

# Unrecorded Ethnomedicinal uses of Biodiversity from University Campus Kota

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**Abstract:** A survey was conducted in University campus to review the floristic diversity of Angiosperms along with their medicinal use. The survey included observation and field visit of Kota University campus. a whole of 103 medicinal plants were identified. Most species belonged to Fabaceae followed by Moraceae. The foremost purpose of this survey is to assemble data about Medicinal plants available in campus. This study is concentrated to produce an effective knowledge of medicinal properties of plants so on to cure disease with non-side-effects.

**Keywords:** Ethnobotany, floristic, indigenous system, medicinal plants

## 1. Introduction

Vast ethnobotanical knowledge exists in India from ancient time. Since the 1950s the study of ethnobotany has intensified Ethnobotany deals with study and evaluation of plant resources After food and shelter man has developed remedies for curing various diseases. Traditional medicines have been used for thousands of years for treating various diseases. Although flora of Rajasthan has been compiled by various workers, there is increasing demand for herbal medicines. World Health Organisation (WHO) has emphasised the fact that more than 90% of world's population are exclusively dependent upon indigenous and traditional plant knowledge (1, 2). Deforestation, urbanization, industrialization, transmigration, colonization and other developmental activities have threatened not only biological resource but also ethnobotanical knowledge (3). Rajasthan is rich in plant resources. Kota, a city located in southeast of northern state of Rajasthan It is located about 240 kilometres (149 mi) south of the state capital, Jaipur, situated on the banks of Chambal River is also rich in biodiversity. University of Kota is located near Kabir circle. The present study highlights ethnomedicinal plants of Kota university campus.

## 2. Methodology

In order to determine floristic diversity in the study area we used reconnaissance method and survey was done on foot in different seasons of the year. The study site was divided into

five blocks in such a way that all portions of university campus is covered eastern, western, northern, southern and central part of the study site. At each location quadrats of appropriate size were laid to assess the distribution pattern and plant species were recorded (4, 5, 8). The families were classified according to Benthem and Hooker Classification (1862-1883). Identifications were done with the help of different floras and herbaria of Rajasthan. (6, 7).

## 3. Results and discussion

In the present study of Kota university campus 73 plant species are reported. Out of 73 plant studied, 63 species belong to dicotyledons and 10 to monocotyledons (Table1). Enumerated plants were dispersed among Leguminosae (16species), Poaceae (10 species), Asteraceae and lamiaceae (5 species), Apocynaceae (4 species), Amaranthaceae, Acanthaceae, Asclepiadiaceae, Meliaceae, Brassicaceae, Solanaceae (2 species) and remaining families (one species in each) were gathered from university campus. All the studied plant species have been arranged alphabetically along with their binomial, family, local name and their medicinal use. After careful screening many species have been recognized as important medicinal plants with various properties.

There is urgent need to conserve traditional medicinal plants as they are widely used in various cultural and religious rites and rituals, this would also help to create database regarding the flora of Kota district

**Table 1:** List of Angiosperm plant species along with their family, localname, habit and medicinal uses

S.no.	Botanical name	Family	Local name	Habit	Medicinal uses
1.	<i>Abrusprecatorius</i> L.	Fabaceae	Chirmathi, rati	Climber	Cough. cold, Hair growth, demulcent
2.	<i>Acacia auriculiformis</i> (A.Cunn). Benth.	Mimosaceae	Ear leaf acacia	Large tree	Analgesic
3.	<i>Acacia leucophloea</i> (Roxb.) Wild.	Mimosaceae	Ronj	Large tree	Antipyretic, antidote for snake bite, expectorant
4.	<i>Acacia nilotica</i> (L.) Wild. Ex Del.	Mimosaceae	Desi kikar	Large tree	Antimicrobial.antiplasmodial, HIV treatment
5.	<i>Acacia senegal</i> (L.) Wild.	Mimosaceae	Khairi, gum arabic	Medium size tree	Bronchitis, cough, diarrhea, typhoidfever, upper respiratory tract infections
6.	<i>Acacia tortilis</i> (Forssk.) Hayne.	Mimosaceae	Totluskikar,	Large tree	Skin allergy, cough, inflammatory

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			israilebabool		reactions
7.	<i>Achyranthes aspera</i> L.	Amaranthaceae	Putkanda, Ultakanta	Annual herb	Haemorrhoids, indigestion, cough, asthma, anaemia, jaundice, snakebite
8	<i>Adhatodavasica</i> L.	Acanthaceae	Basaka, Aroosa	Annual herb	Leukoderma, vomiting, heart troubles
9.	<i>Aegle marmelos</i> (L.) Corr. Serr.	Rutaceae	Belpathar	Large tree	Dysentery and diabetes
10.	<i>Ageratum conyzoides</i> L.	Asteraceae	JangliPudina	Annual herb	Burns, eye problems, pneumonia, uterine disorders
11.	<i>Ailanthus excelsa</i> Roxb.	Simarubiaceae	Olooneem	Large tree	Asthma, bronchitis and dysentery
12.	<i>Albizialebeck</i> (L.)Benth.	Mimosaceae	Siris	Large tree	Eye flue, gingivitis
13.	<i>Apludamutica</i> L.	Poaceae	-	Herb	Disinfectant, healing minor wounds
14.	<i>Alstoniascholaris</i> (L.) R.Br.	Apocyanaceae	Sapt-Parna, Devil tree	Large tree	Lung infection, cough, asthma
15.	<i>Amaranthus viridis</i> L.	Amaranthaceae	Chulai	Annual herb	Diabetes, dysentery, urinary and eye disorders
16.	<i>Argemonemaxicana</i> L.	Papaveraceae	Jhaljai, satyanashi	Ephemeral herb	Constipation, malaria
17.	<i>Aristidaadscensionis</i> L	Poaceae		Herb	Lactation stimulant, prevent itch and ringworm
18.	<i>Azadirachta indica</i> A.Juss.	Meliaceae	Neem	Large tree	Treats fungal infections, mosquito repellent
19.	<i>Barlieraprinotis</i> L.	Acanthaceae	Pila Basa	Annual herb	Whooping cough, urinary infections
20.	<i>Bauhinia variegata</i> L.	Caesalpiniaceae	Kachnar	Medium size tree	Anti helminthic, antileprotic, antidote for snake bite
21.	<i>Blumealacera</i> (Burm. f.) DC Prodr.	Asteraceae	JangliMooli	Annual herb	Bronchitis, blood diseases
22.	<i>Boerhaaviadiffusa</i> L.	Nyctaginaceae	Santi, Punarnava	Annual prostrate herb	Kidney disorder, insomnia
23.	<i>Brachiariadistachya</i> L.	Poaceae		Herb	Soil binder
24.	<i>Brachiaria ramosa</i> L.	Poaceae		Herb	Remidation of contaminated soil
25.	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Dhak	Large tree	Leprosy, gout, eye disease
26.	<i>Calotropis gigantea</i> (L.) W.T.Aiton.	Asclepiadaceae	Aak	Perennial shrub	Elephantiasis, nausea, vomiting
27.	<i>Calotropisprocera</i> (Ait.) Aiton.	Asclepiadaceae	Aak	Perennial shrub	Constipation, stomach ulcers
28.	<i>Capparis decidua</i> (Forssk.) Edgew.	Capparaceae	Kair, Tint	Small tree	Asthma, toothache, cough
29.	<i>Cassia fistula</i> L.	Caesalpiniaceae	Amaltas	Large tree	Antiseptic, laxative
30.	<i>Cassia obtusifolia</i> L.	Caesalpiniaceae	Pavad	Herb	Anti -helminthic, stomach ache
31.	<i>Cassia siamea</i> (Lam.) Irwin et Barneby	Caesalpiniaceae	Seemia, Kasood	Medium size tree	Anti- cancer, antidepressant
32.	<i>Catharanthus roseus</i> (L.) G.Don.	Apocyanaceae	Sadabahar	Herb	Stomach ache, relieves muscle pain
33.	<i>Cenchrusciliaris</i> L.	Poaceae	Anjan	Herb	Body pain and menstrual disorder
34.	<i>Cocculushirsutus</i> (L.) Diels.	Manispermaceae	Faridbuti	Twiner herb	Eczema, dyspepsia
35.	<i>Corchorustrilocularis</i> L.	Tiliaceae	Wild jute	Annual herb	Reduce swelling, nausea
36	<i>Coronopusdidymus</i> (L.) Sm	Brassicaceae	Janglihaloon	Annual herb	Asthma, bronchitis
37	<i>Cynodondactylon</i> (L.) Pers.	Poaceae	Doobghas,	Runner herb	Laxative, coolant, expectorant
38	<i>Daturainnoxia</i> Mill.	Solanaceae	Datura	Annual herb	Improves fertility, enhance heart functions
39	<i>Delonixregia</i> (Boj. ex. Hook.) Raf.	Caesalpiniaceae	Gulmohar	Large tree	Constipation, inflammation
40	<i>Eleusine indica</i> L.	Poaceae	Crowfoot grass	Herb	Antipyretic agent
41	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Dudhi	Annual herb	Dysentery, jaundice, digestive problems
42	<i>Evolvulusalsinoides</i> (L.) L.	Convolvulaceae	Vishnukrantha	Annual herb	Loss of memory, epilepsy, leukoderma
43	<i>Ficusbenghalensis</i> L.	Moraceae	Bar, Bargad	Large tree	Ulcers, vaginal complaints, leprosy
44	<i>Ficusinfectoria</i> L.	Moraceae	Pilkhan	Large tree	Anti bacterial, anti diabetic
45	<i>Ficusrelegiosa</i> L.	Moraceae	peepal	Large tree	Skin complexion, nausea, vomiting
46	<i>Furcraeafoetida</i> (L.) Haw.	Asparagaceae	Mauritius Hemp	Perennial cultivated herb	Anti oxidant compounds
47	<i>Glinuslotoides</i> L.	Molluginaceae	Gandhi-buti	Annual herb	Anti helminthic
48	<i>Hibiscus rosa sinensis</i> L.	Malvaceae	Gurhal	Small tree	Hair loss, inflammation
49	<i>Indigoferalinnaei</i> Ali.	Fabaceae	neel	Annual herb	Epilepsy, wound sores
50	<i>Jatropha curcas</i> L.	Euphorbiaceae	Danti	Small tree	cancer
51	<i>Lantana camara</i> L.	Varbenaceae	Lantana	Annual shrub	High blood pressure, eczema
52.	<i>Leucascephalotes</i> (Roth.) Spreng.	Lamiaceae	Dadghal, Draun pushpin	Annual herb	Jaundice, cough, cold

53	<i>Lindenbergiaruderalis</i> Kuntze.	Scrophulariaceae	Linderbergia	Annual herb	Chronic bronchitis, sore throat
54	<i>Meliaazadirach</i> L.	Meliaceae	Banyan	Large tree	Rodenticidal, insecticidal
55	<i>Melothriamaderaspatana</i> (L.)M.Roem	Cucurbitaceae	Aankhphod	Climber herb	Antidiabetic, larvicidal
56	<i>Murrayakoenigii</i> (L.) Spreng.	Rutaceae	Kadhipatta	Small tree	Snakebite, piles
57	<i>Ocimumamericanum</i> L.	Lamiaceae	Nagadbavchi	Annual herb	Rheumatism, renal colic
58.	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulsi	Herb	Bronchitis, asthma, malaria
59	<i>Ocimumbasilicum</i> L.	Lamiaceae	Tulsi, sweet basil	Herb	Bronchitis, asthma, malaria, cough
60	<i>Ocimumtenuifolium</i> L.	Lamiaceae	Tulsi, holi basil	Herb	Bacterial infections, malaria, cough
61.	<i>Portulacopilosa</i> L.	Portulacaceae	Lunkhi	Annual herb	Diuresis, analgesia
62.	<i>Saccharum officinarum</i> L.	Poaceae	Ganna	Herb	Haemorrhage, anuria
63.	<i>Saccharumravnanae</i> L.	Poaceae	Sarkanda	Herb	biofuel
64.	<i>Setariaviridis</i> (L.)	poaceae	greenfoxtail	Herb	Diuretic, emollient
65.	<i>Sidacordifolia</i> L.	Malvaceae	Kharinti	Annual herb	Muscle cramp, skindisorder
66.	<i>Sisymbriumirio</i> L.	Brassicaceae	Khoobkalan	Annual herb	Cough and congestion
67.	<i>Solanumsurattense</i> Burm. f.	Solanaceae	Katehli	Annual herb	Fever, diarrhoea
68.	<i>Sonchus asper</i> (L.) Gars.	Asteraceae	Dudhi	Annual herb	Menstrual and eye problems
69.	<i>Tephrosiaperpurea</i> (L.) Pers.	Fabaceae	Jhojhru	Annual herb	Antihelminthic, antipyretic
70.	<i>Thevetianeriifolia</i> Juss.	Apocyanaceae	Pila Kaner	Small tree	Emetic, loosen bowels
71.	<i>Tridaxprocumbens</i> L.	Asteraceae	Sadahari	Annual herb	Anti fungal, insect repellent
72.	<i>Xanthium strumarium</i> L.	Asteraceae	Maskhara	Annual herb	laxative
73.	<i>Zizyphusjujuba</i> Mill.	Rhamnaceae	Ber	Medium size tree	Stimulates appetite

#### 4. Conclusions

Conservation of Medicinal plant is vital to avoid any further loss. Most of the medicinal plants were harvested from wild. Shrubs were dominant growth forms followed by herbs and trees. Depletion of indigenous knowledge among the people of the study area was serious due to disinterest of young generation to gain the knowledge. Finally to conclude this research article will attract the attention of ethno botanist, physiochemist and pharmacologist for further critical investigation of medicinal plants present in the campus.

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#### References

- [1] WHO, *Traditional Medicine: Growing Needs and Potentials*, 2002.
- [2] WHO, "Traditional medicine, " 2012, <http://www.who.int/mediacentre/factsheets/fs134/en>. View at: Google Scholar
- [3] WHO, "Traditional medicine, " 2008, <http://www.who.int/mediacentre/factsheets/fs34/en>. View at: Google Scholar
- [4] A. Sofowora, *Medicinal Plants and Traditional Medicine in Africa*, John Wiley & Sons, New York, NY, USA, 1982.
- [5] H. L. Park, H. S. Lee, B. C. Shin et al., "Traditional medicine in China, Korea, and Japan: a brief introduction and comparison, " *Evidence-Based Complementary and Alternative Medicine*, vol. 2012, Article ID 429103, 9 pages, 2012. View at: Publisher Site | Google Scholar
- [6] L. Sharma (2006). Ethnobotany of Dang region in Rajasthan.
- [7] S.Sharma and B.Tiagi (1979) Flora of North-East Rajasthan, Kalyani Publishers, New-Delhi.
- [8] N.Mishra and A.Pareek (2015) Floristic Diversity of Angiosperms with special reference to their medicinal properties from Kota district of Rajasthan, India.