



Typification of some Species of *Sloanea* (Elaeocarpaceae)

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Abstract

Sloanea L. is the largest genus of Elaeocarpaceae in the New World and their species occurs from Mexico to Southern of Brazil. During the revision of the genus that we made for extra-Amazonian region of Brazil it was detected the need to organize its nomenclature, carried out in the present study which resulted in 48 valid names, 15 lectotypes here designated, 4 new synonyms and one illegitimate name. Additional comments on the genus, its geographical distribution, habitat type and season of flowering and fruiting are also provided.

Key words: Brazil, Neotropic, Nomenclature, Atlantic Forest, Cerrado

Introduction

Sloanea Linnaeus (1753: 512) (Elaeocarpaceae) comprises approximately 150 species (Coode 1983, Smith 1954, 1965, Steyermark 1988, Sampaio 2009) distributed in the Old and New World with circa 100 species in the Neotropics, where the genus can be distinguished by simple and alternate leaves with pulvinus at the apex or base of the petiole; flowers with corolla absent (except *Sloanea petalata* D. Sampaio & V. C. Souza (2010: 13) and *Sloanea jamaiscences* Hooker (1844: 693)); numerous stamens; usually with conspicuous connective prolongation and fruit capsule covered by flexible bristles. The main studies of the genus in the New World were the taxonomic treatments published by Schumann (1886) in *Flora brasiliensis*, the review of *Sloanea* for the Neotropics by Smith (1954), and, more recently, the revision of the genus carried out for the extra-Amazonian region of Brazil (Sampaio 2009). This later has pointed out the need to perform lectotypifications, and to evaluate the taxonomic position of some names. Schumann (1886) and Ducke (1935) indicated only syntypes in their descriptions of new species, and Bentham (1861), likewise, did not explicitly mention in which Herbarium the type-materials were deposited. During the execution of the present work the nomenclatural types used by Bentham were found in distinct European Herbaria. Smith (1954) examined few materials of each species that occurs in the Neotropics, failing to evaluate important morphological variations along the geographic distribution of species. That led the author to establish many names as valid species. After the work of Smith (1954), several new species of *Sloanea* were described for the neotropical region (Steyermark 1978, 1988, Smith 1962, 1967, 1996, Palacios-Duque 2004, 2005a, 2005b, 2007, Boeira *et al.* 2012, Sampaio & Souza 2010, 2011a, 2011b). However we have observed a lack of clarity in the nomenclatural issues. This causes a lot of confusion in the Herbaria determinations and in the elaboration of local floras. We intended to minimize with this publication.

The lectotypes were selected from specimens cited in the protologue, or chosen according to the criteria of the International Code of Nomenclature (McNeill *et al.* 2012) when the holotype or syntypes were not designated or are missing. During the revision of the extra-Amazonian *Sloanea* species of Brazil, the original protologue and the collections were consulted in the following Herbaria: BHCN, BM, BR, CEN, CEPEC, COR, CPAP, CVRD, EAC, ESA, F, FEEMA, GFJP, GH, GOET, HAS, HBR, HEPH, HRB, HRCB, HUCC, HUEFS, HUFU, IAC, IAN, IPA, INPA, IPEAN, K, L, LINN, M, MBM, MBML, MG, MO, NY, P, PACA, PEL, RB, S, SJRP, SMDB, SP, SPF, SPSF, TE, W, WU, U, UB, UEC, UFG, UFMT, UPCH, US, VIC. The species treated here were also observed in the field.

Distribution and Habitat:—*S. retusa* occurs in Brazil in the Atlantic Forest, in the states of Rio de Janeiro, Espírito Santo, Minas Gerais, and Bahia. It flowers from September to December, and it fruits from November to March.

10. *Sloanea terniflora* (DC.) Standley (1944:10). *Lecostemon terniflorum* De Candolle (1825: 639). Lectotype (designed by McVaugh 2000: 218):—MEXICO. Location not indicated, collector not indicated (no existing specimen: Tab. “*The Torner Collection, n. 1944*”).

=*Sloanea quadrivalvis* Seemann (1853: 85). *Dasycarpus quadrivalvis* (Seemann) Oersted (1857: 27). Type:—PANAMA. Veraguas, 1849, *Seemann s.n.* (holotype K!, isotype K!).

=*Sloanea reticulata* A. C. Smith (1934: 194) *syn. nov.* Type:—BRAZIL. Maranhão: 16 September 1932, *Froés 1918* (holotype NY barcode 00415350!, isotypes F barcode V0055211F!, G!, GH barcode 00052222!, K barcode 000382009!, P!, S!).

Sloanea terniflora shows great morphological variation and a wide geographical distribution. It is usually confounded with *S. garckeana* due to its dichasial inflorescence and similarities in vegetative morphology. However, the pubescent ovary and the extension of the connective in *S. terniflora* allow distinguishing these two species.

Smith (1954) cited the collection fragments of *Sessé & Mocino 2284* as type-material, which are deposited in F. However, Rogers MacVaugh in the publication “*Botanical Results of Sessé & Mocino expedition (1787-1803)*” (2000) observed that Smith (1954) provided incorrect information and lectotypified the name with the plate of *S. terniflora* (“*The Torner Collection, n. 1944*”).

It is also worth noting that Smith (1954) treated *S. reticulata* as a synonym of *S. garckeana* and *S. terniflora*. In the present study, *S. reticulata* is considered as a synonym of *S. terniflora* due to the presence of pubescent ovary and the acuminate connective extension in the type-material.

Distribution and Habitat:—*S. terniflora* occurs from Mexico to the state of São Paulo, Brazil. The species has been recorded along rivers, wetlands and floodplains. It flowers from September to February and it fruits from October to May.

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