



A Review: Ethnobotany of Various Plants in Respect to Health

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Abstract

Ethnobotany is normally characterized as anthropological approach to the botany. With the arrival of human civilization, numerous frameworks of treatment have been grown fundamentally dependent on Plants. The plant-based traditional medical systems continues to give the essential medical care to more than 3/4 of the universes population. In India, the utilization of plants for therapeutic treatment traces all the way back to 5000 years. It was formally recognized that more than 2500 plant species have the medicinal value while more than 6000 plants are estimated to be explored in folk, traditional and herbal medicine. The arid and forest regions of Rajasthan have incredible possibility both from the economic as well as botanical points of view. This paper reviews the work done as such far in the ethnobotany of Rajasthan.

Keywords: Ethno botany, Heath, Rajasthan, Tradition, Human

Introduction

Harshberger in 1895 instituted the term ethnobotany to show plants utilized by the aboriginals. It includes the review and assessment of plant-human relations in all stages and the impact of plant climate on human culture. (Sharma and kumar, 2013) ^[9]. Ethnobotany is considered as a part of ethnobiology. Ethno- means study of people and botany - means study of the plants (Choudhary *et al.*, 2008) ^[1]. Kirtikar and Basu (1935) ^[4] expressed that the term Ethnobotany isn't new to India as the ancient Hindus ought to be given the credit for developing what is presently called ethnobotany. Farnsworth (1990) ^[2] studied about the role of ethno pharmacology in drug improvement in India. Plants have been one of the significant sources of prescriptions since the time the beginning of human civilization. In spite of huge improvements in the field of Allopathy during the twentieth century, plants still stay one of the significant sources of medications in present day as well as traditional systems of medication all through the world. Around 33% of all drugs are of plant beginning, wherein organisms (fungi) and microorganisms (bacteria) are likewise included. More than 60% of all drugs are plant-based (Sharma and kumar, 2012) ^[10].

Tribal and local people use the plants for cure of various diseases. As the majority of the diseases of current culture are life style disease and the utilization of herbal medicines can defeat such problems. According to Schultes (1962) ^[7] ethnobotany is the study of the relationship between the people of primitive societies and their plant climate.

Diabetes mellitus (DM) is the very common endocrine problem that influences in excess of 100 million individuals around the world (6% of the population) (WHO/Acadia, 1992) ^[12]. It occurs by the ineffective production or lack of insulin by pancreas which brings about increment or decline in concentrations of glucose in the blood. It makes the adverse effects on the body system, especially the veins and nerves (Nagappa *et al.*, 2003) ^[5]. For its treatment numerous agents of the plant origin are also added along with the synthetic drugs especially for the treatment of non-insulin dependent diabetes mellitus (NIDDM).

For the cure of digestive diseases, skindiseases, leprosy, malaria and paralysis studies were conducted by Upadhyay *et al* (2010) ^[11]; Sharma and Kumar (2011) ^[8] Sharma and Kumar (2012) ^[10]. A few troublesome diseases have issue related with vitality, diabetes, memory loss, could be cured successfully by the use of natural medicines, which is normally not possible by the use of Allopathic medicines (Sharma and kumar, 2013) ^[9].

History of Ethnobotany

In 1895, Harshberger characterized Ethnobotany as the study of the utilitarian connection between individuals and vegetation in their environment, along with medicinal uses" (Harshberger, 1896) [3]. The Greek specialist Dioscorides in AD 77 published "De Materia edica", which was an inventory of around 600 plants in the Mediterranean. This outlined herbal contained data on how and when each plant was assembled, whether or not it was harmful, its real use and whether or not it was consumable. In 1542, A Renaissance artist, Leonhart Fuchs, driven the way back into the field. His "De Historia tirpium" cataloged 400 plants local to Germany and Austria. John Ray (1686-1704) gave the first definition of "species" in his "Historia Plantarum": a species is the set of individuals who give rise to the new individuals which are similar to themselves through reproduction. In 1753 Carl Linnaeus expressed "Species Plantarum", which includes data of around 5,900 plants. Linnaeus is well known for inventing and binomial technique for nomenclature, in which all species get a two section name (genus and species). The nineteenth century was at the peak for botanical exploration. Alexander von Humboldt gathered information from the new

world and the famous Captain Cook brought back data on plants from the South Pacific. Now at this time botanical garden were initiated, for example the Royal Botanic Gardens, Kew. Edward Palmer gathered artifacts and botanical specimens from people in the Mexico and North American West (Great Basin) from the 1860s to the 1890s. At the end of 19th Century, a German physician working in Sarajevo – Leopold Glueck. Was the first person to study the emic outlook of the plant world? His work on the traditional medical uses of plants done in Bosnia (1896) must be considered the first modern ethnobotanical work. Starting in the twentieth century, the field of ethnobotany encountered a shift from crude gathering of information to a more prominent systemic and applied reorientation. This is additionally the start of academic ethnobotany. Founding father of this discipline is Richard Evans Schultes (San 1983; Choudhary *et al.*, 2008) [1].

Uses of plants in various ways

Every plant has its own identity in a different manner. Table 1 describes the plants with their category.

Table 1: Ethnobotany of plants of Rajasthan

Sr. No.	Features	Plants
1.	Edible plants	<i>Ceropegia bulbosa</i> , <i>Colocasia esculenta</i> , <i>Dioscorea bulbifera</i> , <i>Nelumbo nucifera</i> , <i>Pupalia</i> , <i>Ceropegia tuberosa</i> , <i>Curcuma amada</i> , <i>atropurpuria</i> , <i>Raphanus sativaus</i> , <i>Trapa natans</i> , <i>Pureria tuberosa</i> ,
2.	Ornamental plants	<i>Gloriosa superba</i> , <i>Crinum asiaticum</i>
3.	Medicinal plants	<i>Ampelociessus latifolia</i> , <i>Asparagus racemosus</i> , <i>Arisaema tortuosum</i> , <i>Costus specious</i> , <i>Curculigo orchoidies</i> , <i>Crinum asiaticum</i> , <i>Ceropegia bulbosa</i> , <i>Ceropegia tuberosa</i> , <i>Chlorophytum tuberosum</i> , <i>Corallocarpus epigaeus</i> , <i>Colocasia esculenta</i> , <i>Curcuma amada</i> , <i>Cayratia trifolia</i> , <i>Dioscorea bulbifera</i> , <i>Dioscorea hispida</i> , <i>Dioscorea pentaphylla</i> , <i>Dioscorea tomentosa</i> , <i>Daucas carota</i> , <i>Eulophia ochreata</i> , <i>Euphorbia fusiformi</i> , <i>Gloriosa superba</i> , <i>Globba marantina</i> , <i>Leea indica</i> , <i>Leea macrophylla</i> , <i>Langenandra toxicaria</i> , <i>Momordica dioica</i> , <i>Momordica balsamina</i> , <i>Mirabilis jalapa</i> , <i>Nelumbo nucifera</i> , <i>Pureria tuberosa</i> , <i>Raphanus sativaus</i> , <i>Ruellia tuberosa</i> , <i>Sauromatum venosum</i> , <i>Tacca leontopetaloides</i> , <i>Trichisanthes cucumerina</i> , <i>Urginea indica</i> , <i>Withania somnifera</i> , <i>Zingiber officinale</i>
4.	Poisonous plants	<i>Withania somnifera</i> (seed), <i>Urginea indica</i> (Bulb), <i>Dioscorea bulbifera</i> (Tuber), <i>Gloriosa superba</i> (Tuber), <i>Crinum asiaticum</i> (Bulb)
5.	Spice plants	<i>Zingiber officinale</i> , <i>Curcuma amada</i>

Ref. Choudhary, K., Singh, M., & Pillai, U. (2008) [1]. Ethnobotanical survey of Rajasthan-An update. *American-Eurasian Journal of Botany*, 1(2), 38-45.

It has been understood all around the world that much valuable information about uses of plants including medicinal uses is yet endemic among numerous tribal or rural human societies. The ayurvedic arrangement of medicine not just provides cure for a large number of general and chronic diseases however it also strengthen the internal body strength. The tribals who rely on forest (normally their surrounding vegetation) wealth is the genuine custodians that protects the medicinal plants till now. Rapid deforestation due to over-

harvesting and exploitative trade of medicinal plants has fundamentally decreased the availability of the medicinal plants in arid and semi-arid region of Rajasthan. For the sustainable development, in-situ strategy of conservation is required.

A categorical of plant species along with their plant part/s utilized are listed in Table 2 and Table 3 to show their effective control in various diseases.

Table 2: Plant species with their effective use

Sr. No.	Plant Species	Local name	Diseases
1.	Root paste of <i>Corallocarpus epigaeus</i> ,	Gopalanga	For swellings
2.	<i>Achyranthus aspera</i>	Prickly chaff flower	Pneumonia
3.	<i>Glinus lotoides</i>	Lotus sweet juice	Urinary troubles
4.	<i>Neurada procumbens</i> <i>Colchium luteum</i> , Seeds of <i>Mimosa hamate</i> Root of <i>Asparagus racemosus</i>	Sand button Suranjan Gulabi babul Satavari	As tonics
5.	<i>Thalictum minus</i>	small meadowrue	Conjunctivitis

6.	<i>Capparis spinose</i>	Caper bush	Spleen disorders
7.	<i>Mollugo cerviana</i>	Threadstem carpetweed.	Blood purification and promoting lochial discharge
8.	Bulbs of <i>Urginea indica</i>	Indian Squill	Bronchial troubles
9.	<i>Ranunculus hirtellus</i>	Piryali	Skin diseases
10.	<i>Podophyllum hexandrum</i> <i>Salvia aegyptiaca</i>	Himalayan May Apple Tootmalanga	Diarrhoea
11.	<i>Achillea millaefolia</i>	Yarrow	Gastritis and fever
12.	<i>Cuscuta hyaline</i>	Amer-Bel	Chest pain
13.	<i>Nepeta ligibracteata</i>	Long-Bract Catmint	Hyperacidity
14.	<i>Panicum antidotale</i> , <i>Artemisia maritima</i>	Blue panic grass Sea wormwood	For wounds and as disinfectant

Ref. Sharma, H., & Kumar, A. (2011) [8]. Ethnobotanical studies on medicinal plants of Rajasthan (India): A review. *Journal of Medicinal plants research*, 5(7), 1107-1112.

Table 3: Ethno medicinal plants of Rajasthan

Sr. No.	Plant Species	Local Name	Part Used	Uses
1.	<i>Prosopis cineraria</i> <i>Cassia occidentalis</i>	Khejari Kesudo	Leaf, seed & stem Leaves	Skin diseases
2.	<i>A. indica</i>	Neem	Leaves	Snakebite and scorpion sting
3.	<i>Sida glutinosa</i>	Puri	Leaves	Inflammation
4.	<i>Tamarindus indica</i>	Imli	Fruits	Laxative, general fever
5.	<i>Cassia fistula</i>	Amaltas	Fruits	Laxative
6.	<i>Asparagus racemosus</i>	Utro	Root	Malaria
7.	<i>Pithecellohim</i>	Pardesi amla	Stem (bark)	Anemia
8.	<i>Vitex peduncularis</i>	Simjanga	Root	Jaundice
9.	<i>Accia nilotica</i>	Babul	Leaf, stem	Toothache
10.	<i>Atylosia scarabaeoides</i> <i>Rauvolfia serpentina</i>	Gulsuni Nagbel	Root Root	Rheumatism
11.	<i>Bauhinia racemosa</i>	Asundro	Stem, Leaf	Dysentery, malaria, headache.
12.	<i>C. procera</i>	Akra, Aak	Root	Scorpion sting
13.	<i>Derris indica</i>	Karanj	Whole plan	Ulcers, bleeding piles, Beri, Leucoderma, bronchitis
14.	<i>A. barbedensis</i>	Gwarpatha	Leaves	Sexual vitality
15.	<i>Buea monosperma</i>	Phalas	Gum, Seeds	Anthelmintic, blood pressure
16.	<i>T. undulata</i>	Rohida	Bark, branch	Syphilis
17.	<i>A. catechu</i>	Khair	Bark, flower tops	Gonorrhoea
18.	<i>Delbergia sissoo</i>	Sisham	Stem	Blood dysentery, Gonorrhoea
19.	<i>R. communis</i>	Erand	Seeds	Birth control
20.	<i>Delonix elata</i>	Samrsro	Leaf	To alleviate flatulence and reumatism
21.	<i>Lygodium flexpsum</i>	Sorgajal	Rhizome	Ear-ache
22.	<i>D. metel</i>	Kannkak	Leaves	Cure insanity, cerebral complications
23.	<i>Ficus benghalensis</i> <i>Cynodon dactylon</i>	Bargad Dhooob ghas	Root	Leucorrhoea

Ref. Sharma, H., & Kumar, A. (2011) [8]. Ethnobotanical studies on medicinal plants of Rajasthan (India): A review. *Journal of Medicinal plants research*, 5(7), 1107-1112.

Conclusion

Plants have been a significant source of precursors and items utilized in a variety of industries, including those of drugs, food, beauty care products and agrochemicals. The herbal medicine suits to the both social as well as cultural requirements of the people and also influences the patient's mental, physical and emotional states as well. The herbal drugs which are prepared with the traditional strategies through slow crushing and blending processes conserves all natural substances present in it in the 'naturally balanced form' without losing any of the fundamental component and thus, maintains the activity and purity of the drug. As per the WHO report, several diseases of modern times are generally because of life style diseases. Medicinal plants have incredible significance in giving medical services to about 80% of population in India. Efforts should be made to preserve the ethnomedicinal plants. The current status of the economically and medicinally significant plants of the study area are required to be determined in order to prepare the plans for their protection. Further developed consciousness for conservation of plants is required. Appropriate documentation of indigenous information about the plants could be supportive in achievement of objectives. Thus efforts should be made to preserve the ethno medicinal plants.

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