

New distribution record to the flora of Gujarat state from North Gujarat Region, Gujarat

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Abstract

The present paper deals with botanical description and new distributional record for *Merremia hederacea* (Brum.f.) Hallier f. and *Ipomoea marginata* (Desr.) Verdc. forma *marginata* belonging to family Convolvulaceae. These species have been recorded from Gujarat from new localities in Banaskantha district of Gujarat state. It is provided here with description, photographs, habitat ecology, phenology, conservations measures for facilitating the identification and conservation measures.

Keywords: *Merremia hederacea*, *Ipomoea marginata*, NGR, Gujarat, india

Introduction

The district Banaskantha is situated in the North-Western part of Gujarat State between 24° 17' 31° N latitudes and 72.43 14° E longitudes and is presumably named after the west Banas River, which runs through the valley between Mount Abu and Aravalli range. It covers an area of 10,751 km² and is the second largest district in the state, recorded with rich in floristic diversity and well explored by various plant taxonomists (Saxton & Sedgwick, 1918 ^[19]; Saxton, 1922 ^[20]; Yogi, 1970 ^[22]; Ant, 2001 ^[3]; Patel, 2001 ^[15]; Patel, 2003 ^[16]; Patel, 2008 ^[14]; Dabgar, 2009 ^[5]; Anonymus, 2007 ^[1]; Anonymous, 2010 ^[2]; Patel, 2011 ^[12]; Meena, 2012 ^[8]; Patel, 2012 ^[10]; Patel, 2013 ^[17]; Desai, 2013 ^[6]). During our intensive botanical explorations in various parts of Tharad Range forest in Banaskantha district, an interesting specimens of family Convolvulaceae has been observed by the author growing near Bhabhar & Suigam- Radhanpur road. The family Convolvulaceae is commonly known as 'Morning Glory' family as flowers of most of the taxa open in the early morning and fades in afternoon. Specimens were collected and properly processed for herbarium by using the standard herbarium methods recommended by Jain & Rao (1977) ^[7]. After critical examination with dissected floral parts and other morphological features and perusal of relevant literature available, the specimens were identified as *Merremia hederacea* (Burm. f.) Hallier f. and *Ipomoea marginata* (Desr.) Verdc. forma *marginata* (Bhandari, Shah 1978, Patel, 2013) ^[21, 17]. So, the present record of this species as a new distributional and range extension record to the flora of Gujarat state. The current localities recorded of *Merremia hederacea* (Burm. f.) Hallier f. and *Ipomoea marginata* (Desr.) Verdc. forma *marginata* in Gujarat is depicted in Fig 1. A voucher specimens (SGS-015 & SGS-032) have been deposited at the P.G. Centre in Botany Smt. S.M. Panchal Science College, Talod, Sabarkantha. and BARO Herbarium, The M.S. University, Vadodara, Gujarat. In addition, a brief description along with photograph of herbarium sheet is provided to facilitate easy identification of the species in the wild.

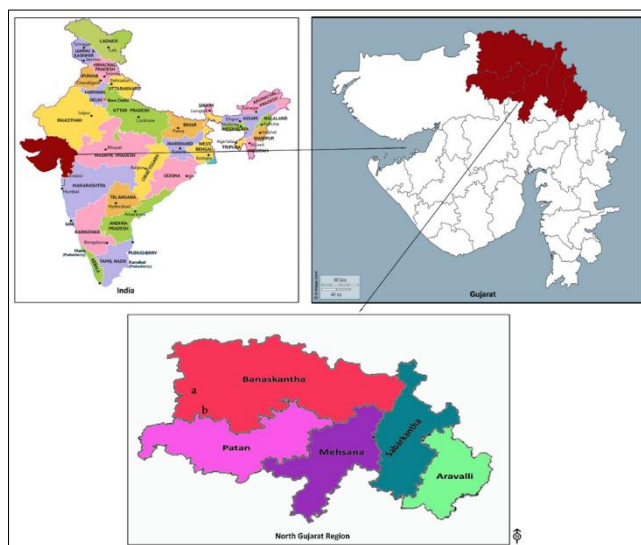


Fig 1: Map showing location of (a) *Merremia hederacea* (Burm. f.) Hallier f. (b) *Ipomoea marginata* (Desr.) Verdc. forma *marginata* in Banaskantha district, Gujarat

Taxonomic treatment

Ipomoea marginata (Desr.) Verdc. Kew Bull. 42: 658 (1987). *Convolvulus marginatus* Desr. in Lam. Encycl. 3: 558 (1792). *Ipomoea sepiaria* Koen. Ex Roxb. var. *sepiaria*. —Shah, 473. *Ipomoea sepiaria* Koen. ex Roxb. Fl. Ind. 2:90 (1824). —Raghavan *et al.*, 57. —C.B. Clarke in Hook. f. Fl. Brit. India 4:209 (1883). —Cooke, 2: 315.

Perennial twining herbs, with a stout root. Leaves 2.0-7.0 × 2.0-5.0 cm, often purple or purple spotted, elliptic-ovate or reniform to circular, apical leaves sometimes sagittate or hastate, base deeply cordate or hastate, margin entire or minutely undulate, apex attenuate or abruptly acuminate, glabrous, ciliolate marginally, petiole 1.0-3.0 cm long, sometimes minutely tuberculate. Inflorescences few to several flowered. Corolla 2.5-4.0 cm, pale or deep pink or nearly white with purple centre, with a darker center, salverform. Capsule 6-7 mm in diam., depressed-globose, glabrous. Seeds pale grayish white tomentellous, margin often with longer cobwebby hairs.

Key to forma

1. Corolla pale or deep pink or nearly white with purple centreforma *marginata*.
2. Corolla pure white, without purple centre..... forma *candida*.

Ipomoea marginata (Desr.) Verdc. forma *marginata*; Fig. 2

Stems hairy only at the nodes. Corolla 2.5-4.0 cm, pale or deep pink with purple centre, with a darker center, salverform.

FLS & FRS: August - May

Distribution: Throughout on hedges and on shrubs or low trees in forests.

Specimens examined: GUJARAT State; Banaskantha district, Radhanpur – Suigam Road, 23.69166667 N & 75.87666667 E, -21.3 m, Dt. 03.xii.2023, S. G. Shah (SGS-015) P.G. Centre in Botany Smt. S.M. Panchal Science College, Talod, Sabarkantha.

Merremia hederacea (Burm. f.) Hallier f. in Bot. Jahrb. Syst. 18: 118 (1894): Shah, 478. Raghavan *et al.*, 58. *Evolvulus hederaceus* N. L. Burman, Fl. Indica 77. t. 30, f. 2 (1768). *Merremia chryseides* (Ker-Gawl.) Hall. f. in Bot. jahrb. 16: 552 (1893). —Cooke, 2: 307 (Fig. 3).

Twining or prostrate herbs. Leaves 1.5–7.5 × 1–5 cm, cordate-ovate, subglabrous to sparsely puberulent, base cordate or broadly cordate, margin entire, irregularly crenate, or 3-lobed; petiole 0.5–5.0 cm, glabrous or pubescent. Flowers in umbelliform, cymes; corolla yellow, campanulate, 6–10 mm. Capsule 5–6 mm long, depressed globose or broadly conical. Seeds trigonous-globose, 2.5–3.5 mm.

Distribution

FLS & FRS: October - March.

Distribution: On hedges; South Gujarat, Central Gujarat, Saurashtra and North Gujarat (now); Occasional.

Specimens examined: Gujarat State; Banaskantha district, Totana village, 23.87111111 N & 71.86972222 E, -12.1m, Dt. 23.vii.2023, S. G. Shah (SGS-032) Smt. S.M. Panchal Science College, Talod, Sabarkantha.



Fig 2: *Ipomoea marginata* (Desr.) Verdc. forma *marginata*; (a) Habit; (b) Flower; (c) Fruit; (d) Seed



Fig 3: *Merremia hederacea* (Burm.fil.) Hall.; (a) Habit; (b) Flower; (c) Inflorescence; (d) Flower closeup; (e) Fruit

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