



Xylopia atlantica (Annonaceae), new species from the coastal forest of Bahia, Brazil

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Abstract

Xylopia atlantica, a new and endemic species from the Atlantic forest of Bahia, Brazil, is described and illustrated. It is only known from a 150 km long stretch of land from Valença to Uruçuca, in central Bahian coast. The species has leaves up to 41 cm long, larger than those of any other Brazilian *Xylopia*. *Xylopia atlantica* shares with *X. decorticans* and *X. ochrantha* cauli- and ramiflorous inflorescences. It differs from the former by the non-exfoliating bark, and from the latter by the indumentum of the monocarps, sparsely yellow-tomentose versus densely golden-tomentose, in *X. ochrantha*. Although *X. atlantica* has been collected since relatively long ago, flowering individuals have never been encountered.

Key words: Atlantic Forest, cauliflorous *Xylopia*, endemic *Xylopia*

Resumo

Xylopia atlantica, uma nova espécie endêmica da Mata Atlântica da Bahia, Brasil, é descrita e ilustrada. É conhecida apenas de uma área de 150 km de extensão, de Valença a Uruçuca, na costa central baiana. A espécie tem folhas com até 41 cm de comprimento, maior do que qualquer outra *Xylopia* do Brasil. *Xylopia atlantica* compartilha com *X. decorticans* e *X. ochrantha* inflorescências cauli e ramifloras. Difere da primeira pela casca, não descamante, e da segunda pelo indumento dos carpídios, esparsamente amarelo-tomentosos contra densamente dourado-tomentosos. Embora *X. atlantica* venha sendo coletada há algum tempo, indivíduos floridos não foram ainda encontrados.

Palavras-chave: Mata Atlântica, *Xylopia* caulifloras, *Xylopia* endêmicas

Introduction

Xylopia is one of the larger genera of Annonaceae, with up to 160 species with a pantropical distribution, and is characterized by spoon-shaped petals, transversely septate anthers, free, mostly dehiscent monocarps, and arillate seeds (Kessler 1993, Lobão & Johnson 2007). There are 58 species in the Neotropics (Maas *et al.* 2011), and 33 in Brazil, mostly in the Amazon region (Maas *et al.* 2014). Up till now, nine species of *Xylopia* have been reported to occur in the Atlantic Forest domain (Dias 1988, Lobão *et al.* 2010, Mello-Silva *et al.* 2012, Maas *et al.* 2014, Santos *et al.* 2011), namely, *X. aromatica* (Lam.) Martius (1841: 43), *X. brasiliensis* Sprengel (1822: 50), *X. decorticans* D.M.Johnson & Lobão (in Lobão & Johnson 2007: 208), *X. emarginata* Martius (1841: 42), *X. frutescens* Aublet (1775: 602), *X. involucrata* M.C.Dias & L.S.Kinoshita (1998: 471), *X. laevigata* (Mart.) R.E.Fries (1900: 37), *X. langsdorffiana* A.Saint-Hilaire & Tulasne (1842: 133) and *X. ochrantha* Martius (1841: 43). Among them, *X. involucrata* and *X. decorticans* were described recently. The former is endemic to Bahia and the latter, to Espírito Santo. The new species here described, the tenth in the Atlantic Forest, is also endemic to Bahia, where it occurs in the central coastal area. The oldest collections date from 1991, and are posterior to the last treatment of extra-Amazonian *Xylopia* (Dias 1988). Already, some of the known areas of occurrence have been deforested and its conservation status is now dependent on those of the Atlantic Forest of Bahia.

Paratypes:—BRAZIL. Bahia: Camamu, fazenda Exílio, entrada no km 10,7 da rodovia Camamu-Travessão (BA 650), ca. 2 km leste da sede da fazenda, 14°00'07"S, 39°10'07"W, 21 February 2000, fr., *Jardim et al.* 2719 (CEPEC!, SPF!); Itacaré, ramal à esquerda na estrada Ubaitaba-Itacaré, a 4 km do loteamento Marambaia, 20 November 1991, fr., *Amorim et al.* 463 (CEPEC!); Itacaré, mata parcialmente perturbada na estrada Itacaré-Taboquinha, ao lado do loteamento da Marambaia, 20 November 1991, fr., *Amorim et al.* 383 (CEPEC!); Itacaré, loteamento Marambaia, rodovia Ilhéus-Itacaré, ca. 6 km de Itacaré, 6 January 2000, fr., *Amorim et al.* 3234 (CEPEC!, SP!); Uruçuca, 7.3 km north of Serra Grande on road to Itacaré, fazenda Lagoa do conjunto fazenda Santa Cruz, 14°25'S, 39°01'W, 1–12 July 1991, st., *Thomas et al.* 6866 (CEPEC!, NY); id., 1–12 July 1991, st., *Thomas et al.* 7177 (CEPEC!, NY); id., 3 February 1993, fr., *Thomas et al.* 9753 (CEPEC!, NY).

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References

- Aublet, J.B.C.F. (1775) *Histoire des plantes de la Guiane Françoise*, vol. 1. Pierre François Didot, Paris, pp. i–xxxii + 1–621, pl. 242.
- Dias, M.C. (1988) *Estudos taxonómicos do gênero Xylopia L. (Annonaceae) no Brasil extra-amazônico*. Universidade Estadual de Campinas, Campinas, 183pp.
- Dias, M.C. & Kinoshita, L.S. (1998) A new species of *Xylopia* L. (Annonaceae) from Bahia, Brazil. *Kew Bulletin* 53: 471–474.
<http://dx.doi.org/10.2307/4114515>
- Diels, F.L.E. (1927) Plantae Tessmannianae peruviana VI. *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 10: 169–177.
<http://dx.doi.org/10.2307/3994717>
- Fries, R.E. (1900) Beiträge zur Kenntnis süd-amerikanischen Anonaceen. *Kongliga Svenska Vetenskaps-Akademien Handlingar* 34: 1–59, taf. I–VII.
- Fries, R.E. (1930) Revision der Arten einiger Annonaceen-Gattungen I. *Acta Horti Bergiani* 10: 1–128.
- Fries, R.E. (1934) Revision der Arten einiger Annonaceen-Gattungen III. *Acta Horti Bergiani* 12: 1–220.
- Kessler, P.J.A. (1993) Annonaceae. In: Kubitzki, K., Rohwer, J.G. & Bittrich, V. (Eds.) *The families and Genera of Vascular Plants. II. Flowering plants. Dicotyledons. Magnoliid, Hamamelid and Caryophyllid families*. Springer Verlag, Berlin, pp. 93–129.
- Lobão, A.Q. & Johnson, D.M. (2007) *Xylopia decorticans* (Annonaceae) a new cauliflorous species from Brazil. *Contributions of the University of Michigan Herbarium* 25: 207–211.
- Lobão, A.Q., Maas, J.P.M. & Mello-Silva, R. (2010) Annonaceae da floresta atlântica. In: Stehmann, J.R., Forzza, R.C., Salino, A., Sobral, M., Costa, D.P. & Kamino, L.H.Y. (Eds.) *Plantas da floresta atlântica*. Jardim Botânico do Rio de Janeiro, Rio de Janeiro, pp. 127–129.
- Maas, P.J.M., Lobão, A.Q. & Rainer, H. (2014) Annonaceae. In: *Lista de Espécies da Flora do Brasil*. Jardim Botânico do Rio de Janeiro. Available from: <http://floradobrasil.jbrj.gov.br/jabot/floradobrasil/FB110219> (accessed 23 May 2014).
- Maas, P.J.M., van Heusden, E.C.H., Koek-Noorman, J., van Setten, A.K. & Westra, L.Y.T. (1986) Studies in Annonaceae VII. New species from the Neotropics and miscellaneous notes. *Proceedings Koninklijke Nederlandse Akademie van Wetenschappen. Series C, Biological and Medical Sciences* 89: 249–278.
- Maas, P.J.M., Westra, L.Y.T., Rainer, H., Lobão, A.Q. & Erkens, R.H.J. (2011) An updated index to genera, species, and infraspecific taxa of Neotropical Annonaceae. *Nordic Journal of Botany* 29: 257–356.
<http://dx.doi.org/10.1111/j.1756-1051.2011.01092.x>
- Martius, C.F.P. (1841) Annonaceae. In: Martius, C.F.P. (Ed.) *Flora brasiliensis*, vol. 13(1), fasc. 2. C. Wolf, München, pp. 1–64, pl. 1–14.
- Mello-Silva, R., Lopes, J.C. & Pirani, J.R. (2012) Flora da Serra do Cipó, Minas Gerais: Annonaceae. *Boletim de Botânica da Universidade de São Paulo* 30: 37–56.
<http://dx.doi.org/10.11606/issn.2316-9052.v30i1p23-35>

- Saint-Hilaire, A.F.C.P. & Tulasne, L.R.E. (1842) Revue de la flore du Brésil méridional. *Annales des Sciences Naturelles, Botanique* [sér. 2] 17: 129–143.
- Santos, M.F., Serafim, H. & Sano, P.T. (2011) Fisionomia e composição da vegetação florestal na Serra do Cipó, MG, Brasil. *Acta Botanica Brasilica* 25: 793–814.
<http://dx.doi.org/10.1590/s0102-33062011000400007>
- Sprengel, K.P.J. (1822) *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde*, vol. 3. Friedrich Fleischer, Leipzig, pp. 1–409.