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ETHNOBOTANICAL IMPORTANCE OF SELECTED MEMBERS OF CONVOLVULACEAE IN THE INDIAN KNOWLEDGE SYSTEM

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Abstract- The Convolvulaceae family (*morning glory or bindweed family*) encompasses several genera and species native to tropical and subtropical regions, including India. Many of its members hold significant ethnobotanical value in traditional Indian healthcare systems, tribal knowledge, and folk remedies. This paper reviews the traditional uses, cultural significances, and medicinal roles of key Convolvulaceae species documented in India, integrating field reports and published research to highlight their roles in health, ritual, food, and local practices.

I. INTRODUCTION

The family **Convolvulaceae** comprises roughly 45 genera and over 1000 species globally, many of which are climbers or herbs with wide distribution throughout India. These plants are characterized by showy, funnel-shaped flowers and are often used in traditional medicine, food systems, and religious rituals. Their roles in regional traditional knowledge systems reflect a long history of ethnobotanical utilization.

Indigenous knowledge systems across India document wide usage of native flora in managing ailments, nutritional support, spiritual contexts, and community health practices. This paper synthesizes documented ethnobotanical uses of selected Convolvulaceae species within Indian contexts, spotlighting traditional uses and cultural relevance.

II. BOTANICAL OVERVIEW OF CONVOLVULACEAE

Convolvulaceae is a dicotyledonous family best known for its twining herbs and climbers. Key genera relevant in Indian ethnobotany include *Ipomoea*, *Evolvulus*, *Argyreia*, *Convol vulus*, *Rivea*, and *Jacquemontia*. These taxa exhibit diverse habitats from aquatic systems (*Ipomoea aquatica*) to forest margins.

III. ETHNOBOTANICAL USES OF SOME SELECTED MEMBERS

1. *Ipomoea* spp

Members of *Ipomoea* are widely used across India for various health and dietary purposes.

- *Ipomoea batatas* (Sweet potato): Tubers and leaves are consumed as food and are rich in vitamins, antioxidants, and minerals; traditional uses include nutritional supplementation and digestive support.
- *Ipomoea aquatica*: Commonly used across tribal and rural communities for managing inflammation and digestive disorders; also serves as a leafy vegetable. IJSRST
- *Ipomoea hederifolia* and *I. nil* : Employed in folk remedies for skin disorders, fever, and external applications in areas of Gujarat and Maharashtra.
- *Ipomoea obscura*: Reported in traditional treatments for constipation, fever, and rheumatism.

A representative ethnobotanical survey in Pune district found *Ipomoea* species widely used among tribal groups for digestive and anti-inflammatory applications via leaves, roots, and seeds.

2. *Evolvulus alsinoides* (Shankhapushpi)

Evolvulus alsinoides, locally known as *Shankhapushpi*, occupies a notable place in Ayurvedic and agrarian medicinal lore; it is used traditionally for enhancing memory, treating nervous debility, and as a calming agent in local health practices.

3.*Argyreia nervosa* (Vidhara / Adhoguda)

Seeds and roots of *Argyreia nervosa* are used in Ayurvedic

and Siddha systems for tonic properties and as traditional remedies for nervous conditions; they also have cultural use in ritual contexts.

4. Other Convolvulaceae

- *Convolvulus arvensis*: Traditional use as a mild purgative and for digestive complaints in rural communities.
- *Jacquemontia paniculata* and *Rivea hypocrateriformis*: Used (leaves/bark) in some localized ethnomedicinal practices for general health support. **Ethnomedical Significance and Modes of Use**

Convolvulaceae plants are utilized internally (decoctions, infusions, vegetable form) as well as externally (pastings for wounds, rheumatic pain). In tribal regions of India, they are part of a wider ethnomedical repertoire addressing ailments such as fever, digestive disorders, anti-inflammatory needs, skin conditions, and mild infections.

IV. DISCUSSION

1. Integration in Traditional Indian Knowledge Systems

Indigenous communities contribute significantly to the cumulative knowledge on Convolvulaceae species. Such practices often blend Ayurvedic, Siddha, and folk traditions, preserving oral and cultural knowledge.

Ethnobotanical studies reveal that usage patterns vary regionally based on ecological availability and cultural norms.

2. Scientific Corroboration and Potential

Research into biochemical constituents (flavonoids, phenolics, glycosides) supports many traditional claims about antibacterial, anti-inflammatory, and antioxidant properties of *Ipomoea* and related species.

3. Conservation and Documentation

Documentation and preservation of traditional uses are essential as modernization, habitat loss, and cultural disruptions threaten indigenous knowledge systems.

V. CONCLUSION

The family Convolvulaceae includes several species that play meaningful roles in Indian ethnobotanical practice. From food crops like *Ipomoea batatas* to medicinal herbs like *Evolvulus alsinoides*, these species reflect the rich integration of plants within the Indian Knowledge System (IKS). Their continued study offers value for pharmacology, conservation, and cultural heritage.

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