

# SPECIES ORCHIDACEARUM 1 Icones Colombianae 1



# SPECIES ORCHIDACEARUM ICONES COLOMBIANAE

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# SPECIES ORCHIDACEARUM ICONES COLOMBIANAE

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## FOREWORD

Monographic works, be it of species groups delimited by relatedness or restricted to a certain geographical distribution, have traditionally been the basis for the study and understanding of local orchid floras. Nevertheless, in large countries, especially if they are also highly diverse and relatively poorly explored, it may be quite challenging to assess how many and which species should be included in such a systematically structured study *a priori*. In a similar fashion, country level floras are normally not published unless they represent either a complete set of related species of a particular group or a [relatively] complete set of all the species present. The limitation that arises from this *completeness* factor results in a lot of good and valuable data not being published because of its partiality.

A viable alternative to this was the creation of the Icones Plantarum Tropicarum (IPT) and Icones Orchidacearum (IO) series in which orchids have been monographed by depicting and discussing individual species rather than complete monographs of species' sets. These series opened the door to the publication of detailed knowledge on particular species, which would be far too partial to include in a monographic work, as was well pointed out by Eric Hágsater when proposing the IO. These series set the basis for the study of orchids in many regions, where it was previously impossible, by depicting an individual to which each name has been applied to in different countries. About the IPT, Calaway H. Dodson stressed that many floras of Tropical countries had much more text than illustrations, that much confusion in botanical taxonomy resulted from inaccurate impressions due to confusing terminology, and that a picture is worth a thousand words. Species Orchidacearum (SO) proposed here, builds on those principles and includes a few additional dimensions:

1. *Infra-specific variation*. When showing an illustration of a species we are actually showing a single individual of that species, in a particular timeframe and under particular ecological conditions. It is difficult to assess if what we have illustrated is an average individual that is representative for the species. There is always a risk of depicting an unusual or aberrant form of it. This is addressed in Species Orchidacearum by allowing for the publication of an unlimited number of plates and descriptions of the same species. In this manner it will be possible to assess morphological variation of species more easily, and diverse forms of a single species may be documented.

2. *What you see is what you get*. Students are frequently challenged with the question of what is included in the published descriptions of individual species. When preparing a protologue it is commonplace to use one or a few known specimens, making it fairly easy to address what material was in the author's mind when preparing the description. But when preparing monographs lots of material is normally cited, usually from diverse origins, dates and herbaria. Did the author include the features of all the cited specimens or only of those at hand? Is the description based on the original protologue or an amendment that includes additional material? Is the author's concept of this particular species very inclusive or very exclusive, is it similar to my own? In Species Orchidacearum descriptions are restricted to the morphological variation found in the specimen that has been illustrated, nothing more and nothing less. This may mean that less variation is described in each plate, it may also mean that it does not overlap well with the original protologue. However, whatever is described is exactly what was found in that particular individual and students are free to combine the descriptions of all individuals of the same species included in the series for their own concept of the species.

3. *Lankester Composite Dissection Plates*. The LCDP's, as they will be referred to from here on, are another key features of the Species Orchidacearum. A combination of more accurate, detailed and less expensive photography, with the lower costs of color printing, and the generalization of digital publication, allows for the possibility of substituting the traditional black and white ink illustrations used in botanical literature for the composite dissection plates in full color published digitally. The LCDP illustration has a few advantages over the drawings. In the first place, shapes, sizes, borders and ornaments are more accurately shown; it includes a very rich color palette, conveying more information; it makes the understanding of depth easier; and finally, it is much more objective and far less hand-dependent.



4. *Systematic order.* A major challenge in non-monographic treatments is the loss of systematic order. In such large and diverse groups as Orchidaceae, not knowing where to look for a particular species' closest relatives can make determination hazardous. Publishing groups of unrelated species belonging to any genus in each volume creates the issue of requiring the user to flip through all the indexes to find all of the species belonging to a particular genus, and then having to go to each of those publications separately, rather than to be able to find all species of a single genus together. This is addressed in Species Orchidacearum by allowing users to access published material either by volume and issue, or alphabetically by genus or individual species.

5. *Accessibility.* One of the biggest limiting factors for students of Tropical countries to study their own flora is the availability of relevant literature. Type specimens, original descriptions and important monographic works on Tropical plants are mostly deposited or published in North American or European institutes. Inexplicably, and probably unethically, the countries of origin and their students are still restricted access to many of these resources. SO is initially intended to be published electronically, lowering the costs of production dramatically. Therefore, and considering that it is to be used by the students of the orchid-rich countries to be able to study their floras, Species Orchidacearum will be completely available online, widely accessible, and free of charge.

For the name of this series I am indebted to Franco Pupulin. With him, and Diego Bogarín, we spent many a long night talking about conceiving a series that would contain a so called last word on each species of orchid in the world. It would have "everything", including a fine taxonomical discussion, showing the extant type elements, broad specimen citation, a detailed description, be richly illustrated to show variation along its distribution, include existing DNA data, have a complete set of references, and a modern discussion of the recognition and status of the species. Overtime, realizing the difficulties behind such a task, we desisted, but many of those elements have gone into the creation of Epidendra ([www.epidendra.org](http://www.epidendra.org)).

What is proposed here under that name is conceptually quite different. The main goal being to make available the illustrations of as many individuals of diverse species as possible to students of the Tropical orchid floras. Species Orchidacearum follows Icones Orchidacearum in that each icon has its own authors and can be cited individually so that the individual efforts are recognized. However, it falls closer to the idea of Icones Plantarum Tropicarum in that it sticks to a two page

format for each icon, giving more relevance to the illustrations, with less emphasis made in a very detailed description and citation of vouchers of multiple specimens of the same species. Contrary to controversy that may arise about the adequate name of a specimen, of any faithful illustration, of a field collected individual, you may always say...

*"crece ahí, se ve así, y algo es"*

Adam Philip Karremans



## ICONES COLOMBIANAE

Colombia is without a doubt one of the most biodiverse countries in the world, and members of the Orchidaceae family are among the largest contributors. With reports ranging from 3600 to +4200, the country is only surpassed by Ecuador in absolute numbers of orchid species. In relative numbers, estimated as species per area, Colombia is far behind countries like Costa Rica and Panama. However, its size, the complexity of its mountainous systems, and geographical position, flanked by the Atlantic and Pacific Oceans, and with Andean, Central American and Amazonian influences, suggest that it must be much more diverse than any of the surrounding countries. It is this gap between the expected diversity in the country and what is known that we wish to address here.

The only way to make a serious attempt at understanding the orchid diversity of any country is by doing consistent and systematic research. To be consistent, long-lasting support is needed. Such support is normally attained only when botanical studies become part of governmental policy, through public interest. The interest in biodiversity in recent years has become much greater in Colombia, and support for research is on the rise. Publications on orchids including Colombian authors has grown, and so too has their presence at orchid meetings. The fact that the only Andean Orchid Conference held outside of Ecuador was, very fruitfully, celebrated in Cali is certainly an indicator of this progress.

Colombia, with its more than one million square kilometers, is far too large to attempt any serious monographic work at country level anytime soon. The only way to systematically study the orchid flora of the country is by joining efforts, in essence by adding up the hundreds of local studies that are and will be carried out by diverse people and institutions. These efforts are critical, but currently far too isolated and sparse to allow for any comprehensive oversight. Access to the information and data produced is very restrictive, creating a need for a centralized source of standard information to aid enthusiasts, students, researchers and policymakers countrywide.

It is this necessity that explains why it is the series *Icones Colombianae* that inaugurates *Species Orchidacearum*. Through this publication we will attempt to:

1) become a platform for local students to publish elements of their work that although partial, may be highly informative, 2) serve as a source for researchers and the general public, 3) stimulate cooperation between persons and institutes, and 4) highlight the necessity of conservation by making biodiversity more tangible and local variation more visible.

At this time, making an estimate of how many orchid species may be found in Colombia is very premature. Nevertheless, an extrapolation from neighboring countries suggests we should expect at least double the number of species that have been registered so far. This series is a humble effort towards uncovering part of the ungraspable diversity hidden within Colombia.

*The editors*



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# *Andinia chaoae*

(S. VIEIRA-URIBE & L. JOST) KARREMANS & S. VIEIRA-URIBE  
PHYTOTAXA 295(2): 124. 2017

**Synonyms:** *Neoreophilus chaoae* S. Vieira-Uribe & L. Jost, *Lankesteriana* 15(3): 213. 2015.

**Type:** Colombia. Putumayo: Municipio de San Francisco, Vereda Porotal, Reserva Yumartán, 2200 m. 26 June 2015. Collected by Miguel M. Bonilla. *S. Vieira 0020* (holotype: JAUM; LCDP voucher).

*Plant* epiphytic, pendent, up to 50 cm long. *Stem* 2.5–3.0 mm long between ramicauls, each segment enclosed by two imbricating, infundibular sheaths. *Roots* slender, ca. 0.4 mm wide. *Ramicauls* 1 mm long, enclosed by a single infundibular sheath with dilated ostia. *Leaves* suffused with purple along the veins, 5.5 × 4.5–5.0 mm, thickly coriaceous, ovate, glabrous, the base narrowing into a petiole, 0.2 mm long. *Inflorescence* a congested, successively flowered raceme; borne by a slender peduncle 5 mm long; ovary glabrous, ca. 0.6 mm long. *Flowers* facing down. *Dorsal sepal* orange-red, suffused with burgundy basally, 2.3 × 2.0 mm, ovate, obtuse, revolute, entire, pubescent, 3-veined, abaxially carinate along the main vein, connate to the lateral sepals for 1.0 mm. *Lateral sepals* yellow, suffused with burgundy in the middle, 3.2 × 1.5 mm, narrowly triangular, acute, reflexed, entire, glabrous, 2-veined, abaxially carinate along the main vein, apiculate, connate for about 0.8 mm. *Petals* orange-red, 0.3 × 0.5 mm, transversally bilobed; the upper lobe triangular, pubescent, 0.4 mm long; the lower lobe oblong to triangular, slightly sigmoid, involute, puberulous, 0.5 mm long. *Lip* fulvous, suffused with burgundy in the center, 0.8 × 1.1 mm when expanded, sub-orbicular, entire, abaxially puberulous along the veins, 3-veined, embracing the column, cuneate at the base, adnate to the base of the column. *Column* white, suffused with lilac, 1.6 mm long, terete, papillulose, the anther and stigma apical; the rostellum apically yellow, oblanceolate, antrorse, conspicuous. *Pollinia* two, yellow, ovoid. *Anther cap* cream, cucullate.

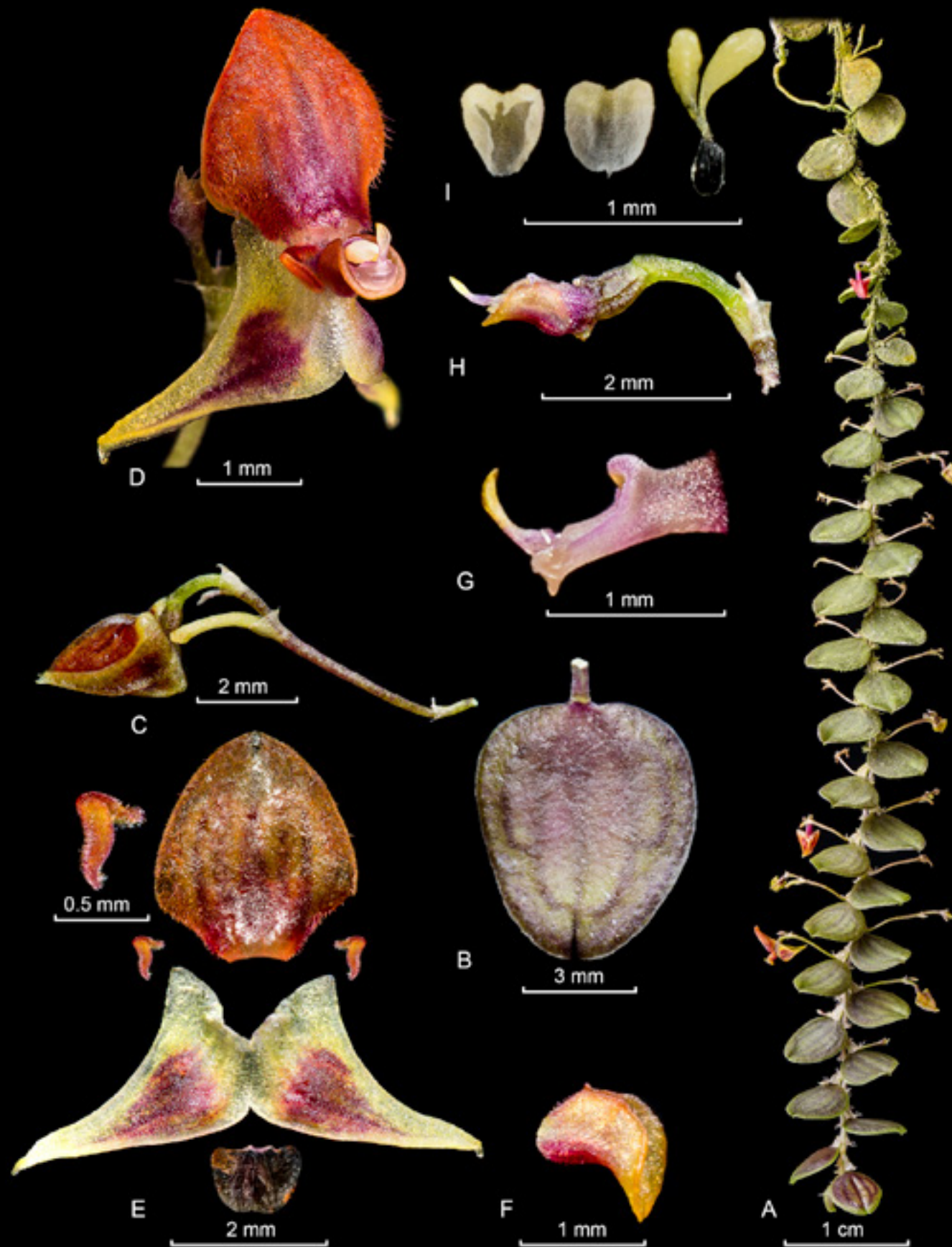
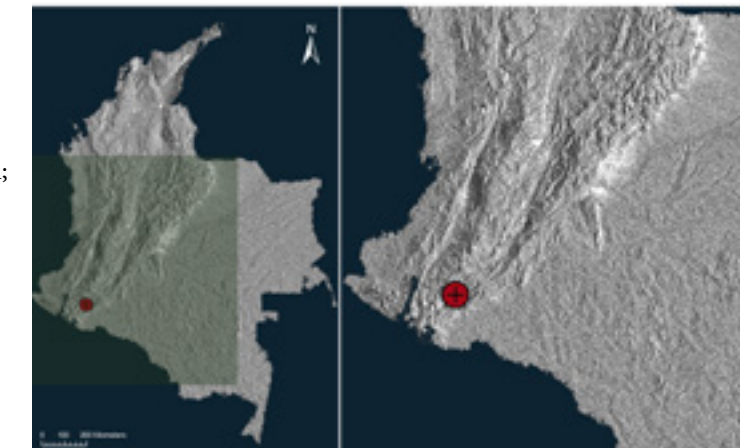
*Andinia chaoae* belongs to a group of species with ovate, pubescent dorsal sepals, and reflexed non-pubescent lateral sepals with an apiculum. Its inflorescence is longer than the leaf and the flowers are facing downwards. Its glabrous, triangular lateral

sepals longer than the dorsal sepal easily distinguish it from all congeners except *A. cordilabia*, *A. chelosepala* and *A. weneri*. It can be distinguished from *A. chelosepala* and *A. weneri* by the narrowly triangular lateral sepals more than twice as long as wide, its sub-orbicular lip with lateral lobes not extending beyond the column and its pubescent petals. From *A. cordilabia*, it can be distinguished by its narrowly triangular, glabrous lateral sepals, its glabrous ovary and its involute, oblong petals with the upper lobe smaller than the lower lobe. *A. chaoae* is rare at both its known localities in the northeast Andes of Ecuador and the eastern Andes of southeast Colombia. It is an epiphyte restricted to elevations between 2100 and 2500 m in very wet, airy cloud forest, together with several other species of the same genus.

#### References:

Vieira-Uribe, S. & Jost, L., 2015, A colorful new species of *Neoreophilus* (Orchidaceae: Pleurothallidinae) from the eastern Andes of Colombia and Ecuador. *Lankesteriana* 15(3): 213-217.

Wilson, M., Frank, G.S., Jost, L., Pridgeon, A.M., Vieira-Uribe, S. & Karremans, A.P., 2017. Phylogenetic analysis of *Andinia* (Pleurothallidinae; Orchidaceae) and a systematic recircumscription of the genus. *Phytotaxa* 295(2): 101-131.



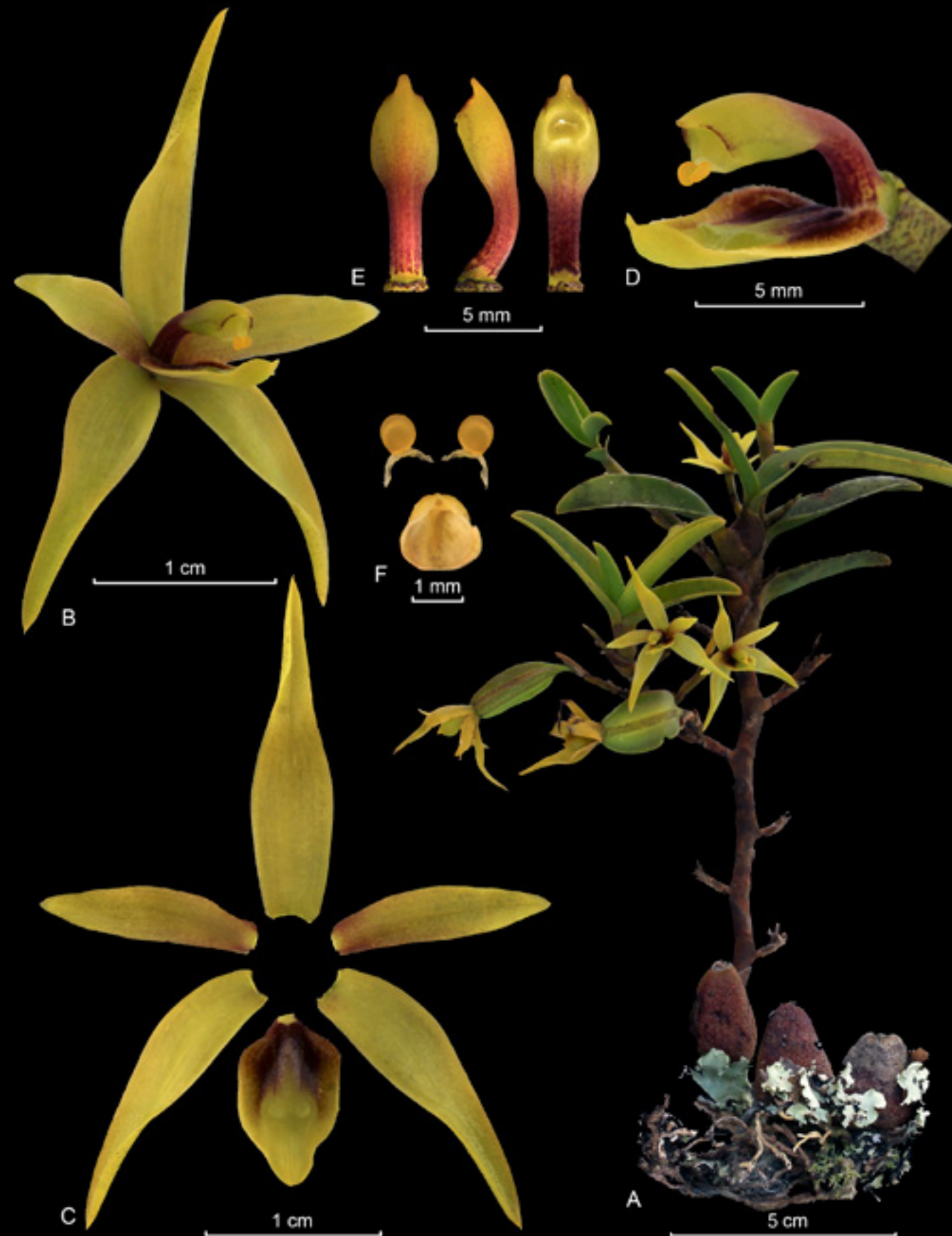
LCDP: *Andinia chaoae* (S. Vieira-Uribe & L. Jost) Karremans & S. Vieira-Uribe. A. Habit. B. Leaf. C. Inflorescence. D. Flower. E. Dissected perianth. F. Lip, side view. G. Column, side view. H. Ovary with column and lip, side view. I. Anther cap and pollinia.



*Cyrtidiorchis gerardii*

P. ORTIZ

ORQUIDEOLOGIA 25(2): 119. 2008



**Type:** Colombia. Norte de Santander, Silos, La Laguna, ca. 2700 m. Collected by Enrique Poveda, March 2007, cultivated by Luis E. Alvarez, *Pedro Ortiz V 1286* (holotype HPUJ).

**Illustrated specimen:** Colombia, Santander, Provincia de Vélez, Municipio de La Belleza, Vereda Vista Hermosa, 2388 m, mountain pluvial forest, 2 Feb. 2016. *N. Gutiérrez M. 003* (JBB; LCDP voucher).

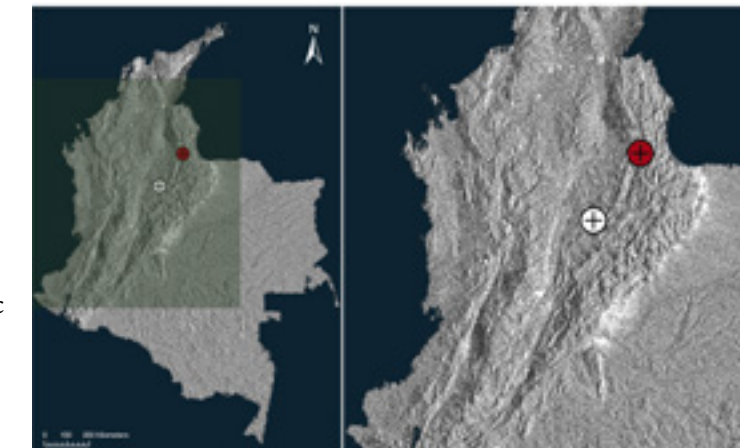
Epiphytic, erect *herb*, up to 16.2 cm long. With dimorphic growth habit, initially a creeping rhizome bearing pseudobulbs, transforming into an erect, branching stem with continuous apical growth. *Roots* slender, ca 1 mm. *Rhizome pseudobulbs* ovoid, 2.1–2.9 × 1.4–1.8 cm. *Secondary stem* up to 15 cm long, 5 mm width. *Leaves* oblong, thick, obtuse, 3.5–5 × 0.75–1.4 cm, distichous, articulated to the foliar sheaths. *Inflorescence* supra-axillary, single flowered-raceme, short, peduncles covered by short sheaths. Mid-size *flowers*, dull yellow, suffused with dark red at the base of the petals, lip, and column; lacking fibers. *Dorsal sepal* 19.4–19.8 × 4.7–4.8 mm, narrowly ovate-lanceolate, acute, somewhat twisted apically. *Lateral sepals* 17–18 × 4–4.2 mm, narrowly ovate, falcate, acute. *Petals* 12.5 × 3.0–3.1 mm, oblong, acute. *Lip* 9.7–9.8 × 5.8–5.9 mm, minutely hairy at the base, protruding triangular-ovate, the apex rounded, with two small calluses in the glabrous disc, adnate to the base of the column. *Column* 9 mm long, terete, arched, clavate. *Pollinia* four, hard, yellow, rounded. *Anther cap* apical, ovate, cucullate. *Stigma* ventral, triangular-ovoid. *Capsules* lateral dehiscence.

*Cyrtidiorchis* Rauschert is a small genus of some five species distributed from Colombia and Venezuela to Peru, phylogenetically related to *Sauvetrea* Szlach. and *Mormolyca* Fenzl (Maxillarinae). They are characterized by monopodial-growing stem arising from a sympodial, pseudobulb-bearing, basal rhizome. Three species of *Cyrtidiorchis* are reported from Colombia, *C. gerardi* is endemic to the country. It is most similar to *C. rhomboglossa* and we have our reservations about their distinctness. *Cyrtidiorchis gerardi* can be recognized by spreading sepals and petals, and the relatively

flattened lip with an incurved apex.

**References:**

Ortiz, P. 2008. Tres nuevas especies y dos nuevos nombres de orquídeas de Colombia. *Orquideología* 25(2): 119.



LCDP: *Cyrtidiorchis gerardii* P. Ortiz. A. Habit. B. Flower. C. Dissected perianth. D. Column and lip lateral view. E. Column, diverse views. F. Anther cap and pollinia.





# *Epidendrum melinanthum*

SCHLTR.

REP. SPEC. NOV. REGNI VEG. BEIH. 7: 139. 1920

**Type:** Colombia. Valle del Cauca, Papagayeros. Fleurs entièrement jaunes. Alt. 800–1200 m. Nov 1899. *Langlassé* 11 (B†; lectotype: K!; lectotypes: AMES! G! P, US!).

**Illustrated specimen:** Colombia. Cauca, Municipality of Popayán, road to Timbio, 1600 m. December 2016. *J.S. Moreno & A.L. Erazo* 341 (CAUP; LCDP voucher).

Terrestrial or lithophytic, sympodial, cespitose, erect, terete herb, 30 cm tall including the inflorescence. *Roots* fleshy, 1–2 mm, basal, thick. *Stem* 12 × 0.15–0.18 cm, simple, cane-like. *Leaves* 6 distichous, alternate, dark green, narrowly oblong; sheaths 40–45 × 3.5–3.7 mm, tubular, striated; blade 3–4 × 0.5–1.0 cm, apex obtuse, coriaceous, smooth, green. *Inflorescence* apical up to 18 cm long, racemose, successive, densely many-flowered, peduncle elongate, terete; covered by several tubular, acute, imbricating bracts, 2.2–3 cm long. *Flowers* numerous, successive, 16–19 open at one time, non-resupinate, yellow, callus yellow to orange in mature flowers; no fragrance recorded. *Floral bracts* 3–4 mm erect, lanceolate, acuminate. *Ovary* 1.5 cm long, thin, slender, glabrous, striated. *Sepals* 7–8 × 3–3.5 mm, free, narrowly oblong, slightly acute at the apex, margin entire. *Petals* 8–9 × 0.25–3 mm, free, oblanceolate-spatulate, obtuse, margin irregular towards the apex. *Lip* 6–7 × 7.5–8 mm, united to the column, deeply 3-lobed, margin fimbriate, 8–9 fimbria in the mid-lobe, 8–9 in each lateral lobe; the calli represented of 5 tubercles, 3 basal with a central protuberance rounded, 2 lateral folded; disc with 3 keels; lateral lobes 2.5 × 5 mm, trapezoid; mid-lobe 3 × 3.5 mm, deltate. *Column* 4.5–5 mm long, slightly arched, thin, the apical margin truncate, and irregularly dentate. *Clinandrium* reduced, margin entire. Rostellum apical, slit. *Anther cap* obovoid, apiculate, papillose, 4-celled. *Pollinia* 4, obovoid, laterally compressed, sub-equal. *Capsule* narrowly elliptic, apical neck short.

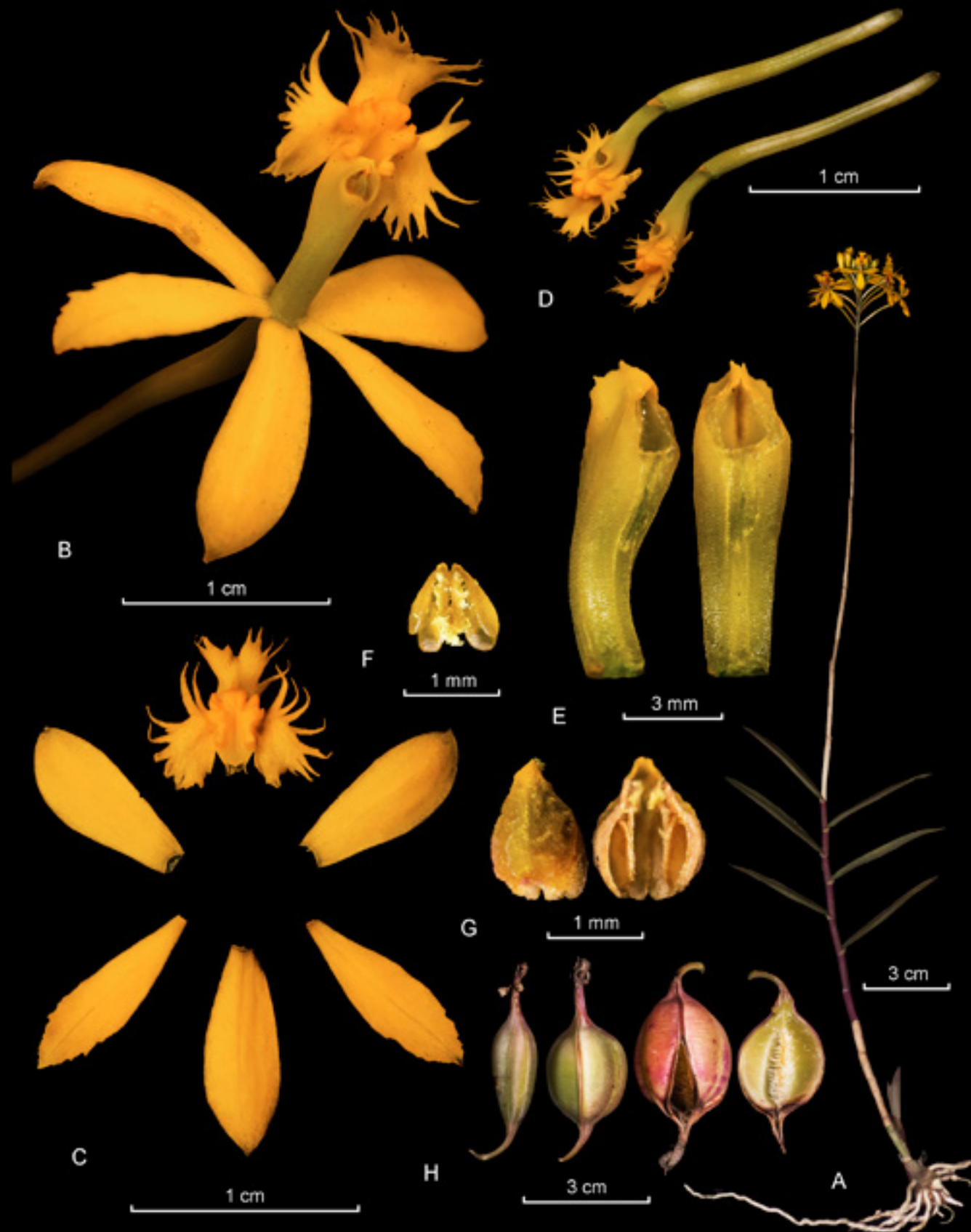
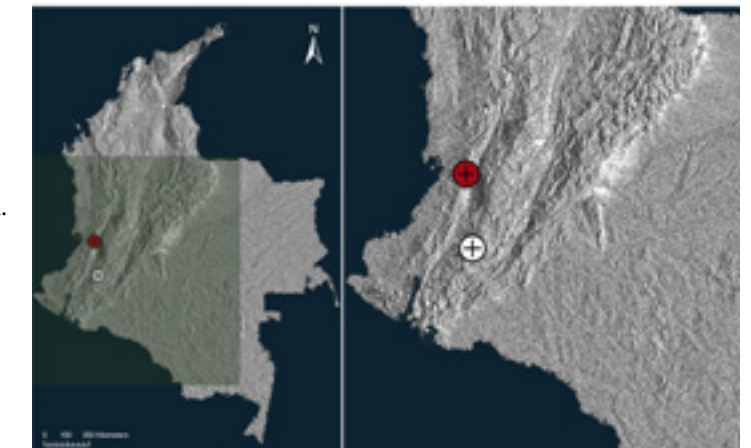
*Epidendrum melinanthum* is recognized by its terrestrial or lithophytic habit, distichous leaves, an apical inflorescence of numerous and successive non resupinate yellow flowers and by having 3 basal tubercles, a T shaped lip, with a deeply dentate margin, and

the mid-lobe bifid, into two square, somewhat divergent lobes with a mucro in the sinus. Similar to *Epidendrum aura-usecheae* Hágsater, C. Rincón-Useche et O. Pérez with also yellow flowers but the margins of the lip deeply fimbriate with the fimbria bent in all directions and a more complex callus represented by a structure of 12–14 unequal tubercles.

**References:**

Hágsater, E., Rincón-Useche, C & Perez, O. 2016, *Epidendrum aura-usecheae* in E. Hágsater & L. Sánchez S. (eds.), The Genus *Epidendrum*, Part 10, *Icon. Orchid.* 14: t. 1410.

Kolanowska, M., Hágsater, E., Szlachetko, D.L., Santiago Ayala, E & Saldaña, L. S. (2014). Orchids of the Department of Valle del Cauca (Colombia). Volume 2: Epidendroideae (Epidendreae 1): Subtribes Laeliinae, Epidendrinae, Ponerinae. Koeltz Scientific Books, Königstein. 494 pages, ISBN-13: 978-3-87429-451-5.



LCDP: *Epidendrum melinanthum* Schltr. A. Habit. B. Flower. C. Dissected perianth. D. Ovary with column and lip. E. Column, side and dorsal view. F. Pollinia. G. Anther cap. H. Capsule, different states of maturation.



# *Epidendrum polythallum*

EST. DOMÍNGUEZ, J. S. MORENO, HÁGSATER ET E. SANTIAGO  
ICON. ORCHID. 15(2): T. 1593. 2016

**Type:** Colombia. Antioquia: Municipio de Urrao; Cordillera Occidental, camino entre Urrao y el Carmen de Atrato (Chocó), Alto de la M, La Fragua, 2500 m, 26 June 2015, *E. Domínguez Vargas 396* (holotype: JAUM; LCDP voucher).

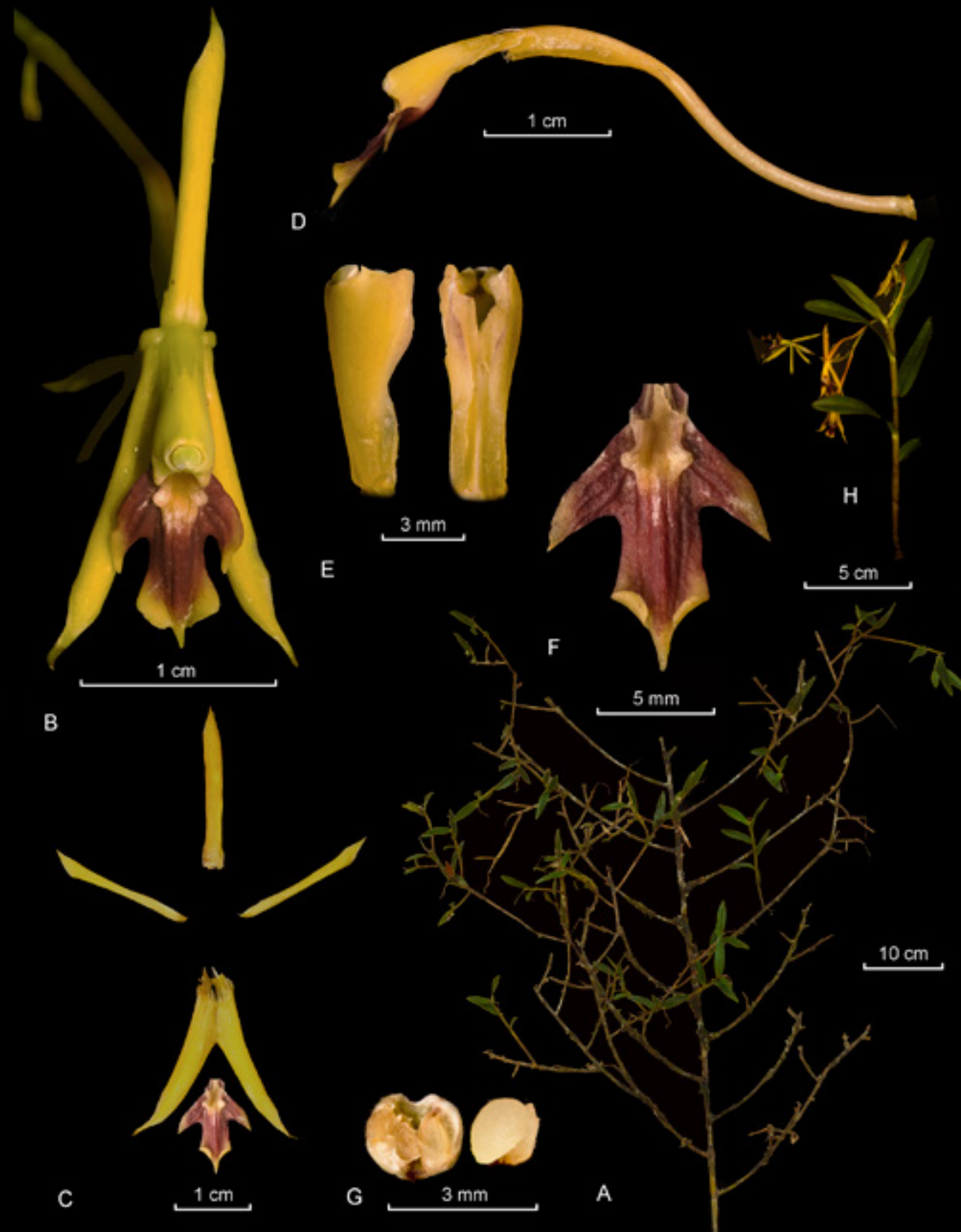
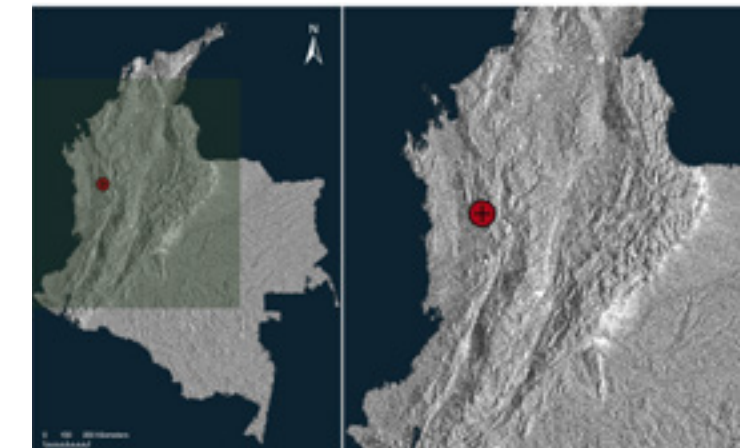
Epiphytic, monopodial, branching *herb*, 130–150 cm tall. *Roots* basal, thick. *Stems* cane-like, terete; *primary stem* 130–150 × 0.8–1.0 cm, rigid, erect; *secondary stems* 40–70 × 0.4–0.6 cm, alternate, distichous, ascendant, *tertiary branches* 3–25 × 0.3–0.5 cm, base covered by rugose, non-foliar sheaths. *Leaves* 2–6 only on tertiary stems 2.3–6.5 × 0.4–1.4 cm, oblong, apically unequally bilobed, chartaceous, upper surface rugose, 4 pale-green veins on each side of the mid-vein; underside smooth, pale green. *Inflorescence* 4.0–5.5 cm long, apical, racemose, pendant, nodding, lax; peduncle 7–8 × 1.5 mm; rachis 3.2–4.7 long, thin, laterally compressed. *Ovary* 20–38 mm long, terete. *Floral bracts* 4 × 3 mm, triangular, acute. *Flowers* 3–4, simultaneous, resupinate, pale yellow, lip wine-red except for the calli and the apices of the lobes which are pale yellow; fragrance none. *Sepals* acute, strongly revolute; *dorsal sepal* 20 × 4 mm, free, oblong-elliptic, 5-veined, reflexed; *lateral sepals* 20 × 6 mm, narrowly ovate, oblique, connate at the base, partly spreading, 5-veined. *Petals* 18–20 × 2.5 mm, free, reflexed, narrowly elliptic, acute, strongly revolute. *Lip* 12 × 7 mm, deeply 3-lobed, base cuneate; bicalllose, calli prominent; disc with 5 prominent, elevated ribs, parallel, converging towards the apex; lateral lobes 2.7 × 6.8 mm, obliquely triangular, margin revolute; mid-lobe 5.4 × 4 mm, rectangular-oblong, truncate, with a prominent apiculum. *Column* 11 × 3 mm, straight, thin, dilated towards the apex. *Clinandrium-hood* reduced. *Anther* sub-spherical, puberulent, white. Pollinia 4. Rostellum apical, slit. *Nectary* narrow, penetrating 2/3 of the ovary, with a prominent callosity in front of the stigmatic cavity.

*Epidendrum polythallum* is recognized by the much branched stems, with a tall primary stem, numerous secondary and tertiary stems, the nodding inflorescence bears only 3–4 pale yellow

flowers, lip wine-red except for the calli and apices of the lobes which are pale yellow, sepals connate at base, narrowly oblanceolate, petals linear, obliquely acute at the apex, lip deeply 3-lobed, with 5 parallel ribs on the disc and a pair of radiating shorter ribs on the lateral lobes which are obliquely triangular. The flowers are reminiscent of *E. amplexirisaraldense* Hágsater & E. Santiago, but the plant habit of that species is not branched, the new stem originating from a sub-apical internode of the previous stem; flowers are greenish. The plant habit of the new species is reminiscent of *E. paraguastigma* Hágsater & García-Cruz which also has a tall primary stem, numerous, progressively smaller secondary stems and numerous smaller tertiary stems, but that species has 7–9, simultaneous, concolor, white flowers, sepals 6.5–7.6 mm long, and an entire, cordiform lip with a “Y” shaped callus. It is known presently only from Colombia, Antioquia, along the summit of the Cordillera Occidental, near the border of the Chocó, epiphytic near the base of a bush at the edge of a wet montane forest, on cliffs and road-side slopes, at 2500 m elevation. Flowering was recorded in February.

#### References:

Dominguez, E., Moreno, J.S., Hágsater, E & E. Santiago, 2016, *Epidendrum polythallum* in E. Hágsater & L. Sánchez S. (eds.), The Genus *Epidendrum*, Part 11, *Icon. Orchid.* 15(2): t. 1593.



LCDP: *Epidendrum polythallum* Est. Domínguez, J. S. Moreno, Hágsater et E. Santiago. A. Habit. B. Flower. C. Dissected perianth. D. Ovary with column and lip. E. Column, side and dorsal view. F. Lip. G. Anther cap and pollinia. H. Flowering branch.



# *Kefersteinia taggesellii*

NEUDECKER

ORQUIDEOLOGÍA 19 (3): 98. 1994

**Type:** Colombia. Unknown type locality, flowered in cultivation in the collection of G. Krönlein at Eisenheim, Germany, 1 Aug. 1994, G. Krönlein s.n. (holotype M).

**Illustrated specimen:** Colombia. Santander: Provincia de Vélez, municipio de La Belleza, Vereda Vista Hermosa, 2400 m, mountain rainforest, April 30, 2016, N. Gutiérrez M. 004 (JBB; LCDP voucher).

Epiphytic, caespitose herb up to 25 cm tall, with short rhizome and stems close together, resulting in a clump of multiple, fan-shaped growths. Roots thick, ca 4 mm in diameter. Stems abbreviated, completely enclosed by 3–4 conduplicate, ancipitous sheaths, the upper ones foliaceous. Leaves thin, linear-oblong, acute, the central vein abaxially prominent, folded at the base into a conduplicate petiole to 2 cm long, up to 22.0 x 1.8 cm, articulated with the basal sheath. Inflorescence single flowered, lateral, patent to subpendent, exerted from the axil of the foliar sheath, to 7 cm long; the peduncle terete, slender, provided with 2–3 glumaceous, loose, ovate, acute bracts to 4 mm long. Floral bracts double, the external one broadly ovate-subcircular, obtuse, ca. 7 x 7 mm, the inner one smaller, narrowly lance-olate, ca. 7 x 2 mm. Pedicellate ovary subclavate, the valves deeply grooved, to 1.3 cm long. Flowers translucent pale yellowish green, the petals and sepals covered with dark purple spots often arranged in longitudinal rays, the lip white densely spotted with purple, the color spots more dense in the center of the blade, the column cream, finely spotted with rose-purple, particularly abaxially, the anther cap white. Dorsal sepal lanceolate, acute, 1.9 x 0.7 cm. Lateral sepals lanceolate, slightly asymmetrical-subfalcate, acute, 1.5–1.6 x 0.6 cm. Petals lanceolate, acute, inserted along the margins of the column, 2.0 x 0.6 cm. Lip broadly trapezoid-subcircular from a cuneate base, 1.9 x 1.6–1.7 cm, the base canaliculate-concave, the blade geniculate at the middle with the apex reflexed and almost vertical; margins denticulate-cripsed; callus umbonate, high, like an inverted, truncate pyramid, the apex square, bi-furcate, the basal horns longer. Column semiterete, curved at the dilated apex, 1.4 x 0.5–0.6 cm, provided with thin, elliptic substigmatic wings and three longitudinal keels, subsigmoid in profile, the central one higher, below

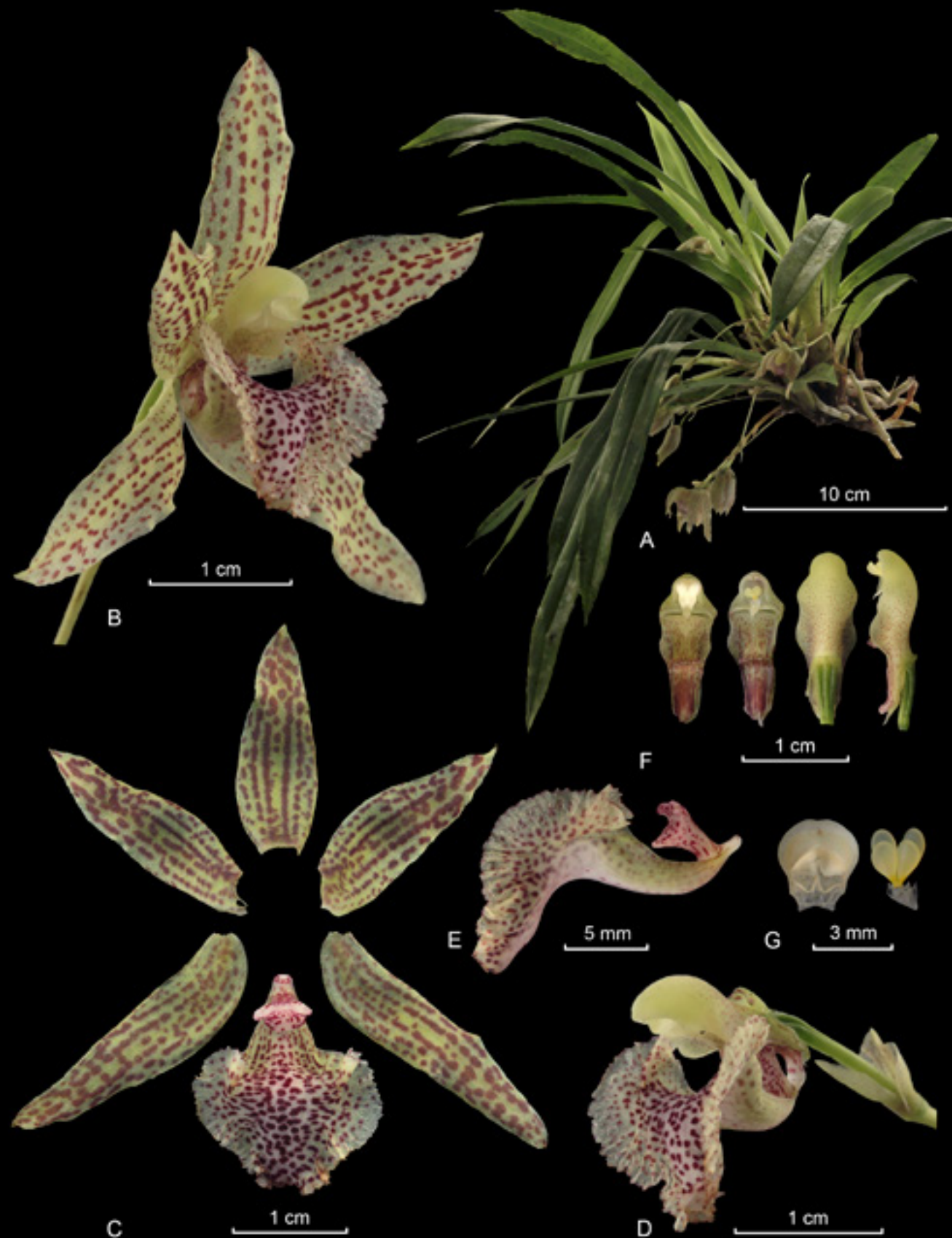
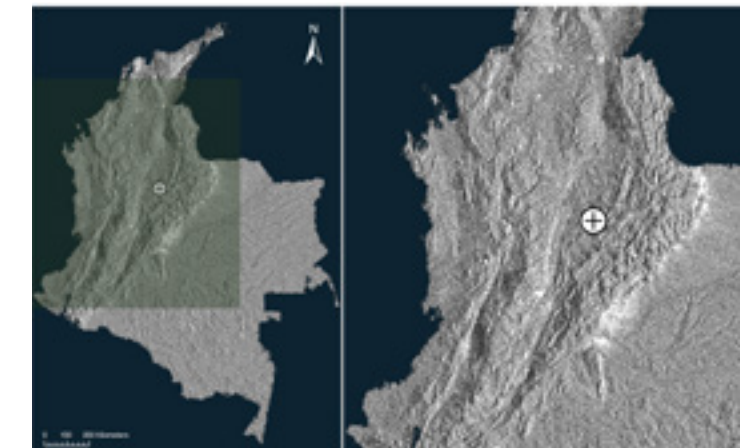
the stigma. Stigma ventral, slit-like. Pollinia 4 in two pair of different size, dorsiventrally superposed, triangular-ovate, complanate, light yellow, on an oblanceolate, hyaline stipe, curling immediately after re-removal; viscidium hyaline, triangular, scarcely distinct from the stipe. Anther cap incumbent sub-ventral, cucullate, ovoid, emarginated, 2-celled. Capsules with lateral dehiscence.

*Kefersteinia taggesellii* is superficially similar to *K. graminea* (Lindl.) Rchb. f. and *K. tolimensis* Schltr. but the latter species belong to a distinct group, characterized by a low, broad, laminar callus. Among the species provided with a umbonate callus, *K. taggesellii* is more closely related to *K. taurina* Rchb. f., from which can be distinguished by the presence of much prominent wings on the column (vs. reduced), and the quadrate, doubly bifurcate callus (vs. bull head-shaped, with two diverging horns at the base).

**References:**

Neudecker, T. (1994). Dos especies nuevas del genero *Kefersteinia*. *Orquideologia* 19(3), 97–102.

Harding, P. A. (2008). *Huntleyas and related orchids*. Timber Press, Portland, Oregon.



LCDP: *Kefersteinia taggesellii* Neudecker A. Habit. B. Flower. C. Dissected perianth. D. Column and lip, three quarters view. E. Lip, lateral view. F. Column, ventral (with and without anther cap), dorsal, and lateral views. G. Anther cap and pollinarium.



# Masdevallia amanda

RCHB.F. & WARSZ.  
BONPLANDIA 2: 115, 1854

**Synonyms:** *Spilotantha amanda* (Rchb.f. & Warsz.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 15. 2006.

**Type:** Ecuador (holotype, W).

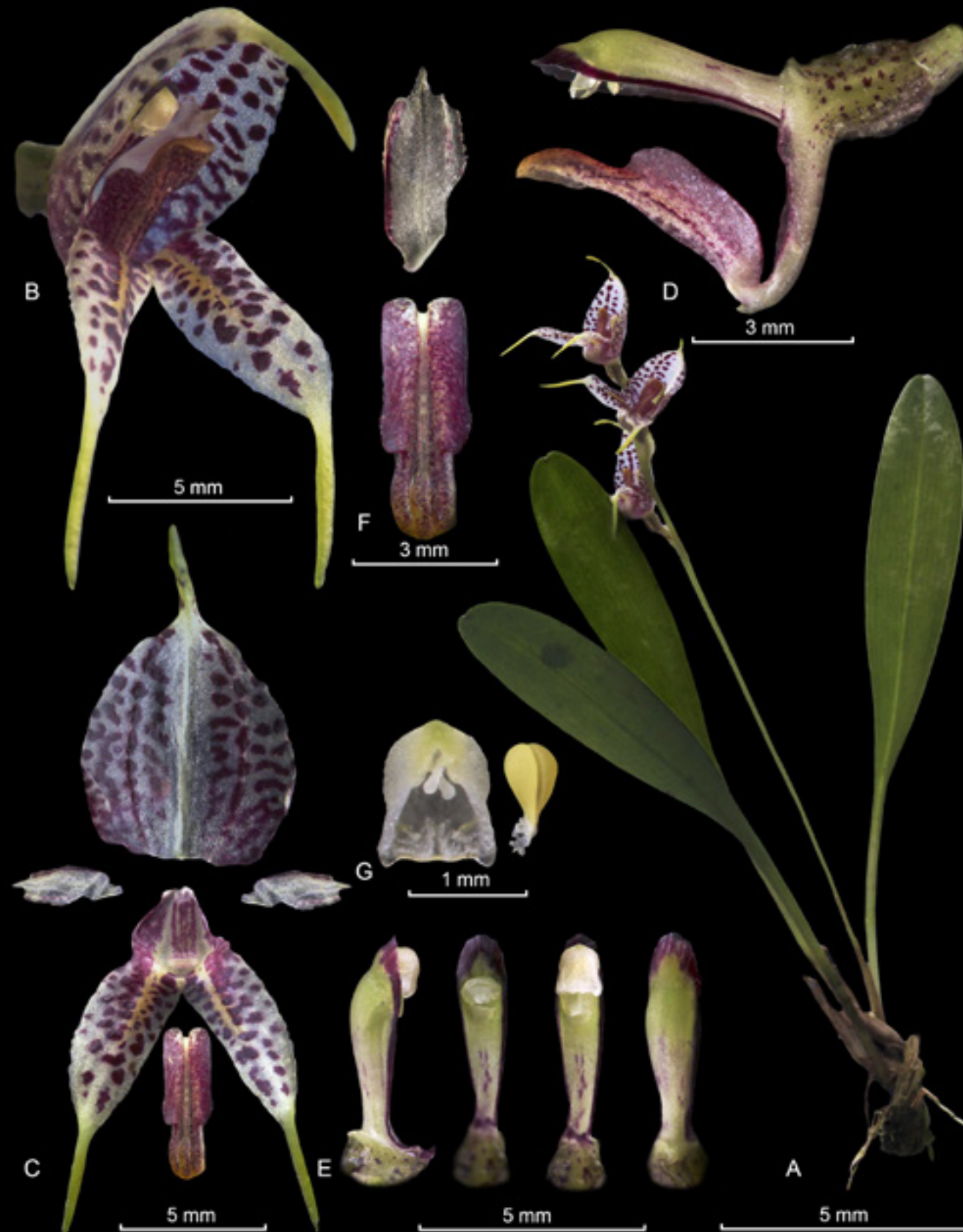
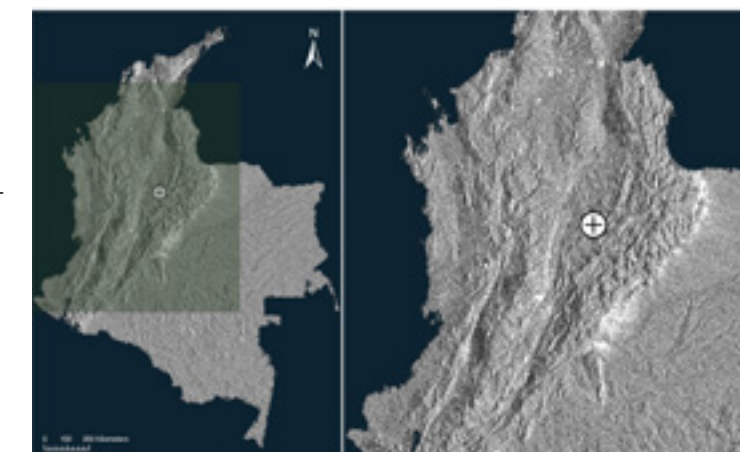
**Illustrated specimen:** Colombia, Santander, Provincia de Vélez, Municipio de La Belleza, Vereda Vista Hermosa, edge of the forest, 2570 m, mountain pluvial forest, 18 Jul. 2016, N. Gutiérrez M. 018 (JBB; LCDP voucher).

*Plant* epiphytic to terrestrial, caespitose, 9.8 cm tall. *Roots* flexuous, 1 mm in diameter. *Ramicauls* erect, up to 9 mm long, enclosed by 2–3 thin tubular sheaths. *Leaves* erect, thinly coriaceous, petiolate, the blade elliptical, subacute to obtuse, lamina 6.4–7.0 cm long including the petiole, 9.2–10.4 mm wide. *Inflorescence* a loosely few-flowered, erect to suberect raceme of 3 simultaneous flowers, 9.8 cm long including the peduncle. *Peduncle* erect, green, up to 8.6 cm long, with 2 tubular bracts, one near to the base and the other at the base. *Floral bract* inflated, 4 mm long. *Pedicel* 1.8–2.4 mm long. *Ovary* green with purple spots, 2.4 mm long, with 3 undulating crests. *Dorsal sepal* white, suffused with pale yellow above the middle, striped-spotted with purple, ovate, concave, glabrous, lamina 7.8 × 6.8 mm, connate to the lateral sepals for about 2.4 mm, to form a shallow, gaping cup, the rounded apex contracted into a slender green-yellow tail 2.4 mm long. *Lateral sepals* pale yellow-green or whitish, with purple dots or bars arranged transversely, glabrous, oblong, lamina 6.9 × 2.6 mm, the oblique apices contracted into greenish tails similar to that of the dorsal sepal, 3.4 mm long. *Petals* translucent white, top margin purple and dotted with purple in the bottom margin, more or less oblong, 4.1 × 1.5 mm, the truncate apex apiculate, both margins denticulate above the middle, the labellar margin with a longitudinal callus. *Lip*, purple to dull orange at the apex, oblong-subpanurate, with obtuse marginal folds above the middle, the epichile rounded, the hypochile oblong with the base truncate, cleft, hinged below; 4.5 × 1.6 mm. *Column* pale green with purple margins, semiterete, 4.5 × 1 mm, with an incurved foot 3.4 mm long. *Stigma* ventral. *Pollinia* yellow, two, ovoid. *Anther cap* cucullate, apical.

*Masdevallia amanda* are usually small, but depending upon the habitat, is variable in size and color of the flowers, and in the lengths of the inflorescences, from short to elongate. Impoverished plants may produce only one flower, very often, the racemes are loosely two to four flowered, but sometimes as many as seven or eight flowers are present. A delicate strap connects the base of the lip to the tip of the extension of the column-foot, or just under the tip of the extension as in subgenus *Meleagris*. Is relatively frequent in Ecuador, all three cordilleras of Colombia, westernmost Venezuela, and less frequent as far as southern Ecuador.

#### References:

Luer, C. A. 2003. Icones Pleurothallidarum 25. Systematics of *Masdevallia* part five. *Monographs in systematic botany from the Missouri Botanical Garden* 91, 1049–1293.



LCDP: *Masdevallia amanda* Rchb.f. & Warsz. A. Habit. B. Flower. C. Dissected perianth. D. Ovary with column and lip, E. Colum side, ventral and dorsal view. F. Lip and petal. G. Anther cap and pollinia.



# *Masdevallia encephala*

LUER & R. ESCOBAR  
ORQUIDEOLOGÍA 13: 56. 1978

**Type:** Colombia. Santander, Munic. of Charalá, between Virolín and Páramo de la Rusia, alt. 2200-2600 m, 1975, collected by J. Guevara, cultivated by M. & O. Robledo at La Ceja, *R. Escobar 1682* (holotype, JAUM).

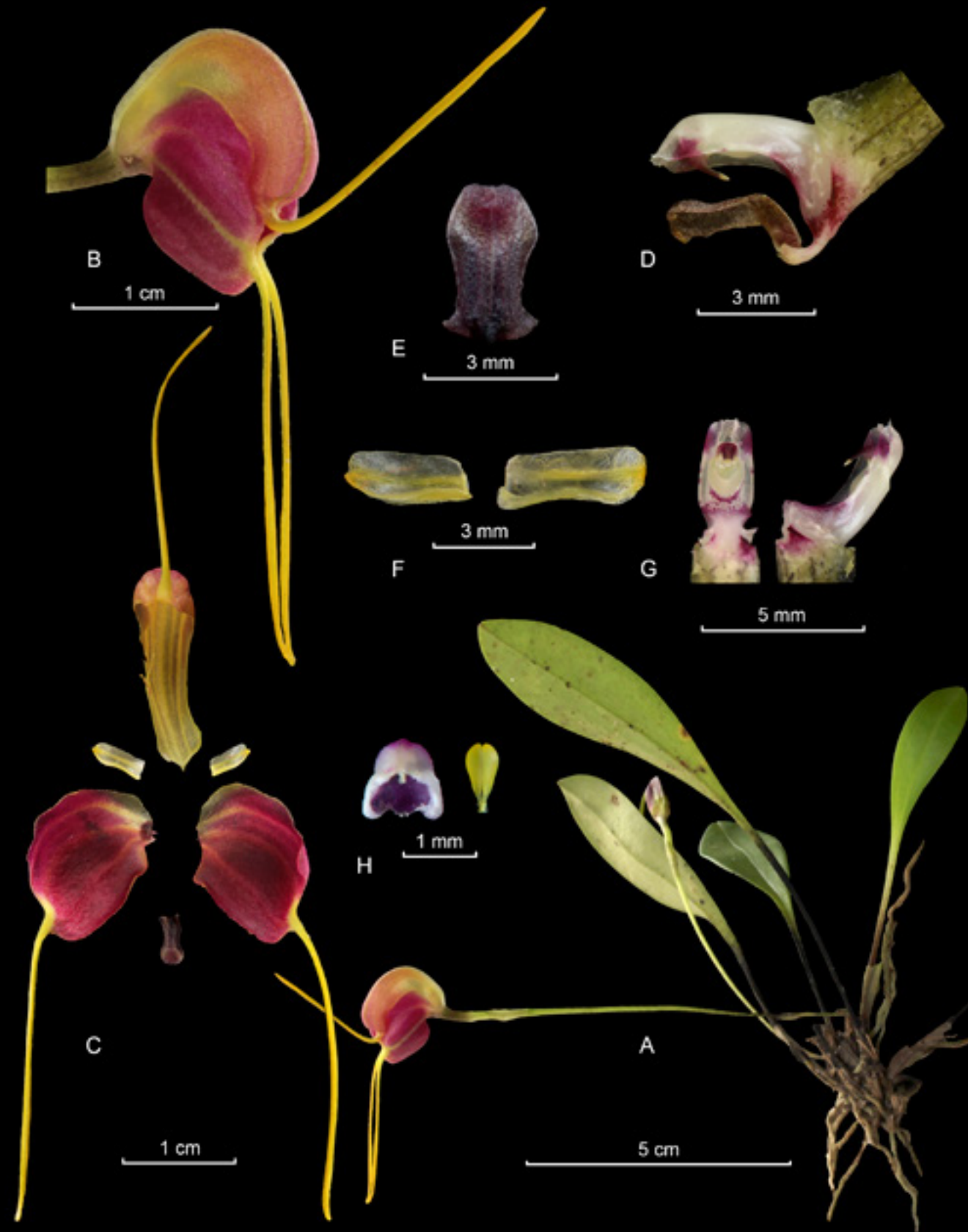
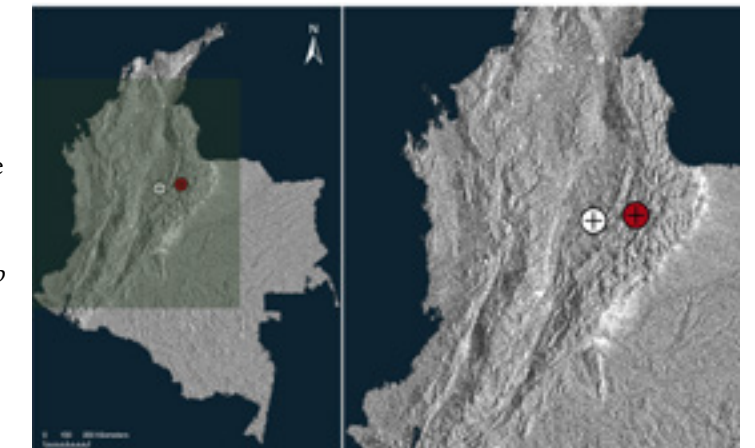
**Illustrated specimen:** Colombia, Santander, Vélez province, municipality of La Belleza, Vereda Vista Hermosa, 2450 m, 27 April. 2016. *Nicolas Gutiérrez M 007* (JBB; LCDP voucher).

*Plant* epiphytic, caespitose, 10–11 cm tall. *Roots* flexuous, slender. *Ramicauls* blackish, erect, about 1 cm long, enclosed by 2–3 thin tubular sheaths. *Leaves* erect, thinly coriaceous, long-petiolate, the blade elliptical, obtuse, lamina 4–6 cm long, 1.2–2.0 cm wide, the petiole blackish, 3–5 cm long. *Inflorescence* a single-flowered, suberect raceme, 7–8 cm long including the peduncle, with a 8 mm long basal bract. *Floral bract* tubular, 9 mm long. *Pedice* greenish, cylindrical, 1.0–1.1 cm long; *ovary* purplish, cylindrical, 5 mm long. *Sepals* with the blades fused into a sub-globose, laterally compressed flower, with loose, microscopically glandular, tails. *Dorsal sepal* yellow, suffused with pale salmon-pink externally, arcuate, concave, oblong, blade 17–18 × 5 mm, the rounded apex contracted into a slender yellow tail 2.3–2.4 mm long. *Lateral sepals* yellow, heavily suffused with rose-pink, suborbicular, the blades forming a deeply saccate synsepal 1.2–1.3 × 2.0–2.1 mm, the obtuse apices contracted into yellow tails similar to that of the dorsal sepal, 2.5 mm long. *Petals* translucent yellow, more or less oblong, 4 × 1.5–1.6 mm, the obtuse apex apiculate, the labellar margin with a longitudinal callus. *Lip*, white densely dotted with purple, purple at the base and on the apical callus, oblong-subpandurate, apically truncate, with a conspicuous central callus forming an apicule, margins irregular, base truncate, hinged to the column foot, 3.5–3.6 × 2.0–2.1 mm. *Column* white, with purple markings, cylindrical, 4 mm, column foot short and stout, with a slightly incurved extension, 1 mm long. *Stigma* ventral. *Anther cap* incumbent, cucullate, white with purple markings, 1 mm wide. *Pollinia* two, yellow, obovoid, laterally flattened, about 1 mm long, joint by a pair of flat, granular caudicles.

The habit of *Masdevallia encephala* is quite like any other species of the genus, however, the inflated, almost completely fused, sepal blades, and bristle-like tails result in a very unique sub-globose flower. The name, which means “the brain” refers to the particular morphology of these rose colored flowers. The species is endemic to Colombia, where it is known by a few collections in Boyacá and Santander.

#### References:

Luer, C. A. 2003. Icones Pleurothallidarum 22. Systematics of *Masdevallia* part three. *Monographs in systematic botany from the Missouri Botanical Garden*: 86.



LCDP: *Masdevallia encephala* Luer & R. Escobar. A. Habit. B. Flower. C. Dissected perianth. D. Column and lip in lateral view, E. Lip. F. Petals. G. Columns in ventral and lateral views. H. Anther cap and pollinia.



# *Masdevallia hortensis*

LUER & R. ESCOBAR  
ORQUIDEOLÓGIA 16(2): 154. 1984

**Type:** Colombia. Antioquia: Municipality of Jardín, La Cifuentes, 2600 m. 26 May 1983. *R. Escobar, L. & J. Posada et. al. 2707* (Holotype: SEL).

**Illustrated specimen:** Colombia. Antioquia: Municipality of Jardín, Vereda Macanas, Reserva Natural el Centello, 2500 m. 3 August 2014. *Norberto Lopez et. al. 8397* (JAUM; LCDP voucher).

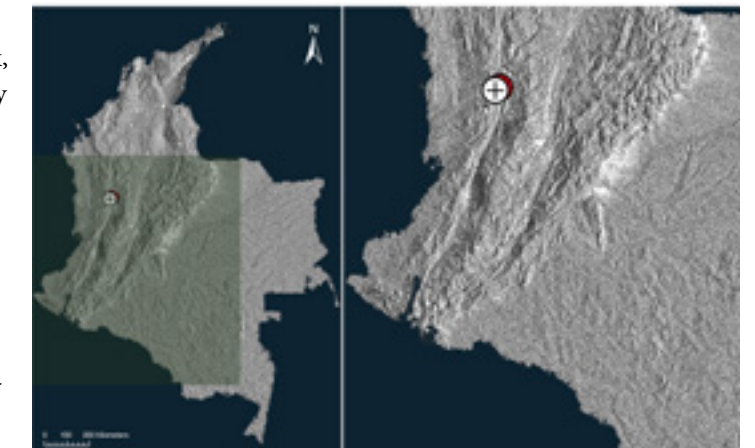
*Plant* epiphytic, caespitose, up to 11 cm tall. *Roots* flexuous, up to 1 mm in diameter. *Ramicauls* erect, up to 7 mm long, enclosed by 2–3 tubular sheaths. *Leaves* bright green, erect, thinly coriaceous, petiolate, elliptical-obovate, subacute, emarginate with a short apiculus, 4.5–7.5 cm long including the petiole, 8–12 mm wide. *Inflorescence* congested, successively flowered, to 9 cm long. *Peduncle* erect to suberect, green, up to 7.1 cm long, with two tubular bracts, one at the base and the other on the lower third. *Floral bract* tubular. *Pedicle* 5–6 mm long. *Ovary* red purple, 3.3 mm long, winged. *Dorsal sepal* white, suffused with yellow below the middle, striped-spotted with red-purple, oblong, glabrous, lamina 9.4 × 5.6 mm, connate to the lateral sepals for about 1 mm, the rounded apex with a callus, abruptly contracted into a reflexed red-purple tail 22 mm long. *Lateral sepals* white, suffused with yellow near the base, suffused with purple-red along the mid vein and at the base, oblong, revolute, glabrous, lamina 11 × 3 mm, the rounded apex abruptly contracted into a deeply reflexed, yellow suffused with red-purple tail 21 mm long. *Petals* yellow, dotted with purple-red and suffused with red at the base, oblong to obovoid, glabrous, 4.3 × 1.9 mm, ending with the emarginate apex, the labellar margin with a longitudinal carina. *Lip* yellow, minutely dotted with red-purple near the base and borders, hinged beneath to the column foot, elliptical-ovate, glabrous, 4.5 × 3 mm, canaliculate, narrowed below the recurved, expanded, rounded apical portion. *Column* white, sparsely dotted with purple-red, semiterete, 6.4 × 1.4 mm, with an incurved foot 2.4 mm long. *Stigma* ventral. *Pollinia* yellow, two, ovoid. *Anther cap* cucullate, apical.

*Masdevallia hortensis* is similar to most other species of *Masdevallia* subgenus *Meleagris*, it can be distinguished by the callus at the

apex of the dorsal sepal and the revolute, white, lateral sepals with a red-purple mid vein. For a long time known only from the type locality where it became extinct by over-collecting, it has been recently rediscovered in two other nearby localities in the Cordillera Occidental in Antioquia and Risaralda, Colombia, where it grows as an epiphyte in shaded and very humid areas of the montane forests around 2600 m elevation.

#### References:

Luer, C. A. & R. Escobar, 1984, Nuevas especies en las Pleurothallidinae de Colombia, *Orquideologia* 16(2): 154-157.



LCDP: *Masdevallia hortensis* Luer & R. Escobar. A. Habit. B. Flower. C. Dissected perianth. D. Ovary with column and lip, side and ventral view. E. Lip and petal. F. Anther cap and pollinia.



# *Maxillariella vulcanica*

(F. LEHM. & KRAENZL.) M. A. BLANCO & CARNEVALI  
LANKESTERIANA 7: 530. 2007

**Synonyms:** *Maxillaria vulcanica* F. Lehm. & Kraenzl. Bot. Jahrb. Syst. 26(5): 484. 1899.

**Type:** Ecuador. Tunguragua, 1500–2000 m. *F. C. Lehmann 8103* (holotype: B, destroyed; fragment: HBG; isotypes: K, LE, US).

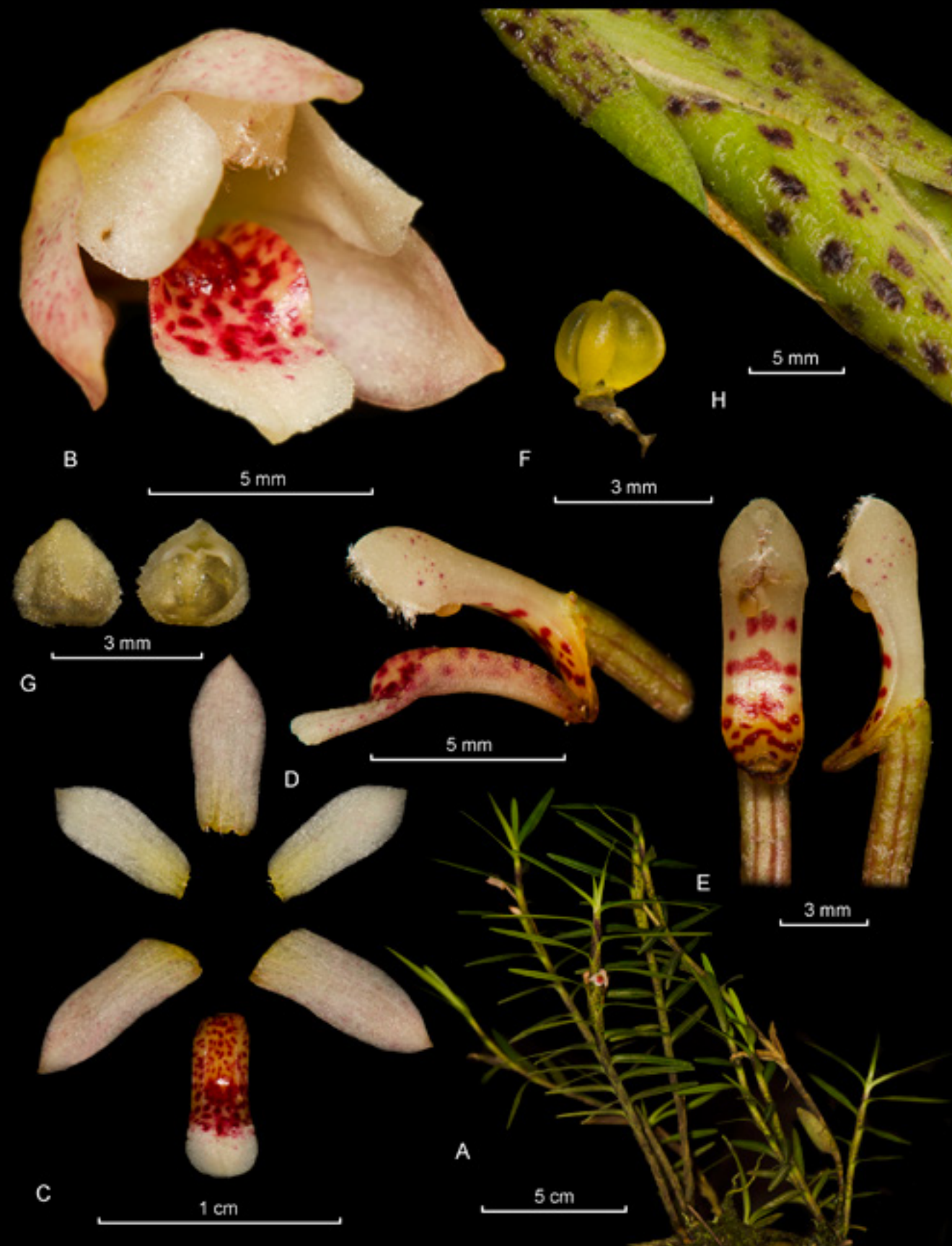
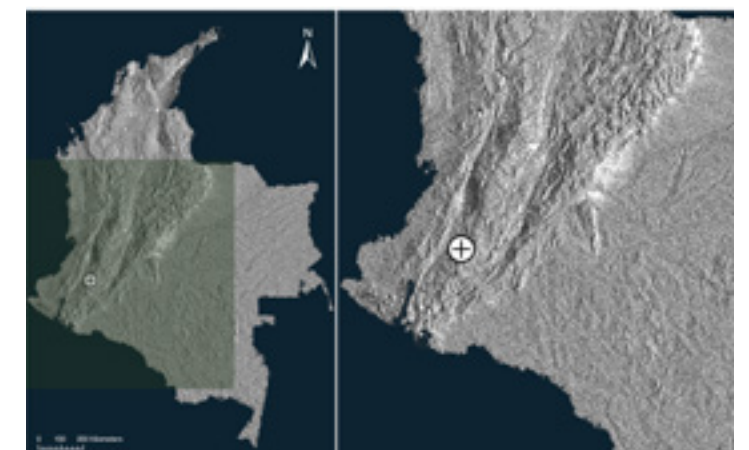
**Illustrated specimen:** Colombia, Cauca, Central Cordillera, Popyán, Rio Blanco, 1700 m, Cultivated in Finca La Elvira, Nursery Angulorquideas. *J.F. Restrepo 304* as *Maxillaria arbuscula* (CAUP!)

*Plant* epiphyte. *Stems* slender, cane-like, imbricating, branching. *Pseudobulbs* ellipsoid, purple spotted, 1.8–2.0 × 0.6–0.7 cm. *Leaves* 2.5–3.75 × 0.5 cm, linear, acute, unequally bilobed, distichous; *sheaths* with red-purple spots. *Inflorescence* axillar, subsessile, 1.3–1.8 cm long. *Flowers* white, diversely suffused and spotted with pink successive, single, campanulate, globose. *Ovary* 6–7 × 1.5–1.7 mm. *Sepals* 8–8.5 × 3–3.5 mm, oblong, ovate, concave, obtuse, red-purple spotted on the adaxial side. *Petals* 7 × 3–3.5 mm, obtuse, elliptic, with few red-purple spots. *Lip* 7–7.5 × 3 mm, ligulate-elliptic, shallowly trilobed, lateral lobes incurved, mid-lobe broad, obtuse, with a conspicuous callus close to the middle of the lip, oblong, raised, with 2 ridges, rigid. *Column* 6.75–7 × 3 mm, slightly curved, clavate, thickened towards the apex, with red-purple spots in the middle and the apex, dark-red towards the apex, clinandrium fringed. *Anther cap* papillose, 2 mm wide. *Pollinia* 4, dark yellow, obovoid.

*Maxillariella vulcanica* is recognized by the ascending habit, slender cane-like stems bearing few, ellipsoid pseudobulbs. The flowers are white, diversely suffused and spotted with pink, the lip bears a conspicuous callus near the middle, and the column is prominently fringed apically. It was previously known from Ecuador and Peru, and is here recoded for Colombia as well.

**References:**

Christenson, Eric A. 2013. *Maxillaria*, an unfinished monograph. Robert Christenson. USA.



**LCDP:** *Maxillariella vulcanica* (F. Lehm. & Kraenzl.) M. A. Blanco & Carnevali. **A.**Habit. **B.** Flower. **C.** Dissected perianth. **D.** Column and lip. **E.** Column, side and dorsal view. **F.** Pollinia. **G.** Anther cap. **H.** Leaf sheaths.



# *Odontoglossum crispum*

LINDL.

ANN. MAG. NAT. HIST. 15: 256. 1845

**Synonyms:** *Oncidium alexandrae* (Bateman) M. W. Chase & N. H. Williams. *Lindleyana* 21(3): 22. 2008.  
*Odontoglossum bluntii* Rchb. f., *Bot. Zeitung*, Berlin 22: 415. 1864.  
*Odontoglossum alexandrae* Bateman, *Gard. Chron.*: 1083. 1864.  
*Fl. Mag.* 6: tab. 343. 1867.  
*Odontoglossum reichenbachianum* Lehm., *Gard. Chron.* [1883] n.s., 20: 395. 1883.

**Type:** Colombia. Cundinamarca: Bogotá, in the woods between the villages of Zipaquira and Pacho, *T. Hartweg s.n.* (holotype: K-L, isotype: W).

**Illustrated specimen:** Colombia. Putumayo, Municipality of Santiago, Vereda Balsayaco, 2216 m. December 2016. *J.S. Moreno & A.L. Erazo 312* (CAUP; LCDP voucher).

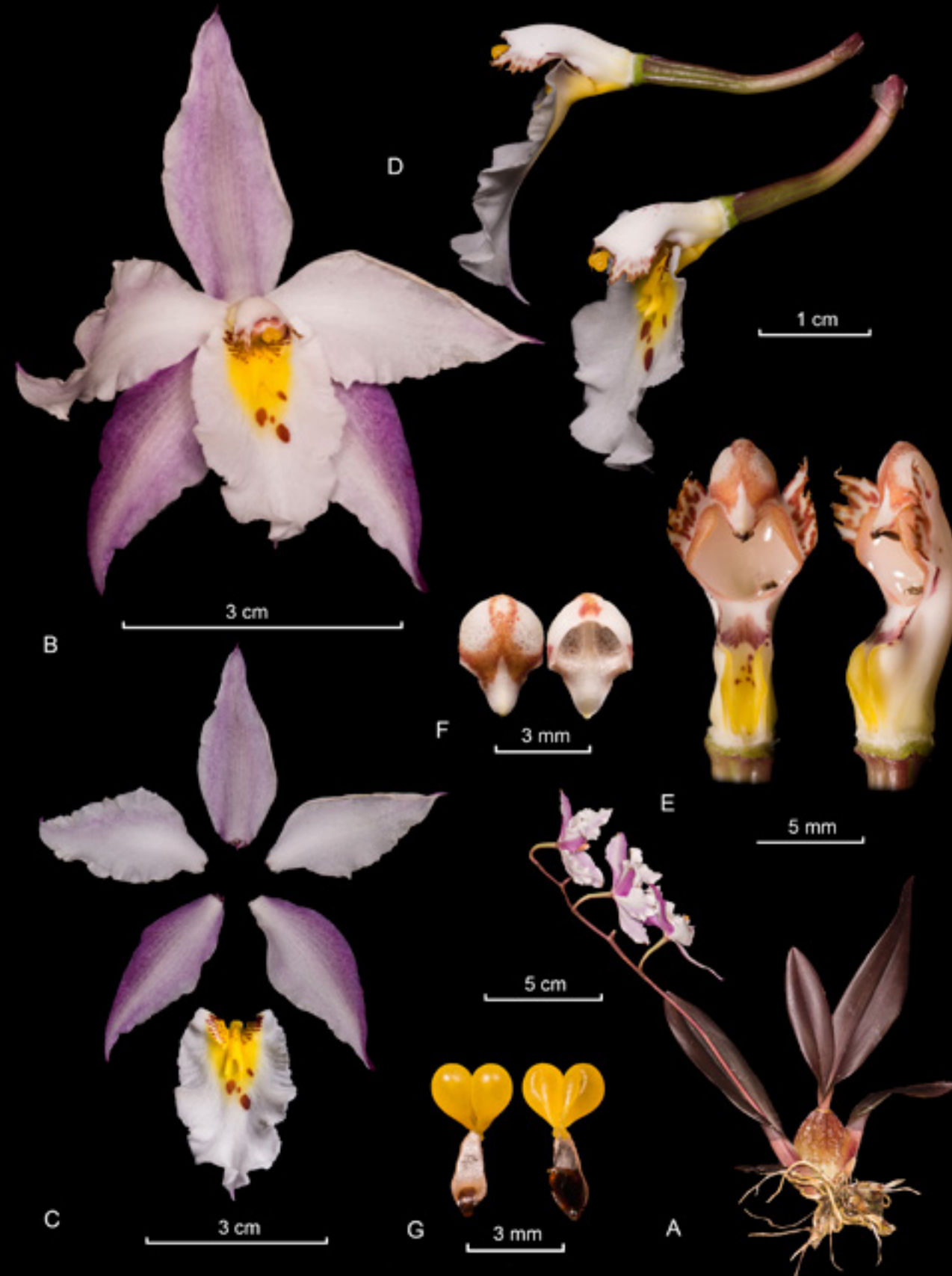
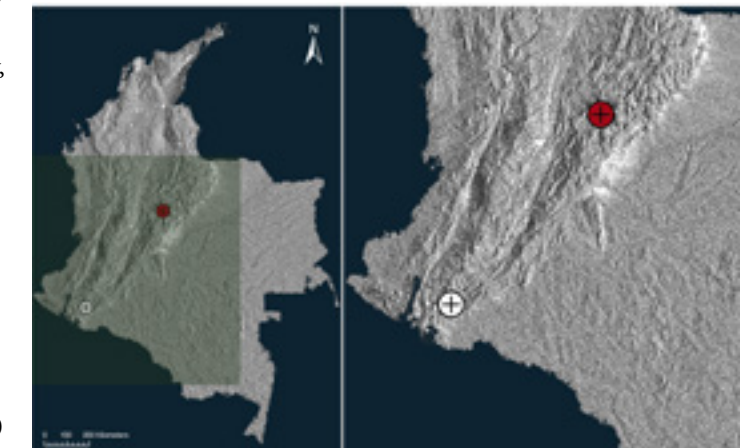
Epiphytic herb, 14.0–15.0 cm tall without the inflorescence. *Roots* basal, fleshy 2.0–3.0 mm in diameter. *Pseudobulbs* caespitose, ancipitous, compressed, ovoid, oblong, 3.5 × 3.0 cm, bifoliate, surrounded basally by distichous, foliaceous sheaths. *Leaves* subpetiolate, conduplicate, lanceolate to elliptic, sub-erect, acute, 7.0–10.0 × 1.5–3.0 cm. *Inflorescence* axillary, from the base of the uppermost sheath, erect to arching, racemose, successively many-flowered, 17–18 cm long. *Flowers* showy, resupinate, white with a purple hue and with a yellow callus and brown dots on the lip, no fragrance recorded or detected; *sepals* free, ovate, acuminate, margins entire and slightly undulate, 2.0–2.3 × 0.75–0.8 cm; *petals* ovate, acuminate, margins slightly undulate, 2.2–2.3 × 11.0–11.2 cm; *lip* adnate to the base of the column through a very short claw, unguiculate, basally cordate, broadly ovate, acute, margins strongly undulate, ca. 20 × 15 mm; *callus* represented by two basal and laterally radiating denticulate crests, with a fleshy median keel, basally consisting of parallel sub-ridges and apically divided into a pair of pointed angles; *column* white with yellow ventral flanks, erect and apically slightly curved towards the lip, basally terete, with a ventral longitudinal fleshy ridge, diverging into a broader, canaliculated tabula infrastigmatica, and with variable, fimbriate, brown-spotted apical wings, 14.0 × 7.0 mm; *anther cap* white with brown marking, campanulate, globular, dorsally lobulate, 2.5 × 2.0

mm; *pollinaria* of two, obovoid to pyriform, cleft/folded, 2 × 1.8 mm pollinia on an oblong-triangular, 2.0–2.3 mm long stipe, on an elliptic, pulvinate viscidium.

*Odontoglossum crispum* is an endemic and endangered species from Colombia. It is recognized by its large and showy white resupinate flowers sometimes with a purple hue, with or without brown or purple dots, similar broad, ovate sepals and petals with an undulate, sometimes lacerate or crispate margin, and a lip with a yellow callus consisting of two prominent lateral denticulate crests and a pair of projecting median teeth adnate to the base of the column. This species is most similar to *Odontoglossum nobile* Rchb.f., also endemic to Colombia in the departments of Boyacá, Santander and Norte de Santander. It has similar white flowers, sometimes with brown to purple dots on the sepals, petals and lip but can be distinguished from *O. crispum* by having smaller flowers with ovately broadened and curved basal flanks of the column, vs. parallel, low, membranous flanks and parallel adnation sutures for *O. crispum*.

**References:**

Bockemühl, L. (1989). *Odontoglossum: Monographie und Ikonographie - A monograph and iconograph*. Brucke-Verlag K. Schmersow (Editor). Hildesheim, Germany. ISBN-13: 978-3871050237.



LCDP: *Odontoglossum crispum* Lindl. A. Habit. B. Flower. C. Dissected perianth. D. Ovary with column and lip. E. Column, side and dorsal view. F. Anther cap. G. Pollinarium

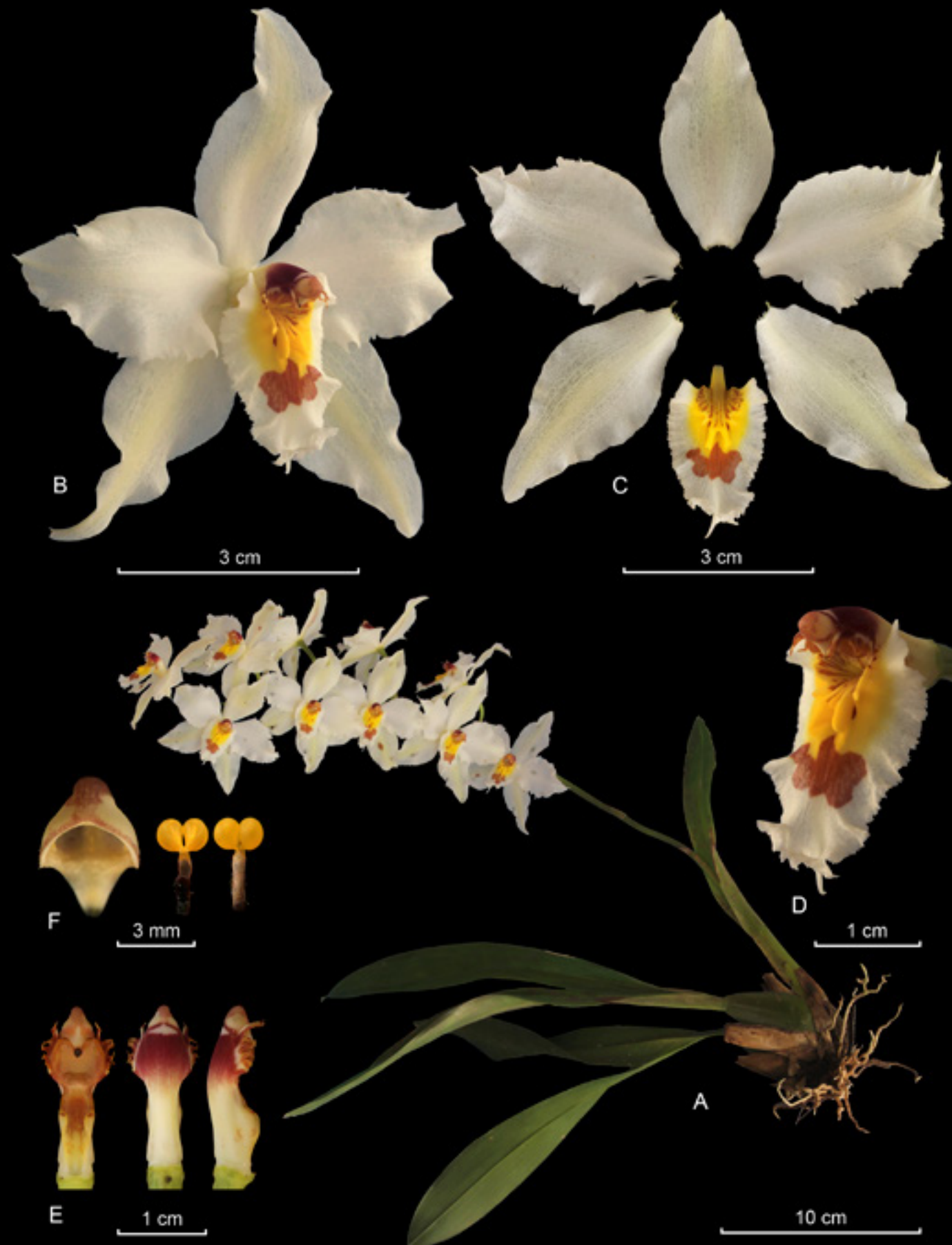




# *Odontoglossum crispum*

LINDL.

ANN. MAG. NAT. HIST. 15: 256. 1845



**Synonyms:** *Oncidium alexandrae* (Bateman) M. W. Chase & N. H. Williams. *Lindleyana* 21(3): 22. 2008  
*Odontoglossum bluntii* Rchb.f., *Bot. Zeitung*, Berlin 22: 415. 1864.  
*Odontoglossum alexandrae* Bateman, *Gard. Chron.*: 1083. 1864.  
*Fl. Mag.* 6: tab. 343. 1867.  
*Odontoglossum reichenbachianum* Lehm., *Gard. Chron.* [1883] n.s., 20: 395. 1883.

**Type:** Colombia. Cundinamarca: Bogotá, in the woods between the villages of Zipaquira and Pacho, *T. Hartweg s.n.* (holotype: K-L, isotype: W).

**Illustrated specimen:** Colombia, Santander, Provincia de Vélez, Municipality of La Belleza, Vereda El Chircal, edge of the forest, 2555 m, in pluvial mountain forest, 21 November 2016. *N. Gutiérrez M 005* (JBB; LCDP voucher).

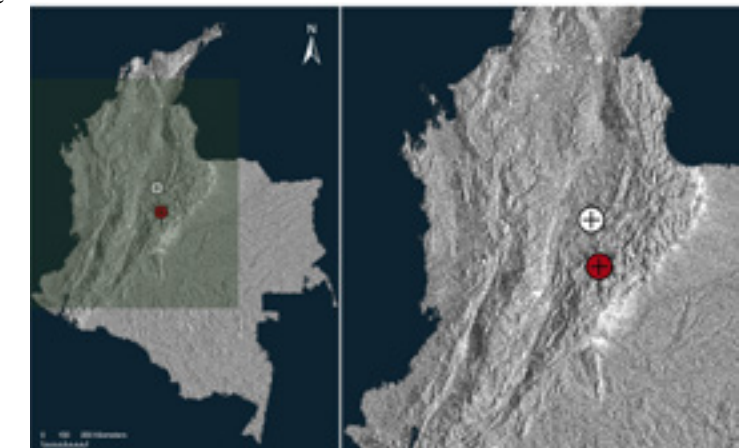
Epiphytic *herb*, 27 cm tall without the inflorescence. *Roots* basal, fleshy 2 mm in diameter. *Pseudobulbs* caespitose, ancipitous, compressed, oblong, 6 × 2.8–3.0 cm, bifoliate, surrounded basally by distichous, foliaceous sheaths. *Leaves* subpetiolate, conduplicate, lanceolate, sub-erect, acute, 20–22 × 3.2–3.0 cm. *Inflorescence* axillary, from the base of the uppermost sheath, erect to arching, racemose, successively many-flowered, 37 cm long. *Flowers* showy, resupinate, white with a yellow callus and a large brown spot on the lip, no fragrance detected; *sepals* free, ovate, acuminate, margins entire and slightly undulate, 3.9 × 1.8 cm; *petals* ovate, acuminate, margins slightly undulate, 3.4 × 2.1 cm; *lip* adnate to the base of the column through a very short claw, unguiculate, basally cordate, ovate, acute, margins strongly undulate, 2.7 × 1.5 cm; *callus* represented by two basal and laterally radiating denticulate crests, with a fleshy median keel, basally consisting of parallel sub-ridges and apically divided into a pair of pointed angles; *column* white with dark purple at the apex of the dorsal surface and with dull yellow ventral flanks, erect and apically slightly curved towards the lip, basally terete, with a ventral longitudinal fleshy ridge, diverging into a broader, canaliculated tabula infrastigmatica, and with variable, fimbriate, brown apical wings, 19 × 7 mm; *anther cap* white suffused with brown, campanulate, globular, dorsally lobulate, 4.5 × 4 mm; *pollinaria* of two, obovoid to pyriform, cleft/

folded, 2 × 1.8 mm pollinia on an oblong-triangular, ca. 2 mm long stipe, on an elliptic, pulvinate viscidium.

*Odontoglossum crispum* is an endemic and endangered species from Colombia. It is recognized by its large and showy white resupinate flowers sometimes with a purple hue, with or without brown or purple dots, similar broad, ovate sepals and petals with an undulate, sometimes lacerate or crispate margin, and a lip with a yellow callus consisting of two prominent lateral denticulate crests and a pair of projecting median teeth adnate to the base of the column. This species is most similar to *Odontoglossum nobile* Rchb.f., also endemic to Colombia in the departments of Boyacá, Santander and Norte de Santander. It has similar white flowers, sometimes with brown to purple dots on the sepals, petals and lip but can be distinguished from *O. crispum* by having smaller flowers with ovately broadened and curved basal flanks of the column, vs. parallel, low, membranous flanks and parallel adnation sutures for *O. crispum*.

**References:**

Bockemühl, L. (1989). *Odontoglossum: Monographie und Ikonographie - A monograph and iconograph*. Brucke-Verlag K. Schmersow (Editor). Hildesheim, Germany. ISBN-13: 978-3871050237.



LCDP: *Odontoglossum crispum* Lindl. A. Habit. B. Flower. C. Dissected perianth. D. Column and lip. E. Column ventral, dorsal and side view. F. Anther cap and pollinarium.



# *Platystele colombiana*

S. VIEIRA-URIBE &amp; KARREMANS, SP. NOV.

**Type:** Colombia, Antioquia: Municipality of Carmen de Viboral, Vereda Santo Domingo, 2170 m. 13 October 2012. S. Vieira & E. Dominguez 0023 (holotype: JAUM; LCDP voucher).

*Platystele colombiana* is most similar to *P. caudatisepala*, *P. posadarum* and *P. baqueroi* but can be easily distinguished by the completely glandular-hirsute tepals and the very narrowly linear to acuminate petals that are about a third the width of the sepals, but similar in length.

**Plant** very small, epiphytic, caespitose, up to about 2 cm tall excluding the inflorescence, *roots* slender. *Ramicauls* slender, ca. 3.0–3.5 mm long, enclosed by 2–3 thin imbricating sheaths. *Leaf* green, erect, coriaceous, oblanceolate, 10–15 mm long including the petiole, 2.6–3.8 mm wide, emarginate and mucronate at the apex, narrowing into a slender petiole ca. 3–4 mm long. *Inflorescence* a loose, suberect, successively many flowered raceme much longer than the leaves, at least up to 35 mm long including the green filiform peduncle up to 20 mm long, arising laterally from the ramicaul; *floral bracts* 1.5 mm long; *pedicels* green, persistent, up to 3.2 mm long; *ovary* green, suffused with purple, glabrous, 0.9 mm long; *sepals* translucent, single veined, glandular-hirsute on the margins and adaxial surface, narrowly ovate, acute, long-caudate; *dorsal sepal* saffron, 14.4 × 2.6 mm; *lateral sepals* burgundy, oblique, 13.2 × 2.5 mm, free to the base; *petals* translucent, saffron, single veined, hirsute on the margins and adaxial surface, narrowly linear to acuminate, 11.8 × 1.0 mm; *lip* burgundy, fleshy, cellular-glandular, obovate, acuminate, above the middle with two conspicuously revolute, fleshy lateral lobes, apically with a hirsute, erect, conical lobe; the base with a small glenion, 2.6 × 1.2 mm; *column* very short, cucullate, 0.6 × 0.9 mm, the stigma bilobed; *pollinia* two, yellow, obovate to orbicular; *anther cap* yellow, cucullate, pentagonal.

The relatively large flowers with long-caudate sepals of *Platystele colombiana* are somewhat reminiscent of *P. caudatisepala* (C. Schweinf.) Garay, *P. posadarum* Luer & R. Escobar and *P. baqueroi*

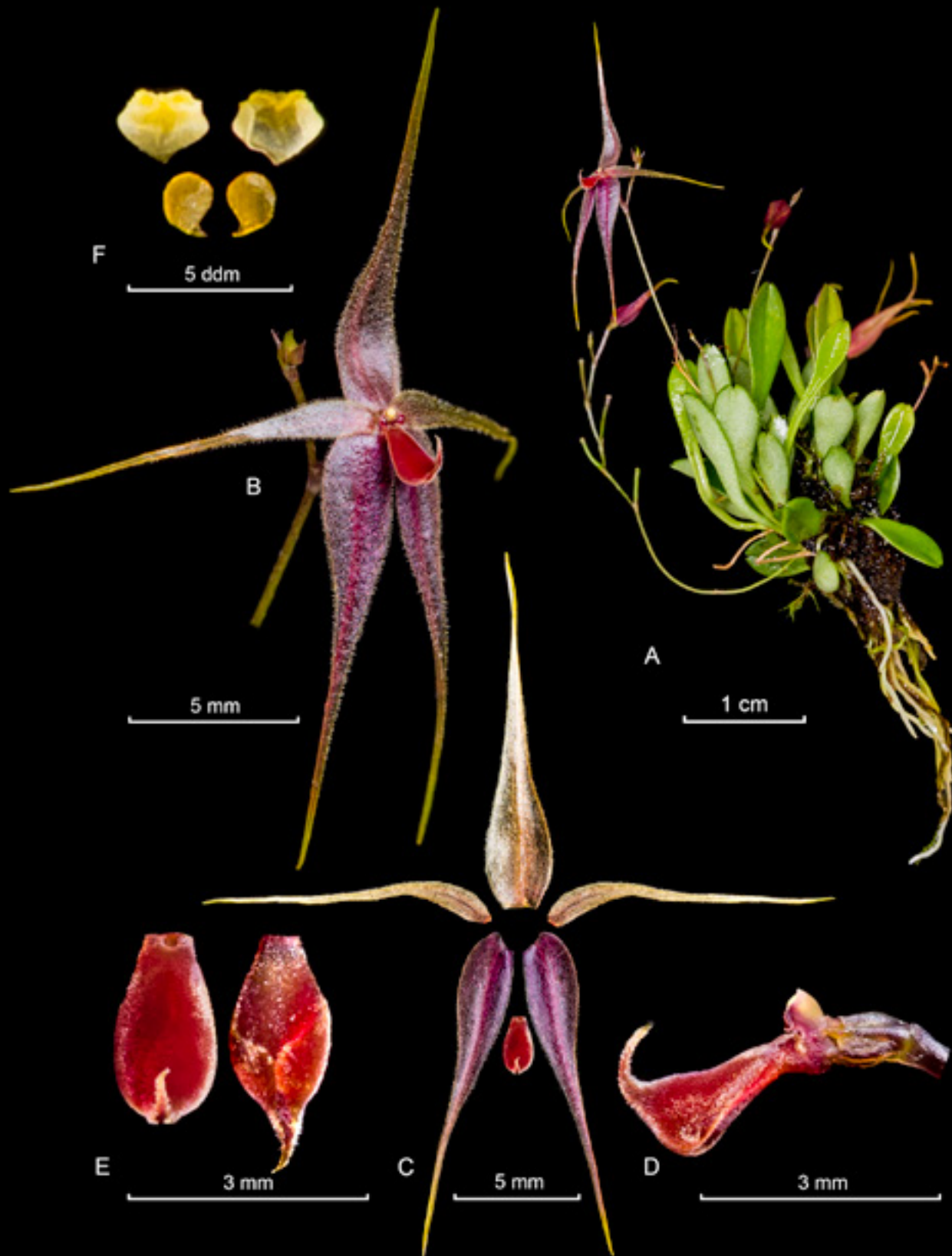
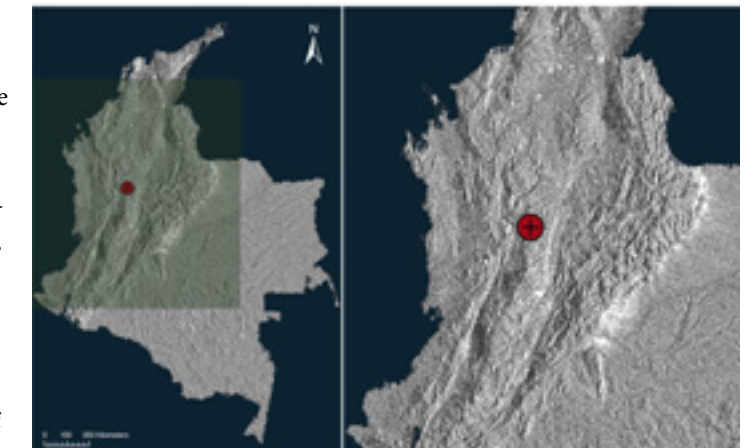
L. Jost & Iturralde. The new species is easily distinguished from those by the completely glandular-hirsute tepals, the very narrowly linear to acuminate petals that are about a third the width of the sepals, but almost the same in length (vs. tepals glabrous [only marginally hirsute in *P. baqueroi*], petals broader, at least half the width of the sepals, and less than half the length). *Platystele speckmaieri* Luer & Sijm is also superficially similar with its long-attenuate tepals, with sepals and petals similar in length. However, its flowers are glabrous, tepals are very narrowly caudate and the lip is broad below the middle and contracted apically.

**Etymology:** From Colombia, country where this species was found.

*Platystele colombiana* has been found only on two nearby localities in southeast Antioquia, on the slopes of Santo Domingo river canyon growing epiphytically in shady and humid places inside the forest, together with other species of *Platystele*, *Stelis* and *Lepanthes*.

#### References:

Luer, CA. 1990. Pleurothallidinarum VII. Systematics of *Platystele*. *Monographs in Systematic Botany from the Missouri Botanical Garden* 38: 1-135.



LCDP: *Platystele colombiana* S. Vieira-Uribe & Karremans. A. Habit. B. Flower. C. Dissected perianth. D. Ovary, column and lip, side view. E. Lip, dorsal and ventral view. F. Anther cap and pollinarium.



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*Size:* Letter, 8.5 × 11 inches (215.9 × 279.4 mm)

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*Format:* Photoshop PSD file with layers, RGB mode with 16 bits. Used photographs must be in RAW, NEF, DNG or similar, and edited in order to adjust from brightness, contrast, temperature, etc. Color calibrations is highly recommended so that colors are closest to nature.

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***Acianthera lojiae*** (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 254. 2004.

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*Description:* A standard morphological description of the specimen is expected here, from the most general elements to the most specific. The description should be based only on the specimen studied by the authors, do not add information from other sources onto the description.

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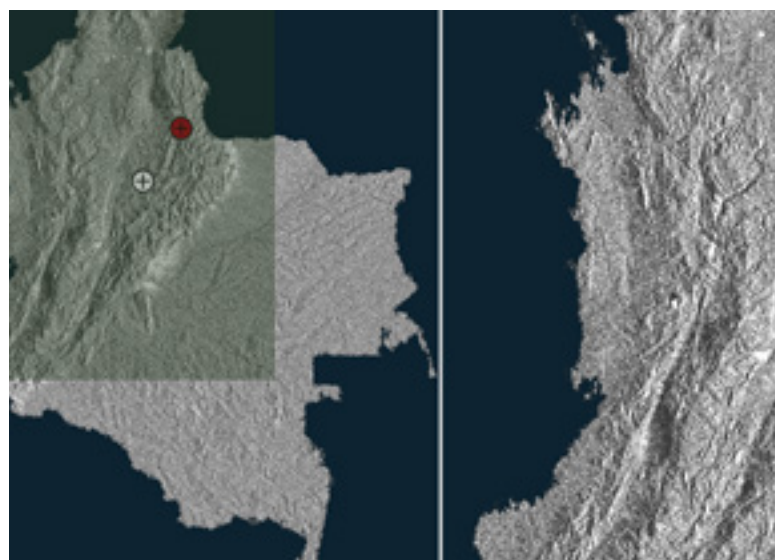
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