



## Genus *Merremia* represent in Ahmedabad City, Gujarat, India

### KEYWORDS

Genus *Merremia*, 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 *Merremia* 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 *Merremia* 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 *Merremia* 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 *Merremia* 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
FBI	Flora 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:

*Merremia* Dennst. ex Hall. f.

Key to species and subspecies

1. Leaves simple:

2. Leaves entire:

3. Stem winged

..... *M. turpethum*

3. Stem not winged :

4. Leaves broadly ovate or reniform deeply cordate at base, creeping

herbs, rooting at nodes; flowers sessile.....  
... *M. gangetica*

4. Leaves not as above stem not rooting at nodes. flowers distinctly stalked:

5. Outer sepal mostly obtuse or emarginated, corolla 1-1.2 cm long,

peduncle upto 1.5 cm long ..... *M. tridentata* subsp. *tridentata*

5. All sepals acuminate; corolla 1.2-2 cm long, leaves acute at apex,

peduncle 1.5-7 cm long..... *M. tridentata* subsp. *hastata*

1. Leaves simple, 5-7 lobed; leaf segments elliptic-lanceolate; corolla white

with pale-violet centre within.....  
... *M. dissecta*

1. Leaves compound; leaflets appressed-long hairy.....  
.....M. aegyptia

*Merremiaegyptia*(L.) Urb. (PANCHPANNI FUDARADI)

FGS 1:477; FPB 2:308; FBI 4:202; NAP:300;

Syn :*Ipomoea pentaphylla*Jacq. and *M. pentaphylla* Hall.

FGS 1:477; FBI 4:214; NAP:301;

Syn. *Ipomoea sinuata* Ort.

*Merremiagangetica*(L.)Cufod(UNDARDI, UNDARKANI, UNDARI)

FGS 1:477; FPB 2:308; FBI 4:202; NAP:302;

Syn :*Ipomoea reniformis*Choisy. and *M. emarginata* Hall.

Creeping herbs, slender, hairy, rooting at nodes. Leaves 0.4-1.9 x 0.25-2.6 cm ovate, reniformcordate, obtuse, crenate petiolate glabrous, broader, brader, than long-petioles 0.5-1.5 cm long. Flowers yellow, axillary, solitary. Sepals 5, outer 2, ovate, mucronate inner 3, longer, subquadrate. Corolla bell shaped, lobes acute. Stamens 5, unequal. Capsules 0.5-0.6 cm across subglobose, surrounded by enlarged sepals. Seeds 4, glabrous, brownish-black.

**Fls&Frs** :Aug.-Feb.

*Merremiatridentata*(L.) Hall.f. subsp.*hastata*(Desr.)

FGS 1:479; FPB 2:306; FBI 4:205;

Syn. *M. hastata* Hall.

Diffuse twining, stems very long, slender, glabrous. Leaves hastate-oblong, acute, cuspidate, glabrous with coarsely dentate auricles at the base. Flowers in 1-3 in axillary cymes. Corolla pale-creamy-yellow, red at the base of the tube inside. Capsules depressed-globose. Seeds glabrous.

**Fls&Frs** :Aug.-Dec.

*Merremiatridentata*(L.) Hall. f. subsp.*tridentata*(BHINIGARIO)

FGS 1:479; FPB 2:306; FBI 4:205; NAP:304;

**Syn** :*Ipomoea tridentata* Roth.

Perennial herbs, slender, prostrate, angular, glabrous. Leaves 0.8-3.0 x 0.2-0.8 cm linear-hastate or oblong-obovate, deeply emarginated. Flowers pale yellow, axillary, solitary, or few cymose. Peduncles 2.0-3.5 cm long, pedicels 1-3, stout 1.7-2.2 cm long. Sepals elliptic, subobtusate, glabrous, outer shorter than linear. Corolla pale yellow. Stamens 5, capsules 0.4-0.6 cm across, globose or ovoid, glabrous. Seeds 4, trigonous pale, blackish-brown, smooth.

**Fls&Frs** :July-Dec.

FGS 1:480; FPB 2:309; FBI 4:212; NAP:305;

Syn :*Ipomoea turpethum* (L.) Silva Manso and *Operculi-naturpenthum* Silva

### Result and Discussion:

During present study 6 species of Merremias have been recorded from Ahmedabad city. While in G.L Shah (1978) recorded 10 species from Gujarat state, Pandya (1972) recorded 1 species from Gujarat University campus and its surrounding and Vaidya B.S.(1967) recorded 4 species of Merremia from Ahmedabad city. Patel N.A. (2010) recorded 5 species of Merremia from Ahmedabad city and its vicinity.

In the present study 1 new species of Merremia was recorded from the study area i.e. *Merremiatridentata*(L.) Hall.f. subsp.*hastata*(Desr.).

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### REFERENCE

- Cooke T.H. (1903). The Flora of the Presidency of Bombay Vol. I-II& III, BSI, Calcutta. | Gandhi, H. P. (1958). A list of flowering plants (Angiosperms) of Ahmedabad and its immediate Vicinity J. Guj. Univ. 2, 114-156. | Pandya, S.M. (1972). Flowering plants of the Gujarat University campus and its surrounding (Ahmedabad). Vidya Jour. Guj. Uni. XII B, 21-48. | Patel, N.A. (2010). Floristic diversity of the Ahmedabad city, Ph.D. Thesis, Kachchh University, Bhuj | Saxton, W.T. and Sedgwick, L.J. (1918-1922). Plants of Northern Gujarat. 6:209-323, 1918, 9:251-262, 1922. | Shah, G.L. (1978). Flora of Gujarat State Part I & II Sardar Patel University, Vallabh Vidyanagar. 1074. | Sutar, R.N. (1958). A Text Book of Systemic Botany, Publications, Khadayta Book Depot, Ahmedabad. 1-414. | Vaidya, B.S. (1967). Flora of Ahmedabad Gujarat University, Ahmedabad. |