

NOTES ON TYPES IN APOCYNACEAE: ASCLEPIADOIDEAE
IN CUBAN HERBARIA AND FOUR LECTOTYPIFICATIONS
IN WEST INDIAN GONOLOBINAE

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ABSTRACT

Four asclepiadaceous types not listed in a previous type catalogue of the collections of the Instituto de Ecología y Sistemática, Habana, Cuba (HAC) are provided, along with a discussion of typification problems associated with the associated Charles Wright collections. Lectotypifications are provided for *Gonolobus stephanotrichus* Griseb., *Orthosia acuminata* Griseb., *Orthosia oblongata* Griseb., and *Poicilla ovatifolia* Griseb.

RESUMEN

Se aportan cuatro tipos de Asclepiadaceae no listados en el catálogo previo de tipos de las colecciones del Instituto de Ecología y Sistemática, Habana, Cuba (HAC), junto con una discusión de los problemas de tipificación asociados con las colecciones Charles Wright. Se aportan lectotipificaciones de *Gonolobus stephanotrichus* Griseb., *Orthosia acuminata* Griseb., *Orthosia oblongata* Griseb., y *Poicilla ovatifolia* Griseb.

A revision in progress by Krings of subtribe Gonolobinae (Apocynaceae: Asclepiadoideae) in the West Indies has led to the discovery of four additional types at the Instituto de Ecología y Sistemática, Habana, Cuba (HAC). These specimens were not listed in a previous catalogue of types at HAC (Cardenas & Herrera 1991). Types in subtribe Gonolobinae were not found at the Jardín Botánico Nacional, Habana (HAJB; for a complete list see Gutiérrez et al. 1997). The expanded list of Apocynaceae: Asclepiadoideae types at HAC is presented in Table 1.

The asclepiadaceous original material at HAC belongs to two groups: (1) species with unproblematic typification due to designations by the original author(s) and (2) species requiring lectotypification due to complications in collecting practice and lack of holotype designations.

Typification is unproblematic for *Marsdenia micrantha* Alain, *Matelea alainii* Woodson, and *Marsdenia bicolor* Britton & P. Wilson, as these species were described relatively recently and as each original author designated holotypes. Thus, corresponding material at HAC (Table 1), was identified easily as either holotype, isotype, or paratype based on the respective protologues. An

TABLE 1. List of Apocynaceae:Asclepiadoideae types at the Instituto de Ecología y Sistemática, Habana, Cuba (HAC). Previously unlisted types (Cardenas & Herrera 1991) are marked by an asterisk.

(1) Species with unproblematic typification

**Marsdenia bicolor* Britton & P. Wilson, Bulletin of the Torrey Botanical Club 50:47. 1923.

TYPE: CUBA: *Léon 10787* (ISOTYPE: not seen); *Léon 10788* (PARATYPE!)

Marsdenia micrantha Alain, Revista de la Sociedad Cubana de Botánica 13:59. 1956.

TYPE: CUBA: *Alain, Acuña & López 5678* (HOLOTYPE; ISOTYPE: not seen)

Matelea alainii Woodson, Contribuciones Ocasionales del Museo de Historia Natural del Colegio "De La Salle" 15:23–24. 1956.

TYPE: CUBA: *Alain & Morton 5029* (ISOTYPE!)

(2) Species lectotypified herein (see text)

Gonolobus stephanotrichus Griseb., Catalogus plantarum cubensium 177. 1866.

TYPE: CUBA: *Wright 2969* (SYNTYPE!)

**Orthosia acuminata* Griseb., Catalogus plantarum cubensium 175. 1866.

TYPE: CUBA: *Wright 2966* (ISOLECTOTYPE!)

**Orthosia oblongata* Griseb., Catalogus plantarum cubensium 176. 1866.

TYPE: CUBA: *Wright 2967* (ISOLECTOTYPE!)

**Poicilla ovatifolia* Griseb., Catalogus plantarum cubensium 177. 1866.

TYPE: CUBA: *Wright 2965* (SYNTYPE!)

isotype of *Marsdenia bicolor* was reported previously by Cardenas and Herrera (1991), but not seen as part of this study. A paratype (*Léon 10788*) at HAC was not listed by Cardenas and Herrera (1991).

Grisebach (1866) described a number of taxa based on material collected by Charles Wright in the Antilles. These included the following four species for which original material was found at HAC and for which lectotypification is necessary: *Gonolobus stephanotrichus* Griseb., *Orthosia acuminata* Griseb., *Orthosia oblongata* Griseb., and *Poicilla ovatifolia* Griseb. (Table 1).

Grisebach studied Wright material distributed to him by Asa Gray (GH). However, these specimens were not necessarily true duplicates of a single gathering. Indeed, there have been instances of mixed material joined by a single number, as Gray appears to have provided the same number to specimens Wright may have collected from different locations on different dates (Howard 1986, 1988). Thus, Howard (1986) stated [brackets ours]:

“The determination of the type collection, therefore, depends on examining the sheet Grisebach saw and named, which is preserved in Göttingen [GOET, Universität Göttingen]. This should match one of the fragments preserved by Gray. The GOET specimens however, rarely have field tickets, so the date and location of the type collection can only be determined, if at all, from the GH sheet.”

Howard (1988) noted that Grisebach likely did not see the Wright collec-

tions sent to the Sauvalle herbarium in Habana (currently deposited in HAC), as Asa Gray distributed this material from GH. In contrast to Howard (1988), however, it should be noted that the fact that Grisebach may not have seen the Wright specimens in the Sauvalle herbarium, has no bearing on their status as original material and availability for lectotypification in the future. If judged only by this fact, according to Div. 2, Ch.2, Sect. 2, Art. 9 of the International Code of Botanical Nomenclature or ICBN (Greuter et al. 2000), they would nonetheless be considered part of the original material and, as duplicates of one cited collection, would be syntypes as articulated by Fantz (1993).

Gonolobus stephanotrichus.—Two specimens of *Wright 2969* reside at GOET!. No field tickets accompany the GOET specimens. Both sheets include flowers and one also includes a fruit. Fruits are not described in Grisebach's protologue. Duplicates of this number are found at BREM!, G!, GH!, HAC!, K!, NY!, P!, UC!, US!, and reported for MO, although this specimen could not be obtained on loan. The collection labels of the sheets at GOET are blue and bear the dates 1856-7 crossed out. No additional dates are given. The collection labels for duplicate numbers housed everywhere else, but HAC, are white and bear the dates 1860-64 (including the MO specimen, an image of which could be seen from the Missouri Botanical Garden website: <http://www.mobot.org>). The collection label for the HAC specimen is white and bears the date 1865. This specimen is sterile and quite poor due to insect damage. Field tickets remaining with the sheet at GH seem to indicate that the three mounted fragments (all in flower) were collected at different times (Jan., Mar., Apr.). However, it is impossible to tell which fragment is associated with which field ticket and furthermore, none can be correlated with the GOET sheets, as these lack field tickets altogether. All material under the number 2969 (incl. the duplicate at HAC) does appear to belong to the same species. Thus, in light of the available facts, the *Wright 2969* sheet at GOET that bears flowers, but lacks fruit, is herein designated lectotype for *Gonolobus stephanotrichus* Griseb. This action agrees with a 1984 annotation by R.A. Howard whose lectotypification (1988) appeared in a microfiche appendix, not in print, and thus is not effectively published and has no standing in nomenclature. Rankin & Greuter (2000) reported a similar case in Antillean *Aristolochia*. The remaining extant sheets distributed under *Wright 2969* retain their status as syntypes. An additional fruiting specimen of *Gonolobus stephanotrichus* is housed at S, bearing a Wright label of 1861 and the preliminary number 164. Although a determination on the label is provided in Grisebach's hand, we do not consider the specimen original material as fruits were not mentioned in the protologue.

Orthosia.—The only known type material for *O. acuminata* (*Wright 2966*) is deposited at BM, G, GH, HAC (2 sheets), and K. These specimens bear white labels with the dates 1860-64. The mounted field ticket on the GH sheet reads:

“Asclepias—Fl. (except the white stigma) green. Farallones San Andre Oct 27.” As *Wright 2966* (GH!) contains fifteen inflorescences and is in very good condition; it is here designated as the lectotype for *Orthosia acuminata* Griseb. *Wright 2966* (G!) contains four inflorescences and is in superior condition to the HAC material. *Wright 2966* (BM!, G!, HAC!, K!) should be considered isolectotypes.

Original material of *Orthosia oblongata* was located at BM!, G!, GH!, HAC!, K!, and S!, and reported for MO, although the specimen could not be obtained on loan. These specimens all bear white labels with the dates 1860–64 (including the MO specimen, an image of which could be seen from the Missouri Botanical Garden website). The mounted field ticket of *Wright 2967* (GH) reads: “Asclepias—Fl. green—a white speck at the tips of the segments. Stigma white. Loma de Ranjel June 17.” Field tickets do not accompany the other specimens. *Wright 2967* (GH) is herein designated lectotype for *Orthosia oblongata* Griseb., considering the duplicates at G, HAC, K, MO (provided that the specimen does not constitute another species), and S isolectotypes. *Wright 2967* (GH) is in good condition, with numerous inflorescences.

Lectotypification decisions for both *Orthosia* names were based on the interpretation that sheets of both *Wright 2966* & *2967* are original material, as they were respectively cited in the according protologues. There is no evidence that they were collected from different localities, although this cannot be ruled out altogether, given the notorious problems with Wright collections. However, in our opinion, when there is no specific evidence to the contrary, if collection number and identification match, the protocol ought to hold that the specimens be considered duplicates of a single gathering. We recognize that “isolectotype” is not an ICBN type designation, but assign it herein should lectotypes become lost or destroyed or additional syntypes are located that we have not examined.

Poicilla ovatifolia.—Syntype material (*Wright 2965*) was located at BM!, BREM!, G!, GH!, GOET!, HAC!, K, NY!, P!, S!, and UC! No field tickets accompany the GOET specimen or any syntype, except the GH specimen. Accompanying field tickets of the GH specimen suggest that the sheet is comprised of at least two collections made at different times (Mar., June), although three fragments are mounted. The two fragments mounted on the right contain inflorescences; the fragment mounted on the left contains infructescences. Both field tickets refer to flowers with neither one mentioning fruits. Fruits are not described in Grisebach’s protologue and are not present on any other syntype beside the GH specimen. Except for the GOET specimen, collection labels of all other known specimens are white and bear the dates 1860–64. The GOET specimen bears a tan label with a printed date of 1860, although the zero appears to have been crossed out. It is heavily written on in Grisebach’s hand and is herein designated lectotype for *Poicilla ovatifolia* Griseb. The studied (and matching) dublicately-numbered material in other herbaria remain syntypes.

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