

A NEW SPECIES OF *COLUMNNEA* (GESNERIACEAE) FROM THE CENTRAL CORDILLERA IN THE NORTHERN ANDES (COLOMBIA)

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Abstract. Sierra-Ariza, M. A.; N. Parra-Lizcano & C. A. Solano-C. 2025. A new species of *Columnea* (Gesneriaceae) from the Central Cordillera in the Northern Andes (Colombia). *Darwiniana*, nueva serie 13(2): 383-393.

A new species of *Columnea*, endemic to the Colombian Andes and discovered in very humid montane forests of the Central Cordillera, is described and illustrated. *Columnea cumanday* Solano-C., Parra-Lizc. & Sierra-Ariza is distinguished by its lanceolate bracts and calyx lobes with a laciniate margin, each lacinia bearing a gland (green when fresh) at the apex. Both structures are covered with a dense hirsute indumentum of red-purple trichomes. The corolla is uniformly purple, with the outer surface densely covered with transparent, multicellular, glandular trichomes. The species bears four glandular nectaries: one dorsal nectary, bilobed to trilobed, and three deltoid ones. The berry is orange-red, ovate to rounded, villose, and covered with purple-red multicellular trichomes. Discuss and compare their differences with morphologically similar species, and a preliminary conservation status is proposed according to the IUCN Red List criteria.

Keywords. Andes; Central Cordillera; Colombia; Gesnerioideae; taxonomy.

Resumen. Sierra-Ariza, M. A.; N. Parra-Lizcano & C. A. Solano-C. 2025. Una nueva especie de *Columnea* (Gesneriaceae) de la cordillera central del norte de los Andes (Colombia). *Darwiniana*, nueva serie 13(2): 383-393.

Se describe e ilustra una nueva especie de *Columnea*, endémica de los Andes colombianos, descubierta en bosques muy húmedos montanos de la Cordillera Central. *Columnea cumanday* Solano-C., Parra-Lizc. & Sierra-Ariza se distingue por sus brácteas y lóbulos del cáliz lanceolados con un margen laciniado donde cada lacinia tiene una glándula (verde cuando está fresca) en el ápice, ambas estructuras cubiertas de indumento densamente hirsuto de tricomas rojo-púrpura, el color uniformemente púrpura en la corola con la superficie exterior densamente hirsuta con tricomas multicelulares glandulares transparentes, la presencia de cuatro nectarios glandulares, uno de ellos un nectario dorsal bilobado a trilobado y los otros tres con forma deltoide, y una baya de color rojo anaranjado ovada a redondeada vellosa con tricomas multicelulares rojo púrpura. Se discuten y comparan sus diferencias con especies morfológicamente similares y, se asigna un estado preliminar de conservación basado en los criterios de la Lista Roja de la IUCN.

Palabras clave. Andes; Colombia; Cordillera Central; Gesnerioideae; taxonomía.

INTRODUCTION

The family Gesneriaceae Rich. & Juss, belonging to the order Lamiales, comprises more than 3,900 species of flowering plants distributed across approximately 150 genera (Weber, 2004; Weber et al., 2013, 2020; GRC, 2024). This family is composed of three subfamilies and seven tribes, all supported as monophyletic lineages based on phylogenetic studies (Ogutcen et al., 2021; Weber et al., 2013, 2020). In the American continent, most members belong to the subfamily Gesnerioideae, which harbors more than 1,200 species distributed across 77 genera (Clark et al., 2020).

Within Gesnerioideae, the genus *Columnea* L. is placed in the tribe Gesnerieae and the subtribe Columneinae (Weber et al., 2013, 2020), a clade that represents about 21% of the total diversity of the family (Ogutcen et al., 2021). *Columnea* is the most diverse genus within the subfamily, with more than 220 recognized species (Clark et al., 2020; GRC, 2024; POWO, 2025). It is morphologically characterized by the presence of indehiscent berry-like fruits, unlike the fleshy bivalved capsules found in related genera. Additionally, most of its species are epiphytic with dorsiventral shoots and anisophyllous leaves (Smith & Carroll, 1997; Smith, 2000; Zimmer et al., 2002; Clark et al., 2012, 2020; Smith et al., 2013; Schulte et al., 2014; Weber et al., 2020). The monophyly of the genus has been strongly supported through molecular phylogenetic studies (Smith & Carroll, 1997; Smith, 2000; Zimmer et al., 2002; Clark et al., 2012; Smith et al., 2013; Schulte et al., 2014).

Columnea is distributed from Mexico to Bolivia, but its greatest diversity is concentrated in the northern Andes of Colombia and Ecuador, mainly in Andean cloud forests ranging from sea level up to 4000 m in elevation (Tobar et al., 2022). In Colombia, at least 95 species have been documented, of which 31 are endemic (Clavijo et al., 2016), not including the species described in the last decade (Clark et al., 2021; Tobar et al., 2022; Peña et al., 2024; Clark et al., 2025a, 2025b; Solano-C et al., 2025). This remarkable degree of endemism, together with the continuous discovery of new species, underscores the importance of conducting detailed taxonomic studies to fully understand the diversity of the genus in Colombia. Here, we describe, illustrate, and discuss a new species of *Columnea* from the eastern slope of the Central Cordillera of the Colombian Andes.

MATERIALS AND METHODS

The new species was discovered during a botanical expedition conducted in 2025, in the municipalities of Casabianca and Villahermosa,

department of Tolima, Colombia, specifically on the eastern slope of the Central Cordillera. During this fieldwork, two populations were documented in their natural habitats. The specimens were photographed in detail using a Nikon D5300 camera equipped with a NIKKOR AF 105 mm f/2.8 D Micro lens, to capture morphological features *in situ*.

In addition, specimens deposited in international herbaria (K, AMES, NY, MO, US) were examined via the Global Plants platform (JSTOR, <https://plants.jstor.org/>), as well as specimens from national herbaria (COL, FMB, JBB, TOLI, UDBC; Thiers, 2025). Online databases such as iNaturalist (www.inaturalist.org), the Global Biodiversity Information Facility (GBIF, www.gbif.org), Plants of the World Online (POWO, <http://powo.science.kew.org>), and Tropicos (www.tropicos.org) were also consulted to identify additional records potentially attributable to the new species.

The detailed morphological analysis of floral and vegetative structures was carried out using a Motic SMZ-168 LED series stereomicroscope and material from live collections, herbarium specimens, and alcohol-preserved samples. Digital images were processed in ImageJ (Schneider et al., 2012). A Lankester Composite Digital Plate (LCDP) was prepared in Adobe Photoshop® (version 26.5, 2025) to illustrate the main diagnostic features of the new species. The description follows one of the most recent publication of the genus for Colombia (Solano-C et al., 2025). General morphological concepts, descriptions of leaves, indument, and the standardized color palette follow Beentje (2010), Ellis et al. (2009), and Hewson (2019).

The extinction risk was assessed according to the IUCN Red List Categories and Criteria (2022) and the IUCN guidelines (2024). For the preliminary assessment, we considered field observations, collection localities, and population estimates. The area of occupancy (AOO) and extent of occurrence (EOO) were calculated in GeoCAT (Bachman et al., 2011) using a 4 km² grid. The distribution map was created in ArcGIS Pro 3.2 from coordinates extracted from herbarium specimen labels and from the iNaturalist database (<https://www.inaturalist.org/>).

TAXONOMIC TREATMENT

Columnea cumanday Solano-C., Parra-Lizo. & Sierra-Ariza, sp.nov. TYPE: COLOMBIA. Tolima, Munic. de Casabianca, Vereda La meseta, 5° 0' 20.51" N, 75° 11' 31.84" W, 2580 m, 17-IV-2025 (fl, fr), *M. A. Sierra-Ariza 535* (holotype TOLI(32743!), isotypes UDBC!, JBB!). Figures 1-3.

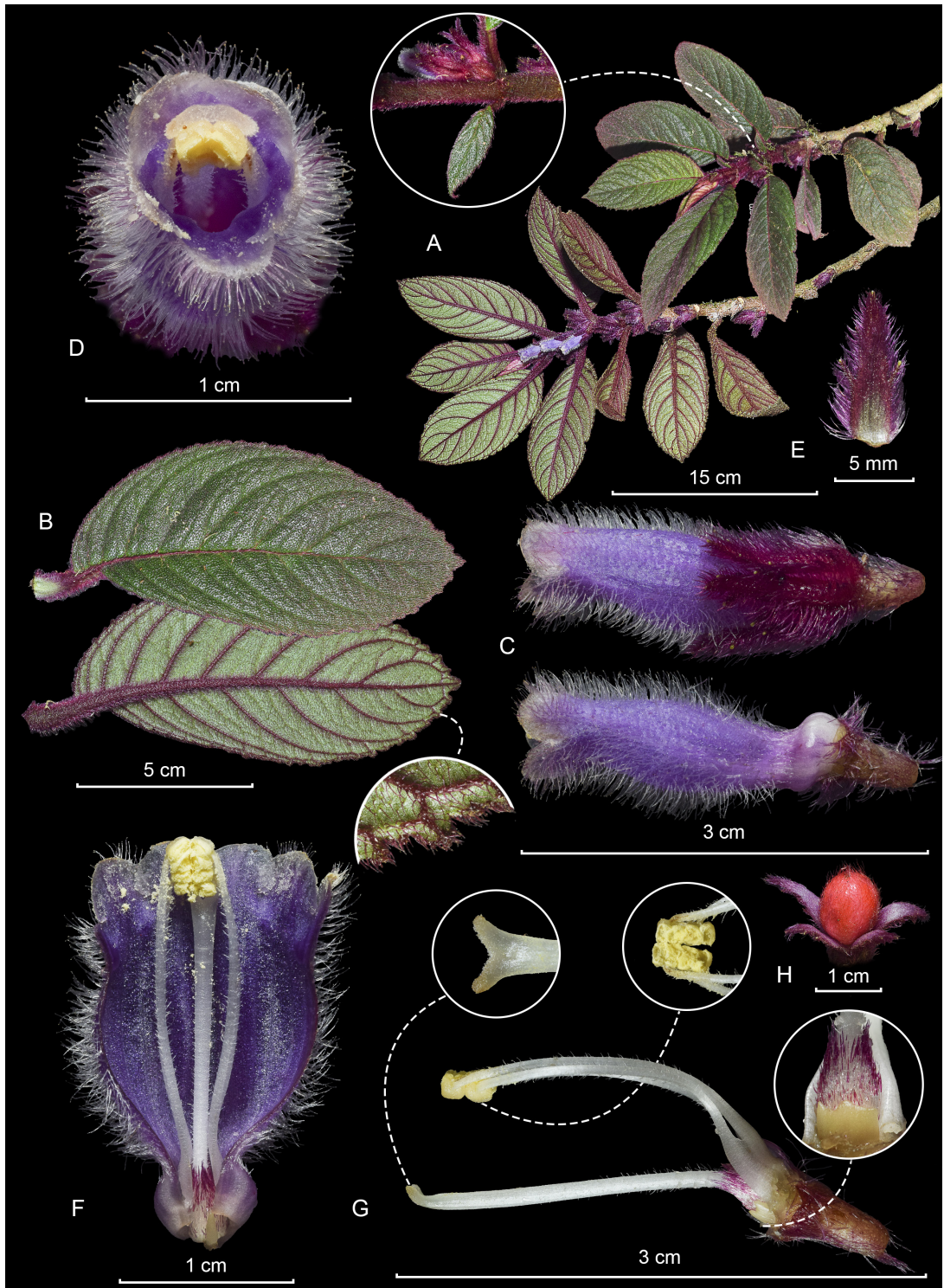


Fig. 1. *Columnea cumanday*. **A**, habit. **B**, leaf, adaxial and abaxial surface. **C**, flower, lateral view. **D**, flower, front view. **E**, calyx lobe. **F**, flower, open corolla. **G**, flower, androecium and gynoecium. **H**, fruits. Photographs and LCDP by M. A. Sierra-Ariza.

Diagnosis. *Columnnea cumanday* is distinguished from its congeners by its calyx lobes with a laciniate margin, each lacinia bearing a green gland (when fresh) at the apex; both structures covered with a dense hirsute indumentum of red-purple trichomes; a uniformly purple corolla, with the outer surface densely covered with transparent, multicellular, glandular trichomes; the presence of four glandular nectaries, one of them a bilobed to trilobed dorsal nectary and the other three deltoid; and an orange-red berry, ovate to rounded, villose, and covered with purple-red multicellular trichomes.

Epiphytic herbs, 0.3-0.4 m tall. Stems dorsiventral, from elongated shoots, subwoody, pendent to subscandent, terete to subterete, cross section 3.5-7.8 mm (when dry); with conspicuous scars from the abscission of mature leaves; glabrescent basally, becoming hirsute to tomentose apically with multicellular trichomes 1.3-2.5 mm long; intensely reddish-purple; internodes 1.2-3.8 cm long. Leaves opposite, strongly anisophyllous, distichous in a spirodistichous arrangement; petioles (2.7-) 8.7-16.4 mm long, terete to subterete (when fresh), densely hirsute with multicellular trichomes, intensely reddish-purple. Blades membranaceous, larger blade 5.1-9.2 × 2.1-3.4 cm, asymmetrical, falcate, elliptic to oblong, surface tuberculate, apex acuminate, acumen 4.6-8.1 mm long, base oblique, margin ciliate, serrate in two orders, especially in the distal area on basal leaves, apical leaves completely serrate, regularly spaced, teeth ending in a yellow gland (when fresh), venation pinnate, 7-8 secondary veins per side, major and minor secondary veins craspedodromous with marginal vein, irregular spaced, smoothly decreasing proximally, excurrent, 1-3 intersecondary veins, proximal course of intersecondary parallel to major secondaries, distal course basiflexed, intercostal tertiary vein mixed percurrent or transversely freely ramified tertiary; smaller blade 0.9-1.6 × 0.5-0.7 mm, elliptic to ovate, surface tuberculate, apex acuminate, acumen 2.2-2.5 mm long, base obtuse, margin ciliate, serrate, regularly spaced, teeth ending in a gland (yellow when fresh), venation pinnate, 3-5 secondary veins per side, inconspicuous tertiary veins; veins impressed on the adaxial surface and prominent on the abaxial surface; adaxial surface strigose with multicellular, intensely reddish-purple trichomes; abaxial surface strigose in the intercostal areas and hirsute to densely hirsute along the midvein and secondary veins, with multicellular trichomes ranging from intensely reddish-purple to white, midvein and secondary veins reddish-purple to light green. Inflorescence reduced to axillary clusters of 2-5 flowers; bracts 2, red purple, lanceolate to deltoid, 5.3-9.2 ×

1.5-3.3 mm, densely hirsute, margin laciniate, each lacinia with one gland (green when fresh) at the apex. Flowers with pedicels 4.4-6.4 mm long, densely hirsute; calyx lobes 5, 10.4-12.7 × 2.4-2.7 mm, lanceolate, apex acuminate, inner surface glabrous, outer surface densely hirsute with multicellular red purple trichomes, margin laciniate, each lacinia with one gland (green when fresh) at the apex; corolla uniformly purple, 20.4-23 mm long, gibbous at the base, gibbosity ca. 5 mm wide, constricted towards the base and at the throat, ca. 3.9 mm wide near base, ca. 5.5 mm wide in the throat when fresh, outer surface densely hirsute with glandular, multicellular, transparent trichomes, inner surface glabrous at the base, papillae and simple glandular trichomes near the throat; limb slightly zygomorphic, ca. 9 mm wide; lobes 5, equal to subequal 2.9 × 3.7 mm, semi orbicular, base truncate, margin entire, apex rounded, inner surface glabrous, outer surface densely hirsute with transparent, multicellular, glandular trichomes, light purple. Androecium of 4 stamens, included in corolla tube, didynamous, filaments connate at the base and adnates 2.2-4.9 mm long, glabrous, free portion of filaments 14.1-16.6 mm long, filaments pilose with simple erect trichomes; anthers 2.3-2.7 × 1.8-2.3 mm, subquadrangular with basifixed insertion, glabrous, dehiscing by longitudinal slits. Gynoecium with 4 nectaries (Fig. 3), free, evenly distributed around the base of the ovary, one of a bilobed to trilobed dorsal gland 1.3-2.2 × 2-2.2 mm, the other 3 deltoid, 1.8-2.3 mm long; ovary 3.9-4.4 × 2.5-2.9 mm, ovate, densely hirsute with multicellular red purple trichomes; style 14.7-17.3 mm long, included, white, pilose with glandular trichomes towards the base, stigma bilobed, papillate. Fruit an orange-red ovate to rounded berry, ca. 10 × 9 mm when mature, villose with purple-red multicellular trichomes.

Etymology. The epithet *cumanday* is a noun in apposition; it refers to the name given by the Carrapa and Quimbaya pre-Hispanic peoples to the snow-capped Volcán Nevado del Ruiz, which means “White Mountain”, where the new species occurs. This name also honors the rich biodiversity of this region.

Distribution and habitat. The species is distributed in the Andean region of Colombia, specifically in the Central Cordillera, between the Departments of Tolima and Risaralda. It was initially discovered on the eastern slope, in the municipalities of Casabianca and Villahermosa (northern Tolima), between the basins of the Azufrado and Gualí rivers. During our review, we also documented a second record from an online observation (<https://www.inaturalist.org/>)

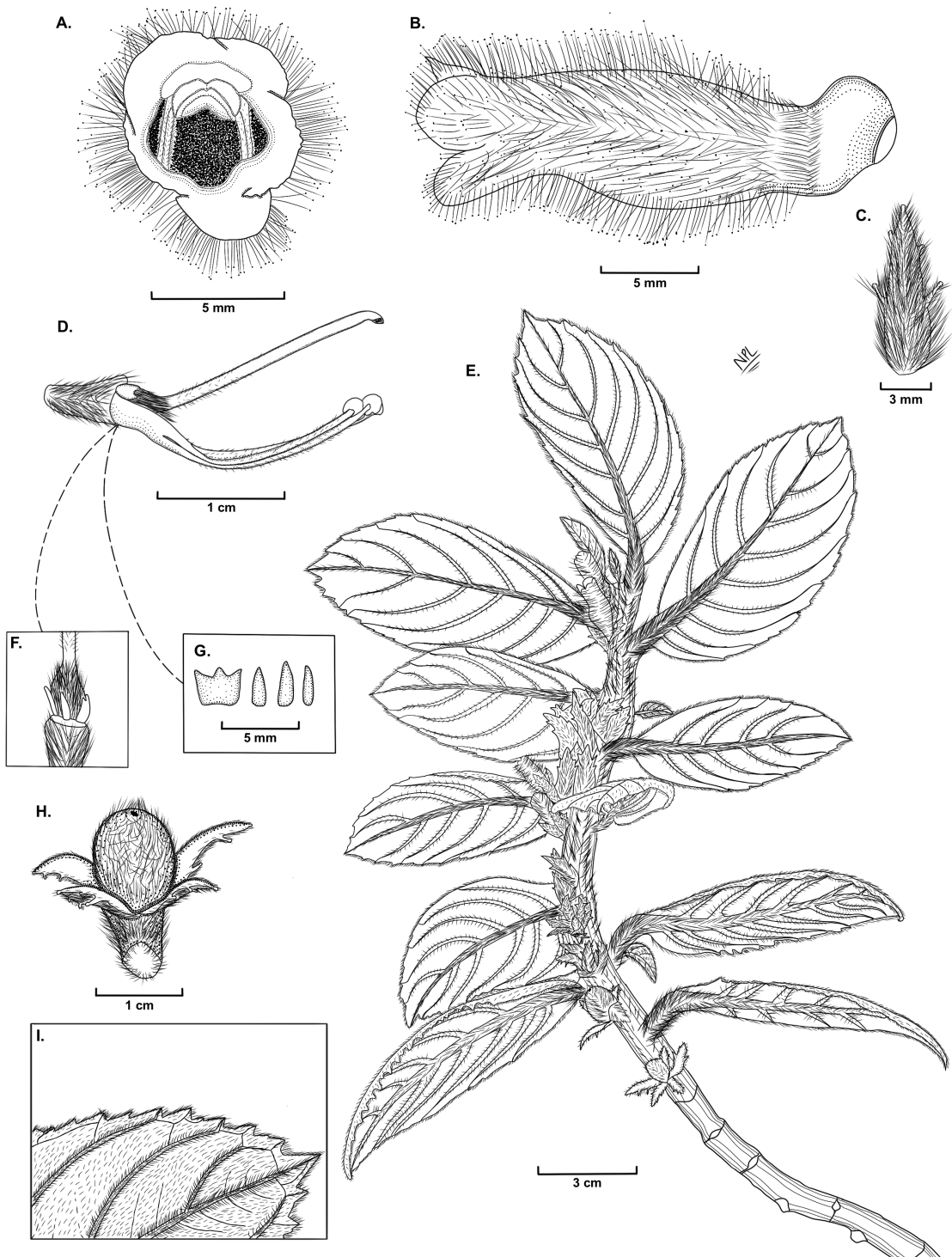


Fig. 2. Illustration of *Columnea cumanday*. **A.** flower, front view. **B.** flower, lateral view. **C.** calyx lobe. **D.** flower, androecium and gynoecium. **E.** habit. **F.** detail of nectary glands. **G.** nectary glands. **H.** fruit. **I.** detail of lower leaf surface and margin. Drawn by N. Parra-Lizcano based on the holotype.

observations/263312370), corresponding to an individual of the new species growing on the western slope, in the Department of Risaralda (Fig. 4).

The species occurs at 2500-2700 m a.s.l., growing as an epiphyte on phorophytes densely covered with bryophytes. Its distribution

is restricted to small remnants of Lower Montane Very Humid Forest (bmh-MB) sensu Holdridge (1967), where climatic conditions are characterized by average annual precipitation of 2000-4000 mm and mean annual temperatures of 12-18 °C (Cortolima, 2013). The habitat is highly fragmented and surrounded by anthropogenic

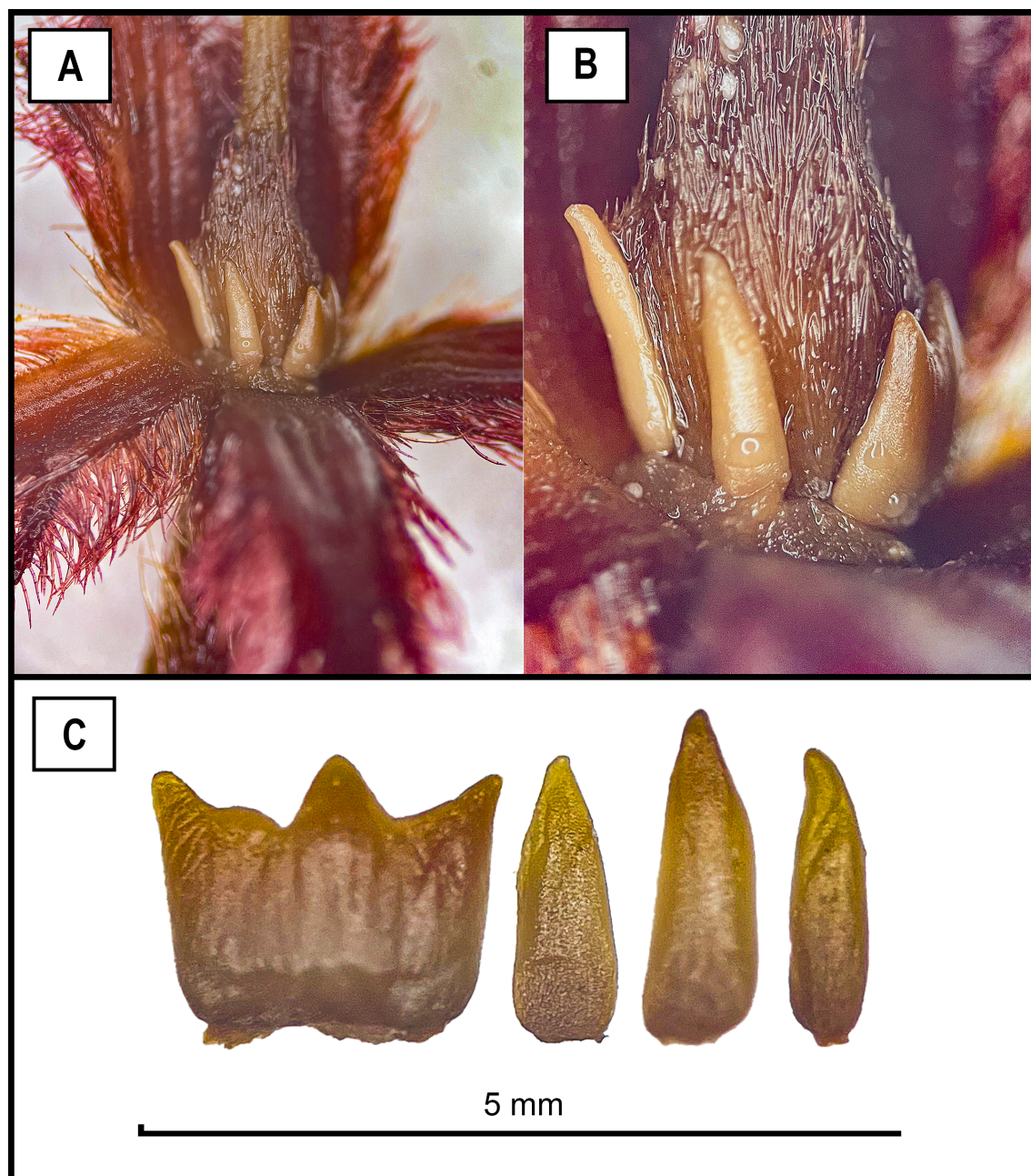


Fig. 3. Nectary glands. **A**, position of nectary glands in the gynoecium **B**, close-up view of the nectary glands. **C**, shape of the nectary glands.

matrices dominated by pasturelands for cattle ranching and agricultural crops, which exert considerable pressure on the species persistence. Within these forest fragments, it coexists with other members of the genus *Columnnea*, including *Columnnea anisophylla* DC., *Columnnea* cf. *fuscihirta* L.P. Kvist & L.E. Skog, *Columnnea dimidiata* (Benth.) Kuntze, *Columnnea strigosa* Benth., and *Columnnea* sp.

Phenology. This species has been collected with flowers and fruits in April. During in situ and personal field observations by the authors, numerous developing fruits were recorded, along with the presence of new floral buds, suggesting a more extended flowering cycle throughout the year.

Preliminary conservation status. Data Deficient (DD). As a recently discovered species and based on our study, in which only two populations could be established, the available information is insufficient to confidently determine a conservation status. Nevertheless, the species occurs in areas subject to intense anthropogenic pressure, mainly

due to the expansion of the agricultural frontier and the continuous degradation of its habitat. Furthermore, it presents a restricted preliminary distribution, it is not possible to estimate an extent of occurrence (EOO) and an Area of Occupancy (AOO) of 8 km², which suggests a high probability that the species faces an elevated risk of extinction. Therefore, it is a priority to carry out further studies on its ecology, population size, and geographic distribution in order to establish an accurate conservation status and develop effective strategies for its management and conservation.

Discussion. *Columnnea cumanday* is morphologically similar to *Columnnea minutiflora* L.P. Kvist & L.E. Skog, *Columnnea flavohirsuta* J.L. Clark, *Columnnea herthae* Mansf., and *Columnnea lehmannii* Mansf., which occur between the Pacific region of Colombia and northern Ecuador. These species are epiphytic herbs with elongate to suberect or erect shoots (occasionally terrestrial in *C. flavohirsuta*), and share lanceolate bracts (ovate in *C. flavohirsuta*, unknown in *C. lehmannii*), an epedunculate inflorescence or short-pedicellate flowers up to 8 mm long (unknown in *C. lehmannii*),

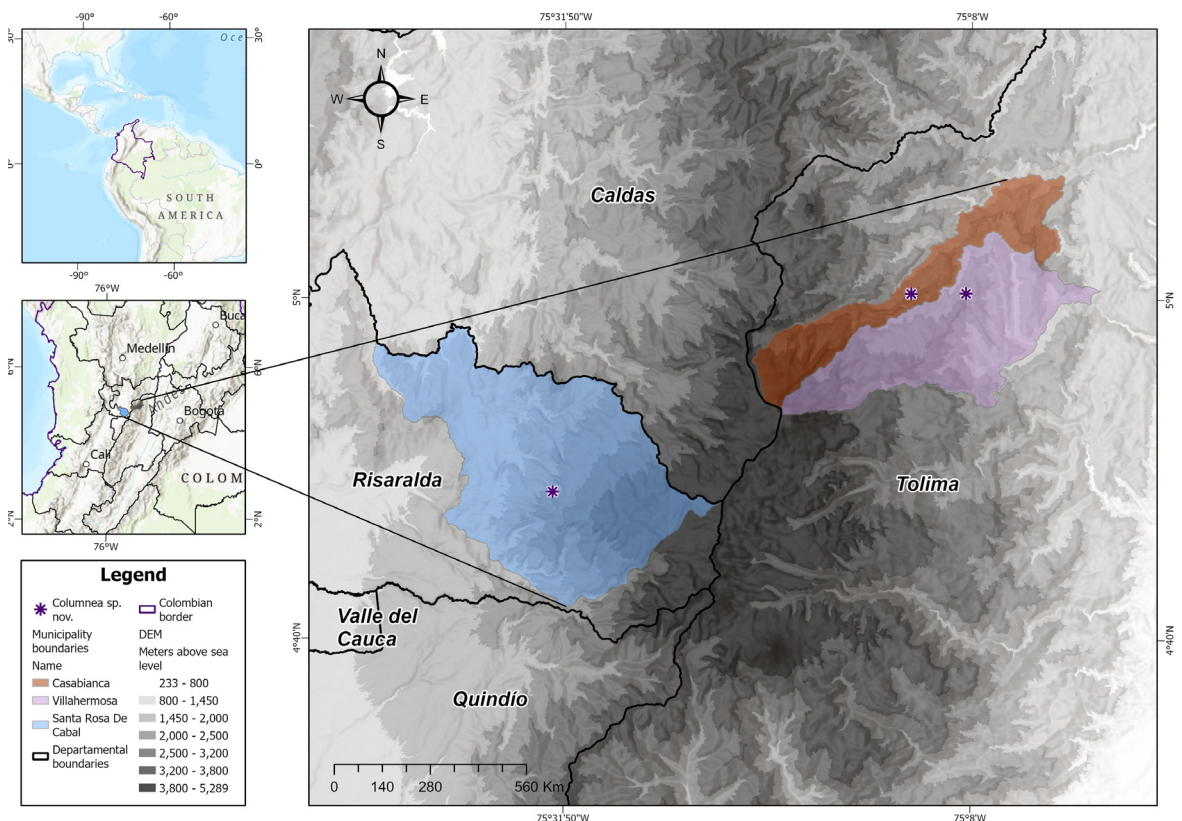


Fig. 4. Geographic distribution of *Columnnea cumanday* in the eastern slope of the Central Cordillera in the northern Colombian Andes.

tubular or cylindrical corollas with lanceolate to suborbicular calyx lobes (ovate in *C. flavohirsuta*), and corolla lengths ranging from 10 to 40 mm (shorter in *C. minutiflora*).

In addition, *C. cumanday* can be distinguished from *C. minutiflora* by its petiole length (8.7-16.4 mm in *C. cumanday* vs. 2-7 mm in *C. minutiflora*), a membranaceous blade with strigose indumentum (vs. coriaceous with hispid indumentum), serrate margins in two orders (vs. weakly serrate), and 7-8 veins per side (vs. 3-5). It also differs in having pedicels 4.4-6.4 mm long (vs. 0.5-2 mm long), corolla length of 20.4-23 mm (vs. 7-10 mm in *C. minutiflora*), a gynoeceum with four nectary glands, a densely hirsute ovary, and a style pilose with glandular trichomes towards the base (vs. two adjacent dorsal glands, strigose indumentum in the ovary, and a glabrous style).

Columnnea cumanday can be distinguished from *C. flavohirsuta* by a strigose blade indumentum, serrate margins in two orders, and an oblique base (vs. hispid indumentum, entire to serrulate margins, and a rounded base); lanceolate calyx lobes and bracts (vs. ovate in both structures) with lacinate margins (vs. deeply serrate to fimbriate); corolla length of 20.4-23 mm (vs. 10-15 mm in *C. flavohirsuta*); length of the filaments and the style of 14.1-16.6 mm and 14.7-17.3 mm, respectively (vs. 12 mm and 10 mm in *C. flavohirsuta*); and an orange-red ovate to rounded berry with villose indumentum (vs. white, dorsally flattened berry with pilose indumentum).

Columnnea cumanday can be distinguished from *C. herthae* by a membranaceous blade with strigose indumentum (vs. chartaceous with slightly hirsute-villous indumentum), an oblique base (vs. cuneate or subrounded), and 7-8 veins per side (vs. ca. 4); lacinate margins on the calyx lobes (vs. remotely toothed or subentire); corolla length of 20.4-23 mm (vs. 7-18 mm in *C. herthae*), uniformly purple (vs. yellow); a gynoeceum with four nectary glands, a densely hirsute ovary, a style pilose with glandular trichomes towards the base, and a bilobed stigma (vs. one gland, pilose indumentum in the ovary, a glabrous style, and a conspicuously bilobed stigma); and an orange-red ovate to rounded berry with villose indumentum (vs. white, globose berry with pilose indumentum).

Finally, *C. cumanday* can be distinguished from *C. lehmannii* by its larger blade size ($5.1-9.2 \times 2.1-3.4$ mm in *C. cumanday* vs. $6-12 \times 3.5-4.5$ mm in *C. lehmannii*); corolla length of 20.4-23 mm (vs. 20-40 mm in *C. lehmannii*), uniformly purple (vs. cream-white with a ventral purple patch); a gynoeceum with four nectary glands and a densely hirsute ovary (vs. one dorsal gland, densely villose with silky indumentum). Additional characters differentiating this species

from its morphologically similar congeners are listed in Table 1.

In the genus *Columnnea*, the predominance of flowers with yellow, orange, or red coloration has been widely documented and is highly recurrent among most of its species. According to recent studies, such as Ogutcen et al. (2020), red and orange floral hues are closely associated with the presence of deoxyanthocyanin pigments, derived from an alternative branch of the anthocyanin biosynthetic pathway (ABP). This coloration is adapted to the visual perception of hummingbirds, the primary pollinators of many species in the group, and has evolved convergently across various lineages within the subfamily Gesnerioideae. Carotenoids may also contribute to yellow floral coloration in Gesnerioideae when anthocyanins are absent. While carotenoids have been reported in some *Columnnea* species, their presence has not been thoroughly investigated.

The occurrence of *Columnnea* species with purple corollas is unusual and noteworthy, as it implies a shift in the biosynthetic pathway responsible for floral color. Purple pigmentation is generally associated with hydroxylated anthocyanins, such as malvidin or delphinidin (Ogutcen et al., 2020); however, their functional or ecological significance remains unexplored. Although corolla coloration in *Columnnea* is a homoplastic trait, it allows for the identification of morphologically similar species to *Columnnea cumanday*, such as *Columnnea lophophora* Mansf. and *Columnnea machupicchuensis* J.L. Clark & J.F. Sm. Nonetheless, the phylogenetic relationships of *C. cumanday* remain unknown.

Columnnea cumanday is similar to *C. lophophora* in having a tubular purple corolla and a reddish-purple calyx. It differs, however, in its growth habit as an epiphytic herb with strongly anisophyllous, distichous leaves (vs. an erect subshrub with decussate, isophyllous leaves). Additionally, the calyx has lacinate margins tipped with glands (vs. entire margins), and the corolla is apically inflated with a slightly constricted throat, measuring 2.0-2.3 cm in length, and covered with erect glandular trichomes (vs. inflated at the middle with an unconstricted throat, 4.5-5.0 cm in length, and covered with appressed, non-glandular sericeous trichomes).

It is also morphologically comparable to *Columnnea machupicchuensis*, but differs from the latter by being an epiphytic herb (vs. a suffrutescent epiphytic or terrestrial subshrub); having a completely reddish-purple calyx (vs. green calyx with red apices); a uniformly purple, non-ventricose corolla measuring 2.0-2.3 cm in length (vs. uniformly purple or purple with white horizontal striations, 2.9-3.5 cm in length, slightly ventricose on the lower surface); and

Table 1. Comparison among *C. cumanday* with morphologically similar species.

Character	<i>C. cumanday</i>	<i>C. minutiflora</i>	<i>C. flavohirsuta</i>	<i>C. herthae</i>	<i>C. lehmannii</i>
Petiole length (mm)	(2.7-)8.7-16.4	2-7	10-15	4-7	6
Larger blade size (cm)	5.1-9.2 × 2.1-3.4	2-8 × 1-4	6-13 × 2-5	5.5-9 × 2-4.5	6-12 × 3.5-4.5
Smaller blade size (mm)	0.9-1.6 × 0.5-0.7	2-15 × 1-10	6-10 × 3-7	10 × 3	25 × 5
Blade consistency	Membranaceous	Coriaceous	Unknown	Chartaceous	Unknown
Blade indument	Strigose	Hispid	Hispid	Slightly hirsute-villous	Sparsely pilose
Margin	Ciliate, serrate in two orders	Weakley serrate	Entire to serrulate	Shortly toothed	Slightly serrated
Base	Oblique	Acute	Rounded	Cuneate or subrounded	Cuneiform-rounded
Veins per side	7-8	3-5	6-8	ca. 4	Unknown
Bracts shape	Lanceolate to deltoid	Lanceolate	Ovate	Lanceolate	Unknown
Flowers per inflorescence	2-5	(1-)3-5(-7)	Unknown	1-5	4-6
Pedicle length (mm)	4.4-6.4	0.5-2(-5)	1-2	2-8	Unknown
Calyx lobes shape	Lanceolate	Lanceolate	Ovate	Lanceolate to suborbicular	Lanceolate to orbicular-ovate
Calyx lobes margin	Laciniate, each lacinia with one green gland (when fresh) at the apex	Lobed to pectinate	Deeply serrate to fimbriate	Remotely toothed or subentire	Coarsely serrate
Calyx color	Red purple	Red	Yellow or green	Red	Purple
Corolla shape	Tubular	Cylindric	Tubular	Cylindric	Cylindric, slightly sigmoid
Corolla length (mm)	20.4-23	7-10	10-15	7-18	20-40
Corolla tube color	Uniformly purple	White with apically red or yellow trichomes	Yellow	Yellow	Cream-white with a ventral purple patch
Filaments length and indument	14.1-16.6 mm, glabrous	8-10 mm, glabrous	12 mm, indument not recorded	Length not recorded, glabrous	Unknown
Number and shape of nectary glandular	4, one a bilobed to trilobed dorsal gland, the other three deltoid	2 adjacent dorsal glands, no shape recorded	Unknown	1 entire or bilobed posterior gland	1 dorsal gland, no shape recorded
Ovary indument	Densely hirsute	Strigose	Unknown	Pilose	Densely villose and silky
Style length (mm)	14.7-17.3	8-10	10	14	20
Style indument	Pilose with glandular trichomes towards the base	Glabrous	Unknown	Glabrous	Unknown
Stigma	Bilobed	Bilobed	Capitate	Conspicuously bilobed	Unknown
Fruit shape	Ovate to rounded berry	Globose berry	Dorsally flattened berry	Globose berry	Unknown
Fruit color	Orange red	White	White	White	Unknown
Fruit indument	Villose	Sericeous	Pilose	Pilose	Unknown
Geographic range	Central cordillera, Colombia	Western Andean slopes in northern Ecuador and southern Colombia	Western Andean slopes in northern Ecuador and southern Colombia	Western Andean slopes in northern Ecuador and Colombia	Western Andean slopes in northern Ecuador and Colombia

bearing a berry fruit (vs. bivalved capsule). *C. cumandaya* is endemic to Colombia, whereas *C. lophophora* is restricted to southern Ecuador (Zamora-Chinchipe) and *C. machupicchuensis* is known only from southern Peru (Cusco).

Additional specimens examined. COLOMBIA. **Tolima.** Munic. of Casabianca, Vereda La meseta, 5° 0' 20.51" N, 75° 11' 31.84" W, 2595 m a.s.l., 17-IV-2025 (fl), *M. A. Sierra-Ariza 534* (TOLI, COL!); Munic. of Villahermosa, Vereda El Raizal, 5° 0' 21.91" N, 75° 8' 19.07" W, 2502 m a.s.l., 21-VI-2025 (fl), *M. A. Sierra-Ariza 556* (TOLI).

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