## Lepanthes pelvis 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 7336, D. Bogarín, R. Gómez, D. Jiménez & R. Trejos* (holotype, CR; isotypes, CR, Lankester Botanical Garden-Spirit collection). Figs. 14—16.

Species Lepanthi satyricae Luer similis, foliis ellipticis, ovario alato-denticulato, sepalis acuminatis costatis cristatis, lobulis petalorum subequalis apiculi destitutis, colore floribus recedit.

Plant epiphytic, caespitose, to 15 cm tall. Roots flexuous, ca. 1 mm in diameter, pale purple. Ramicaul patent to arching (rarely suberect), becoming pendent with age, slender, 3.7-9.5 cm long, enclosed by 4-9 tightly fitting, lepanthiform sheaths, the ostia dilated, ovate-acuminate, the margins provided with triangular, flattened cilia. Leaf elliptic to elliptic-lanceolate, acute to shortly acuminate, apically minutely bilobed, abaxially mucronate, subcoriaceous, 2.5-6 x 1.2-2.5 cm, the rounded base contracted into an inconspicuous petiole. Inflorescence a congested, distichous, successively few-flowered raceme borne above the leaf, to 15 mm long including the filiform peduncle 6-10 long. Floral bracts triangularovate, acute, amplectent, to 1.5 mm long. Pedicel terete, to 2 mm long. Ovary clavate, ca. 2 mm long, the apical portion winged, provided with glandular hairs along the carpels' divisions. Flowers resupinate, ringent, the sepals yellow, tinged purple between nerves, the petals red, the lip orange, tinged with dark red. Dorsal sepal broadly ovate, acuminate, 7-nerved, deeply concave, the margins sparsely cellular-cili-

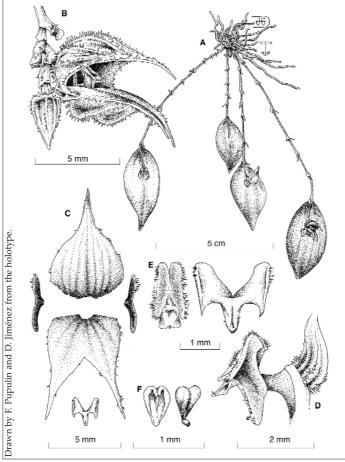


Figure 14. *Lepanthes pelvis* Pupulin & D. Jiménez. A: Habit. B: Flower. C: Dissected perianth. D: Ovary, column, and lip, lateral view. E: Lip, in natural position and spread. F: Anther cap and pollinarium.

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Figure 15. *Lepanthes pelvis* is unusual among species from Mesoamerica in the comparatively large, ringent flower (*Pupulin 7336*).

ate, abaxially costate, provided with dense tufts of trichomes along the nerves, 7.5 x 5 mm, connate to the lateral sepals for ca. 2.5 mm. Lateral sepals ovate, acuminate, 3-nerved, the margins sparsely ciliate, abaxially costate, ciliate along the nerves,  $7.5 \times 3$  mm, connate at the base for ca. 2.5 mm. **Petals** transversely bilobed, 0.5 x 4 mm, the lobes subequal, linear, rounded, the upper lobe ovate, rounded-truncate, provided with long cilia along the outer margin, the lower lobe subfalcate. Lip bilaminate, 2 x 2 mm, the blades narrowly ellipticlanceolate, erect, slightly carinate along the apex of the inner margins, abaxially ciliate, the apex acute-subfalcate, the connectives broadly cuneate, the body basally connate to the column, thick, conic, with a central groove, the appendix inconspicuous, hirsute. Column terete, slender, 2.2 mm long, with apical stigma and dorsal anther. Anther cap cucullate, triangular-ovate, 2-celled. Pollinia 2, pyriform, with viscidium.

ETYMOLOGY: from the Latin "pelvis", the bony structure located at the base of the spine, in allusion to the pelvis-shaped lip when flattened.

DISTRIBUTION: known only from the Caribbean drainage of the Talamanca mountain range of Costa Rica.

HABITAT: epiphytic in montane wet forests at 2100 m elevation, where it forms large populations.

PARATYPES: same locality and collecting date as the holotype, *D. Bogarín et al.* 5273 (JBL-Spirit); *F. Pupulin et al.* 7338 (Lankester Botanical Garden-Spirit collection); *F. Pupulin et al.* 7340 (Lankester Botanical Garden-Spirit collection); *F. Pupulin et al.* 7341 (Lankester Botanical Garden-Spirit collection).



Figure 16. The sepals of *Lepanthes pelvis* are dorsally costate-cristate, and the long connectives of the lip bear the blades high over the column. Photo of flower from the plant that served as the holotype.

Lepanthes pelvis has no close relatives in Costa Rica and Central America. Its affinities are with mainly Andean species, among which are L. cassidea Rchb.f., L. elephantina Luer & Escobar, L. flexuosa Luer, and L. satyrica Luer, characterized by a deeply concave dorsal sepal and somewhat ringent flowers. It is most similar to L. satyrica, with which it shares the short inflorescence borne on top of the leaf and the general structure of the lip, with long connectives that bear the narrow blades well above the column, and the long process that descends from the body, with an apical appendix. However, L. pelvis may be distinguished from L. satyrica by the green, elliptic leaves, broader than 1.2 cm (vs. purple-striped, very narrowly ovate, up to 5 mm wide), the winged, denticulate ovary (vs. round, glabrous), the acuminate sepals (vs. obtuse, the lateral sepals connate into a shortly bifid synsepal), distinctly costate and cristate-ciliate along the nerves (vs. glabrous), and the petals with subequal lobes (vs. the lower lobe longer, narrowly linear-triangular) and without an apiculum on the margin between the lobes (present in L. satyrica). \*