

# Angiospermic Climbers of Family Fabaceae in Jaunpur Region(U.P)

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**Abstract:-** This paper just highlights the need for in-depth floristic research in smaller areas. In this study, a number of angiospermic climbers from the same family were investigated broadly in several locations around Jaunpur. The original specimen of each plant was taken for identification, and its floral characteristics were used to determine its identity. The sequencing of climbing plants belonging to the fabaceae family was done using Bentham and Hooker's classification. The current research might contribute to protecting the stunning climbing world. Researchers, agriculturalists, and those who work with nature may find the work useful.

**Keywords:-** Angiosperm, Climbers and Fabaceae etc.

## I. INTRODUCTION

By producing food, wood, fuel, drugs, fibre, dyes, alkaloids, resins, rubber, and many other items we use every day, angiospermic plants play a significant role in the environment. India has a more diverse flora than any other country of comparable size in the eastern hemisphere, according to Hooker (1904). This is due to the extensive fluctuation in rainfall, temperature, geology, and topography, all of which affect a location's floristic and vegetative composition. As a result, other regional and provincial flora (Duthies) appeared after the publication of Hooker's Flora of British India (1872-1897). Flora of upper Gangetic plain (1853), Prains flora of Bengal plants (1903) Gamble flora of the presidency of Madras Part I, II (1915-1936) and its reprint volume 1-3, 1958, Cooke, the flora of the presidency of Bombay volume 1-2, 1901-1908 (London) Haines the Botany of Bihar and Orissa - 6 parts (1921-1925).The Botany of Bihar and Orissa by H.H. Haines (1921-1925) is the first comprehensive account of the flora of Bihar. Although Haine's observations, were quite thorough the fact that it needed revision after the publication of Mooney's supplement only after a lapse of two decades. Many more new additions have been recorded by Biswas (1934, 1935).These publications simply emphasize the necessity of intensive floristic study of smaller area. Although the necessity of intensive floristic study of smaller area had been felt for long, there was no proper agency to take up these jobs in right perspective. The responsibility of updating the flora of India and other regional floras was eventually taken on by the Botanical Survey of India in 1973. However, , Santapau (1958), and the Summer Institute of Botany held in Kodaikanal (1962) under their direction urged that Universities be encouraged to undertake comprehensive floristic studies of their particular cities and

surrounding areas.

The floristic study has been taken by a number of Universities in light of these recommendations. The present study survey of a few angiospermic climbers is a product of the divine nature that has provided humans with a wealth of plant resources. Crop plant agriculture and human civilization developed simultaneously, and their progress paralleled that of the human mind. With the growth in population and the depletion of food resources, the search for greater information about plant resources continues. Economic botany primarily examines all omnipresent plants in light of human welfare. Records of early civilization from all around the world show that a variety of plants were essential to human life. The ancient Indian epics give numerous instances where different plants were very important even then. The ancient people paid close attention to the significance of various plants and revered them as Gods and Goddesses. The ever-curious man has already discovered many things, yet there is still much more hidden that may be held for future generations. Who will investigate the works of their creators in other nations and produce numerous discoveries for their enjoyment and convenience? In this situation, which deals with the connection between plants and human life, Linnaeus' assertion is the most pertinent. In actuality, there are many connections between humans and plants that spark interest in locating plants for the benefit of humanity. A huge variety of plant resources can be found across the study region. The traditional uses of plants and plant products have experienced a revival in the modern day sahu (1980).An indiscriminate harvest from the wild is being brought on by the rising demand for products made from plants. The high consumption of wild plants, primarily as a result of harmful collection techniques, has made it extremely difficult for nature's priceless resources to survive.

Any region's biodiversity as a whole offers a holistic approach to the needs of nature as well as the surrounding environment and climatic conditions. It actually has to do with the environment, climate change, and regional biogeography. The term "biodiversity," which is another word for "life on earth," is typically discussed in terms of genera, species, and ecosystems Sharma(1981). It is quickly evolving into the essential necessity on which the newest industrial inventions and improvements will be built. The deterioration of natural habitats and indigenous cultures is hastening the loss of priceless knowledge about traditional plant uses. Thus, it is crucial and valuable to record this

information. As a result, this work on climbers was undertaken since it was believed that, despite extensive work on the area's flora, little work had been done specifically focusing on climbers.

## II. METHODOLOGY

The present work Survey Of Certain Angiospermic climbers growing at Jaunpur is mainly based on 8 months of rigorous plant survey of different areas in Jaunpur, which forms the district of Uttar Pradesh state. The area of present study completely falls under Gangetic zone which is best suited for plant growth.

The present study is based on regular visit to plant collecting sites.

The trips to particular areas were organized in the beginning of every season all round the year. An attempt was made to collect the plant species in their flowering state of life cycle.

The prime observations relating to colour of flowers and inflorescence were mentioned in the diary on field.

- The collected plant species of our choice were pressed in the herbarium press for making herbarium.
- The plant species were then poisoned in 5% H<sub>2</sub>Cl<sub>2</sub> sol<sup>n</sup>.
- The poisoned specimens were finally mounted on hard cardboard paper measuring 42x3 sqcm.
- The mounted plant species were carefully arranged and placed in separate genus or species cover along with family cover. A sincere attempt was made to identify the plant with the help of true specimens.

## III. RESULT AND DISCUSSION

- ❖ Classification - The sequence of plant classification proposed by Bentham and Hooker (1862- 1883) had been taken.
- ❖ Keys- It consists of dichotomous type where two contrasting characters are taken into account. The existing characters are open and macroscopic in nature. It consists of
  - A key to family Fabaceae.
  - A key to genera included under Fabaceae.
  - A key to species included under particular genera.

Citations and nomenclatures: Only authentic and published works have been cited. It includes species Plantarum of Carolus Linnaeus. Hooker's Flora of British India Duthie's Flora of upper Gangetic plain.

- ❖ *Climbers of family Fabaceae in Jaunpur observed during field study-*

- **General characteristics-** Erect, twining or climbing herbs, Undershubs or shrubs
  - Leaves digitately 2 - foliate
  - Leaves simple or digitately or pinnately 3 - to many foliate.

- Leaves paripinnate : Rachis ending in a bristle:

Stamens 9 monadelphous, Woody climbers, Rachis ending in a tendril: Mouth of Staminal tube conspicuously oblique style filiform.

- *Albus precatorius* Linn -A pretty, woody climber:Leaves paripinnate, Leaflets 10-20 pairs, 6-18 x3-5mm opposite ligulate oblong glabrous above, thinly silky beneath, Flowers pink, in many flowered crowded racemes. Pods 2.5 - 5 x 1 -1.5 cm oblong turgid, truncate with a deflexed beak. Seeds bright scarlet with a black hilum.

Field note: Frequently found climbing and spreading over bushes. Seeds called ratti are used by jewellers as a weighing unit and for making rosaries. Seeds are also said to prevent pregnancy.

Local name Ratti; flowers : Aug-Sept. Fruits Dec-March, study site –Rampur Naddi, Jaunpur.

- *Clitoria tematea* . Linn -A beautiful slender climber leaves imparipinnate. Leaflets 5-9.2- 5x1-4cm, elliptic obtuse on emarginate, rarely acute. Flowers azure blue with a white centre solitary axillary. Keel incurved shorter than wings stamens diadelphous: anthers uniform.Pods 2-8 \* 0.5 - 1.5cm, stipitate, flat beaked seeds 6-10, yellowish brown, smooth.

Field Note : Frequently found spreading amongst bushes and tall grasses. The flowers are showy and give a beautiful touch to the vegetation.

Flowers are valued in Hindu rituals.

Flowers and Fruits : - Sept. - Jan, study site-kuddupur, Jaunpur.

- *Lathyrus odoratus* Linn Sp. climbing glaucous, annual herb, with hairy branches. Leaflets 2, 3- 5 x 1.5 - 2.5cm, Ovate, oblong in elliptic, glabrous above, hairy on the nerves beneath stipules small, falcate semi sagitate at the base Flowers purple, 1-4 on long peduncles. Pods 5-6cm long, oblong pubescent slightly curved at apex, 6 seeded.

Field Note : cultivated in the gardens as a Winter season annual. Flowers and Fruits Nov – March, study site – Jaunpur.

- *Mucuna Prurita* -An extensive annual twinner, with slender sulcate hairy branches. Leaflets 10-15 x 6-8cm ovate rhomboid, rounded or sub-truncate at base, obtuse, mucronate at apex, appressed hairy beneath, glabrous above. Flowers dark purple, 2- nate on tubercles of long, axillary racemes. Calyx with appressed stinging hairs. Pods 5-8 x 1-1.5 cm, S shaped, turgid, clothed with dense, brown appressed, stinging caducous hairs. Seed 4-6 Frequently found climbing over bushes.Local name - Kevach; Flowers and Fruits.

Sept - March; study site -Zafrabad,Jaunpur.

- ***Pisum sativum* Linn.** A glabrescent climbing annual herb with tetragonous stems. Leaflets 2-3 pairs, ovate oblong tetragonous stems. Leaflets 2-3 pairs, ovate oblong or elliptic-oblong, dentate - serrate towards apex. Stipules foliaceous 2-6 x1-4cm subcor- date at pare, Flowers white or violet, 1-3 together on the peduncle. Pods 4-10cm long. Seeds globose, pale yellow or green.

Field note - commonly cultivated as a pulse crop.

Local Name- Matur, Flowers and Fruits Nov.-April , study site -Mungrabadshahpur, Jaunpur.

- ***Vicia sativa* : Linn** -A prostrate or climbing herb with angular, finely hairy or glabrous branches. Leaflets 0.5 - 3x0.2-1 cm, lanceolate-oblong, obtuse, rounded or truncate at apex. Stipules acuminate with segmented.

Flowers reddish violet; turning bluish after anthesis solitary or paired sub-sessile. Pods 2.5-4x0.5cm, hairy or glabrescent.

Field Note - Common on grasslands and waste places. It is used as fodder.

Local Name - Akri; flowers and fruits Dec. - April, study site -Near VBSPU, Junpur.

All of the plant species covered by this study have had their characteristics briefly and synchronously described, with special attention devoted to their economic significance. Field notes that include the distribution pattern, sociability, and other traits of particular interest are included after that. Prior to the place of occurrence, which was then followed by the name of the investigator and the field number of specific plants, the flowering and fruiting times were given. The ethnobotanical elements of the current study have been carefully addressed in light of relevant plants and their relationship to human needs.

#### IV. CONCLUSION

The traditional medical field has recently undergone a renaissance and regeneration. There is a widespread understanding among the populace about how to use plants in daily life. This has resulted in uncontrolled harvesting from the wild, which has reduced the overall amount of forest cover. The climbers of the family Fabaceae were the sole focus of this work, and rigorous research on the climbers in the area under consideration shows that overharvesting, deforestation, grazing, and abiotic factors have already reduced their population. Therefore, the current research may contribute to protecting the stunning climbing world. Researchers, agriculturalists, and those who work with nature may find the work useful.

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