



A new species of *Polianthes* subgenus *Bravoa* (Asparagaceae, Agavoideae) from Jalisco, Mexico

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Abstract

During recent botanical explorations in western Mexico, otherwise known as the Nueva Galicia region, a new species of *Polianthes* subgenus *Bravoa* was discovered. The new taxon is described and illustrated. It resembles *P. bicolor* and *P. geminiflora* var. *clivicola*, but differs from both by its oblong-obovate and generally prostrate leaves, (3–)4–6(–9) floral nodes, pedicels recurved and 1.1–1.7 cm long in anthesis, perigone tubular, not curved, depressed, and bicolor with imbricate and erect lobes in anthesis, and filaments 1.4–1.6 mm long, inserted in the perigone 1–1.5 mm above ovary tip. Notes on phenology, geographic distribution and habitat of the new species and an identification key to the species of *Polianthes* subgenus *Bravoa* growing in western Mexico are also provided.

Resumen

Exploraciones recientes en el occidente de México, conocido también como región de Nueva Galicia, permitieron descubrir una especie nueva de *Polianthes* subgénero *Bravoa*. El nuevo taxon es descrito e ilustrado. La nueva especie se relaciona con *P. bicolor* y *P. geminiflora* var. *clivicola* pero difiere de ambas por presentar hojas oblongo-obovadas y generalmente tendidas sobre el sustrato, (3–)4–6(–9) nudos florales, pedicelos de 1.1–1.7 cm de longitud en antesis y recurvados, perianto tubular, no curvado, depresso, bicolor y con lóbulos imbricados y erectos en antesis, y filamentos de 1.4–1.6 mm de longitud, insertos en el perianto a 1–1.5 mm por arriba del ápice del ovario. Además, se aportan datos sobre la fenología, distribución geográfica y el hábitat del taxon nuevo, y una clave para la identificación de las especies de *Polianthes* subgénero *Bravoa* que crecen en el occidente de México.

Key words: Atenguillo river, endemism, entomophily, ornithophily, Sierra Verde

Introduction

Polianthes Linnaeus (1753: 316) is a genus that comprises 20 species, arranged in two subgenera: *Polianthes* and *Bravoa* (La Llave & Lexarza 1824: 6) Roemer (1847: 245) (Verhoek-Williams 1975, Eguiarte *et al.* 2000, Solano 2000; Table 1). *Polianthes* subgenus *Polianthes* includes 12 species with geminate flowers, sessile or with pedicels up to 6 mm long. The perigone is erect or curved almost to midportion and then infundibular, with an expanded throat between the curvature of the tube and the base of the lobes, white or pink when mature, with perpendicular or reflexed lobes relative to the perigone tube axis, scented, and pollinated by nocturnal moths. The stamens are inserted 2–3 mm below the perigone lobes. In contrast, *Polianthes* subgenus *Bravoa* includes eight species with geminate flowers, or solitary in *P. howardi* Verhoek-Williams (1976: 365), and with pedicels 1.1–3.5 cm long. The perigone is pendulous, tubular, with perpendicular lobes or extended at the same plane as the perigone axis, usually red, yellow, pink, or exceptionally bicolor greenish orange as in *P. bicolor* Solano & García-Mendoza (1998: 473), scentless, but scented in *P. multicolor* Solano & Dávila (2003: 119), and pollinated by hummingbirds. Lastly, the stamens are inserted below the middle of the perigone tube.

Key to the species of *Polianthes* subgenus *Bravo* in Nueva Galicia, Mexico

1. Pedicels 0.3–1.5 cm long; perigone funnel-shaped and abruptly curved just above the ovary, almost white, white-pinkish, pink to orange-yellowish, fragrant, lobes perpendicular to perigone axis *P. multicolor*
- Pedicels 1.5–5.5 cm long; perigone tubular or funnel-shaped and slightly curved just above the ovary, concolorous (red, pink, or yellow) or bicolor (tube red, orange, or pink with lobes greenish), odourless, lobes parallel to perigone axis 2
2. Flowers solitary at the nodes; lobes epinastic *P. howardii*
- Flowers paired at the nodes; lobes homomorphic 3
3. Leaves (abaxially) pectinately hispidulous on nerves and margins with thick erect blunt gland-tipped hairs 0.1–0.2 mm long; exposed portions of sheaths, and to a lesser extent the lower stem, similarly pubescent *P. graminifolia*
- Leaves (as well as the rest of the plant) glabrous, at most with marginal papillae, or scattered papillae along the nerves 4
4. Perigone tubular not curved 5
- Perigone funnel-shaped, slightly curved just above the ovary 6
5. Leaves oblong-obovate, prostrate or slightly elevated from the ground, (6–)8–12 cm × 0.6–2.2(–4.5) cm, semi-succulent; perigone bicolor (tube orange and lobes greenish); imbricate and erect lobes in anthesis; stigma exerted the length of the lobes or more
..... *P. cernua*
- Leaves linear, erect, (12–)25–30(–48) cm × (0.4–)1.5–2.5(–3.7) cm, chartaceous; perigone concolor, red; extended and free lobes in anthesis; stigma included (occasionally slightly exerted, but no more than half the length of the lobes)
..... *P. geminiflora* var. *clivicola*
6. Leaves in a basal rosette at flowering time; inflorescence axis without branching *P. geminiflora* var. *geminiflora*
- Leaves not grouped in a basal rosette at flowering time; inflorescence axis generally branching *P. zapopanensis*

Acknowledgments

We are grateful to the Consejo Nacional de Ciencia y Tecnología (CONACyT) for the research grant # 80200 and doctoral scholarships to the first author. The Universidad de Guadalajara offered financial aid to ACC. Thanks to the Idea Wild organization for the equipment provided to ACC. Likewise, we thank the curators and staff of the following herbaria: CIIDIR, CIMI, CREG, GUADA, IBUG, IEB, MEXU, XAL and ZEA. We appreciate the suggestions made to the document by Lorenzo Peruzzi, Sue Templeton and two anonymous reviewers. This study depended greatly upon the generosity of Guadalupe Munguía Lino, Mollie Harker, Esteban A. Suárez-Muro, José Luis Villa-Vázquez, Miguel A. García-Martínez, Pablo Carrillo-Reyes and Ricardo Guerrero-Hernández. Thanks to Eloy Solano and Pablo Carrillo Reyes for providing us with information and photographs. We thank Guadalupe Munguía Lino and Josué Ortíz Catedral, who elaborated figures 1 and 2, respectively.

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