ANALYSIS

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Ethnomedicinal herbs of Jogimatti Forest, Chitradurga district, Karnataka

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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 Kutch to the hills of the Northeast. Chitradurga district at its extreme limits is situated between longitudinal parallels of 76^0 01′ and 77^0 01′ east of Greenwich and latitudinal parallels of 13^0 34′ and 15^0 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. General elevation of the district is between 500 m to 600 m above mean sea level. The present investigation is an attempt to an ethno medicinal plants survey was carried out in Jogimatti Forest, Chitradurga district, Karnataka, for the exploration of medicinal herbs used to cure various ailments. The local health healers are routine use 15 medicinal herbs under 14 families for the treatment of several diseases. The study reveals that leaves, were most frequently used (08 species), followed by roots, and entire plant (03 species), stem (02 species), flower buds, seeds one species each, for the treatment of various ailments like snake bite, dog bite, eye ailments, joint pains, urinary infection, stomach pain, gangrene, piles, dandruff, epilepsy, brain tonic, mumps, against bleeding, worm infection and skin diseases. 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 explore ethno botanical herbs of Jogimatti forest of Chitradurga district.

Key words: Ethnomedicine, Jogimatti forest, Chitradurga. Traditional healers, Tribes

1. INTRODUCTION

The value of medicinal plants to the mankind is very well proven. It is estimated that 70 to 80 percent 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). Medicinal plant species include a variety of life form ranging from lichens, algae, ferns, herbs, shrubs, climbers, and trees, annuals to perennials. The bulk of these plants with their intraspecific variation represent a chemical and medicinal goldmine as is evident from the strong traditions of natural drug use. 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. Several workers were reported the utility of plants for the treatment of various ailments (Goel and Bhattacharaya, 1981; Hebbar et.al., 2004; Katz et al., 2007; Leach, 2007).

Interest in traditional medicine in India has continuously been increasing; recently, various ethnobotanical studies have been reported to explore the knowledge from the various tribal's in the country. The life of tribal people is woven around forest ecology and forest resources. They were found to have accumulated experience and knowledge of indigenous vegetation, which can be utilized in various integrated tribal development. They depend on plants for their livelihood and collected tubers, barks, roots, rhizomes, flowers, fruits, seeds, leaves, gums, honey, wax etc for food and for and their traditional modes of treatment of disease and various ailments. Information on some very useful medicines known to the tribal communities through experiences of ages is usually passed on from generation to generation (Ganesan et al. 2004). As the tribal population is gradually adapting to modern ways of life, their heritage of traditional knowledge in plants will soon be lost forever. Hence it is an urgent task is to record for posterity whatever is valuable in the traditions of the tribes, their way life, and their knowledge of plants before all these disappear. The methods of preparation are either a paste, juice, powder, and decoction for internal consumption involved in the treatment of diseases. It was observed that, most of the ailments consisted single plant application, however, many of the remedies consisted of multiple plant applications for one or more diseases.

Table 1

Family wises uses and percentage of ethnomedicinal herbs

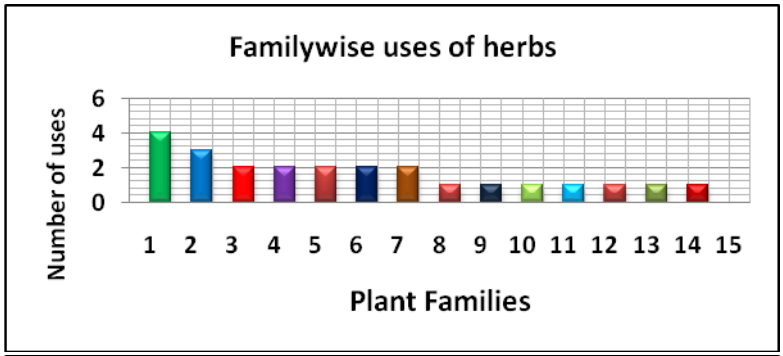
S. No.	Family	No. Uses	Percentage
1	Acanthaceae	04	28.5
2	Poaceae	03	21.4
3	Astraceae	02	14.2
4	Liliaceae	02	14.2
5	Graminae	02	14.2
6	Apiaceae	02	14.2
7	Amaranthaceae	01	7.1
8	Euphorbiaceae	01	7.1
9	Lamiaceae	01	7.1
10	Mimosaceae	01	7.1
11	Urticaceae	01	7.1
12	Euphorbiaceae	01	7.1
13	Pedaliaceae	01	7.1
14	Rutaceae	01	7.1

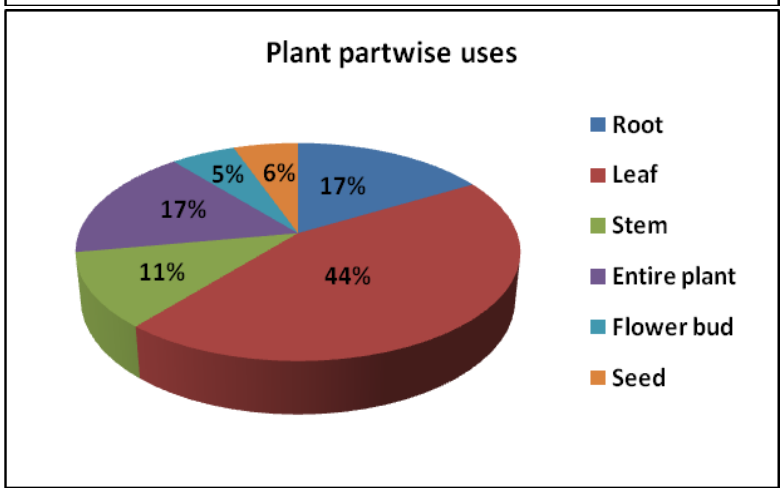
2. METHODOLOGY

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 tribes 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, to collect medicinal plant species. A total of 30 health healers were identified between the ages of 40 and 80 for the survey in villages around Jogimatti forest of Chitradurga district, based on personal interviews between tribal and non-tribal peoples using questionnaire during study. Ethno botanical data viz., local name, mode of preparation, medicinal uses were collected through interviews and discussions in their local language.

3. RESULTS AND DISCUSSION

Among the herbs used by the local health practitioners, the family Acanthaceae is the dominant family with 4 uses (28.5 percent), followed by Poaceae (03 uses) 21.4 percent, Liliaceae, Graminae, Apiaceae, Astraceae (02 uses) with 14.2 percent and the remaining families Amaranthaceae, Euphorbiaceae, Lamiaceae and Mimosaceae with 01 uses with 7.1 percent. Among plant parts used, leaves were used for the treatment of 08 diseases (44 percent), roots in 03 diseases (17 percent), Stem is used in 02 diseases (17 percent), entire plant is used in 03 diseases (17 percent), flower buds and seeds were used in single diseases (6 percent) respectively. *Urtica dioica*-root is used for snakebite, *Achyranthus aspera*-root is used for snake bite, dogbite, eyeproblems, while the flower buds are used against sterility. *Anacyclus pyrethrum* –leaf is used for stomach ache; *Tridax*





procumbens-leaf is used for gangrin; *Acalypha indica*-leaf is used for stomach ache; *Ocimum bacilum*-leaf paste is used for stomach ache in animals; *Mimosa pudica*-Whole plant is used for piles. *Cyanodon dactylon*-leaf is used for piles and urinary disorder, root is used for dandruff. *Alternanthera sessilis*-whole plant is used for joint pain; *Boerrhavia hispida*-whole plant is used for joint pain; *Allium sativum*-tuber is used for epilepsy; *Aloevera*-leaf is used as brain tonic; *Leucas aspera*-leaf is used for mumps; *Bambusa arundinaceae*-stem is used against bleeding, tender stem is used for worm infection; *Centella asiatica*-leaf is used for skin disease as well as brain tonic.

4. DISCUSSION

Plants play a vital role in the existence of life on the earth and the use of plants as source of medicine is as old as humanity. Ethnobotanical use of plans to cure diseases and maintain good health has been known since times immemorial. All the human communities inhabiting different regions on the planet have developed their own ethnomedical traditions. India is one of the richest floristic regions of the world and is well known for its ancient heritage regarding medicinal plants and plant drugs since time of Rig-Veda. Despite of many advantages we have lost our medicinal biodiversity and may plant species are on the verge of extinction due to over exploitation. Hence it was felt necessary to utilize the medicinal plants in a judicious manner. India is one of the twelve mega-biodiversity countries of the world having rich vegetation with a wide variety of plants with medicinal value. In many countries, scientific investigations of medicinal plants have been initiated because of their contribution to healthcare.

The life of tribal people is woven around forest ecology and forest resources. They were found to have accumulated experience and knowledge of indigenous vegetation, which can be utilized in various integrated tribal development. Information on some very useful medicines known to the tribal communities through experiences of ages is usually passed on from generation to generation (Ganesan et al. 2004). As the tribal population is gradually adapting to modern ways of life, their heritage of traditional knowledge in plants will soon be lost forever. Hence it is an urgent task is to record for posterity whatever is valuable in the traditions of the tribes, their way life, and their knowledge of plants before all these disappear.

Ethnomedicinal herbs

Urtica dioica

Achyranthus aspera

Anacyclic pyretum

Tridax procumbens

Acalypha indica

Ocimum bacilli

Mimosa pudica

Cyanodon dactylon

Alternanthera sessilis

Boerhavia hispida

Table 2

Medicinal herbs/family/botanical name, part used in ethnomedicine

Sl.No.	Family/Plant species	Part used	Disease
I	URTICACEAE		
1	*Urtica dioica*	Root	Snake Bite
II	ACANTHACEAE		
2	*Achyranthus aspera*	Root	Snake Bite, Dog bite, Eye problems
		Flower buds	Against sterility
III	ASTERACEAE		
3	*Anacyclus pyrethrum*	Leaf	Stomach ache
	Tridax procumbens	Leaf	Gangrin
IV	EUPHORBIACEAE		

4	*Acalypha indica*	Leaf	Stomach ache
V	LAMIACEAE		
5	*Ocimum bacilum*	Leaf paste	Stomach ache in animals
VI	MIMOSACEAE		
6	*Mimosa pudica*	Whole plant	Piles
VII	POACEAE		
7	*Cyanodon dactylon*	Leaf	Piles, Urinary disorder
		Root	Dandruff
VIII	PEDALIACEAE		
8	*Sesamum orientale*	Seed	Piles
IX	AMARANTHACEAE		
9	*Alternanthera sessilis*	Whole plant	Joint pain
X	RUTACEAE		
10	*Boerrhavia hispida*	Whole plant	Joint pain
XI	LILIACEAE		
11	*Allium sativum*	Tuber	Epilepsy
12	*Aloe vera*	Leaf	Brain tonic
XII	LAMIACEAE		
13	*Leucas aspera*	Leaf	Mumps
XIII	GRAMINAE		
14	*Bambusa arundinaceae*	Stem	Against bleeding
		Tender stem	Worm infection
XIV	APIACEAE		
15	*Centella asiatica*	Leaf	Skin disease, Brain tonic.

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