

## New distributional record of two taxa *Merremia quinquefolia* (L.) Hallier. f. and *Solanum erianthum* D.Don from Indore district, Madhya Pradesh, India

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### Abstract

Present paper deals with the addition of two plant species of angiosperm taxa to flora of Indore district, Madhya Pradesh. These plant species are *Merremia quinquefolia* (L.) Hallier. f. and *Solanum erianthum* D.Don. Which have been enumerated in this communication.

### INTRODUCTION

Indore is located on Malwa plateau of Madhya Pradesh and lies between latitude 22°43'10"N and 75°51'27" longitude. Indore has five subdivisions (tehsils) namely Depalpur, Hadod, Indore, Mhow and Sanwer. Indore district has an area of 3,898 sq. km and borders the district of Ujjain to the north, Dewas to the east, Kargone to the south and Dhar to the west. As per India State Forest report, 2011, Indore covers total forest area of 706 sq. km. Forests are of mixed deciduous type occurring only in the hilly tracts of the Vindhya which range between south-west and east of the district from Manpur to NaharJhabua. The two main rivers of the Indore district are the Chambal in the west and originated in the Vindhya range south of Mhow and the Kshipra a tributary of Chambal river in the east. Other small rivers include the Gambhir and Khan (Kanh) which are tributaries of Kshipra. *Merremia quinquefolia* (L.) Hallier and *Solanum erianthum* D.Don were collected from Khan river bank, Indore. Shaikh *et al* (2019) recorded *Solanum erianthum* D.Don from Ujjain district, Madhya Pradesh and *Merremia quinquefolia* (L.) Hallier. f. from East Nimar district, MP (Shaikh, 2012). Pertinent literature reveals that *Merremia quinquefolia* (L.) Hallier. f. and *Solanum erianthum*

D. Don have not been reported earlier in flora of Indore district (Solanki, 1981; Khanna, 1991; Dwivedi and Kaul, 2008; Shastri, 1994) and first time reported as new additions to flora of Indore district.

### MATERIALS AND METHODS

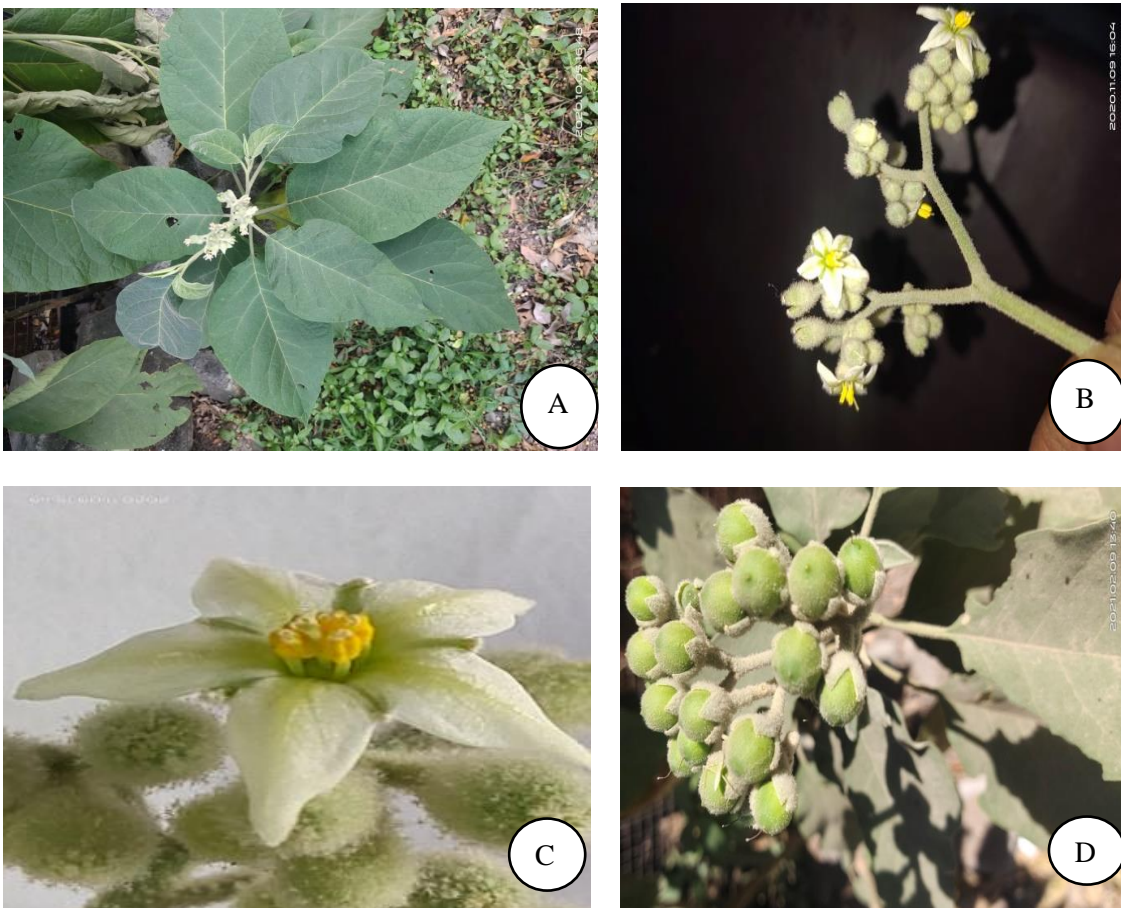
Field visit was made to different localities of Indore district during the period of 2015 to 2020. The plant species were identified with the help of flora (Singh *et al.*, 2001; Naik, 1998; Inghalkar, 2007 and Reddy, 2016). Plant specimens were also confirmed and matched with eflora and images of different website ([indianbiodiversity.org](http://indianbiodiversity.org), [plants.jstor.org](http://plants.jstor.org), [sites.google.com](http://sites.google.com)). Plant specimens were processed and deposited in the herbarium of PMB Gujarati Science College, Indore, MP.

### RESULTS AND DISCUSSION:

*Merremia quinquefolia* (L.) Hallier. f. Bot. Jahrb. Syst., 1893. *Ipomoea quinquefolia* L. Sp. pl. 1:162, 1753. Large perennial twinning herbs. Stem slender, cylindrical, hirsute. Leaves compound, digitate, petiolate; petiole 2-2.5cm; leaflets 3-5 foliolate, obovate to narrow lanceolate; central leaflets about 0.8- 5.5 cm long, lateral leaflet 0.5-2 cm, margin entire or dentate, cuneate at base, apex acuminate.



**Fig- 1 A: *Merremia quinquefolia* (L.) Hallier. f : whole plant with flowers. B Fruits enclosed in calyx. C. View of seeds.**



**Fig-2: A. *Solanum erianthum* D. Don. Plant with flower B. Flowering twig C. Enlarged single flower D. Twig with fruits.**

Flowers white or creamy, solitary or in 3-5 flowered, axillary cyme; peduncle long 3.5-6cm, pedicellate; pedicel 0.5-1.2cm long. Bracts minute. Calyx -5, persistent, Sepals 4 mm -6mm cm, long, unequal, the two outer smaller, mucronate at apex, 6-7 mm long, the inner 3.5- 6.5 mm long. Corolla campanulate, white or creamy white or pale yellow, 2-2.5 cm long. Stamens 5, included, epipetalous, anther basifixed, hastate. Carpels 2, ovary superior, axile placentation; stigma bilobed, globose. Capsule subglobose or obovoids, 6-8 mm in diameter, opening irregularly by 4 valves, trigonous, straw coloured, pubescent. Seeds 4, ovoid greyish black, 2-5 mm. hairy

Flowering and fruiting: December to April

**Distribution:** Native to West Indies, distributed in Africa, Asia, Australia, north and south America, China (Simpson, 2015).

**Habitat and ecology:** naturalised, found along the riverbank of Khan at Nasia, Indore and also in waste lands.

**Specimen examined:** Madhya Pradesh, Indore, Khan river bank, Nasia, Ray S, 2018: Ray S 6464

**Medicinal uses:** Diuretic, Deobstructant, antirheumatic and alternative. Root is used for mouth fresh wash. Leaves are used in burns, scalds and sores. (Khare, 2007).

*Solanum erianthum*. D. Don Prodr. Fl. Nepal. 96, 1825. 2-6 m long unarmed evergreen shrub, Stem cylindrical, stellate tomentose. Leaves simple, alternate, ovate or elliptic, petiolate, petiole 4-6 cm, 15-20×5-8 cm, leaf base slightly oblique, margin entire, apex acute, stellately hairy, lower surface whitish, velvety. Flowers 1-2 cm, axillary in corymbose paniculate pedunculate cyme, peduncle 5-7 cm, pedicels 0.2-0.5 cm long. Calyx campanulate, persistent, 0.3-0.5cm, calyx teeth pointed. Corolla 5 lobed, white, stellately hairy, campanulate. Stamens 5, anthers basifixed, yellow, dispersed through apical pore. Carpel 2, vary velvety, marginal placentation, swollen placenta. Berry brownish yellow, or 1-1.2 cm in diameter with many seeded, ovoid.

**Flowering and fruiting:** August to January

**Global distribution:** North and Southern America, North Australia and South East Asia.

**India:**

Assam, Kerala, Meghalaya, Maharashtra, Karnataka, Tamilnadu.

**Habitat and ecology:** It is occurred along the Khan river bank at Nasia and wasteland.

**Specimen examined:** Madhya Pradesh, Khan river bank, Ray S5879

**Medicinal uses:** Leaves are used for the treatment of cancer and malaria. Root decoction is used to treat dysentery, fever and diarrhoea (Ajasa *et al.*, 2004).

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