

**Chelyorchis pardo** Carnevali & G. A. Romero, *sp. nov.* Type: **Venezuela**: Carabobo: 20 km W of Bejuma, along the Bejuma-Chivacoa road, leg. Alexis Pardo, and cultivated and flowered at Mérida, Yucatán, México, 27 Mar. 2006, G. Carnevali 7169, Holotype (VEN), Isotype (AMES, CICY). Figure 6 b.

*Species haec Chelyorchis ampliata* (Lindley) Dressler & N.H. Williams *affinis sed floris minoribus, inflorescentia brevior, labello proportione minore, angustiore, lobulis lateralis (basalis) multo breviores recedit.*

Epiphytic, caespitose to shortly creeping herbs, rhizome abbreviate, 2–3 mm long between pseudobulbs; roots 1–3 mm thick; **pseudobulbs** 35–70 mm long, 30–51 mm wide, ovoid to orbicular, more rarely (in shady positions) elliptical, strongly compressed laterally, more on older pseudobulbs, apically (1)2(3)-leaved, smooth when young, eventually wrinkled-rugulose, green with red or maroon edges and internodes, when young clothed by two conduplicate, applicate sheaths, 20–70 mm wide, lacking foliar blades, eventually defibrating and deciduous; **leaves** 12–24 cm long, 2.6–5 cm wide, oblanceolate to more rarely elliptic, apically subacute to obtuse, basally attenuated into a 1.5–2.5 cm long pseudopetiole, blades coriaceous, flat or somewhat duplicate, green or with scattered red to maroon spots; **inflorescences** single per pseudobulb, borne laterally at the base of the pseudobulb, racemose in very young plants, becoming 1-pinnately paniculate (more rarely 2-pinnate) in older plants, 10–35(50) cm long, provided with 2–5(10) lateral branches, peduncle (10)15–18(25) cm long, terete, with 4–6 internodes, these 4–6 cm long, the lowermost longest, subtended by 3–8 mm long tubular, applicate bracts, eventually scarious and deciduous, rachis terete, flowers 4–10 mm apart; pedicellate ovary 15–22 mm long, terete, perpendicular to axis of rachis; floral bracts inconspicuous, cupular, fleshy, 1.5–2.5 mm long, perpendicular to axis of rachis to somewhat retrorse, **flowers** resupinate or partially resupinate, showy, 15–18 mm from the apex of the dorsal sepal to the apex of the central lobe of labellum; sepals dull yellow with dull to dark red-maroon spots on the apical half, petals and labellum bright yellow with bright or dull red-maroon spots on the lower half, the labellum underside almost white, often with a few dull maroon spots, the callus whitish or dull yellow heavily spotted or overlaid with red-maroon; **sepals** concave, obovate, apically obtuse, somewhat clawed on the basal half, dorsal sepal 6–9 mm long, 4.5–7 mm wide, lateral sepals, 6–9 long, 4–6 mm wide, shaped similarly but less concave and clawed than dorsal sepal; **petals** 8–10 mm long, 4.5–8 mm wide, broadly ob-

ovate in overall outline, apically rounded to subtruncate, sharply clawed at the basal 1/3 making for a broadly obovate-subquadrate petal blade; **labellum** 14–16 mm long, sharply 3-lobed; lateral lobes very small, 4–5.5 mm across the spread apices, the individual lobes 2–2.6 mm long, semicircular, transversely triangular to subquadrate, broadly acute to rounded at apex; central lobe 8–18 mm long, 13–17 mm wide, transversely reniform, broadly and obtusely emarginate at apex, shallowly cordate at base, disk of the labellum 1.5–3 mm long, almost entirely occupied by a conspicuous callus; isthmus ca. 2 mm long, ca. 1.5 mm wide, callus complex, fleshy, elevated, waxy, consisting of two sections, a basal concave platform ending in two apical calli and transversed by an elevated keel, and an apical portion with three teeth, the two laterals shorter, subparallel to the main axis of the labellum, the central one (the morphological apex of the keel of the platform) pointing forward or upward; **column** 3.5–4 mm long, hemicylindric, yellow scattered red maroon spots, with conspicuous flabellate to subreniform, dentate column wings ca. 0.8 mm long and 2 mm wide; clinandrium with an oblong, petaloid flap with a 3–5-dentate apical margin; pollinia 2, supported by a viscidium on a very short stipe; capsules ellipsoid 2.5–4 mm long, 6–9 mm thick, on a pedicel to 20 mm long, the apex of the capsule often crowned by the remnants of the floral segments.

**Eponymy.** The species is named after Mr. Alexis Pardo Isla, of Maracay, Estado Aragua, Venezuela, who has contributed substantially to the knowledge and conservation of Venezuelan orchids through his program of seed reproduction of orchids, including *Chelyorchis*. He also provided data and material of the new species for study and to prepare herbarium specimens.

*Chelyorchis pardoii* tends to be a smaller plant with much shorter inflorescences than true *C. ampliata*. Furthermore, the flowers of the two species are different by virtue of size (as discussed in the morphometric analysis section) with *C. pardoii* being the smaller, particularly in labellum size. The flowers are also different in proportions (see Fig. 6). *Chelyorchis ampliata* has a proportionally broader labellum with sepals and petal approaching the dimensions of those of the new species. Thus, the flowers of *C. ampliata* are

conspicuously broader across the labellum midlobe while the new species is broader across the spread petals or about as broad across both landmarks. However, the most striking difference is the basal lobes of the labellum (see Fig. 6; Table 6). In *C. ampliata*, they are large and much wider than the calli of the labella, while in *C. pardoi* they are smaller and narrower, as wide, or barely exceeding the width of the calli. In natural conditions, the tiny lateral lobes of *C. pardoi* are longitudinally folded and their profile when viewed from above is that of a pair of small retrorse teeth. On the other hand, the large basal lobes of *C. ampliata* are flat and subquadrate in outline and overlapping the base of the labellum midlobe. When somewhat folded, the apices of the lateral lobes in *C. ampliata* almost overlap the bases of the petals, while this never happens in the flattened lateral lobes of *C. pardoi*.

**Distribution and Ecology.** *Chelyorchis pardoi* grows at 0–500 m in tropical dry to seasonally dry forests on the Eastern Cordillera of the Andes and the Llanos in Colombia and Venezuela, then along the slopes of the Cordillera de la Costa and the northernmost section of the Guayana in Venezuela, and on the island of Trinidad.

**IUCN Conservation assessment.** VU. The distributional range of *Chelyorchis pardoi* exceeds that required for the species to qualify as CE or EN, but it consists of fragmented, isolated populations across its range. Furthermore, the species is highly prized as an ornamental and is frequently collected. However, the most serious threat to its continuous existence is habitat destruction. *Chelyorchis pardoi* occurs mainly in tropical deciduous forests, which is one of the ecosystems that has had its extent more reduced in Venezuela due to anthropogenic activities, mainly agriculture and urban developments. Nowadays, it is still found as a high epiphyte on large, isolated trees left standing for shade after cutting down the forests for pastures. None of the known populations resides in an area which is under any type of protection.

**Additional collections studied. COLOMBIA.**

**Meta:** without locality, 2 Feb. 1937, *J. Renz* 3356 (HJR); Sierra Macarena, 17–20 Feb. 1937, *J. Renz* 3357 (HJR). **VENEZUELA.**

**Aragua:** alrededores de Maracay, *G.C.K. & E. Dunsterville* 400 (VEN); entre Maracay y San Juan de los Morros, *Ll. Williams* 13616 (VEN). **Barinas:** Río Cerrito, 7 Oct. 1949, *J. Renz* 5975 (HJR); without locality, 15 Dec. 1951, *J. Renz* 7618 (HJR). **Bolívar:** Bajo Caroní, sector I, 7°27'36"N, 62°33'36"W, 23 Mar. 1994, *W. Díaz & A. Valera* 2279 (MO). **Cojedes:** Distr. San Carlos: 17 Dec. 1956, *J. Renz* 8847 (HJR). **Guárico:** San Juan de los Morros, *Ll. Williams* 12394 (VEN). **Monagas:** ca. caserío La Pica, E de Maturín, *L. Aristeguieta* 4047 (VEN). **Yaracuy:** El Chorro, valle del Yaracuy, *L. Aristeguieta & E. Foldats* 1260 (VEN). **Zulia:** surroundings of the Aricuaisá hydrological station, 9°35'30"N, 72°53'55"W, 25 Feb. to 3 Mar. 1982, *G. S. Bunting, et al.* 11059 (NY); 50 km west of Maracaibo, 31 Dec. 1946, *J. Renz* 4207.1 (HJR); 50 km W of Maracaibo, 31 Dec. 1946, *J. Renz* 4207.2 (HJR); without locality, 18 Nov. 1946, *J. Renz* 4218.1 (HJR); ident., 18 Nov. 1946, *J. Renz* 4218.2 (HJR); ident., 23 Jan. 1951, *J. Renz* 6604 (HJR); ident., 10 Jan. 1956, *J. Renz* 8517 (HJR); Perijá, 3 Jan. 1951, *Hermano Gines* 2102 (US); Machiques-Colón, near Río Catatumbo, ± 85 km W.N.W. of Santa Bárbara-San Carlos del Zulia, 9 Nov. 1967, *J. de Bruijn* 1462 (US). **TRINIDAD AND TOBAGO.** Santa Cruz, *O. Kuntze* 623 (NY); Belmont, 5 Apr. 1907, *W. E. Broadway s.n.* (AMES). Cultivated: Flowered in 1914, *R. E. Blanchard s.n.* (NY).