

International Journal of Technical Research & Science
**TAXONOMIC STUDY OF
 (IPOMOEA CAIRICA (L.) SWEET
 CONVULVULACEAE)**

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Abstract-Ipomoea is the largest genus in the flowering plant family Convolvulaceae, The most widespread common name is morning glories.

The genus includes food crops; the tubers of sweet potatoes (*Ipomoea batatas*) and the leaves of water spinach (*I. aquatica*) are commercially important food items and have been for millennia. The water spinach (*I. aquatica*) commonly found in ponds, cultivated for stem and leaves used as vegetables.

The study of Anatomical as well as morphological character is the key aspect of various Classification systems which is the basic unit of Taxonomy.

The present study was conducted on the plant *Ipomoea cairica* from Aurangabad (MS) India, reports Morphology, Anatomy, Pollen Morphology, Stomatal Morphology, Trichome structure as well as Maceration study.

Keywords: *Ipomoea cairica*, Taxonomy, Anatomy, Maceration, Acetolysis.

1. INTRODUCTION

Ipomoea cairica morning glory has many common names, including mile-a-minute vine, Messina creeper, Cairo morning glory, coast morning glory and railroad creeper.

This vining perennial has palmate leaves and large, showy white to lavender flowers. Each fruit matures at about 1 cm across and contains hairy seeds Erect to subsucculent shrubs; stems fistulose at maturity, tomentose. Leaves ovate-lanceate, 4-14 by 2.5-9 cm, base cordate, and apex gradually acuminate, lateral veins 8-10 pairs, prominent. Cymes many-flowered, axillary or subterminal; peduncle c. 10 cm long; calyx lobes subequal; corolla pale pink, c. 9 cm long. Capsule ovoid. Seeds pubescent..

Range Description: The species have wide distribution in continents of Africa, Australia and Asia. In Asia it is mainly distributed in India and Sri Lanka. In India it is observed in Maharashtra (Venkanna and Das Das 2001), Mahanandi in Nallamalais in Andhra Pradesh (Ellis 1990), Chengalpattu, South Arcot (Chandrabose 1987), Ramanathapuram and Gulf of Mannar in Tamil Nadu (Daniel and Umamaheswari 2001). Countries - Native: Australia; Botswana; India (Andhra Pradesh, Maharashtra, Tamil Nadu); Madagascar; Malaysia; Namibia; South Africa; Sri Lanka.

2. MATERIALS AND METHODS

2.1 Plant Material

Plant materials of *Ipomoea cairica* (L.) Sweet was collected from Aurangabad city of Maharashtra state from India.

The plant material were collected in 6% formalin for anatomy (Root, Stem, Leaf, Flowers) and in dry form for morphology (Flowering twig).

Pollen grains were collected in Acetic acid for acetolysis.

2.1.1 Methods

Various methods were used for the study Genus *Ipomoea cairica*.

- De-hydrolyzing and Staining method is used to study anatomical feature of the particular plant part.
- Maceration by (Jaffrey method)
- Acetolysis

2.2 Taxon Treatment

I. cairica (L.) Sweet, Hort. Brit. 287. 1827; Santapau in Rec. Bot. Surv. India 16(1); 193.1953; Naik, Fl Osmanabad 220.1979 *Convolvulus cairicus* L. syst. ed. 10.922.1759. *Ipomoea palmata* Forsk. Fl. Aeg. Arab 43.1775; Clark in Hook. F.Fl. Brit. India 4:214.1883. *I. pulchella* Wt. Icon. T. 156.1837 non Roth 1821. GARWEL

Glabrous, perennial twinning herbs; root tuberous; stem terete, smooth. Leaves ovate or orbicular in outline, 3-10 cm long and broad, cordate at base, palmately divided into 5-7, ovate-lanceolate, or elliptic lobes which are entire acuminate and mucronate, petiole 2-6 cm long, often with pseudo stipules at base. Flower axillary in 1-

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