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New Species of *Alstroemeria* (Alstroemeriaceae) from the Brazilian Savannas

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ABSTRACT. Two new species of *Alstroemeria* (Alstroemeriaceae) from the Brazilian savannas are described: *A. stenophylla* M. C. Assis, which is characterized by its narrow linear-lanceolate leaves, concentrated on the distal region of the vegetative stem, and for its ruby-spotted inner tepals, close to *A. gardneri* Baker and *A. plantaginea* Martius ex Schultes & Schultes f.; and *A. tombolatoana* M. C. Assis, which may be recognized by its coriaceous leaves, outer tepals oblong-spatulate, without patterning, but the inner tepals spatulate and ruby-maculate, sympatric with *A. gardneri*. Descriptions, comments, and illustrations are presented.

Key words: *Alstroemeria*, Alstroemeriaceae, Brazil, savannas.

Alstroemeria L. is represented by around 90 species widespread in South America, ranging from Venezuela (3° North) to Tierra del Fuego, Argentina (53° South), with two main centers of distribution, one in Chile (extending into Peru, Bolivia, and Argentina) and the second throughout Brazil, Paraguay, and Argentina (Bayer, 1987; Aker & Healy, 1990). In Brazil the genus comprises 38 species distributed in the eastern regions of the country. These species occur in different habitats: forest, savanna, high fields, marsh, “campos rupestres,” and “caatinga,” from a height of 300 m above sea level in the Amazon up to 2300 m above sea level at Serra do Itatiaia. Most species have a restricted distribution (Assis, 2001, 2002). The recent taxonomic revisions of the group for Brazil (Assis, 2001), Argentina (Sanso, 1996), and Chile (Bayer, 1987) have improved the basic knowledge of the genus.

The genus comprises perennial herbs with fleshy root-tubers and rhizomes bearing separate vegetative and reproductive stems. The leaves are resupinate, the flowers usually zygomorphic and patterned, and the fruit is a 3-valved loculicidal capsule.

During a recent revision of *Alstroemeria* from

Brazil, two distinctive new species were discovered in savannas. These species are here described.

***Alstroemeria stenophylla* M. C. Assis, sp. nov.**

TYPE: Brazil. Goiás: Cocalzinho, Estrada de acesso aos Pirineus, próximo aos Três Picos, 28 May 1998 (fl), M. C. Assis, R. C. Forzza & A. F. C. Tombolato 560 (holotype, SPF; isotypes, CEN, MO). Figure 1A–D.

Herba foliis coriaceis, glabris, lineari-lanceolatis, in tertia parte distali rami vegetativi congestis et floribus tepalis internis rubropunctatis.

Perennial herb 0.2–0.7 m tall; stems cylindrical, glabrous. Leaves of the vegetative stem 1.5–15 × 0.3–0.5 cm, resupinate, chartaceous, concentrated toward the apex, linear-lanceolate, apex acuminate, base truncate, both faces glabrous with prominent veins; leaves of the reproductive stem 0.8–4.5 × 0.2–0.3 cm, resupinate or not, coriaceous, distributed along the stem, linear-lanceolate, apex acuminate, base truncate, both faces glabrous with prominent veins. Inflorescence an umbel-like simple cyme of 3 to 5 flowers; pedicel glabrous, 1–4 cm long; bracts leaf-like, chartaceous, 0.6–2 × 0.1 cm. Flower patent, campanulate, red or orange, 2–3.8 cm long. Tepals 6 in 2 whorls; outer tepals not patterned, narrowly obovate or oblanceolate, apex apiculate, base attenuate; the upper ca. 3 × 0.9 cm; the lower ones ca. 2.7 × 0.9 cm; inner tepals ruby-spotted, all three very similar, narrowly elliptic-spatulate, apex acuminate, base attenuate; the upper tepals ca. 3 × 0.8 cm; the lower one ca. 2.5 × 0.7 cm. Stamens 6, included, filaments papillate at base, ca. 1.5 cm long; stigma included, style glabrous, about 1 cm long. Capsule ovoid, 0.9–1.2 × 0.8–1.2 cm.

Distribution and phenology. *Alstroemeria stenophylla* is found on the rocky outcrops and on riverine forest borders in the states of Goiás and Minas Gerais in Brazil. Flowers: March and May. Fruit: May.

Alstroemeria stenophylla is characterized by its narrow linear-lanceolate leaves concentrated on the

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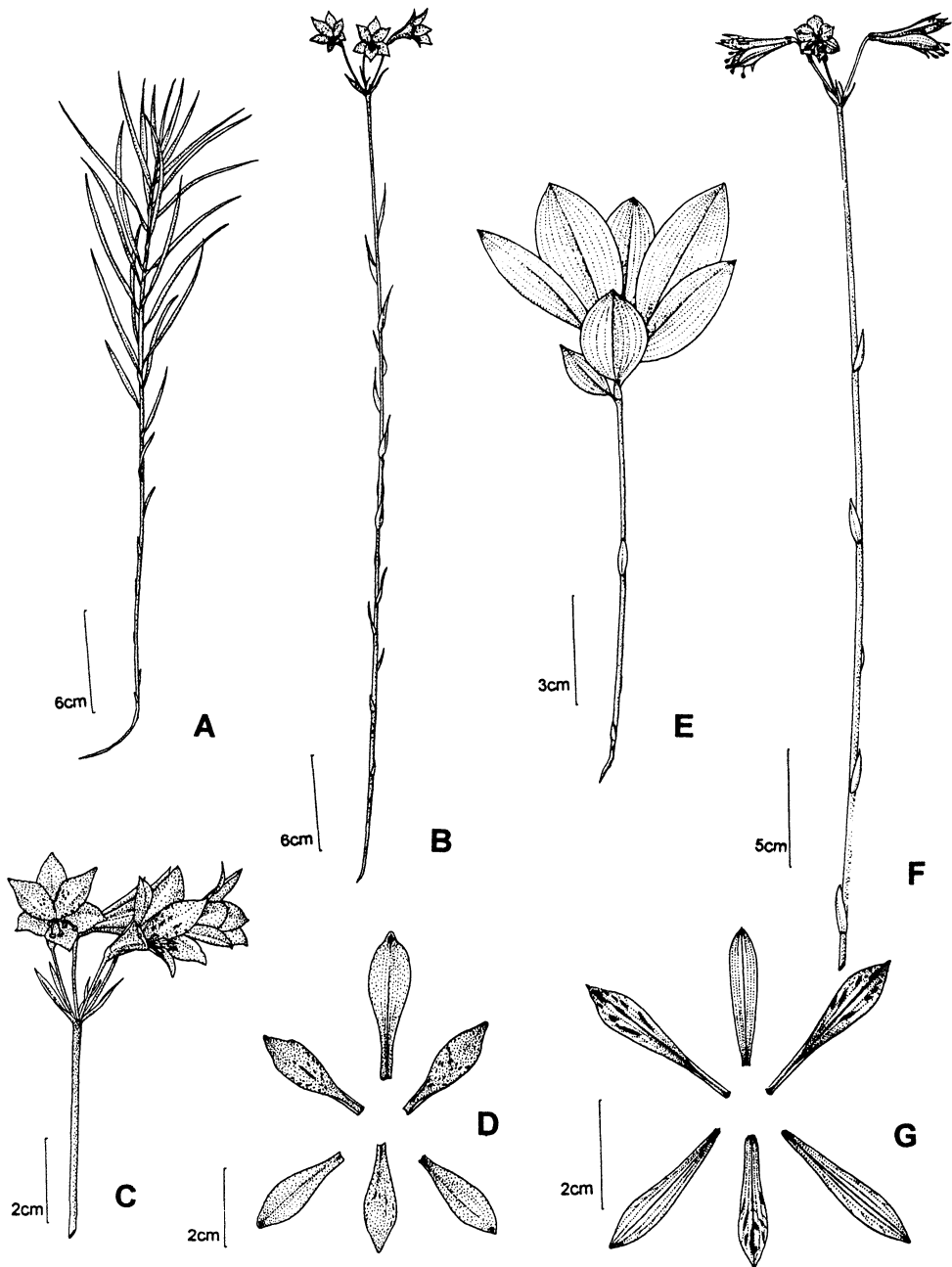


Figure 1. A–D. *Alstroemeria stenophylla* M. C. Assis. —A. Vegetative stem. —B. Reproductive stem. —C. Inflorescence. —D. Tepals, the inner ones spotted. E–G. *Alstroemeria tombolatoana* M. C. Assis. —E. Vegetative stem. —F. Reproductive stem showing reduced leaves and bracts. —G. Tepals, the inner ones maculate. (A–D from the holotype, Assis *et al.* 560 (SPF), E–G from *Cavalcanti* 2226 (SPF).) Drawn by Eduardo H. P. Kickhöfel.

distal region of the vegetative stem and by its ruby-spotted inner tepals. The epithet is derived from the morphology of the leaves.

The flower is similar to that of the sympatric *Alstroemeria gardneri*, which is differentiated by its coriaceous elliptical or obovate leaves, distributed

along the vegetative stem. The vegetative stem of the new species is similar to that of *A. plantaginea* Martius ex Schultes & Schultes f., but in this latter species the leaves are elliptical or oblong and the inner tepals are ruby-maculate.

Paratypes. BRAZIL. **Goiás:** Corumbá de Goiás, Mon-

tes Pirineus, 26 May 1968 (fl), *E. Onishi et al.* 81 (IAN, UB); Serra dos Pirineus, 1300 m, 14 May 1973 (fl), *W. R. Anderson* 10230 (RB, UB); Alto da Serra dos Pirineus, na base dos Três Picos, 13 Mar. 1971 (fl), *J. A. Rizzo* 6035 (UFG).

Alstroemeria tombolatoana M. C. Assis, sp. nov.

TYPE: Brazil. Goiás: Teresina de Goiás, 47°30'S, 13°46'W, 21 May 1994 (fl), *C. Munhoz, C. Proença, B. M. T. Walter & M. A. Silva* 100 (holotype, UB; isotype, GUA). Figure 1E–G.

Herba foliis ramorum reproductivorum non resupinatis, coriaceis, lanceolatis, glabris; tepala externa sine maculis et interna rubro-maculata.

Perennial herb 0.65–0.80 m tall; stems cylindrical, glabrous. Leaves of the vegetative stem 2–5 × 0.8–2.5 cm, resupinate, coriaceous, sessile, concentrated at the apex or distributed along the stem, widely elliptic, oblong or obovate, apex acute, base attenuate, both faces glabrous with prominent veins; leaves of the reproductive stem 1–1.2 × 0.3–0.5 cm, not resupinate, chartaceous, sessile, distributed only in the upper half of the stem, lanceolate, apex acuminate, base cuneate, both faces glabrous. Inflorescence an umbel-like simple cyme of 2 to 4 flowers; pedicel glabrous, ca. 3 cm long; bracts leaf-like, chartaceous, 0.5–1.2 × 0.1–0.2 cm. Flowers patent, campanulate, reddish, 3.5–3.8 cm long; outer tepals not patterned, these three similar, oblong-spatulate, apex acute or acuminate, base attenuate; upper one 2.3 × 0.6 cm; lower two 3.1 × 0.5 cm; inner tepals ruby-maculate, these three similar, spatulate, apex apiculate, base attenuate, distal margin entire; upper two 3.3 × 0.6 cm; lower one 2.8 × 0.4 cm; stamens included, filaments glabrous, ca. 2.3 cm long; stigma included, style glabrous, ca. 2 cm long. Fruit not seen.

Distribution and phenology. *Alstroemeria tombolatoana* is rarely found in the savannas of the states of Tocantins, Goiás, and Mato Grosso. Flowers: April and June.

Alstroemeria tombolatoana may be recognized by its coriaceous leaves, outer tepals oblong-spatulate, without patterning, but the inner tepals spatulate and ruby-maculate. This species is sympatric with *A. gardneri*, which has elliptical to rounded-spatulate outer tepals and elliptical-spatulate ruby-spotted inner tepals.

The epithet of the new species, *tombolatoana*, is in honor of Antonio Fernando Caetano Tombolato, a researcher at the Agronomic Institute of Campinas in São Paulo State (Brazil), who stimulated and assisted me in the beginning of my work with data gathered during several years of research with *Alstroemeria*.

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