

# A NEW SPECIES OF *IPOMOEA* (CONVOLVULACEAE) FROM OAXACA, MEXICO

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## ABSTRACT

Recent collecting in Mexico has uncovered a novelty in *Ipomoea* (Convolvulaceae), *I. gesnerioides*, from the arid Tehuacán valley of Oaxaca. It is closely related to *I. bombycina* Benth. & Hook., section *Bombycospermum* (Presl) Austin, but differs by producing basally terete stems, mostly terminal inflorescences, and larger, broadly urceolate corollas 3–3.5 cm long and 1.5–2 cm broad.

## RESUMEN

Se reconoce una nueva especie del Valle de Tehuacán, Oaxaca, *Ipomoea gesnerioides*. Parece ser relacionada con *I. bombycina*, sect. *Bombycospermum*, de la cual se distingue por tallos basales rollizos, inflorescencias usualmente terminales y corollas urceoladas, 3–3.5 cm de largo.

## *Ipomoea gesnerioides* McDonald sp. nov.

*A Ipomoea bombycinae* caule basale laeve terete ac corollis 3–3.5 cm longis 1.5–2 cm latis statim diagnoscenda.

*Vines* lignescent, twining. *Stems* terete, initially erect and straight, becoming twining and contorted, the hypocotyl swollen, succulent, smoothish, terete-ellipsoid, 5–8 cm long, to 3 cm in diam., tan to gray, subdermally chlorophyllous, bearing many short shoots at the apex, ascending stems 0.5–3 m long, 2–12 mm in diam., new growth pale green, villous, old growth tan, bark membranous, glabrous; internodes 1.5–2.5 cm long; roots fibrous. *Leaves* petiolate; petioles terete, 0.5–3.5 cm long, reduced on terminal, fertile branchlets, puberulent, villous or canescent; lamina broadly elliptic or occasionally somewhat rhombic, 2–8 cm long, 1.5–5 cm wide, dark green and puberulent above, canescent below, primordially corrugate, margins entire, apex acute or acuminate, base acute or subtruncate, occasionally subcordate on fertile branchlets; venation pinnate. *Inflorescence* a scorpioid pseudoraceme comprised of reduced, congested, single flowered cymes usually at the apex of fertile branches; peduncles wanting; pedicels terete, 2–9 mm long, 0.5–1 mm in diam., green, puberulent; sepals subequal, ellipsoid, 1.1–1.5 cm long, 5–7 mm wide, coriaceous, canescent or variably villous, margins entire, apex acute or obtuse; corolla urceolate, basal portion of tube 6–8 mm long, 4–8 mm in diam., distal portion dilating, 2.5–3 cm long, 1.5–2 cm broad medially, pale green, limb flaring



FIG. 1. Fertile shoots of *Ipomoea gesnerioides* based on the holotype. A. Flowering branch. B. Seed. C. Mature fruiting branch.

abruptly, 2.5 – 3 cm wide, interplacae pale green, the exterior pubescent, plical regions purple, glabrous; stamens subequal, 3.0 – 3.5 cm long, white, style surpassing androecium by ca. 2 mm; stigma bilobate, white. *Fruit* a broadly ellipsoid capsule, locules 2, valves 4, tan, chartaceous, 1.1 – 1.3 cm long, 8 – 10 mm wide, glabrous; seeds 4, ellipsoid, 3 – angled, 6 – 7 mm long, 3 – 3.5 mm wide, dark brown, minutely puberulent with dense lanate tufts of hair along angle margins toward hilum, hairs white, to 1 cm long.

TYPE: MEXICO. OAXACA: 10.4 mi W of Santiago Astata on Hwy 200, in scrub-deciduous forest, 9 Mar 1985, Luckow 2605 (HOLOTYPE: TEX!; ISOTYPES: MEXU!, US!).

*Ipomoea gesnerioides* most closely approaches *I. bombycina* Benth. & Hook., type species of *Ipomoea* sect. *Bombycospermum* (Presl) D. Austin, by the presentation of

a swollen hypocotyl 1 – 3 cm wide, initially erect stem growth that later becomes twining, somewhat corrugate leaves, scorpioid pseudoracemes, urceolate corollas, and densely lanate seeds. *Ipomoea gesnerioides* is unique among all other *Ipomoea* of Mexico, however, in producing mostly terminal, scorpioid pseudoracemes and large (3 – 3.5 cm long, medially 1.5 – 2 cm in diameter) urceolate corollas with a pale green and purple limb. Flowers of *I. bombycina* are generally born on axillary pseudoracemes (sometimes terminal), and corollas never exceed 2.5 cm in length and 1 cm in diameter. The vegetative features of these two species are also distinctive, *I. bombycina* bearing a rough, furrowed, swollen hypocotyl, while the swollen hypocotyl of *I. gesnerioides* is terete and relatively smooth. Both species are restricted to the tropical deciduous forest of southern Mexico, *I. bombycina* occurring from Jalisco to Guerrero in tropical deciduous forest, and *I. gesnerioides* from its type locality in the arid Tehuacán Valley of Oaxaca.



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