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Traditional medical practice on Primitive Nooka Dora tribes, Alluri Sitaramaraju District, Andhra Pradesh

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Abstract

An ethnomedicinal survey was carried out in HukumpetaMandal, AlluriSitaramaraju District, Andhra Pradesh, India. For documentation of important ethnomedicinal plants and information from local community about their medicinal uses. The traditional knowledge of primitive Nooka Dora tribe traditional uses was collected through questionnaire and personal interviews during field trips. The identification and nomenclature of the listed plants were based on the Flora of Andhra Pradesh. A total of 49 plants species belong to 47 genera and 37 families were identified by taxonomic description and locally by ethnomedicinal knowledge of people existing in the region.

Keywords: Traditional medicinal practice; Nooka Dora primitive tribal communities; Hukumpeta Mandal; AlluriSitaramaraju district

1. Introduction

India is an oldest, the richest and most diverse cultural traditions associated with the use of medicinal plants in the form of traditional systems of medicine including Ayurveda, Homeopathy, Siddha and Unani. India is a botanical garden of the world and a goldmine of well recorded and traditionally well-practiced knowledge of herbal medicine. More than 6000 plants in India are use in traditional folk and herbal medicine representing about 75% of the medical needs of third world countries. Ethnobotany is the study of the interaction between plants and people with a particular emphasis on traditional tribal cultures. Which play an important role on a collection of medicinal use of plants, based on the knowledge on plants by the local people and their usefulness by a particular ethnic group and information concerning particular plant varies from one ethnic group to another. The use of medicinal herbs is still a tradition adopted by ethnic communities who are living in undulating plains and at the foothills of dense forest. A multitude of tribal groups and very diversified vegetation make India a top country for ethno botany knowledge. It is estimated that India is home to 17,500 angiosperm species alone (Jain, 2000). Glimpses of Indian Ethno botany (Jain, 1981) contributed to the development of ethno botanic studies in India. These studies are especially important for aboriginal people (Maheshwari and Singh, 1984). Different botanists have documented the uses of various medicinal plants from different parts of Andhra Pradesh. I. Siva ramakrishna and M. Sujathamade a note on medicinal plant diversity at Kondapalli reserve forest in Andhra Pradesh.

2. Material and Methods

2.1. Study area

Hukumpeta Mandal of Alluri Sitaramaraju District, Andhra Pradesh, is the higher altitude zone in the hilly tracts of Eastern Ghats of Andhra Pradesh. It has the second highest tribal population in Andhra Pradesh. It lies in between

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latitudes of 17°-50¹ and 18° - 35¹ north and longitude of 82°-17¹ and 83°-1¹ East with a total geographical area of 3, 24,965 Hector .Nooka Dora tribes are chiefly residing in the densely wooded hill slopes in the schedules areas of AlluriSitaramaraju districts of Andhra Pradesh. They are also known as Samantha, KondaKodu, Jatapu, Jatapu Dora, Kodi, Kodu, Kondu and Kuinga. These terms are used for Nooka Dora in different areas of Hukumpeta Mandal, Alluri Sitaramaraju districts. The Nooka Dora mainly subsist on cultivation. They are experts in Podu cultivation. They grow millets like Ragi, Sama and Korra and Oil seeds like niger, castor and pulses like red gram in podu fields.

3. Methodology

Information on the use of medicinal plants was collected during year 2023 - 2024 through field surveys in different interior villages of the Hukumpeta Division, AlluriSitaramaraju district. The questionnaires were devised to identify the indigenous knowledge of plant-based remedies from primitive Nooka Dora people. Information was gathered through semi-structured interviews that were held with selected knowledgeable men and women Porja tribes. At the end of made into herbarium. The voucher specimens were housed in the Botany Department Herbarium (each interview, the plant specimens were collected, dried by using routine botanical collection and herbarium techniques, identified and preserved (Jain & Rao 1997). The representative taxa were collected and identified with the help of floras (Pullaiah & Ramamurthy 2002; Pullaiah et.al. 2007) and BDH), Department of Botany, Andhra University, Visakhapatnam.

4. Result and Discussion

During exploration trips, medicinally useful information have been recorded on 49 plant species belonging to 47 genera and 37 families were recorded which are exploited by the Nooka Dora tribes for their healthcare. The family wise analysis of ethnomedicinal data revealed that out of 40 families the dominant ones are Fabaceae represented by 4 species followed by Rutaceae with 4 species, Asteraceae with 3 species, Amaranthaceae, Caselpinaceae, Ebeneaceae, and Sapotaceae with 2 species each and remaining were single species. From the present study it is clearly evident that the local people used trees (17), followed by shrubs (3), climbers (8) and herbs (19), parasites (2) (Table. 1). Depending upon the plant part used for medicinal purposes roots constitutes the highest percentage (14) followed by leaf (9), stem bark (9), whole plant (4), tuber (2), seed (3) and rhizome (3) , remaining were single species. Intensive survey and repeated personal interviews in different pockets resulted in coming across 27 diseases in the area. A total of 49 species reported in the present study are used in curing 27 different ailments are Abortion(2), Acidity(2), Allergy (1), Anameia (3), antihelminthic (2), Asthma (4), Blood pressure (1), Body pains (1), Boils (1), Burns (1), Cholera (1), cold (3), conjunctivitis (1), cough (1), cuts (1), Diarrhoea (4), Dysentry(2), Dysmnehorrea (1), Ear ache (1), Epilepsy (2), Fever(1), Head ache (2), HIV (1), Leucorrohea (3), Respiratory trouble (1), Rheumatism (1), Rhemutaoid Arthritis (3), Sterility (1),. The most commonly treated disease was diarrhoea with 4 plants were used by local Nooka Dora tribal people of Hukumpeta Division, AlluriSitaramaraju District.

Table 1 Ethnomedicinal plants used by Nooka Dora tribes, Humkumpeta mandal, Alluri Sitaramaraju District**.**

S.no	Family	Plant name	Habit	Parts used	Disease
1	Adiantaceae	*Adiantum lunulatum*	Herb	Fronds	Abortion
2	Amaranthaceae	*Achyranthes aspera*	Herb	Seed	Anitidote
3	Amaranthaceae	*Aerva lanata*	Herb	Root	Headache
4	Anacardiaceae	*Mangifera indica*	Tree	Gum	Boils
5	Araceae	*Acorus calamus*	Herb	Rhizome	Cold
6	Asclepiadaceae	*Cryptolepis buchanani*	Climber	Root	Diarrohea
7	Asteraceae	*Eclipta prostrata*	Herb	Whole plant	Acidity
8	Asteraceae	*Elephanto pusscaber*	Herb	Root	Anthelmintic
9	Asteraceae	*Vernonia cinerea*	Herb	Seed	Leucorrhoea
10	Barringtoniaceace	*Barringtonia acutangula*	Tree	Leaf	Headache
11	Bombaceae	*Bombax cebia*	Tree	Leaf	Leucorrhoea
12	Caesalpinaceae	*Bauhinia racemosa*	Tree	Stem bark	Asthma

13	Caesalpinaceae	*Bauhinia vahili*	Climber	Root	Dysentry
14	Cappardiaceae	*Cappa riszeylancia*	Shrub	Root	Earache
15	Costaceae	*Costus speciosus*	Herb	Rhizome	Abortion
16	Cuscutaceae	*Cuscuta reflexa*	Parasite	Whole plant	Epilepsy
17	Cyperaceae	*Cyperus rotundus*	Herb	Tuber	Diarrohea
18	Dillineaceae	*Dillenia pentagyna*	Tree	Stem bark	Rhemuatoidarthiritis
19	Dioscoreaceae	*Dioscorea bulbifera*	Climber	Tuber	Sterility
20	Ebenaceae	*Diospyros chloroxylon*	Tree	Leaf	Diarrohea
21	Ebenaceae	*Diospyros melanoxylon*	Tree	Stem bark	Cold
22	Euphorbiaceae	*Mallotus philippensis*	Tree	Fruit	Anthelmintic
23	Fabaceae	*Canavalia gladiata*	Climber	Root	Diarrohea
24	Fabaceae	*Dalbergia latifolia*	Tree	Stem bark	Fever
25	Fabaceae	*Desmodium gangeticum*	Herb	Leaf	Acidity
26	Fabaceae	*Mucunap ruriense*	Climber	Root	Dysmenorrhoea
27	Hypoxidaceae	*Curculigo orchiodes*	Herb	Root	Cuts
28	Lauraceae	*Litseaglutinosa*	Tree	Seed	Rhemuatism
29	Loranthaceae	*Dendrophthoe falcata*	Parasite	Stem bark	Asthma
30	Lygodiaceae	*Lygodium flexuosum*	Herb	Root	Anaemia
31	Melastomaceae	*Memecylon umbellatum*	Tree	Root bark	Leucorrhoea
32	Mimosaceae	*Mimosa pudica*	Herb	Root	Epilepsy
33	Moringaceae	*Moring oleifera*	Tree	Leaf	Blood pressure
34	Musaceae	*Musa paradasiaca*	Herb	Leaf	Cough
35	Nelumbonaceae	*Nelumbo nucifera*	Herb	Perianth	Conjuctivitis
36	Nyctanginaceae	*Boerhavia diffusa*	Herb	Whole plant	HIV
37	Olacaceae	*Olax scandens*	Climber	Stem bark	Anaemia
38	Poaceae	*Vetivera zizanoides*	Herb	Root	Allergy
39	Ranunculaceae	*Naravelia zeylanica*	Climber	Leaf	Cold
40	Rutaceaae	*Aegle marmelos*	Tree	Stem bark	Cholera
41	Rutaceaae	*Limnonia acidissima*	Tree	Root	Rhemuatoidarthiritis
42	Rutaceaae	*Murraya paniculata*	Shrub	Root	Anaemia
43	Rutaceaae	*Naringi crenulata*	Tree	Stem bark	Dysentry
44	Sapindaceae	*Cardiospermum halicacabum*	Climber	Leaf	Burns
45	Sapotaceae	*Madhuca indica*	Tree	Flowers	Asthma
46	Sapotaceae	*Manilkara hexandra*	Tree	Stem bark	Body pain
47	Schrophulariaceae	*Bacopa monneri*	Herb	Whole plant	Respiratory trouble
48	Solanaceae	*Datura metel*	Shrub	Root	Asthma
49	Zingiberaceae	*Curcuma longa*	Herb	Rhizome	Rhemuatoidarthiritis

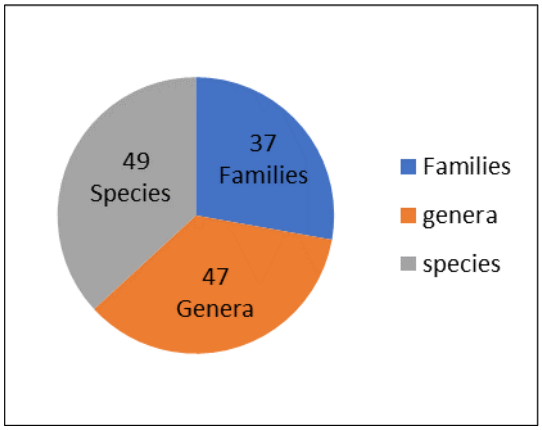

Figure 1 Genera, species and family of Ethnomedicinal Plants

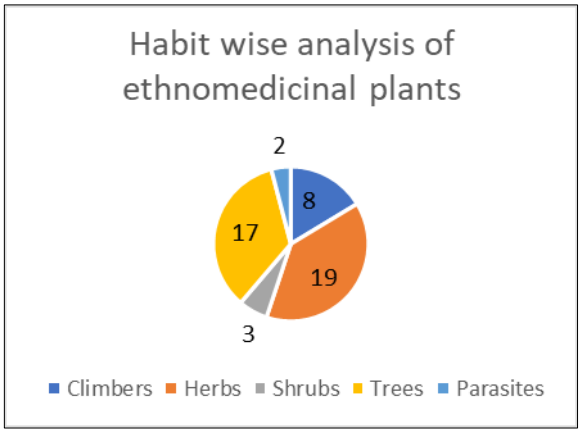

Figure 2 Habit- wise analysis of Ethnomedicinal plants

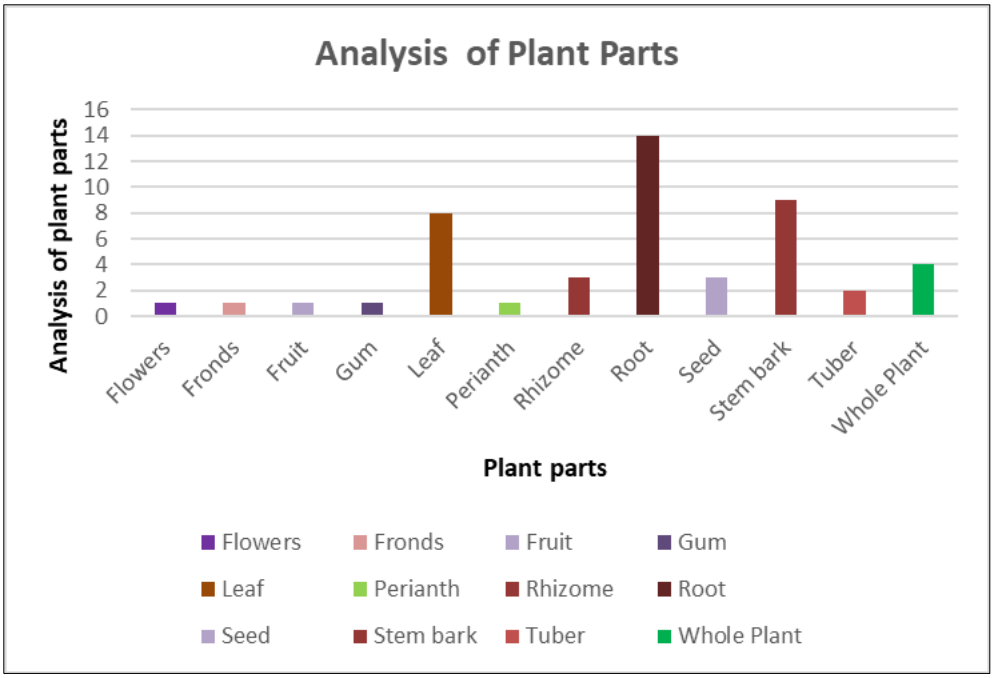

Figure 3 Plant parts analysis of Ethnomedicinal plants

5. Conclusion

The present study was conducted to document the ethnomedicinal plant resources of HukumpetaMandal, AlluriSitaramaraju District of Andhra Pradesh, India as well as to explore the traditional knowledge or belief of these plants used by the village people for their primary health care needs. Theethnomedicinal plants demonstrated the presence of several phytochemicals in them and displayed phenolic and flavonoid compounds with hepatoprotective properties in most of the experimental studies performed with these plants. Nevertheless, very few studies are carried out on the scientific validation of medicinal plants by means of biochemical, clinical, and pharmacological screening to validate the healing folklore medicine. In the future, it is, therefore, very important to pursue steps that do not deviate from shifting the view of tribal people toward their indigenous belief in the treatment of healing to develop successful drugs or to discover new potential sources of drugs.

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

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