

# *Pleurothallis cardiothallis*

RCHB.F.

BOT. ZEITUNG (BERLIN) 15: 158. 1857

**Synonyms:** *Humboltia cardiothallis* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.

*Acronia cardiothallis* (Rchb.f.) Luer Monogr. Syst. Bot. Missouri Bot. Gard. 103: 106. 2005.

*Zosterophyllanthos cardiothallis* (Rchb.f.) Szlach. & Kulak, Richardsonia 6(4): 187. 2006.

**Type:** Ex Anglia in hortum Schillerianum introducta, G.W. Schiller s.n. (holotype, W).

**Illustrated specimen:** Costa Rica. Cartago: Jiménez, Pejivalle, La Marta, shores of Río Gato, 750 m. 3 Nov 2006. F. Pupulin 6414, R.L. Dressler, R. Gómez, A.P. Karremans & G. Rojas (JBL-spirit; LCDP voucher).

**Plant** epiphytic, caespitose, erect to suberect, to 50 cm tall. **Roots** slender, flexuous, ca. 1 mm in diameter. **Ramicauls** terete, slender, 38–50 cm long, 2–3 mm in diameter, yellowish green, provided with two tubular, subobtuse sheaths to 30 mm long at the base, and a tightly adpressed, truncate sheath just below the middle, to 6 cm long, the bracts glumaceous, green, becoming brown, dry-papyraceous with age. **Leaf** borne horizontally, becoming curved-subpendent with age, thinly coriaceous, flexible, sessile, ovate, narrowly acute to abruptly subcuminuate, 17–21 × 8–10 cm, deeply cordate at the base, the basal lobes not overlapping, grass green, matte. **Inflorescence** a fascicle of solitary flowers, usually produced singly in succession, rarely in pairs, from a reclined spathaceous bract to 2 cm long, dry-papyraceous, disintegrating with age. **Pedice**l terete, green, to 10 mm long. **Ovary** terete-subclavate, curved, 5–7 mm long. **Flowers** spreading, short-lived (to 6 days), with temporary activity, strongly reflexed at complete anthesis, uniformly yellow, the lip brighter, the column greenish white. **Dorsal sepal** erect, ovate, subacute, 9–12 × 6–7 mm, margins reflexed, 13-veined. **Lateral sepals** connate into a broadly ovate, subacute synsepal, margins reflexed, 9–11 × 8–9 mm, 10-veined. **Petals** narrowly triangular-lanceolate, subsigmoid, acuminate, strongly reflexed at maturity, 6–7 × 2 mm, 3-veined. **Lip** unguiculate, hinged to the column foot, geniculate from a thickened base, peltate, basally truncate with rounded angles, obtuse, abruptly acute-apiculate, the apical margins thickened-in-folded, finely pubescent-velutine abaxially, the abaxial midvein thickened, 4 × 3 mm; glenion on a slightly concave-recessed plate between the lateral margins of the hypochile, less than 1 mm long. **Column** short and stout, transversely subrectangular, dorsiven-

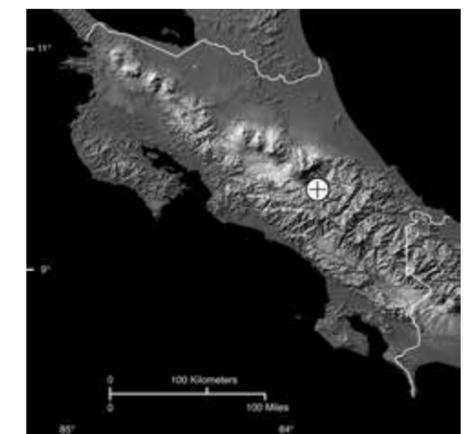
trally complanate, with a short foot, ca. 2 × 3 mm, the anther apical, bent, the stigma apical, bilobed. Anther cap cucullate, cordate, 2-celled. Pollinia 2, narrowly ovoid-pyriform, ca. 1 mm long, attached to a peltate viscidium through two short, cylindrical caudicles.

**Etymology:** from the Greek *kardiā*, “heart”, and *thallós*, “stem”, in reference to the heart-shaped leaf.

The large flower up to 35 mm in size opening and closing over three to four days until reaching complete anthesis with strongly reflexed sepals, the peltate lip with the apical margins thickened and folded in, revealing the papillose abaxial surface, distinguish *P. cardiothallis* from its relatives. The closest species are *Poncoglossa*, whose lip ends into a conical, uncinuate callus, and *P. navisepala*, which has much smaller flowers usually produced 2–4 at once. The yellow phase in species which normally have purple flowers is quite common in *Pleurothallis*, including *Macrophyllae-Fasciculatae* group.

#### References:

Pupulin, F., M. Díaz-Morales, J. Aguilar & M. Fernández. 2017. Two new species of *Pleurothallis* (Orchidaceae: Pleurothallidinae) allied to *P. cardiothallis*, with a note on flower activity. *Lankesteriana* 17: 329–356.



**LCDP:** *Pleurothallis cardiothallis* Rchb.f. A. Habit. B. Flower. C. Perianth. D. Column and lip, lateral view. E. Column, ventral view. F. Column, three quarters view. G. Pollinarium, three views. H. Anther cap.

