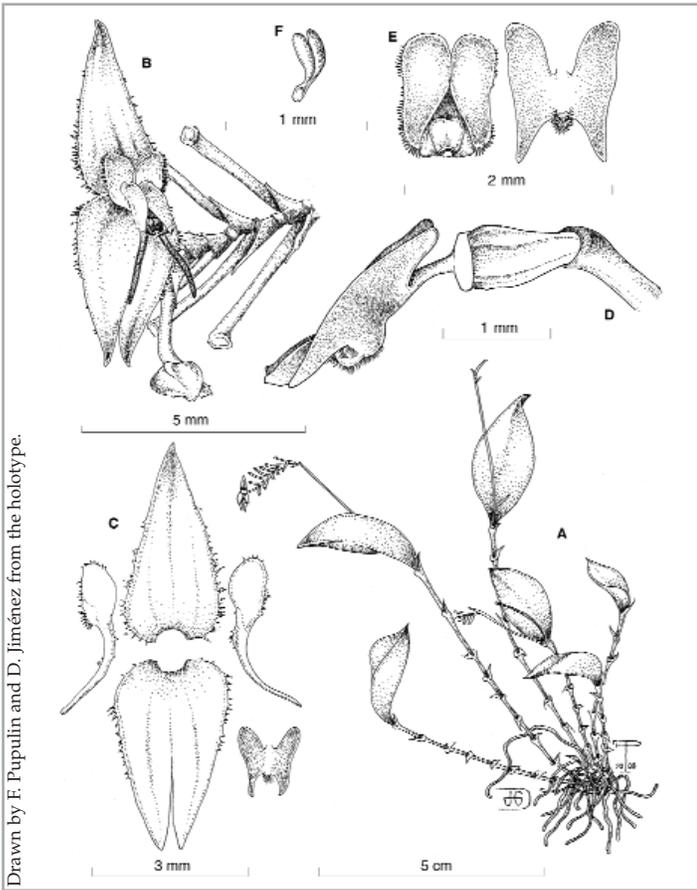


*Lepanthes gratiosa* Pupulin & D. Jiménez, *sp. nov.*

TYPE: COSTA RICA. Cartago: El Guarco, San Isidro, Paso Macho (Macho Gaff), after the rangers' headquarters of the Tapantí-Macizo de La Muerte National Park, basin of Río Macho, road to Queverí, 9°43'55.7" N 83°50'02.4" W, 2109 m, epiphytic in rain montane forest, 9 October 2008, F. Pupulin 7350, D. Bogarín, R. Gómez, D. Jiménez & R. Trejos (holotype, CR; isotype, Lankester Botanical Garden-Spirit collection).

*Species Lepanthes sigsigensi Luer et Hirtz similis, inflorescentia congesta, marginibus sepalorum distincte glandularidenticulatis, lobulo inferno petalorum anguste lineare-falcatu attenuato, laminis labelli apice minute papilloso differt.*

**Plant** epiphytic, caespitose, to 12 cm tall. **Roots** flexuous, ca. 0.5 mm in diameter. **Ramicaul** suberect to erect, slender, 3-8 cm long, enclosed by 6-10 lepanthiform sheaths, slightly dilated at the acute, glabrous ostia. **Leaf** elliptic, acute, sometimes minutely emarginate, thinly subcoriaceous, 2.3-3 x 1.1-1.5 cm, the cuneate base contracted into an indistinct petiole. **Inflorescence** a congested, distichous, successively several-flowered raceme borne in front of the leaf, to 5 cm long including the slender peduncle to 3.5 cm long. **Floral bracts** broadly ovate, acuminate, amplexant, sparsely glandular, to 1.2 mm long. **Pedicel** terete, to 3.5 mm long. **Ovary** subclavate, 1 mm long, with low, thin, slightly undulate wings. **Flowers** resupinate, spreading, with greenish yellow sepals, the petals yellow, the upper lobe blotched with dark orange-red, the lower lobe bright yellow at apex, the lip orange-red, flushed dark purple toward the apex of the blades, the column dark purple, the anther purple. **Dorsal sepal** ovate-triangular, acute, 3-nerved, the margins glandular-denticulate, 3.8 x 1.9 mm, connate to the lateral sepals for 0.5 mm. **Lateral sepals** narrowly triangular, acute, abaxially subcarinate toward the apex along the midvein, the external margins glandular-denticulate, connate to about the middle into a synsepalum 3.5 x 2.2 mm. **Petals** transversely bilobed, 0.6 x 3.5 mm, the upper lobe elliptic-obovate, densely ciliate along the margins, 0.6 x 1.2 mm, the lower lobe narrowly linear-falcate, attenuate, sparsely ciliate along the margins, 0.3 x 3 mm. **Lip** bilaminar, 1.3 x 1.1 mm, the blades narrowly ovate, subacute, minutely pubescent, the connectives broadly cuneate,



Drawn by F. Pupulin and D. Jiménez from the holotype.

Figure 3. *Lepanthes gratiosa* Pupulin & D. Jiménez. A: Habit. B: Rachis and flower. C: Dissected perianth. D: Ovary, column, and lip, lateral view. E: Lip, in natural position surrounding column (left) and spread (right). F: Pollinarium.

the body basally connate to the column, the sinus broad, obtuse, with an external, conspicuous, thickly ligulate, upcurved, pubescent-tomentose appendix. **Column** slender, to 1.6 mm long, with subapical stigma and dorsal anther. **Anther cap** ovate, 2-celled. **Pollinia** 2, pyriform, with viscidium.

**ETYMOLOGY:** from the Latin *gratiosus*, “agreeable”, “delightful”, for the charming shape of the flower.

**DISTRIBUTION:** known only from the type locality, on the Caribbean watershed of the Talamanca mountain range in Costa Rica.

**HABITAT:** epiphytic and locally abundant in montane wet forest in Costa Rica at 2100 m elevation.

**PARATYPES:** same locality and collecting date of the holotype, *F. Pupulin et al.* 7344 (Lankester Botanical Garden-Spirit collection); *F. Pupulin et al.* 7345 (Lankester Botanical Garden-Spirit collection); *F. Pupulin et al.* 7348 (Lankester Botanical Garden-Spirit collection); *D. Bogarín et al.* 5278 (Lankester Botanical Garden-Spirit collection).

*Lepanthes gratiosa* is most similar to *L. sigsigensis* Luer & Hirtz, from southern Ecuador, and to other species of *Lepanthes* with flowers borne on a long inflorescence much longer than the leaf. It differs from *L. sigsigensis* by the congested (vs. loose) raceme, the distinctly glandular-denticulate (vs. entire) sepal margins, the narrowly linear-falcate, attenuate (vs. oblong, obtuse) lower lobe of the petals, and the minutely papillose (vs. glabrous) blades of the lip. Like *L. sigsigensis*, *L. gratiosa* is apparently restricted to cold and



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Figure 4. The flowers of *Lepanthes gratiosa* are borne on a relatively long inflorescence that surpasses the leaf (Pupulin 7344).



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Figure 5. The narrow, linear lower lobes of the petals are characteristic of *Lepanthes gratiosa* (Pupulin 7344).

constantly wet cloud forests at high elevations.