

Survey Of Herbal Medicine Flora In Eastern Madhya Pradesh With Special Reference To Fabaceae Family.

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Abstract

The present survey of herbal medicine flora of Fabaceae comprises 30 Genera belonging to 64 species. The highly explored genus of Fabaceae are *Alysicarpus* with 14% (09 herbs) followed by *Indigofera* with 10% (07 herbs), *Crotalaria* with 7% (05 herbs), *Desmodium* and *Cassia* with 6% (4 herbs each genus), *Phaseolus* and *Tephrosia* with 4% (3 herbs each genus), *Flemingia*, *Medicago*, *Melilotus*, *Pisum*, *Trigonella*, *Uraria*, *Vicia* with 3% (2 herbs each genus). The survey also presents a brief account of the uses of 20 Medicinal herbaceous plants against the various diseases like skin diseases, Cough and cold, Fever, Stomach disorders, Ear pain, Diarrhoea, Jaundice, Piles, Bronchitis, Diabetes, Ophthalmic infection and cardiovascular diseases by the people of Jabalpur district and highlights the need for further investigation on biochemical and pharmaceutical aspects. **Key words:** Survey, herbaceous flora, Medicinal herbs.

Introduction

Herbal medicine is widely practiced from ancient period throughout the world. These medicines are safe and environment friendly. The popularity of ethno medicinal plants all over the world in recent years is a significant contribution of Herbal medicine. Nature has been a source of medicinal plants for thousands of year and an impressive number of modern drugs have been isolated from natural sources. Various medicinal plants have been used for years in daily life to treat disease all over the world.

Higher plants as source of medicinal compounds have continued to play a dominant role in the maintenance of human health since ancient times. Man has acquired methods of treating sickness using his local bio cultural environment. Ayurveda and other Indian literature mention such uses of plants in treatment of various human ailments. The varieties of plants of the tribal forests have contributed a recognized role in the tribal economy and welfare. Plant have been used specially for food since the man started life on the earth and were the friends to the poor, aboriginal and tribal people, in their medicine, food, and various other aspects of their life.

Ethno botany focuses on the knowledge of medicinal plants that people have developed over generations; this knowledge is generally held and used only within a limited circle of people such as within specific indigenous or rural communities. Traditional medicine is widely used in India, particularly in rural areas, where 70% of the population lives. Medicinal plant use is still a living tradition. About 25% of modern medicines are

descended from plants first used traditionally. The local uses of plants as a cure are Common herb particularly in those areas, which have little or no access to modern health services (faulk, 1958), such as the innumerable villages and hamlets in India. Elisabeth Sky (1990) reported that annual world market value for medicine derived from medicinal plants is \$ 43 billion. Recently, considerable attention has been paid to utilizing ecofriendly and biofriendly plant-based products for the prevention and cure of different human diseases (Duby *et al.*, 2004).

The Fabaceae family is the third largest flowering plant family of the world with 19,400 species in 740 genera and constitutes nearly one twelfth of the world's flowering plants Benth. & Hook. (1872). It is an extremely diverse family and constitutes one of humanity's most important groups of plants Legumes are used as medicinal, crops, forages and green manures and also synthesize a wide range of natural products such as flavors, drugs, food stuffs, valuable fodder, fatty oil, useful fiber, poisons, timber, dyes, gums and several beautiful ornamental plants etc. Therefore its floristic diversity conservation requires development of informational, institutional and economic conditions It requires economic activity, social, cultural. The study thus underlines the potentials of the medicinal value of herbaceous flora and the need for the documentation of traditional knowledge pertaining to the medicinal plant utilization for the greater benefit of mankind.

Materials and Methods

The authors have conducted an extensive field survey during 2010 - 2013. in the tribal belts and other interior villages adjoining forest areas in the district to collect herbal medicinal information. First hand information was gathered through interactions with tribal and rural people including members of forest protection committees along with through available literature and Anthropologists. The herbarium specimens were prepared by using the guide line suggested by Jain & Rao (1978). Herbarium specimens were identified with the help of standard floras, Hooker (1872-97), Oommachan (1977), Oommachan and Shrivastava (1996), B.S.I. (Madhya-Pradesh Vol. I –III. 1993-2001), Khanna *et.al.* (2001). The plant species were identified and systematically arranged in Herbarium cum Museum, Department of Biological Science Rani Durgawati Vishva Vidyalaya Jabalpur for further record and references.

Table No. 01. Herbaceous flora of Fabaceae comparative listing with Common and medicinal herbs of Jabalpur district.

S.N.	Botanical name	Local Name	Medicinal & Common herb
1.	<i>Alysicarpus bupleurifolius</i> L. DC.	Akranti	Common
2.	<i>Alysicarpus hamosus</i> (L.) DC.	Jangli gailiya	Common
3.	<i>Alysicarpus monilifer</i> L. DC.	Alysicarpus	Dysentery
4.	<i>Alysicarpus longifolius</i> (R.ex.Speng.)	Alysicarpus	Common
5.	<i>Alysicarpus roxburghianus</i> Thoth.	Alysicarpus	Common
6.	<i>Alysicarpus rugosus</i> (Willd) DC Pr.	Alysicarpus	Bronchitis
7.	<i>Alysicarpus scariosus</i> Grah.ex.Thw.	Alysicarpus	Common
8.	<i>Alysicarpus tetragonolobus</i> Edgew.	Alysicarpus	Common
9.	<i>Alysicarpus vaginalis</i> L. DC.	Davai	Cough and cold
10.	<i>Arichis hypogaea</i> L. Sp.	Mumphali	Common
11.	<i>Cicer arietinum</i> L. Sp.	Chana	Common
12.	<i>Clitoria biflora</i> Dalz.	Kajroti	Fever
13.	<i>Crotalaria acicularis</i> Benth.	Vansan	Common
14.	<i>Crotalaria ramosissima</i> Roxb.	Hardoli	Common
15.	<i>Crotalaria hirsute</i> Willd.	Jhunjhunia	Cardiovascular
16.	<i>Crotalaria linifolia</i> L.	Vansan Sp.	Common
17.	<i>Crotalaria prostrata</i> Rottl. ex.wild.	Jhumka	Common
18.	<i>Desmodium dichotomum</i> DC.Pro.	Desmodium	Common
19.	<i>Desmodium gangeticum</i> L.	Chuppa	Common
20.	<i>Desmodium motorium</i> (Houtt.)Merr.	Teligraph plant	Common
21.	<i>Desmodium triflorum</i> L. DC.Prodr.	Motha	Common
22.	<i>Flemingia bracteata</i> (Roxb) Wight	Galfula	Skin diseases
23.	<i>Flemingia fruticulosa</i> Benth.	Kustrat	Common
24.	<i>Glycine max</i> L.	soyabean	Common
25.	<i>Gonigoyna hirta</i> Wild. Ali.	Bhuichipki	Common
26.	<i>Indigofera cordifolia</i> Heyne ex.Roth.	Neelawari	Cough and cold
27.	<i>Indigofera glabra</i> L.	Neel species	Common
28.	<i>Indigofera glandulosa</i> Roxb.Ex. Wild.	Jhujuru	Common
29.	<i>Indigofera hirsute</i> L. Sp.	Barvata	Stomach disorders
30.	<i>Indigofera linifolia</i> L. f. Retz.	Torki	Common
31.	<i>Indigofera linnaei</i> Ali.	Bhui, Guli	Common
32.	<i>Indigofera trifoliata</i> L. Cent.	Neel species	Common
33.	<i>Lablab purpureus</i> L.	Sem	Ear pain
34.	<i>Lathyrus sativus</i> L. Sp.	Kheshri	Common
35.	<i>Medicago denticulate</i> Wild sp.	Medica.	Common
36.	<i>Medicago sativa</i> L. sp.	Medica sp.	Common
37.	<i>Melilotus alba</i> Medik	Methi spe.	Piles
38.	<i>Melilotus indica</i> (L.) Ali.	Vanmethi	Common
39.	<i>Mucuna pruriens</i> L. Dc. Prodr.	Kauch	Genital disorder
40.	<i>Phaseolus radiatus</i> L. Sp.	Mung	Common
41.	<i>Phaseolus mungo</i> L.	Urd	Common
42.	<i>Phaseolus trilobus</i> Ait.	Kidney bean	Digestive problems
43.	<i>Pisum arvense</i> L. Sp.	Chota mattar	Common
44.	<i>Pisum sativum</i> L.	Bara mattar	Common
45.	<i>Psoralea corylifolia</i> L.	Babchi	Jaundice
46.	<i>Rhynchosia minima</i> L. DC. Prodr.	Choti ,Bansem	Diarrhoea

47.	<i>Smithia conferta</i> J. E. Smith.	foolar	Common
48.	<i>Tephrosia pumila</i> Lamk.	Tephrosia sp.	Common
49.	<i>Tephrosia purpurea</i> L.	Sarphonka	Common
50.	<i>Tephrosia strigosa</i> Dalz.	Tephrosia sp.	Ophthalmic infection
51.	<i>Trifolium alexandrium</i> L.	Barseem	Piles
52.	<i>Trigonella occulta</i> Delie. Ex. Prodr.	chatur	Common
53.	<i>Trigonella foenum-graecum</i> L. Sp.	Methi	Digestive problems
54.	<i>Uraria picta</i> (Jacq.) Desv. Ex. DC.	Prishnparni	Diabetes
55.	<i>Uraria lagopodioides</i> L. Desv.	Ureriya	Common
56.	<i>Vicia hirsuta</i> L.		Common
57.	<i>Vicia sativa</i> L. sp.	Tare	Common
58.	<i>Vigna trilobata</i> L.	Vanmoong	Common
59.	<i>Zornia gibbosa</i> Span. In L.	Jorniya	Common
60.	<i>Cassia obtusifolia</i> L. Sp.	Puar	Skin diseases
61.	<i>Cassia absus</i> L. Sp.	Chaksu	Common
62.	<i>Cassia pumila</i> Lamk.	<i>Cassia</i> sp.	Common
63.	<i>Cassia tora</i> L. Sp.	Chakora	Skin diseases
64.	<i>Neptunia triquetra</i> Benth.	Lajalu	Common

Result and Discussion

Herbs of Fabaceae show diversity of genus and species in the study area. Herbaceous flora of Fabaceae represented by 30 Genera belonging to 64 species. Among three subfamilies of Fabaceae sub family Papilionaceae with 28 genera and 59 species of herbs occupied 1st dominant position followed by Caesalpiniaceae representing by 01 genera 04 species of herbs occupied 2nd. position and Mimosaceae get the last position with Monogeneric species of herbs in the study area. On the basis of all Leguminous plants species which are distributed in the study area as shown in (Table No.01.) the highly explored genus of Fabaceae are *Alysicarpus* with 14% (09 herbs) followed by *Indigofera* with 10% (07 herbs), *Crotalaria* with 7% (05 herb), *Desmodium* and *Cassia* with 6% (4 herbs), *Phaseolus* and *Tephrosia* with 4% (3 herbs), *Flemingia*, *Medicago*, *Melilotus*, *Pisum*, *Trigonella*, *Uraria*, *Vicia* with 3% (2 herbs) along with *Arichis*, *Cicer*, *Clitoria*, *Glycine*, *Gonigoyna*, *Lablab*, *Lathyrus*, *Mucuna*, *Psoralea*, *Rhynchosia*, *Smithia*, *Trifolium*, *Vigna*, *Zornia*, *Neptunia* are monospecific herbs overall in the present study plant diversity of herbs were reported and multigenetic herbs were distributed in the study area with 50% genera represented by 23% herbs and 46% genera represented by 76% herbs of Fabaceae.

The study also provided a brief account of the uses of 20 Medicinal herbaceous plants against the various diseases like skin diseases, Cough and cold, Fever, Stomach disorders, Ear pain, Diarrhoea, Jaundice, Piles, Bronchitis, Diabetes, Ophthalmic infection and cardiovascular diseases by the people of Jabalpur district and highlights the need for further investigation on biochemical and pharmaceutical aspects. The largest number of 04 herbs were used to treat (Gastrointestinal ailments, Diarrhoea, Dysentery, Gastric, Stomachache), each 03 plant species were used for skin diseases (blood purification, itching) and 02 plants species each were used for piles, 11 plant species each were treated for diabetes, Jaundice infection, Ear pain, Genital disorders (gonorrhoea, menstrual problems), respiratory tract infection (Bronchitis), Cardiovascular (chest pain) and Ophthalmological ailments.

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