



Genus Ipomoea represent in Ahmedabad City, Gujarat, India

KEYWORDS

Genus Ipomoea, Family Convolvulaceae, Ahmedabad city, Gujarat state.

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ABSTRACT Ahmedabad is a largest city of Gujarat state situated in Central Gujarat and it is located on Sabarmati river. The herbaceous diversity is highly diversified in vegetation and has rich number of floristic composition due to topography, climate and edaphic factors which are favourable for such luxurious vegetation. Present paper deals with the synoptically analysis of the genus Ipomoea belong to family Convolvulaceae. It further compares the data with Flora of Gujarat state (Shah 1978), Flora of Ahmedabad (Vaidya 1967), Flowering Plants of the Gujarat University campus and surroundings, Ahmedabad (Pandya 1972).

Introduction:

Ahmedabad lies between 22°55' 35°36' and 23°07' 51°44' North latitude and 72°28' 41°95' and 72°41' 19°59' East longitudes. It covers 10,000 square kilometer and circumference of the Sardar Patel ring road is 70 kilometer.

Saxton and Sedgwick (1918 and 1922), Sutaria (1958), Gandhi (1958), Vaidya (1967), Pandya (1972), Patel (2010) carried out Floristic study in Ahmedabad. The area has been eroded which might be owing to the proliferation of human activities in these areas. The present paper is there for based on fresh field work carried out during the year 2013 with a few frequent observations in city and vicinity of Ahmedabad city to incorporate data on the genus Ipomoea belongs to family Convolvulaceae.

Field work

The result made flesh in this work based on collections in these areas. Field work was carried out in all seasons with more frequency during rainy season. Different characters such as, habit, habitat, abundance, color and fragrance of the flower, etc. were noted in the field diary from time to time. The areas explored were divided into smaller sectors, because my emphasis was on intensive rather than extensive explorations. During explorations of different species of genus Ipomoea in different stages of development were collected and identified by dissecting the floral parts and confirmed with the help of Floristic key of Cooke (1908) and Shah (1978).

Artificial keys generated for the identification of Genus Ipomoea and its species of the family Convolvulaceae with reference of Flora of Gujarat state (Shah 1978).

Abbreviations used

In the paper author has used following abbreviations, as

NAP Naileshbhai A. Patel

FBIFlora British India

FGS Flora of Gujarat State

Fls. Flowering Season (Months)

FPB Flora of Presidency of Bombay

Frs. Fruiting Season (Months)

Sp.Species

Syn. Synonymous

Var. Variety

Observation:

Ipomoea L.

Key to species and varieties

1. Flowers deep-red or scarlet:

2. Leavesl. pinnatisect
.....l. quamoclit

2. Leaves entire or shallowly 3-lobed.....
.....l. hederifolia

1. Flowers white or creamy-white, rarely purple within :

3. Corolla not more than 5 cm long :

4. Outer sepals cordate or basal lobes triangularl. sinensis

4. Outer sepals not as above :

5. Leaves very much lobed
.....l. coptica

5. Leaves entire :

6. Corolla 1.5 cm long, white, fruiting sepals much recurved; capsules

.....l. eriocarpa

1. Flowers purple or rose-coloured, seldom purple or blue at corolla mouth only; if

corolla white, leaves deeply or faintly lobed and purple spotted on dorsal surface :

- 7. Shrubs or woody twinersl. fistulosa
- 7. Prostrate or twining herbs :
- 8. Corolla not more than 2 cm long; leaves entire; :
- 9. Capsule hairyl. eriocarpa
- 9. Capsule glabrousl. sindica
- 8. Corolla more than 2 cm long :
- 10. Corolla tube white but mouth blue or deep purple..... l. nil
- 10. Corolla pale- to bright- or deep-purple :
- 11. Leaves entire (seldom faintly lobed) :
- 12. Leaves white tomentose beneath.....l. dichroa
- 12. Leaves not white tomentose beneath:
- 13. Aquatic; stem hollowl. aquatica
- 13. Plants not as above; stem not hollow :
- 14. Stem muricate; peduncle much enlarged at fruiting timel. muricata
- 14. Stem and peduncle not as above.....l. sepiaria var. sepiaria
- 11. Leaves deeply-lobed :
- 15. Flowers in capitate head on long, hairy peduncle.....l. pes-tigris
- 15. Flowers not arragned in capitate head:
- 16. Leaves bilobedl. pes-caprae
- 16. Leaves deeply 5 lobed to the base.....l. cairica
- 1. Flowers yellow, purple at base within.....l. dasysperma

Ipomoea aquatica Forsk. (NADA NI VEL)

FGS 1:468; FPB 2:315; FBI 4:210; NAP:283;

Syn : *Ipomoea reptans* Poir.

Aquatic plants, rooting at nodes. Leaves 2.2-8.5 x 0.9-4.0 cm, elliptic-oblong or linear, broadly ovate-triangular, cordate or hastate base. Flowers pale purple, in axillary cymes, solitary or 3-4; Calyx lobes 5, unequal, oblong, lanceolate, glabrous. Corolla infundibuliform, large pale purple. Stamens 5, filaments, unequal, hairy at base.

Fls & Frs : Throughout the year

Field notes : Common in marshy places and floating in ditches everywhere.

FGS 1:468; FPB 2:319; FBI 4:214;

Syn : *I. palmata* Forsk.

Evergreen herbs, with watery juice. Leaves 4.5-6 cm broad, deeply 5-7 lobed , broadly ovate or nearly orbicular glabrous. Flowers in axillary, subumbellate cymes.

Field notes : Common on hedges near Ognaj village.

Ipomoea coptica (L.) Roth. ex R. & S.

FGS 1:468; FPB 2:318; FBI 4:200; NAP:285;

Syn. *I. dissecta* Willd.

Annual herbs, glabrous, slender. Leaves digitate, lobes 5-7, 1.8-3.9 x 0.8-1.7 cm. lobes linear-lanceolate, petioles 3.0-4.6 cm long. Flowers axillary, solitary, peduncles 0.6-0.9 cm long, sepals 5, oblong-lanceolate, glabrous cuspidate. Corolla white, tubular 5-lobed, glarous. Stamens 5.

Fls & Frs : Aug.-Sep.

Field notes : Occasional on hedges near Gota cross road.

Ipomoea dasysperma Jacq.

FGS 1:469; FPB 2:321; FBI 4:215;

Herbaceous twiners, mostly glabrous. Leaves digitately lobed. Capsules globose, apiculate, 4-loculate, 4-seeded.

Fls & Frs : Sept.-Oct.

Field notes : Rare on hedges near Ujala circle, ring road.

Ipomoea dichroa (R. & S.) Choisy.

FGS 1:469; FPB 2:321; FBI 4:215; NAP:287;

Syn. *I. pilosa* auct.

Extensive, patently hariy twiners. Leaves 5.5-11x4.6-8.6 cm, broadly ovate, entire or shallowly 3-lobed, petiolate. Flowers in axillary, lax, bracteate cymes.

Fls & Frs : Oct.-Nov.

Field notes : Common on hedges everywhere.

FGS 1:469; FPB 2:312; FBI 4:204; NAP:288;

Syn : *Ipomoea hispida* R. & S.

Field notes : Rare near Dastane-hayat, ring road.

Ipomoea fistulosa Mart. ex. Choisy.

FGS 1:470; FPB 2:321;

Syn : *I. carnea* Cooke.

Straggling shrubs or small trees with milky juice branched. Leaves 11.7-17.0 x 6.0-9.5 cm, petiolate, glabrous, broadly ovate or ovate-lanceolate. Flowers in terminal, umbellate, cymes, light pink. Calyx persistent, 5-lobed, polysepalous. Corolla gamopetalous infundibuliform, 5 lobed. Stamens 5, filaments unequal (3 small, 2 large), anthers sagittate.

Fls & Frs : Throughout the year.

Field notes : Common and abundant near marshy land everywhere.

FGS 1:470; FPB 2:261; FBI 4:199;

Syn. *Ipomoea coccinea* L.

Slender herbs. Leaves 2.8-6 x 2-5.5 cm, ovate, glabrous entire or trilobed. Flowers in terminal, lax, umbellate, cymes.

Field notes : Rare on Fatevadi canal near Vasna dam.

Ipomoea muricata (L.) Jacq. (GULABI GARIO)

FGS 1:471; FPB 2:322; FBI 4:197; NAP:291;

Syn. *Convolvulus muricatus* L.

Deciduous, herbaceous, twiners, stems often muricate. Leaves 7.6-7.7 x 7.9-8.0 cm. broadly ovate, acuminate, entire, base cordate, glabrous. Flowers 1-4, in axillary cymes. Sepals elliptic-oblong, outer 3 much broader than inner 2. corolla rose-purple, tube 3.0-4.5 cm long. Stamens 5, exserted.

Fls : Aug.-Oct. Frs : Sept.-Dec.

Field notes : Frequent on hedges near Ujala circle.

FGS 1:471; FPB 2:321; FBI 4:199; NAP:292;

Syn : *I. hederacea* auct. non Jacq.

Field notes : Common on hedges near Lambha village bus stand.

Field notes : Common on hedges everywhere.

FGS 1:472; FPB 2:317; FBI 4:212;

Syn : *Ipomoea biloba* Forsk.

Field notes : Occasional near Rajpath row houses.

Ipomoea pes-tigridis L. (WAGPADINI VEL)

FGS 1:472; FPB 2:320; FBI 4:204; NAP:295;

Syn : *I. pes-tigridis* L. var. *hepaticifolia* Burm.

Twiners. Leaves deeply palmately 5-9 lobed. Petioles 3.5-6.0 cm long, broadly ovate or orbicular lobes, acute or acuminate, narrowed at base, hirsute. Flowers pale to rose purple, 1.7-2.3 cm long, flowers sessile, 3 or more in a head peduncles, 4.0-5.6 cm long. Calyx sepals 5, densely hairy, ciliate with stiff hairs, outer 2 sepals broader than inner corolla campanulate, white or pale-pink. Stamens 5.

Fls : Aug.-Oct. Frs : Sept.-Dec.

Field notes : Common in hedges and among grasses everywhere.

FGS 1:473; FPB 2:331; FBI 4:199; NAP:296;

Syn : *Quamoclit vulgaris* Choisy.

Field notes : Frequent on hedges near Fatehvadi, also cultivated in gardens.

FGS 1:473; FPB 2:315; FBI 4:209; NAP:297;

Field notes : Occasional in hedge near Bapunagar Ring road.

Ipomoea sindica Stapf.

FGS 1:474; FPB 2:313; NAP:298;

Annual herbs, slender, trailing or twining. Leaves 2.0-4.3 x 1.0-1.8 cm oblong, hastate or deltoid-hastate, ovate-oblong, acute or acuminate, appressed, hairy, base cordate; petioles 1.1-1.9 cm long. Flowers pale purple in axillary cymes. Sepals hispid, lanceolate, enlarged in fruit. Corolla infundibuliform, 5-lobed. Stamens 5.

Fls & Frs : Aug.-Oct.

Field notes : Frequent among grasses near Ujala circle.

Ipomoea sinensis (Desr.) Choisy.

FGS 1:474; FPB 2:311; FBI 4:201; NAP:299;

Syn. *I. calycina* Cl.

Twinning, thinly hairy herbs. Leaves 1.6-8.2 x 1.2-4.5 cm, ovate. Flowers 1-3, in axillary cymes.

Fls & Frs : Sept.-Oct.

Field notes : Frequent on hedges everywhere.

Result and Discussion:

During present study 17 species of *Ipomoea* has been recorded from Ahmedabad city. While in G.L Shah (1978) recorded 24 species from Gujarat state, Pandya (1972) recorded 4 species from Gujarat University campus and its surrounding and Vaidya B.S.(1967) recorded 12 species of *Ipomoea* from Ahmedabad city.

In the present study 5 new species of *Ipomoea* were recorded from the study area *I. cairica* (L.) Sw. Hort., *I. dasysperma* Jacq., *I. fistulosa* Mart. ex. Choisy., *I. hederifolia* L., and *I. pes-caprae* (L.) Sw.

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