



## Three new species of *Lepanthes* (Orchidaceae)

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### Abstract

In this paper three new species of *Lepanthes* (Orchidaceae: Pleurothallidinae) from Ecuador, Panama and Venezuela are described. Each species is illustrated with a line drawing. For each of the new species information about distribution, habitat, and a comparison with similar taxa is given. The new species are named: *Lepanthes dubbeldamii*, *Lepanthes liesiae* and *Lepanthes luerorum*.

### Resumen

En este trabajo se describen tres nuevas especies de *Lepanthes* (Orchidaceae: Pleurothallidinae) de Ecuador, Panamá y Venezuela. Cada especie es ilustrada con un dibujo a línea. Para cada especie se presenta información sobre distribución, hábitat y una comparación con taxa similares. Las nuevas especies son nombradas: *Lepanthes dubbeldamii*, *Lepanthes liesiae* y *Lepanthes luerorum*.

**Key words:** *Lepanthes dubbeldamii*, *Lepanthes liesiae*, *Lepanthes luerorum*, Pleurothallidinae, Ecuador, Panama, Venezuela.

### Introduction

The genus *Lepanthes* Swartz (1799a: 85) has around 700 accepted species (Luer & Thoele 2012), making it the second largest genus in Pleurothallidinae after *Stelis* Swartz (1799b: 239). They are distributed along the Neotropics from Central Mexico up to Bolivia, including the Antilles, but few species are attributed to Brazil (Luer & Thoele 2012). Although some species are frequent and highly distributed throughout the distribution range of the genus, the majority of *Lepanthes* species are endemic, with a very restricted distribution.

Members of *Lepanthes* are characterized by ramicauls enclosed by lepanthiform sheaths, a successively many-flowered raceme, minute to small colourful flowers, membranous, delicate sepals and usually transversely bilobed petals. The lip is usually three-lobed, with the lateral lobes or ‘blades’ being thickened, and supported by ‘connectives’, which lift them above the column—the ‘body’ is the central part from where the connectives arise, and is connected to the column at its base or above it. The ‘sinus’ is the angle of the body between the anterior margins of the connectives, and usually from which the mid lobe, the ‘appendix’, originates, which mostly has an elaborate structure with glands, membranes, lobes, tufts of hairs or only single hairs. The appendix has an important function in the pollinating process as reported by Blanco and Barboza (2005).

The following three new additions to the genus for Ecuador, Panama and Venezuela are described based on specimens that were collected and cultivated by members of the Belgian and Dutch ‘*Masdevallia* Werkgroep’, who have forwarded them for identification.

### *Lepanthes dubbeldamii* B.T.Larsen, sp. nov. (Fig.1)

This species is most similar to the Ecuadorian *Lepanthes alopex*, but is distinguished by its longer peduncle, petals with a truncate upper lobe, oblong blades of the lip and densely pubescent, thickened sinus with an oblong, geniculate, and pubescent, appendix.

Type:—VENEZUELA. Sucre: Península de Paria, Cerro de Humo, 10.41°15'N, 62.37°46'W, 1,800 m, collected in the wild 22 December 2007 by P. *Dubbeldam* 200715, flowered in cultivation in Paningen, The Netherlands, 11 November 2013, *Wiel Driessen s.n.* (holotype *LISI-1593/2013*, *LISI!*).

*Plant* small, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 1.5–2.5 cm long, enclosed by 2–3, dark, microscopically scabrous, lepanthiform sheaths with oblique, dilated, ostia. *Leaf* erect, coriaceous, ovate, acute, purple beneath, 2.5–3 × 1–1.2 cm wide, the base cuneate into a petiole 2 mm long. *Inflorescence* a congested, successively many-flowered raceme at least 1.37 mm long, borne behind the leaf by a filiform peduncle 1.5 cm long; floral bracts muriculate, 0.4 mm long; pedicels 1.37 mm long; ovary smooth, 1.53 mm long. *Sepals* yellow, suffused with red at the base, glabrous, the margins sparsely cellular-denticulate; dorsal sepal ovate-triangular, acute, 2.86 × 2.32 mm, 3-veined, connate to the lateral sepals for 0.5 mm, the lateral sepals ovate, acute, the tips minutely acuminate, 2.34 × 1.38 mm, connate for 1.88 mm, 2-veined. *Petals* orange, red medially, glabrous, transversely bilobed, 0.3 × 2.49 mm, lobes oblique, upper lobe obliquely triangular, subacute, lower lobe subquadrate, obtuse. *Lip* magenta, bilaminate, blades oblong with rounded bases, lightly concave, apices shortly ciliate, acute, 1 mm long, the connectives minutely pubescent, long and narrow, forming a narrow body, connate to the base of the column, the sinus with a minute, oblong ciliate appendix. *Column* magenta, cellular pubescent, dumbbell-shaped, 2 mm long, the anther and stigma apical. *Capsule* unknown.

**Etymology:**—Named in honor of Carl and Jane Luer of Sarasota, Florida, as recognition for their decades of monumental work on the Pleurothallidinae.

**Distribution and habitat:**—This species is only known from Panama where it was found north of Boquete. It grows as epiphyt on twigs of low, open scrubby vegetation, on a five meter long strip of cloud forest along a river.

**Comments:**—This little species is only known from a single collection. Vegetatively it is similar to *Lepanthes sanjuanensis* Bogarín & Karremans in Bogarín *et al.* (2012: 113). *Lepanthes sanjuanensis* differs with longer pedicels (5mm vs. 1.3 mm); petals with an oblong, rounded, entire upper lobes and oblong rounded and ciliate lower lobes (vs. obliquely triangular, subacute upper lobes and subquadrate, obtuse and glabrous lower lobes) and with a lip with conspicuous bristles at the apex of the blades (vs. shortly ciliate).

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