

A new species of *Andinia* from Peru

ALFONSO DOUCETTE^{1,*} & JOHN P. JANOVEC^{2,3}

¹430 Lincoln Drive, Department of Botany, University of Wisconsin-Madison, Madison WI 53706, USA

²Facultad de Ciencias Ambientales, Universidad Científica del Sur, Cantuarias 385, Lima 18, Peru

³Institute for Conservation Research, San Diego Zoo Global, 15600 San Pasqual Valley Road, Escondido, CA 92027, USA

*Author for correspondence: adoucette@wisc.edu

Abstract

A new species of *Andinia*, *Andinia sunchubambensis* is described and illustrated. The new species is distinguished based on its morphological distinctness from similar species.

Key words: Andean floristics, Neotropical Orchidaceae, pleurothallid alliance

Introduction

The genus *Andinia* is characterized by ascending herbs with stems shorter than the leaf and flowers produced in a raceme, rarely as solitary flowers. Before the genus was recognized, the species most similar to *Andinia sunchubambensis* were attributed to *Pleurothallis* subgen. *Aenigma* Luer. However, phylogenetic analyses based on molecular data revealed that the species were not part of a monophyletic *Pleurothallis*.

In Luer (1994) *Andinia sunchubambensis* keys to a couplet including *A. ibex* (Luer) Pridgeon & Chase and *A. hystricosa* (Luer) Pridgeon & M.W.Chase. *Andinia sunchubambensis* is superficially similar to *A. ibex* but is distinguished from that species by the growth habit (ascending v. ascending and caespitose), flower color (white v. greenish white, suffused with purple), broader lateral sepals with fimbriate margins, broader lobes of the lip, and red glenion at the base of the lip. The species can be distinguished from *A. hystricosa* in lacking “uncinate, denticulate lateral lobes” of the lip (Luer 1994).

Since the key to the species was published, and the time of writing this description, at least three new names attributable to *Andinia* have been published: *Andinia hirtzii* Luer, *A. lappacea* (Luer) Pridgeon & Chase, and *A. panica* (Luer & Dalstrom) Pridgeon & Chase. The new species described here is the only one in the genus with fimbriate sepals. The margins of the sepals of most species are entire, although there are some species that have subspiculate margins (e.g., *Andinia hystricosa*).

Andinia sunchubambensis A.Doucette & Janovec, *sp. nov.* (Figs. 1–3)

Type:—PERU. Paucartambo: Wayqecha Cloud Forest Research Station, Kosñipata Valley, between Paucartambo and Pilcopata, secondary forest, 1900 m, 29 September

2005, R. E. Repasky, M. P. Quijano, M. A. Chocce, L. Ccoyo Cordova, M. Ccana Aven 45 (holotype: BRIT).

Diagnosis: The new species is most similar to *Andinia ibex* but differs in the growth habit (ascending v. ascending and caespitose), flower color (white v. greenish white, suffused with purple), broader lateral sepals with fimbriate margins, broader lobes of the lip, and red glenion at the base of the lip.

Epiphytic, ascending herbs, roots 1 mm in diam. Stems unifoliate, 2.0–3.0 × 0.8 mm, enveloped by 2–3 tubular, papery sheaths, 6.0–13.0 × 1.0–1.5 mm. Leaves erect, coriaceous, narrowly elliptical with a sulcate petiole and an acute, tridenticulate apex, 25.0–41.0 × 4.0–6.0 mm. Inflorescence a flexuous, successively few-flowered raceme producing up to four flowers; peduncle filiform, glabrous 2.3–3.0 × 0.3 mm; bracts tubular, membranous 1.5–2.0 × 1.0 mm; pedicel terete, glabrous 7.0–9.0 × 0.1 mm; ovary spiculate, 2.0 × 1.0 mm; dorsal sepal narrowly elliptical, fimbriate, translucent white, 10.0 × 2.5 mm; lateral sepals connate from the base to before the middle, each sepal narrowly elliptical, fimbriate, translucent white, 10.0 × 2.0 mm; petals lanceolate, translucent white with a subspiculate margin, 7.0 × 1.0 mm; lip white with a red glenion, with a concave base held against the column terminating in an expanded, deflexed, rugulose, three-lobed lamina, 3.0 × 3.0 mm; column white, terete, expended into a dilated, purple, transversely bilobed stigma with a white, apical anther cap 3.0 × 1.0 mm.

Etymology:—From “Sunchubamba”, the historical name for type locality, and the Latin suffix -ensis denoting a toponym.

Acknowledgements

The research presented here would not have been possible without collaboration between researchers at the University of Wisconsin-Madison, Colorado College, and the Botanical Research Institute of Texas. I would like to thank John Janovec for his help locating the specimen that *Andinia sunchubambensis* is based on, and the curators of the Wisconsin State Herbarium for facilitating the acquisition of research materials necessary for the completion of our study.

Reference

- AABP Atrium. (2016) Atrium Biodiversity Information System for the Andes to Amazon Biodiversity Program at the Botanical Research Institute of Texas. Available from: <http://atrium.andesamazon.org>. [accessed 4 May 2016].
- Luer, C. (1994) Icones Pleurothallidarum XI: Systematics of *Lepanthes* subgenus *Brachycladium* and *Pleurothallis* subgenus *Aenigma*, subgenus *Elongatia*, subgenus *Kraenzlinella*. *Monographs on Systematic Botany from the Missouri Botanical Garden* 52: 51–68.

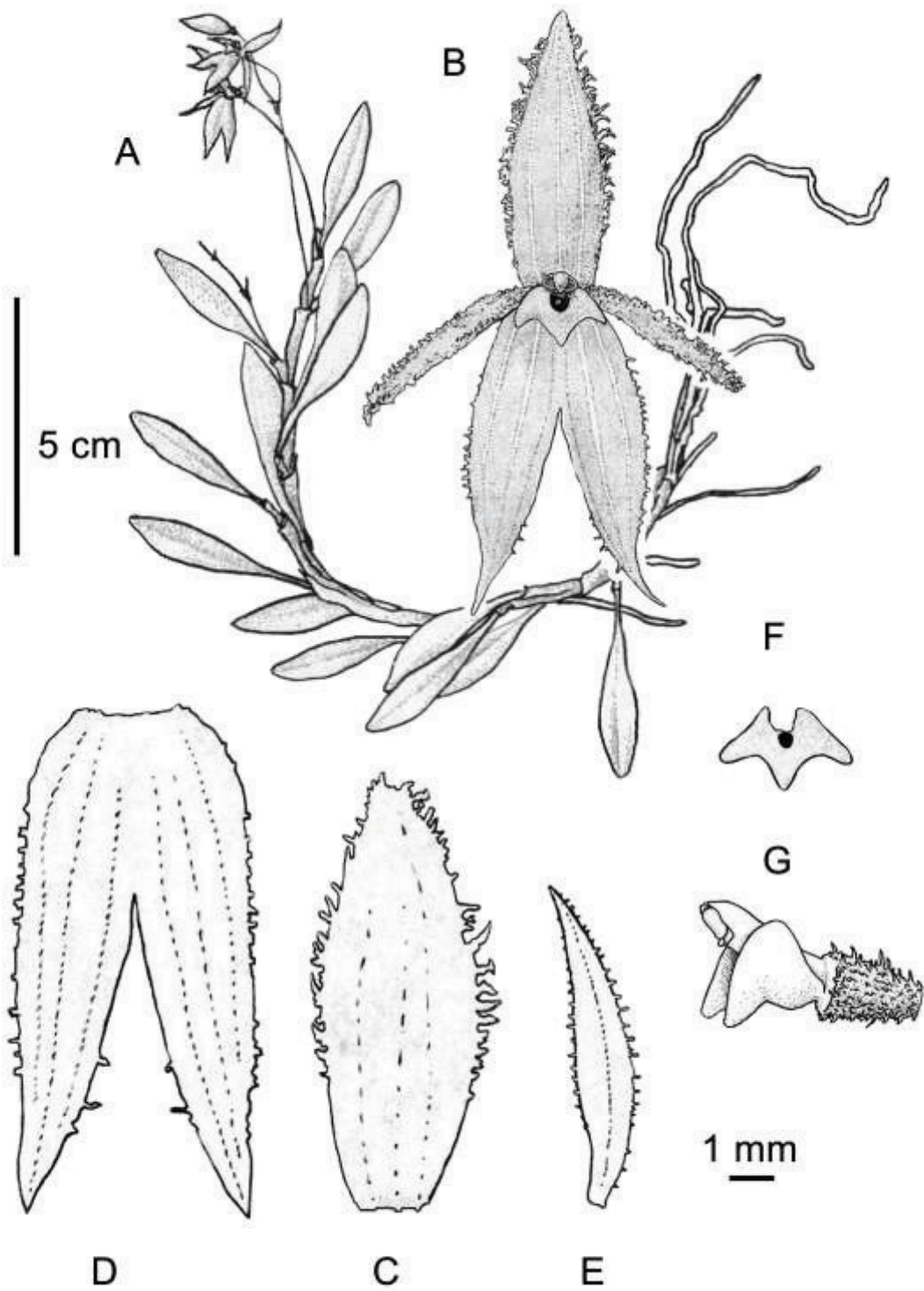


Figure 1. *Andinia sunchubambensis*. A. Habit, drawn to 5 cm scale. B. Flower. C. Dorsal sepal. D. Lateral sepals. E. Petal. F. Upper surface of lip. G. Flower with petals and sepals removed. B–G drawn to 1 mm scale. Drawn the holotype.



Figure 2. *Andinia sunchubambensis* flower detail of the holotype, photographed *in situ* in Paucartambo, Peru (photo courtesy of AABP Atrium 2016).



Figure 3. *Andinia sunchubambensis* habit of the holotype, photographed *in situ* in Paucartambo, Peru (photo courtesy of AABP Atrium 2016).