

1. *Lepanthes dikoensis* Bogarín & C.M. Sm., sp. nov. (Figs. 1A, 2). TYPE: COSTA RICA. CARTAGO. Jiménez: Pejibaye, Tausito, El Copal Biological Reserve, along Tigre, Mariposa and Gárvula trails, 9°47'02.7"N 83°45'04.3"W, 1020 m, premontane wet forest, epiphytic in secondary forest 18 Jun 2005, *D. Bogarín et al.* 1625 (HOLOTYPE: JBL).

A *Lepanthes viridis* Pupulin & Bogarín, foliis brevioribus, floribus in diametro brevioribus, petalis glabris, scarlatis-flavis, lobo inferiore ovato falcato, labello scarlato in apice flavo, lobulis labelli quam lobo inferiore petalorum longioribus et appendice oblonga et a *Lepanthes ovalis* (Sw.) Fawc. & Rendle, stirpe pendente, foliis brevioribus, ostiis vaginarum ciliatis, floribus minoribus, petalis glabris, scarlatis-flavis, lobulo inferiore petalorum lunato, falcato, sepalis aurantiacis, appendice longiora statim dignoscenda.

Plant epiphytic, caespitose, pendent herb, up to 15 cm long. **Roots** slender, flexuous, up to 1 mm in diameter. **Ramicaul** more or less descending, up to 10.5 cm, enclosed by 11–21 ciliate, lepanthiform sheaths, lightly ciliate especially on new growth; the ostia markedly dilated, ciliate. **Leaves** coriaceous, green, elliptic, subobovate, acuminate with a short apiculus, 3.0–4.0 × 1.0–1.5 cm; cuneate base narrowing into a petiole ca. 3.5 mm long. **Inflorescence** racemose, distichous, successively flowered, borne above the leaf, shorter than the leaves, up to 3 cm, peduncle 1.5–2 cm long, rachis 0.5–1.0 cm. **Floral bracts** 1 mm long, ciliate. **Pedicel** 1.5 mm long, persistent. **Ovary** up to 1 mm long. **Flowers** light orange, yellow, red-orange and scarlet; sepals light orange; petals yellow with red-orange and scarlet; lip scarlet; column red. **Dorsal sepal** ovate, acute, connate to the lateral sepal for about 1 mm, 3.2 × 2.9 mm. **Lateral sepals** ovate to elliptic, acute, connate for about 1 mm, 2.5 × 2.5 mm. **Petals** essentially glabrous, transversely bilobed, entire, 0.8 × 2.4 mm; the upper lobes broadly uncinuate, rounded, overlapping, the apex broadly rounded; the lower lobes ovate, falcate, with apex broadly rounded, slightly smaller than the upper lobes. **Lip** bilaminiate, adnate to the column, 1.8 × 1.3 mm expanded; blades narrowly oblong, pubescent, with narrowly rounded ends, falcate; connectives broadly cuneate, up to 1 mm long, perpendicular to the column and not leaving it exposed; body broadly oblong, connate to the base of the column; appendix narrowly oblong, pubescent. **Column** cylindric, 1 mm long; anther apical; stigma ventral. **Pollinia** two, ovoid. **Anther cap** cucullate.

Representative specimens: **COSTA RICA. Cartago. Jiménez:** Pejibaye, between Tausito and Selva, around El Copal Biological Reserve, shores of Taus river and Quebrada Selva, 9°47'5.22"N 83°45'46.1"W, 1197 m, premontane wet forest, epiphytic in secondary forest, 1 May 2008, *D. Bogarín et al.* 4768 (CR); same locality, *D. Bogarín et al.* 4793 (JBL); Selva, El Copal Biological Reserve, 9°47'00"N 83° 45'20" W, 1000–1200 m, 2 Jun 2001, *M. Blanco & R. Narit* 1924 (CR); Taus, elev. aprox. 1000 m, 10 Nov 1984, *R.L. Dressler et al.* 155 (USJ).

Distribution.—Only known from Costa Rica.

Habitat and ecology.—Epiphyte in secondary premontane wet forest on the Atlantic watershed of Cordillera de Talamanca, between 1000 and 1200 m of elevation.

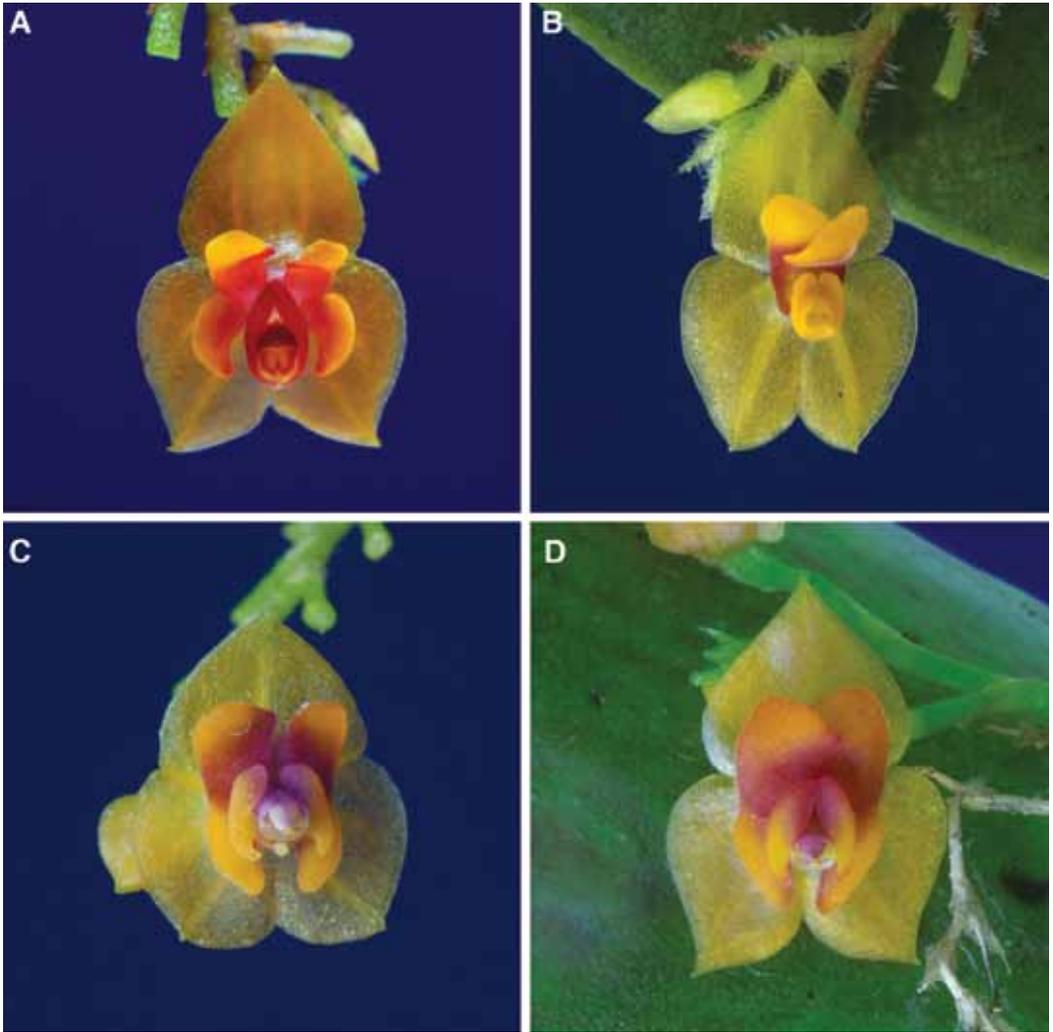


FIG. 1. Floral morphology of species of the *L. ovalis* group in Costa Rica. A) *L. dikoensis*. B) *L. erinacea*. C) *L. expansilabia*. D) *L. tarrazuensis*.

Etymology.—From the Costa Rican indigenous language Bribri *Dikō* and the Cabécar *Diká*, “pejibaye” or “peach-palm” (*Bactris gasipaes* Kunth), after the name of the district of Pejibaye de Jiménez, Cartago, where all the specimens of this *Lepanthes* were collected.

Phenology.—Plants have been recorded in flower from June to November.

Discussion.—It is similar to *L. viridis* but differs in the smaller leaves up to 4 cm long (vs. longer, to 6 cm long), smaller flowers to 5.7 mm in diameter (vs. to 12 mm), petals glabrous-minutely pubescent (vs. ciliate-hispid), the lower lobe ovate, falcate, shorter than the lobes of the lip (vs. lanceolate, subfalcate, as long as the lobes of the lip), both lobes yellow with red-orange and scarlet (vs. green with red at base) the lip scarlet, apically yellowish (vs. green with dark red at the base of each lobe), the appendix oblong (vs. rounded). It is also similar to *L. ovalis* but differs in the pendent plants (vs. erect to suberect), smaller mature leaves 4 × 1.5 cm (vs. 6 × 2.3 cm), ramicauls with ciliate sheaths and ostia (vs. minutely ciliate-scabrous), the petals glabrous (vs. the upper lobe glabrous, the lower minutely pubescent), the upper lobe oblong, apically rounded (vs. suborbicular),

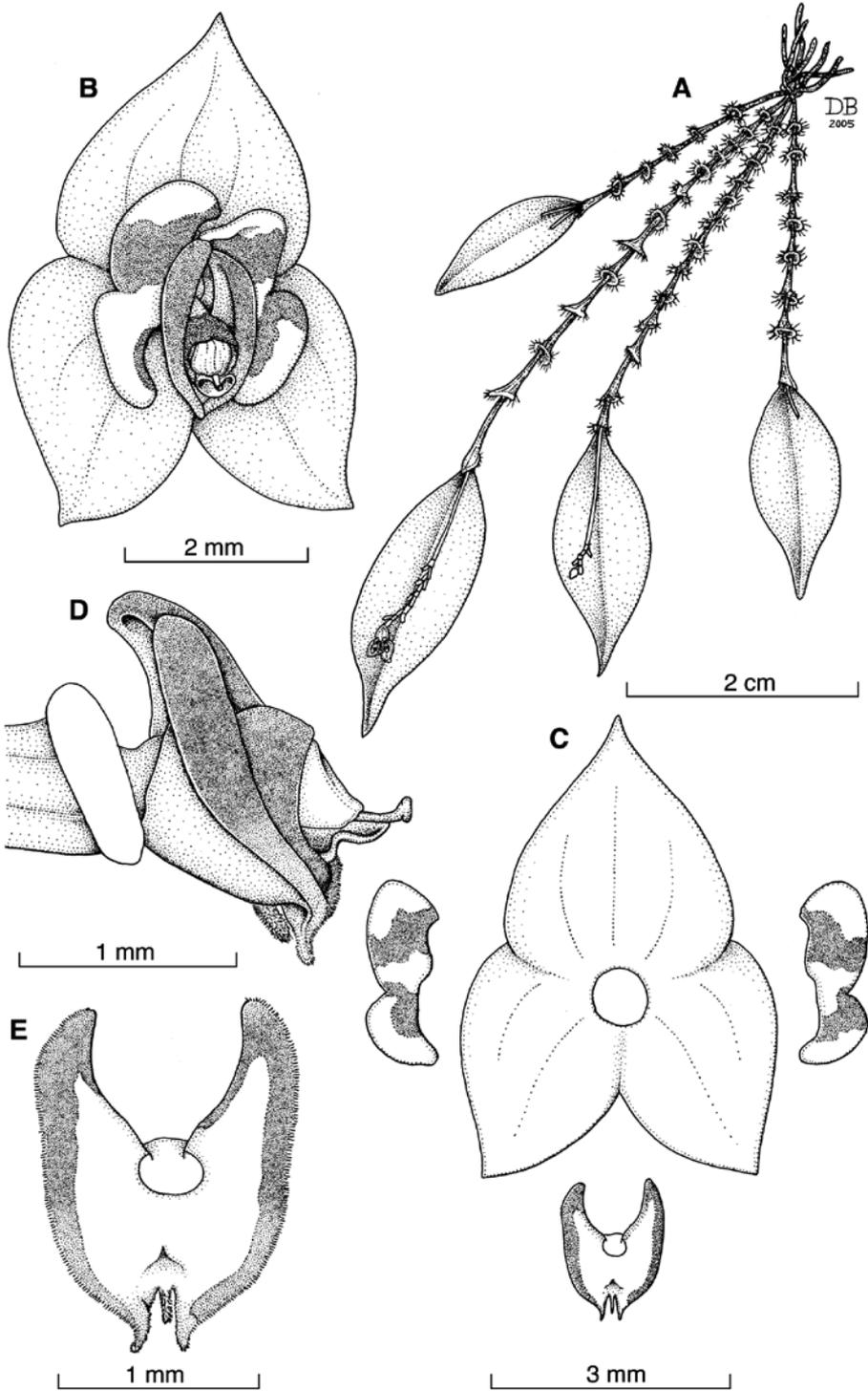


FIG. 2. *Lepanthes dikoensis* Bogarín & C.M. Sm. A) Habit. B) Flower. C) Dissected perianth. D) Column and lip, lateral view. E) Lip, spread. Drawn by D. Bogarín from the holotype (JBL-Spirit).

lower lobe of the petals lunate, strongly falcate (vs. narrowly triangular, subfalcate), the color of flowers, the sepals orange (vs. yellow), the lower lobe of petals basally scarlet with the apex yellow-orange (vs. yellow-orange, without the scarlet stain), and the appendix narrowly oblong (vs. a small, rounded lobule) (Fig.1). The differences between Costa Rican taxa are summarized in Table 1.