

Patillos, 9°44'04.22"N 83°46'41.17" W, 1470 m, epiphytic on small trees along the main road, premontane rain forest, mature vegetation, F. Pupulin 7999, D. Bogarín, R. Gómez, A. Karremans, B. Klein & G. Meza (holotype, JBL-spirit). Figs. 9-10.

Species habitu et inflorescentia cum Lepanthes atrata Endrés ex Luer sed *stirpibus molto minoribus, colore floribus et petalis acutis recedit.*

Epiphytic, small, pendent **herb**, about 7 cm tall. **Roots** glabrous, flat, to about 1 mm in diameter. **Ramicauls** drooping, weak, slender, to 3.5 cm long, enclosed by 6 minutely scabrous, brown, tightly clasping tubular sheaths, terminating in rather conspicuous, infundibuliform, glabrous, acuminate ostia. **Leaf** subcoriaceous, ovate to elliptic, acuminate, minutely tridenticulate at apex, 3.2 x 1.6 cm, cuneate-narrowed at the base into an indistinct petiole about 1 mm long. **Inflorescence** produced singly above the leaf at any new growth season, a loose, distichous, successively flowered raceme, 12 mm long; peduncle filiform, 3-4 mm long, with a small tubular sheath in the middle; rachis fractiflex. **Floral bracts** infundibuliform, 1 mm long, muricate; pedicel 1 mm long; ovary 1.5 mm long. **Flowers** tiny for the genus in Costa Rica, inconspicuous, yellow sepals suffused with red basally and towards the midveins, petals yellow edged in red, the lateral lobes of the lip red, the column and anther yellow. **Dorsal sepal** ovate, acute, 2.8 x 1.4 mm, entire, 3-veined, connate to the lateral sepals for 0.2 mm. **Lateral sepals** 2.3 x 1.0 mm, connate for about 1.5 mm, entire, ovate, acute, connate to the dorsal sepal for 0.2 mm. **Petals** transversely bilobed, 0.7 x 2.5 mm, the upper lobes ovate, acute, 1.7 x 0.7 mm, the lower lobes subsimilar but smaller than the upper lobes, ovate, acute, entire, 1.2 x 0.6 mm. **Lip** 3-lobed, 0.6 x 1.0 mm across the lateral lobes when spread, the blades oblong with ends rounded, adpressed to the column, the connectives oblong, rounded, basally ciliate, the appendix conical, rounded, ciliate, touching the apex of the column. **Column** short, arcuate, 0.8 mm long, the anther apical, the stigma subapical. **Pollinia** 2, oblong-pyriform.

HABITAT: Epiphytic in premontane wet forest on the Caribbean slopes of Cordillera de Talamanca in Tapantí National Park, Costa Rica.

DISTRIBUTION: Known only from the type locality in Costa Rica.

DERIVATION OF NAME: Dedicated to our friend Bert Klein, head orchid gardener at the München-Nymphenburg Botanical Garden, Germany, who participated in the type collection.

Lepanthes kleinii is superficially similar to *L. atrata*. Both species have small flowers developed from inflorescences that are borne on top of the leaf; the sepals are ovate-triangular, acute; and the lip is small with a protuberant body. The column is arcuate and projects far

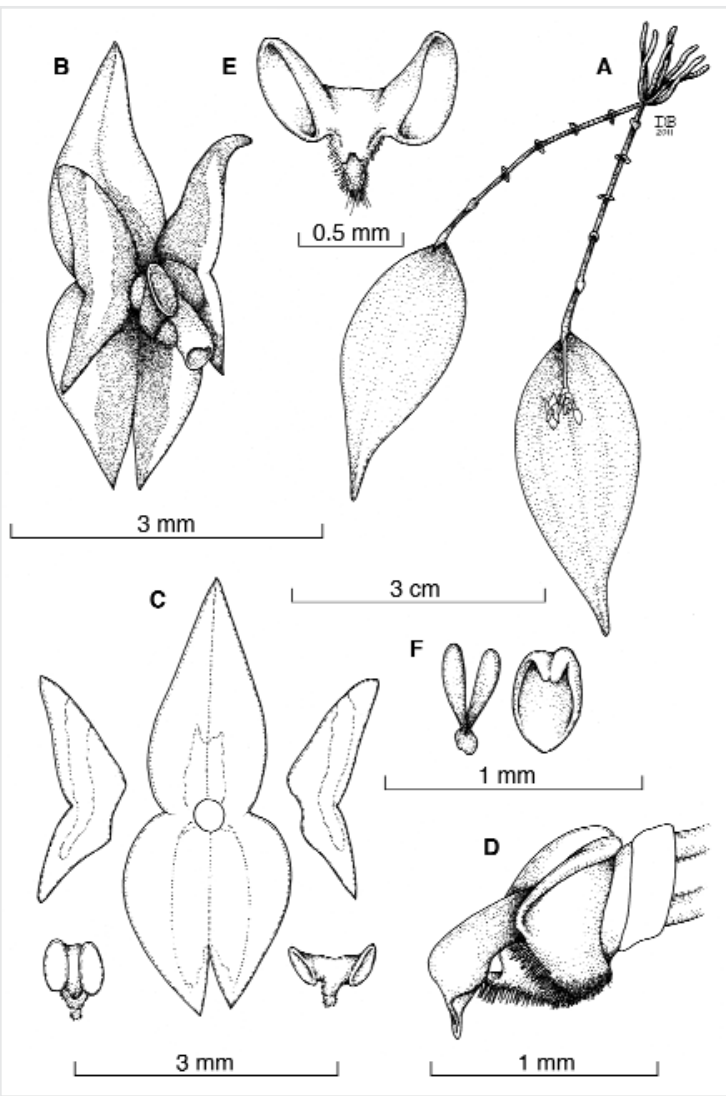
Lepanthes kleinii Bogarín & Pupulin, *sp. nov.*

TYPE: COSTA RICA. Cartago: Paraíso, Orosi, Tapantí, Tapantí National Park, near the Mirador Point, Alto



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A few meters from the "Mirador," a sign marks the entrance of the area for scientific use. Fortunately, plants do not respect signs.



Lepanthes kleinii Bogarín & Pupulin. A: Habit. B: Flower. C: Dissected perianth. D: Ovary, column and lip, lateral view. E: Lip, flattened. F: Pollinarium and anther cap.



Lepanthes kleinii, a flower from the plant that served as the holotype

away from the blades of the lip. However, the new species differs in the smaller plants, up to 7 cm tall (vs. up to 20 cm tall); the triangular, acute petals yellow edged in red (vs. ovate, obtuse, yellow suffused with red basally); the basally pubescent connectives; and the appendix is more prominent and ciliate than that of *L. atrata*.