



# *Cissus vitiginea* L.: a new addition to the flora of Madhya Pradesh, India

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**Abstract:** *Cissus vitiginea* L. (Vitaceae) is reported from the state of Madhya Pradesh (India) for the first time.

**Key words:** Vitaceae; new record; range extension

The genus *Cissus* L. (family Vitaceae) has a pantropical distribution and about 150 species (Shetty and Singh 2000). Among *Cissus* spp., *C. vitiginea* L. is known from India and Sri Lanka (Shetty and Singh 2000). In India, Pullaiah et al. (1998) reported *C. vitiginea* from Andhra Pradesh. Later, other researchers extended its distribution to other Indian states, including Karnataka and Maharashtra (Pullaiah et al. 2000, 2002), and Khanna et al. (2001) reported it from the Bastar district of Chhattisgarh state. However, *C. vitiginea* was not recorded, until now, known from Madhya Pradesh (Tiwari 1968; Agarkar 1969; Saxena 1970; Gupta and Ram Lal 1973; Oomachan 1977; Verma and Das 1982; Datta and Dixit 1985; Verma et al. 1993; Samvatsar 1996; Meena 2014; Singh 2014). Thus, the new records constitute to be an addition to the flora of Madhya Pradesh (Figure 1).

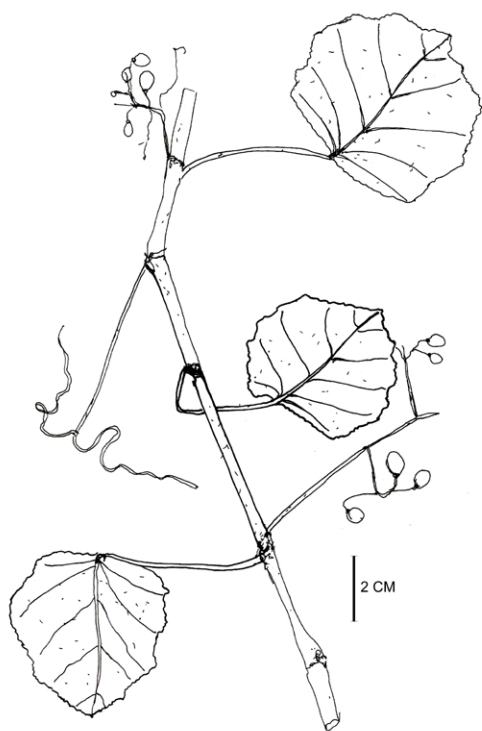
Botanical explorations were made in the Malwa region of state of Madhya Pradesh, India. Geographically, the Malwa region is situated on a plateau in western Madhya Pradesh. These surveys found several unknown plants that were collected from Omkareshwar (Khandwa district) along the bank of the Narmada River (22°61' N, 76°03' E). Later, taxonomic study and reference to the literature (Singh and Shetty 1986; Pullaiah et al. 1998, 2000, 2002; Shetty and Singh 2000) determined these plants to be *C. vitiginea*. The identification was corroborated by Dr. S. L. Meena (Botanical Survey of India) and Dr. P. Santhan and by comparison to herbarium specimens held by the Botanical Survey of India (Arid Zone Regional Centre, Jodhpur). Newly collected specimens were deposited at the herbarium of Department of Botany, Manikya Lal Verma Government College (Bhilwara).

***Cissus vitiginea*** L. 1753: 117. Planchon in de Candolle (1887): 472; Shetty and Singh in Singh et al. (2000): 294. *Vitis linnaei* Wallich ex Wight & Walker-Arnott (1834): 126; Lawson in Fl. Brit. India 1: (1875): 649. Figures 2–4.

Climbing, foetid shrubs. Branches subterete, striate, covered with short grey or fulvous pubescence, swollen at nodes. Tendril simple, sometimes bifid or branched. Leaves simple, rotund-ovate to deeply 3–5 lobed, 3.5–8 × 3–7.5 cm, base truncate to cordate, margin irregularly dentate, apex acute or obtuse, pubescent. Petioles 4–9 cm long, pubescent. Stipules triangular, pubescent. Inflorescence umbellate cymes. Peduncle 3–5 cm long.



Figure 1. Distribution of *Cissus vitiginea* L. in Madhya Pradesh state, India.



**Figure 2.** Habit of *Cissus vitiginea* L.

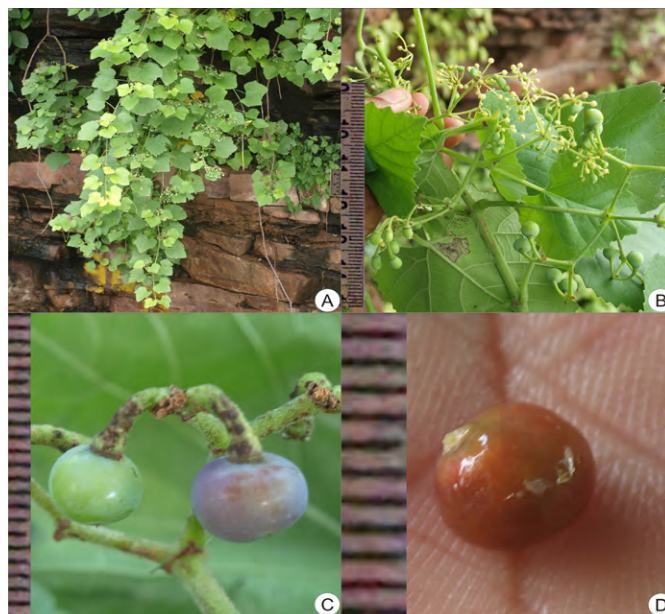
Calyx cupular, 4-lobed, pubescent. Petals 4, oblong-ovate, obtuse, recurved, yellow. Stamens 4; filaments green; anthers rotund, yellow. Disk more or less 4-lobed, fleshy, covering ovary, yellow. Ovary ovoid; 2-loculed; style short; stigma sessile, minute. Berry pyriform, apiculate, 4–7 mm across, purple with a glaucous bloom on surface, 1-seeded. Seeds ovoid, tessellate on either side of raphe with angular faces.

**New record:** India: Madhya Pradesh: Khandwa: Omkareshwar; Santhan, P. M-501; Meena, M-539 and M-842 (MLVGCB Herbarium) (Figure 4).

*Cissus vitiginea*, which flowers and fruits in August to December (present study), was found to be rare on rocks along the bank of the Narmada River. These records are the first from the Indian state of Madhya Pradesh. The nearest previously known occurrences for this species, in Karnataka and Maharashtra states, are 730 km southeast of the new records (Shetty and Singh 2000; Pullaiah et al. 1998).

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**Figure 3.** *Cissus vitiginea* L. **A:** habitat. **B:** inflorescence. **C:** immature and mature fruits. **D:** seed.

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**Figure 4.** Herbarium sheet of *Cissus vitiginea* L., showing flowers and fruits. India: Madhya Pradesh: Khandwa: Omkareshwar; M-842 (MLVGC Herbarium).

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