

CALATHEA MULTISPICATA (MARANTACEAE),
A NEW SPECIES ENDEMIC TO COLOMBIA

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ABSTRACT

Calathea multispicata H. Kenn. & M. Serna, endemic to Colombia, is described as new. Currently, it is known only from the Department of Valle de Cauca in premontane (1300–1800 m) pluvial forest habitat. *Calathea multispicata* is characterized by the presence of only two leaves per shoot, one basal and one cauline and the numerous relatively small, short-pedunculate inflorescences. Each inflorescence has 3–4 bracts, which, after the first terminal one, are borne in the axil of the cauline leaf. *Calathea multispicata* is most similar in aspect to *C. harlingii* H. Kenn. *Calathea multispicata* shares the habit of a single cauline leaf subtending inflorescences above one or more basal leaves with *C. harlingii*, *C. hagbergii* H. Kenn., *C. andersonii* H. Kenn. and *C. pluriplicata* H. Kenn. but differs from these species in having a single vs. 2–10 basal leaves, more numerous (up to 19 vs. 2–7) inflorescences with fewer bracts (3–4 vs. 5–17) borne in a series in the axil of the cauline leaf.

RESUMEN

Se describe como nueva especie **Calathea multispicata** H. Kenn. & M. Serna, considerada hasta la fecha endémica de Colombia. Actualmente es conocida solo del departamento del Valle del Cauca en bosque pluvial premontano (1300–1800 m). *Calathea multispicata* se caracteriza por la presencia de solo dos hojas por tallo, una basal y otra caulinar, y con numerosas inflorescencias relativamente pequeñas con pedúnculos cortos. Cada inflorescencia tiene 3–4 brácteas, las cuales después de la primera inflorescencia terminal, se desarrollan en la axila de la hoja caulinar. *Calathea multispicata* se asemeja morfológicamente a *C. harlingii* H. Kenn. *Calathea multispicata* comparte el hábito de una sola hoja caulinar que subtiende las inflorescencias sobre una o más hojas basales con *C. harlingii*, *C. hagbergii* H. Kenn., *C. andersonii* H. Kenn. y *C. pluriplicata* H. Kenn. pero se distingue de éstas por tener una sola hoja basal vs. 2–10, más inflorescencias (hasta 19 vs. 2–7) con menos brácteas (3–4 vs. 8–16) originadas en una serie en la axila de la hoja caulinar.

Colombia, with its great diversity of vegetation types, is rich in Marantaceae. As many areas are still relatively inaccessible, the potential for discovering new species is great. Suárez-Suárez (2016) recognized 148 species in 11 genera for Colombia of which she noted 89 species in the genus *Calathea*, four of which are non-native, cultivated species. Kennedy and Serna (2016) noted that they recognized at least 10 additional undescribed species, four of which have now been described while a fifth is described herein. However, our recent fieldwork and visits to the herbaria in both Dept. Antioquia and Dept. Valle del Cauca, has revealed an additional six undescribed species.

Calathea multispicata H. Kenn. & M. Serna, **sp. nov.** (Figs. 1, 2). TYPE: COLOMBIA. VALLE DEL CAUCA: Munic. Dagua, cultivated at “El Refugio Torremolinos,” propiedad de Eduardo Calderón, km 22 on the road Cali to Buenaventura, ca. 1800 m, 03°32'0"N, 076°36'13"W, plants initially collected from the wild from “la cuenca del río Anchicayá,” 28 Jun 2018, H. Kennedy & M. Serna 6363 (HOLOTYPE: JAUM; ISOTYPES: COL, CUVG).

Haec species quoad folium caulinarium solitarium inflorescentias subtendentem supra folium vel folia basalia *Calathea harlingii* H. Kenn., *C. hagbergii* H. Kenn., *C. andersonii* H. Kenn. ac *C. pluriplicatae* H. Kenn. similis, sed ab eis folio basali solitaria (vs. 2 ad 10) atque inflorescentiis numerosioribus (usque ad 19 vs. 2 ad 7) bracteis paucioribus (3 vel 4 vs. 5 ad 17) munitis ad axillam folii caulini in seriebus portatis distinguitur.

Plants caulescent, rhizomatous, perennial herbs, 2–3.3 m; stem green; cataphylls narrowly ovate, apex apiculate, innermost cataphyll 39–120 cm. **Leaves** 2, 1 basal and 1 cauline above an elongate internode of 59–91 cm; leaf sheath not auriculate, green with the margins purplish brown, purplish brown throughout toward the base of the basal leaf, tomentose along the margins, sheath of subtending leaf 9–14 cm, 48–85 cm in basal leaf; petiole green, 108–114 cm in subtending leaf, 106–168 cm in basal leaf; pulvinus elliptic in cross-section, dark

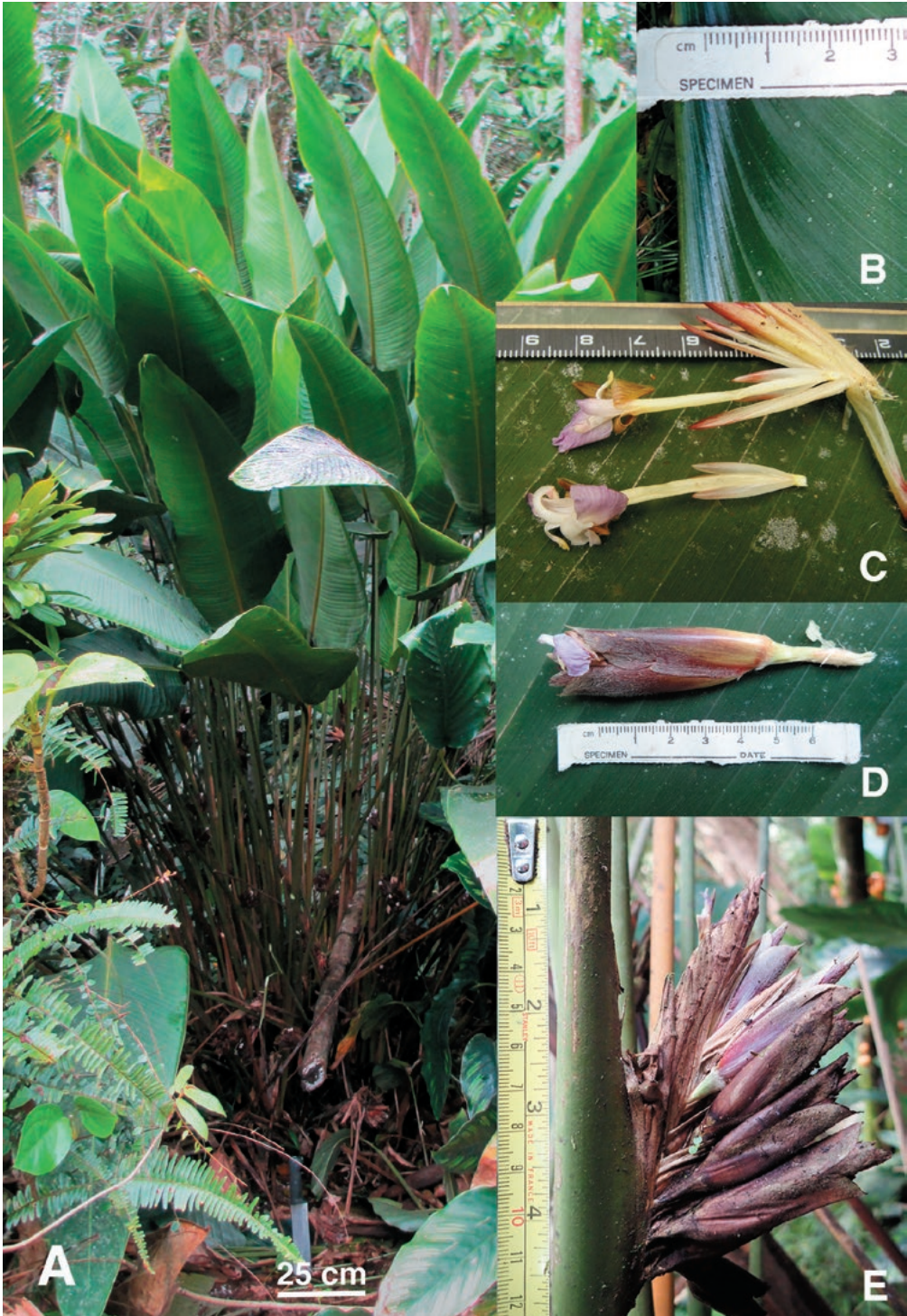


FIG. 1. *Calathea multispicata* H. Kenn. & M. Sern. A. Habit. B. Shiny margin of adaxial leaf surface. C. Flowers on adaxial leaf surface. D. A single inflorescence. E. Cluster of inflorescences. (H. Kennedy & M. Serna 6363, JAUM, photos by H. Kennedy).



FIG. 2. *Calathea multispicata* H. Kenn. & M. Serna Holotype on three sheets. A. Photo of inflorescences, JAUM 03184. B. Insert at upper left showing leaf base and central portion, JAUM 03183. C. Insert at lower left showing leaf apex, JAUM 03182. (H. Kennedy & M. Serna 6363, JAUM, photos by M. Serna).

green to dark purplish green, minutely pitted with round to irregular depressions, subglabrous, articulate, 6–12 cm in subtending leaf, 9–9.5 cm in basal leaf; leaf blade firm, coriaceous, narrowly ovate-elliptic, apex obtuse with acumen, base slightly unequal, rounded, shortly attenuate or subcordate, 98–107 × 29–33 cm in subtending leaf, 93–104 cm in basal leaf, length: width ratios (2.86–3.28:1), 7 minor veins between major veins, vein angle from midrib (measured along inner 1/3 of blade at midpoint between apex and base) 56°–61°, 25–28 veins per 3 cm, ca. 52 veinlets per 5 mm (measured at midpoint of each side of blade), adaxial surface dark matte green, somewhat shiny along margin of wider side, glabrous, midrib light yellow-green, abaxial leaf surface deep grey-green with an approximately 3 cm wide band along the margin of the wider side tinged purple, velutinous, the hairs colorless, each atop a slightly raised basal cushion of cells, 0.5–0.7 mm, midrib yellow-green, densely appressed tomentose. **Inflorescences** numerous in age, up to 19 per shoot, the first one terminal, subsequent ones borne in the axil of the subtending leaf, forming a tight somewhat obovoid cluster of inflorescences 9–17 × 5–6.5 × 6–7 cm, individual inflorescences imbricate, subcylindric, broadly elliptic in cross section, 5–6.2 × 1.5–2.3 (–4.2) cm; peduncle light green apically, cream-colored basally, apical 0.5 cm sericeous, appressed pilose on adaxial and abaxial sides, the hairs tan-colored, 1.5–2 mm, 1.5–2.5 cm. **Bracts** 3–4, subdistichous, the first two opposite, the third at right angles, coriaceous, basalmost one ovate, upper ones elliptic acropetally, apex obtuse to rounded with an acumen, 4.3–5.2 × 1.7–2.6 cm, each bract subtending 5 or more flower pairs, abaxial surface of bracts initially green in the central basal portion with margins and apex dark red-purple to brownish purple, in age dark red-purple to brownish purple throughout with the apical margin dying back, densely appressed tomentose along margins and in apical half, the hairs colorless, to 1 mm, adaxial surface shiny, dark red-purple, sparsely appressed tomentose in apical 1 cm, glabrous basally; bicarinate prophyll membranous, elliptic, apex acute, margins and apex shiny dark red-purple, central portion cream-yellow, carina red-purple, abaxially the sides minutely pilose, the hairs 0.5–0.7 mm, though densely appressed villous adjacent to and on the carina, the hairs 1.5–2 mm, adaxially the carina sparsely appressed pilose at apex, ca. 4.1 × 1.2–1.5 cm, 1–1.1 cm wide, carina to carina; secondary bract membranous, elliptic, apex acute, apical half dark red-purple, cream-yellow basally, sides appressed pilose, the hairs 0.5–2 mm, longer and denser toward apex, the very margin hyaline, glabrous, 3.8–4.3 × 1.05–1.3 cm; bracteoles 2 per flower pair, medial, linear, thickened, stiff centrally, margins membranous, apical 1/3 red-purple, cream-yellow basally, sparsely pilose, the hairs to 1 mm, 3.5–4.1 cm. **Flowers** opening spontaneously. **Sepals** membranous, narrowly elliptic to sublinear, obtuse, apical margin incurved, apical 1/5–1/2 tinged red-purple, basal portion faint translucent cream-colored, glabrous, 17–21 × 4 mm. **Corolla** tube white, glabrous, 32–39 mm; corolla lobes subequal, elliptic, obtuse, dark red-purple abaxially, apical 1/4 minutely appressed pilose, the hairs colorless, 0.3–0.5 mm, light brown adaxially, 13–15 × 4–5 mm. **Staminodes** 3; outer staminode obovate, emarginate, lavender, white at very base, 12 × (8–)10–13 mm; callose staminode entirely callose, lacking a petaloid apex, rectangular, apex rounded with short blunt acumen off center, white basally, apical margin tinged blue-purple, 10–11 mm; cucullate staminode white, tinged blue-purple at apex, ca. 8.5 × 4 mm, the subterminal filiform appendage (trigger) pale blue-purple, 3 mm; stamen with lateral petaloid appendage extending to 2/3 of the anther, white tinged blue-purple along margin, anther yellow, 2.5 mm, upper 3 mm of filament free. **Style** and stigma white except the terminal, stylar depression, tinged pink; ovary smooth, cream-colored, tinged green at apical junction with sepals, glabrous, 3–3.5 × 2 mm. **Capsule** and seeds unknown.

Additional specimens examined: **COLOMBIA. Valle de Cauca:** Munic. Dagua, cultivated at “El Refugio Torremolinos,” propiedad de Eduardo Calderón, km 22 on the road from Cali to Buenaventura, ca. 1800 m, 03°32'0"N, 076°36'13"W, plants initially collected from the wild from “la cuenca del Río Anchicaya,” 2 Aug 2012, *H. Kennedy & C. Black* 6329 (JAUM); old road from El Queremal to Buenaventura, 1357 m, 03°31'42"N, 076°44'33"W, 28 Jun 2018, *H. Kennedy, M. Serna & E. Calderon* 6354 (JAUM); Old road from El Queremal to Buenaventura, 1312 m, 03°31'57.9"N, 076°45'03.1"W, 28 Jun 2018, *H. Kennedy, M. Serna & E. Calderon* 6356 (JAUM).

Distribution and habitat.—*Calathea multispicata* is endemic to the Cordillera Occidental of Colombia. So far, it is known only from Department Valle del Cauca, from ca. 1300–1800 m in premontane tropical pluvial forest habitat (part of the Chocó Floristic Region). *Calathea multispicata* was collected in flower in June and August.

Discussion.—*Calathea multispicata* belongs to the informally recognized “*C. lanicaulis* group” in *Calathea*

(Kennedy 1988:47) with basal leaves and a single cauline leaf subtending one or more inflorescences of spirally arranged bracts, usually two membranous, medial, bracteoles, and the callose staminode totally callose, not petaloid apically. *Calathea multispicata* is characterized by the presence of only two leaves per shoot, one basal and one cauline, the numerous (at least to 19) relatively small, short pedunculate (1.5–2.5 cm) inflorescences, each consisting of 3–4 dark red-purple to brownish purple bracts, the reflexed dark red-purple corolla lobes, the totally callose staminode callosum and the lavender outer staminode. It is similar in general aspect to *C. harlingii*, having a narrowly ovate-elliptic leaf, several distinct inflorescences borne in the axil of the subtending leaf, two medial bracteoles, purple to purplish brown corolla lobes which are pilose apically. *Calathea multispicata* differs from *C. harlingii* in having a single basal leaf vs. 2 to 5, the apex of the leaf blade obtuse with acumens vs. acuminate-attenuate, more numerous inflorescences (up to 19 vs. 2–4), shorter inflorescences (5–6.2 vs. 8–12 cm) with fewer bracts (3 to 4 vs. 8–16), and the generally shorter peduncles (1.5–2.5 vs. 2–18 cm). *Calathea multispicata* is distinguished from other species in the “*C. lanicaulis* group”, such as *C. hagbergii*, *C. anderssonii* and *C. pluriplicata* in having a single basal leaf (vs. 2–10) combined with, in age, the numerous inflorescences (up to 19 vs. 2–7) of 3–4 vs. 5–17 bracts, which are borne in a series in the axil of the cauline leaf. *Calathea multispicata* is further distinguished from *C. anderssonii* and *C. pluriplicata* by the purple vs. green bracts and from *C. hagbergii* by the narrowly ovate-elliptic vs. ovate leaf blades. By virtue of its leaf morphology, in spite of having distichous bracts, *C. harlingii*, is more appropriately placed in the “*C. lanicaulis* group” rather than *C. sect. Calathea* as was done in Flora of Ecuador (Kennedy 1988:28)

Etymology.—The specific epithet, *multispicata*, refers to the presence of the numerous, small, clustered, inflorescences per shoot.

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