



Lepanthes tristis 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 tapantiensis, a flower from the plant that served as the holotype.

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

TYPE: COSTA RICA. Cartago: Paraíso, Orosi, Tapantí, Tapantí National Park, Mirador point, Alto Patillos, 9°44'04.22"N 83°46'41.17" W, 1468 m, premontane rain forest, "ocurrir in arborum truncis ramulisque ad arborum versuras in prope Mirador in Tapantí," 18 November 2010, D. Bogarín 8241, R. Gómez, A.

Karremans, B. Klein, G. Meza & F. Pupulin (holotype, JBL; isotype, CR). Figs. 16-18.

Quoad habitum et marginem foliorum replicatum ad Lepanthes exasperatam Ames & C. Schweinf. accedit, sed ab ea differt foliis longioribus linearibus, floribus minoribus, sepalis petalisque acutis leviter ciliatis et appendice tuberculata.

Epiphytic, small, pendent **herb**, about 12 cm tall. **Roots** glabrous, flat, to about 1 mm in diameter. **Ramicauls** drooping, weak, slender, to 8 cm long, enclosed by 8-12 minutely scabrous, brown, tightly clasping tubular sheaths, terminating in rather conspicuous, infundibuliform, glabrous, acuminate ostia. **Leaf** coriaceous, linear, very fleshy, with revolute-replicate margins, minutely tridenticulate at the apex, grayish green, suffused with purple beneath, 4.5-5.2 x 0.25-0.3 cm, cuneate-narrowed at the base into an indistinct petiole about 1 mm long. **Inflorescence** produced singly on top of the leaf at any new growth season, a loose, distichous, successively flowered raceme, 10-13 mm long; peduncle filiform, 7-8 mm long, with a small tubular sheath in the middle; rachis fractiflex. **Floral bracts** infundibuliform, 1 mm long, glabrous; pedicel 3 mm long; ovary 1.5 mm long. **Flowers** tiny for the genus in Costa Rica, inconspicuous, with whitish-yellow sepals, petals yellowish edged in red, the lateral lobes of the lip reddish, the column and anther pale pink. **Dorsal sepal** ovate, acute, 1.9 x 1.1 mm, slightly denticulate, 3-veined, dorsally carinate, muricate along the midvein, connate to the lateral sepals for 0.3 mm. **Lateral sepals** ovate, acute, 1.8 x 1.0 mm, connate at the base for about 0.6 mm, slightly denticulate, dorsally carinate, muricate along the midveins, connate to the dorsal sepal for 0.3 mm. **Petals** transversely bilobed, 0.6 x 2.3 mm, the upper lobes oblong, broadly obtuse to truncate, 1.1 x 0.6 mm, the lower lobes ovate, acute, minutely ciliate, 1.2 x 0.6 mm. **Lip** 3-lobed, bilaminar, 1.3 x 1.2 mm across the lateral lobes when spread, the lateral blades narrowly obovate to oblong, subfalcate, ciliate at the apices, adpressed to the column, 1.2 x 0.4 mm, the connectives oblong, rounded, the appendix oblong, obtuse, muriculate. **Column** 1 mm long, the anther apical, quadrate, the stigma ventral. **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: From the Latin *tristis*, "sad," in allusion to the weak, dropping stems and linear revolute gray-green leaves that give a sad appearance to the plant.

Vegetatively, this species with gray-green leaves with revolute-replicate margins is similar to *Lepanthes*

exasperata. The species is easily distinguished by the pendent plants (up to 12 cm long), with linear leaves (vs. ovate). The flowers are smaller with acute, minutely ciliate sepals and petals (vs. obtuse, ciliate). The sepals are concave (vs. convex) and whitish-yellowish (vs. reddish-brown), and the petals are oblong, acute (vs. ovate, obtuse), yellow, edged in red (vs. red to orange).✱