

Preliminary Ethno- botanical survey of some medicinal plants in Rajgarh (M.P.), India

Hemant Kumar Nahar

Research Scholar, Department of Botany, Barkatullah University, Bhopal (M.P.), India
Email: Hemantnahar19@gmail.com

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ABSTRACT

The aim of the present study was primarily to evaluate the medicinal uses of the plants known to some Rajgarh district of Madhya Pradesh, India tribes and to encourage preservation of their culture, conservation and sustainable utilization of the plant wealth. The present study revealed a record of 15 plant species belong to 13 families and 15 genera was reported with further emphasis on their vernacular names, popular uses, parts used along with habitat which are used in the folk medicine of Rajgarh district of Madhya Pradesh, India. These plant species were arranged alphabetically by their families and Plant part & Disease. Ethno- medicinal plant survey was conducted in the year 2018-2019 in eight villages of Rajgarh district of Madhya Pradesh which are used in different disease. Floristic spectrum of the Ethno medicinal plants used in Rajgarh District are shown in Table 2. life forms are shown in Fig-3. tree species is maximum used for ethno-medicine. It is believed to be a form of healthcare in many Aspects of curing practices. The plants were arranged alphabetically by their Botanical name followed by Family name, Plant parts used and medicinal uses. This wisdom available with the tribes is transmitted only through oral communication therefore needs conservation.

Key words: Medicinal plants; Ethnobotany; Rajgarh.

INTRODUCTION

Rajgarh District is located in the Northern part of Malwa Plateau. It forms the North Western part of Division of Bhopal Commissioner. Rajgarh District extends between the parallels of Latitude 23 27' 12" North and 24 17' 20" North and between the meridians of Longitude 76 11' 15" and 77 14' East. It has a Quadrangular shape with the Northern and Western sides longer than the Southern and Eastern sides respectively. The zigzag boundaries of the District resemble a pear. Rajgarh District is bounded by Shajapur District in the South as well as west. The District of Sehore, Bhopal, Guna and Jhalawar (Rajasthan) enclose it from the South-East, East, North-East, and North directions respectively. The total Geographical area of the District is 6,154 sq. km. With a population of 15, 45,814 according to census 2011. Total Villages is 1728 in the district. It is one of the small districts of Madhya Pradesh both in respect of area and population. It is 145 KMs from the State capital Bhopal.

The purpose of the present study was to document the indigenous medicinal plants used by the locals of Rajgarh District with emphasis on those have never been described in the ethno- botanical literature of Rajgarh District or with new therapeutic uses. The scant knowledge concerning medicinal plants prompted investigation on intensive search of systematic study to better understanding of traditional healing.

MATERIAL METHODS

The current ethnopharmacological survey was conducted among 21 local practitioners in different regions of Rajgarh District Area (Fig.1). The choice of the individual informant to be interviewed was of fundamental importance to the reliability of the gathered information. I only selected practitioners who utilized medicinal plants as part or all of their therapeutic activity, and who were regarded as professional. Questions addressed to the informants were mainly focused on ailments and diseases treated, therapeutic part(s) of plants. A therapeutically efficacious effect was accepted if use is mentioned by at least three different informants. Botanical specimens of recorded plants were collected and materials were

mounted on herbarium sheet. Plant collection was carried out by standard method (Jain, and Rao, 1977). Plant specimen was identified with the help of Flora (Verma *et al.*, 1993; Khanna *et al.*, 2001, Mudgal *et al.*, 1977) and available literature.

RESULTS & DISCUSSION

Information obtained from the analysis including the folk therapeutically data was compared with those of the atlas of medicinal plants used in Rajgarh District folk medicine. 15 plant species belong to 13 families and 15 genera was reported with further emphasis on their vernacular names, popular uses, parts used along with habitat (Table 1 & Figure 2). These plant species were arranged alphabetically by their families and Plant part & Disease. Ethno- medicinal plant survey was conducted in the year 2018-2019 in eight villages of Rajgarh district of Madhya Pradesh which are used in different disease (table-3). Floristic spectrum of the Ethno medicinal plants used in Rajgarh District are shown in Table 2.life forms are shown in Fig-3.tree species is maximum used for ethno-medicine. Floristic spectrum of the Ethno-medicinal plants used in Rajgarh District is shown in Fig:4.

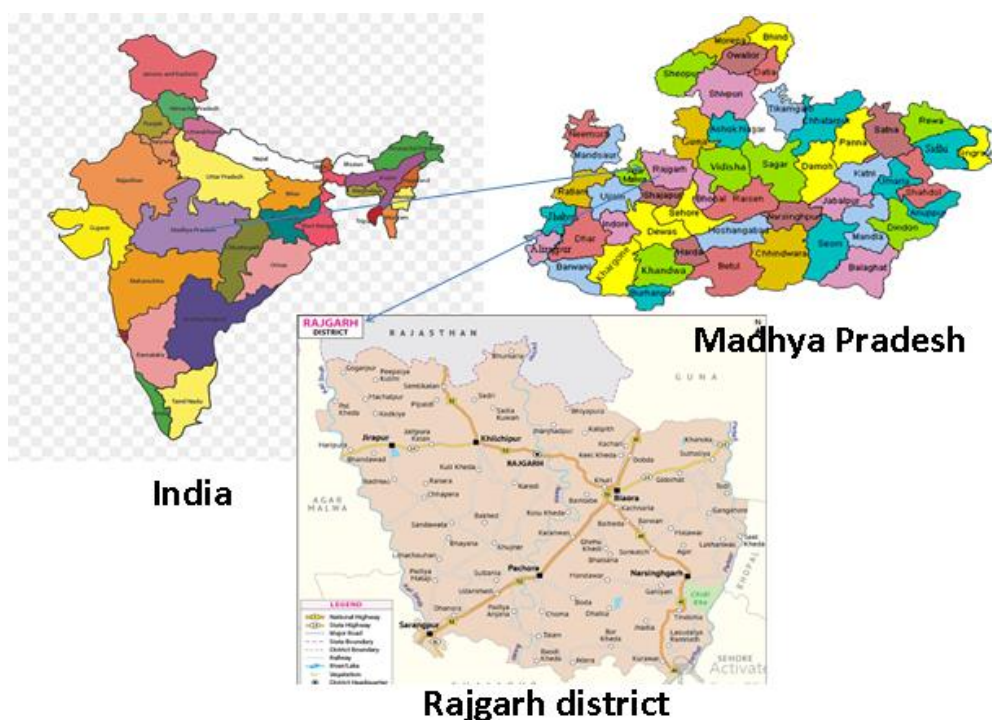


Figure 1 study area

Table 1: Medicinal plants used in Rajgarh District

SN	Botanical name	Family	Plant part	Disease	Habitat
1.	<i>Acacia leucophloea</i> , Willd.	Leguminoaceae	Flower	Asthma	Tree
2.	<i>Aegle marmelos</i> Correa	Rutaceae	Leaves	Fever	Tree
3.	<i>Argemone mexicana</i> L.	Berberidaceae	Root	Skin disease	Herb
4.	<i>Azadirachta indica</i> Juss.	Meliceae	Seed	Skin disease	Tree
5.	<i>Balanites aegyptiaca</i> (L.) Del.	Balanitaceae	Leaves	Malaria	Tree
6.	<i>Calotropis procera</i> (Ait.) Ait. f.	Asclepiadaceae	Stem	Scorpion bite	Shrub
7.	<i>Cassia fistula</i> L.	Leguminoaceae	Root	Fever	Tree
8.	<i>Cissus quadrangularis</i> L.	Ampelidaceae	Stem	Snake bite	Climber
9.	<i>Ficus religiosa</i> L.	Moraceae	Bark	Brain tonic	Tree
10.	<i>Hygrophila spinosa</i> L.	Acanthaceae	Leaves	Forehead	Herbs
11.	<i>Opuntia dillenii</i> Hair.	Cactaceae	Root	Mind Pain	herbs
12.	<i>Phyllanthus emblica</i> Linn.	Euphorbiaceae	Fruit	Cough	Tree
13.	<i>Senna occidentalis</i> (L.) Link	Caesalpinaceae	Seed	Diabetes	Shrub
14.	<i>Tamarindus indica</i> L.	Caesalpinaceae	Gum	Toothache	Tree
15.	<i>Terminalia belarica</i> Roxb.	Combretaceae	Fruit	Stomachic	Tree

Table 2: Floristic spectrum of the Ethnomedicinal plants used in Rajgarh District

Sn	Plant part used	No. of Species
1.	Flower	1
2.	Fruit	2
3.	Gum	1
4.	Leaves	3
5.	Root	3
6.	Seed	2
7.	Stem	2

Table 3: Distribution of medicinal plants in Rajgarh District

Botanical name	Common name	Ko	Kar	Kh	Sul	Ud	Dh	Pad	Kare
<i>Ficus religiosa</i> L.	Papal	✓	✓		✓	✓	✓		✓
<i>Acacia leucophloea</i> , Willd.	Subabul		✓			✓	✓		✓
<i>Phyllanthus emblica</i> Linn.	Awala	✓		✓	✓	✓		✓	
<i>Terminalia belarica</i> Roxb.	Baheda		✓	✓		✓		✓	
<i>Tamarindus indica</i> L.	Emali	✓	✓	✓	✓				
<i>Balanites aegyptiaca</i> (L.) Del.	Hingot				✓	✓	✓		
<i>Aegle marmelos</i> Correa	Bilpatra	✓	✓	✓		✓	✓		
<i>Hygrophila spinosa</i> L.	Talmakhana		✓	✓	✓		✓	✓	✓
<i>Cassia fistula</i> L.	Amaltash	✓		✓	✓	✓		✓	✓
<i>Opuntia dillenii</i> Hair.	Nagphani	✓	✓			✓		✓	✓
<i>Argemone mexicana</i> L.	Pilikateli		✓	✓	✓			✓	
<i>Senna occidentalis</i> (L.) Link	Awalai	✓		✓	✓	✓	✓		
<i>Azadirachta indica</i> Juss.	Neem	✓	✓			✓	✓		✓
<i>Calotropis procera</i> (Ait.) Ait. f.	Akda	✓	✓	✓	✓		✓		✓
<i>Cissus quadrangularis</i> L.	Hadjod	✓		✓	✓	✓	✓	✓	✓

Abs.=Ko=Kolukheda, kar=Karanwas; kh=Khujner; sul=Sultania; Ud=Udankhedi; Dh=Dhanora; Pad=Padlyamataji; Kare=Karedi

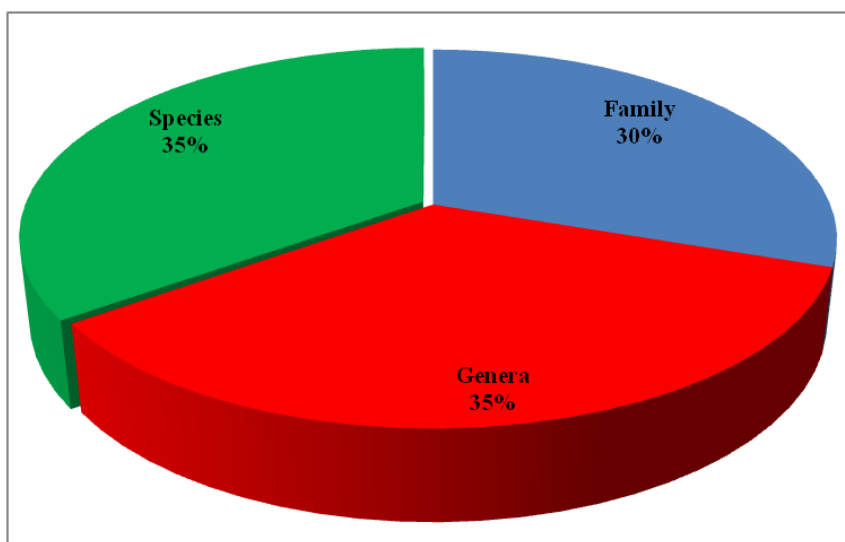


Figure 2: statistical analysis of taxa

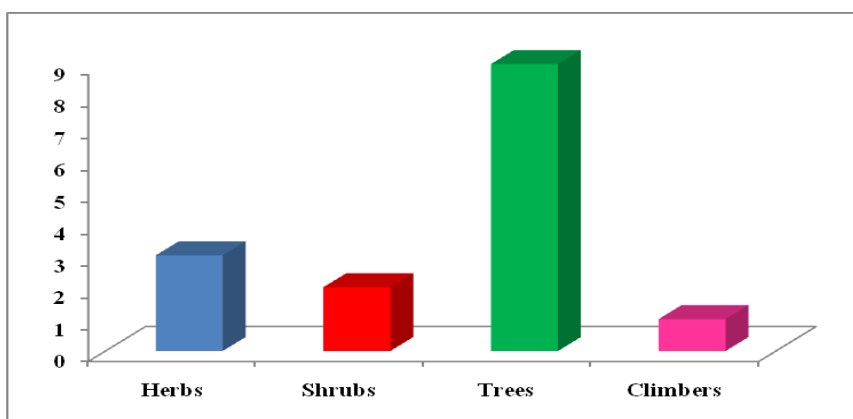


Figure 3: Distribution of taxa in Rajgarh District

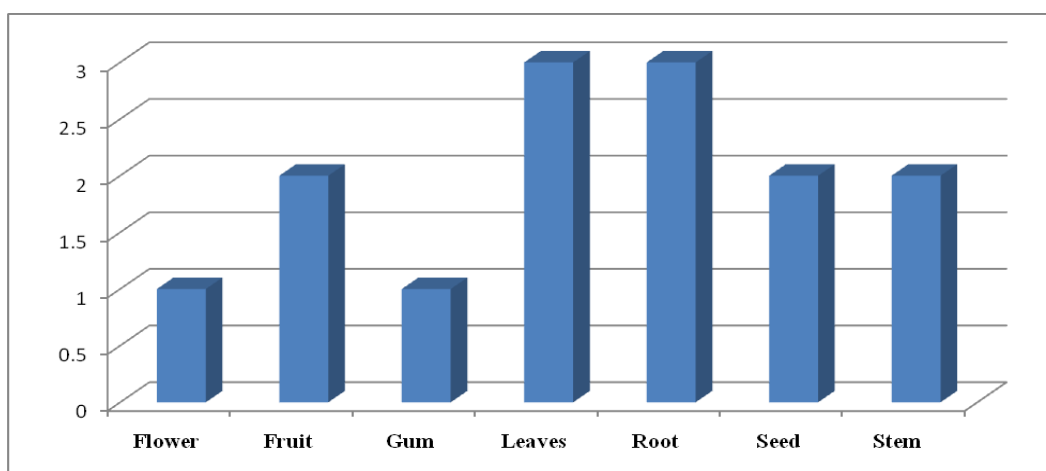


Figure 4: Floristic spectrum of the Ethnomedicinal plants used in Rajgarh District

CONCLUSION

I observed that, knowledge of medicinal plant use among the young was less well developed and negatively correlated with the level of informant education. Our observation suggests that the educated,

usually younger people tend to migrate to more lucrative jobs away from the villages. As Rajgarh District traditional medical knowledge is orally passed down via lifestyle, it is important to exhaustively document and publicize medicinal plant knowledge within the young generation to raise awareness of and appreciation for

their traditional values and for the conservation and sustainable use of the plants as well as to keep the traditional medical knowledge left in their community alive. In this context, it may be important that personal contacts with natural areas not only provide learning opportunities but also motivate people to protect their environment; thus, the natural setting seems to be central to the acquisition of traditional plant knowledge. In conclusion, folklore medicine in Rajgarh District may constitute an important component of the health care system.

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Conflicts of interest: The authors stated that no conflicts of interest.

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