WEBBIA Journal of Plant Taxonomy and Geography

Firenze University Press
https://oaj.fupress.net/index.php/webbia

OPEN ACCESS

**Citation:** López-Floriano O.M., Trujillo-Trujillo E., Hay A. (2025). *Anthurium reubarbarum*: A new species of *Anthurium* sect. *Belolonchium* (Schott) Engl. (Araceae) for the eastern Andes of Colombia. *Webbia. Journal of Plant Taxonomy and Geography* 80(2):275-280. doi: 10.36253/jopt-17867

**Received:** May 20, 2025

**Accepted:** June 20, 2025

**Published:** July 18, 2025



**Data Availability Statement:** All relevant data are within the paper and its Supporting Information files.

**Competing Interests:** The Author(s) declare(s) no conflict of interest.

**Editor:** Peter C. Boyce

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# *Anthurium reubarbarum*: A new species of *Anthurium* sect. *Belolonchium* (Schott) Engl. (Araceae) for the eastern Andes of Colombia

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**Abstract.** We describe and illustrate *Anthurium reubarbarum* López-Flor., Edwin Trujillo & A.Hay, a new species of sect. *Belolonchium* (Schott) Engl. from the Department of Huila in Colombia. The definition of sect. *Belolonchium* is briefly commented upon. The new species is distinguished diagnostically from the similar *A. melampyi* Croat and *A. matabanchoyae* A.Hay & M.Llano, and compared with two other *Belolonchium* species occurring in geographic proximity to the new species.

**Keywords:** *Anthurium*, sect. *Belolonchium*, Colombia, Huila, new species.

## INTRODUCTION

The Araceae family is one of the most diverse groups of monocotyledons in the neotropics. The family has a great capacity to adapt to different ecosystems, with their diverse growth habits allowing them to contribute conspicuously to the complexity of the forest as terrestrial plants, nomadic lianas, epiphytes, lithophyes, helophytes and aquatic plants.

*Anthurium* Schott and *Philodendron* Schott are the most diverse genera, or at least the most speciose, together constituting almost 41.3 % of the total number of named species accepted in the family worldwide. *Anthurium* currently has 1319 accepted species, although it is estimated that this number may become as high as 3000 (Boyce and Croat 2025). The genus is currently divided into over 20 sections, a number of which are non-monophyletic, and

with ongoing molecular phylogenetic analysis (Carlsen and Croat 2013 & 2019, and more recent unpublished work) the sectional limits are likely to continue to change as they become more soundly based. In short, there is still a way to go before a new, full and well-founded infrageneric classification of *Anthurium* can be arrived at, though promising progress is being made.

### Section *Belolonchium*

Sect. *Belolonchium* (Schott) Engl. (Schott, 1860: 528; Engler, 1878: 63) is one of the largest in *Anthurium*, likely to exceed 300 species (Croat et al. 2015). Its 'core', and often very striking, species are characterised by usually short, thick internodes with the cataphylls persisting dead as distinctive reddish-brown fibres, long petioles, large, moderately leathery usually sagittate blades often concave at the confluence of the anterior and posterior lobes, the posterior lobes usually pronounced and pedately veined, hooded spathes and nutant to pendulous spadices (Carlsen and Croat, 2019). The section has yet to be lectotypified, but it is virtually certain that the chosen type will be from this core group (see comments in, e.g., Hay and Llano 2024). Nevertheless, even after the segregation from *Belolonchium* of the Mexican and Central American elements sect. *Andiphilum* (Schott) Croat (in part; see Croat and Hormell 2017) and sect. *Cordata-punctata* Croat & Carlsen (Croat and Carlsen 2020, '*Cordato-punctatum*'), a number of mainly Andean species hitherto (and still, pending revision) attributed to this section, while agreeing vegetatively with this description, have spreading to reflexed spathes and upright spadices. Recent studies by Carlsen and Croat (2013, 2019), though sampling only a few species, suggest these latter species will be found to be in a different clade from the 'core' species, with the implication that currently accepted sect. *Belolonchium* is still not a monophyletic group.

The last review carried out for Colombia reported 23 species for the section (Engler, 1905), however, this number has almost doubled in recent years, as a result of the initiative of various researchers (e.g. Croat and Mora, 2004; Croat et al. 2006; Croat et al. 2009, 2010; Hay and Cedeño Fonseca 2019; Hay and Llano-Almario 2024; López-Floriano et al. 2024a, 2024b), and is likely to increase substantially as Colombia is more intensively explored. Here, we present another new species of *Anthurium* sect. *Belolonchium* recorded from the eastern slope of the Andes on the border between the departments of Huila and Caquetá. The new species accords morphologically with 'core' *Belolonchium* as outlined above.

## MATERIAL AND METHODS

The specimen was collected during a field trip in the Caquetá and Huila departments. The specimens were processed at the herbarium HUAZ from Universidad de la Amazonia, the specimens were deposited in HUAZ and COL. The determination is made with the help of taxonomic keys of *Anthurium*, we also reviewed articles and monographs. The terminology used in this manuscript is the one proposed by Croat and Bunting (1979) and Beentje (2010), except that the morphologically informal term 'bloom' is substituted for 'inflorescence' and 'floret' for 'flower', following Hay and Mabberley (1991) and Hay (2019) where it has been proposed that the spathe-and-spadix of Araceae, conventionally referred to as the inflorescence, is itself partially homologous to a flower. The measurements were taken of the dry material, and the measurements of the flowers were made with the stereoscopic Leica EZ4. The pictures were taken with a Nikon D7100, the plate was made in Photoshop, and the map was made in ArcGIS.

## TAXONOMY

***Anthurium reubarbarum*** López-Flor., Edwin Trujillo & A.Hay, **sp. nov.** (Figure 1).

Type: Colombia. Departamento del Huila, Municipio de Suaza, vía Florencia-Suaza, 1°45'47.13"N, 75°46'47.86"W, 2020 m., 19 May, 2023. *O. López & E. Trujillo 286* (holotype HUAZ; isotype COL).

*Diagnosis*

The new species is similar in aspect to *Anthurium matabanchoyae* A.Hay & M. Llano (Colombia: eastern Nariño) and *A. melampyi* Croat (Colombia: western Nariño; Ecuador: Carchi). It differs from the former by lacking the multiply flanged petioles and abaxially flanged costae, primary and secondary venation, and by having the bases of the costae and the pair of basal primary veins abaxially verruculate; it also has a distinctly narrower spathe lacking a prominent central keel on the abaxial side. It differs from *A. melampyi* by not having the petioles ribbed, by the bases of the costae and basalmost primary veins abaxially verruculate, by the venation drying distinctly dark brown abaxially (versus yellowish brown in *A. melampyi*), by the continuous marginal vein beginning level with above the base of the anterior lobe (vs from low on the posterior lobes), and by the purplish spadix (versus yellowish white or green).

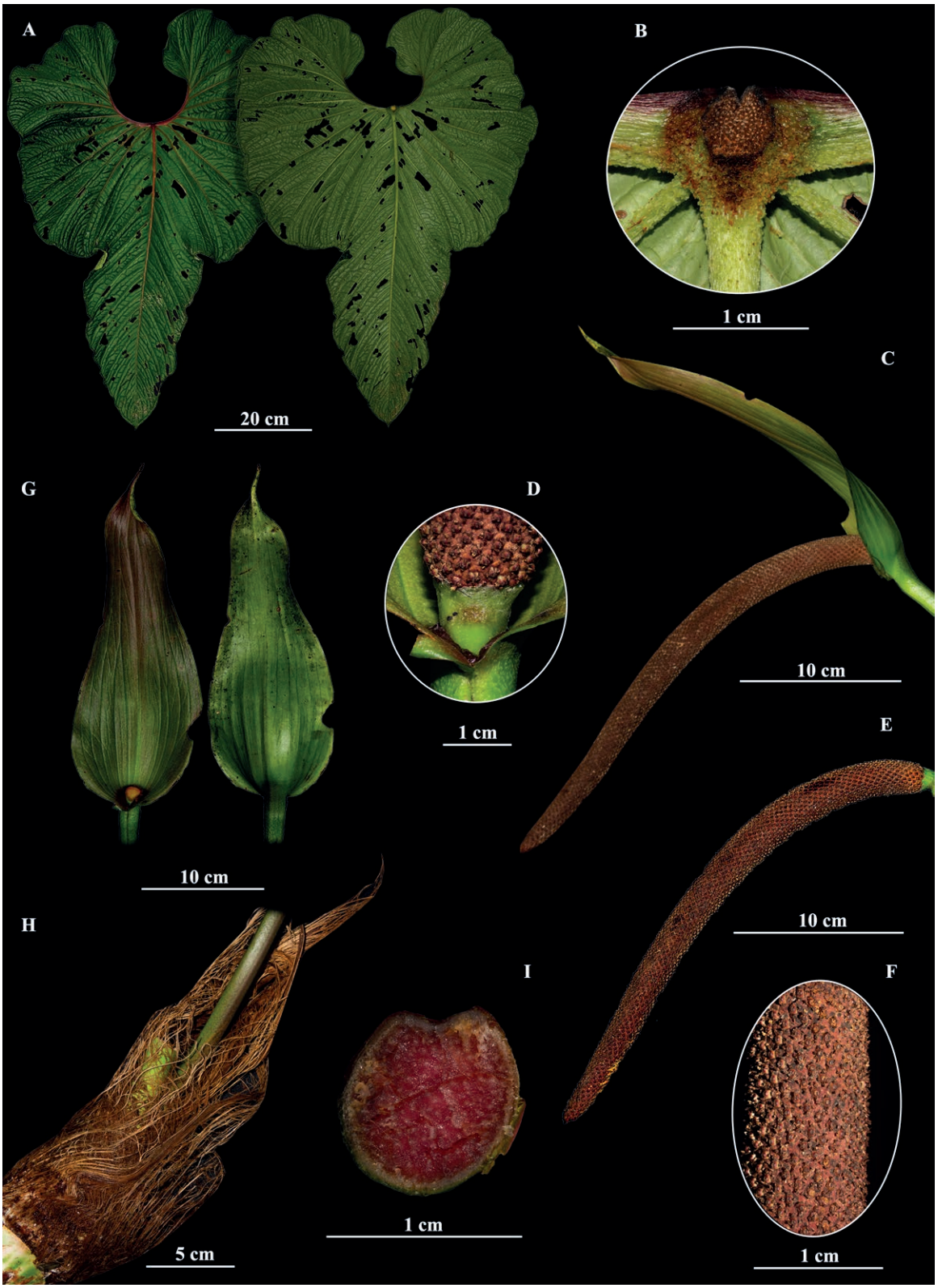


**Figure 1.** *Anthurium reubarbarum* López-Flor., Edwin Trujillo & A. Hay. A. Adaxial an abaxial leaf Surface. B. close-up of the leaf insertion site. C. Inflorescence. D. Stipe. E. Spadix. F. Close-up of the flowers. G. Spathe. H. Cataphylls. I. transverse cut of the petiole. From *O. López & E. Trujillo 286* (HUAZ). All photos by O. López.

*Description*

Terrestrial herb; stems over 1 m. high, light green; internodes 3.3 cm long, 6.7 cm diam.; cataphylls 30.7 cm long, 11 cm wide at the base, persisting as light brown fibers with fragments of the epidermis; petioles slightly or sharply sulcate 1.28–1.47 m long, 1.7–1.8 cm diam. in the thicker portion, purple above and green below externally, purplish red internally, drying dark brown, papillate at the apex and on the geniculum with the bases of the costae and basal veins papillate abaxially; geniculum 2.5 cm long, 1.6 cm diam., purple above and green below, drying darker brown than the petioles; leaf blades coriaceous, obpyriform in outline, strongly concave at the confluence of the anterior and posterior lobes to sagittate, 88.3 × 65 cm, 1.3 times longer than broad, ca. 0.7 times the length of the petiole, prominently lobed at base, margin undulate, acuminate at apex, adaxially dark green, matte, bullate, drying dark brown, abaxially pale green, semiglossy, drying reddish brown; anterior lobe 65.2 × 65 cm, straight to concave above middle; posterior lobe 23.8 × 23 cm, rounded; sinus hippocrepiform to spathulate, 23.5×16.7 cm; posterior costae curved, naked for 22 cm, each emitting ca. 11 primary ['basal'] veins on the acroscopic side in a diminishing pedate series, each abruptly turning up near the margin and forming a submarginal vein running along and then to the margin and replaced by the next, the submarginal vein only becoming continuous level with above the base of the anterior lobe (see below); anterior costa convex, slightly elevated, very marked in 70 % of the anterior lobe, then fading towards the apex in the surface adaxial, rounded, prominent and slightly ribbed along its entire length abaxially; primary lateral veins 18 pairs, arising at angle 40–58°, slightly raised and reddish above, prominent and ribbed, light green bellow, drying dark brown at both surfaces; interprimary veins present, prominent, drying dark brown, sinuous and formed by the confluence of secondary veins; secondary veins numerous, prominent below, drying dark brown; tertiary veins sunken above, slightly raised bellow; submarginal collective veins arising from 3rd and 4th pairs of basal veins, 0.4–1.4 cm from margin; basal veins 12 pairs, 1st free to base, 2nd fused to 2.3 cm, 3rd fused to 3.3 cm, 4th fused to 5.3 cm, 5th fused to 7.8 cm, 6th fused to 9.5 cm, 7th fused to 10.8 cm, 8th fused to 12 cm, 9th ,10th , 11th fused to 13.1 cm. Bloom solitary; peduncle erect, terete to slightly and sharply sulcate, 68.7 cm long, 11.6 mm diam., green; spathe lanceolate, 28 × 7 cm, forming an angle with the peduncle of 180° and overarching the spadix, light green with purple shades towards the apex, glossy on both surfaces, obtuse at the base; spadix stipitate, 25–30 cm long, 2.1 cm diam., tapered, reddish brown, drying dark brown, stipe, 8 mm long, 12.8 mm diam., light green; florets 14–15 in the principal spiral, 10–12 in the secondary spiral, 2.0 × 2.0 mm; pistil 3.2 mm long; stigma ellipsoid 2.5×1.0 mm; stamens 4 mm long, exserted above petals; filaments 4 mm, flattened; anthers 0.8 mm. Infructescence not observed.

*Etymology*

The specific epithet is the Latin for the edible rhubarb (*Rheum rhabarbarum* L. or *R.´ hybridum* Murr., Polygonaceae), as a noun in apposition, alluding to the purplish pigmentation of the petioles.

*Distribution and habitat*

*Anthurium reubarbarum* is endemic to Colombia, only known from the eastern slope of the Andes Mountains in Huila at 2020 m (Fig. 2). It occurs in the *mountain wet forest* life zone (Holdridge et al. 1971).

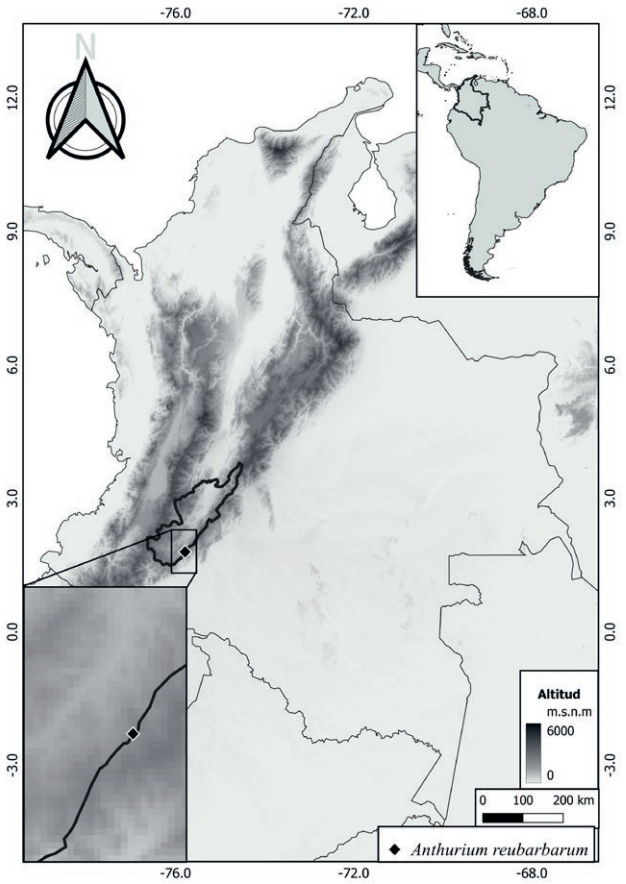


**Figure 2.** Localization of *Anthurium reubarbarum* López-Flor., Edwin Trujillo & A. Hay.

*Note*

Besides with the species compared in the above diagnosis, *Anthurium reubarbarum* can be confused with two more local *Belolonchium* species recently recorded for the eastern slope of the Andes Mountains: *A. caquetense* López-Flor., Edwin Trujillo & Croat (López-Floriano et al. 2024b), from which the new species differs by having internodes 3.3 cm long (vs 0.8–1.6 cm), petioles slightly or sharply sulcate, 1.28–1.47 m long. (vs narrowly and obtusely sulcate or narrowly and acutely sulcate, 81–95 cm long.), papillate at the apex and on the geniculum (vs not papillate), leaves obpyriform to sagittate (vs broadly ovate to broadly triangular-ovate), basal veins 12 pairs (vs 7–9), spadix reddish brown (vs dark purple). It can also be confused with *A. florenciense* Croat, López-Flor. & Edwin Trujillo (López-Floriano et al. 2024b), from which the new species differs by internodes 3.3 cm long (vs 0.5–0.6 cm), petioles papillate at the apex and on the geniculum (vs not papillate), leaves obpyriform to sagittate (vs narrowly ovate-triangular), primary lateral veins 18 pairs, ribbed (vs 13–15, not ribbed), basal veins 12 pairs (vs 8–9); spadix reddish brown, (vs yellowish green).

## ACKNOWLEDGEMENTS

We thank the HUAZ Herbarium for allowing us to process the material and for lending us the facilities for our work, as well as the Centro de Investigación de la Biodiversidad Andino-Amazonica INBIANAM for providing us with the necessary equipment to measure the specimens.

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