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Ethnobotanical Documentation of few Medicinal Plants in Jawadhu Hills in Tiruvannamalai District of Tamil Nadu

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Abstract: *Jawadhu hill is one of the largest biomes of Eastern Ghats lies in Thiruvannamalai district, Tamilnadu. Five villages had been selected among this biome to carry out the present study. The flora of this area were investigated by survey and documented for further study about hundred species of ethno medicinal plants belonging to 91 genera and 54 families were reported here with the help of malayali tribal people over the age of 50 years. The results of the present work provide evidence that medicinal plants continue to play an important role in the health care system of the tribes. The study also reveals that these tribal people cures their diseases like cold, jaundice, ulcer, diabetes, wound healing, pain relieving, skin, respiratory diseases using these herbs.*

Keywords: *Ethnobotany, diabetes, asthma, Jawadhu hills.*

I. Introduction

In India from time immemorial the use of several medicinal plants to cure specific ailments are common. The indigenous system of medicine namely Ayurvedic, Siddha and Unani have been in existence for several centuries. This system of medicine helps the needs of nearly seventy percent of our population residing in the villages. Ethnobotany is the study about the people of a particular culture and regions making the use of indigenous plants while the ethnobotanist explores how plants are used for food shelter, medicine, clothing, hunting and religious ceremonies. It is true that the man kind is closely associated with environment especially to plants. According to the World health organization (WHO) more than 80% of the world's population relies on traditional medicine for their primary health care needs. In Asia the use of herbal medicine was investigated and identified that the phyto-constituents of these plants were responsible for healing diseases. The vast knowledge about plants was expressed in various systems of medicine, but eventually the disease was cured successfully. The objective of the present study is to highlights the ethnobotanical knowledge of Malayali tribes in Jawadhu hills in the state of Tamilnadu, India. To analyse the various plant habits used for preparation of medicine. To document the natural resources use pattern of the study area and the ethno medicinal, indigenous knowledge associated with them. To encourage the tribes to protect and conserve the medicinal plant in Jawadhu hills Thiruvannamalai district, Tamilnadu, India.

II. Methodology

2.1 Study Area and people

The floras of Jawadhu hills covers area of investigation about of 8,500 (98% tribals and other 2%) population with 11panchayat unions and 229 mountaineer Villages in Jawadhu hills taluk. There are Jawadhu hills, Kanmalai, Kovilur, Melsilambadi, Nammiyambat, Palamarathur, Puliyur, Themalai, Athipatu, Veerapanur, Veeragoundur. It is bounded on the East of Polur (43Kms) on the West of Amirthi (33Kms) and on the North of Allangayam, (25Kms) in Thiruvannamalai district and a part of the Eastern Ghats.The floras of Jawadhu hills including the remote Village like Kuttakarai panjayet kuttakarai considered to be special area of interest for the surrounding area four villages **Kovilur, Mansuth, Bathri Periyavali** for the present study. Jawadhu hills is located in western hills continuing in Tamilnadu between Thiruvannamalai and Vellore districts in the hills polur taluk in way of Jawadhu hills approximately 3000 fid in height. There are many forest and hills under the legal classification including green cover. The hills area with forest category has rich soil and bright sunlight, and important of rich vegetation having variable medicinal properties.

2.2 Survey and Data Collection

The survey was carried out during the year, June 2013, June 14 among the format areas of Jawadhu hills, Thiruvannamalai district in Tamilnadu, India to get maximum information the survey was widened diagonally during the rainy season. The information on medicinal uses of the indigenous plants has been described after gathering it from local people. Experienced aged rural folk, traditional herbal medicine practitioners local herbal durg sellers and also from the information collected from the available literature. The information about plants and their local names parts of plant used for preparation of drug and mode of

administration were documented in the field survey. Randomly people were selected of 150 men, 70 women of age 23 and above were interviewed in their local language, that is tamil, in addition direct plant observation and identification was done with the help of local people, a structured feedback form was used to draw information from the resource persons using standard methods. Martin 1995 were based on the flora Nasir and Ali 1978 standard methods were followed with regard for collection of plant materials, during herbarium mounting preparation and preservation of plant. Ethno botanical data were collected according to the methodology suggested by Jain (2001). The collected plant species were identified with help of flora books; the flora of presidency of Madras the additional help was taken from Madras Christian College, Tambaram, Tamilnadu for identification was used to ascertain the nomenclature. Data were tabulated with plant name along with family, local name, parts used, methods of preparation and utility.

III. Results and Discussion

The present investigation revealed that the malayali tribal of the Jawadhu hills region were using 100 plant species belonging to 54 families for medicinal use. The most medicinally important plant species were observed in different families like Liliaceae, Dioscoreaceae, Sapindaceae, Fabaceae, Convolvulaceae, Casealpinaceae, Anacardiaceae, Asclepiadaceae, Acanthaceae, Apiaceae, Menispermaceae, Lamiaceae, plumbaginaceae, Amaranthaceae, Meliaceae, Dolanaceae, Celastraceae, Rhamnaceae, Voilanceae, Rubiaceae, Cycophyllaceae, Scrophulariaceae, Apocynaceae, apparidaceae, Malvaceae, Poaceae, Cyperaceae, Euphorbiaceae, Verbenaceae, Cucurbitaceae, Rutaceae, Asteraceae, Myrtaceae, Oleaceae, Arecaceae, Loganiaceae, Ulmanaceae, Amaranthaceae, Santalaceae, Salvadoraceae, Annonaceae, Clusiaceae, Zingiberaceae, Vitaceae, Rosaceae, Mimosaceae, Sapotaceae, Solanaceae, Rubiaceae, Amaryllidaceae, Acoraceae, Commelinaceae, Marsileaceae. The ethnomedicinal information of 100 plant species was collected and is enumerated below in the alphabetical order .For each species listed, correct botanical names followed by family name, vernacular name (VN) and medicinal uses were given. They were using these plants to cure diseases like chest pain, wounds, pimples, dog bite and poisonous bites (snake, scorpion and insect)pimples, disorders of tooth ,cold ,cough, fever, jaundice, ulcer, cancer, tuberculosis, piles, diabetes, diarrhea, asthmatic problems ,digestive problems , Most of the drugs were prepared from the wild plants. A few interesting observations made in the present study were, the use of *Ocimum tenuiflorium*, for cancer, *Leucas aspera* and *Euphorbia hirta* for snake bites, *Aristolochia bracteolate* a for skin diseases and syphilis Although traditional medicines is still practiced in this area . The dominant families with more number of medicinal plant in the present study were Fabaceae and Asclepiadaceae with 4 species each followed by Amaranthaceae, Acanthaceae, Euphorbiaceae 3 species in Meliaceae the rest were represented with one species each. Among the different plant habit used for the preparation of medicine were listed below.

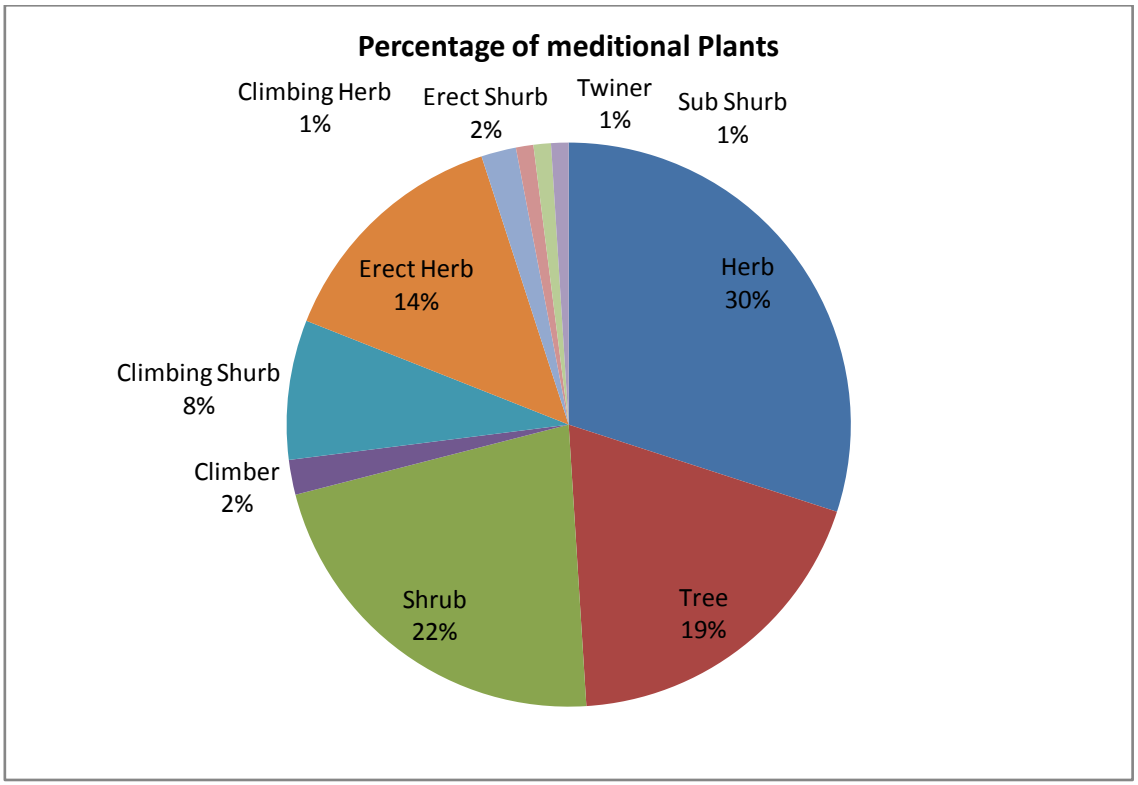

Table – 1: Families with Maximum Number of Genus & Species

S,No	Family	No.of Genus	No.of Species
1	Liliaceae	2	2
2	Dioscoreaceae	1	1
3	Sapindaceae	2	2
4	Fabaceae	8	10
5	Convolvulaceae	2	2
6	Casealpinaceae	2	4
7	Anacardiaceae	2	2
8	Asclepiadaceae	4	5
9	Acanthaceae	2	2
10	Apiaceae	1	1
11	Menispermaceae	1	1
12	Lamiaceae	3	5
13	Plumboginaceae	1	1
14	Amaranthaceae	3	3
15	Meliaceae	2	2
16	Solanaceae	1	1
17	Celastraceae	1	1
18	Rhamnaceae	3	3
19	Voilaceae	1	1
20	Rubiaceae	2	2
21	Cycophyllaceae	1	1
22	Scrophulariaceae	1	1
23	Apocynaceae	2	2
24	Capparidaceae	3	4
25	Malvaceae	1	1
26	Poaceae	2	2
27	Cyperaceae	1	1
28	Euphorbiaceae	4	5
29	Verbenaceae	2	2
30	Cucurbitaceae	1	1
31	Rutaceae	3	3
32	Asteraceae	3	3
33	Myrtaceae	1	1
34	Oleaceae	1	1
35	Arecaceae	1	1
36	Loganiaceae	1	1
37	Ulmaceae	1	1
38	Amaranthaceae	1	1
39	Santalaceae	1	1
40	Salvadoraceae	1	1
41	Anonancear	1	1
42	Clusiaceae	1	1
43	Zingiberaceae	1	1
44	Vitaceae	1	1
45	Rosaceae	1	1
46	Mimosaceae	1	1
47	Sapotaceae	1	1
48	Salonaceae	2	2
49	Rutaceae	1	1
50	Rubiaceae	1	1
51	Amarlliadaceae	1	1
52	Acoraceae	1	1
53	Commelinaceae	1	1
54	Marsileaceae	1	1

Table: 2 Distribution of Plants

S. No	Habits	No. of Species
1	Herb	30
2	Tree	19
3	Shrub	22
4	Climber	2
5	Climbing shrub	8
6	Erect Herb	14
7	Erect Shrub	2
8	Climbing Herb	1
9	Twine	1
10	Sub Shrub	1
	Total	100

IV. Conclusion

There is always a hunt for rich ethno botanical knowledge for ethno botanical studies of medicinal plants. Hundred species of ethno medicinal plants belonging to 91 genera and 54 families were reported here with the help of malayali tribal people over the age of 50 years. The results of the present work provide evidence that medicinal plants continue to play an important role in the health care system of the tribes. The information gathered from the tribal is useful for the future researchers, biologist and scientist in the field of ethno botany and pharmacology. The present study reveals that the malayali tribes of the study area possess rich knowledge on the medicinal plants and their utilization. Lack of interest and awareness among the younger generation of malayali tribes we face the high risk of losing this vibrant knowledge in the near future. The study shows that knowledge and usage of herbal medicine for the treatment of various ailments among the malayali tribals, is still a major part of their life and culture of the villagers.

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