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## An homage to Peru's bicentenary: *Maxillaria bicentenaria* (Orchidaceae), a new species previously misidentified as *M. pyhalae*

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### Abstract

We propose the new species *Maxillaria bicentenaria* from the montane forest of central Peru and provide an amendment of the description of *Maxillaria pyhalae*. *Maxillaria bicentenaria* is similar to *M. pyhalae* but differs by the elliptic to sub-elliptic labellum, the labellum distal half irregularly plicate, the flattened and transversally sub-trapezoidal labellar callus, the campanulate to sub-campanulate protuberance at the labellum apex centre, and the conspicuous carina with a sharp edge towards the top of the anther. Illustrations, pictures, and a distribution map are provided for both *Maxillaria* species. The differential features of both species are presented and previous misidentified records are discussed. Finally, a comment on the author name of *Maxillaria fletcheriana* is also provided.

**Keywords:** Cloud forest, new species, Peru, sclerophyllous vegetation

### Resumen

Proponemos *Maxillaria bicentenaria*, una nueva especie proveniente de los bosques montaños del centro del Perú, y proveemos una corrección a la descripción de *Maxillaria pyhalae*. *Maxillaria bicentenaria* es similar a *M. pyhalae* pero se diferencia por el labelo elíptico a sub-elíptico, la mitad distal del labelo irregularmente plegado, el callo labelar aplanado y transversalmente sub-trapezoidal, la protuberancia campanulada y sub-campanulada en el ápice central del labelo, y la quilla conspicua con un borde agudo hacia la parte superior de la antera. Ilustraciones, fotos y un mapa de distribución son provistas para ambas especies. Se presentan las características diferenciales entre ambas especies y se discuten los registros previos mal identificados. Finalmente, se provee un comentario sobre la autoría del nombre de *Maxillaria fletcheriana*.

**Palabras clave:** Bosque montano, nueva especie, Perú, vegetación esclerófila

## Introduction

Peru is one of the most biodiverse countries in the world and, thus, is one of the 17 megadiverse countries around the world (Mittermeier *et al.* 1998, Comisión Nacional de Diversidad Biológica 2008). In Peru, plants are particularly diverse and it was recently calculated that more than 19000 species are known, from which around 7590 are only restricted to the country (Ulloa Ulloa *et al.* 2017). Although diverse flowering families are well represented in Peru (e.g. Asteraceae, Fabaceae, Piperaceae), the Orchidaceae is by far the dominant family with more than 2120 species (Ulloa Ulloa *et al.* 2017), a third of which are endemic (Brako & Zarucchi 1993, Roque & León 2006). Nevertheless, we are still far from having a complete picture of the orchid diversity in Peru as each year dozens of new species are described as taxonomically complex genera are better understood (Martel 2020). Such is the case of *Maxillaria* Ruiz & Pavón (1794: 116), a species rich genus with only three species described from Peru during the last decade (i.e. *M. bettymooreana* Christenson [2010: 156], *M. fraudulenta* Christenson [2013: 320], and *M. gladiata* Schuitman [2014: 174]).

*Maxillaria* was established by Ruiz and Pavón (1794) more than 200 years ago. The first species of *Maxillaria* were described four years later (Ruiz & Pavón 1798) on the basis of their work during the expedition carried they out several years earlier in South America (Ruiz 2007). Ruiz and Pavón were sent by the Spanish crown to lead a botanical expedition in the Viceroyalty of Peru and Captaincy General of Chile, at that moment still part of the Spanish Empire. The expedition aimed to improve the knowledge of potentially useful plants growing in these territories; the team was botanized for 11 years, mostly in Peru (Ruiz 2007; Pupulin 2012). Their findings were planned to be published in eleven volumes, however, only three volumes of *Flora Peruviana et Chilensis* actually saw the light (Ruiz and Pavón 1798; Pupulin 2012). Probably because of the economic difficulties experienced by the botanists and the later decadence of the Spanish Empire aggravated by the French occupation.

Today, two centuries after the proposal of the genus, *Maxillaria* includes around 600 species (*sensu* Blanco *et al.* 2008). In Peru, *Maxillaria* is a commonly occurring genus that inhabits most of the country's ecosystems; being most diverse in the cloud and rain forests (see Brako & Zarucchi 1993; Roque & León 2006). At the moment, around 200 species of *Maxillaria* s.s. are known from Peru (Govaerts *et al.* 2021); one-fifth of those were described by David Bennett and Eric Christenson in, among others, their *Icones Orchidacearum Peruvianum* series (hereafter IOP; Bennett & Christenson 1998, 2001). Of the 18 *Maxillaria* species proposed in the IOP, *Maxillaria pyhalae* Bennett & Christenson (2001: 703) is remarkable because it presents medium sized flowers (around 4 to 5 cm long) and each segment of its perianth resembles a Peruvian flag (i.e. white and red colouration). Therefore, it is locally known as “the Peruvian orchid” (“la peruanita” in Spanish) and was portrayed in a national postal stamp and featuring local orchid catalogues (e.g. Collantes 2014).

At the moment of its description, *M. pyhalae* was only known from one locality in the department of Huancavelica, in central Peru (Bennett & Christenson 2001). However, Christenson (2006) extended its distribution to the north in around 180 km in a straight line, the current Oxapampa-Ashaninka-Yanesha Biosphere Reserve (hereinafter referred to as OAYBR) in the department of Pasco, also in central Peru, after reviewing a pressed sheet containing a plant with a white and red coloured flower (i.e. *Gentry & Smith 35980*, USM). Vásquez *et al.* (2005) reported the same species in the same area. Since then, *M. pyhalae* was reported several times in Pasco (e.g. Catchpole & Aguilar 2008, CTB/PRODERN 2015, Ministerio del Ambiente 2018, SERFOR 2021). However, the lack of a detailed description and better views of the labellum of *M. pyhalae* in the IOP makes it challenging to identify specimens with certainty (see Bennett & Christenson 2001). Inspection of the type material deposited at MOL, further collections from the type locality, and a detailed line drawing of a specimen of *M. pyhalae*, which has been published afterwards (Collantes 2014), allowed us to characterize the shape of the floral segments.

During the collection of material related to a study on floral scents carried out at the OAYBR, we collected plant specimens corresponding with what has been previously identified as *M. pyhalae*. However, we noticed that they had, and in addition to other particular features, a remarkably distinct labellum from those of specimens of *M. pyhalae* from Huancavelica. After careful analyses, we concluded that the plants from the OAYBR belong to a different, undescribed species. Therefore, we propose the new taxon *Maxillaria bicentenaria*, an homage to the 200th anniversary of Peruvian independence, and provide a detailed description, line drawings, colour plates and distribution maps for the two “Peruvian orchids” (“las peruanitas” in Spanish).

## Materials and methods

Specimens were field collected between January and March of 2014 and 2021 at the conservation areas of Bosque de Sho'llet and the San Alberto basin, in the department of Pasco, and forests of the districts of Huachocolpa and Robles, department of Huancavelica. Flowers were preserved in spirit or pressed and desiccated, and deposited at USM. Spirit and dried material were used to prepare the line drawings under a Leica® Wild M8 stereomicroscope. The ink illustration was prepared using a Rotring® Rapidograph 0.1 mm on a Canson® paper of 120 g. Herbarium vouchers from USM and MOL, and digital vouchers from F, HOXA, and MO were examined. Finally, we used the software Adobe Photoshop v. 10.4 and ArcGIS v. 10.5 to prepare the figures and distribution map, respectively.

## Taxonomy

*Maxillaria pyhalae* D.E.Benn. & Christenson (Figs. 1–2)

**Type:**—PERU. Huancavelica: Prov. of Tayacaja, Llactapata, 2600 m, 14 February 1999, *León & Collantes 2975* (holotype MOL, photo!; isotype MOL, photo!).

*Plant* up to 60 cm tall (including the inflorescence), terrestrial and occasionally epiphytic. *Roots* slender, born from the rhizome at the base of the pseudobulb. *Rhizome* stout, 8–10 × 0.8 cm, covered by scarios bracts. *Pseudobulb* 1.5–2.1 × 0.5–0.8 cm, covered by two scarios bracts, 1–2 articulated foliaceous bracts of 25–29 cm long. *Leaf* 20.5–39.5 × 3.2–3.8 cm, unifoliate; petiole 4.5–10 cm long; blade loriform, acute to acuminate apex. *Inflorescence* up to 60 cm long, basal, slender scape covered by 7–8 bracts; *bracts* 4.0–6.5 cm long; *floral bract* 5.0 × 2.4 cm, ovate, cucullate and carinate on the back, acuminate, basally tubular and unguiculate along 0.8 mm. *Flower* non-resupinate, red and white, 4–5 cm long, facing downwards. *Ovary* dark purple, strongly recurved. *Sepals* with a longitudinal white stripe in the middle, flanked by two red stripes on the sides; *dorsal sepal* 4.2–4.8 × 1.1–1.2 cm, triangular oblong, apiculate apex, margin irregularly entire, 17-nerved; *lateral sepals* 3.6–4.3 × 1.8–2.0 cm, triangular falcate, acute and apiculate apex, 15–17-nerved. *Petals* 3.4–4.1 × 1.2–1.3 cm, triangular sub-falcate, with a longitudinal white stripe in the middle, flanked by two red stripes on the sides, 11–13-nerved. *Labellum* 2.0–2.1 × 1.5 cm, sub-pyriform, adaxial surface covered by abundant spherical and sub-spherical yellow pseudopollen granules forming plush clumps towards the disk base, a semi-circular callus at the middle on the adaxial surface, an arc of 6 mm long on the abaxial surface; *basal half* hemi-rounded with entire, dark red margins; *distal half* transversally extended in two dolabriform expansions, margins irregularly denticulate, dark cream, with irregular and enlarged dark garnet spots; *apex* dark mustard with dark brown spots or completely yellowish, margin revolute of 8–9 mm long; *apex centre* a semi-ellipsoidal to cupuliform protuberance of 2.5–3.0 mm long, covered by pseudopollen, revolute margins dorsally as closed or open lips. *Column* 12 × 5 cm, arcuate, semi-terete, slightly concave ventral surface, surface with minute dactylar papillae, cream and ventrally pale yellow with small and irregular dark red dots; *clinandrium* with minuscule dactylar appendices of variable size; *column foot* 16–18 × 5 mm, arcuate, dorsoventrally flattened and slightly concave with lateral ridges. *Anther* 5.8–6.4 × 5–5.5 mm, widely obovoid, slightly complanate dorsoventrally, thick dark cream with reddish brown spots at the centre or entirely cream, dorsal surface slightly concave, a thick carina extending rearward with a rounded superior margin from the middle to the apex, a conspicuous V-shaped promontory at the end of the carina. *Pollinarium* 5 × 3 mm, with four pollinia; *viscidium* saddle shaped; *pollinium* claviform, complanate, convex-concave, larger pair 5 × 2 mm, smaller pair 3.4 × 1.5 mm. Fruit, not recorded.

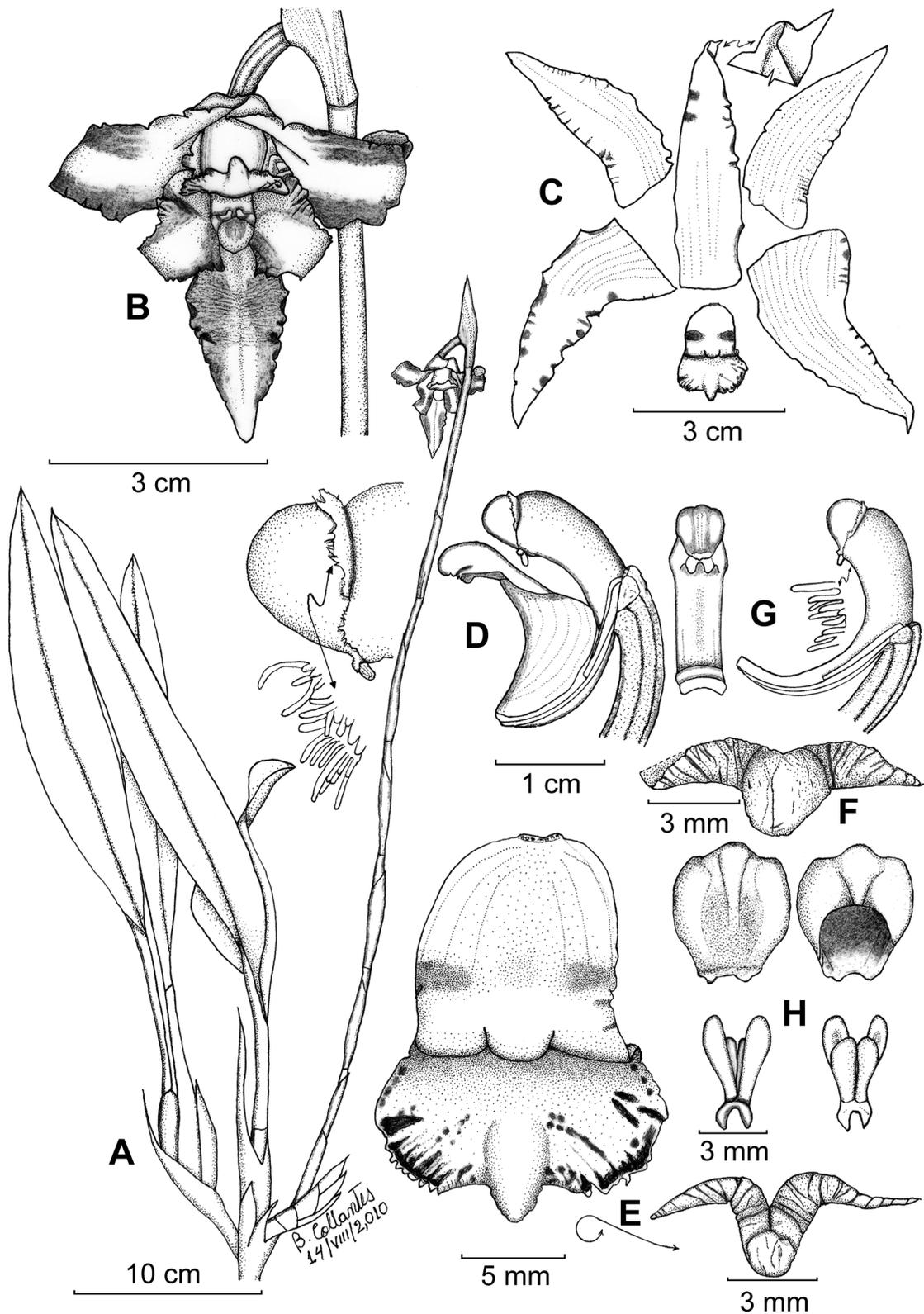
**Phenology:**—Flowering between February and March (Collantes 2014).

**Distribution, habitat, and ecology:**—*Maxillaria pyhalae* is only known from three localities (*i.e.* Regional Conservation Area Amaru-Chihuana, Velapaccha, and Roble) in the district of Huachocolpa, department of Huancavelica, Peru (Fig. 3; Collantes 2014). The species is locally abundant and can be found at elevations between 2300 and 2900 m. They grow in humid and shaded undergrowth on rocks, but may also be found as epiphytes.

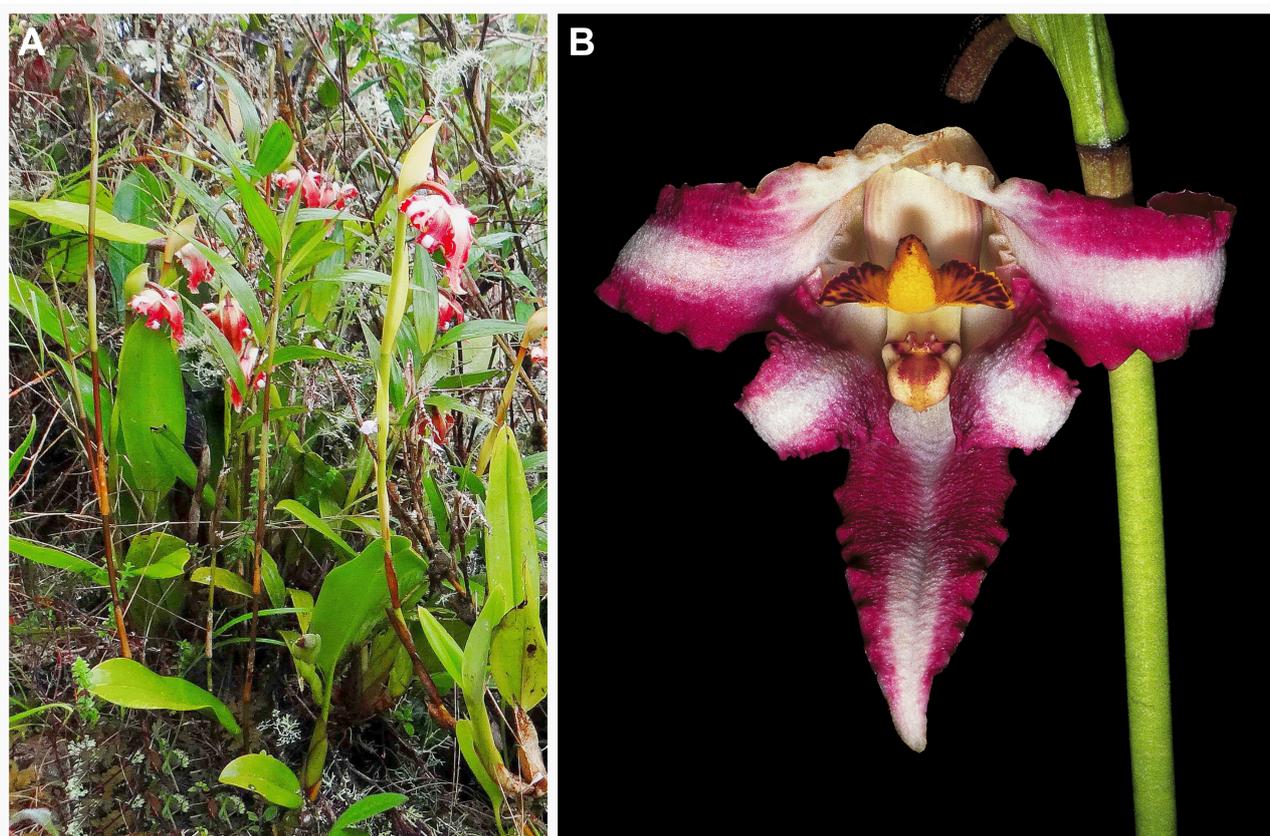
**Additional specimens examined:**—PERU. Huancavelica: Prov. of Tayacaja, Dist. of Huachocolpa, Llactapata, 2600 m, 14 February 1999, *León & Collantes 2975[b]* (MOL, photo; USM); Inquilpata, 2700 m, 22 March 2021, *León 8651* (USM); Dist. of Robles, Bosque de Robles, 2630 m, 17 February 2014, *Egoavil 152* (USM).

**Conservation status:**—*Maxillaria pyhalae* is known only from three localities where it is locally abundant. However, the observed population is calculated as less than 1000 individuals given that most growth points are the result of vegetative growth from the rhizome. Therefore, following the IUCN Red List (IUCN 2019) criteria, the species would likely be categorized as Endangered (EN), criterion D, based on the number of mature individuals; the

same categorization was previously assessed (Roque & León 2006) The species has been included in the Peruvian CITES list (Ministerio del Ambiente 2018) and the national plan for orchid conservation (SERNANP 2021).



**FIGURE 1.** *Maxillaria pyhalae*. A. Habit. B. Flower, frontal view. C. Dissected flower with extended perianth and details of the dorsal sepal apex. D. Labellum and column, lateral view. E. Labellum, frontal view with detail of the abaxial side of the extended apex. F. Protuberance at the apex centre of the labellum, coronal view. G. Column, frontal and lateral views with details of the margins. G. Column, lateral view with details of the surface. H. Anther and pollinarium, ventral and dorsal views. Note the flower is non-resupinate and it is shown as resupinate in C for graphical purposes only. Drawn from *M. León & B. Collantes 2975 (USM)* by B. Collantes (personal plate n° 21).



**FIGURE 2.** *Maxillaria pyhalae*. **A.** Habit. **B.** Flower, frontal view. Photographs by L. Egoavil (A) and B. Collantes (B).

**Comments:**—Besides the new taxon proposed herein, we believe *M. pyhalae* is morphologically most similar to *Maxillaria fucata* Reichenbach (1886: 616), rather than *Maxillaria fletcheriana* R.H. Pearson (1913: 258) (a synonym of *M. insignis* Rolfe [1922: 25]) as suggested by Bennet & Christenson [2001] in the protologue. The line drawings of *M. pyhalae* published in the IOP misrepresents important details of the plant specimens, especially the labellum, which makes the identification of this taxon challenging at times. The labellum shape is also not described in detail in the protologue. This has caused confusion with regard to the identity and correct interpretation of this taxon. Additionally, it has been determined that the holotype and an isotype of *M. pyhalae* are gathered at MOL under the same collection number (i.e. León *et al.* 2975, MO; Trujillo 2014).

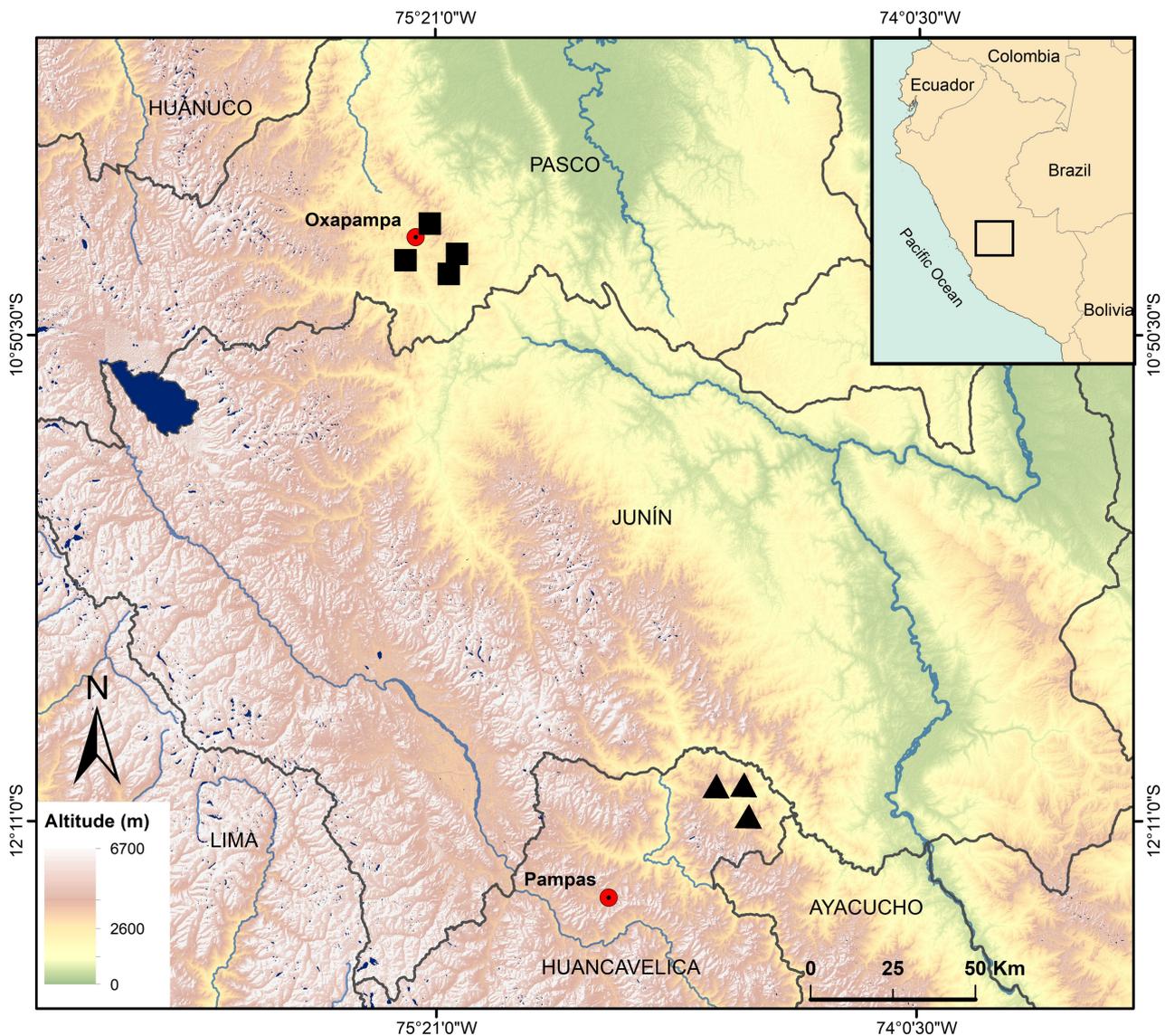
***Maxillaria bicentenaria*** Collantes & C.Martel, *sp. nov.* (Figs. 4–6)

Similar to *Maxillaria pyhalae* D.E. Benn. & Christenson, but differing in the elliptic to sub-elliptic labellum irregularly plicate, the flattened and transversally sub-trapezoidal labellar callus, the campanulate to sub-campanulate protuberance at the labellum apex centre, and the conspicuous carina with a sharp edge towards the top of the anther.

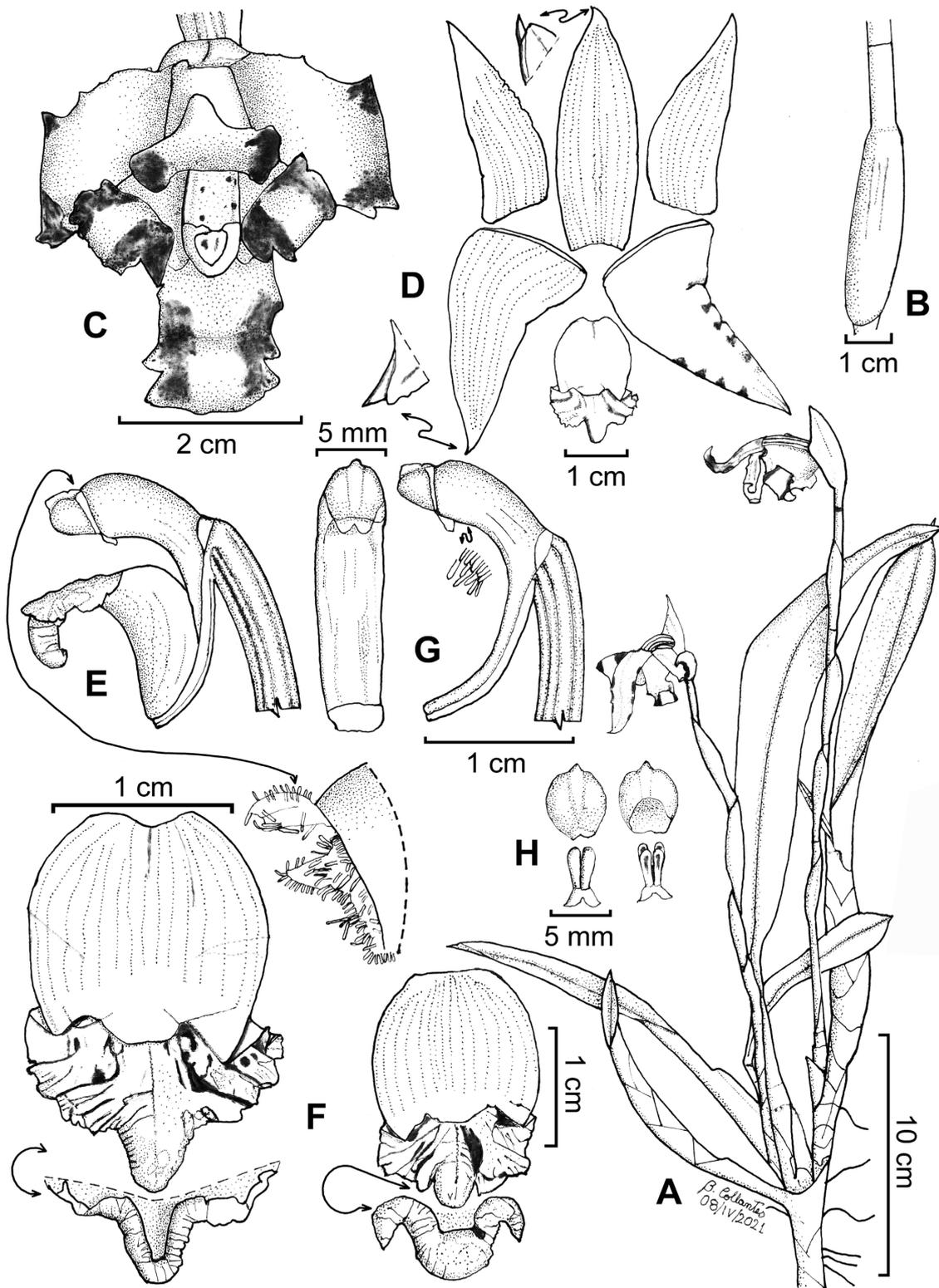
**Type:**—PERU. Pasco: Prov. of Oxapampa, conservation area of Bosque de Sho'llet, Rincón Chacos, 2400 m, 16 March 2021, *Martel et al.* 99 (holotype, USM).

*Plant* up to 50 cm tall (including the inflorescence), terrestrial, caespitose. *Roots* slender, born from the rhizome at the base of the pseudobulb. *Rhizome* stout, 5–8 × 0.5 cm, covered by scarious bracts. *Pseudobulb* 6.5 × 1.2 cm, narrowly ovoid, laterally flattened, bevelled on one side, a laterally flattened segment of 1.9 × 0.6–0.7 cm formed by a narrowing apex; basal bracts 8 × 1 cm, conduplicate at the base; foliaceous bracts 14 cm long. *Leaf* 37 × 4 cm, unifoliate; petiole 7 × 0.5 cm long; blade 6 × 1.2 cm, loriform, acuminate apex. *Inflorescence* up to 43 cm long, basal, terete, slender scape covered by nine bracts, internode apical of 3 mm in diameter; *bracts* 9, amplexicaul, largely acuminate; *floral bract* widely ovate, cucullate and carinate on the back, acute, unguiculate base of 5 × 10 mm. *Flower* non-resupinate, red and white, 3–4 cm long, facing downwards. *Ovary* 37–42 × 3.0–3.6 cm, dark brown to purple, arcuate. *Sepals* with a longitudinal white stripe in the middle, flanked by two red stripes on the sides; *dorsal sepal* 3.5–4.1 × 1.3–1.4 cm, ovate-oblong, acute and mucronate apex, reflexed, margin entire, sub-sinuate towards the apex, 10-nerved; *lateral*

*sepals* 3.4–3.8 × 2.0 cm, falcate, reflexed, acute and mucronate apex, irregularly entire margin and sub-sinuate towards the apex, 12–14-nerved. *Petals* 3.2–3.4 × 1.2 cm, sub-falcate, with a longitudinal white stripe in the middle, flanked by two red stripes on the sides, acute apex, irregularly entire margin at the base, irregularly erose-undulate margin along the last 2/3, 10–11-nerved. *Labellum* 2.0–2.1 × 1.4 cm, elliptic to sub-elliptic, 15–16-nerved, adaxial surface covered by abundant spherical and sub-spherical yellow pseudopollen granules forming filamentous plush clumps towards the disk base, a transversal sub-trapezoidal short callus of 5 × 2 mm in the middle on the adaxial surface, a 6 mm long arc on the abaxial surface; *basal half* with entire and dark red to marron stripes at the margins; *distal half* irregularly plicate towards the apex, margins irregularly denticulate, dark garnet with irregular reddish spots; *apex* transversally revolute of 6–8 mm long, mustard with dark red spots, margin revolute of 8–9 mm long; *apex centre* a campanulate to sub-campanulate protuberance of 4 mm long, with a fine and irregular dorsal groove, covered by pseudopollen, revolute margins dorsally as open lips. *Column* 10 × 5.5 cm, slightly arcuate and sub-clavate, semi-terete, slightly concave ventral surface, surface with minute dactylar papillae, white and ventrally yellowish cream with irregular dark red dots; *clinandrium* short, with minuscule dactylar appendices of variable size; *column foot* 16–18 × 5 mm, arcuate. *Anther* 5.2–6 × 4.5 mm, sub-spherical, dorsoventrally slightly flattened, slightly flattened towards the top and conspicuously carinate at the top with a sharp edge and decorated with various minuscule papillae, the carina projects backwards, dark cream. *Pollinarium* 4.9 × 2.6 mm, 4-pollinia; *viscidium* saddle- or inverted V-shaped; *pollinium* complanate, oblong-obovoid to claviform, flat convex to convex-concave, larger pair 3.1 × 1.2 mm, smaller pair 2.2 × 1 mm. *Fruit* not recorded.



**FIGURE 3.** Geographical locations of *Maxillaria bicentenaria* (squares) and *M. pyhalae* (triangles) in Peru. Names in capital letters indicate political departments and names associated to red dots indicate provincial capitals. Colour scale indicates elevation.

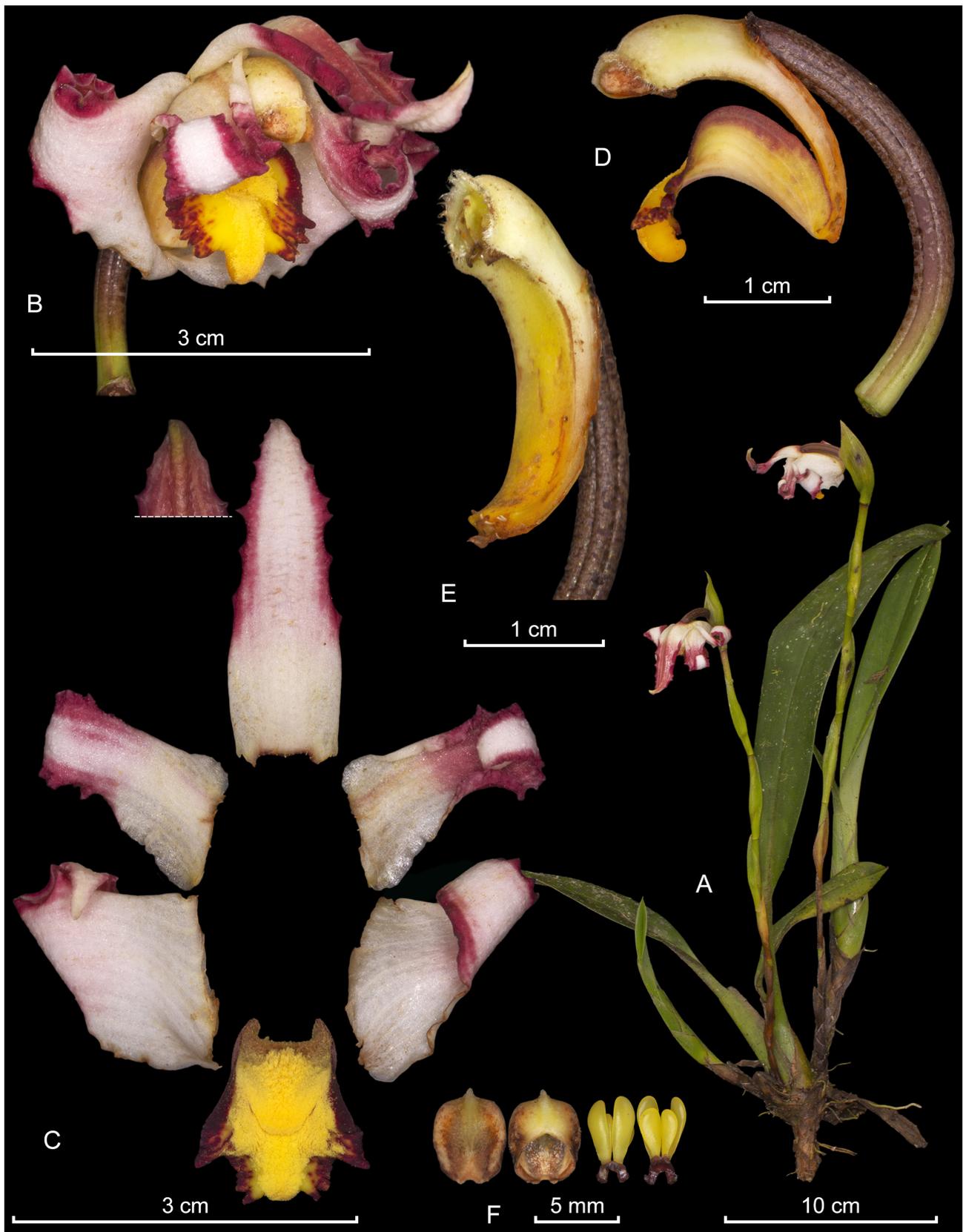


**FIGURE 4.** *Maxillaria bicentenaria*. **A.** Habit. **B.** Pseudobulb, side view. **C.** Flower, frontal view. **D.** Dissected flower with extended perianth and details of the sepal apex. **E.** Labellum and column, lateral view with details of the anther margin. **F.** Labella, frontal view with detail of the abaxial side of the extended apex. **G.** Column, ventral and lateral view with details of the margins. **H.** Anther and pollinarium, ventral and dorsal views. Note the flower is non-resupinate and it is shown as resupinate in D for graphical purposes only. Drawn from C. Martel *et al.* 99–100 (USM) by B. Collantes (personal plate n° 52).

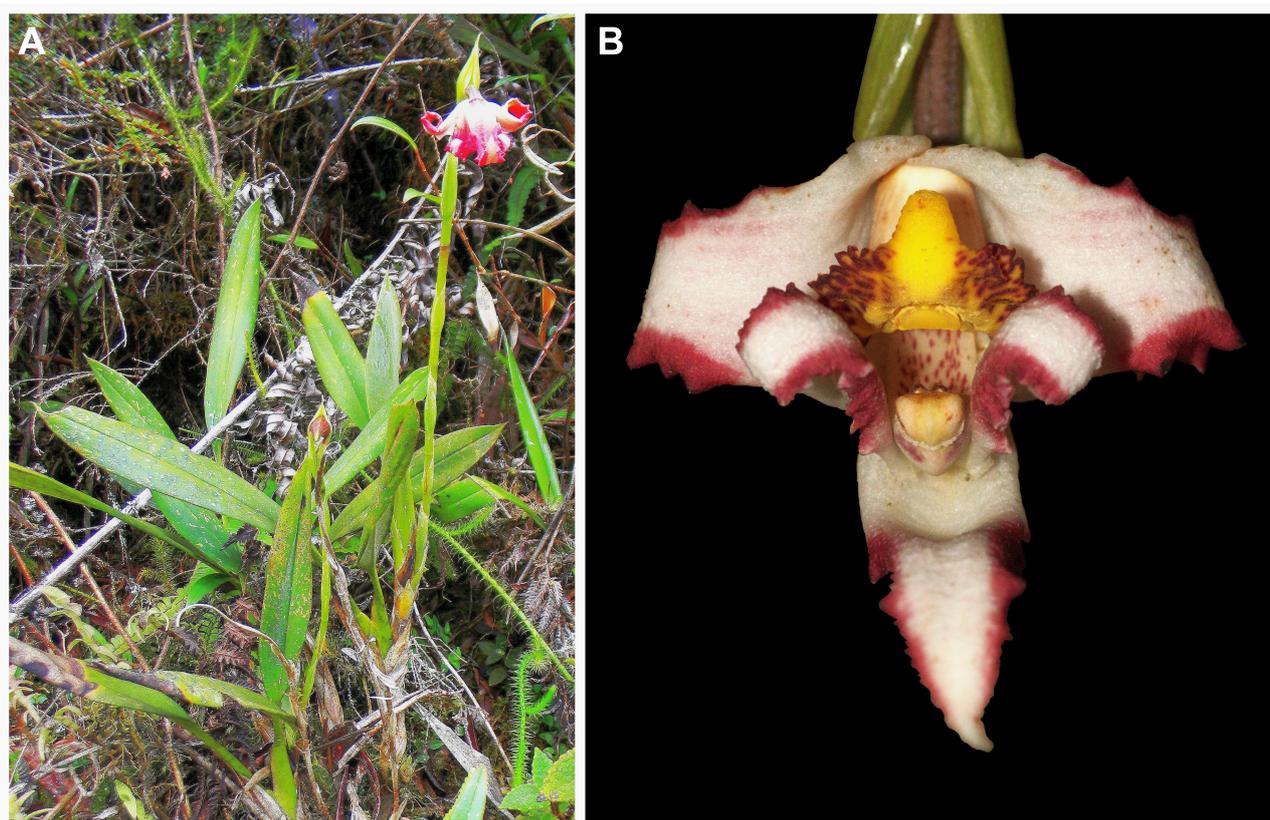
**Phenology:**—This species flowers between December and April.

**Distribution, habitat, and ecology:**—*Maxillaria bicentenaria* is known from four localities in the dry montane

forests of the OAYBR in central Peru (Fig. 3). Plants of *M. bicenteneria* grow in semi-dry montane forests, exposed or shaded undergrowth on rocks or soil associated with ferns and other orchids.



**FIGURE 5.** *Maxillaria bicenteneria*. **A.** Habit. **B.** Flower, lateral view. **C.** Dissected perianth, frontal view with detail of the abaxial side of the dorsal sepal apex. **D.** Labellum and column, lateral view. **E.** Column, lateral view. **F.** Anther, frontal and dorsal views. **G.** Pollinarium, frontal and ventral views. Note the flower is non-resupinate and it is shown as resupinate in B and C for graphical purposes only. Prepared by L. Ocupa.



**FIGURE 6.** *Maxillaria bicentenaria*. A. Habit. B. Flower, frontal view. Photographs by F. Rizo Patrón (A) and C. Martel (B).

**Additional specimens examined (paratypes):**—PERU. Pasco: Prov. of Oxapampa, Cordillera Yanachaga, 14 km E of main Oxapampa-Villa Rica road, lumber road at top of Cordillera, 2450 m, 2 March 1982, *Gentry & Smith 35980* (F, photo); 12 km SE of town, road over shoulder of Cerro Pajonal to Villa Rica, between 5 February and 2 April 1997, *Weigend & Dostert 97/60* (F, photo); 2363 m, 23 February 2008, *Vásquez et al. 33583* (MO, photo); San Alberto basin, 4 February 2021, *Rizo Patrón 91* (USM); Cerro Pajonal, road from Oxapampa to Villa Rica, 2300 m, 11 March 2021, *Martel et al. 98* (USM); Rincon Chacos, 2380 m, 12 March 2021, *Martel et al. 100* (USM).

**Conservation Status:**—*Maxillaria bicentenaria* is known from several populations restricted to the Province of Oxapampa. The species is locally abundant and dozens of individuals can be found in a patch. We calculated that the observed populations accounted for less than 1000 individuals. Therefore, following the criteria of the IUCN Red List (IUCN 2019), the species can be listed as Endangered (EN), based on criterion D.

**Etymology:**—The name of the new species is an homage to the 200th anniversary of the Peruvian declaration of independence, which occurred on July 28<sup>th</sup>, 1821.

**Comments:**—A specimen of *M. bicentenaria* had been collected by Gentry and Smith (35980, F) in 1982. A duplicate deposited at USM was later determined as *M. pyhalae* by Christenson (2006). Other specimens from the type and nearby localities were determined as *M. aff. pyhalae* (*Weigend & Dostert 97/60*, F) and *M. pyhalae* (*Vásquez et al. 33583*, MO). Nevertheless, those specimens are here identified as *M. bicentenaria* instead. Images of *M. bicentenaria* have been previously published in local plant guides (*i.e.* *Vásquez et al. 2005*, CTB/PRODERN 2015) as *M. pyhalae*.

#### Differences between *M. bicentenaria* and *M. pyhalae*

*Maxillaria bicentenaria* and *M. pyhalae* are morphologically similar and share the non-resupinate and downward facing flowers, red and white, reflexed sepals and petals, and abundant yellow pseudopollen on the labellum (Figs. 2 & 6). However, they are distinguishable by the shape and size of the labellum (Fig. 7). *Maxillaria bicentenaria* has an elliptic to sub-elliptic labellum (vs. sub-pyriform in *M. pyhalae*), with an irregularly plicate distal half (vs. transversally extended in two dolabriform expansions), the flattened and transversally sub-trapezoidal labellar callus (vs. the semi-circular callus), and the campanulate to sub-campanulate protuberance at the labellum apex centre (vs. the semi-ellipsoidal to cupuliform protuberance at the labellum apex centre in *M. pyhalae*). The inflorescences of *M.*

*pyhalae* are also taller than those of *M. bicentenaria*. Furthermore, *M. bicentenaria* has a conspicuous carina with a sharp edge towards the top of the anther, quite distinct from that of *M. pyhalae* (Fig. 8). The habitat where they grow is also different, *M. pyhalae* is found in very humid cloud forests between 2300 and 2800 m (Fig. 3), while *M. bicentenaria* grows in drier sclerophyllous vegetation at lower elevations between 2200 and 2500 m.



**FIGURE 7.** Comparison of *Maxillaria pyhalae* (left) and *M. bicentenaria* (right). **A.** Column and labellum, lateral view. **B.** Labellum, ventral view. Note the differences in the shape and size of both species labella. Prepared by C. Martel.



**FIGURE 8.** Comparison of the anthers of *Maxillaria bicentenaria* (left) and *M. pyhaleae* (right). **A.** Frontal view. **B.** Dorsal view. Note the differences in anther and carina shape between both species. Prepared by C. Martel.

**Note on the author name of *Maxillaria fletcheriana***

During the revision of literature in preparation of the current manuscript, one of the authors (CM) noted that the species *M. fletcheriana* is recurrently cited as being described by R. A. Rolfe in 1913 (e.g. Blanco 2013, Ulloa Ulloa *et al.* 2017, Govaerts *et al.* 2021). Effectively, *M. fletcheriana* was described on the basis of a plant presented by Messrs. Sanders and sons at an exhibition of Royal Horticultural Society in 1913, where J. Gurney Fowler was the chair of the

orchid committee. Rolfe was already an orchid authority in 1913 and he might have been involved in the identification of the orchid as a new species. However, there is no reference to Rolfe in the protologue and therefore have to assume the author of the taxon is J. G. Fowler who is cited and has been acknowledged as the author of other taxa similarly proposed in the same journal (e.g. *Bulbophyllum lowii* Fowler [1906: 425], *B. fletcherianum* Fowler [1914: 320]). The proposed name, which was perhaps provisional, fulfils the current requirements for valid publication (see Turland *et al.* 2018). A year later, Rolfe proposes the *M. fletcheriana* Rolfe (1914: 213) on the basis of the very same type specimen, thus resulting in a superfluous name. Probably realizing the name was already occupied, Rolfe proposed a new superfluous name, *M. insignis* Rolfe (1922: 25), in a posthumously published work. In the light of this, we suggest that the correct citation of the name is as following:

*Maxillaria fletcheriana* J.G. Fowler, *Gard. Chron.*, ser. 3, 53: 258 (1913).

*Maxillaria fletcheriana* Rolfe, *Bull. Misc. Inform. Kew* 1914(6): 213 (1914), *nom. illeg.*

*Maxillaria insignis* Rolfe, *Bull. Misc. Inform. Kew* 1922(1): 25 (1922), *nom. illeg.*

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