

***PROSTHECHEA* KNOWLES & WESTC.**

***Prosthechea joaquina* Pupulin, sp. nov.**

TYPE: Costa Rica. Heredia: Varablanca, ca. 1800 m, collected by Zayda Rodríguez, 1997, flowered in cultivation at El Roble de Alajuela, 4 Dec. 1999, *F. Pupulin 1865* (Holotype, USJ). FIGURE 3.

Inter species generis *Prosthechea* Knowles & Westc. planta pseudobulbis linearibus, inflorescentia racemosa multiflora, floribus magnibus, labello cochleato callis duobus superpositis in basi dignoscenda.

**Plant** epiphytic, with somewhat elongate rhizome covered by papyraceous bracts. **Roots** flexuous, glabrous. **Pseudobulbs** cylindrical, linear to subfusiform, elongate, sulcate, to 24 cm long, 1.2 cm wide, covered at the base by 3 imbricat-

ing, acuminate bracts, 2-foliate at apex. **Leaves** separated by an internode to 2 cm long, linear-elliptic to narrowly elliptic, fleshy, obtuse, narrowed to the subsessile base, 18.0–22.0 cm long, 2.2–2.5 cm wide. **Inflorescence** terminal, a many-flowered raceme to 19 cm long including the peduncle, emerging from a green spathe to 4 cm long; the flowers opening in succession from the apex. **Ovaries** triquetrous, ca. 1.2 cm long including the pedicel. **Flowers** rather large, fleshy, with sepals and petals free, spreading, brownish yellow, the sepals and petals spotted with brown, the lip white-striped purple. **Dorsal sepal** elliptic-oblancheolate, acute, concave toward the apex, somewhat reflexed at the base, adaxially carinate, 20 mm long, 7 mm wide. **Lateral sepals** obliquely elliptic-lanceolate, acute to subacuminate, slightly concave, adaxially carinate, 20 mm long, 7 mm wide. **Petals** oblancheolate, acute, 16.0 mm long, 7.5 mm wide. **Lip** entire, shortly clawed, basally adnate to the column, 13.5 mm long, 11.2 mm wide; the lamina widely ovate, acute, concave toward the apex; disc with a pair of superposed calli formed by 2 membranous keels uniting centrally and diverging at apex. **Column** stout, dilated at the middle, 10 mm long, provided at the apex with a pair of fleshy, lateral, triangular-subfalcate teeth, and a central 2-dentate projection. **Anther** incumbent, operculate, ovate, bilobed at the rounded apex, 4-celled. **Pollinia** 4, waxy, obovate-complanate, on a short, linear, shortly bifid caudicle.

**Paratype. Costa Rica.** Without collection data, a plant flowered at the Orchid Exhibition of Alajuela, 29 Oct. 1999, *F. Pupulin 1707* (USJ).

**Distribution.** Known only from Costa Rica.

**Etymology.** Named in honor of Joaquín B. García Castro, preeminent student of the Costa Rican orchid flora and well-known teacher of many serious “aficionados” in that country.

**Ecology.** This species grows as an epiphyte in lower montane and montane wet forests at 1800–2000 m elevation.

Floral morphology indicates relationships with *Prosthechea radiata* (Lindl.) W.E. Higgins, from which the new species differs for the spotted tepals, the widely ovate lip (vs. cordate-subrhreniform in *P. radiata*) and the superposed pair of basal calli. Moreover, pseudobulbs are

conical-pyriform in *P. radiata*, whereas they are linear and subterete in *P. joaquina*. Subterete pseudobulbs are also found in *P. baculus* (Rchb.f.) W.E. Higgins and *Epidendrum baculibulum* Schltr.; however, *P. baculus* regularly produces a very short, 2-flowered inflorescence, the large flowers “back to back” vs. the elongate, many-flowered raceme of *P. joaquina*. On the other hand, *E. baculibulum* usually has 3-leaved, longer pseudobulbs (>30 cm vs. <25 cm), widely oblong sepals, tepals 12 mm long, and an inconspicuous lip not much longer than the column, characteristics that easily differentiate the two species.