

Nomenclatural notes on species of Apocynaceae described from Cambodia, Laos and Vietnam

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ABSTRACT

KEY WORDS

Apocynaceae,
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Apocyneoideae,
Cambodia,
Laos,
Vietnam,
typification.

There have been many citation and typification errors in the Apocynaceae s.str. (Apocynaceae, subfamilies Rauvolfioideae and Apocyneoideae) from Cambodia, Laos and Vietnam. Therefore, all species and infraspecific taxa published from this region before 1950 are listed with their correct places of publication and details of their typifications. Fifty-one taxa are lectotypified here of which 23 are second step lectotypifications.

RÉSUMÉ

Notes nomenclaturales sur les espèces d'Apocynaceae décrites du Cambodge, du Laos et du Vietnam.

De nombreuses erreurs de citations et de typification ont été commises chez les Apocynaceae s.str. (Apocynaceae, sous-familles Rauvolfioideae et Apocyneoideae) du Cambodge, Laos et Vietnam. Nous donnons ici la liste de toutes les espèces et de tous les taxons infraspécifiques publiés pour cette région avant 1950, nous indiquons leur lieu de publication correct et les détails de leur typification. Les lectotypifications de 51 taxons sont faites ici, parmi lesquelles 23 sont des lectotypifications de second ordre.

INTRODUCTION

The purpose of this paper is to clarify the place of publication and typification of the species of Apocynaceae Juss. s.str. (subfamilies Rauvolfio-

deae Kostel. and Apocyneoideae Burnett – see ENDRESS & BRUYNS 2000) that have been described from specimens collected in Cambodia, Laos, and Vietnam. The need for this clarification falls into two related areas: 1) problems of correct

citation of the protogues in much of the later literature; and 2) considerable confusion over the typification of taxa. This paper deals with taxa published up to and including 1950 and does not deal with the taxa more recently published by LÝ (1978, 1979, 1980a-d, 1981, 1985a-c) or by MIDDLETON (2001). It should also be noted that several species in publications by LOUREIRO (1790) and PITARD (1933), primarily on the plants of Cambodia, Laos and Vietnam, are typified by specimens collected from outside this region and are, therefore, not included here.

Many new taxa were originally recognised by PIERRE based on his own collections and those of his contemporaries. PIERRE wrote new names on the specimens but he only published a few of these taxa himself. In addition he tended to use the same collection number for different collections of what he considered to be the same species. These two issues have been the source of much later confusion. Several of PIERRE's names have been accredited to PLANCHON (1894) but none of the taxa he mentions in this work had been described and are not validly published. Most of PIERRE's taxa were validated by SPIRE (1905, 1906) and by PITARD (1933). Some extra confusion has arisen in the SPIRE publications because SPIRE (1906) is an almost exact copy of SPIRE (1905) except for very few taxa added in 1906. Most references to SPIRE taxa being published in 1906 need to be corrected to 1905. SPIRE (1905) is a thesis but the names in it must be considered as validly published due to its widespread distribution (see STAFLEU & COWAN 1985). Both SPIRE and PITARD also added many new taxa of their own and provided further collections, in addition to the PIERRE specimens, to their validations of the PIERRE names.

The top set of these collections is now to be found in Paris but duplicates have been distributed to other herbaria (in particular A, E, K, Ho Chi Minh City [HM], HN, L, MO, NY, TCD, WAG) and some specimens were deposited at HM before the rest were sent to Paris (TRINH THI LAM pers. comm.). As neither PIERRE, SPIRE nor PITARD explicitly mention type specimens, all of the material mentioned in the protogues is available for lectotypification. Even when only one collection is mentioned in the protologue,

there are often many duplicates in a number of herbaria and, more often than not, two or more duplicates in Paris. In most cases the author indicated no holotype and most taxa need to be lectotypified. Belief that a holotype or lectotype should be in Paris does not override previous and different lectotypifications (GREUTER *et al.* 2000: Art. 9.17). The most far reaching effect of this understanding is that the very many effective, but probably inadvertent, lectotypifications made by LÝ (1986) of specimens at HM must stand. LÝ also lectotypified some of the taxa with specimens housed at P but, as he did not label the material and several duplicates of many of the collections can be found at P, second step lectotypifications for some taxa are necessary (GREUTER *et al.* 2000: Art. 9.14). Some of these have been done unintentionally by later authors (e.g., LEEUWENBERG 2003). More are done here and the specimen chosen has been labelled to distinguish between the duplicates. Indication of a holotype in a publication and on the specimen concerned did count as an effective lectotypification in most publications (GREUTER *et al.* 2000: Art. 9.8). However, from 1st January 2001 indicating "holotype" in a publication and writing this on a specimen no longer counts as an effective lectotypification, if this is actually what it should be, due to the absence of a designating statement (GREUTER *et al.* 2000: Art. 7.11). This causes particular problems in *Melodinus* (LEEUWENBERG 2003), *Chilocarpus* (LEEUWENBERG 2002) and *Carissa* (LEEUWENBERG & VAN DILST 2001).

In the following list only the basionym is given except for homotypic nomina nova which are cross referenced. Correct publication details are given and each lectotype is listed along with the lectotypification details, including new lectotypifications if these are necessary. Later incorrect typifications are not listed to avoid confusion. Most of these incorrect typifications arise by later authors overlooking the typifications in LÝ (1986). Many of the following taxa are now synonyms and details of these will be available in a forthcoming account of the family in the *Flore du Cambodge, du Laos et du Vietnam*. For each name the correct place of publication is given followed by the holotype, lectotype or neotype of each name and, for some names, a short explanation if

a change in the publication information or lectotypification is not as straightforward as most. David MIDDLETON was responsible for checking the literature and working through the material in the herbarium in P. Jacinto REGALADO was responsible for working through the material in the herbarium in HM.

Aganonerion polymorphum Pierre ex Spire

Contr. Apocyn.: 43 (1905).

LECTOTYPE. — *Pierre* 4525 (HM), Vietnam, Đồng Nai, Bien Hoa, near Bao Chiang, designated by Lý, Feddes Repert. 97: 668 (1986).

Aganosma grandiflora Merr.

J. Arnold Arbor. 23: 190 (1942).

HOLOTYPE. — *Petelot* 2447 (A), Vietnam, Lang Son, Thanh Moi.

Aganosma harmandiana Pierre ex Spire

Contr. Apocyn.: 109 (1905).

LECTOTYPE. — *Harmand* 5241 (HM), Laos, Saravane, Lakhon Pheng District, Kham Teuay, designated by Lý, Feddes Repert. 97: 658 (1986).

Alstonia angustifolia var. *annamensis*
Monachino

Pacific Sci. 3: 160 (1949).

HOLOTYPE. — *Poilane* 5970 (A), Vietnam, Ninh Thuân, Ca Na.

Alyxia annamensis Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1121 (1933).

LECTOTYPE. — *Eberhardt* 2875 (HM), Vietnam, Thua Thiên-Huê, Bo-giang, designated by Lý, Feddes Repert. 97: 435 (1986).

Alyxia balansae Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1120 (1933).

LECTOTYPE. — *Balansa* 2106 (P), Vietnam, Hà Tây, Mt Bavi, designated by Middleton, Blumea 45: 34 (2000).

Balansa 2106 (HM) was designated by Lý, Feddes Repert. 97: 431 (1986) but as this specimen could not be located at HM the later designation above should stand until such a time as it is found.

Alyxia crassifolia Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1124 (1933).

LECTOTYPE. — *Poilane* 7268 (P), Vietnam, Quang Nam-Dà Nang, Mt Bana, designated by Middleton, Blumea 45: 93 (2000).

Poilane 7268 (HN) was designated by Lý, Feddes Repert. 97: 435 (1986) but as this specimen could not be located in HN the later designation above should stand until such a time as it is found.

Alyxia divaricata Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1122 (1933).

LECTOTYPE. — *Poilane* 3278 (HM), Vietnam, Ninh Thuân, Song-mau Valley, designated by Lý, Feddes Repert. 97: 435 (1986).

Second step lectotypification, designated here (there were three undifferentiated specimens of *Poilane* 3278 at HM).

Alyxia flavescens Pierre ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1127 (1933).

LECTOTYPE. — *Pierre* 4421 (HM), Vietnam, Đồng Nai, Bao Chiang, designated by Lý, Feddes Repert. 97: 435 (1986).

Alyxia marginata Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1123 (1933).

LECTOTYPE. — *Poilane* 3783 (HM), Vietnam, Khanh Hoa, West of Nha Trang, between Song-tan and Do-ut, designated by Lý, Feddes Repert. 97: 435 (1986).

Alyxia pisiformis Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1126 (1933).

LECTOTYPE. — *Pierre* 96 (HM), Vietnam, Đồng Nai, Mt Dinh, designated by Lý, Feddes Repert. 97: 435 (1986).

Second step lectotypification, designated here (there were three undifferentiated specimens of *Pierre 96* at HM).

Alyxia poilanei Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1122 (1933).

LECTOTYPE. — *Poilane 7879* (P), Vietnam, Quang Nam-Dà Nang, Col des Nuages, near Tourane, designated here.

Poilane 7879 (HM) was designated by Lý, Feddes Repert. 97: 435 (1986) but as this specimen could not be located at HM the later designation above should stand until such a time as it is found.

Alyxia pseudosinensis Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1125 (1933).

LECTOTYPE. — *Poilane 8488* (HM), Vietnam, Ninh Thuân, Ca Na, designated by Lý, Feddes Repert. 97: 435 (1986).

Alyxia racemosa Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1124 (1933).

LECTOTYPE. — *Pierre 6175* (HM), Vietnam, Khanh Hoa, Nui-xon-heo Island, designated by Lý, Feddes Repert. 97: 431 (1986).

Amalocalyx microlobus Pierre ex Spire

Contr. Apocyn.: 93 (1905).

LECTOTYPE. — *Spire 24* (P), Laos, Xieng Khouang, Khe-kian, designated by Lý, Feddes Repert. 97: 661 (1986).

Second step lectotypification, designated here (there were four undifferentiated specimens of *Spire 24* at P).

Ancylocladus cochinchinensis Pierre

Bull. Mens. Soc. Linn. Paris sér. 2, 1: 97 (1898).

LECTOTYPE. — *Pierre 138* (HM), Vietnam, Đồng Nai, Baria, Ninh Mountains, designated by Lý, Feddes Repert. 97: 420 (1986).

Lý (1986) actually gave *Pierre 938* as the type but with the collection locality information also provided this is clearly simply a printing error.

Argyronerium odoratum Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1234 (1933).

LECTOTYPE. — *Geoffray 484* (P), Cambodia, Kampot, Kep, designated here.

Beaumontia fragrans Pierre ex Pitard
in Lecomte

Fl. Gén. Indo-Chine 3: 1236 (1933).

LECTOTYPE. — *Pierre 484* (K), Vietnam, An Giang, Mt Cam, Chau Doc, designated by Lý, Feddes Repert. 97: 644 (1986).

Beaumontia pitardii Tsiang

Sunyatseria 2: 160 (1934). — *Beaumontia campanulata* Pitard in Lecomte, Fl. Gén. Indo-Chine 3: 1235 (1933) non K.Schum. (1895).

LECTOTYPE. — *Bon 2056* (P), Vietnam, Nam Hà, Kiên Khê, designated by Lý, Feddes Repert. 97: 644 (1986).

Second step lectotypification, designated here (there were three undifferentiated specimens of *Bon 2056* at P).

Bousigonia angustifolia Pierre ex Spire

Contr. Apocyn.: 129 (1905).

LECTOTYPE. — *Spire 39* (P), Vietnam, Nghê An, Kha Kein, Song Ca, designated here.

Bousigonia mekongensis Pierre

Bull. Mens. Soc. Linn. Paris sér. 2, 1: 36 (1898).

LECTOTYPE. — *Pierre 5240* (P), Vietnam, Bèn Tre, Mekong River, designated here.

Carissa cochinchinensis Pierre ex Pitard
in Lecomte

Fl. Gén. Indo-Chine 3: 1112 (1933).

LECTOTYPE. — *Poilane 9316* (HM), Vietnam, Ninh Thuân, Ca Na, designated by Lý, Feddes Repert. 97: 409 (1986).

Carissa laotica Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1113 (1933).

LECTOTYPE. — *Thorel 2213* (P), Cambodia (but labelled Laos), “Stung Streng” (= Stung Treng), designated here.

Chilocarpus alyxiifolius Pierre

Bull. Mens. Soc. Linn. Paris sér. 2, 1: 102 (1898).

LECTOTYPE. — *Pierre 4420* (P), Vietnam, Đồng Nai, Bao Chiang, designated by Lý, Feddes Repert. 97: 422 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of *Pierre 4420* at P).

Chonemorpha eriostylis Pitard in Lecomte

Fl. Gén. Indo-Chine 2: 1247 (1933).

LECTOTYPE. — *Eberhardt 4932* (P), Vietnam, Vinh Phu, Lang Luc, designated here.

Chonemorpha eriostylis var. *baviensis* Pitard in Lecomte

Fl. Gén. Indo-Chine 2: 1248 (1933).

LECTOTYPE. — *Fleury in Chevalier 37860* (P), Vietnam, Hà Tây, Mt Bavi, designated here.

Chonemorpha graciliflora Pitard in Lecomte

Fl. Gén. Indo-Chine 2: 1248 (1933).

LECTOTYPE. — *Thorel 3443* (P), Laos, Louang Prabang, designated here. — Fig. 1.

Chonemorpha grandieriana Pierre ex Spire

Contr. Apocyn.: 72 (1905).

LECTOTYPE. — *Spire 3* (P), Laos, Xieng Khouang, Cua Rao, designated here.

Chonemorpha macrantha Pitard in Lecomte

Fl. Gén. Indo-Chine 2: 1249 (1933).

LECTOTYPE. — *Spire 19* (P), Laos, Xieng Khouang, designated here.

Chonemorpha megacalyx Pierre ex Spire

Contr. Apocyn.: 76 (1905).

LECTOTYPE. — *Spire 17* (P), Laos, Xieng Khouang, Tran Ninh, designated here.

Chonemorpha yersinii Spire ex Vernet

Bull. Econ. Indo-Chine 35: 1197 (1904).

HOLOTYPE. — *Vernet s.n.* (P), Vietnam, Khanh Hoa, Suoi Giao.

Clegibornia dongnaiensis Pierre ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1208 (1933).

LECTOTYPE. — *Pierre 2027* (HM), Vietnam, Đồng Nai, Bao Chiang, designated by Lý, Feddes Repert. 97: 671 (1986).

Ecdysanthera annamensis Vernet

Bull. Econ. Indo-Chine 35: 1189 (1904).

HOLOTYPE. — *Vernet s.n.* (P), Vietnam, Khanh Hoa, Dio Ca.

Ecdysanthera cambodiensis Pierre

Rev. Cult. Colon. 11: 228 (1902).

LECTOTYPE. — *Pierre 1434* (P), Vietnam, Kiên Giang, Phu Quoc, designated by Lý, Feddes Repert. 89: 257 (1978).

Second step lectotypification, designated by Middleton, Kew Bull. 49: 763 (1994).

Ecdysanthera langbianii Vernet

Bull. Econ. Indo-Chine 35: 1185 (1904).

HOLOTYPE. — *Vernet s.n.* (P), Vietnam, Ninh Thuân, Lang Bian.

Ecdysanthera linearicarpa Pierre

Rev. Cult. Colon. 11: 228 (1902).

LECTOTYPE. — *Tournier in Pierre 6615* (P), Laos, Xieng Khouang, Tran Ninh, designated by Lý, Feddes Repert. 89: 258 (1978).

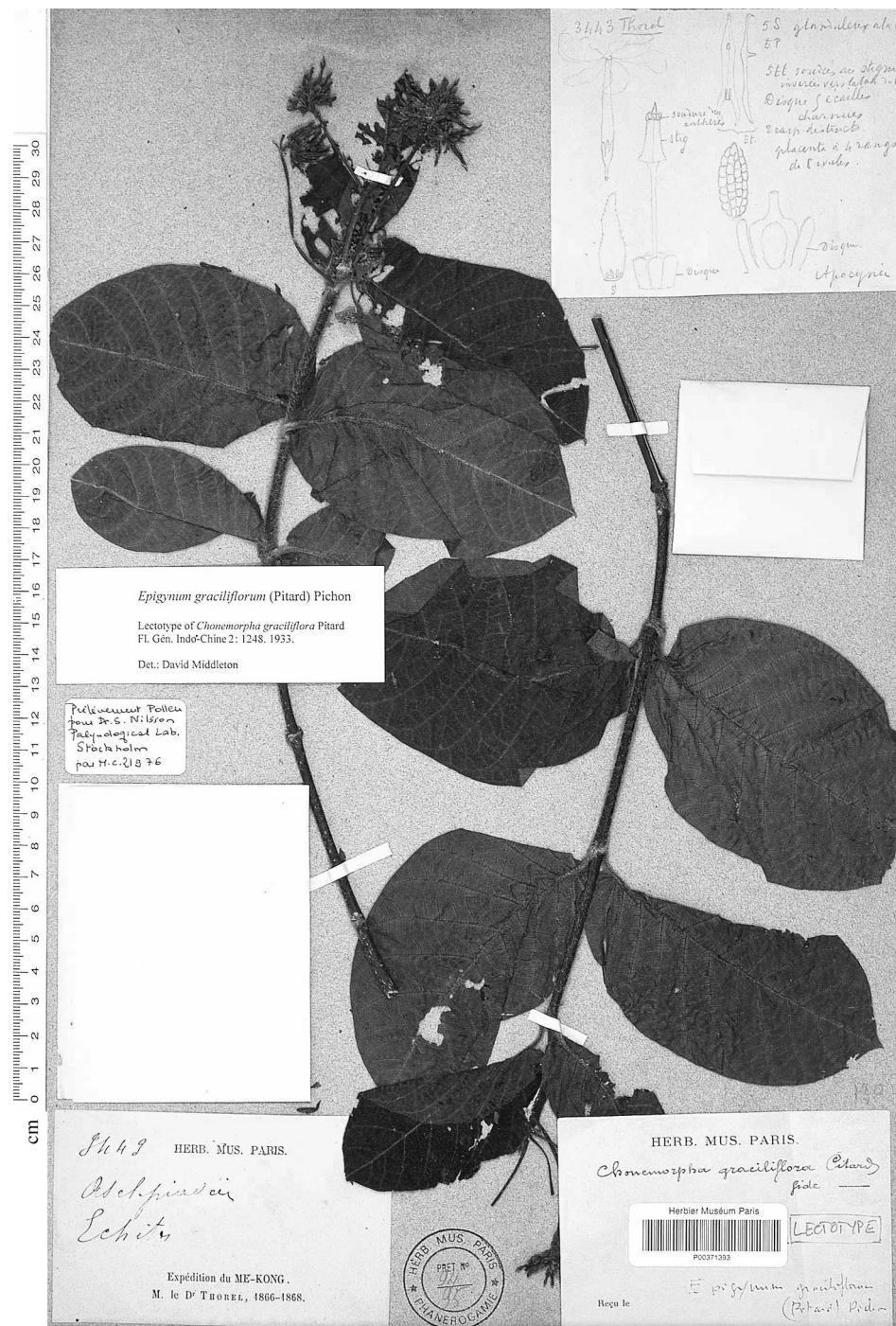


FIG. 1. — Lectotype of *Chonemorpha graciliflora* Pitard (Thorel 3443).

Ecdysanthera quintaretii Pierre

Rev. Cult. Colon. 11: 228 (1902).

LECTOTYPE. — *Quintaret* in Pierre 6618 (P), Laos, Khammouane, designated by Lý, Feddes Repert. 89: 276 (1978).

Second step lectotypification, designated by Middleton, Blumea 41: 104 (1996).

Ecdysanthera tournieri Pierre

Rev. Cult. Colon. 11: 228 (1902).

LECTOTYPE. — *Tournier* in Pierre 6613 (P), Laos, Xieng Khouang, Moung Son, designated by Middleton, Blumea 41: 111 (1996).

Ervatamia laxiflora Pichon

See *Tabernaemontana jasminiflora* Pitard.

Ervatamia pallida Pierre ex Spire

Caoutchouc Indo-Chine: 141 (1906).

LECTOTYPE. — *Spire* 27 (K), Laos, Khammouane, designated here.

Ervatamia repeuensis Pierre ex Spire

Caoutchouc Indo-Chine: 141 (1906).

LECTOTYPE. — *Pierre* 679 (P), Cambodia, Kompong Speu, Knang Repoe, designated by Leeuwenberg, Rev. Tabernaemontana 1: 187 (1991).

See note under *Tabernaemontana repoevensis*.

Holarrhena perrotii Spire

Caoutchouc Indo-Chine: 142 (1906).

TYPE. — *Spire* 120, Laos, Khammouane, Phon Thane (not traced).

Holarrhena pierrei Spire

Caoutchouc Indo-Chine: 143 (1906).

TYPE. — *Spire* 122, Laos, Khammouane (not traced).

Ichnocarpus oxypetalus Pitard in Lecomte

Fl. Gén. Indo-Chine 2: 1256 (1933).

LECTOTYPE. — *Poilane* 119 (P), Vietnam, Binh Thuân, Song Long Song, designated by Middleton, Blumea 39: 78 (1994).

Ixodonerium annamense Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1228 (1933).

LECTOTYPE. — *Poilane* 1411 (HM), Vietnam, Thua Thiên-Huê, Ben Tu, designated by Lý, Feddes Repert. 97: 669 (1986).

Kopsia cochinchinensis Pitard

See *Kopsia pitardii* Merr.

Kopsia harmandiana Pierre ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1132 (1933).

LECTOTYPE. — *Harmand* in Pierre 5246 (P), between the Mekong and Huê, designated by Sévenet et al., J. Ethnopharm. 41: 156 (1994).

Kopsia jasminiflora Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1136 (1933).

HOLOTYPE. — *Dussaud* 114 (P), Laos s. loc.

Kopsia pitardii Merr.

Contr. Arnold Arbor. 8: 141 (1934). — *Kopsia cochinchinensis* Pitard in Lecomte & Humbert, Fl. Gén. Indo-Chine 3: 1134 (1933) non Kuntze (1891).

LECTOTYPE. — *Pierre* 32 (P), Vietnam, Đồng Nai, Mt Dinh, designated by Sévenet et al., J. Ethnopharm. 41: 161 (1994).

Kopsia tonkinensis Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1135 (1933).

HOLOTYPE. — *Fleury* 32111 (P), Vietnam, Vinh Phu, between Thanh-ba and Chan-mong forest reserves.

***Melodinus annamensis* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1107 (1933).

LECTOTYPE. — *Poilane 10247* (P), Vietnam, Quang Tri, Dent du Tigre, designated by Lý, Feddes Repert. 97: 418 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of *Poilane 10247* at P). — Fig. 2.

***Melodinus brachyphyllus* Merr.**

J. Arnold Arbor. 23: 191 (1942).

HOLOTYPE. — *Petelot 2438* (A), Vietnam, Lang Son, between Dong Mo and Thanh Moi.

***Melodinus cambodiensis* Pierre**

Bull. Mens. Soc. Linn. Paris sér. 2, 1: 103 (1898).

LECTOTYPE. — *Pierre 611* (P), Cambodia, Kompong Speu, Knang Repoe, designated here.

***Melodinus erianthus* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1109 (1933).

LECTOTYPE. — *Bon 2597* (P), Vietnam, Nam Hà, Kiên Khê, Dong Bau Mountains, designated by Lý, Feddes Repert. 97: 413 (1986).

Second step lectotypification, designated by Leeuwenberg, Syst. Geogr. Pl. 73: 36 (2003).

***Melodinus guignardii* Pierre ex Spire**

Contr. Apocyn.: 122 (1905).

LECTOTYPE. — *Spire 32* (P), Laos, Khammouane, designated here.

***Melodinus honbaensis* A.Chev. ex Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1102 (1933).

LECTOTYPE. — *Chevalier 38813* (P), Vietnam, Khanh Hoa, Hong Ba, designated here.

***Melodinus jumellei* Pierre ex Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1110 (1933).

HOLOTYPE. — *Jumelle s.n.* (P), Vietnam s. loc.

***Melodinus minutiflorus* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1105 (1933).

LECTOTYPE. — *Poilane 7783* (P), Quang Nam-Dà Nang, Col des Nuages, near Tourane, designated by Leeuwenberg, Syst. Geog. Pl. 73: 21 (2003).

***Melodinus myrtifolius* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1106 (1933).

LECTOTYPE. — *Poilane 8212* (HM), Vietnam, Khanh Hoa, km 26 from Nhatrang to Ninh Hoa, designated by Lý, Feddes Repert. 97: 413 (1986).

***Melodinus oblongus* Pierre ex Spire**

Contr. Apocyn.: 121 (1905).

LECTOTYPE. — *Spire 51* (HM), Laos, Xieng Khouang, designated by Lý, Feddes Repert. 97: 418 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of *Spire 51* at HM).

***Melodinus silvaticus* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1108 (1933).

LECTOTYPE. — *Poilane 7131* (HM), Vietnam, Quang Nam-Dà Nang, Ba Na, designated by Lý, Feddes Repert. 97: 418 (1986).

Second step lectotypification, designated here (there were three undifferentiated specimens of *Poilane 7131* at HM).

***Melodinus tonkinensis* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1107 (1933).

LECTOTYPE. — *Bon 4150* (P), Vietnam, Nam Hà, Ninh Thai, Muou Lang, designated by Lý, Feddes Repert. 97: 418 (1986).

Second step lectotypification, designated by Leeuwenberg, Syst. Geogr. Pl. 73: 22 (2003).

***Melodinus tournieri* Pierre ex Spire**

Contr. Apocyn.: 114 (1905).

HOLOTYPE. — *Spire 9* (P), Vietnam, Nghé An, Song Ca.

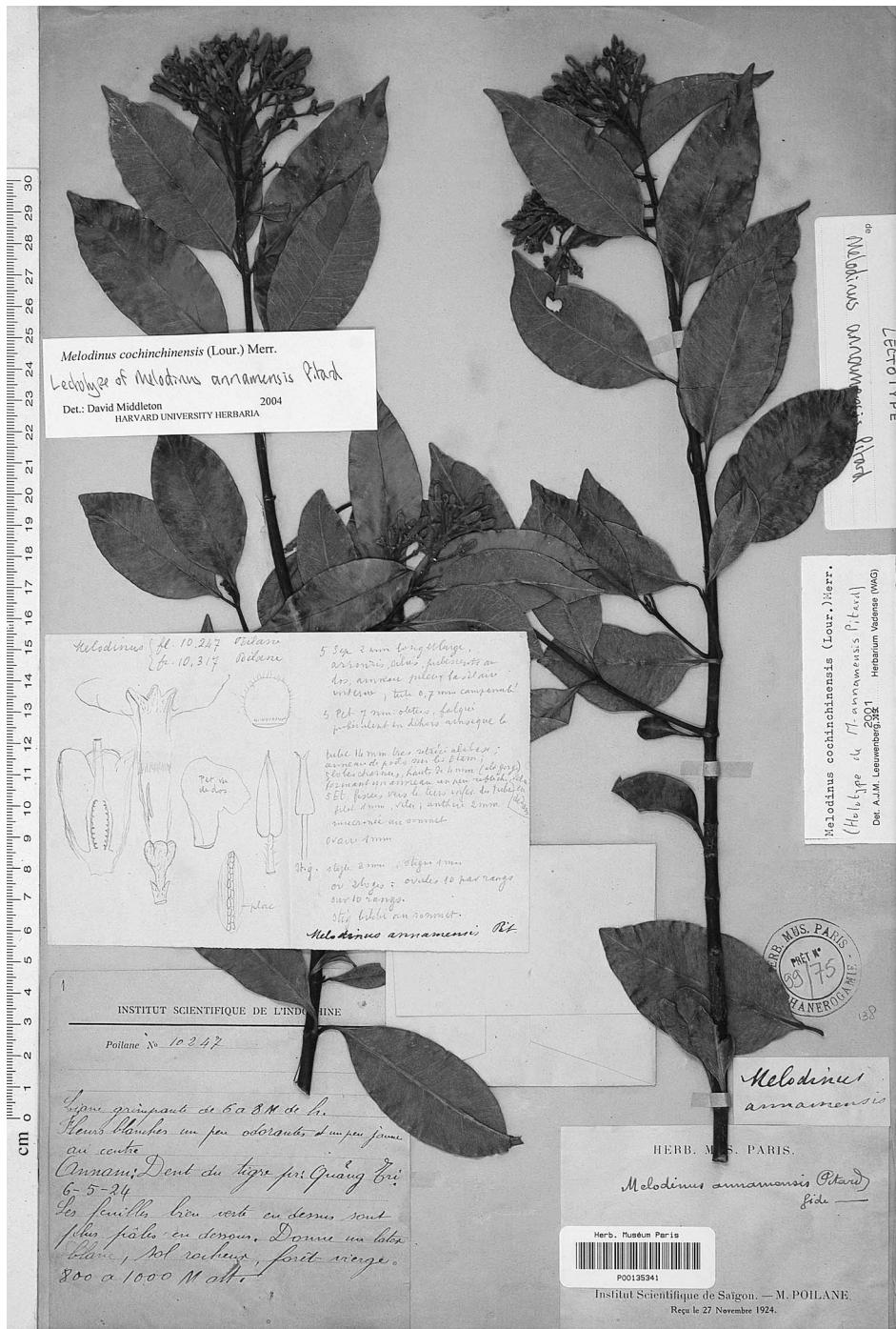


Fig. 2. — Lectotype of *Melodinus annamensis* Pitard (Poilane 10247).

***Micrechites baillonii* Pierre**

Rev. Cult. Colon. 11: 229 (1902).

LECTOTYPE. — *Balansa* 2084 (P), Vietnam, Hà Tây, Mt Bavi, designated by Lý, Feddes Repert. 97: 675 (1986).

Second step lectotypification, designated by Middleton, Blumea 39: 83 (1994).

***Micrechites ferruginea* Pitard in Lecomte**

Fl. Gén. Indo-Chine 2: 1260 (1933).

LECTOTYPE. — *Poilane* 1894 (HM), Laos, Houa Phan, Samnua, Muong-pun, designated by Lý, Feddes Repert. 97: 673 (1986).

***Micrechites jacquetii* Pierre ex Spire**

Contr. Apocyn.: 48 (1905).

LECTOTYPE. — *Spire* 5 (P), Laos, Xieng Khouang, near Cua Rao, designated by Middleton, Blumea 39: 81 (1994).

***Micrechites napeensis* Quint.**

Compt. Rend. Acad. Sci. 134: 438 (1902).

HOLOTYPE. — *Quintaret s.n.* (P), Laos, Khammouane, Napé.

***Microchonea lucida* Pierre**

Bull. Mens. Soc. Linn. Paris sér. 2, 1: 31 (1898). — *Trachelospermum bessonii* Pierre ex Pitard in Lecomte, Fl. Gén. Indo-Chine 2: 1244 (1933).

LECTOTYPE. — *Pierre* 4467 (P), Vietnam, Khanh Hoa, Bao Chanh, designated by Woodson, Sunyatsenia 3: 94 (1936).

Second step lectotypification, designated here (there were three undifferentiated specimens of *Pierre* 4467 at P).

***Nerium scandens* Lour.**

Fl. Cochinch.: 116 (1790).

HOLOTYPE. — *Loureiro s.n.* (BM), Vietnam (Cochinchina).

MERRILL (1935) and BEENTJE (1982) note that this is a later homonym for *Nerium scandens* L. However, we can find no evidence that the Linnean name was ever validly published which would mean the LOUREIRO name is not a later homonym.

***Nouettea cochinchinensis* Pierre**

Bull. Mens. Soc. Linn. Paris sér. 2, 1: 30 (1898).

LECTOTYPE. — *Pierre* 4468 (HM), Vietnam, Bến Tre, designated by Lý, Feddes Repert. 97: 652 (1986).

***Oncinus cochinchinensis* Lour.**

Fl. Cochinch.: 123 (1790).

TYPE. — *Loureiro s.n.* (untraced), Vietnam, Cochinchina.

NEOTYPE. — *Clemens* 3427 (P), Vietnam, Thua Thiên-Huê, Truoi, S of Huê, designated by Leeuwenberg, Syst. Geogr. Pl. 73: 21 (2003).

***Parabarium candollei* Pierre ex Spire**

Contr. Apocyn.: 37 (1905).

LECTOTYPE. — *Balansa* 2079 (P), Vietnam, Hà Tây, Tu Phap, designated by Middleton, Blumea 41: 102 (1996).

***Parabarium chevalieri* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1212 (1933).

LECTOTYPE. — *Chevalier* 38604 (P), Vietnam, Khanh Hoa, Hon Ba Massif, designated by Lý, Feddes Repert. 89: 259 (1978).

Second step lectotypification, designated by Middleton, Blumea 41: 99 (1996).

***Parabarium diudo* Dubard & Eberh.**

Agric. Prat. Pays. Ch. 13, 1: 238 (1913).

LECTOTYPE. — *Eberhardt s.n.* (P), Vietnam s. loc., designated by Lý, Feddes Repert. 89: 255 (1978).

Second step lectotypification, designated by Middleton, Blumea 41: 97 (1996).

Parabarium diudo* var. *longifolia
Dubard & Eberh.

Agric. Prat. Pays. Ch. 13, 1: 240 (1913).

LECTOTYPE. — *Eberhardt s.n.* (P), Vietnam s. loc., designated by Middleton, Blumea 41: 99 (1996).***Parabarium latifolium* Pierre ex Spire**

Contr. Apocyn.: 19 (1905).

LECTOTYPE. — *Spire 14 p.p.* (P), Laos, Xieng Khouang, designated by Middleton, Kew Bull. 49: 761 (1994).***Parabarium spireanum* Pierre ex Spire**

Contr. Apocyn.: 22 (1905).

LECTOTYPE. — *Spire 20* (P), Laos, Xieng Khouang, Cua Rao, designated by Lý, Feddes Repert. 97: 666 (1986).***Parabarium tournieri* var. *guignardii* Spire**

Contr. Apocyn.: 15 (1905).

LECTOTYPE. — *Spire 1* (P), Laos, Khammouane, Kamkeut, designated by Middleton, Blumea 41: 111 (1996).***Parabarium velutinum* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1214 (1933).

HOLOTYPE. — *Unknown Collector 6* (P), Laos s. loc.***Parabarium vernetii* Pierre ex Spire**

Contr. Apocyn.: 34 (1905).

HOLOTYPE. — *Spire 11 p.p.* (P), Laos, Laos, Xieng Khouang, Cua Rao.***Parameria glandulifera* var. *pierrei* Pitard
in Lecomte**

Fl. Gén. Indo-Chine 3: 1201 (1933).

LECTOTYPE. — *Pierre 1458 p.p.* (K), Cambodia, Kampot, Cam Chay, designated by Middleton, Blumea 41: 76 (1996).***Parameria glandulifera* var. *poilanei* Pitard
in Lecomte**

Fl. Gén. Indo-Chine 3: 1203 (1933).

LECTOTYPE. — *Poilane 2197* (P), Laos, Xieng Khouang, designated here.***Paravallaris macrophylla* Pierre ex Hua**

Bull. Soc. Bot. Fr. 51: 273 (1904).

LECTOTYPE. — *Harmand in Pierre 1869* (P), between the Mekong and Huê, designated by Rudjiman, Agric. Univ. Wag. Pap. 86-5: 40 (1987).

Second step lectotypification, designated here (although RUDJIMAN [1987] lectotyped this collection in P in his publication he labelled both specimens in P as isotypes).

***Paravallaris microphylla* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1181 (1933).

LECTOTYPE. — *Poilane 47* (P), Vietnam, Khanh Hoa, Hoa Tan, designated by Rudjiman, Agric. Univ. Wag. Pap. 86-5: 60 (1987).Second step lectotypification, designated here (there were three undifferentiated specimens of *Poilane 47* at P).***Pezisicarpus montanus* Vernet**

Bull. Econ. Indo-Chine 35: 1193 (1904).

HOLOTYPE. — *Vernet s.n.* (P), Vietnam, Lâm Đồng, Pomteng.***Pottisia inodora* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1178 (1933).

LECTOTYPE. — *Poilane 10727* (P), Vietnam, Quang Tri, Lang Khoai, designated by Lý, Feddes Repert. 97: 646 (1986).Second step lectotypification, designated here (there were two undifferentiated specimens of *Poilane 10727* at P).

Rauvolfia cambodiana Pierre ex Pitard
in Lecomte

Fl. Gén. Indo-Chine 3: 1117 (1933).

LECTOTYPE. — *Poilane 9948* (HM), Vietnam, Ninh Thuân, Phan Rang, designated by Lý, Feddes Repert. 97: 430 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of *Poilane 9948* at HM).

Rauvolfia chaudocensis Pierre ex Pitard
in Lecomte

Fl. Gén. Indo-Chine 3: 1114 (1933).

LECTOTYPE. — *Pierre 259* (P), Vietnam, An Giang, Mt Xam, near Chau Doc, designated by Lý, Feddes Report. 97: 424 (1986).

Second step lectotypification, designated here (there were three undifferentiated specimens of *Pierre 259* at P).

Rauvolfia indosinensis Pichon

Bull. Soc. Bot. Fr. 94: 37 (1947). — *Rauvolfia litoralis* Pierre ex Pitard *in Lecomte & Humbert*, Fl. Gén. Indo-Chine 3: 1115 (1933), non Rusby (1920).

LECTOTYPE. — *Pierre 4405* (HM), Cambodia, Kompong Speu, Schral Mountains, designated by Lý, Feddes Repert. 97: 424 (1986).

Rhynchodia capusii Pierre ex Spire

Contr. Apocyn.: 102 (1905).

LECTOTYPE. — *Spire 23* (P), Laos, Xieng Khouang, designated here.

Rhynchodia fragrans Pierre ex Spire

Contr. Apocyn.: 108 (1905).

LECTOTYPE. — *Balansa 2097* in *Pierre 6548* (P), Vietnam, Hoa Binh, left bank of the Black River, Phuong-lam, designated here.

Collection also type of *Rhynchodia pierrei* Spire.

Rhynchodia pauciflora Pitard *in Lecomte*

Fl. Gén. Indo-Chine 2: 1243 (1933).

LECTOTYPE. — *Chevalier 40315* (P), Vietnam, Lâm Đồng, Lang Bian Massif, Dran, designated here.

See note under *Rhynchodia pierrei* var. *annamensis*.

Rhynchodia pierrei Spire

Bull. Soc. Bot. France 52: 556 (1905).

LECTOTYPE. — *Balansa 2097* in *Pierre 6548* (P), Vietnam, Hoa Binh, left bank of the Black River, Phuong-lam, designated here.

Collection also type of *Rhynchodia fragrans* Pierre ex Spire.

Rhynchodia pierrei var. *annamensis* Pitard
in Lecomte

Fl. Gén. Indo-Chine 2: 1241 (1933).

LECTOTYPE. — *Chevalier 40315* (P), Vietnam, Lâm Đồng, Lang Bian Massif, Dran, designated here.

Note that PITARD (1933) appears to have described this taxon and *Rhynchodia pauciflora* with the same type specimen.

Spirolobium cambodianum Baill.

Bull. Soc. Linn. Paris 1: 773 (1889).

LECTOTYPE. — *Godefroy in Harmand 475* (P), Cambodia, Pursat, designated here.

LÝ (1986) typified with *Pierre 4418* from Southern Vietnam. However, the protologue quite clearly states that the type is *Harmand 475* from Cambodia. In P there is one specimen of *Harmand 475* in *Pierre 4418* from Vietnam. However, there are also several specimens of *Harmand 475* from Cambodia. Given that Lý's lectotypification is in conflict with the protologue one of the three Paris *Harmand 475* collections from Pursat in Cambodia is designated here.

***Strophanthus annamensis* Tsiang**

Sunyatsenia 6: 116 (1941).

HOLOTYPE. — *Squires* 901 (A), Vietnam, Lâm Đồng, near Dalat.

***Strophanthus balansae* Franchet**

Nouv. Arch. Mus. Paris. ser. 3, 5: 262 (1893).

LECTOTYPE. — *Harmand* 2128 (P), Vietnam, Hà Tây, Tu Phap, designated here.

***Strophanthus caudatus* var. *lanceolata* Franchet**

Nouv. Arch. Mus. Paris. ser. 3, 5: 266 (1893).

TYPE. — *Balansa* 599 (untraced).

NEOTYPE. — *Eberhardt* 4920 (P), Vietnam, Vinh Phu, Lang Luc, designated by Beentje, Meded. Landb. Wag. 82-4: 55 (1982).

***Strophanthus caudatus* var. *macrophyllus* Franchet**

Nouv. Arch. Mus. Paris. ser. 3, 5: 265 (1893).

LECTOTYPE. — *Balansa* 2127 (P), Vietnam, between Yen Caa village and the Black River, designated by Beentje, Meded. Landb. Wag. 82-4: 55 (1982).

***Strophanthus pierrei* F. Heim**

Bull. Mens. Soc. Linn. Paris 2: 1151 (1894).

LECTOTYPE. — *Pierre* 4411 (P), Vietnam, Sông Bé, Thudaumot, designated by Beentje, Meded. Landb. Wag. 82-4: 56 (1982).

Second step lectotypification, designated here (there were several undifferentiated specimens of *Pierre* 4411 at P).

***Strophanthus wallichii* var. *robustus* Pierre ex Gilg**

In Engler & Diels, Monogr. Afrik Pflanzen Fam. 7: 16 (1903).

HOLOTYPE. — *Pierre* 4412 (B, destroyed).

LECTOTYPE. — *Pierre* 4412 (P), Vietnam, Đồng Nai, designated here.

Beentje, Meded. Landb. Wag. 82-4: 151 (1982) designated a P specimen of *Pierre* 4412 as a lectotype. However, only one specimen was found at P which had been labelled isotype by BEENTJE. Therefore, the new designation here should stand unless the specimen marked as lectotype by BEENTJE can be located.

***Tabernaemontana annamensis* Dubard & Eberh.**

Ann. Sc. Agron. ser. 4, 2: 134 (1913).

LECTOTYPE. — *Eberhardt* 2 (P), Vietnam, Thua Thiên-Huê, Huê, designated by Lý, Feddes Repert. 97: 455 (1986).

***Tabernaemontana balansae* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1148 (1933).

LECTOTYPE. — *Balansa* 2102 (P), Vietnam, Hà Tây, near Tu Phap, designated here.

Balansa 2102 (HM) was designated by Lý, Feddes Repert. 97: 451 (1986) but as this specimen could not be located at HM the later designation above should stand until such a time as it is found.

***Tabernaemontana baviensis* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1156 (1933).

LECTOTYPE. — *Balansa* 2112 (HM), Vietnam, Hà Tây, Mt Bavi, designated by Lý, Feddes Repert. 97: 455 (1986).

***Tabernaemontana bonii* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1151 (1933).

LECTOTYPE. — *Bon* 2897 (P), Vietnam, Hoa Binh, Vo Xa, Ho, designated by Lý, Feddes Repert. 97: 459 (1986).

***Tabernaemontana bovina* Lour.**

Fl. Cochinch.: 118 (1790).

TYPE. — *Loureiro s. n.* (not traced), Vietnam (Cochinchina).

NEOTYPE. — *Clemens & Clemens* 4056 (P), Vietnam, Quang Nam-Dà Nang, Tourane, designated by Leeuwenberg, Agric. Univ. Wag. Pap. 87-5: 3 (1988).

Note that this specimen is also the lectotype of *Tabernaemontana tonkinensis* Pierre ex Pitard.

***Tabernaemontana bufalina* Lour.**

Fl. Cochinch.: 117 (1790).

TYPE. — *Loureiro s.n.* (not traced), Vietnam, Cochinchina.

NEOTYPE. — *Pirey* 95bis in *Chevalier* 41172 (P), Vietnam, Quang Tri, An Long, designated by Leeuwenberg, Agric. Univ. Wag. Pap. 87-5: 4 (1988).

This specimen could not be found at P but there are also isoneotypes in NY and WAG.

***Tabernaemontana dinhensis* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1151 (1933).

LECTOTYPE. — *Pierre* 4388 (HM), Vietnam, Đồng Nai, Dinh Mountains, near Baria, designated by Lý, Feddes Repert. 97: 464 (1986).

***Tabernaemontana evrardii* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1157 (1933).

LECTOTYPE. — *Thorel* 1170 (HM), Vietnam s. loc., designated by Lý, Feddes Repert. 97: 459 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of *Thorel* 1170 at HM).

Lý (1986) typified with *Thorel* 1070 (HM) but this is clearly a typographical error for *Thorel* 1170.

***Tabernaemontana garciniifolia* Pierre**

Fl. Gén. Indo-Chine 3: 1144 (1933).

LECTOTYPE. — *Pierre* 1824 p.p. (HM), Vietnam, Khanh Hoa, near Gia Lau Me, designated by Lý, Feddes Repert. 97: 459 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of *Pierre* 1824 p.p. at HM).

***Tabernaemontana granulosa* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1144 (1933).

LECTOTYPE. — *Poilane* 8213 (HM), Vietnam, Khanh Hoa, km 26 route from Nha Trang to Ninh Hoa, designated by Lý, Feddes Repert. 97: 464 (1986).

***Tabernaemontana harmandiana* Pierre ex Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1152 (1933).

LECTOTYPE. — *Harmand* 780 (P), Minh Hai, Poulo Condor, designated by Leeuwenberg, Agric. Univ. Wag. Pap. 87-5: 21 (1988).

***Tabernaemontana jasminiflora* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1145 (1933). — *Ervatamia laxiflora* Pichon, Mém. Mus. Hist. Nat., Paris n.s., 27: 220 (1948).

LECTOTYPE. — *Eberhardt* 3166 (HM), Vietnam, Thua Thiên-Huê, plaine de Nuoc Ngot, designated by Lý, Feddes Repert. 97: 464 (1986).

***Tabernaemontana laotica* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1148 (1933).

LECTOTYPE. — *Poilane* 1870 (HM), Laos, Houa Phan, Na Ham, designated by Lý, Feddes Repert. 97: 451 (1986).

***Tabernaemontana luensis* Pierre ex Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1147 (1933).

LECTOTYPE. — *Pierre* 4395 (P), Cambodia, Mt Srouri, designated by Lý, Feddes Repert. 97: 464 (1986).

***Tabernaemontana microphylla* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1150 (1933).

LECTOTYPE. — *Thorel* s.n. (P), Cambodia, Siem Reap, Angkor, designated by Lý, Feddes Repert. 97: 455 (1986).

Tabernaemontana nemoralis Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1155 (1933).

LECTOTYPE. — *Balansa 2100* (P), Vietnam, Hà Tây, Dein Touan, Mt Bavi, designated by Lý, Feddes Repert. 97: 459 (1986).

Tabernaemontana pitardii Gagnep. ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1143 (1933).

LECTOTYPE. — *Harmand 5308* (HM), Laos s. loc., designated by Lý, Feddes Repert. 97: 459 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of *Harmand 5308* at HM).

Tabernaemontana repoevensis Pierre ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1149 (1933).

LECTOTYPE. — *Pierre 679* (P), Cambodia, Kompong Speu, Koh Kong, Knang Repoe, designated by Leeuwenberg, Rev. Tabernaemontana 1: 187 (1991).

It is unclear whether PITARD (1933) was aware of the publication of *Ervatamia repeuensis* Pierre ex Spire and has not indicated that he intended to make a new combination rather than describe a new species. He did not follow the spelling in the earlier publication. Given this it is best to assume that a new species was described with two syntype collections. LEEUWENBERG (1991) has lectotypified both *Tabernaemontana repoevensis* and *Ervatamia repeuensis* with the same specimen.

Tabernaemontana sralensis Pierre ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1156 (1933).

LECTOTYPE. — *Pierre 4391* (HM), Cambodia, Kompong Speu, Sral Mountains, designated by Lý, Feddes Repert. 97: 459 (1986).

Tabernaemontana tonkinensis Pierre ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1154 (1933).

LECTOTYPE. — *Clemens & Clemens 4056* (P), Vietnam, Quang Nam-Dà Nang, Tourane, designated by Leeuwenberg, Agric. Univ. Wag. Pap. 87-5: 3 (1988).

Note that this specimen is also the neotype of *Tabernaemontana bovina* Lour.

Trachelospermum bessonii Pierre ex Pitard

See *Microchonea lucida* Pierre.

Wrightia annamensis Eberh. & Dubard

Agron. Colon. 1: 38 (1913).

LECTOTYPE. — *Eberhardt 1911* (P), Vietnam s. loc., designated here.

Wrightia annamensis* var. *coronata Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1192 (1933).

LECTOTYPE. — *Eberhardt 1513* (P), Vietnam, Thua Thiên-Huê, Hai Mit, designated by Ngan, Ann. Miss. Bot. Gard. 52: 146 (1965).

Wrightia balansae Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1188 (1933).

LECTOTYPE. — *Balansa 2118*, Vietnam, Hà Tây, Tu Phap, designated by Ngan, Ann. Miss. Bot. Gard. 52: 137 (1965).

Second step lectotypification (P), designated here.

NGAN (1965) designated *Balansa 2118* as the type from amongst the various syntypes but did not give a herbarium where the lectotype could be found. One of the three collections in P has been lectotypified here.

Wrightia cambodiensis Pierre ex Pitard in Lecomte

Fl. Gén. Indo-Chine 3: 1184 (1933).

LECTOTYPE. — *Pierre 4402*, Vietnam, Hà Tây, Tri Huyen, designated by Ngan, Ann. Miss. Bot. Gard. 52: 172 (1965).

Second step lectotypification (P), designated here.

NGAN (1965) designated *Pierre 4402* as the type from amongst the various syntypes but did not give a herbarium where the lectotype could be found.

***Wrightia lecomtei* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1188 (1933).

LECTOTYPE. — *Lecomte & Finet s.n.* (P), Cambodia, Kompong Thom, designated here.

NGAN (1965) typified this species with *Gourgand s.n.* This specimen has no locality on it whereas PITARD lists a *Service forestier* specimen from Kompong Thom in the protologue. There are two duplicates of a *Lecomte & Finet* collection which also has "Service Forestier Cochinchine" on the label and has Kompong Thom stamped on another label. Therefore one of these two specimens is designated as lectotype here.

***Wrightia macrocarpa* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1190 (1933).

LECTOTYPE. — *Balansa 2115*, Vietnam, Hà Tây, Tu Phap, designated by Ngan, Ann. Miss. Bot. Gard. 52: 137 (1965).

Second step lectotypification (P), designated here.

NGAN designated *Balansa 2115* as the type from amongst the various syntypes but did not give a herbarium where the lectotype could be found.

***Wrightia rubriflora* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1185 (1933).

LECTOTYPE. — *Poilane 5955* (P), Vietnam, Ninh Thuân, Ca Na, designated here.

***Wrightia stellata* Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1186 (1933).

LECTOTYPE. — *Bon 4750* (HM), Vietnam, Hoa Binh, Vo Xa, designated by Lý, Feddes Repert. 97: 625 (1986).

Second step lectotypification, designated here (there were two undifferentiated specimens of the *Bon* collection at HM but without the number).

LÝ (1986) actually gave the type as *Bon 475* but this is clearly a typographical error to be corrected.

***Wrightia tomentosa* var. *cochinchinensis* Pierre ex Pitard in Lecomte**

Fl. Gén. Indo-Chine 3: 1192 (1933).

LECTOTYPE. — *Pierre 1047*, Vietnam s. loc., designated by Ngan, Ann. Miss. Bot. Gard. 52: 153 (1965).

Second step lectotypification (A), designated here.

NGAN (1965) designated *Pierre 1047* as the type from amongst the various syntypes but did not give a herbarium where the lectotype could be found. No specimen could be found at P so the specimen in A has been designated as lectotype.

***Xylinabaria minutiflora* Pierre**

Bull. Mens. Soc. Linn. Paris sér. 2, 1: 26 (1898).

LECTOTYPE. — *Pierre 4501* (HM), Cambodia, Kampot, Cam Chay, designated by Lý, Feddes Repert. 97: 665 (1986).

***Xylinabaria reynaudii* Jum.**

Rev. Cult. Colon. 10: 361 (1902).

LECTOTYPE. — *Reynaud s.n.* (P), Vietnam, Bac Thai, Cam Dao Mts, designated by Middleton, Kew Bull. 49: 764 (1994).

***Xylinabaria spirei* Pierre ex Spire**

Contr. Apocyn.: 61 (1905).

HOLOTYPE. — *Spire 15* (P), Laos, Khammouane, near Ban Bo.

EXCLUDED, INSUFFICIENTLY KNOWN AND ILLEGITIMATE NAMES

Apocynum juventas Lour., Fl. Cochinch. 1: 167 (1790)
= *Streptocalon juventas* (Lour.) Merr. (Apocynaceae: Periplocoideae).

Apocynum reticulatum Lour., Fl. Cochinch. 1: 208 (1790), *non* L. (1753) *nom. illeg.* (later homonym).
Chonemorpha harmandiana Pierre ex Planch., Prod. Apocyn.: 296 (1894), *nom. nud.*
Ecdysanthera godeffroyana Pierre, Rev. Cult. Colon. 11: 228 (1902). — Holotype: *Godefroy s.n.* (P). The material of this species is unidentifiable but is almost certainly not Apocynaceae.
Faskia divaricata Lour. ex Gomes, Mem. Acad. Real Sci. Lisb. Cl. Sci. Mor. Pol. Bel.-Lett. n.s. 4 (1): 28 (1872), *nom. nud.*
Holarrhena angustata Pierre ex Planch., Prod. Apocyn.: 196 (1894), *nom. nud.*
Holarrhena crassifolia Pierre ex Planch., Prod. Apocyn.: 196 (1894), *nom. nud.*
Holarrhena crassifolia var. *montana* Spire, Caoutchouc Indo-Chine: 144 (1906), *nom. illeg.*
Nerium divaricatum Lour., Fl. Cochinch. 1: 115 (1790), *non* L. (1753) *nom. illeg.* (later homonym).
Strophanthus giganteus Pierre, Bull. Soc. Bot. Fr. 52: 491 (1905), *nom. illeg.* (the validly published earlier name *Strophanthus pierrei* F. Heim is given in synonymy).
Tabernaemontana pallida Pierre ex Pitard in Lecomte, Fl. Gén. Indo-Chine 3: 1146 (1933), *non* (Pierre ex Spire) Hu (1925) *nom. illeg.* (later homonym).
Winchia alternifolia Pierre ex Pitard in Lecomte, Fl. Gén. Indo-Chine 3: 1100 (1933). — Type: *Pierre number unknown* (untraced), Vietnam, near Hué. From the description it is probably a *Melodinus*.

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REFERENCES

- BEENTJE H.J. 1982. — A monograph on *Strophanthus* DC. Meded. Landbouwhoogeschool Wageningen 82-4: 1-191.
- ENDRESS M.E. & BRUYNS P.V. 2000. — A revised classification of the Apocynaceae s.l. Bot. Rev. 66: 1-56.
- GREUTER W., MCNEILL J., BARRIE F.R., BURDET H.-M., DEMOULIN V., FILGUEIRAS T.S., NICOLSON D.H., SILVA P.C., SKOG J.E., TREHANE P., TURLAND N.J. & HAWKSWORTH D.L. 2000. — International code of botanical nomenclature (Saint Louis Code) adopted by the Sixteenth International Botanical Congress, St Louis, Missouri, July-August 1999. *Regnum Vegetabile* 138: 1-474.
- LEEUWENBERG A.J.M. 1991. — *A Revision of Tabernaemontana: I. The Old World Species*. Royal Botanic Gardens, Kew.
- LEEUWENBERG A.J.M. 2002. — Series of revisions of Apocynaceae LII. *Chilocarpus*. Syst. Geogr. Pl. 72: 127-166.
- LEEUWENBERG A.J.M. 2003. — Series of revisions of Apocynaceae LIII. *Melodinus*. Syst. Geogr. Pl. 73: 3-62.
- LEEUWENBERG A.J.M. & VAN DILST F.J.H. 2001. — Series of revisions of Apocynaceae XLIX. *Carissa* L. Wageningen Univ. Pap. 01.1: 3-109.
- LOUREIRO J. DE 1790. — *Flora Cochinchinensis*. Ulyssipone typis et expensis academicis, Lisbon.
- LÝ T.D. 1978. — Beiträge zur Kenntnis der Sippensstruktur des Genus *Parabarium* Pierre ex Spire (Apocynaceae). *Feddes Repert.* 89: 205-292.
- LÝ T.D. 1979. — [The genus *Willughbeia* in Vietnam]. *Sinh Vật Hoc* 1 (2): 16-18 (in Vietnamese).
- LÝ T.D. 1980a. — Eine neue *Strophanthus*-Art aus Vietnam. *Feddes Repert.* 91: 7-9.
- LÝ T.D. 1980b. — Eine neue *Ervatamia*-Art aus Vietnam. *Feddes Repert.* 91: 393-395.
- LÝ T.D. 1980c. — Eine neue *Rauvolfia*-Art aus Vietnam. *Feddes Repert.* 91: 397-399.
- LÝ T.D. 1980d. — [A new species of the genus *Trachelospermum* Lem. (Apocynaceae) from Vietnam]. *Sinh Vật Hoc* 2 (2): 14-16 (in Vietnamese).
- LÝ T.D. 1981. — Fünf neue Arten der Apocynaceae aus Vietnam. *Feddes Repert.* 92: 619-630.
- LÝ T.D. 1985a. — Vier neue Arten der Gattung *Ervatamia* (A.D.C.) Stapf (Apocynaceae) aus nördlichen Gebieten Vietnams. *Feddes Repert.* 96: 25-33.
- LÝ T.D. 1985b. — Zwei neue Arten der Familie Apocynaceae aus südwestlichen Gebieten Vietnams. *Feddes Repert.* 96: 173-178.
- LÝ T.D. 1985c. — Drei neue Arten der Familie Apocynaceae aus Vietnam. *Feddes Repert.* 96: 179-185.
- LÝ T.D. 1986. — Die Familie Apocynaceae Juss. in Vietnam. *Feddes Repert.* 97: 235-273, 405-466, 607-689.
- MERRILL E.D. 1935. — A commentary on Loureiro's "Flora Cochinchinensis". *Trans. Amer. Philos. Soc.* n.s. 24 (2): 1-403.
- MIDDLETON D.J. 2001. — A new species of *Pottisia* (Apocynaceae: Apocynoideae) from Thailand and Lao PDR. *Harvard Pap. Bot.* 6: 285-287.
- NGAN P.T. 1965. — A revision of the genus *Wrightia* (Apocynaceae). *Ann. Missouri Bot. Gard.* 52: 114-175.

- PITARD J. 1933. — Apocynaceae: 1087-1262, in LECOMTE M.H. (ed.), *Flore générale de l'Indochine* 3. Masson, Paris.
- PLANCHON L. 1894. — *Produits fournis à la matière médicale par la famille des apocynées*. Imprimerie centrale du Midi, Montpellier.
- RUDJIMAN 1986. — A revision of *Beaumontia* Wallich, *Kibatalia* G. Don and *Vallariopsis* Woodson. *Agric. Univ. Wageningen Pap.* 86-5: 36.
- SPIRE C. 1905. — *Contribution à l'étude des Apocynées ; en particulier des lianes indo-chinoises*. A. Challamel, Paris.
- SPIRE C. 1906. — *Le caoutchouc en Indo-Chine ; étude botanique, industrielle et commerciale*. A. Challamel, Paris.
- STAFLÉU F.A. & COWAN R.S. 1985. — *Taxonomic Literature*, ed. 2, 5: 793. *Regnum Vegetabile* 112.

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