

LECTOTYPIFICATION OF SOME BIGNONIACEAE NATIVE TO ARGENTINA

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Summary: Arbo, M. M. 2017. Lectotypification of some Bignoniaceae native to Argentina. Bonplandia 26(1): 5-14.

While working on a nomenclatural revision of Bignoniaceae native to Argentina, I noticed that some names still needed typification and that some of the earlier typifications needed adjustments. This research led to the designation of lectotypes for the following names: *Amphilophium vauthieri*, *Anemopaegma clematideum*, *Argylia uspallatensis*, *Arrabidaea rhodantha*, *A. rhodantha* var. *elliptica*, *A. rhodantha* var. *induta*, *Bignonia balbisiana*, *B. balbisiana* var. *glabra*, *B. difficilis*, *B. pterocarpa*, *B. samydoides*, *B. selloi*, *B. vitalba*, *B. vitalba* var. *extratropica*, *Dolichandra cynanchoides*, *Eccremocarpus scaber* var. *sepium*, and *Petastoma truncatum* var. *parviflorum*.

Key words: Argentina, Bignoniaceae, lectotypification, native flora, nomenclature.

Resumen: Arbo, M. M. 2017. Lectotipificación de algunas Bignoniaceas argentinas nativas. Bonplandia 26(1): 5-14.

Durante la revisión nomenclatural de las Bignoniaceae argentinas nativas, noté que algunos nombres no habían sido tipificados, y que algunas tipificaciones previas precisaban ajustes. La investigación nomenclatural llevó a la designación de lectotipos para *Amphilophium vauthieri*, *Anemopaegma clematideum*, *Argylia uspallatensis*, *Arrabidaea rhodantha*, *A. rhodantha* var. *elliptica*, *A. rhodantha* var. *induta*, *Bignonia balbisiana*, *B. balbisiana* var. *glabra*, *B. difficilis*, *B. pterocarpa*, *B. samydoides*, *B. selloi*, *B. vitalba*, *B. vitalba* var. *extratropica*, *Dolichandra cynanchoides*, *Eccremocarpus scaber* var. *sepium* y *Petastoma truncatum* var. *parviflorum*.

Palabras clave: Argentina, Bignoniaceae, flora nativa, lectotipificación, nomenclatura.

Introduction

Bignoniaceae is represented in Argentina by 21 genera and 57 species, many of which have several synonyms. While working on a nomenclatural revision of Argentine native Bignoniaceae, I noticed that some names were still lacking typification, and that some previous typifications needed adjustments.

Material and Methods

Type specimens of Bignoniaceae native to Argentina from BA, BAA, BAB, BAF, CORD, CTES, LIL, LP, and SI herbaria were analyzed. The types of other herbaria were studied by consulting high resolution images on JSTOR Global Plants (2016 and 2017); additional digital images were obtained from websites

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of the following herbaria: BM, BR, FI, G and GH. These images were analyzed in light of the morphological descriptions and collection data provided in the protogues, many of which were obtained at Biodiversity Heritage Library. Handwritings on the labels were analyzed and compared in order to select the proper lectotypes. Images of types not available as digital images were obtained through the curators of LE and TO in order to verify their existence.

Typifications were proposed according to the rules of International Code of Nomenclature (ICN) for algae, fungi, and plants (McNeill et al., 2012) and McNeill (2014). The articles cited through the text follow the ICN. Herbaria acronyms adhere to Thiers et al. (2014).

Typification

1. *Amphilophium vauthieri* DC. in Candolle (1845: 193).

Lectotype (designated here): BRAZIL. Rio de Janeiro, *Vauthier* 249 (P00608114, image!); isolectotypes: (G00133576, P00608114 and two fragments at F [V0361398F and V0361399F], images!).

Candolle cited two gatherings in the protologue: *Martius* 293, identified as *Amphilophium glanduliferum* in *Martius'* herbarium; and *Vauthier* 249.

Martius' gathering includes three samples collected in the state of São Paulo, Brazil ["*Brasilia, prov. Sebastianopolitana, via publica Paulina*"], on December [year?], two of which (M-0086343 and M-0086344) bear the number 293, while M-086345 has no number. *Vauthier* 249 is represented by three duplicates, one at G-DC (G00133576), two at P (P00608114, P00608115) and two fragments at F (V0361398F, V0361399F).

In his treatment of Bignoniacae for Panama, Gentry (1973: 791) cited *Vauthier* 249 (G-DC, P; F, fragment) just as the type, not as a lectotype as he did for *Arrabidaea pachycalyx* Sprague (1973: 806) and he did not mention syntypes as he did for *Adenocalymma hintoni* Sandwith (1973: 787).

Among the extant specimens of the original gatherings, the following ones are annotated in Candolle's handwriting: *Vauthier* 249 (G00133576, P00608114) and *Martius* 293 (M0086343). Of these, the one at P is considered more representative and therefore is selected as the lectotype.

2. *Anemopaegma clematideum* Griseb. (1874: 222) = *Amphilophium carolinae* (Lindl.) L. G. Lohmann (in Lohmann & Taylor, 2014: 402).

Lectotype (designated here): ARGENTINA. Córdoba, 1870, *Lorentz* 120 (GOET000353, image!; isolectotypes: CORD00006161! and GOET000351, image!).

Grisebach (1874) mentioned in the protologue of *Anemopaegma clematideum*, a specimen collected by Lorentz at "Cordoba, vulgaris in campis et convallibus" and cited its vernacular name as "Tripa de Braya", however, no collection number or date were quoted.

At GOET, where Grisebach worked, there are three specimens collected by Lorentz and identified as *Anemopaegma clematideum*, two of which refer to *Lorentz* 120 and a third to *Lorentz* 48. One of *Lorentz* 120 duplicates (GOET000353) was identified by Grisebach and shows the vernacular name on its label; this specimen was annotated as the holotype by Alwyn Gentry in 1987. The second duplicate of *Lorentz* 120 (GOET000351) was annotated by Gentry in 1987 as an isotype, and carries a label that is a xeroxed copy of the label of GOET000353. A third duplicate of *Lorentz* 120 (CORD00006161), was designated by Fabris (1965: 353) as the lectotype according to Pool (2007: 633); the examination of Fabris' publication revealed that Fabris only stated having seen this collection and that he did not lectotypify it. The gathering *Lorentz* 120 is represented by three specimens, so following Art. 9.5, they are syntypes. The gathering *Lorentz* 48 (GOET000352) does not bear the name *Anemopaegma clematideum* nor the vernacular name, instead, its label has the name *Pithecoctenium clematideum*, a combination made by Grisebach in 1879. This specimen was apparently acquired by GOET in 1879 ["acc. 1879"], and therefore cannot

be considered a type as it was not available to Grisebach in 1874 when he described *A. clematideum*.

3. *Argylia uspallatensis* DC. in Candolle (1845: 235).

Lectotype (designated here): ARGENTINA. Mendoza: valle de Uspallata, *Gillies s.n.* (BR0000013242695, image!; isolectotypes K000449816 and E00112987, images!).

In the protologue, Candolle (1845: 235–236) mentioned having seen a specimen at Martius herbarium “v.s. in H. Mart.” (= BR, Stafleu 1967: 296), bearing the name “*Tecoma uspallatensis* Mart.” The locality and collector as indicated in the protologue are “Corillos de Uspallata Chilensium leger. cl. Cruishank et Gillies”. In addition, there is a reference to Hooker (1831: 229), where Hooker mentioned *Argylia radiata*, and stated after that a plant “found by Mr. Cruckshanks at Corillos de Uspallata, may probably prove a second species of this beautiful genus”.

At BR there is a specimen (BR0000013242695) that bears a label with the inscription “*Tecoma* Mart., *Bignonia uspallatensis*, Gill..., Uspallata” and another label, in the handwriting of Candolle with the name “*Argylia uspallatensis*”. The collection referred through Hooker’s publication is at K and has the following information: “Chili Cruickshanks N° 65, Corillos de Uspallata”; this collection (K000449815) is glued together with additional gatherings of the same species, one collected by Gillies at “El valle de Uspallata, Andes, Mendoza”, without date or number, identified as *Bignonia uspallatensis* Gillies (K000449816) and another gathered by R.W. Pearce (K000449817). In addition, there is a duplicate of *Gillies s.n.* at E (E00112987).

A third specimen, *Gillies s.n.*, collected in Valley of Uspallata, El Agua del Guanaco on Feb 1825, is at K (K000449814) and GH (without barcode, image!) with the name *Argylia uspallatensis* DC. (by an unidentified handwriting). Gleisner & Ricardi (1969: 26) cited the GH duplicate as an isoparatype. I think that these specimens are not part of the original gathering.

Gentry (1992: 11) cited the type as *Cruckshanks & Gillies s.n.* (M, not seen), but this collection has not been found at M.

The specimen of Martius herbarium (BR0000013242695) is selected as lectotype, probably holotype, following the recommendation of McNeill (2014); the samples K000449816 and E00112987 are isolectotypes.

4. *Arrabidaea rhodantha* Bureau & K. Schum. (1896: 44) = *Fridericia dichotoma* (Jacq.) L. G. Lohmann (in Lohmann & Taylor, 2014: 436).

Lectotype (designated here): PARAGUAY. Sur les berges escarpées du Rio Paraguay, Sep 1875, *Balansa* 499 (G0008968, image!; isolectotypes: G0008880, G00085520, BR0000008799678, BR0000008801975, BR0000008802309, K000449132, LD1757331, P01817747 and P01817746, images!).

The description of this species was based on the following syntypes: Paraguay, sur les berges escarpées du Río Paraguay, Sep 1875, *Balansa* 499 (G0008968, G0008880, G00085520, BR0000008799678, BR0000008801975, BR0000008802309, K000449132, LD1757331, P01817747, P01817746); Paraguay, prope Concepción, IX-1892, *Kuntze s.n.* (NY02361426, NY02361427); Brazil, Mato Grosso, VII-1892, *Kuntze s.n.* (NY00930845); Mato Grosso, Vila Rica, VII-1892, *Kuntze s.n.* (NY00930847); Mato Grosso, VIII 1892, *Kuntze s.n.* (NY00930846). The specimen *Balansa* 499 (G0008968) identified by K. Schumann is selected as lectotype.

5. *Arrabidaea rhodantha* var. *elliptica* Sprague (1905: 80) = *Fridericia dichotoma* (Jacq.) L. G. Lohmann (in Lohmann & Taylor, 2014: 436).

Lectotype (designated here): PARAGUAY. Montes de rio Pilcomayo, *G. Kerr s.n.* (K000449134, image!).

Sprague described this taxon with forms *glabrescens* and *mollis* comprising the entire variety. Sprague cited the following gatherings from Paraguay for *A. rhodantha* f. *glabrescens*:

Cordillera de Altos, Hassler 840 (G00008908, K000449133, NY00313110, P00602478, P00602479); Montes de rio Pilcomayo, G. Kerr s.n. (K000449134); near Trinidad, Morong 796 (BM000816637); “prope Concepcion”, Hassler 7174a (G00077768† [specimen lost, Laurent Gautier, pers. comm.]). *Arrabidaea rhodantha* f. *mollis* was described solely on one gathering: Paraguay, “prope Concepcion”, Hassler 7435 (G00008910, K449135, K449136, MPU015943).

The specimen *Kerr s.n.* (K000449134), identified by Sprague is selected as lectotype of *A. rhodantha* var. *elliptica*.

6. *Arrabidaea rhodantha* var. *induta* Hass. (1910: 50) = *Fridericia dichotoma* (Jacq.) L. G. Lohmann (in Lohmann & Taylor, 2014: 436).

Lectotype (designated here): PARAGUAY. Prope Concepción, Hassler 7435 (K, glued on 2 sheets: K449135 & K449136 [images!]; isolectotypes: G00008910 and MPU015943, images!).

Hassler (1910: 50) described this taxon with three forms *subglabra*, *puberula* and *mollis* encompassing the whole variety. For *A. rhodanta* f. *subglabra* he mentioned only Hassler 7174a; for *A. rhodanta* f. *puberula* he cited Rojas 367 and Fiebrig 1316, both at his herbarium. These three specimens were kept at G but were lost when sent out on loan (Laurent Gautier, pers. comm.).

Arrabidaea rhodantha f. *mollis* Sprague (described on Hassler 7435) was transferred by Hassler to var. *induta*, however in conformity with ICN rules, *Arrabidaea rhodantha* f. *mollis* Hass. is treated in IPNI as an isonym (Art. 6.3, Note 2).

Hassler 7435 (G00008910, K449135 & K449136, MPU015943) is the only extant original material of *A. rhodantha* var. *induta* and therefore, the K duplicate (mounted on 2 sheets) is selected as the lectotype.

7. *Bignonia balbisiana* DC. in Candolle (1845: 153) = *Fridericia dichotoma* (Jacq.) L. G. Lohmann (in Lohmann & Taylor, 2014: 436).

Lectotype (designated here): “Am. merid.”, Bertero s.n., (G00133261, image!); isolectotype: “Meridionali America”, Bertero s.n. (TO without number or barcode, image!).

Candolle cited in the protologue a gathering of Bertero: “Santa Martha” [Colombia, Santa Marta], in February in flower, displaying the unpublished name *Bignonia villosa*. He described two varieties including the entire circumscription of the species: var. *a hirsuta* and var. *β glabra*, and he mentioned that Balbis had sent two specimens, one for each variety. Both specimens are kept in G-DC, but they do not bear the locality “Santa Martha” or the date, probably the information was sent separately.

There are several extant specimens of *B. balbisiana* var. *hirsuta*: “Am. merid.”, Bertero s.n., named as *Bignonia balbisiana* a. DC. in Candolle’s handwriting (G00133261); “Meridionali America”, Bertero s.n. (TO without number or barcode, image!); Colombia, “Santa Martha”, Bertero s.n. (MO0084403); “Ste. Marthe”, Bertero s.n. (FI009883); no locality, Bertero 2659 (TO without number or barcode, image!).

Only two specimens are known of *B. balbisiana* var. *glabra*: 1- no locality or collector, named first as *Bignonia villosa* Bert. non Vahl and after as *Bignonia balbisiana* DC. var. *glabra* in Candolle’s handwriting (G00133263); 2- Colombia, “Santa Martha”, 1821, Bertero 2087 (TO without number or barcode, image!). All the specimens kept at TO bear a second label saying “*Bignonia villosa* Bertero, n° 1637 MSS. non Vahl”.

The sample of G-DC (G00133261) belonging to var. *a hirsuta*, is selected here as lectotype of *Bignonia balbisiana* so according to Art. 26.3, var. *hirsuta* should be named *balbisiana*.

8. *Bignonia balbisiana* var. *glabra* DC. in Candolle (1845: 153) = *Fridericia dichotoma* (Jacq.) L. G. Lohmann (in Lohmann & Taylor, 2014: 436).

Lectotype (designated here): No locality or collector, named in Candolle’s handwriting, G-DC (G00133263, image!).

The specimen at G-DC (G133263), named first as *Bignonia villosa* Bert. non Vahl and after as *Bignonia balbisiana* DC var. *glabra* in Candolle's handwriting, is designated here as lectotype.

9. *Bignonia difficilis* Cham. (1832: 714) ≡ *Mansoa difficilis* (Cham.) Bureau et K. Schum. (1896: 201-202).

Lectotype (designated here): BRAZIL [Brasilia, aequinoct.]. *Sellow* 50 (BR0000008763129, image!; isolectotype: US00125823, image!).

Chamisso described this species with forms α , β and γ , without naming them, based on Sellow collections. There are several specimens of forms α and β , while form γ is based on a single collection, apparently no longer extant. In conformity with Art. 9.5, all these specimens are syntypes.

Form α : "Brasilia, prope Santor". No date, *Sellow* 6012 (B†, F photo neg. 018483, named as *Mansoa difficilis* by Schumann); "Brasilia aequinoct.", *Sellow* 50 (BR0000008763129, identifications by Chamisso and Schumann).

Form β , "Brasilia aequinoct.". *Sellow* 50 (US00125823, identified by Chamisso and Schumann); "Brasilia", *Sellow* s.n. (K000449558 & K000449559); "Brasilia", *Sellow* s.n. (LE, donated by the herbarium B, named by Schlechtendal; V. Dorofeyev, pers. comm. and photograph).

The specimen *Sellow* 273 at NY (00483551), identified by Bureau and Schumann as *Mansoa difficilis*, was annotated as an isotype of *Bignonia difficilis* by A. H. Gentry in 1974; it should be considered as a syntype.

Lohmann & Taylor (2014: 451) indicated *Sellow* 6012 (LE) as the holotype, however, this collection has not been found at LE (V. Dorofeyev, pers. comm.). Among the extant specimens, there are two that were identified by Chamisso which take precedence over the other specimens cited here following Art. 9A.3. Accordingly, *Sellow* 50 is selected as the lectotype.

10. *Bignonia pterocarpa* Cham. (1832: 673) = *Cuspidaria convoluta* (Vell.) A. H. Gentry (1975: 343).

Lectotype (designated here): BRAZIL ["Bras. aequin."]. *Sellow* s.n. (LE00018182, Fig. 1, image!; isolectotypes: NY00313147, US00125842 images!).

Chamisso (1832: 673) stated that this species was collected by Sellow in a number of Brazil localities, denoting that he studied several gatherings. A comparative analysis of the extant specimens that are part of these gatherings shows that five of them were collected in "Brasilia" (E00394803, G00133382, HAL0098693, K000449499, L0003358), three in "Brasil. aequinoct." (LE00018182, NY00313147, US00125842) and one in "Montevideo" (B†, F photo neg. 018487). Four specimens were identified by Chamisso: HAL0098693, LE00018182, NY00313147 and US00125842.

The specimen LE00018182 (Fig. 1), part of Chamisso's original herbarium, is proposed as the lectotype and NY00313147 and US00125842 are selected as isolectotypes since they bear the same label.

11. *Bignonia samydoides* Cham. (1832: 669) ≡ *Fridericia samydoides* (Cham.) L. G. Lohmann (in Lohmann & Taylor, 2014: 444).

Lectotype (designated here): BRAZIL [Brasilia, aequinoct.] *Sellow* s.n. (HAL0098674 image!; isolectotypes: NY00111536 and US00125844, images!).

The last paragraph of Chamisso's protologue says: "E. Brasilia aequinoctiali misit Sellowius; pluries lectam", indicating that he studied several gatherings or syntypes (Art. 9.5). Lohmann & Taylor (2014) indicated *Sellow* s.n. (LE, not seen) as the holotype, however, this collection has not been found at LE (V. Dorofeyev, pers. comm.).

Two specimens of this species collected by Sellow and kept at B, were destroyed during World War II. These are currently known from photographs at F as follows: 1- Brasil. aequinoct., no date, *Sellow* 5243 (B†, identified by Chamisso, the number in a different handwriting, neg. F0bn018489); and 2- Brasil. aequinoct., no date, *Sellow* s.n., fr, (B†, identified by Chamisso, neg. F0bn018490, MO-1692906).



Fig. 1. *Bignonia pterocarpa* Cham., Sellow s.n. (LE, photo by Dorofeyev #1624). Lectotype.

There are some extant duplicates of *Sellow s.n.*, Brasilia aequinoct., identified by Chamisso: HAL0098674; NY00111536; US00125844. There are also several duplicates of *Sellow s.n.* from Brazil not identified by Chamisso: G00133289, K000403071, L00412988 and fragments: P00468580 & P00468581.

HAL0098674 is selected as lectotype as it is considered the best specimen among those identified by Chamisso.

12. *Bignonia selloi* Spreng. (1825: 831) ≡ *Tanaecium selloi* (Spreng.) L. G. Lohmann (2008: 274).

Lectotype (designated here): BRAZIL. *Sellow s.n.* (K000402778, image!); isolectotypes: BR0000008764805, G00133280, K000402780 and L0412987, images!).

The only information given by Sprengel in the protologue of this species is: “Brasil, *Sello*”. There is no extant specimen identified by Sprengel.

Sandwith (1927: 230) pointed out that Bureau and Schumann (1896: 37) confused this species with *Bignonia corymbifera* Vahl, a species growing in Trinidad, and proposed the combination *Arrabidaea corymbifera* (Vahl) Bureau ex Schumann. Sandwith stated that Sellow’s specimen studied by Sprengel was kept at B, where it was seen by Schumann; apparently, this specimen was destroyed during the World War II.

Bignonia selloi was transferred by Sandwith (1953: 461) to *Arrabidaea selloi* (Spreng.) Sandwith, and recently to *Tanaecium selloi* (Spreng.) L. G. Lohmann (in Lohmann & Taylor, 2014: 466).

Five specimens of this species were located that bear the same data as the protologue: “Brasilia”, no date, *Sellow s.n.*, all of which are identified as *Bignonia corymbifera* Vahl: BR0000008764805, G00133280, K000402778, K000402780 and L0412987.

Gentry (2009: 108) designated a holotype and cited two isotypes. Lohmann & Taylor (2014: 394) overlooked this publication and proposed as lectotype L0412987.

The holotype designated by Gentry was: Brazil, 1840, *Sellow s.n.* (B†); the isotypes

were: K000402778 and K000402779. The data of the sample K000402779 match those given for the holotype; these specimens were collected after the publication of the species, thus these designations are against Art. 9.3. The other specimen indicated as isotype: K000402778, without a date, should have been considered as lectotype following Art. 9.9, thus it is here designated as such.

13. *Bignonia vitalba* Cham. (1832: 699) = *Amphilophium crucigerum* (L.) L. G. Lohmann (2008: 270).

Lectotype (designated here): BRAZIL [Brasilia]. *Sellow s.n.* (HAL0098673, image!).

Chamisso described *Bignonia vitalba* with varieties: α *aequinoctialis* and β *extratropica* including the whole circumscription of the species. The only reference to the material studied is: “Sellow, Brasilia”. Candolle (1845: 196) transferred the species to *Pithecoctenium*, citing “Sellow, Brasilia aequinoctiali (v.s. Mus. reg. Berol.)”, and “Brasilia extratropica” for var. β . *extratropica*.

Bureau & Schumann (1896: 168) cited the following collections for *Pithecoctenium vitalba*: Rio Grande do Sul, Caçapava, *Sellow* 3271, and insula S. Catharina, *Gaudichaud s.n.*; and for *Pithecoctenium vitalba* var. *extratropica*: Rio Grande do Sul, prope fluvium Jacuhy et Rio Pardo, *Sellow* 1515. Pool (2007) interpreted their citation of collections as lectotypifications of these taxa, but their action does not meet the criteria of Art. 7.10. Bureau & Schumann were just recording the material they had studied.

The herbarium HAL has samples of *Sellow s.n.* of var. *aequinoctialis* (HAL0098672, identified by Chamisso and Schlechtendal) and var. *extratropica* (HAL0098673, named by Chamisso). The specimens G133573 and K449508, identified by Schlechtendal, correspond to var. *aequinoctialis* as well as the B destroyed sample of *Sellow* 3271 photographed by F, which was identified by Chamisso.

At LE there are two samples of this species collected by Sellow, the first one from “Brasilia meridionalis”, *Sellow s.n.* (LE00018181)

identified by Chamisso as *Bignonia vitalba*, with no indication of variety; the second from “Brasilia” with the number 481 written in pencil, identified by Schlechtendal as var. *extratropica* (V. Dorofeyev, photo 6371).

The specimen HAL0098673 identified by Chamisso is selected as lectotype of *Bignonia vitalba*. This specimen belongs to var. *aequinoctialis* so according to Art. 26.3, this variety must take the species name.

14. *Bignonia vitalba* var. *extratropica* Cham. (1832: 699) = *Amphilophium crucigerum* (L.) L. G. Lohmann (2008: 270).

Lectotype (designated here): BRAZIL [Brasilia]. *Sellow s.n.* (HAL0098672, image!); isolectotype LE, image!).

The specimen *Sellow s.n.* (HAL0098672) identified by Chamisso is designated here as the lectotype of *Bignonia vitalba* var. *extratropica*; the specimen at LE, V. Dorofeyev photo 6371 (image!), identified by Schlechtendal is an isolectotype.

15. *Dolichandra cynanchoides* Cham. (1832: 658).

Lectotype (designated here): BRAZIL [Brasilia]. *Sellow s.n.* (HAL0016196).

The only information provided by Chamisso regarding the material he studied to characterize this species is: “Brasilia extratropica. *Sellow*”.

The specimen kept at B as a type was destroyed during the Second World War: “Brasilia [Uruguay], Rio Negro”, *Sellow* 942 (B†, F photo neg. 18431, det. Chamisso).

Lohmann & Taylor (2014) cited as holotype “*Sellow* 942 (LE), not seen”. According to V. Dorofeyev (pers. comm.) there is no material of this species collected by *Sellow* at LE.

There is a beautiful specimen of this species from Brazil, *Sellow s.n.* (HAL0016196), identified by Chamisso, bearing a complete corolla, missing in *Sellow* 942 (B†). The specimen at HAL proves that Chamisso studied at least two samples, thus both specimens are to be considered syntypes following Art. 9.5.

Since HAL0016196 is the only extant

original material, it is selected as the lectotype.

16. *Eccremocarpus scaber* var. *sepium* Bertero ex A. DC. in Candolle (1845: 239) ≡ *Eccremocarpus scaber* Ruiz & Pav. (1794: 90).

Lectotype (designated here): CHILE. Quillota, ad sepes secus vias Valparaiso, Oct-Nov 1835, *Bertero* 965 (P00609752, image!; isolectotypes: BM001191029, FI012245, GH00091992 and MICH1115830, images!).

Candolle mentioned several syntypes in the protologue, three gatherings of Bertero and one of Poeppig. D’Arcy (1977: 108) cited as “Type” *Bertero* 965, a number that includes gatherings made on different dates and localities. According to Art. 8.2 “for the purpose of typification a specimen is a gathering, or part of a gathering made at one time”, therefore D’Arcy typification needs to be narrowed to a single specimen.

The known extant syntypes of *Bertero* 965 are: Chile, Quillota, 1829, *Bertero* 965 (P00609750, P00609751); Chili [Chile], Quillota, 8bre 9bre 1829, *Bertero* 965 (G-DC: G00133782 [F photo neg. 7695], SI001127); Chile, Quillota, ad sepes secus vias Valparaiso, Oct-Nov 1835, *Bertero* 965 (BM001191029, FI012245, GH00091992, MICH1115830, P00609752). The most representative specimen bearing flowers and fruits is P00609752, so it is selected here as the lectotype.

17. *Petastoma truncatum* (Sprague) Hass. var. *parviflorum* Hass. (1910: 53) ≡ *Fridericia truncata* (Sprague) L. G. Lohmann (in Lohmann & Taylor, 2014: 446).

Lectotype (designated here): PARAGUAY. Prope Concepción, in dumeto, Sept 1901, *Hassler* 7482a (G00085625, image!; isolectotypes: G00085624, NY00328896, plus a fragment in an envelope glued on K403426, images!).

Hassler described two varieties for *Petastoma truncatum*: var. *grandiflorum* and var. *parviflorum*. Following Art. 26.1, var. *grandiflorum* ought to be named *Petastoma truncatum* var. *truncatum* because it includes

the type of the species which was lectotyped by Sandwith (1954: 602) with Hassler 7482 (K000403426).

Petastoma truncatum var. *parviflorum* was based on Hassler 7482a. At G there are 4 sheets of this gathering: G00085624 and G00085625 identified by Sprague, G00085625a (Fig. 2) identified by Hassler, G00085625b without

identification; there is one sheet at NY named as *Petastoma truncatum* Sprague (NY00328896), plus a fragment kept in an envelope glued on the lectotype of *Mansoa truncata* (K403426). The specimen G00085625, mounted on three sheets, one of them identified by Hassler (G00085625a, Fig. 2) is selected here as lectotype of this variety.

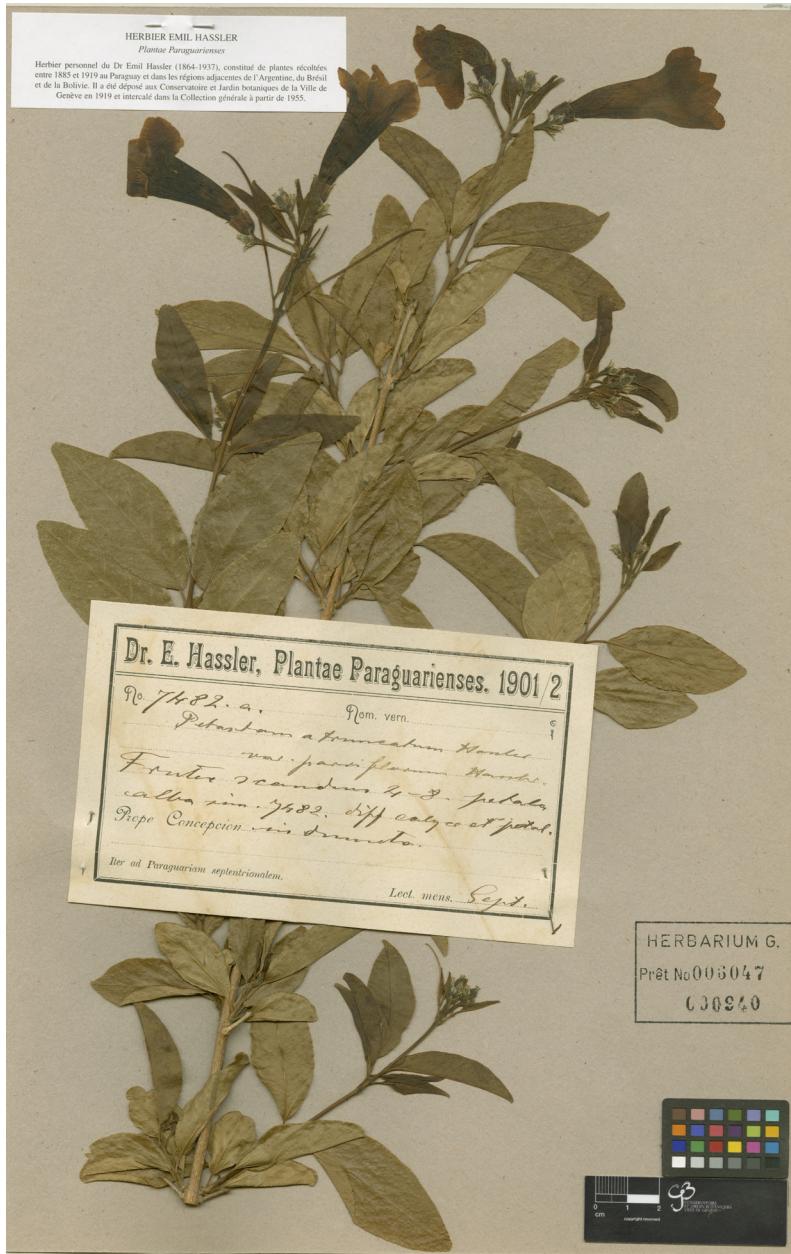


Fig. 2. *Petastoma truncatum* var. *parviflorum* Hassl., Hassler 7482a (G00085625a) © Conservatoire & Jardin botaniques de la Ville de Genève. Lectotype, sheet identified by Hassler, one of three sheets.

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