

Article



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Typification of names in the genus Camellia (Theaceae)

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Abstract

Nomenclatural types for 18 names actually belonging to the genus *Camellia* are designated here. The following names are lectotypified: *Camellia caudata*, *C. indochinensis*, *Dankia langbianensis*, *Thea bachmaensis*, *T. brachystemon*, *T. confusa*, *T. cornata*, *T. corallina*, *T. fleuryi*, *T. gaudichaudii*, *T. gilbertii*, *T. krempfii*, *T. laotica*, *T. nematodea*, *T. nervosa*, *T. pleurocarpa*, *T. taliensis* and *T. tonkinensis*.

Key words: Indochina, nomenclature, taxonomy

Introduction

Camellia Linnaeus (1753: 698) (Theaceae, Ericales, Asterids, APG IV 2016) is an economically important genus including tea, oil camellia and several horticultural species. It is mainly distributed in East and Southeast Asia and its taxonomy is highly controversial. The number of recognized *Camellia* species varies between 120 (Ming 2000, Ming & Bartholomew 2007) and 280 (Chang 1998) and more than 30 new species have been described since the latest monograph in 2000 (Orel & Curry 2015).

The confusion in the taxonomy of *Camellia* can be traced back to Linnaeus who described *Thea* Linnaeus (1753: 515) and *Camellia* simultaneously. *Thea* was treated as a synonym of *Camellia* by Sweet (1818) but was frequently used until the work of Sealy (1958). The types of many *Camellia* names remain unclear even though the taxonomy of this genus has been successively revised by Sealy (1958), Chang (1981, 1998), Chang & Bartholomew (1984), Ming (1999, 2000) and Ming & Bartholomew (2007).

As part of a taxonomic revision of *Camellia* species in Indochina, names that need typification have been identified and they are listed below with the lectotypes designated here, accompanied by isolectotypes, syntypes and nomenclatural notes. Recently accepted *Camellia* names are provisionally used in this paper as they are currently being evaluated by the first author.

Materials and methods

This work is based on the study of the specimens kept in the following public herbaria (acronyms according to Thiers 2016): ABD, BK, BKF, BM, C, CMUB, DLU, E, FU, GXFI, GXMI, HITBC, HN, HNL, HNNU, HNU, IBK, IBSC, K, KKU, KUN, L, MBK, P, PE, PHH, QBG, SGN, SING, SYS, TCD, VFM, VNF, VNM, VNMN and herbarium of Department of Biology, National University of Laos. The digital images of specimens from herbaria A, G, HK, L, LINN, MICH, MO, NY, P, TAI, US were examined on their websites. The first author also examined specimen photos from CDBI, HIB, HNWP, IFP, LBG, NAS, WUK and XJBI on the website of Chinese Virtual Herbarium (CVH, http://www.cvh.org.cn/) and studied type specimen images from hebaria GZU, M, PH and S on the website of JSTOR (https://plants.jstor.org/). Herbarium NSW sent high quality images of specimens in a USB key to us for the research.

The types are selected according to Art. 9.3 of the Melbourne Code (McNeill *et al.* 2012, hereafter ICN). The names typified are given in alphabetical order (accepted names are in bold italics). Further nomenclatural and/or taxonomical notes and links to the available type images are provided.

Typification of the names

Camellia caudata Wallich (1832: 36)

Lectotype (designated here):—INDIA. [Meghalaya: Khasia Hills], the district of Sylhet, November 1827, *H. Bruce s.n.* in *Wallich 978* (K barcode K001110475! right-hand specimen, image of the lectotype is available at http://apps. kew.org/herbcat/getImage.do?imageBarcode=K001110475).

Notes:—The name *C. caudata* was published by Wallich (1829) without a description or a diagnosis or a reference to a former one (and thus is a nomen nudum), and according to Art. 38.1 of the ICN it was not validly published. The name was validated later by Wallich (1832) providing a Latin description (Chang & Bartholomew 1984, Ming & Bartholomew 2007).

Wallich (1832) cited in the protologue "Cat. Herbar. Ampl. Procur. Britan. Ind. Orient. n. 978" and stated that *C. caudata* was native to "the mountains bordering on the district of Sillet". Clark C.B. thought that the locality recorded by Wallich was indicating "Khasia" of India (Anonymous 1913) and Sealy (1958) followed this deduction.

Another frequently recorded locality for the syntypes of *C. caudata* is Pundua, which is indicated as "Pundua ~ Bangladesh" on The Wallich Catalogue website (http://wallich.rbge.info/node/11472). Moreover, an anonymous article on Royal Botanic Garden Edinburgh website (http://stories.rbge.org.uk/archives/5029) has a comment "...Pundua could be modern day Companiganj, or close to it, and not to be confused with Pandua in W Bengal". However, the current Companiganj in Bangladesh is an alluvial plain and its elevation is generally below 50 m. *Camellia caudata* is usually distributed in the montane evergreen forest between 200 m and 2200 m (Ming 2000) and it is therefore unlikely to occur in the low alluvial plain in Companiganj. Clark further commented that "...all the collections marked 'Pundua' came (certainly to me) from Khasia—no collector at Pundua would attempt collecting southward thence in the swamps..." (Anonymous 1913). Therefore, Clark's deduction of the locality (Anonymous 1913) is followed here.

The lectotype (specimen on the right side of K001110475) has mature flowers. *Wallich 978* is a set of heterogeneous collections that were collected by different collectors at different times, so the other specimens of *Wallich 978*, excluding the lectotype, are not treated as isolectotypes but recognized as syntypes here (Arts. 8.2, 8.3 and 9.5 of the ICN).

Additional specimens examined (syntypes):—INDIA. *Wallich 978* (A barcode 00024746 [digital photo!], G barcode G00354806 [digital photo!], P barcodes P04500104! and P04500138!); [Meghalaya: Khasia Hills], Pundua, *Wallich 978* (BM!, E barcodes E00273841! and E00273843! left-hand specimen, G barcodes G00354841 [digital photo!] and G00354852 [digital photo!], K barcodes K000380533!, K000380534! and K001110475! left-hand specimen, L matrix code L.2399754 [digital photo!], P barcode P04500117!, S No. S09-47084 [digital photo!], TCD!); Sylhet mountain, *Wallich 978* (K barcode K001110474! left-hand specimen).

Camellia indochinensis Merrill (1939: 347)

Lectotype (designated here):—VIETNAM. Lang Son: near Van Linh, 17 November 1938, *Pételot 6459* (A barcode 00024750 [digital photo!], image of the lectotype is available at http://kiki.huh.harvard.edu/databases/specimen_search.php?mode=details&id=66501; isolectotypes A barcode 00024721 [digital photo!], NY barcode 00385754 [digital photo!], P barcode P04511510!, US barcode 00113901 [digital photo!]).

Notes:—Merrill cited a single gathering *Pételot 6459* in the protologue. Five specimens of this gathering were found in herbaria A, NY, P and US so they are syntypes (Art. 40 Note 1 of the ICN). Only A barcode 00024750 bears manuscript notes "*Camellia* (*Thea*) *indochinensis* Merr. n. sp." and "Type" on the label and the sheet, respectively, so it is selected here as the lectotype. The isolectotype P04511510 bears the wrong collector's number "5459", it should be 6459 because this specimen was collected by Pételot at the same place and on the same day as the duplicates of *Pételot 6459* that are so labelled in herbaria A, NY and US. Both Sealy (1958) and Ming (2000) cited the wrong number "*Pételot 5459*" in their monographs.

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Dankia langbianensis Gagnepain (1939: 198) 

E Camellia langbianensis (Gagnep.) Hô (1991: 537)
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Lectotype (designated here):—VIETNAM. [Lam Dong]: entre B. dlé et Dankia, Langbiang, 1200–1300 m, 26 October 1930, *Poilane 18648* (P barcode P00754831!, the image of the lectotype is available at https://science.mnhn. fr/institution/mnhn/collection/p/item/p00754831; isolectotypes K barcode K000704329!, L barcode L 0012339 [digital photo!], P barcode P00754832!).

Notes:—Gagnepain validly published the monotypic genus *Dankia* Gagnepain (1939: 198) though he did not supply a generic diagnosis but gave a detailed specific description and illustration (Arts. 38.5 and 38.6 of the ICN). Sealy noticed this genus in 1955 (Sealy's letter to Dr. Sleumer H., 20 September 1955, a copy of which is attached to K000704329) but never mentioned it in his monograph of *Camellia* in 1958. It can be reasonably concluded that Sealy did not think *Dankia* should be merged with *Camellia*. Sealy's view differed from that of Sleumer who remarked "in fact *Dankia* = *Camellia*, as can be seen from the holotype at Paris, and from a letter received by Sealy (Kew) to Sleumer in 1955" (Sleumer H.'s remarks, 1973, attached to K000704329). However, Hutchinson (1967) treated this genus as a synonym of *Hydnocarpus* Gaertner (1788: 288) whereas Hô (1991) finally transferred *D. langbianensis* into *Camellia*.

A single gathering *Poilane 18648* was cited in the protologue of *D. langbianensis*. The specimen P00754831 has Gagnepain's drawing so it is designated here as the lectotype.

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Thea bachmaensis Gagnepain (1942: 124) = Camellia kissi Wallich (1820: 429)
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Lectotype (first-step designated by Sealy 1958: 199):—VIETNAM. [Thua Thien Hue]: Núi Bach Ma Station d'altitude de Huê, 1400–1500 m, 12 December 1940, *Poilane 31118* (P!, two sheets; second-step lectotype designated here: P barcode P01903389!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903389; isolectotype P barcode P01903390!).

Notes:—Three gatherings were cited in the protologue: *Poilane 31118, 31184* and *31378*. Gagnepain identified *Poilane 31184* as "*Thea brachystemon*" but cited it as a syntype of *T. bachmaensis*. Sealy (1958) chose *Poilane 31118* at P as the type but this single gathering has two specimens in P (barcodes P01903389 and P01903390) so his lectotypification should be treated as the first-step (Art. 9.17 Ex. 12 of the ICN). Gagnepain's drawing is attached to P01903389 therefore this sheet is designated here as the second-step lectotype. The syntype *Poilane 31378* has not been found.

Additional specimens examined (syntypes):—VIETNAM. [Thua Thien Hue]: Núi Bach Ma Station d'altitude de Huê, 1200–1500 m, 15 December 1940, *Poilane 31184* (P barcodes P04500130! and P04500133!).

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Thea brachystemon Gagnepain (1942: 125) = Camellia kissi
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Lectotype (designated here):—LAOS. [Attapeu]: entre Nong Met et B. Thuôt, plateau des Boloven, 8 October 1928, *Poilane 15908* (P barcode P01903386!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903386; isolectotypes P barcode P01903387!, VNM barcode VNM00003724!).

Notes:—Three gatherings were cited in the protologue: *Poilane 15908*, *15917* and *Watt 5182*. The locality of *Poilane 15917* is same as that of *Poilane 15908* as the following words were recorded on its label: "Raweau de thê cuilli a coté du no. *15908*", but this is not what Gagnepain cited in the protologue "Cambodge: Pnom-chom, prov. Kompong-chnang". Sealy (1958) incorrectly cited the locatlity of *Poilane 15908* as Cambodia whereas Ming (2000) repeated Gagnepain's incorrect record of *Poilane 15917*. The lectotype P01903386 bears Gagnepain's drawing of a dissected flower bud.

Additional specimens examined (syntypes):—LAOS. [Attapeu]: entre Nong Met et B. Thuôt, plateau des Boloven, 700 m, 8 October 1928, *Poilane 15917* (P barcode P01903388!). INDIA. Manipur: Ching Sow, 5000–7000 ft, January 1882, *Watt 5182* (K!, P barcode P04500196!).

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Thea confusa Craib (1914: 5)

≡ Camellia kissi Wall. var. confusa (Craib) Ming (1997: 300)
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Lectotype (first-step designated by Craib 1925: 131):—THAILAND. Chiang Mai: Doi Soutep, 4000–5000 ft, 31 October 1909, *Kerr 889* (K!, two sheets; second-step lectotype designated here: K barcode K000704304!, the image of the lectotype is available at http://apps.kew.org/herbcat/getImage.do?imageBarcode=K000704304; isolectotypes BM barcode BM000603018!, K barcode K000704692!, P barcode P04511822!, TCD barcode TCD0010537!).

Notes:—Four gatherings were cited in the protologue: *Kerr 889*, *1363*, *Garrett 100* and *Hosseus 180*. Later Craib (1925) cited "*Kerr*, *889* [type!]" by which he selected *Kerr 889* as the lectotype (Arts. 9.17 and 40 Note 1 of the ICN). Ming (2000) further denoted "*Kerr 889* (K)" as the lectotype but failed to fix the lectotype to a single specimen at K. The lectotypifications of both Craib (1925) and Ming (2000) must be followed (Art. 9.17 of the ICN) and K000704304 is designated here as the second-step lectotype because it has dissected flowers in its attached pocket.

Additional specimens examined (syntypes):—THAILAND. [Chiang Mai]: Doi Soutep, 4200 ft, 4 September 1910, *Kerr 1363* (BM!, K barcodes K000704693! and K000704694!, TCD barcode TCD0010541!); Doi Sutep, 18°49'N, 98°53'E, 1605 m, 20 November 1910, *Garrett 100* (BK barcode 203731!, K barcode K000704697!, TCD barcode TCD0010542!); Doi-Sutep, 1700 m, 11 December 1904, *Hosseus 180* (BM!, C!, E barcode E00681091!, K barcode K000704695!, M barcode M-0111973 [digital photo!], P barcodes P04511823! and P04511825!).

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Thea connata Craib (1914: 6)

≡ Camellia connata (Craib) Craib (1925: 131)
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Lectotype (first-step designated by Sealy 1958: 146):—THAILAND. [Chiang Mai]: Doi Sutep, 5000 ft, 25 June 1911, *Kerr 1878* (K!, two sheets; second-step lectotype designated here: K barcode K000704325!, the image of the lectotype is available at http://apps.kew.org/herbcat/getImage.do?imageBarcode=K000704325; isolectotypes BM barcode BM000603019!, K barcode K000704326!, P barcode P04511820!, TCD barcode TCD0010539!).

Notes:—Craib (1914) cited two gatherings "*Kerr 1878*, 2732" in the protologue. Sealy (1958) designated the collection "*A.F.G. Kerr 1878*" in K as the type but this collection has two duplicates at K (barcodes K000704325 and K000704326). So Sealy's lectotypification can be considered as the first-step (Art. 9.17 Ex. 12 of the ICN). The specimen K000704325 has more flowers and detailed collection information so it is designated here as the second-step lectotype.

Additional specimens examined (syntypes):—THAILAND. [Chiang Mai]: Doi Sutep, 5500 ft, 6 October 1912, *Kerr 2732* (BM barcode BM000603029!, K!, TCD barcode TCD0010540!).

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Thea corallina Gagnepain (1942: 126) 

≡ Camellia corallina (Gagnep.) Sealy (1958: 132)
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Lectotype (first-step designated by Ming 2000: 147):—VIETNAM. [Da Nang]: Ba-Na, près de Tourane, 1000–1100 m, 28 February 1939, *Poilane 29135* (P, two sheets; second-step lectotype designated here: P barcode P04511818!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p04511818; isolectotypes K!, K barcode K000380544!, KUN barcode 1205985!, P barcode P01903407!, VNM barcodes VNM00003765! and VNM00003766!).

Notes:—Gagnepain (1942) cited three gatherings *Poilane 29135*, *29165* and *29920* in the protologue. Ming's (2000) citation "Lectotype: Vietnam, Tourane, *Poilane 29135* (K, P)" on page 145 was not an effected lectotypification because the single herbarium in which the lectotype was housed was not specified (Art. 9.22 of the ICN). He subsequently, however, cited the specimen "*E. Poilane...29135* (后选模式 [means lectotype], P)" on page 147 of the same publication (Ming 2000) by which the lectotypification was legitimized (Art. 7.10 of the ICN) and, according to Art. 9.17 Ex. 12 of the ICN, should be treated as the first-step because there are two specimens of this gathering at P (barcodes P01903407 and P04511818). The specimen P04511818 bears Gagnepain's drawing of a dissected flower and so it is designated here as the second-step lectotype.

Additional specimens examined (syntypes):—VIETNAM. [Da Nang]: Ba-Na, près de Tourane, 1200–1500 m, 1 March 1939, *Poilane 29165* (A barcode 00025096 [digital photo!], P barcodes P04511817! and P04511819!); [Thua Thien Hue]: Núi Bach Ma Station d'altitude près de Hué, 500–1000 m, 22 April 1939, *Poilane 29920* (A barcode 00025095 [digital photo!], K barcode K000380543!, P barcodes P01903406! and P04511816!, VNM barcodes VNM00003767! and VNM00003768!).

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Thea fleuryi Chevalier (1919: 531)

≡ Camellia fleuryi (A.Chev.) Sealy (1949: 217)
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Lectotype (first-step designated by Ming 2000: 218):—VIETNAM. [Khanh Hoa]: Nha Trang, massif de Hònbà, 1000 m, 20–22 September 1918, *Chevalier 38672* (P!, four sheets; second-step lectotype designated here: P barcode P00700353!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p00700353; isolectotypes P barcodes P00700351!, P00700352! and P05312518!).

Notes:—Chevalier (1919) did not cite a specific specimen in the protologue but wrote "Mss. in Herb., espèce arborescente eroissant dans la forêt vierge du Hon-bà par 1000 m. d'altitude". The elevation in the protologue matches with that of *Chevalier 38672*. The specific epithet "*fleuryi*" is, however, clearly named after F. Fleury, the collector of *Fleury 38794* (Sealy [1958] cited "*T. Fleury* [in herb. *A. Chevalier 38794*]"), so it might be reasonable to select *Fleury 38794* as the lectotype though its elevation is 800 m and differs from that in the protologue. Nevertheless, Ming (2000) chose *Chevalier 38672* (P) as the lectotype (Art. 9.19 of the ICN) but this collection has four duplicates (barcodes P00700351, P00700352, P00700353 and P05312518) there. It should be considered as the first-step lectotypification (Art. 9.17 Ex. 12 of the ICN). The specimens P00700353 bears Gagnepain's drawing so it is designated here as the second-step lectotype.

Additional specimens examined (syntypes):—VIETNAM. [Khanh Hoa]: Nha Trang, massif de Hònbà, 800 m, September 1918, *Fleury 38794* (P barcodes P00700357!, P00700358!, P00700359! and P00700360!).

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Thea gaudichaudii Gagnepain (1942: 127)

≡ Camellia gaudichaudii (Gagnep.) Sealy (1949: 217)
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Lectotype (designated here):—VIETNAM. [Da Nang]: Tourane, *Gaudichaud 271* (P barcode P01903397!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903397; isolectotype P barcode P01903398!).

Notes:—Gaudichaud 271 was one of the syntypes of *C. hongkongensis* Seemann (1859: 342) but Gagnepain (1942) recognized this single gathering to represent a different species. Three sheets of this gathering were found at P (barcodes P01903397, P01903398 and P01903399) and all bear Gagnepain's manuscript note "Thea gaudichaudii Gagnep.". There is a red tag "TYPE" attached on the sheet P01903397 that is absent on the other two sheets. However, the red tag was used after 2003 (correspondence with Dr. Sovanmoly Hul of herbarium P, Colhelper ID: 54849), and thus was not so labelled by Gagnepain himself. So these three sheets are syntypes (Art. 40 Note 1 of the ICN).

The specimen P01903398 has one gynoecium in the attached pocket but P01903397 has two of them with bracteole fragments, so the latter is designated here as the lectotype. The plant material of P01903399 may be mixed with *C. hongkongensis* so it is not recognized as an isolectotype of *T. gaudichaudii*.

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Thea gilbertii Chevalier (1919: 531)

≡ Camellia gilbertii (A.Chev.) Sealy (1958: 136)
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Lectotype (first-step designated by Ming 2000: 149):—VIETNAM. Phu Tho: Thanh Ba, October 1917, *Gilbert 37714* (P!, four sheets; second-step lectotype designated here: P barcode P01903392!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903392; isolectotypes P barcodes P01903393!, P01903394! and P01903395!).

Notes:—No specific specimen was cited in the protologue. Chevalier wrote "Mss. in Herb., …assez rëpandu dans les forêts du Tonkin (provinces de Phu-tho, de Tuyên-quang, de Mon-cay, etc.)" in the protologue. *Gilbert 37714* (P) was selected by Ming (2000) as the lectotype but this collection has four duplicates at P (barcodes P01903392, P01903393, P01903394 and P01903395). So Ming's lectotypification should be treated as the first-step (Art. 9.17 Ex. 12 of the ICN). The second-step lectotype is here narrowed to P01903392 because this sheet has a dissected mature flower in its pocket which is lacking in the isolectotype materials.

The specific epithet of this species was "gilberti" in the protologue. It should be treated as an orthographical error of "gilbertii" according to Arts. 60.12 and 60C.1 (b) of the ICN.

Additional specimens examined (syntypes):—VIETNAM. [Phu Tho]: Thanh Ba, June 1918, *Gilbert 37541* (P barcode P05191437!); October 1917, *Gilbert s. n.* (VNM barcode VNM00003764!); December 1917, *Gilbert 37715* (P barcode P01903396!); 23 December 1918, *Chevalier 39552* (P barcodes P05191436!, P05248031! and P05248032!).

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Thea krempfii Gagnepain (1942: 127)

≡ Camellia krempfii (Gagnep.) Sealy (1949: 219)
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Lectotype (designated here):—VIETNAM. Khanh Hoa: contreforts du Ton Ha, 100 m, April 1912, *Krempf 1564* (P barcode P00700354!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p00700354; isolectotype P barcode P01903385!).

Notes:—A single gathering was cited in the protologue; however, two specimens of *Krempf 1564* were found at P (barcodes P00700354 and P01903385). The specimen P00700354 has a manuscript diagnosis so it is designated here as the lectotype.

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Thea laotica Gagnepain (1942: 128) 

≡ Camellia laotica (Gagnep.) Ming (1999: 153)
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Lectotype (first-step designated by Sealy 1958: 222):—LAOS. Savannakhet: entre Lang a xinhxa ne et L. xoan, 10 April 1927, *Poilane 13693* (P!, two sheets; second-step lectotype designated here: P barcode P04511456!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p04511456; isolectotypes A barcode 00025098 [digital photo!], K barcode K000704322!, P barcode P04511457!, VNM barcode VNM00003799!).

Notes:—Three gatherings were cited in the protologue: *Poilane 13268*, *13693* and *13743*. Sealy (1958) selected *Poilane 13693* at P, consisting of two specimens (barcodes P04511456 and P04511457), as the lectotype and, unfortunately, this first-step lectotypification (Art. 9.17 Ex. 12 of the ICN) must be followed (Art. 9.19 of the ICN) though there is Gagnepain's drawing of a dissected flower bud attached on *Poilane 13268* (P01903384). The specimen P04511456 is designated here as the second-step lectotype because it has two immature fruits in its attached pocket.

Another syntype, *Poilane 13743*, was excluded from *T. laotica* and recognized as representing a new species by Sealy (1958) but he only named it "*Camellia sp.*" because he thought "...in the absence of corolla, androecium, fruits and seeds, it seems unwise to give it a name". However, Ming (1999) subsequently gave it a name, *Camellia sealyana* Ming (1999: 158), to honour Sealy.

Additional specimens examined (syntypes):—LAOS. Savannakhet: entre Lao-bao et Muong-non, 17 April 1927, *Poilane 13268* (P barcodes P01903384! and P04511458!, VNM barcode VNM00003798!).

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Thea nematodea Gagnepain (1942: 129) 

≡ Camellia nematodea (Gagnep.) Sealy (1958: 135)
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Lectotype (first-step designated by Sealy 1958: 136):—VIETNAM. [Khanh Hoa]: km. 25, route de Nhatrang à Ninh-hoa, 100 m, 24 October 1923, *Poilane 8371* (P!, three sheets; second-step lectotype designated here: P barcode P01903377!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903377; isolectotypes K barcodes K000380545! and K000380546!, KUN barcode 1206031!, P barcodes P01903376! and P05312500!, VNM barcodes VNM00003802!, VNM00003803! and VNM00003804!).

Notes:—A single gathering *Poilane 8371* was cited in the protologue. Sealy (1958) selected a part of this single gathering conserved in P (barcodes P01903376, P01903377 and P05312500) as the type, which should be considered as the first-step lectotypification (Art. 9.17 Ex. 12 of the ICN). It is further narrowed to P01903377 as the second-step lectotype here because this sheet bears Gagnepain's drawing.

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Thea nervosa Gagnepain (1942: 129)

≡ Camellia nervosa (Gagnep.) Chang (1981: 96)
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Lectotype (first-step designated by Sealy 1958: 222):—VIETNAM. [Lam Dong]: massif du Braïan, près de Djiring, 14 February 1935, *Poilane 24305* (P!, three sheets; second-step lectotype designated here: P barcode P01903375!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903375; isolectotypes A barcode 00025099 [digital photo!], K barcodes K000704303! and K000704698!, KUN barcode 1206034!, P barcodes P01903374! and P04511810!, PE barcode 01432084!, SING barcode SING 0204889!, VNM barcode VNM00003807!).

Notes:—Two gatherings were cited in the protologue: *Poilane 24305* and *13576*. Sealy (1958) chose *Poilane 24305* (P), consisting of three sheets (barcodes P01903374, P01903375 and P04511810), to be the type, which should be treated as the first-step lectotypification (Art. 9.17 Ex. 12 of the ICN). It is narrowed to P01903375 as the second-step lectotype here since this sheet bears Gagnepain's drawing. Another syntype, *Poilane 13576*, has been recognized as a different species (Sealy 1958, Chang 1981, Ming 2000).

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Thea pleurocarpa Gagnepain (1942: 130) 

≡ Camellia pleurocarpa (Gagnep.) Sealy (1958: 38)
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Lectotype (designated here):—VIETNAM. [Thanh Hoa]: La Han, 500 m, 5 August 1920, *Poilane 1731* (P barcode P01903367!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903367; isolectotypes A barcode 00025100 [digital photo!], K barcode K000704302!, P barcodes P01903368! and P04500229!).

Notes:—A single gathering *Poilane 1731* was cited in the protologue. Only P01903367 and P04500229 have fruits but the former also has seeds so it is designated here as the lectotype.

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Thea taliensis Smith (1917: 73)

≡ Camellia taliensis (W.W.Sm.) Melchior (1925: 131)
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Lectotype (first-step designated by Ming 2000: 119):—CHINA. Yunnan: Ghi Shan east of Tali Lake, 25°48'N, 9000 ft, August 1914, *Forrest 13477* (E!, two sheets; second-step lectotype designated here: E barcode E00284542!, the image of the lectotype is available at http://data.rbge.org.uk/herb/E00284542; isolectotypes BM barcode BM000611997!, E barcode E00284543!, K barcode K000704280!, SYS barcodes SYS00091976! and SYS00091977!).

Notes:—Three gatherings were cited in the protologue: Forrest 13477, 13503 and 8210. The lectotypification of Ming (2000) was not effected when he cited "Lectotype: Yunnan, Tali, G. Forrest 13477 (E, K)" on page 118 (Art. 9.22 of the ICN) but was later made legitimate when he wrote "G. Forrest 13477 (模式 [means type], E)" on page 119 of the same publication (Ming 2000). Since there are two duplicates of Forrest 13477 at E (barcodes E00284542 and E00284543), the second-step lectotype is narrowed to E00284542 because it has flowers and E00284543 does not.

Additional specimens examined (syntypes):—CHINA. Yunnan: Flanks of the Mingkwong Valley, 25°15'N, 6000–7000 ft, June 1912, *Forrest 8210* (E barcode E00117966!, K barcode K000704281!); western flank of the Tali Range, 7000–8000 ft, 25°40'N, August 1914, *Forrest 13503* (E barcode E00284544!, K barcode K000704282!).

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Thea tonkinensis Pitard (1910: 343) 

≡ Camellia tonkinensis (Pit.) Cohen-Stuart (1916: 67)
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Lectotype (designated here):—VIETNAM. [Hanoi]: vallée de Lankok (Mont. Bavi), 24 November 1887, *Balansa 3860* (P barcode P01903514!, the image of the lectotype is available at https://science.mnhn.fr/institution/mnhn/collection/p/item/p01903514; isolectotype P barcode P01903515!).

Notes:—Pitard cited "Tonkin: forêt de la vallée de Lankok (*Balansa*)" in the protologue. Only *Balansa 3860*, consisting of two duplicates at P (barcodes P01903514 and P01903515), was found that accords with the protologue. The specimen P01903514 bears a drawing and Pitard's slip "*Thea tonkinensis* sp. n." so it is designated here as the lectotype.

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