SOME PROBLEMATIC SPECIES OF *ALBIZIA*

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Like most genera of the Mimosoideae, *Albizia* is ill-separated from its relatives (Fosberg, 1965). It is a difficult group whose taxonomy is not firm as the traditional means of distinguishing the genus on the basis of the legume is inconvenient and sometimes misleading. In a previous paper we proposed to limit the genus *Albizia* in the New World to those species which have 16-grained polyads (for further discussion see Niezgoda & Nevling, 1979). An expanison of the study of *Albizia carbonaria* brought several other species of *Albizia* to our attention. These are characterized by having 32 pollen grains per polyad rather than 16.

In the New World there are 28 species of *Albizia* that are described from this area and an additional six Old World species that have become naturalized and widespread through deliberate cultivation. Eleven of these native species have been transferred from other mimosoid genera, primarily *Pithecellobium* (apparently the closest relative to *Albizia*). Of those that have been described since 1925, eighteen have been the work of Britton and his collaborators (Killip, Rose and Wilson). Flowering material was available from about half of these species and the majority have a polyad of 16 grains (Table 1). Aside from *Albizia carbonaria*, we found three additional species with 32-grained polyads: *A. longepedata; A. marthae;* and *A. nicoyana*.

The confusing *Albizia longepedata* has gone through a long history of nomenclatural changes. The plants of this species have been placed in six genera with three epithets. The earliest valid name, *Acacia guachapele* H.B.K., was later transferred by Bentham into *Lysiloma*. A new epithet, *longepedatum*, was established in *Pithecellobium* by Pittier, who later created *Samanea samaningua* for the same species complex. Macbride, following the earlier recognition of *Pithecellobium* by Pittier, made an additional combination *P. samaningua*. Later Macbride also recognized *Pithecellobium guachapele* referring back to the earliest valid epithet. Two of the *Pithecellobium* combinations, *P. longepedatum* and *P. samaningua* have subsequently been transferred into *Albizia*. Additionally, Harms established a new genus *Pseudosamanea*, with type species *P. guachapele*, based on *Acacia guachapele*.

It is obvious from these numerous combinations that many of the authors were doubtful as to the correct generic placement of this species. Additionally, Schery (1950) notes, "This species *A. longepedata* is quite distinct from other species of *Albizia* in Panama, differing primarily by its pronouncedly umbellate, long-pedicellate flowers". Britton and Rose, who made the original combination in *Albizia* refer to this species under *Pseudosamanea* at a later date (1936). *Pseudosamanea* is a monotypic genus that is easily distinguished from other genera in the Ingeae by the enlarged and sterile central flower in mature inflorescences. It is our opinion that this is the proper placement of this species and we recognize *Albizia longepedata* as a nomenclatural synonym of *Pseudosamanea guachapele*.

Pseudosamanea guachapele (H.B.K.) Harms, Notizb. 11: 54, 1930.

Acacia guachapele H.B.K., Nov. Gen. & Sp. 6: 281, 1824. (TYPE: *Humboldt & Bonpland s.n.*).

Lysiloma guachapele (H.B.K.) Benth., Trans. Linn. Soc. 30: 533, 1875.

Pithecellobium longepedatum Pittier, Contr. U.S. Nat. Herb. 20: 464, 1922. (TYPE: *C. Werckle s.n.* US).

**Samanea samaningua* Pittier, Arb. y Arbust. n. Venez. dec 4-5: 54, 1925. (TYPE: *Pittier 11442*).

Albizia longepedata (Pitt.) Britton & Rose, Tropical Woods 11: 14, 1927.

Pithecellobium samaningua (Pitt.) Macbr., Candollea 6: 4, 1934.

Pithecellobium guachapele (H.B.K.) Macbr., Field. Bot. Vol. 13, Part 3(1): 54, 1943.

(see also: *Pithecellobium guachapele* (H.B.K.) Cowan, Mem. N.Y. Bot. Gard. 10(1): 144, 1958.)

Albizia guachapele (H.B.K.) Dugand, Phytologia 13: 389, 1966.

* Another citation for this name is: Bol. Cient. y Tecn. Mus. Com. Venez. 1: 54. 1925. This is an incorrect reference as the journal consisted of only two issues, both published in 1927. The first volume has only 48 pages. After the first two volumes it was continued as Trabajos del Museo Comerical de Venezuela.

The other two species, *Albizia marthae* and *A. nicoyana*, were described lacking fruiting material. There are very few collections of either of these species and none with mature fruits. Also the placement of *A. (?) nicoyana* was considered questionable at the time of publication. There are no substantial morphological characters present to separate these species of *Albizia* from *Pithecellobium*. However, the presence of 32-grained polyads supports their transfer from *Albizia* to *Pithecellobium*.

Pithecellobium marthae (Britton & Killip) Niez. & Nevl., comb. nov.

Albizia marthae Britton & Killip, Ann. N.Y. Acad. Sci. 35: 133, 1936. (TYPE: *H. H. Smith 296* US).

Pithecellobium nicoyanum (Britton & Rose) Niez. & Nevl., comb. nov.

Albizia nicoyana Britton & Rose, N. Am. Fl. 23: 47, 1928. (TYPE: *A. Tonduz 13885*).

LITERATURE CITED

Britton, N. & J. Rose. 1936. Mimosaceae and Caesalpiniaceae of Colombia. Ann. N.Y. Acad. Sci. 35: 101-208.

Fosberg, F. R. 1965. Revision of *Albizia* sect. Pachysperma (Leguminosae-Mimosoideae). Reinwardtia 7(1): 71-90.

Niezgoda, C. J. & L. I. Nevling, Jr. 1979. The Correct Generic Placement of *Albizia carbonaria* Britton. Phytologia 44: 307-312.

Schery, R. W. 1950. Leguminosae subfamily Mimosoideae. *In*: R. E. Woodson, R. W. Schery, *et al.*, Flora of Panama. Ann. Missouri Bot. Gard. 37: 184-314.

TABLE 1: Species of *Albizia* found in the New World.

SPECIES	POLYAD #	OTHER PLACEMENTS
A. adinocephala	16	= *Pithecellobium*
A. berteriana		= *Acacia*
A. carbonaria	32	= *Pithecellobium**
A. caribea	16	= *Pithecellobium*
A. colombiana		
A. coripatensis		= *Pithecellobium*
A. cubana		
+*A. distachya*	16	
A. (?) dubia		
+*A. falcataria*	16	= *Adenanthera*
A. guachapele	32	= *Pseudosamanea*
A. hassleri	16	= *Pithecellobium*
A. hummeliana		
A. idiopoda	16	= *Pithecellobium*
+*A. julibrissin*	16	
+*A. lebbeck*	16	
A. longepedata	32	= *A. guachapele*
A. (?) longipes		
+*A. lophantha*	16	
A. lundellii		
A. malacocarpa	32	= *A. carbonaria*
A. marthae	32	
A. (?) nicoyana	32	
A. niopoides	16	= *Pithecellobium*
A. (?) obliqua		
A. occidentalis	16	
A. ortegae		
A. paucipinnata		
A. pedicellata		
A. plurijuga		
A. polycephala	16	= *Pithecellobium*
+*A. procera*	16	
A. (?) purpusii	16	
A. rubiginosa		= *A. lundellii*
A. sinaloensis		
A. tomentosa	16	= *Pithecellobium*

+ Old World species.

* The new combination in *Pithecellobium* was incorrectly published in Phytologia 44: 307-312, the following is the correct citation:

Pithecellobium carbonarium (Britton) Niez. & Nevl.