investigation is an attempt to an ethnomedicinal plants survey was carried out in Jogimatti Forest, Chitradurga district, Karnataka, for the exploration of medicinal plants used to cure various ailments. Information was gathered from the tribes and local health healers through questionnaire and personal interviews during study visits. The local health healers are routine use 50 medicinal plants under 36 families for the treatment of several diseases either in single [22 applications] or in combination with some other ingredients, [28 applications]. The study reveals that leaves, stem/bark were most frequently used [18 species], followed by seeds [13 species], Fl/fl.buds [09 species], roots [08 species], fruits [07 species], entire plant [04 species], and latex [03 species] for the treatment of various ailments like eye ailments, joint pains, paralysis, urinary infection, eczema, fever, rheumatic complaints, inflammations, leprocy, cough and cold, herpes, rheumatism, ring worms, asthma, wound/burns, renal pain etc. The study also showed that many people of Chitradurga district still continue to depend traditionally on medicinal plants for primary health care. Therefore, the present study is an attempt to present some interesting ethnobotanical observations in connection with Jogimatti forest of Chitradurga district.

Key words: Ethnomedicinal, Jogimatti forest, Chitradurga. Traditional knowledge.

Introduction

The value of medicinal plants to the mankind is very well proven. 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; Farnsworth and Soejarto, 1991; Pei Shengji, 2002; Shanley and Luz, 2003]. Nature has been a source of medicinal plants for thousands of year and an impressive number of

modern drugs have been isolated from natural sources. Various medicinal plants have been used for years in daily life to treat disease all over the world. Higher plants as source of medicinal compounds have continued to play a dominant role in the maintenance of human health since ancient times [Farombi, 2003]. These plants are not only used for primary health care in rural areas in developing countries, but also in developed countries where modern medicines are predominantly used. Due to the side effects of modern allopathic drugs in the present days, people are attracted towards herbal medicines and their consumption. [Seth *et al*, 2004]. Several workers were reported the utility of plants for the treatment of various ailments [Goel and Bhattacharaya, 1981; Yaniv *et al.*, 1987; Eddouks *et al.*, 2002; Hebbar *et.al.*, 2004 ; Katz *et al.*, 2007; Leach, 2007].

Methodology

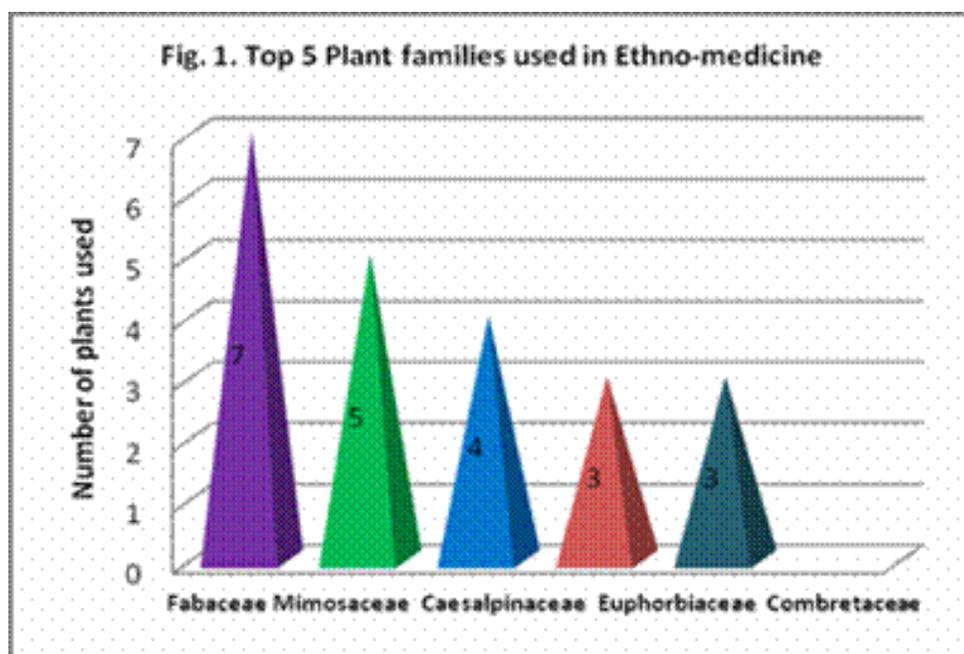
The study area Chitradurga is one of the central districts of Karnataka state with much racial and socio-cultural diversity. Bedas, Besthas, Gollas, Lambanis, Hakki-pikki are the tribals who are intimately associated with the Jogimatti forest. The forests are dry deciduous with undulating chain of hills. Agriculture is the mainstay of economy. Local traditional healers having practical knowledge of medicinal plants either for self-medication or for treating others were often visiting the Jogimatti forest of the district to collect plant species. A total of 30 health healers were identified between the ages of 40 and 80 for the survey.

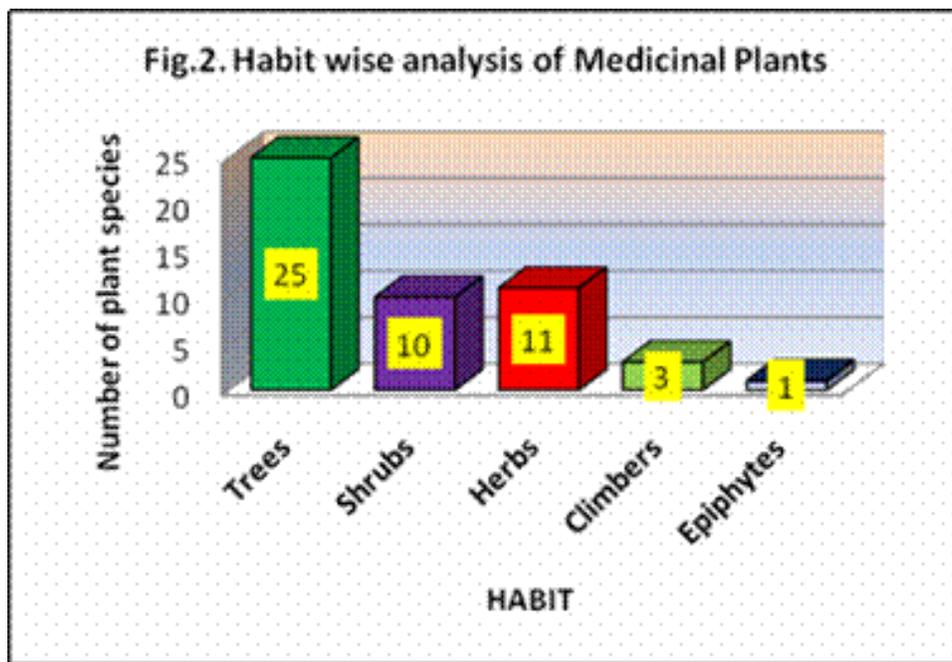
The present survey was conducted in villages around the Jogimatti forest of Chitradurga district, based on personal interviews between tribal and non-tribal peoples in normal discussion and observation using questionnaire during study visits. Ethnobotanical data viz., local name, mode of preparation, medicinal uses were collected through questionnaire, interviews and discussions among the tribal and health practioners in their local language. Our questionnaire allowed descriptive responses on the plant prescribed, such as part of the plant used, medicinal uses, mode of preparations like decotion, paste or powder etc.

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, 1884; Gamble 1936; Karnataka Flora by H J. Saldhana(1984). All the preserved specimens were deposited in the department of botany, SJM College, Chitradurga, karnataka.

Results

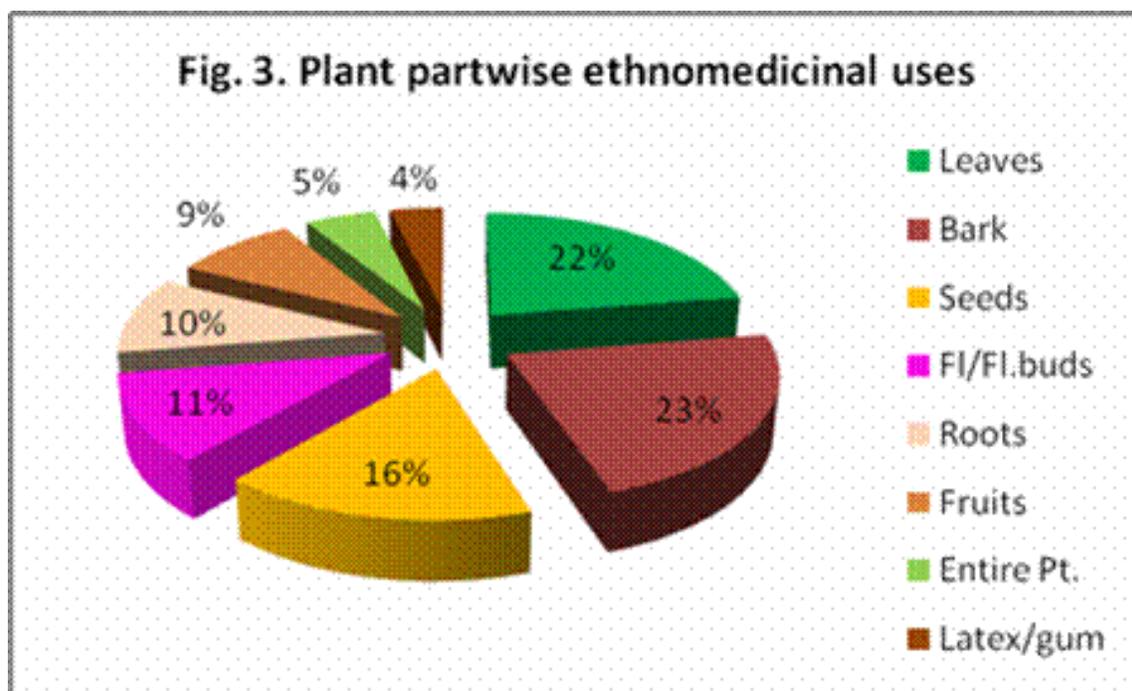
The results of the investigation are presented in Table.1, based on the plants and parts used for the treatment of various ailments. The present study comprises 50 plant species of ethno-botanical uses belonging to 34 families. For each plant species, botanical name, family, local name, part used, methods of preparation is provided. Among the plants used by the health healers, trees constitute [25 species], Shrubs [10], Herbs [11], Climbers [03] followed by the epiphytes with one species (Fig.2). The top 05 plant families used in the treatment are Fabaceae, Mimosaceae, Caesalpinaceae, Euphorbiaceae, Lamiaceae, followed by Combretaceae, Amaranthaceae, Papavaeraceae, Meliaceae, Bambucaceae etc. (Fig.1.)





Discussion

The ethnobotanical survey reveals that among the different plant parts used by the local health healers/tribals for the treatment of various ailments, leaves were most frequently used [18 plants], followed by seeds [13 plants], Fl/flower buds [09 plants], roots [08 plants], fruits[07 plants], entire plant [04 plants], and latex [03 plants] for the treatment of various ailments like eye problems, joint pains, paralysis, urinary infections etc., under single /multiple plant applications (Fig.3). It is observed that majority of the formulations were multiple applications [28], when compared to single applications [22].



Conclusion

The survey indicated that, the study area has magnificent plant diversity with plenty of medicinal plants to treat a wide spectrum of human ailments. It is evident from the interviews conducted in different villages; knowledge of medicinal plants is limited to traditional healers, herbalists who are living in rural areas and collecting the medicinal plants from the Jogimatti forest unscientifically. The investigation concluded that the unscientific collection of ethno-botanical plants from the Jogimatti forest poses greater pressure on the depletion of diversity of the local region. Hence there is an urgent need to assess the biodiversity of the local forest, and conserve the biodiversity as well as the traditional knowledge by proper documentation and conservation strategies.

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