

TYPIFICATIONS IN THE GENERA *FORSTERONIA* AND *LAXOPLUMERIA* (APOCYNACEAE)

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Abstract. Hansen, B. F. & J. F. Morales. 2009. Typifications in the genera *Forsteronia* and *Laxoplumeria* (Apocynaceae). *Darwiniana* 47(1): 227-228.

Lectotypes are designated for *Apocynum acouci*, *Forsteronia benthamiana*, *F. myriantha*, *Laxoplumeria tessmannii*, and *Thyrsanthus corylifolius*. A neotype is designated for *Echites spicatus*.

Keywords. Apocynaceae, Apocynoideae, *Forsteronia*, *Laxoplumeria*, Rauvolfioideae.

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Se seleccionan lectotipos para *Apocynum acouci*, *Forsteronia benthamiana*, *F. myriantha*, *Laxoplumeria tessmannii* y *Thyrsanthus corylifolius*. Se selecciona un neotipo para *Echites spicatus*.

Palabras clave. Apocynaceae, Apocynoideae, *Forsteronia*, *Laxoplumeria*, Rauvolfioideae.

As part of the preparation of the treatments of *Forsteronia* G. Mey. and *Laxoplumeria* Markgr. (Apocynaceae) for the Flora Mesoamericana, several typifications are proposed.

Forsteronia acouci (Aubl.) A. DC., Prodr. 8: 439. 1844. *Apocynum acouci* Aubl., Hist. Pl. Guiane 1: 274, t. 107. 1775. TYPE: French Guiana. Without locality, s.d. (fl), *Aublet s.n.* (lectotype BM! designated here).

Forsteronia benthamiana Müll. Arg., in Martius, Fl. Bras. 6(1): 106. 1860. *Thyrsanthus benthamianus* (Müll. Arg.) Miers, Apocyn. S. Amer. 95. 1878. TYPE: Venezuela. Amazonas: near San Carlos, on Rio Negro, May 1854 (fl), *Spruce 3481* (lectotype BR! designated here; isoelectotypes AAU!, BM!, B † [photo F neg. 4555], C!, F! [photo F neg. 61107], G!, GOET!, K! [photographs, INB, USF], P! [2 sheets], W!).

The Aublet specimen housed at the British Museum, Natural History (BM) is chosen as to serve as the lectotype of *Apocynum acouci*. There is apparently a duplicate in the Rousseau Herbarium at the Museum National d'Histoire Naturelle (P-JJR) in Paris, but we have not seen this specimen.

The specimen *Spruce 3481* deposited in the herbarium of the National Botanic Garden of Belgium (BR) is selected as the lectotype of *Forsteronia benthamiana*. It is one of the best preserved specimens of the complete set of duplicates, and was undoubtedly among those studied by Müller Argoviensis.

Forsteronia myriantha Donn. Sm., Bot. Gaz. 27 (6): 435. 1899. TYPE: Guatemala. Sacatepequez: Embaulada, Dec 1889 (fl), *Heyde & Lux 4534* (lectotype US! designated here; isoelectotypes BM!, G!, GH!, K! [photographs, INB, USF], M!, US!).

Smith cited two collections in the protologue of *Forsteronia myriantha*: *Heyde & Lux 4533* from Naranjo, Guatemala and *Heyde & Lux 4534* from Embaulada, Guatemala. The lectotype chosen here follows the lead of preceding authors, who typified the taxon as to collection but not to specimen. Woodson (1935) cited no type, but later (1938) cited as type locality Embaulada, referring indirectly to *Heyde & Lux 4534*. Standley and Williams (1969) cited the same collection as the type, but designated no type specimen. The designation of a particular specimen here completes the lectotypification.

Forsteronia spicata (Jacq.) G. Mey., Prim. Fl. Esseq. 135. 1818. *Echites spicatus* Jacq., Enum. Syst. Pl. 13. 1760. *Parsonsia spicata* (Jacq.) R. Br. ex Roemer & Schultes, Syst. Veg. 4: 403. 1819. *Thyrsanthus spicatus* (Jacq.) Miers, Apocyn. S. Amer. 95. 1878. TYPE: Colombia. Bolívar: Cartagena (neotype Jacquin, Select. Stirp. Amer. Hist. 2: pl. 29. 1763, designated here).

Thyrsanthus corylifolius Griseb., Mem. Amer. Acad. Arts, ser. 2. 8: 519. 1862. *Forsteronia corylifolia* (Griseb.) Griseb., Cat. Pl. Cub. 172. 1866. *Aptotheca corylifolia* (Griseb.) Miers, Apocyn. S. Amer. 150. 1878. TYPE. Cuba. Oriente: Retiro, near Santa Catalina de Guantánamo, 8 Jul 1860-1864 (fl, fr), *Wright 1664* (lectotype GOET! designated here; isoelectotypes B †, BM!, BR!, CGE!, G! [2 sheets], GH!, GOET!, K! [photographs, INB, USF], LE!, MO!, NY!, P!, US!, W!).

No original specimens are known. The plate in the *Selectarum* from 1763 might be considered original material, as Jacquin probably had the plates from that volume at hand while preparing his *Enumeratio* in 1760, but sure evidence of that probability is lacking. The designation here of the later plate is thus a neotypification.

From the large set of duplicates of *Wright 1664*, we have chosen a specimen from Grisebach's home institution, Universität Göttingen (GOET) to serve as the lectotype of *Thyrsanthus corylifolius*. There are two specimens at GOET; the lectotype is the one also bearing Wright's alternate number 299.

Laxoplumeria tessmannii Markgr., Notizbl. Bot. Gart. Berlin-Dahlem 9(89): 981. 1926. TYPE. Peru. Loreto: Santiago, Marañón, 30 Oct 1924 (fl), *Tessmann 4423* (lectotype G! designated here; isoelectotypes B † [photo F neg. 4386]), NY! [fragment]).

The holotype of this species was destroyed during World War II in 1943. Since just one specimen was cited in the original description (Markgraf, 1926), the remaining duplicate is selected as the lectotype.

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LITERATURE CITED

- Markgraf, F. 1926. Apocynaceae, en J. Mildbraed, *Plantae Tessmannianae peruvianae* III. *Notizbl. Bot. Gart. Berlin-Dahlem* 9(89): 981-982.
- Standley, P. C. & L. O. Williams. 1969. Flora of Guatemala: Apocynaceae. *Fieldiana, Bot.* 24(8): 334-407.
- Woodson, R. E., Jr. 1935. Studies in the Apocynaceae, IV. The American genera of Echitoideae. *Ann. Missouri Bot. Gard.* 22: 153-306.
- Woodson, R. E., Jr. 1938. Apocynaceae, en N. L. Britton, W. A. Merrill & J. H. Barnhart (eds.), *Flora of North America* 26(2): 103-192. The New York Botanical Garden, New York.