

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, Richardsoniana 6(4): 187. 2006.

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

Illustrated specimen: Costa Rica. Cartago: Turrialba, Santa Teresita, Guayabo, Monumento Nacional Guayabo, around the main trails. May 26 2015. A.P. Karremans 6580, D. Bogarín & F. Pupulin (JBL-spirit; LCDP voucher).

Plant epiphytic, caespitose, erect to suberect, up to 48 cm tall. **Roots** slender, flexuous, ca. 1 mm in diameter. **Ramicauls** terete, slender, 21–45 cm long, with two tubular sheaths, one at the base, 3.0–4.0 cm long, and another below the middle, 5.0–8.5 cm long, the bracts glumaceous, green becoming papyraceous. **Leaf** apical, becoming sub-pendent, thinly coriaceous, flexible, sessile, ovate, narrowly acute, 20–25 × 7–12 cm, deeply cordate at the base, the basal lobes not overlapping, matte. **Inflorescence** subfascicled, flowers solitary, usually produced singly in succession, from a reclined spathaceous bract to 2 cm long, papyraceous, disintegrating. **Pedicle** terete, ca. 1 cm long. **Ovary** terete-subclavate, curved, 5 mm long. **Flowers** short-lived, with temporary activity, spreading; purple colored, the dorsal sepal apically fading dull yellow, with the base and margins of the sepals greenish-yellow, the lip purple with the apex whitish-yellow, the column purple with the foot white. **Dorsal sepal** erect, ovate, acute, 16.0–17.9 × 8.9–11.6 mm, margins reflexed, 13-veined. **Lateral sepals** connate into a broadly ovate, subacute synsepal, subconcave in the middle, margins reflexed, 14.4–16.4 × 13.0–13.7 mm, each half 7-veined. **Petals** narrowly triangular-lanceolate, obliquely asymmetric, subsigmoid, acuminate, reflexed, uncinata, 11.0–11.6 × 3.2 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-infolded, finely pubescent-velutine abaxially, the abaxial midvein thickened, 8.2 × 5.5 mm; glenion on a deeply concave surface between the

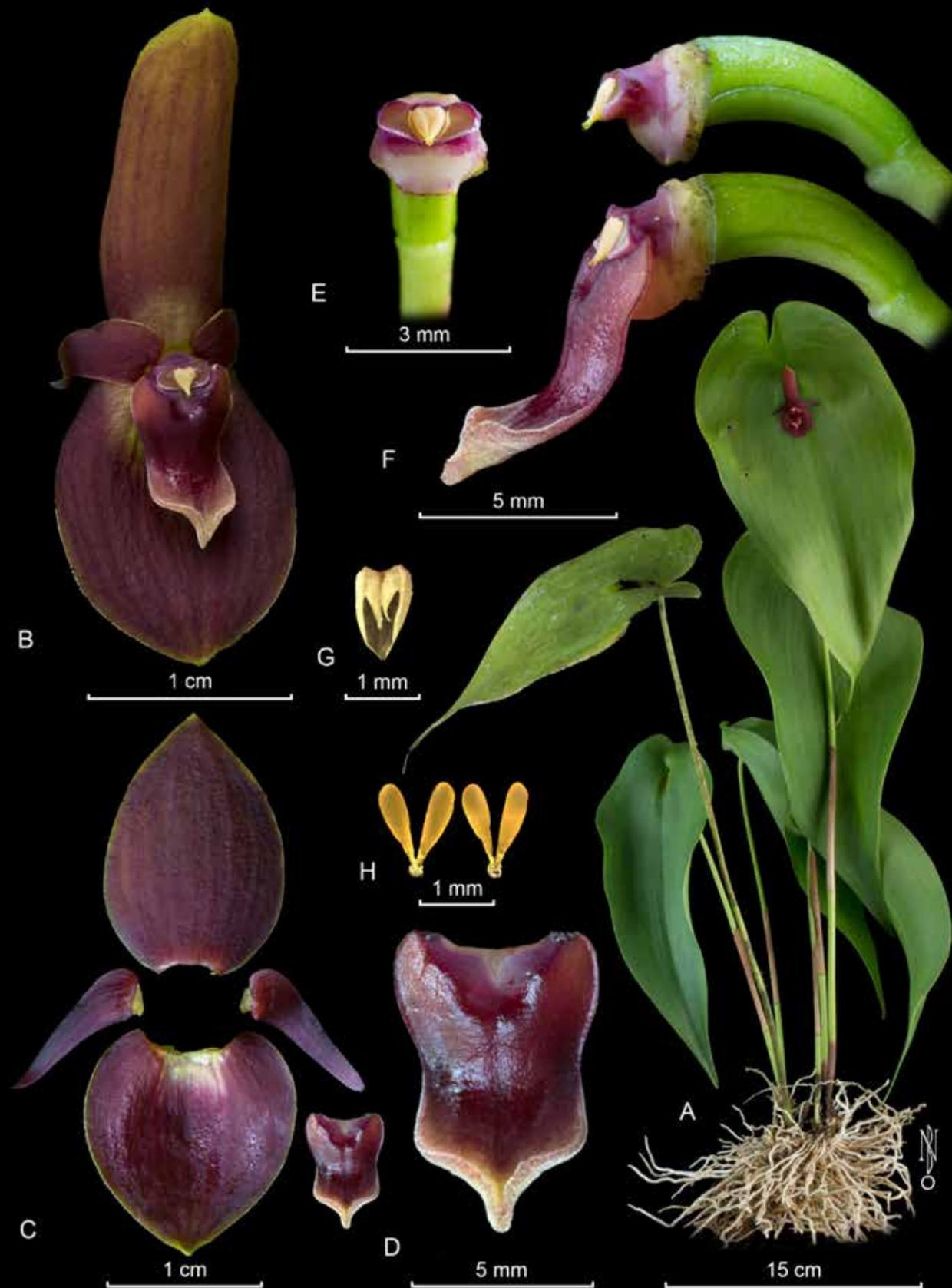
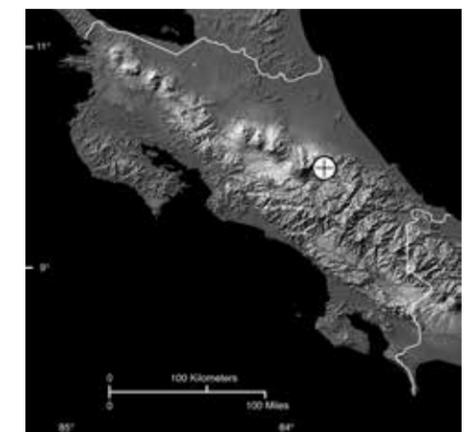
lateral hypochile, less than 1 mm long. **Column** short and stout, transversely subrectangular, complanate, ca. 2 × 3 mm, foot less than 0.5 mm long, the anther apical, bent, the stigma apical, bilobed. **Anther cap** yellow, cucullate, cordate, 2-celled. **Pollinia** 2, yellow, narrowly ovoid-pyriform, ca. 1 mm long, attached to a drop-like viscidium.

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

Pleurothallis cardiothallis are large plants bearing large purple flowers; a yellow variant is also illustrated here. On anthesis the flowers are more or less cucullate, fully spreading only after a few days. The species can be recognized by the fully reflexed sepals, the peltate lip with the apical margins thickened and folded inwards, revealing the papillose abaxial surface. The closest relatives are *P. oncoglossa*, whose lip ends into a conical, uncinata callus, and *P. navisepala*, which has much smaller flowers usually produced 2–4 at once.

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 flattened. D. Detail of the lip. E. Column, ventral view. F. Column without and with the lip, lateral view. G. Anther cap. H. Pollinarium.

