



<http://dx.doi.org/10.11646/phytotaxa.174.3.2>

A new species of *Philodendron* (Araceae) in Paraná, Brazil

CAMILA V. BUTURI¹, LÍVIA G. TEMPONI², & CASSIA M. SAKURAGUI³

¹Federal University of Paraná, Department of Biological Sciences, Polytechnic Centre, Graduate Program in Botany Garden of the Americas, Curitiba, PR, C.E.P. 81531-980, C.P. 19031, Brazil, email: camila.buturi@gmail.com

²State University of West Paraná, CCBS, University Ave., 2069, Cascavel, PR, C.E.P.85819-110, C.P. 711, Brazil, email: liviatemponi@yahoo.com.br

³Federal University of Rio de Janeiro, CCS, Institute of Biology, Department of Botany, Carlos Chagas Filho Ave., 373, Room A1-088, Block A, Fundão Island, Rio de Janeiro, RJ, C.E.P. 21941-902, Brazil, email: cmsakura12@gmail.com

Abstract

A new species of *Philodendron* from the Atlantic Forest in Paraná, Brazil, is described and illustrated. *Philodendron meridionale* belongs to subgenus *Philodendron*, section *Macrobelyium*. It is similar to *P. loefgrenii*, from which it differs by the cordate base and larger number of locules, and is also similar to *P. roseopetiolatum*, from which it can be distinguished by smaller leaves and obscure primary lateral veins.

Resumo

Uma nova espécie de *Philodendron* da Floresta Atlântica no Paraná, Brasil, é descrita e ilustrada. *Philodendron meridionale* pertence ao subgênero *Philodendron*, seção *Macrobelyium*. É semelhante à *P. loefgrenii*, da qual difere por sua base cordada e maior número de lóculos e à *P. roseopetiolatum*, da qual pode ser distinguida por apresentar folhas menores e nervuras laterais primárias pouco aparentes.

Key words: aroids, Atlantic Forest, taxonomy, south Brazil

Introduction

The genus *Philodendron* Schott (1829: 780), with more than 700 estimated and 482 published species, is the second-most diverse genus of the family Araceae (Boyce & Croat 2012). For Brazil, 168 species are listed; 77 of these are endemic (Sakuragui *et al.* 2012a). Most species occur in humid tropical forests, and the centre of diversity corresponds mainly to the Atlantic Forest and the Amazon (Sakuragui *et al.* 2012b). The genus is divided into three subgenera: *Meconostigma* (Schott 1832: 20) Engler (1899: 554), *Philodendron* and *Pteromischum* (Schott 1856: 77) Mayo (1989: 168).

The subgenus *Philodendron* comprises most of the species and is internally divided in 10 sections and 11 subsections (Krause 1913). It is characterised by the presence of a single leaf in the stem sympodial units and by having a basal sterile male zone shorter than the fertile male zone (Coelho 2000).

The section *Macrobelyium* (Schott 1856: 96) Sakur. (2006: 469), in which the new species is located, is characterised by having the following: leaf blades usually ovate, ovate triangular, or rarely oblong; base of the leaf blades often sagittate or cordate, rarely truncate, rounded, or cuneate; ovary locules contain few ovules; and basal or sub-basal placentation exists (Sakuragui 2001a). Several new *Macrobelyium* species have been recently described in Brazil, mainly in the southeastern and northeastern regions (Sakuragui & Mayo 1997, Coelho 2000, Sakuragui 2001b, Coelho & Sakuragui 2007).

Material and methods

Samples were collected in different areas of the state of Paraná. Herbarium specimens of MBM (Curitiba Municipal Botanical Garden) and UPCB (Department of Botany Herbarium, Federal University of Paraná), acronyms according

the area has been occupied. The finding of this new species highlights the importance of the research and conservation of this biome. Although most of the localities in which the species occur are protected areas, such as the Saint-Hillaire Lange National Park, Pico Marumbi State Park, Graciosa State Park, the biological reserve of Rio dos Touros, and, in particular, the Nhandara Guaricana heritage reserve, the species is poorly known in the state of Santa Catarina. So far there is only one record for the state and, therefore, future field work is needed to the complete understanding of the geographic distribution of *P. meridionale*.

Acknowledgements

We thank CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) for the Master's grant for the first author, Thais Regina Marcon for the illustrations, Lilien Christiane Ferneda Rocha, Luana Calazans for suggestions and assistance in the field work, and Tarciso S. Filgueiras for latin corrections. We are also grateful to the owners of Nhandara Guaricana Heritage Reserve, Claudielly Hekavey, Giacomo Claus and the MBM team for its assistance in the field and support with the botanical material.

References

- Boyce, P.C. & Croat, T.B. (2012) The Überlist of Araceae: totals for published and estimated number of species in Aroid genera. Available from: <http://www.aroid.org/genera/120110uberlist.pdf> (accessed: 18 January 2014).
- Coelho, M.A.N. (1998) Five new species of the genus *Philodendron* Schott (Araceae) of Brazil. *Bulletin of Botany, University of São Paulo*, São Paulo 17: 47–60.
- Coelho, M.A.N. (2000) *Philodendron* Schott (Araceae): morphology and taxonomy of the species of the Macaé de Cima ecological reserve, Nova Friburgo, Rio de Janeiro, Brazil. *Rodriguésia* 51: 21–68.
- Coelho, M.A.N. & Sakuragui, C.M. (2007) A new species of *Philodendron* (Araceae) from Brazil. *Kew Bulletin* 62: 629–631.
- Engler, A. (1905) Beiträge zur Kenntnis der Araceae. X. *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 37: 110–143.
- IUCN Standards and Petitions Subcommittee (2014) Guidelines for Using the IUCN Red List Categories and Criteria. Version 11. Available from: <http://cmsdata.iucn.org/downloads/redlistguidelines.pdf> (Accessed: 21 May 2014).
- Krause, K. (1913) Araceae—*Philodendroideae*—*Philodendreae*—*Philodendrinae*. *The Plant Kingdom* 60: 1–143.
- Mayo, S.J. (1991) A revision of *Philodendron* subgenus *Meconostigma* (Araceae). *Kew Bulletin* 46: 601–681. <http://dx.doi.org/10.2307/4110410>
- Mayo, S.J., Bogner, J. & Boyce, P.C. (1997) *The genera of Araceae. 1st ed.* Royal Botanical Garden, Kew, London, 370 pp.
- Roderjan, C.V., Galvão, F., Yoshiko, S.K. & Hatschbach, G.G. (2002) The phytogeographic units of the state of Paraná. Santa Maria, Rio Grande do Sul, Brazil. *Science & Environment* 13: 75–92.
- Sakuragui, C.M. (2001a) Biogeography of *Philodendron* section *Calostigma* (Schott) Pfeiffer (Araceae) in Brazil. *Acta Scientiarum* 23: 561–569.
- Sakuragui, C.M. (2001b) Two new species of *Philodendron* (Araceae) from Brazil. *Novon* 11: 102–104. <http://dx.doi.org/10.2307/3393217>
- Sakuragui, C.M., Calazans, L.S.B. & Soares, M.L. (2012a) *Philodendron* Schott. In: List of species of flora of Brazil. Botanical Garden of Rio de Janeiro. Available from: <http://floradobrasil.jbrj.gov.br/2011/FB005015> (accessed: 14 January 2014).
- Sakuragui, C.M., Calazans, L.S.B., Morais, E.B., Coelho, M.A.N. & Pellegrini, M.O.O. (2012b) Diversity and conservation of *Philodendron* Schott (Araceae) in Atlantic Forest of Rio de Janeiro State, Brazil. *Journal of Botanical Taxonomy and Geobotany* 122: 1–21. <http://dx.doi.org/10.1002/fedr.201200014>
- Sakuragui, C.M. & Mayo, S.J. (1997) Three new species of *Philodendron* (Araceae) from southeastern Brazil. *Kew Bulletin* 52: 673–681. <http://dx.doi.org/10.2307/4110294>
- Schott, H.W. (1829) For lovers of botany. *Viennese Magazine for Art, Literature, Theater, and Fashion* 94: 779–780.
- Stearn, W.T. (2004) *Botanical Latin*. Timber Press, Portland, 546 pp.
- Thiers, B. (continuously updated) Index Herbariorum: a global directory of public herbaria and associated staff. *New York Botanical Garden's Virtual Herbarium*. Available from: <http://sweetgum.nybg.org/ih/> (accessed: 14 Jan 2014).