

NOTES ON SOUTH AMERICAN « BIGNONIACEAE »

BY N. Y. SANDWICH

RESUMEN

Notas sobre Bignoniáceas sudamericanas. — El autor describe *Tabebuia pulcherrima* Sandwith para Argentina y hace las siguientes nuevas combinaciones: *Tabebuia alba* (Cham.) Sandwith, *T. Lapacho* (K. Schum.) Sandwith, *T. umbellata* (Sond.) Sandwith, *T. piutinga* (Pilger) Sandwith y *Delostoma lozense* (Bth.) Sandwith.

***Tabebuia pulcherrima* Sandwith sp. nov., «T. ochraceae»** (Cham.) Standl. *ut videtur affinis, statura excelsa, foliis satis parvis vix coriaceis subtus indumento albo arcte indutis neque reticulatis, bracteis bracteolisque longioribus, capsula angustiore, seminibus parvis differt.*

Arbor excelsa, ramulis annotinis teretibus griseis glabratis tenuiter striatis, hornotinis abbreviatis necnon petiolis petiolulisque tomento stellato arcto cinereo-albo vel ochraceo indutis. Folia juvenilia nunc cum floribus ramulis hornotinis brevissimis coactanea coarctata, nunc secus ramulos hornotinos steriles magis elongatos disposita, vulgo digitato-quinata, raro septennata; petiolus gracilis, 2.5-6.5 cm longus, ad 2 mm latus sed saepius multo angustior, supra applanatus; petioluli graciles, flexuosi, inferiores 0.3-1 cm, intermedii 0.7-2 cm, terminalis ad 2.8 cm longi; foliola infima ovato-elliptica, superiora elliptica, elliptico-lanceolata, oblanceolata vel obovata, apice attenuato-acuminata vel breviter obtuse cuspidata, basi rotundata vel obliqua latere superiore rotundato inferiore cuneato-attenuato, satis parva, ad 6.3 cm longa, ad 3.6 cm lata, juvenilia multo minora, chartacea, integra,

discoloria, supra viridia juventute pilis stellatis parvis ochraceis densis vestita demum oculo nudo glabrata sed lepidibus albis per multis praeterea pilis stellatis interspersis secus costam nervosque ferrugineos densioribus induta, subtus tomento tenui albo e pilis stellatis arcte confertis venulas celantibus oblecta nisi glandulis sessilibus nigris sparsis e tomento velut insulis hic illic eminentibus, costa nervisque primariis supra planis subtus prominulis, his utroque costae latere 7-10 angulo circiter 45° ascendentibus marginem versus anastomosantibus. Flores praecoces vel cum foliis junioribus evoluti, apice ramulorum novellorum thyrsum contractum vulgo 4-7 cm latum ubique pilis ramosis cinereo-ochraceis dense lanatum efformantes; bractae bracteolaeque lineares, 6-10 mm longae, deciduae; pedicelli 4-10 mm longi. Calyx tubuloso-campanulatus, 1.2-1.7 cm longus (lobis inclusis), pilis ramosis siccitate brunneis vel ochraceis dense lanato-tomentosus, saepe plus minusve costatus atque sulcatus, apice irregulariter vulgo ad 5 mm 2-3 lobatus. Corolla flava, campanulato-infundibuliformis, 5-6 cm longa, tubi parte basali cylindrica circiter 1 cm longa, fauce ad 2 cm vel ultra ampliata, tubo extra glabro, intus antice et praecipue (hic densius atque longius) prope faucem pilis albis papilliformis satis rigidis dense induto ceterum glabro; limbus 3.5-5 cm diametro, lobis extra irregulariter stellato-arachnoideo-pubescentibus intus marginibus exceptis glabris. Stamina circiter 6 mm, supra basin tubi inserta, fertilia 2 breviora 2 cm, 2 longiora 2.5 cm longa; quintum staminodium 8.5 mm longum; omnia superne glabra basin versus dilatata atque pilis papilliformibus apice glandulas minutas gerentibus dense obsita. Discus pulvinatus 1 mm altus. Ovarium glabrum; stylus glaber, circiter 2.5 cm longus. Capsula circiter 22 cm longa, 7 mm lata, pilis ochraceo-brunneis quam in fructu *T. ochraceae* multo brevioribus lanato-tomentosa; semina ad 4.5 mm longa, ad 1.5 cm lata, embryone brunneo, alis membranaceis nitide albo-hyalinis.

ARGENTINA. Misiones: Acaragua, Dep. San Javier, 200 m, fl. Sept. 18th 1946, Bertoni 2937 (typus in Herb. Kew.), «árbol alto, 15-20 m, fl. amarilla»; Santa Ana, fl. Sept. 1912, Rodríguez 571, leaves only, Feb. 1913, Rodríguez sine no.; Corpus, Dep. San Ignacio, fl. Oct. 18th 1945, Schwarz 1403; San Ignacio, fl. Oct. 1919, Muniez sine no. Corrientes: Puer-

to Yahapé, Dep. Berón de Astrada, fr. Dec. 14th 1945, Ibarrola 3914.

BRASIL. Rio Grande do Sul: Morro da Gloria, Porto Alegre, fl. Feb. 15th 1945, Rambo 29435; Itapuém, «a large tree, fls. yellow striped with brown», Fox 436; Rio Jacquary [Jagnary?], Tweedie, «one of the great ornaments of the forest, it is a large tree and is frequently covered with large yellow flowers succeeded with seed pods hanging down in bunches 10 inches long».

This is a tall forest tree, with a well-defined area of distribution in the extreme south of Brazil and adjacent north-eastern Argentina. *T. ochracea*, on the other hand, is a small tree of the campos of Central Brazil, Paraguay and eastern Bolivia: it does not appear to reach Argentine territory, and there are no Brazilian specimens at Kew from further south than the State of São Paulo. *T. pulcherrima* is easily distinguished from *T. ochracea* by the very fine, close, white tomentum on the lower surface of the leaflets, which appear to remain chartaceous even at the fruiting season, and do not shew the thick reticulate veinlets which are so conspicuous on the coriaceous mature leaflets of *T. ochracea*; by the shorter, closer indumentum of the inflorescence, calyx and capsule; the long, narrow bracts and bracteoles; the narrow capsule; and the small seeds. *Tecoma hassleri* Sprague, of Paraguay, with which one Argentine collection of *T. pulcherrima* had been identified, is, in the opinion of the writer, only a form of *T. ochracea*, of which it has all the characteristics.

The leaves of all the specimens of *T. pulcherrima* which have been examined are quinate-digitate, with the exception of a single septennate leaf on the Tweedie collection from Rio Grande do Sul. The entire margin of all the leaflets seen is another significant character, which immediately distinguishes the species from *T. lapacho* and from *T. alba*. The latter species might well be confused with *T. pulcherrima* on account of the whitish indumentum of the leaflets and the facies of the inflorescence which, on some collections, bears long narrow bracts; moreover, it apparently occurs in the Brazilian states of Paraná and Rio Grande do Sul. But *T. alba*, which Schumann described as a small tree of campo (though the fieldnotes of some cited

collections suggest that it is sometimes a large tree), bears leaves which are usually septennate, acutely toothed leaflets with a much coarser woolly tomentum on the lower surface, woollier inflorescences and calyces, broader capsules and larger seeds. *T. lapacho*, the « Lapacho amarillo » of N. W. Argentina, is not closely related to *T. pulcherrima*; it has strongly serrate leaflets which are almost completely glabrous when fully developed, the petiole strongly dilated and discoid at the apex, and very short bracts and bracteoles. The following new combinations appear to be required for these two species:

Tabebuia alba (Cham.) Sandwith, comb. nov. — *Tecoma alba* Cham. in *Linnaea*, vii. 655 (1832); Bur. et K. Schum. in Mart., *Fl. Bras.* viii. pars 2, 327 (1897).

Tabebuia lapacho (K. Schum.) Sandwith, comb. nov. — *Tecoma lapacho* K. Schum. in Engler et Prantl, *Pflanzenfam.* iv. 3 B, 238 (1894); Bur. et K. Schum., *l. c.*, 322. *Tabebuia flavescens* (Vell.) Griseb., *Symb. Fl. Argent.* 257 (1879), quoad descr. Griseb., non *Tecoma flavescens* (Vell.) Mart. ex DC.

N. P. Two further new combinations in the genus *Tabebuia*, and one in *Delostoma*, may conveniently be made here, as follows.

Tabebuia umbellata (Sond.) Sandwith, comb. nov. — *Tecoma umbellata* Sond. in *Linnaea*, xxii, 562 (1849); Bur. et K. Schum. in Mart., *Fl. Bras.* viii. pars 2, 335 (1897). Brazil.

Tabebuia piutinga (Pilger) Sandwith, comb. nov. — *Tecoma piutinga* Pilger in Engl. *Bot. Jahrb.* xxx. 196 (1901). Brazil.

Delostoma loxense (Bth.) Sandwith, comb. nov. — *Tecoma (Tabebuia) loxensis* Bth., *Pl. Hartweg.* 354 (1839).

Ecuador: mountains near Loxa, Hartweg 826 (typus), a small tree, scarce; Cerro Villonaco, 2800 m, Oct. 1946, Reinaldo Espinosa 693 and 775. (Herb. Univ. Loxensis, New York, Kew). Espinosa 693 was noted as a tree 5-8 m high, very much branched, flowers white suffused with rose; while 775 was described as a very leafy tree some 5 m high, with deep rose flowers.

This species differs from *D. integrifolium* Don of Peru (with which *D. nervosum* DC. is synonymous) in its relatively shorter and broader ovate or ovate-elliptic leaves with rounded or very

shortly cuspidate apex, the short few-flowered inflorescence and the densely tomentose corolla. It also has a double calyx, but the lobes of the outer limb are obscure, short and rounded like black tubercles, or even wholly evanescent. *D. roseum* (Karst. et Tr.) K. Schum. and *D. speciosum* (Karst. et Tr.) K. Schum. differ in their large, often acutely acuminate leaves, elongate many-flowered thyrse and well-defined double calyx. *D. hookei* Kraenzl. in Engl. *Jahrb. liv. Beibl.* 119, 25 (1916), of Ecuador, a name given to the plant figured as *D. dentatum* Don by Hook. fil. in *Bot. Mag.* t. 5754, has a very similar calyx, but the leaves are strongly toothed. It may prove to be a form of *D. loxense*, and if so will become a synonym of that species. The seeds were originally collected by Jameson at Gualasca, near Cuenca.

Kew, Inglaterra.