

Lectotypifications of and taxonomic notes on *Mabea* (Euphorbiaceae)

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Abstract

As part of ongoing studies in *Mabea*, 21 lectotypes are proposed here. Taxonomic and nomenclatural notes are provided for several species; among these is the new name of *Mabea speciosa* subsp. *guianensis* proposed for *Mabea caudata* var. *concolor*, and the new combination *Mabea speciosa* subsp. *obovata* based on *Mabea piriri* var. *obovata*.

Key words: *Comb. nov.*, Hippomaneae, *nom. nov.*, typifications

Introduction

Mabea Aublet (1775: 867) is a Neotropical genus of Euphorbiaceae with currently 39 accepted species, distributed from Mexico to Bolivia and Paraguay. It was historically treated by Müller Argoviensis (1866) and later by Pax & Hoffmann (1912). A comprehensive taxonomic treatment was provided in the doctoral thesis of Esser (1994), which, however, was not effectively published under the International Code of Nomenclature (ICN Art. 30.9, Turland *et al.* 2024). The taxonomy of this thesis had been published later as part of the World Checklist of Euphorbiaceae (Esser 2000; POWO 2026 is based on it but is not completely identical with it). Since then, few new species were published (Martínez Gordillo *et al.* 2000, Bigio *et al.* 2022), some more await description.

Mabea was revised for several countries and regions, such as the Guianas (den Hollander & Berg 1986), Panama (Webster & Huft 1988), Costa Rica (Burger & Huft 1995), Mexico (Martínez Gordillo *et al.* 2000). Some more detailed Flora treatments included descriptions and keys but without being a full revision, such as for Venezuelan Guayana (Esser 1999) and Brazil (Cordeiro *et al.* 2020); however, hardly any of these publications included type citations. Therefore, numerous lectotypes are designated here, along with some additional nomenclatural and taxonomic notes. Herbarium acronyms follow the Index Herbariorum (Thiers 2025, continuously updated).

Taxonomy

Mabea anadena Pax & Hoffmann (1919: 56). Type:—BRAZIL. Amazonas: Rio Acre, Seringai S. Francisco, August 1911, *Ule* 9548 (holotype B lost, photo F Neg. No. 5415, lectotype G [G00441745!] designated here; isoelectotypes F [F042467F!], K [K000600818!], L [L0016237!], US [US00026268!]).

Mabea angustifolia Spruce ex Benth. (1854: 365).—*Mabea angustifolia* Spruce ex Benth. var. *genuina* Müller Argoviensis (1866: 1149), *nom. inval.* Type:—BRAZIL. Pará: in vicinibus Santarem, April 1850, *Spruce* 774 (holotype K [K000600699!]; isotypes BM [BM000947484!], C [C10011300!], F [V0056838F!], GH [GH00055243!], GH00055246!, GOET [GOET003617!], KW [KW001002681!], M [M0275094!], MG [MG019540], NY [NY00263534!], P [P00716851!, P00716852!], TCD [TCD0000482!], W [W1889-0145057!, W1889-0159415!]).

Mabea angustifolia Spruce ex Benth. var. *oblonga* Benth. (1854: 365). Typus:—BRAZIL Pará: in vicinibus Obidos, December 1849, *Spruce* 457 (lectotype K [K000600701!] designated here; isoelectotypes F!, P [P00716853!], TCD [TCD0000483!], W [W1889-0159417!]).

Mabea angustifolia Spruce ex Benth. var. *myrtifolia* Müller Argoviensis (1874: 519). Type:—BRAZIL. Pará: s.loc., *Sieber* s.n. (lectotype G-DC [G00441740!] designated here; isoelectotype BR [BR0000005106356!]).

Mabea angustifolia Spruce ex Benth. var. *major* Müller Argoviensis (1874: 520). Type:—BRAZIL. Amazonas: Borba, s.dat., *Riedel* 1300 (lectotype G-DC [G00441741!] designated here; possible isoelectotypes G [G00441742!], GH [GH00055247!], LE, NY [NY01281184!, NY01281185!, NY01281186!], P [P00716854!]).

Mabea riedelii Müller Argoviensis (1874: 518). Type:—BRAZIL. Minas Gerais: Rio de Cachoeira de Chapada, s.dat., *Riedel* 998 (lectotype G-DC [G00441738!] designated here; isoelectotypes LE, P [P00716850!]).

Note:—Duplicates of *Spruce* 457 were distributed unnumbered; only the original duplicate sheet in K has a label numbered with 457 in pencil. It should be noted that type specimen of *Licania latifolia* Benth. ex Hooker (1867: 11; Chrysobalanaceae) at K is also labelled as *Spruce* 457 in pencil, with the same collection locality and date.

Mabea anomala Müller Argoviensis (1874: 526). Type:—BRAZIL. Amazonas: Barra do Rio Negro [Manaus], s.dat., *Riedel* s.n. (lectotype G-DC [G00441737!] designated here; isoelectotype LE).

There has been some confusion in the past about the identity of this species (e.g., by Huft 1987). It is, however, well recognizable by the glabrous, shallowly serrate leaves, the unusually small inflorescences, the staminate part with 20–40 × 5–8 mm being the smallest in the genus, and the short pistillate calyx up to 1.5 mm long with only 3 (not 6 as in other species) visible sepals.

Mabea glaziovii Pax & Hoffmann (1912: 37). Type:—BRAZIL. Minas Gerais: Morro Velho, s.dat., *Glaziou* 14247 (holotype B lost, lectotype P [P00716857!] designated here; isoelectotypes BM [BM000947493!], BR [BR0000005100798!], C [C10011303!, C10011304!], G [G00441732!], NY [NY00263539!]).

Mabea montana Müller Argoviensis (1866: 1151). Type:—COLOMBIA. Santander: Piedecuesta, 1846–1852, *Schlim* 1132 (lectotype G [G00441731!], designated by den Hollander & Berg 1986; isoelectotypes BR [BR0000005100149!], F [F0056851F!], G [G00441729!, G G00441730!], G-DC [G00316195!], K [K000600804!]).

Mabea verrucosa Pax & Hoffmann (1912: 37). Type:—TRINIDAD. Carenage, 08 January 1908, *Broadway* 2738 (holotype B lost, lectotype F [F000600836!] designated here; isoelectotypes K [K000600703!], NY [NY00058537!]).

Mabea costata Pax & Hoffmann (1914: 419). Type:—GUYANA. Without locality, April 1899, *Jenman* 7545 (holotype B lost, photo F Neg.No. 5419, lectotype K [K000600836!] inadvertently designated by den Hollander & Berg 1986).

Mabea nitida Spruce ex Benth. (1854: 367). Type:—BRAZIL. Amazonas: In vicinibus Barra [Manaus], January 1851 / December 1850–March 1851, *Spruce* 1118 / 1193 (lectotype M [M0275097!] designated by den Hollander & Berg 1986; isoelectotypes BM [BM000947488!], E [E00042368!, E00042369!], FI [FI011684!], G [G00441727!, G00441728!], GH [GH00055258!], GOET [GOET003619!], K [K000600832!], MG [MG019545], NY [NY00263551!], P [P00716860!, P00716861!], TCD [TCD0000484!], W [W 1889-0145059!, W 1889-0159420!]; see notes.

Mabea nitida Spruce ex Benth. var. *purpurascens* Müller Argoviensis (1866: 525). Type:—BRAZIL. Amazonas: Ad oram septentrionalem flum. Amazonum, ad ostium Rio Negro, August 1851, *Spruce* 1663 (lectotype BR [BR0000005100477!] designated here; isoelectotypes BM, F [F0056853F!, F0056857F!], K [K000600829!, K000600830!], MG [MG019542!], NY [NY00263553!], TCD [TCD0000487], W [W1889-0159420!, W1889-0159422!]).

Mabea nitida Spruce ex Benth. var. *albiflora* Baillon (1858: 413, *nom. nud.*) ex Müller Argoviensis (1866: 525). Type:—BRAZIL. Amazonas: Ad oram septentrionalem flum. Amazonum, ad ostium Rio Negro, August 1851, *Spruce* 1753 (lectotype G [G00441794!] designated here; isoelectotypes BM, BR [BR0000005100804!], C!, E [E00042370!, E00042371!], G [G00441793!], G-DC [G00316200!], GH!, K [K000600831!], MG [MG019541!], NY [NY00263548!, NY00263549!], P [P00716862!, P00716863!], TCD [TCD0000486!], W [W1889-0159421!, W1889-0145056!]).

Mabea depauperata Pax & Hoffmann (1919: 56). Type:—BRAZIL. Roraima: Rio Branco, bei der Serra Pellada, October 1908, *Ule* 7646 (holotype B lost, photo F Neg.No. 5420, lectotype MG [MG012761!] designated here; isoelectotypes G!, K [K000600815!], L [L0016238!]).

Note:—Den Hollander & Berg (1986) designated the lectotype of *M. nitida* in M as *Spruce* 1118. Unnumbered Spruce collections were often given numbers in M that were not identical with the original Spruce collection numbers present in K (as seen from the different handwriting). In this case the original duplicate at K was numbered as 1193, the number in M is not original. All other duplicates seen are unnumbered but undoubtedly are duplicates of a single gathering (the only fruiting one with characteristic leathery leaves), so that 1193 is accepted as collection number. The collection date of January 1851 is shown on the K sheet, duplicates are labelled as ‘December–March 1850–51’.

The lectotypes of *M. nitida* var. *albiflora* and *M. nitida* var. *purpurascens* designated here had been annotated by its author, Müller Argoviensis (in sched.). Both are also syntypes of the species itself, *M. nitida* (Bentham 1854: ‘where he [i.e., Spruce] found two varieties, one with purplish flowers, one with white flowers’). These varieties were named and published by Müller Argoviensis (1866).

Mabea occidentalis Bentham (1854: 364).—*Mabea occidentalis* Benth. var. *genuina* Müller Argoviensis (1874: 521), *nom. inval.*, *p.p.* Type:—MEXICO. Tabasco: Teapa, borde de la rivière thermale de l’hacienda del Azufre près de Teapa, January 1840, *Linden 886* (lectotype K [K000600704!] designated here; isoelectotypes G [G00441791!], KW [KW001002684!], P [P00716865!]).

Mabea pallida Müller Argoviensis (1866: 1151). Type:—VENEZUELA. Carabobo: Puerto Cabellos, s.dat., *Karsten 167* (holotype B lost, F Neg. 5426, lectotype G-DC [G00316139!] designated here; isoelectotypes BM [BM000799364!], KIEL!).

Note:—There are two distinct gatherings of *M. occidentalis* labelled as *Linden 886*, both from Mexico, Tabasco, Teapa. These are the lectotype designated here and *Linden 886*, Teapa, December 1839 (G!). According to den Hollander’s unpublished and more detailed thesis (1985), the latter specimen was intended to serve as the lectotype by den Hollander & Berg (1986). However, no duplicate of this specimen exists at K, and it is obviously not original material. Therefore, a new lectotype is designated here, corresponding to the only specimen of *Linden 886* found at K.

Mabea piriri Aublet (1775: 867, pl. 334 fig. 1).—*Mabea piriri* Aubl. var. *genuina* Müller Argoviensis (1866: 1150), *nom. inval.* Type:—FRENCH GUIANA. Cayenne, s.dat., *Aublet s.n.* (lectotype BM [BM000799363!] inadvertently designated by den Hollander & Berg 1986).

Mabea piriri Aubl. var. *concolor* Müller Argoviensis (1866: 1150).—*Mabea occidentalis* Benth. var. *concolor* (Müll.Arg.) Müller Argoviensis (1874: 522).—*Mabea speciosa* Müll.Arg. subsp. *concolor* (Müll.Arg.) den Hollander in den Hollander & Berg (1986: 154). Type:—BRAZIL. Bahia: Ilhéus, s.dat., *Blanchet 2326* (lectotype G [G00441784!] designated by den Hollander & Berg (1986); isoelectotypes G-DC [G00316128!], F [F0056860F!], K [K000600845!], NY [NY00058534!], OXF!, P [P00716878!, P00716880!, P00716881!], TUB [TUB 009177!], probably also W [‘s.n.’, W0051360!])

Mabea maynensis Spruce (1860: 7). Type:—PERU. San Martin: In valle humido secus vertice montis Guayrapurina / prope Tarapoto, September 1856, *Spruce 4888* (lectotype K [K000600806!] designated here; isoelectotypes BM [BM000799361!], BR [BR0000005100156 [C10011306!], E [E00042321!], F [F0042470F!, F0056850F!], G [G00441785!, G00441786!], G-DC [G00316196!], GH [GH00055256!], GOET [GOET003620], K [K000600805!], KW [KW001002689!], MG MG019548!], MPU [MPU015276!], NY [NY00058533!], P [P00716873!, P00716874!], W [W0051367!, W1889-0105037!]).

Mabea brasiliensis Müller Argoviensis (1866: 1151).—*Mabea brasiliensis* Müll.Arg. var. *genuina* (Müll.Arg.) Pax & Hoffmann (1912: 36), *nom. inval.* Type:—BRAZIL. Rio de Janeiro: s.dat., *Riedel s.n.* (lectotype GH [GH00055248!] designated here; isoelectotypes BM [BM000947486!], C [C10011307!, C10011311!], F [F0056843F!, F0056844F!], G [G00441787!], GH [GH00057969!], GOET [GOET003621!], L [L0016241!], LE, NY [NY00008371!, NY00008372!], P [P00716875!, P00716876!, P00716877!], S [S-R-3376!], US [US00026269!, US00433203!], W [W0051370!]).

Mabea brasiliensis Müll.Arg. var. *intermedia* Pax & Hoffmann (1912: 36). Type:—BRAZIL. Rio de Janeiro: Palmeiras, 23 September 1876, *Glaziou 8925* (lectotype P [P0071867!] designated here; isoelectotypes BR [BR0000005100484!], C [C10011309!], F!).

Note:—Den Hollander & Berg (1986) treated *M. piriri* var. *concolor* under *M. speciosa*. However, the variety was based on two syntypes that are not conspecific. While *Leprieur s.n.* (G!) from French Guiana is indeed *M. speciosa*, the second syntype, *Blanchet 2326* from Bahia belongs to *M. piriri*. *Mabea speciosa* does not occur in Bahia whereas *M. piriri* is known from the state. Moreover, several leaf characters (e.g., being glabrous, lower number of leaf veins) and inflorescence characters (e.g., shorter styles) of the lectotype of var. *concolor* are consistent with *M. piriri*.

Mabea pohliana (Benth.) Müller Argoviensis (1866: 1152).—*Mabea paniculata* Spruce ex Benth. var. *pohliana* Bentham (1854: 368). Type:—BRAZIL. Goiás: Corralinho, s.dat., *Pohl 1699* (lectotype K [K000600820!] designated here; isoelectotypes F, M [M0275095!], W [W0051364! W0051365!]).

Mabea speciosa Müller Argoviensis (1874: 520). Type:—BRAZIL. Amazonas: Rio Negro, s.dat., *Riedel 1583* (lectotype G-DC [G00441780!] inadvertently designated by den Hollander & Berg 1986; probable isoelectotypes (‘s.n.’) GH [GH00055261!], K!, LE, NY [NY00008377!], OXF!, P!).

Mabea occidentalis Benth. var. *setulosa* Müller Argoviensis (1874: 522).—*Mabea setulosa* (Müll.Arg.) den Hollander (in den Hollander & Berg 1986: 153, fig. 2). Type:—BRAZIL. Bahia: “prope Almada”, *Martius s.n.* (lectotype G-DC [G00441779!] designated by den Hollander & Berg, 1986); isoelectotype M [M0275098!]; see note.

Mabea caudata Pax & Hoffmann (1912: 282). Type:—GUYANA. Potaro-Siparuni: Conawaruk River, September 1905, Bartlett 8217 (holotype B lost, photo F Neg. No. 5418, lectotype K [K000600847!]) inadvertently designated by den Hollander & Berg (1986).

Note:—*Mabea speciosa* is strictly Amazonian and does not occur in Bahia. The type gathering of *M. setulosa* agrees well with other known gatherings from central Amazonia in leaf shape and size. It is therefore possible that the locality data on the label of the Martius gathering are erroneous. Although label mix-ups are rare in Martius collections, they are known to occur. The distinctive indumentum of unbranched, setulose trichomes in *M. setulosa* is not sufficient to distinguish it from *M. speciosa*. A similar case is found in *M. angustifolia*: Anderson *et al.* 11010 (AAU!, DAV!, K!, NY!) has the same setulose pubescence, whereas all other known collections of the species have dendritic trichomes. This variation may have an ecological cause, as Anderson *et al.* 11010 was collected from an inundated plant, while the species is otherwise found on terra firme.

Mabea speciosa is quite variable in some leaf characters, particularly in leaf shape and size, whereas its inflorescences and fruits are notably uniform. Most of this foliar variation is connected by intermediate collections and is therefore treated here as variation within the typical subspecies. In the Guianas, however, several collections show consistent morphological differences and are recognized here as distinct subspecies. Although the differences between them appear minor they are distinguished because their distributions do not overlap, and the morphological characters are not connected by intermediates.

Key to the subspecies of *Mabea speciosa*

1. Leaves glabrous, not glaucous beneath when dried, lateral veins 12–14(–16) pairs; Suriname *M. speciosa* subsp. *guianensis*
1. Leaves glabrous or pubescent beneath, glaucous beneath when dried, lateral veins 10–22 pairs 2
2. Leaves obovate to elliptic, glabrous, with 10–14(–17) pairs of lateral veins; fruits 12–13 mm long excluding style; Brazil (Amapá), French Guiana *M. speciosa* subsp. *obovata*
2. Leaves elliptic to oblong, not obovate, pubescent beneath, with 14–22 pairs of lateral veins; fruits (12–)14–17 mm long excluding style; Peru to Brazil *M. speciosa* subsp. *speciosa*

Mabea speciosa Müll.Arg. subsp. *guianensis* Esser, *nom. et stat. nov.*—*Mabea caudata* Pax & K.Hoffm. var. *concolor* Lanjouw (1931: 39). Type:—SURINAME. Brownsberg: Brokopondo, 13 October 1910, *Gonggrijp s.n.* (holotype U [U0001975!]).

Mabea saramaccensis Croizat (in Maguire *et al.* 1948: 405). Type:—SURINAME. Sipaliwini: Saramacca River Headwaters, Middle Camp, 15 July 1944, *Maguire NY 24123* (holotype A [A00055260!]; isotypes NY [NY00058536!], U [U0001976!], US [US00026271!]).

Distribution:—The subspecies *guianensis* is endemic to Suriname, and is allopatric with the other subspecies.

Note:—The name of subsp. *concolor* under *M. speciosa* is preoccupied, so that a new name is required.

Mabea speciosa Müll.Arg. subsp. *obovata* (Müll.Arg.) Esser, *comb. et stat. nov.*—*Mabea piriri* Aubl. var. *obovata* Müller Argoviensis (1866: 1150).—*Mabea occidentalis* Benth. var. *obovata* (Müll.Arg.) Müller Argoviensis (1874: 521). Type:—GUYANE FRANÇAISE: Cayenne, s.dat., *Perrottet 50* (lectotype G [G00441778!]) designated here).

Mabea piriri Aubl. var. *purpurascens* Müller Argoviensis (1866: 1150).—*Mabea occidentalis* Benth. var. *purpurascens* (Müll.Arg.) Müller Argoviensis (1874: 522). Type:—GUYANE FRANÇAISE: Cayenne, 1819–1821, *Poiteau s.n.* (lectotype G [G00441777!]) designated here; possible isoelectotypes BR, G-DC [G00316125!], K [K000600848!]).

Note:—This subspecies was recognized as *M. speciosa* subsp. *concolor* by den Hollander & Berg (1986). However, their choice of lectotype fixed the application of the name *concolor* to material belonging to *M. piriri*, rendering it a synonym of that species. Consequently, the taxon requires a new name here.

Distribution:—The subspecies *obovata* is known from Brazil (Estado do Amapá) and French Guiana, and is allopatric with the other subspecies.

Mabea subsessilis Pax & Hoffmann (1912: 282). Type:—BRAZIL. Without locality (see note), s.dat., *Glaziou 10035* (holotype C [C10011312!]; isotypes K [K000600828!], P [P00716887!, P00716888!]).

Note:—*Mabea subsessilis* was published without an indication of locality. Glaziou is known to have used erroneous or falsified label data for specimens collected by others (Wurdack 1970). In his own collection list, Glaziou (1912) indicated a collecting locality of ‘Itaunas, près Barro, Espírito Santo’ in Brazil, which is also the locality given on the two type sheets in P. The specimen at K bears the annotation ‘cultivated at Rio de Janeiro’. The species is however

strictly Amazonian, does obviously not occur outside of Amazonia, and the cited data are certainly incorrect. The specimen at C is very probably the holotype, annotated by Pax himself, and does not give any locality. Den Hollander & Berg (1986) cited *Glaziou 10035* (P) as ‘type’.

A specimen formerly housed at B, but now lost (*Ule 8895*, F Neg.No. 5428) from Brazil, Pensador bei Manaus, collected in September 1908, was also annotated by Pax. However, Pax’s annotation includes the reference ‘Hippomaneae p. 282’, indicating that it was made only after the name had been published. This species therefore does not constitute original material.

Mabea trianae Pax (1899: 506). Type:—COLOMBIA. Meta: ‘Prov. de Bogota’, Villavicencio, 1851–1857, *Triana 3609* (holotype B lost, photo F Neg.No. 5429, lectotype W [W0051356!] designated here; isolectotypes F [F0056866F!], FI!, W [W0051357!]).

Mabea parvifolia Pax & Hoffmann (1912: 282). Type:—COLOMBIA. Casanare: Rio Meta, Orocué, s.dat., *Lehmann 8782* (holotype B lost, photo F Neg.No. 5427, lectotype K [K000600807!] designated here; isolectotype F!).

Mabea uleana Pax & Hoffmann (1919: 56). Type:—BRAZIL. Amazonas: Manaus, bei Pensador, September 1908, *Ule 8894* (holotype B lost, photo F Neg.No. 5430, lectotype G [G00441769!] designated here; isolectotype K [K000600811!]).

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