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Validation of *Lepanthopsis legadensis*

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bioRxiv is an open access repository for biological science papers not meant to be considered publications as confirmed by John Inglis, executive director of Cold Spring Harbor Laboratory Press (Kaiser 2014), and, thus, not a channel for the effective publication. John Inglis states in his interview with Science that: "Yes, we don't consider a preprint prior publication."

When the description for *Lepanthopsis legadensis* (Zandona *et al.* 2019) was discovered on the *bioRxiv* platform we searched online databases (IPNI, Tropicos, Plants of the World Online) to see if we could locate this record. We did not, nor did we find any species of *Lepanthopsis* matching this species on these online databases published in 2018 to the present.

We reached out to the corresponding author, Zandona, using the email provided in the manuscript to see if there were plans to effectively publish the name as a year had passed since the preprint appeared at the time of writing this validation paper. After waiting a week for a response from Zandona we decided to proceed with the validation of the name here.

We provide effective publication for the species and provide the most important details as they appeared in Zandona *et al.* (2019) with some editing for clarity based on the original article below. We have also updated the measurements to fill in some of the missing data using the images and scales provided by Zandon *et al.* (2019) and ImageJ (Abramoff *et al.* 2004), and we provide a common name, flower size, and presumed blooming period.

Lepanthopsis legadensis* L.R.Zandona & E.L.M.Catharino ex A.Doucette & Pfahl, *sp.nov.

Common Name: The Legado Lepanthopsis [A Reserve in Brazil]

Flower Size: 8.5—10.7 mm

Bloom Times: April

Etymology: Dedicated to the Legado das Águas, Atlantic Forest reserve located in the Vale do Ribeira, belonging to the Votorantim Group, where the plant was collected.

Type: BRAZIL. Cultivated material gathered from São Paulo, Miracatu, Legado das Águas, Zandoná, within the inner canopy of trees ca. 15 m off the ground, 650—700 m, L.R.Zandoná, A.G.Maragni, & M.M.F.Jesus [SP 498030], 4/15/18, (holotype, SP).

Diagnosis: The new species is most similar to *Lepanthopsis acuminata* Ames but can be distinguished by the smaller plant size, the long peduncle, more connate sepals, and the more broadly cordate lip.

Herbs miniature, caespitose, epiphytic; Roots few, thick, terete, cream, up to 6.0 cm long, 0.1 cm diam.; Stems terete, 1.4—4.0 cm long, 0.1 cm diam, enveloped by three, glabrous, lepanthiform sheaths, 0.5—1.3 cm long, 0.1—0.2 cm diam.; Leaves erect, coriaceous, oblong to obovate, rounded apex and cuneate base, attenuated into a pseudo-petiole, irregularly marked on the abaxial surface, 2.0—3.6 long, 0.7—1.2 cm wide; Inflorescence a simultaneously flowered raceme producing up to 20 flowers; Peduncle terete, 8.5—9.5 cm long, 0.1 cm wide; Floral bracts tubular, 0.8—2.0 mm long, 0.6 mm diam.; Flowers wine colored, yellowish towards the base of the membranous, carinate, long-acuminate sepals; Dorsal sepal 4.5—5.0 mm long, 0.8—1.0 mm wide; Lateral sepals free for most of their length, slightly connate at base, 4.0—5.7 mm long, 1.0—1.2 mm wide at the base; Petals semi-orbicular, concave, glandular-ciliate, 0.7—0.9 mm long, 0.7—0.9 mm wide; Lip cordate, papillose, glandular-ciliate, apex sub-acute to obtuse, deflexed, with obtuse lateral lobes embracing the column and a glenion toward the base, 1.1—1.3 mm length, 1.0—1.4 mm wide; Column stout, semiterete, anther apical, stigma bilobed, 0.5 mm long, 0.4 mm wide; Pollinia two.

Discussion: *Lepanthopsis legandensis* is the fourth species of *Lepanthopsis* known to occur in Brazil. The other species of Brazilian *Lepanthopsis* include *L. densiflora* (Barb.Rodr.) Ames, *L. floripecten* (Rchb. f.) Ames, and *L. vellozicola* R.C.Mota, F.Barros & Stehmann which can be immediately distinguished from the new species by lacking attenuate sepals, which only appear to occur in three other species of *Lepanthopsis*: *L. acetabulum* Luer, *L. acuminata* Ames, *L. peniculus* (Schltr.) Garay. The new species can be distinguished among *Lepanthopsis* species with attenuate sepals by the long peduncle and fewer stem nodes.

Acknowledgements

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