

**BOMAREA PATINII SSP. UMBELLATA (ALSTROEMERIACEAE),
A NEW SUBSPECIES OF BOMAREA**

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Abstract. *Bomarea patinii* (Alstroemeriaceae) is a species widely distributed in the Andes. It is easily recognized by its voluminous inflorescences. A new subspecies, *B. patinii* ssp. *umbellata*, here reported from Colombia and Ecuador, and possibly Venezuela, is described and illustrated.

Resumen. *Bomarea patinii* (Alstroemeriaceae) es una especie con amplia distribución en Los Andes, fácilmente reconocida por sus voluminosas inflorescencias. Una nueva subespecie perteneciente a este taxón, aquí reportada de Colombia y Ecuador y posiblemente Venezuela, es descrita e ilustrada.

Keywords: Alstroemeriaceae, *Bomarea patinii*, new subspecies *umbellata*, Colombia, Ecuador.

The genus *Bomarea* Mirb. (Alstroemeriaceae) has a neotropical and austroamerican distribution, from Argentina to Mexico. The largest diversity is in Andean regions of Peru, Colombia and Ecuador (Sanso and Xifreda, 1995; Hofreiter, 2005).

Bomarea patinii Baker is widely distributed and one of the most abundant species of the genus in the Andean forests of Colombia, Venezuela, Ecuador, and Peru. It is easily recognized by its voluminous umbels containing red flowers of great size (4.5–8.0 cm) and pubescence in stem and leaves. The species was described by Baker (1888) in his revision of Amaryllideae based on collections from the department of Antioquia, Colombia. Later, Killip (1936), on the basis of a collection from Cundinamarca, Colombia, proposed *Bomarea racemosa*, a species later referred to the synonymy of *Bomarea patinii* (Gereau and Neuendorf, 1999).

Along its distributional range, several morphological differences can be detected among populations of *Bomarea patinii*, thus allowing the recognition of subspecies from different localities distinguished by particular characters.

In a recent revision of the family Alstroemeriaceae for the flora of Colombia (Alzate, unpubl. manuscript), the author included an undescribed subspecies of *Bomarea patinii* from Colombia, Venezuela,

and Ecuador. This subspecies was initially proposed by Magnus Neuendorf (Gothenburg Botanical Garden) in determinations carried out in different herbaria but was never published. This publication aims to validate this subspecific taxon.

Bomarea patinii Baker, Handb. Amaryll. 157. 1888. TYPE: COLOMBIA. Antioquia: *C. Patin s.n.* (K).

Synonym: *Bomarea racemosa* Killip, Nat. Hort. Mag. 15: 120. 1936. TYPE: COLOMBIA. Cundinamarca: 3000 m, 1 January 1925, *A. Schultze 65* (Holotype: B).

Sarmentose herb. Tuberous roots. Stem 3–9 mm diam., pubescent, pendulous at apex, internodes 1.3–6.0 cm long. Leaves resupinate; petiole 9–23 mm, pubescent to puberulent; blade 7–18 × 2.0–5.5 cm, ovate to ovate-lanceolate, ferruginously pubescent beneath, coriaceous when dry, base acute to obtuse, apex acuminate, margin entire. Inflorescence a simple to racemose umbel; bracts leaf-like, sessile to shortly petiolate, 3–8 × 1.0–2.9 cm, oval to elliptic, pubescent beneath, base acute, apex acute, margin entire; bracteoles absent or sessile when present, 0.8–2.3 × 0.3–0.7 cm, lanceolate, puberulent, apex acute; pedicel 2.5–11.0 cm long, pubescent, ferruginous. Flowers 18–110, perianth segments markedly different

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in size; calyx 3.5–6.0 cm long, outer tepals elliptic, puberulent, obtuse in the apex, unguiculate 1–3 mm long, red; corolla 4.5–8.0 cm long, inner tepals oblanceolate, puberulent to glabrous, mucronate, red-yellow with dark dots internally and purple costa, puberulent; stamens apostemonous, filaments 30–55 mm long, puberulent; anthers 4–7 mm, basifixed, dithecate; ovary inferior, turbinate, pubescent reddish; style 40–64 mm long, puberulent. Capsule 2.5–3.0 cm diam., subspherical; seeds 4–6 mm diam., spheroid, sarcotesta red-orange.

Bomarea patinii is widely distributed in most Andean areas, at altitudes between 1900 and 3300 m. This is one of the most abundant species of *Bomarea* in Colombia, Venezuela, and Ecuador, growing in open areas and along roadsides.

Bomarea patinii* ssp. *umbellata Neuendorf ex F. Alzate ssp. nov. TYPE: COLOMBIA. Cauca: Munchique, margin of forest, 2500 m, 21 April 1939, A. H. Alston 8158 (Holotype: NY; Isotype: BM). Fig. 1.

Herba sarmentosa; caule pubescente. Lamina ovata lanceolata, 7–18 × 2.0–5.5 cm, inferne pubescente. Umbella simplex; bracteis foliaceis, 3–8 × 1.0–2.9 cm, ovata, elliptica, pubescente; bracteolis absentis vel diminutis, 0.8–2.3 × 0.3–0.7 cm, lanceolatis; pedicellis 3.0–7.5 cm longis, pubescente. Petalis rubris, 3–5 cm longis.

Sarmentose herb; stem pubescent. Leaves resupinate, petiolate; leaf blade ovate to ovate-lanceolate, 7–18 × 2.0–5.5 cm, ferruginously pubescent beneath, coriaceous when dry, base acute, apex acuminate. Inflorescence umbel simple; bracts leaflike, sessile, 3–8 × 1–2.9 cm, ovate to elliptic, pubescent beneath, base acute, apex acute; bracteoles absent or reduced when present, adpressed to the pedicel, 0.8–2.3 × 0.3–0.7 cm, lanceolate, puberulent, apex acute, medial or basal to the pedicel; pedicel 3.0–7.5 cm long, ferruginously pubescent. Flowers with outer tepals red 3.5–5.0 cm; inner tepals red, 3.8–5.5 cm long.

Distribution and habitat: *Bomarea patinii* ssp. *umbellata* is found in the southern part of Colombia in the departments of Cauca, Nariño,

Huila, Valle del Cauca, and part of Tolima; likewise it has been reported in the north of the country in the Serranía de Perijá, department of Magdalena. In Ecuador it is reported for the northern part, in the provinces of Carchi, Imbabura, and Cotopaxi. It is possibly found in Venezuela, growing in the cordillera de Mérida, at 2100–3300 m, where it has been reported in some inventories, but no collection have been seen by the author.

Phenology: collected in flower and fruit during the periods February–June and August–November.

Etymology: the epithet “umbellata” refers to the inflorescence type that this subspecies has developed.

Paratypes: COLOMBIA. Cauca: Municipio La Plata, vereda Arrabal, 1 October 1984, G. Lozano et al. 4403 [fr] (COL); Municipio San José-San Antonio, 28 June 1922, F. Pennell & E. Killip 7381 [fr] (NY). Huila: La Plata, vereda Arrabal, 1 October 1984, G. Lozano et al 4403 [fr] (COL). Magdalena: serranía del Perijá, Sabana Rubia, 5 March 1959, R. Romero-Castañeda 7411 [fr] (COL); serranía del Perijá, Sabana Rubia, 6 March 1959, R. Romero-Castañeda 7410 [fl] (COL). Nariño: Leiva, Plan del Oso, W de la cabecera mpal, 31 August 1991, B. Ramírez 4076 [fl] (PSO); Sandoná, alto de Jiménez, faldas del volcán Galeras, 22 February 1986, O. de Benavides & A. Castillo 5751 [fl] (PSO). Putumayo: San Francisco, road to El Mirador, 8 April 1967, R. Guarín 793 fl (PSO). Valle del Cauca: Municipio La Cumbre, 14–19 May 1922, F. Pennell & E. Killip 5787 [fl] (NY); Municipio La Florida, Pueblo Nuevo, 10 October 1989, S. Sarria 398 [fr] (CUVC). ECUADOR. Carchi: Tulcan-Maldonado, 8.9 km E of Maldonado, 14 November 1988, L. Dorr & L. Barnett 6112 fl, fr (NY); Tulcan-Maldonado highway, Km 76, secondary forest, 24 January 1977, J. Boeke 837 [fl and fr] (NY).

Bomarea patinii is included in the group *Caldasiana* (Baker, 1882; Killip, 1936) because of its dense umbels and flowers with segments of different size. *Bomarea patinii* ssp. *umbellata* is easily distinguished by having simple umbels, contrary to *Bomarea patinii* ssp. *patinii* that develops racemose umbels.

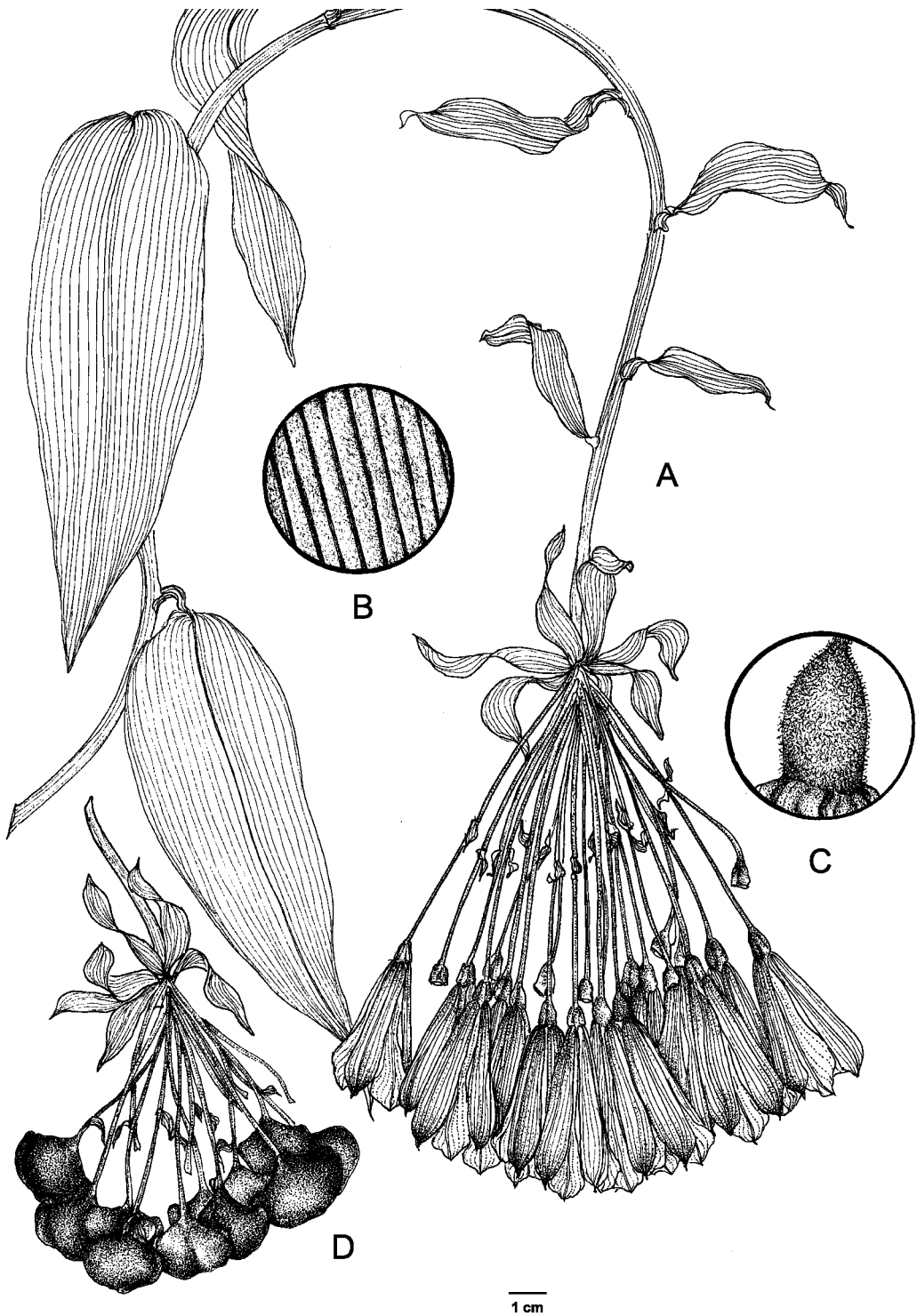


FIGURE 1. *Bomarea patinii* ssp. *umbellata*. A, habit; B, abaxial surface of the leaf; C, ovary, external surface; D, fruits. Drawn by Gloria Mora based on A. H. Alston 8158 (NY).

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