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EDUARDO G. GONÇALVES

Philodendron cardosoi, a new species of *Araceae* from Brazil

Abstract

Gonçalves, E. G.: *Philodendron cardosoi,* a new species of *Araceae* from Brazil. – Willdenowia 34: 525-527. – ISSN 0511-9618; © 2004 BGBM Berlin-Dahlem.

Philodendron cardosoi is described as a species new to science and illustrated. It is a member of *P.* subg. *Philodendron* sect. *Polytomium* and is so far only known from the type locality in the southeast of the Brasilian state of Pará.

The largest genera in the *Araceae* are *Anthurium* and *Philodendron,* with approximately 700 and 400 species, respectively. Even though there are serious efforts to elucidate the taxonomy of both genera, new species are still added yearly. Some revisional efforts have doubled the number of known species of *Philodendron* in general areas (Grayum 1996, Croat 1997). During a brief visit to the city of Belém in 2003, I was invited by some collectors to identify their plants. Among many interesting and poorly known species, one plant was recognized as a new species of *Philodendron* and it is here described as new and illustrated.

Philodendron cardosoi E. G. Gonç., **sp. nova** – Fig. 1
Holotypus: Brazil, Pará, São Geraldo do Araguaia, Parque Estadual da Serra dos Martírios / Andorinhas, nas margens do Rio Araguaia, próximo à Vila de Santa Cruz, no lugar denominado Pedra Escrita, c. 200 m, 7.2003, *A. L. R. Cardoso* (IAN; isotypus: UB).

Ad subgenus *Philodendron* sectionem *Polytomium* (Schott) Engl. pertinens. *Herba* terricola, caudex prorepens, internodiis 2-4 × 4-5 cm; prophyllum deciduum, rectum. *Petiolus* 45-47.5 × 1.3-1.5 cm, supra leviter deplanatus; *lamina* ambitu ovata, 40-60 × 32-45 cm, pinnatipartita; lobis primariis lateralibus lanceolatis, 6-7 utroque. *Pedunculus* 16-22 cm longus, 0.6-1 cm diam.; *spatha* 9-12 cm longa, extus albo-viridis, intus albida marginibus roseis; *spadix* 8.5-9.3 cm; *inflorescentia femina* 3-3.2 × 0.6-1.1 cm, *mascula sterilis* 0.5-0.6 × 1-1.1 cm, *mascula fertilis* 5.5-6.8 × 0.8-1 cm; *ovaria* 8-9-locularia, ovula 2-3 per loculum, ad axem affixa.

Terrestrial herb. *Stem* creeping, prostrate and rooting; internodes glossy green, 2-4 × 4-5 cm, prophylls purplish, straight, up to 18-22.5 cm long. *Leaves* erect; *petioles* 45-47.5 × 1.3-1.5 cm, slightly flattened adaxially, with short wine-coloured stripes; *sheath* 2-3 cm long; *leaf blade* pinnatipartite, ovate in outline, 40-60 × 32-45 cm, fresh leaves semi-glossy on both sides, drying light brown; anterior division 27-30 × 29-32 cm, primary lateral veins 6-8 per side, arising at an

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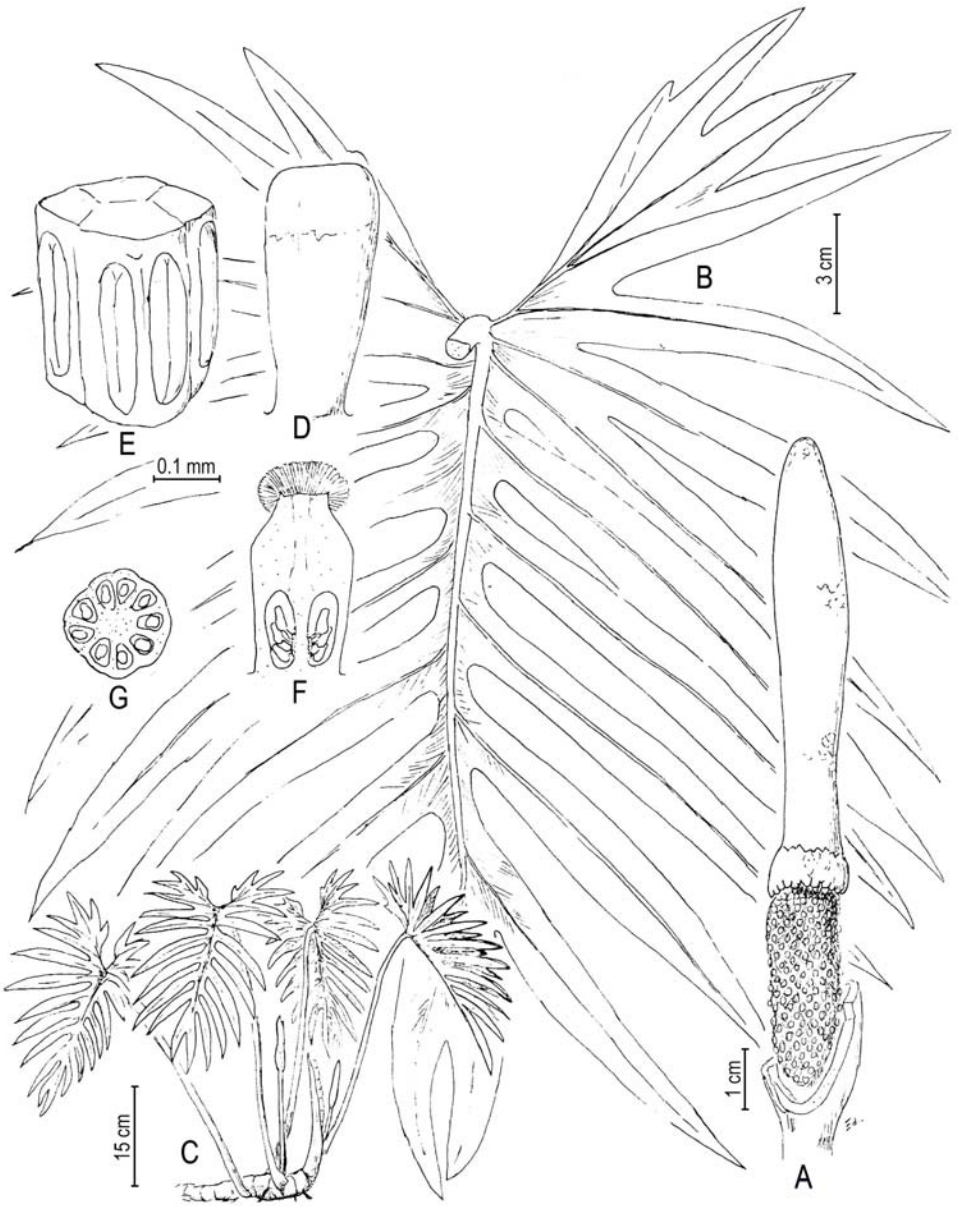

Fig. 1. *Philodendron cardosoi* E. G. Gonç. – A: spadix; B: leaf blade; C: habit; D: staminode, side view; E: male flower, side view; F: gynoecium, longitudinal section; G: ovary, cross section. – Drawn from *Cardoso s.n.* by the author.

angle of 50-60° from the midrib, lobes oblanceolate, 18-30 × 1.2-2.5 cm, 8.5-12 times longer than wide, acuminate at apex, sinus ending 3-5 mm from the midrib; posterior divisions 9-11 × 27-28 cm, sinus parabolic, basiscopic lobes 1-2 per side, acroscopic 2-3; basal veins denuded for 1-1.2 cm. *Inflorescence* erect at anthesis, one per leaf axil; *peduncle* 16-22 × 0.6-1 cm; concolourous with petiole; *spathe* 9-12 cm long, whitish green with medium green stripes outside, white in-

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side, slightly constricted at middle, edged with pinkish margins; *spadix* 8.5-9.3 cm long; *fertile male portion* 5.5-6.8 × 0.8-1 cm, tapering to the apex; *sterile male portion* 0.5-0.6 × 1-1.1 cm; *female portion* 3-3.2 × 0.6-1.1 cm, extending up to 1/3 of the spadix length. *Staminate flowers* prismatic, 4-androus, 1.5-2 × 0.6-1 mm; *staminodes* (sterile flowers) subprismatic, 2 × 1 mm. *Pistillate flowers* with gynoecium 1.3-1.5 mm long, stigma rounded, almost as wide as the ovary, c. 1 mm diam., style inconspicuous; ovary elliptic to obovate, 1-1.2 mm diam., 8-9-locular, 2-3-ovulate, ovules attached to the middle of the flower axis, funicle shorter than the ovules. *Infructescence* unknown.

Relationships. – *Philodendron cardosoi* belongs to *P.* subg. *Philodendron* and has to be placed in sect. *Polytomium* (Schott) Engl. because of its pinnate leaves. However, it is the only species in the section that is exclusively terrestrial and it will not climb even if an appropriate vertical support is given. *P. cardosoi* seems to be closer to *P. mayoi* E. G. Gonç., another species with pinnate leaves from Central Brazil (Gonçalves 2000). However, the flowering plants of the latter species are always hemi-epiphytic. The new species may also be confused with the Amazonian *P. tortum* M. L. Soares & Mayo, but differs in having fewer primary lateral lobes (6-7 instead of 9-10) and for the straight (not curved) prophyll (Soares & Mayo 2001). Another important difference is that the leaves are held erect in *P. tortum* and inflexed in *P. cardosoi*.

Eponymy. – The epithet is in honor of André Cardoso, a plant enthusiast who has been collecting, growing and breeding aroids, and showed me a small group of this *Philodendron* in his home in Belém, where I was able to recognize it as a new species.

Distribution. – *Philodendron cardosoi* occurs in southeastern Pará and – probably – in the adjacent state of Tocantins, in central N Brazil, on quartzite outcrops. *P. cardosoi* grows as a terrestrial herb and its creeping stem usually is buried under the litter.

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References

Croat, T. B. 1997: A revision of *Philodendron* subgenus *Philodendron (Araceae)* for Mexico and Central America. – Ann. Missouri Bot. Gard. **84:** 311-704. [CrossRef]

Gonçalves, E. G. 2000: Two new species of *Philodendron (Araceae)* from Central Brazil. – Kew Bull. **55:**175-180. [CrossRef]

Grayum, M. H. 1996: Revision of *Philodendron* subgenus *Pteromischum (Araceae)* for Pacific and Caribbean tropical America. – Syst. Bot. Monogr. **47.**

Soares, M. L. C. & Mayo, S. J. 2001: Three new species of *Philodendron (Araceae)* from the Ducke Forest Reserve, central Amazonas, Brazil. – Feddes Repert. **112:** 42-44.

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