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Leguminous Diversity of Ajmer District Rajasthan, India

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Abstract--Need of protein in our food is mostly fulfilled by Leguminous plants. The Ajmer district is located in the center of Rajasthan. Review of literature reveals that no earlier work has been done exclusively on family Leguminosae in this region. During extensive survey of the district over the last four years, Total 58 Species belonging to 29 genera of this family have been collected.

Keywords: *Leguminosae, Ajmer.*

1. INTRODUCTION

The Ajmer district is centrally located in Rajasthan, which is surrounded by Nagaur district to the North, Jaipur and Tonk districts to the East, Bhilwara district to the South, and Pali district to the West. It is situated in 26°27" N.lat. And 74°44" E. long, covering a geographical area of about 8481 sq. km. hemmed in all side by Aravalli hills.

Climate of Ajmer has hot dry summer and cold bracing winter. The winter extends from November to February and summer extends from March to June followed by rainy season till mid September. The normal annual rainfall is 527.3 mm. around 5.56 % of total area available for land utilization is covered under forest. Ajmer is abode of certain flora and fauna that are particularly endemic to semi-arid and are specially adapted to survive in the dry waterless region of state.

In the term of economic importance the leguminosae is the most important family in the Dicotyledonae. Legumes stand second after Grasses. Grasses provides cereals while Legumes provide protein to us. Distribution of Leguminous plants in other districts of Rajasthan was studied by earlier worker. Sharma (1958) published a paper on flora of Ajmer But no work has been done exclusively on Legumes of Ajmer district. Hence, the present work is an endeavor to begin with Legumes of Ajmer district. For the collection of voucher specimens as future reference and their preservation, herbaria Jain Rao (1976) is followed.

The family is usually divided into three sub-families: Papilionoideae, Caesalpinioideae and Mimosoideae. The three sub-families are generally identifiable by their flowers. Diagnostic characters of family leguminosae are a Pod (Legume) type fruit, Marginal placentation, monocarpellary ovary and Pinnately compound leaves. As this family is divided into three subfamilies which are differentiated as follow-

Characters	Papilionoideae	Caesalpinioideae	Mimosoideae
Flower	Zygomorphic	Zygomorphic	Actinomorphic
Corolla Aestivation	Vexillary	Ascending Imbricate / Valvate	Valvate / Imbricate
Stamens	10 , (9)+1	10 , 5+5	∞ (Infinite)
Inflorescence	Racemose	Racemose Raceme	Cymose Head

All the collected specimens of above family has been authenticated from BSI Jodhpur, FRI Dehradun and deposited in the Herbarium, Department of Botany, MS Girls College, Bikaner (Rajasthan). Identifications of species are based on the flora of Hooker (1897), , Sharma, V.S. (1958), Bhandari (1978), Katewa & Tiagi (1984) Pandey and parmar (1993) Shetty & Singh (1987, 1991 & 1993), Sharma (2002) Beena Sharma & Kavita Sharma (2011), Purohit and Sharma(2012). A comprehensive list was prepared, which would serve as a reference for future change in the area.

II. ENUMERATION OF LEGUMINOSAE PLANTS OF AJMER

A. PAPILIONACEAE -

The majority of the species are herbaceous, although there are some tree and shrubs.

Abrus precatorius L.

Common. Fl. & Fr.: August-February.

Locality: Jaipur Road, Ajmer. 292.

Alysicarpus hamosus Edgew.

Common. Fl. & Fr.: September-December

Locality: Ajmer-Nagaur bypass Road. 245.

Alysicarpus longifolius (Spreng.) Wight & Arn.

Common. Fl. & Fr.: September-November.

Locality: Ajba ka Bariya. 294.

Alysicarpus monilifer (L.) DC.

Common. Fl. & Fr.: August-November.

Locality: Pushkar. 248.

Alysicarpus vaginalis (L.) DC.

Common. Fl. & Fr.: September-November.

Locality: Palri. 251.

Butea monosperma (Lam.) Taub.

Common. Fl. & Fr.: March-June.

Locality: Tabeeji. 254.

***Clitoria ternatea* L.**

Common. Fl. & Fr.: December-March.
Locality: Makarwali. 255.

***Crotalaria burhia* Buch. Ham. Ex Benth.**

Common. Fl. & Fr.: March-August.
Locality: Ghoogra. 256.

***Crotalaria medicaginea* Lam.**

Common. Fl. & Fr.: January-November.
Locality: Silora. 262.

***Dalbergia sissoo* Roxb.**

Common. Fl. & Fr.: March-August.
Locality: Sarwar. 265.

***Desmodium procumbens* (Mill.) Hitchc.**

Common. Fl. & Fr.: - August-November
Locality: Telara, Bhinay. 298.

***Dichrostachys cinerea* Wight et Arn.**

Common. Fl. & Fr.: October-January.
Locality: Suhawa Road, Beawar. 302.

***Goniogyna hirta* (Willd.) Ali.**

Common. Fl. & Fr.: August-November
Locality: Ajmer-Nagaur bypass Road. 268.

***Indigofera caerulea* Roxb.**

Common. Fl. & Fr.: - Throughout the Year
Locality: Pushkar. 269.

***Indigofera cordifolia* Roht.**

Common. Fl. & Fr.: Throughout the year.
Locality: Arain. 270.

***Indigofera hochstetteri* Baker.**

Common. Fl. & Fr.: August-November
Locality: Lohagal. 284.

***Indigofera linifolia* (L. f.) Retz.**

Common. Fl. & Fr.: August-November
Locality: Budha Pushkar. 271.

***Indigofera linnaei* Ali.**

Common. Fl. & Fr.: August-November
Locality: Pushkar. 274.

***Indigofera sessiliflora* DC.**

Common. Fl. & Fr.: July-October
Locality: Kheri. 278.

***Indigofera tinctoria* L.**

Common. Fl. & Fr.: August-November
Locality: Hathi-Bhatta. 280.

Indigofera oblongifolia Forssk.
Common. Fl. & Fr.: - September-October
Locality: Kheri. 277.

Phaseolus vulgaris L.
Common. Fl. & Fr.: July-November
Locality: Telara, Bhinay. 295.

Pithecellobium dulce (Roxb.) Benth.
Common. Fl. & Fr.: March-August
Locality: Sargon. 291.

Pongamia pinnata (L) Pierre.
Common. Fl. & Fr.: March-June
Locality: Sarwar.286.

Rhynchosia minima (L.) DC.
Common. Fl. & Fr.: August-November
Locality: Ghoogra. 288.

Saraca indica L.
Common. Fl. & Fr.: - February-April
Locality: Pushkar.293.

Sesbania bispinosa (Jacq.) W. Wight.
Common. Fl. & Fr.: September-November
Locality: Hathi-Bhata, Nasirabad. 296.

Tephrosia purpurea (L.) Pers.
Common. Fl. & Fr.: July-February
Locality: Makarwali. 290.

Tephrosia villosa (L.)Pers.
Common. Fl. & Fr.: December-April.
Locality: Balri. 303.

Zornia gibbosa Span.
Common. Fl. & Fr.: August-September.
Locality: Jaipur Road, Ajmer. 300.

B. CAESALPINIACEAE -

The majority of the species are tropical or subtropical tree and shrubs.

Bauhinia purpurea L.
Common. Fl. & Fr.: - October-April.
Locality: Deendwara.133.

Bauhinia racemosa Lam.
Common. Fl. & Fr.: - February-May.
Locality: Gegal. 143.

Bauhinia variegata L.
Common. Fl. & Fr.: June-December

Locality: Tikawara. 141.

Caesalpinia decapetala (Roth) Alston
Common. Fl. & Fr.: November-January.
Locality: Suhawa Road, Beawar. 149.

Caesalpinia pulcherrima (L.) Sw.
Common. Fl. & Fr.: November-January
Locality: Hathi-Bhata.150.

Cassia absus L.
Common. Fl. & Fr.: -
Locality: Nagola, Bhinay. 136.

Cassia auriculata L.
Common. Fl. & Fr.: Throughout the Year
Locality: Gegal.144.

Cassia fistula L.
Common. Fl. & Fr.: February-May
Locality: Bhari. 126.

Cassia italica (Mill) Lam. ex Andrews
Common. Fl. & Fr.: July-February
Locality: Badliya. 127.

Cassia javanica L.
Common. Fl. & Fr.: April-December.
Locality: Kadel. 148.

Cassia occidentalis L.
Common. Fl. & Fr.: August-November.
Locality: Kayad. 128.

Cassia siamea Lam.
Common. Fl. & Fr.: Throughout the Year
Locality: Arain. 135.

Cassia tora L.
Common. Fl. & Fr.: August-November
Locality: Ghoogra. 138.

Delonix regia (Bojer ex Hook.) Raf.
Common. Fl. & Fr.: August-November.
Locality: Kayad. 145.

Parkinsonia aculeata L.
Common. Fl. & Fr.: March-June.
Locality: Nandwara.140.

Tamarindus indica L.
Common. Fl. & Fr.: January-December.
Locality: Durgawas. 146.

C. MIMOSACEAE-

The majority of the species are tropical or subtropical tree and shrubs.

Acacia catechu (L.f) Willd

Common. Fl. & Fr.: -May- September

Locality: Nagpahar, Ajmer .389.

Acacia jacquemontii Benth.

Common. Fl. & Fr.: -February- May

Locality: Nagpahar, Ajmer .377.

Acacia leucocephala (Lam.) link

Common. Fl. & Fr.: August-February

Locality: Balri. 374.

Acacia leucophloea (Roxb.) Willd.

Common. Fl. & Fr.: -August-February

Locality: Ghoogra. 372.

Acacia nilotica (L.)Willd. ex Del.

Common. Fl. & Fr.: August-April.

Locality: Budhpura. 378.

Acacia senegal (L.) Willd.

Common. Fl. & Fr.: July- February.

Locality: Bandar Seendri. 379.

Acacia tortilis (Forssk.) Hayne

Common. Fl. & Fr.: - August- March

Locality: Kheri. 388.

Albizia lebbeck (L.) Benth.

Common. Fl. & Fr.: April-Jan.

Locality: Nandwara. 384.

Leucaena latisiliqua (L.) Gillis

Common. Fl. & Fr.: September-February.

Locality: Panchkund. 385.

Mimosa hamata willd.

Common. Fl. & Fr.: August-December

Locality: Jaipur Road, Ajmer. 371.

Prosopis cineraria (L.) Druce

Common. Fl. & Fr.: April-June.

Locality: Kadel. 383.

Prosopis juliflora (Swartz) DC.

Common. Fl. & Fr.: Throughout the Year.

Locality: Todgarh. 381.

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