# Identification and lectotypification of the Solanaceae from Vellozo's *Flora Fluminensis*

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**Abstract** We review the 68 names of plants treated in genera treated or now recognised as Solanaceae from J.M. da C. Vellozo's *Flora Fluminensis* in the context of current floristic knowledge of the region around Rio de Janeiro in southern Brazil. Most of Vellozo's names are synonyms of names previously published or are illegitimate later homonyms, but several are accepted and in widespread use. Two names do not belong to solanaceaeous taxa, but to species in Apocynaceae and Violaceae respectively. We provide lectotypifications for all names, including those previously lectotypified using the published plates that do not qualify as original material. Type localities, previous lectotypifications and current accepted names are provided for all taxa.

**Keywords** Apocynaceae; Brazil; *Brunfelsia*; *Capsicum*; *Cestrum*; *Solandra*; *Solanum*; Violaceae

## ■ INTRODUCTION

The *Flora Fluminensis* of Brother José Mariano da Conceição Vellozo (1742–1811) was one of the first compilations of names for Brazilian plants, and treated the flora of areas that today are part of Rio de Janeiro and São Paulo states. Vellozo was a parish priest in what is now the city of Rio de Janeiro. The work was begun in 1782, and is organised according to the sexual system of Linnaeus; dates on the title page of the published descriptions indicate the work was completed in 1790. Effective dates of publication of this work and its accompanying plates are discussed in Carauta (1969, 1973), but delays in publication of the descriptions until 1829 (work dated 1825 but published 7 Sep–28 Nov 1829) meant that many of the names proposed in *Flora Fluminensis* are illegitimate later homonyms. It is difficult to ascertain in some cases if Vellozo was actually proposing a new name (e.g., *Capsicum baccatum* Vell., *Solanum nigrum* Vell. and *S. havanense* Vell. below) or was using a name already known to him. In the Index to the volumes of illustrations (Vellozo, 1831a) many of these homonyms are identified with marginal notations (e.g., "non Solanum nigrum Linn.") but with no replacement names provided. We suggest these annotations are the work of Father Antônio de Arrábida and João de Silveira Caldeira, who edited and prepared Vellozo's work for publication (Carauta, 1973). These have no bearing on the status of Vellozo's names, nor are any new names for any Solanaceae introduced in the Index (Vellozo, 1831a). The original descriptions published in 1829 are very short, but are accompanied by references to original illustrations held in the Biblioteca Nacional, Rio de Janeiro that can also be treated as original material for typification of these names (Pellegrini & al., 2015). These illustrations, published two years later in 1831 (work dated 1827 but published 29 Oct 1831), are sometimes incomplete or inaccurate (Lima, 1995; Pastore, 2013). In addition, no herbarium associated with Vellozo's plants has ever been found, although his specimens are thought to have been sent to Lisbon in 1798 (Borgmeier, 1961; Pellegrini & al., 2015) and then possibly to Paris in the

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early 1800s (Lima, 1995). These factors make identification of the species described by Vellozo difficult and many of his names have been treated as problematic and thus ignored.

In the *Flora Brasiliensis* treatment of Solanaceae, Sendtner (1846) treated all but seven of Vellozo's names; he accepted 17 of them, mentioned four as unrecognisable, and mentioned the rest as either synonyms (29 names) or possible synonyms of other taxa (9 names indicated with "?"). Both Bentham (1846) and Schmidt (1862) treated names today recognised as species of *Brunfelsia* and *Schwenckia* as part of the "Scrophularieae". Sampaio & Peckolt (1943) provided a list of all Vellozo's names accompanied by their assessment of the identity of Vellozo's taxa. In many cases they suggested that Vellozo's name was older than the name in use at the time (see individual names below). Much of their synonymy was taken from Sendtner (1846) and Schmidt (1862). None of these later authors referenced the index to the illustration volumes (Vellozo, 1831b) in determining the identity of Vellozo's taxa; only the original descriptions (Vellozo, 1829) and the published plates (Vellozo, 1831a) were cited.

Vellozo described 68 species in genera referable to Solanaceae. Two of these were described in the Linnaean class "Didynamia" as members of the genus *Besleria* L. (Gesneriaceae). He coined the generic name *Mathea* Vell., with a single species *Mathea apostolica* Vell. (a synonym of *Schwenckia* L. see below), ten names in *Capsicum* L., three names in *Cestrum* L., four names in *Datura* L., one name in *Nicotiana* L. and 47 names in *Solanum* L. No new names were proposed in the second edition of *Flora Fluminensis* (Vellozo, 1881), as is the case in other families (e.g., Leguminosae, see Lima, 1995). All but two of these names are referable to currently recognised species of Solanaceae: *Capsicum torulosum* Vell. is a member of Violaceae (most likely *Pombalia atropurpureum* (St.Hil.) Paula-Souza) and *Datura erinacea* Vell. is a member of Apocynaceae (*Allamanda cathartica* L.). Digital images of all original manuscript illustrations are available through the website of the Biblioteca Nacional (http://bndigital.bn.br/acervodigital). Published illustrations from *Flora Fluminensis* (1831b) are available through the Biodiversity Heritage Library (http://www.biodiversitylibrary.org/item/15442#page/2/mode/1up) and associated with individual names on Solanaceae Source (http://www.solanaceaesource.org); thus we do not illustrate the lectotypes here.

Where cited by Vellozo (1829), the habitats are very useful in determining the identity of many of these species. Lima (1995) provides a synonymy of Vellozo's habitat designations with current vegetation types recognised in Brazil. Much of the territory covered by the *Flora Fluminensis*, and therefore many of the collection localities cited in the text, is now part of the city of greater Rio de Janeiro. Some, however, are along the routes from Rio de Janeiro to São Paulo, but at the time provincial limits were not well established (Damasceno, 1976), making exact localisation of these citations difficult.

## ■ TAXONOMIC TREATMENT

We list names here in alphabetical order by original name and provide citations to both the descriptions (Vellozo, 1829) and illustrations (Vellozo, 1831b). We cite the habitat and locality information from the protologue where available, and locate the type localities in current Brazilian states following Lima (1995). We lectotypify these names using the original material held in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro; previous lectotypifications using the published illustrations were not done using original material, so these names are all re-lectotypified here. Where lectotypes were previously designated using the published illustrations we cite the work and page. Some of the names treated here will require epitypification to fix current usage—we leave this to monographers of particular groups (e.g., Giacomin & al., in prep.) as they will be better able to correctly epitypify these taxa in accordance with modern usage. Where Vellozo's names have been equated to other taxa by the editors of the work after his death (see Carauta, 1973) in the Index to the volumes of illustrations (Vellozo, 1831a) we have indicated this accordingly.

*Besleria bonodora* Vell., Fl. Flumin.: 261. 1829 ("1825"); Fl. Flumin. Icon. 6: t. 80. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro or São Paulo]: no locality or habitat given; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198655_084] and later published in Vellozo, Fl. Flumin. Icon. 6: t. 80. 1831 (published plate designated as lectotype by Plowman, 1998: 59).

*Accepted name.* – *Brunfelsia bonodora* (Vell.) J.F.Macbr.

Both Bentham (1846) in his monograph of *Brunfelsia* and Schmidt (1862) in his treatment of the genus for *Flora Brasiliensis* treated *Brunfelsia bonodora* as a synonym of *B. latifolia* (Pohl) Benth. The Index to the illustration volumes (Vellozo, 1831a: 8) lists *Besleria bonodora* in the "Scrophularieae" and as equivalent to *Franciscea acuminata* Pohl (= *Brunfelsia brasiliensis* (Spreng.) L.B.Sm. & Downs). The usage of Bentham (1846) and Schmidt (1862) was followed (e.g., Sampaio & Peckolt, 1943) until Macbride (1930) made the combination and used *B. bonodora* for a complex assemblage of what are now recognised as distinct species (Plowman, 1998).

*Besleria inodora* Vell., Fl. Flumin.: 261. 1829 ("1825"); Fl. Flumin. Icon. 6: t. 81. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "silvis maritimis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198655_085] and later published in Vellozo, Fl. Flumin. Icon. 6: t. 81. 1831 (published plate designated as lectotype by Plowman, 1998: 103).

*Accepted name.* – *Brunfelsia pauciflora* (Cham. & Schltdl.) Benth.

The epithet *inodora* is not available for use in *Brunfelsia* because the binomial is preoccupied by *Brunfelsia inodora* Mart., a synonym of *Brunfelsia americana* L. (Plowman, 1998). Schmidt (1862: 257) treated *Besleria inodora* as a synonym of *Brunfelsia pauciflora* var. *calycina* (Benth.) Benth., while Sampaio & Peckolt (1943) suggested the correct name was *Brunfelsia pauciflora* sensu lato.

*Capsicum axi* Vell., Fl. Flumin.: 61. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 6. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Colitur hortis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_009] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 6. 1831.

*Accepted name.* – *Capsicum annuum* L. var. *annuum*

Sendtner (1846: 148) treated *Capsicum axi* as a synonym of *Capsicum annuum* var. *cordiforme* (Mill.) Sendtn.; the plate is of a large fruited cultivar of the common pepper. In the original parchment illustration the epithet "*grossum*" is scratched out and replaced with "*axi*" in pencil. The published illustration is labelled *Capsicum axi*. We are treating the name *Capsicum grossum* as not validly published because it has no description or diagnosis associated with it.

*Capsicum baccatum* Vell., Fl. Flumin.: 60. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 3. 1831 ("1827"), nom. illeg., non *Capsicum baccatum* L. 1753 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Sponte crescit, et colitur hortis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_006] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 3. 1831.

*Accepted name.* – *Capsicum frutescens* L.

Sendtner treated this, *C. comarim* and *C. odoriferum* as synonyms of *Capsicum frutescens* Willd. (where he also put *C. frutescens* L. in synonymy), with the comment "Species quas Vellozo iconibus refert, huc pertinere videntur sequentes" (the following species from Vellozo's drawings belong here) (Sendtner, 1846: 142).

*Capsicum comarim* Vell., Fl. Flumin.: 60. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 2. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Colitur hortis, et sponte undequaque crescit"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_005] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 2. 1831.

*Accepted name.* – *Capsicum baccatum* L.

See above under *Capsicum baccatum* Vell.

*Capsicum dichotomum* Vell., Fl. Flumin.: 61. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 9. 1831 ("1827"), as "Capsicum conicum" ≡ *Capsicum conicum* Vell., Fl. Flumin. Icon. 2: t. 9. 1831 ("1827"), nom. illeg., non *Capsicum conicum* G.Mey. 1818 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Colitur hortis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_012] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 9. 1831.

*Accepted name.* – *Capsicum chinense* Jacq.

Vellozo used the name *Capsicum dichotomum* in 1829 and referred to "Tab. 9, T. 2" in the protologue. Both the original parchment illustration and the published plate are labelled *Capsicum conicum* with no reference to the name *C. dichotomum*; the reference to the illustration in Vellozo (1829) does, however, unambiguously link these two names as referring to the same taxon. In the second edition (Vellozo, 1881) the name *Capsicum dichotomum* is also used, with no reference to *Capsicum conicum*. We are treating these names as homotypic.

*Capsicum inaequale* Vell., Fl. Flumin.: 61. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 5. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Fruticetis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_008] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 5. 1831.

*Accepted name.* – *Solanum didymum* Dunal

Sendtner recognised this as not belonging to *Capsicum* ("minima sunt species generis Capsici"; Sendtner, 1846: 148). Sampaio & Peckolt (1943) left it as an accepted name. From the pubescent and enlarged fruiting calyx and the sympodial structure, we consider this a synonym of *Solanum didymum*, a member of the Brevantherum clade (sensu Bohs, 2007; Särkinen & al., 2013).

*Capsicum odoriferum* Vell., Fl. Flumin.: 61. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 8. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Colitur hortis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_011] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 8. 1831.

*Accepted name.* – *Capsicum chinense* Jacq.

See above under *Capsicum baccatum* Vell.

*Capsicum silvestre* Vell., Fl. Flumin.: 60. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 1. 1831 ("1827") – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Ad declivium Alpium Fluminensium"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_004] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 1. 1831.

*Accepted name.* – *Capsicum annuum* L. var. *annuum*

In the index to the volumes of plates this species epithet was spelled "sylvestre". Sendtner (1846: 147) treated this Vellozo name as a synonym of the typical *Capsicum annuum* (with a question mark, indicating his uncertainty), not under one of his infraspecific taxa.

*Capsicum torulosum* Vell., Fl. Flumin.: 60. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 4. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Fruticetis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_007] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 4. 1831.

*Accepted name.* – NOT SOLANACEAE; *Pombalia atropurpureum* (St.Hil.) Paula-Souza (Violaceae).

This taxon does not correspond to any species of Solanaceae. In the Index to the illustration volumes of the *Flora Fluminensis* (Vellozo, 1831a: 14) *Capsicum torulosum* was listed as belonging to the "Violaceae" and to the genus *Ionidium* Vent., whose species have recently been treated as the genus *Pombalia* Vand. (Paula-Souza & Ballard, 2014). The serrate leaves, opposite phyllotaxy and three-parted capsules suggest *Pombalia atropurpureum*, a species from Rio de Janeiro, but the flowers depicted in the plate are not Violaceae-like; we thus consider our identification tentative. Sendtner recognised this as not belonging to *Capsicum* ("minima sunt species generis Capsici"; Sendtner, 1846: 148), but did not suggest what it might be.

*Capsicum umbilicatum* Vell., Fl. Flumin.: 60. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 7. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Colitur hortis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_010] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 7. 1831.

*Accepted name.* – *Capsicum baccatum* var. *umbilicatum* (Vell.) Hunz. & Barboza

This variety of *Capsicum baccatum* is still commonly sold in Brazilian markets and is a cultigen. The plate clearly shows the unusual fruit shape. Sendtner (1846: 147) treated it as a synonym of *Capsicum annuum* var. *grossum* Sendtn.

*Cestrum arvense* Vell., Fl. Flumin.: 101. 1829 ("1825"); Fl. Flumin. Icon. 3: t. 7. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro or São Paulo]: "Campis apricis translapinis, prope Praedium Boavista"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198652_010] and later published in Vellozo, Fl. Flumin. Icon. 3: t. 7. 1831.

*Accepted name.* – Probably *Cestrum axillare* Vell.

The unusual inflated corolla tube base both described and depicted by Vellozo is not known in any Brazilian species of *Cestrum*. Both the plate and description combine the characters of several species, but we think based on the distribution and leaf shape this taxon is conspecific with *Cestrum axillare*, a quite variable species. Dunal (1852) treated it as "Species omino dubiae, indescriptae" and it was an accepted name in the list of Sampaio & Peckolt (1943). The yellow flowers could also mean it refers to a cultivated plant of *Cestrum parqui* L'Her., but the flowers in the plate lack the pedicel typical of that species.

*Cestrum axillare* Vell., Fl. Flumin.: 101. 1829 ("1825"); Fl. Flumin. Icon. 3: t. 6. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198652_009] and later published in Vellozo, Fl. Flumin. Icon. 3: t. 6. 1831.

*Accepted name.* – *Cestrum axillare* Vell.

This widely distributed species is distinguished by leaves with prominent secondary veins and axillary, stalked inflorescences, both these features are very apparent in the plate (Vellozo, 1831b). In Brazilian herbaria, it was commonly identified as *C. laevigatum* Schltdl., a name treated as a synonym of *C. axillare* by Vignoli-Silva (2009). It was not mentioned in the list of Sampaio & Peckolt (1943).

*Cestrum stipulatum* Vell., Fl. Flumin.: 101. 1829 ("1825"); Fl. Flumin. Icon. 3: t. 5. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat silvis maritimis, ac mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198652_008] and later published in Vellozo, Fl. Flumin. Icon. 3: t. 5. 1831.

*Accepted name.* – *Cestrum bracteatum* Link & Otto

Vellozo's plate clearly shows the leafy inflorescences of *Cestrum bracteatum* and was treated as a synonym of it by Sendtner (1846) and Soares & al. (2007). Dunal (1852) also mentioned it in the synonymy of *C. bracteatum*, but also treated it as "Species omino dubiae, indescriptae"; it was not mentioned in the list of Sampaio & Peckolt (1943).

*Cestrum subsessile* Vell., Fl. Flumin.: 102. 1829 ("1825"); Fl. Flumin. Icon. 3: t. 8. 1831 ("1827"), nom. utique rej. prop. – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Silvis maritimis, aliquando ad Praedium sepes"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198652_011] and later published in Vellozo, Fl. Flumin. Icon. 3: t. 8. 1831.

*Accepted name.* – *Cestrum schlechtendalii* G.Don

Sendtner (1846) put *Cestrum subsessile* with a question mark ("?") in synonymy with his own *Cestrum schottii* Sendtn. that he recognised as distinct from *Cestrum schlechtendalii*. Dunal (1852) also mentioned it in the synonymy of *C. schottii*, but also treated it as "Species omino dubiae, indescriptae"; it was not mentioned in the list of Sampaio & Peckolt (1943). Vignoli-Silva (2009) pointed out differences in the flower morphology (nodding versus erect flowers) of *C. subsessile* and *C. schlechtendalii*, but left *C. subsessile* as a doubtful name. We have proposed this name for suppression (Knapp & al., 2015b).

*Datura arborea* Vell., Fl. Flumin.: 69. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 44. 1831 ("1827"), nom. illeg., non *Datura arborea* L. 1753 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Ad ripas rivulorum tum mediterraneis tum maritimis locis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_047] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 44. 1831.

*Accepted name.* – *Brugmansia suaveolens* (Willd.) Bercht. & C.Presl

It is not clear if Vellozo (1829) was describing a new species or merely referring to Linnaeus's (1753) *Datura arborea*. In the Index to the illustrations it was listed as belonging to the genus *Brugmansia* Pers., and as distinct from *Datura*

*arborea* L. (Vellozo, 1831a: 10). Sendtner (1846) treated this as a synonym of *Datura arborea* L., as did Sampaio & Peckolt (1943) who suggested that Vellozo was referring to the Linnaean species. *Brugmansia arborea* (L.) Steud., however, does not occur in Brazil; Vellozo's illustration corresponds to a very similar species, *B. suaveolens*, naturalised in southeastern Brazil, commonly growing along streams and wet places.

*Datura erinacea* Vell., Fl. Flumin.: 70. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 46. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Offendi silvis, aque sunt trans Cautes Cairuassú dictas"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_049] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 46. 1831.

*Accepted name*. – NOT SOLANACEAE. *Allamanda cathartica* L. (Apocynaceae).

The opposite leaves and spiky fruit of the plant clearly show this is a drawing of the commonly cultivated Brazilian apocynaceous plant *Allamanda* L. In the Index to the illustrations (Vellozo, 1831a: 11) this name is listed under the "Asclepideae et Apocyneae" and as belonging to the genus *Allamanda*. In the *Flora Brasiliensis* treatment of Apocynaceae, Müller-Argovensis (1860) did not mention *Datura erinacea* in the synonymy or discussion of *Allamanda cathartica*.

*Datura scandens* Vell., Fl. Flumin.: 69. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 45. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Silvis maritimis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_048] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 45. 1831 (published plate designated as lectotype by Bernadello & Hunziker, 1987: 648).

*Accepted name*. – *Solandra grandiflora* Sw.

Sendtner (1846) treated this as a synonym of *Solandra grandiflora*, as did the editor of the Index to the illustration volumes (Vellozo, 1831a: 10); Sampaio & Peckolt (1943) treated *Datura scandens* as an accepted name. The combination *Solandra scandens* (Vell.) Toledo (Handro, 1953) based on Vellozo's plate is superfluous and illegitimate as *Solandra scandens* Willd. has priority and is based on a different type; Bernardello & Hunziker (1987) failed to cite this older name.

*Datura stramonium* Vell., Fl. Flumin.: 69. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 43. 1831 ("1827"), nom. illeg., non *Datura stramonium* L. 1753 – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Pharmacopoli crescit"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_046] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 43. 1831.

*Accepted name*. – *Datura stramonium* L.

It is not clear if Vellozo (1829) was describing a new species or merely referring to Linnaeus's (1753) *Datura stramonium*; in the Index to the illustrations it was equated with the Linnaean name (Vellozo, 1831a: 10). Sendtner (1846) treated this as a synonym of *Datura stramonium* L., as did Sampaio & Peckolt (1943) who also suggested that Vellozo was referring to the Linnaean species.

*Mathea apostolica* Vell., Fl. Flumin.: 22. 1829 ("1825"); Fl. Flumin. Icon. 1: t. 51. 1831 ("1827") – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Communisima planta camporum haud pinguim hujus continentis, passimque obia quasvis vias Regius"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1095062_055, as *Mathaea apostolica*] and later published in Vellozo, Fl. Flumin. Icon. 1: t. 51. 1831 (published plate designated as lectotype by Carvalho, 1978: 387).

*Accepted name*. – *Schwenckia lateriflora* (Vahl) Carvalho

Vellozo's illustration of *Mathea apostolica* is highly inaccurate in showing the two stamens long-exserted from the corolla tube, but otherwise is recognisable as *Schwenckia lateriflora*. The taxon is listed as a member of "Primulaceae" and as belonging to *Schwenckia* in the Index to the illustration volumes (Vellozo, 1831b: 8). Schmidt (1862) did not refer to this name in his treatment of *Schwenckia* for *Flora Brasiliensis*. Sampaio & Peckolt (1943) recognised it as belonging to the genus *Schwenckia*, but did not indicate a species.

*Nicotiana ruralis* Vell., Fl. Flumin.: 76. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 72. 1831 ("1827") – **Lectotype (designated here):** Brazil. [São Paulo]: "Ad praedium derelictum ad vulgo Parição Paratyenses trans Alpes via, qua ad Oppidum Cunha ducitur"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_075] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 72. 1831 (published plate designated as lectotype by Coccuci, 2013: 82).

*Accepted name*. – *Nicotiana langsdorffii* Weinm.

This is a common species in the area of *Flora Fluminensis*, and the plate and description are clearly of *N. langsdorffii*, published in Roemer & Schultes (1819: 323) using a description attributed to Johann Anton Weinmann.

*Nicotiana tabaccum* Vell., Fl. Flumin.: 76. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 71. 1831 ("1827"), nom. illeg., non *Nicotiana tabacum* L. 1753 – **Lectotype (designated here):** Brazil: "Sponte crescit silvis tum maritimis, tum mediterraneis recenter cultis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_074] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 71. 1831.

*Accepted name*. – *Nicotiana tabacum* L.

Vellozo's use of this name is most likely in its Linnaean sense, but there is no evidence either in the text or illustrations that *N. tabacum* L. is the taxon intended. The illustration is of a large-leaved cultivar of *N. tabacum*, which Vellozo (1829: 76) remarks is much used in the district.

*Solanum ambrosiacum* Vell., Fl. Flumin.: 90. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 131. 1831 ("1827"), nom. utique rej. prop. – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Inter gramina Regii Praedii S. Crucis crescit"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_134] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 131. 1831.

*Accepted name*. – *Solanum viarum* Dunal

Sendtner (1846) accepted *S. ambrosiacum*, and mentioned its similarity to what he was recognising as *S. aculeatissimum* Jacq. (Sendtner's concept included many of the members of sect. *Acanthophora* Dunal now recognised as distinct); Nee (1974) treated *S. ambrosiacum* as a dubious name. The solitary berry suggests this could be a poorly illustrated plant of *S. palinacanthum* Dunal or *S. capsicoides* All. but as the description mentions "Fructus flavescens, odoratissimus. Clysteribus rusticani frequenter utantur" (yellow fragrant fruit used as a purgative by the peasants) and a common name of "Joá amarelo", we consider this name to apply to the species currently called *S. viarum*, one of the few Brazilian species of sect. *Acanthophora* with attenuate-based leaves like those depicted in Vellozo's plate. Mature fruits of *S. viarum* are yellow and although solitary berries are not common, young weedy plants often produce fruit from few-flowered inflorescences. We therefore propose this name for suppression (Knapp & al., 2015b).

*Solanum arrebenta* Vell., Fl. Flumin.: 89. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 127. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro or São Paulo]: no locality or habitat given; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_130] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 127. 1831.

*Accepted name*. – *Solanum capsicoides* All.

Sendtner (1846: 59) treated this as a synonym of his concept of *Solanum aculeatissimum* Jacq., which was extremely broad. Recent authors (Nee, 1974; Mentz & Oliveira, 2004) have all treated it as a synonym of *S. capsicoides*.

*Solanum bifissum* Vell., Fl. Flumin.: 86. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 111. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis apricis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_114] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 111. 1831.

*Accepted name*. – *Solanum velleum* Thunb.

Vellozo used the name *Solanum bifissum* for two different taxa, presumably with different types. Steudel (1841) proposed the replacement name *S. spectabile* for the second instance of *S. bifissum* (see below) and accepted the first (Steudel, 1841: 601), giving it priority over its homonym (see Art. 53.6 of the *ICN*, McNeill & al., 2012). Sendtner (1846: 54) placed this instance of *S. bifissum* in synonymy (with a question mark) with his *S. sordidum* var. *fulvum* Sendtn., now considered a synonym of *S. subumbellatum* Vell. Based on the distribution and the depiction of flowers with the anthers distinctly separate and abundant interpetalar tissue we feel this name is more correctly placed in the synonymy of *S. velleum*, although it could be any one of several similar species of that species group.

*Solanum bifissum* Vell., Fl. Flumin.: 90. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 129. 1831 ("1827"), nom. illeg. ≡ *Solanum spectabile* Steud., Nomencl. Bot., ed. 2, 2: 600. 1841 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Tum maritimis tum mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_132] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 129. 1831.

*Accepted name*. – *Solanum vaillantii* Dunal

Steudel's (1841) replacement name for this second instance of *S. bifissum* in *Flora Fluminensis* is now considered a synonym of *S. vaillantii*. The plate in Vellozo (1831b) is clearly that species. Sendtner (1846) accepted *S. spectabile*.

*Solanum bullatum* Vell., Fl. Flumin.: 84. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 104. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Silvis maritimis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_107] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 104. 1831.

*Accepted name*. – *Solanum bullatum* Vell.

*Solanum bullatum* has long been an accepted name for a common species in southern Brazil. Sendtner (1846: 42) pointed out that the species did not have bullate leaves ("sed quid sit 'bullati' in specie nec tabula nec specimina docent"—neither the plate nor specimens of this species have bullate leaves), but did not change the name (as he did for other plants where he considered the name inappropriate—see *S. oleraceum* Vell. below). Mentz & Oliveira (2004) also comment on the application of this name to a set of similar but distinct species. An epitype will be designated as part of an upcoming monographic study of this group (Giacomin & al., in prep.).

*Solanum caavurana* Vell., Fl. Flumin.: 86. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 112. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Undequaque crescit, praecipue silvis excultis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_115] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 112. 1831 (published plate designated as lectotype by Knapp, 2002: 84).

*Accepted name*. – *Solanum caavurana* Vell.

Vellozo's illustration of this species shows the large petaloid calyx lobes characteristic of *S. caavurana*. The epithet comes from the native name for this plant, used as a bleaching agent and probably in the treatment of fever (Vellozo, 1829). *Aureliana fasciculata* (Vell.) Sendtn. (see below) is also

sometimes called "caavurana" (Hunziker & Barboza, 1991), but does not have the petaloid calyx lobes depicted in Vellozo's (1831b) plate.

*Solanum caeruleum* Vell., Fl. Flumin.: 86. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 110. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Silvis excultis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_113] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 110. 1831 (published plate designated as lectotype by Knapp, 2002: 87).

*Accepted name.* – *Solanum campaniforme* Roem. & Schult.

This name was treated as accepted by Sendtner (1846). The illustration in Vellozo (1831b) shows the characteristic long, sometimes branched inflorescences, deeply divided corollas and relatively narrow leaves of the widespread species *S. campaniforme*. If northern and southern populations of this widespread and polymorphic species are recognised as distinct, *S. caeruleum* would be the correct name to apply to the southern plants.

*Solanum cernuum* Vell., Fl. Flumin.: 84. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 103. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat silvis et campis maritimis, et mediterraneis, praecipue excultis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_106] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 103. 1831 (published plate designated as lectotype by Carvalho, 1996: 22).

*Accepted name.* – *Solanum cernuum* Vell.

With the long, branched, densely pubescent inflorescences and large repand leaves the illustration of *S. cernuum* is a good match for plants recognised as this species. Distinguishing this from the closely related and very similar *S. castaneum* Carvalho can be difficult and an epitype will be proposed in an upcoming monograph (Giacomin & al., in prep.) in order to aid with the interpretation of the stylistic Vellozo (1831b) illustration.

*Solanum congestum* Vell., Fl. Flumin.: 82. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 90. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis apricis habitat"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_093] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 90. 1831.

*Accepted name.* – *Acnistus arborescens* (L.) Schltdl.

Although the flowers on the plate from Vellozo (1831b) are morphologically drawn like those of a *Solanum* with a central boss of five connivent stamens, the description and the rest of the plant are more like the common second-growth shrub *Acnistus arborescens*, with greenish white flowers in congested fascicles. Sendtner (1846: 57) treated this name as dubious and listed it under a section entitled "Icones Florae Fluminensis et scientiae botanicae et artis defectum saepe parae ferentes de speciebus nos incertos reliquerunt, quae sequuntur" (Illustrations from Flora Fluminensis that are both botanically and artistically lacking that leave us uncertain as to their identity).

*Solanum conicum* Vell., Fl. Flumin.: 2: 83. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 96. 1831 ("1827"), nom. illeg., non *Solanum conicum* Ruiz & Pav. 1799 ≡ *Solanum fluminense* Steud., Nomencl. Bot., ed 2, 2: 602. 1841 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis apricis mediterraneis ad Praedium derelictum vulgo dictum Parição"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_099] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 96. 1831 (published plate designated as lectotype by Bohs, 1994: 152).

*Accepted name.* – Not identifiable to a particular species, could be one of several members of the Cyphomandra clade (Bohs, 2007).

Many species of southern Brazilian members of the Cyphomandra clade are very similar morphologically and are distinguished by details of stigma and anther morphology, not apparent in Vellozo's (1831b) very stylized plate. In the Index to the illustrations (Vellozo, 1831a: 10) this name is listed as being a member of the genus *Witheringia* L'Hér. The Lista de Espécies da Flora do Brasil (Stehmann & al., 2014) treats this name as ambiguous under *Solanum*. In her monograph of *Cyphomandra* Bohs (1994: 152) considered this name as dubious and thought it could be a depiction of *S. sciadostylis* (Sendtn.) Bohs, *S. calycina* (Sendtn.) Bohs or *S. diploconos* (Mart.) Bohs (as *Cyphomandra sciadostylis*, *C. calycina* and *C. diploconos* (Mart.) Sendtn., respectively). Steudel (1841) proposed the replacement name *S. fluminense* and recognized *S. conicum* Ruiz & Pav. as distinct.

*Solanum cormanthum* Vell., Fl. Flumin.: 86. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 113. 1831 ("1827") – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Silvis maritimis Regii Praedii S. Crucis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_116] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 113. 1831 (published plate designated as lectotype by Knapp & al., 2015a: 24).

*Accepted name.* – *Solanum lacteum* Vell.

Knapp & al. (2015a) consider the plate of *S. cormanthum* to represent a flowering specimen of the same taxon as *S. lacteum*. Sendtner (1846) used the name *S. cormanthum* for some sterile specimens (now at BR) from Minas Gerais with reservations; these highly endemic plants could not be that represented by Vellozo's species, said to come from near the coast in Rio de Janeiro.

*Solanum coronatum* Vell., Fl. Flumin.: 82. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 92. 1831 ("1827"), nom. utique rej. prop. – **Lectotype (designated here):** Brazil. São Paulo: "Campis

apricis mediterraenis ad viam, qua ducitur ad oppidum Cunha"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_095] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 92. 1831.

*Accepted name.* – *Solanum rufescens* Sendtn. or *Solanum capoerum* Dunal

The telegraphic description and highly stylized illustration make this name impossible to apply. Sendtner (1846: 38) included it in the synonymy of *S. sambuciflorum* Sendtn. with a question mark; he also commented that his species was like *S. coronatum* "huic simile glabritie et inflorescentia minus divaricate recedit" (similar but with a more branched and glabrous inflorescence). Sampaio & Peckolt (1943) followed this usage. We have proposed this name for suppression (Knapp & al., 2015b).

*Solanum cylindricum* Vell., Fl. Flumin.: 2: 87. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 119. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis apricis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_122] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 119. 1831 (published plate designated as lectotype by Chiarini, 2013: 170).

*Accepted name.* – *Solanum cylindricum* Vell.

Bohs (2001) accepted both *S. cylindricum* and *S. ellipticum* Vell. as being part of her broad circumscription of *S. cylindricum*, a member of sect. *Cyphomandropsis* Bitter (part of the Cyphomandra clade of Bohs, 2007). She did not designate lectotypes for either of these names. The species does not occur in the region covered by *Flora Fluminensis* other than from cultivated plants. The circumscription of Bohs (2001) comprises plants mostly from Santa Catarina and Paraná states. Mentz & Oliveira (2004) did not include this name, but did include *S. ellipticum* (a synonym of *S. cylindricum*) as *S. johannae* Bitter (see below).

*Solanum decurrens* Vell., Fl. Flumin.: 89. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 126. 1831 ("1827"), nom. illeg., non *Solanum decurrens* Balb. 1811 ≡ *Solanum hoehnei* C.V.Morton in Contr. U.S. Natl. Herb. 29: 72. 1957 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Ad quondam rivulum in silvis Pharmacopolitanis etiam ad ripas fluvii Taguahy silvis Regii Praedii S. Crucis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_129] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 126. 1831.

*Accepted name.* – *Solanum hoehnei* C.V.Morton

Sendtner (1846) accepted *Solanum decurrens* in *Flora Brasiliensis* (as did Sampaio & Peckolt, 1943) and the earlier *S. decurrens* Balb. as a synonym of *S. balbisii* Dunal (itself an illegitimate superfluous name with *S. decurrens* Balb. is cited in synonymy). Both *S. balbisii and S. decurrens* Balb. are synonyms of *S. sisymbriifolium* Lam. Morton (1957) coined the replacement name *S. hoehnei* for Vellozo's *S. decurrens*, but did not designate a lectotype. The Vellozo figure does not show the aculeate stems cited in the description suggesting this could represent the closely related *S. reptans* Bunbury rather than *S. hoehnei*. In view of the morphology and distribution of *S. hoehnei* we consider it distinct from the very similar *S. reptans* pending further studies.

*Solanum diantherum* Vell., Fl. Flumin.: 83. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 99. 1831 ("1827"), nom. utique rej. prop. – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Habitat silvis maritimis Pharmacopolitanis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_102] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 99. 1831.

*Accepted name.* – *Solanum concinnum* Schott ex Sendtn.

Sendtner (1846) treated this name with two question marks as a synonym of *Solanum concinnum*. We have proposed this name for suppression (Knapp & al., 2015b).

*Solanum diffusum* Vell., Fl. Flumin.: 83. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 98. 1831 ("1827"), nom. illeg., non *Solanum diffusum* Ruiz & Pav. 1799 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis apricis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_101] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 98. 1831.

*Accepted name.* – *Solanum paucidens* Bitter

This species is a member of the Morelloid clade of *Solanum* (see Särkinen & al., 2013), whose species are notoriously difficult to distinguish. From the locality information provided, it is most likely that the plants used to coin this name came from the Serra do Mar, thus making this a synonym of the widespread species *S. paucidens*, rather than of the more restricted, high elevation *S. enantiophyllanthum* Bitter, confined to areas above 2000 m in the Serra da Mantiequeira and the Serra do Mar.

*Solanum diflorum* Vell., Fl. Flumin.: 84. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 102. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis apricis mediterraneis prope Praedium Boavista"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mssl198651_105] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 102. 1831 (published plate designated as lectotype by Knapp, 2002: 62):

*Accepted name.* – *Solanum pseudocapsicum* L.

Pubescent plants of *S. pseudocapsicum* from both southern Brazil and Mexico were long called *S. diflorum*, but Knapp (2002) put these two names in synonymy; Mentz & Oliveira (2004) followed this usage. Sendtner (1846) and Sampaio & Peckolt (1943) accepted this species as distinct from *S. pseudocapsicum*.

*Solanum edule* Vell., Fl. Flumin.: 88. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 121. 1831 ("1827"), nom. illeg., non *Solanum*

*edule* Schumach. & Thonn. 1827 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Maritimis raro rescit, mediterraneis frequentissime, praesertim silvis recentur excultis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_124] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 121. 1831.
*Accepted name.* – *Solanum sisymbrifolium* Lam.

The deeply pinnatifid leaves and densely prickly stems together with the habitat description of occurrence in abandoned fields and red berries make identification of *S. edule* unambiguous. The epithet coined by Vellozo suggests the fruits were eaten, but he does not mention this, only that the fruits were cherry colored ("Colore cerasa imitantur"—colour cherry-like).

*Solanum elegans* Vell., Fl. Flumin.: 2: 83. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 95. 1831 ("1827"), nom. illeg., non *Solanum elegans* Dunal 1814 ≡ *Solanum arrabidae* Steud., Nomencl. Bot., ed. 2, 2: 600. 1841 ≡ *Cyphomandra velloziana* Sendtn., Flora 28: 175. 1845 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat tum mediterraneis, tum maritimis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_098] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 95. 1831 (published plate designated as lectotype by Bohs, 1994: 152).
*Accepted name.* – Not identifiable to a particular species, could be *Solanum premnifolium* (Miers) Bohs

Species of southern Brazilian members of the Cyphomandra clade are very similar morphologically and are distinguished by details of stigma and anther morphology, not apparent in Vellozo's (1831b) very stylized plate. In her monograph of *Cyphomandra* Bohs (1994: 152) considered this name as dubious because the details of morphology particular to *S. premnifolium* such as the slender style and the prominent pedicellar remnants are not visible in Vellozo's (1831b) ilustration. The Lista de Espécies da Flora do Brasil (Stehmann & al., 2014) lists *S. elegans*, *S. arrabidae* and *Cyphomandra velloziana* as dubious names. Sendtner (1845: 175) was apparently unaware of Steudel's (1841) epithet, and did not cite it in synonymy of his *Cyphomandra velloziana*.

*Solanum ellipticum* Vell., Fl. Flumin.: 84. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 100. 1831 ("1827"), nom. illeg., non *Solanum ellipticum* R.Br. 1811 ≡ *Solanum johannae* Bitter in Repert. Spec. Nov. Regni Veg. 12: 645. 1913 – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Habitat eodem loco, quo praecedens [silvis maritimis Pharmacopolitanis]"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_103] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 100. 1831 (published plate designated as lectotype by Chiarini, 2013a: 170):
*Accepted name.* – *Solanum cylindricum* Vell.

Bohs (2001) treats this as a synonym of *S. cylindricum*, despite the lack of specimens from the Rio de Janeiro or São Paulo area (see above) and did not designate a lectotype for this name. Sendtner (1846) treated this and *S. cylindricum* as members of his genus *Cyphomandra* as *C. elliptica* (Vell.) Sendtn. and *C. cylindrica* (Vell.) Sendtn., respectively. Mentz & Oliveira (2004) treated this species as *S. johannae*, and did not mention the name *S. cylindricum* (see above).

*Solanum fasciculatum* Vell., Fl. Flumin.: 85. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 106. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat campis apricis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_109] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 106. 1831 (published plate designated as lectotype by Rodrigues & Stehmann, 2013: 136).
*Accepted name.* – *Aureliana fasciculata* (Vell.) Sendtn.

Sendtner (1846: 138) segregated the genus *Aureliana* Sendtn. from *Solanum* and included species with fasciculate inflorescences and stamens with free filaments (in contrast to the cymose inflorescences and connivent stamens of *Solanum*). He suggested that *A. fasciculata* was a variety of *A. lucida* (Moric.) Sendtn. That name was used until the two taxa were considered con-specific by Hunziker & Barboza (1991); subsequent authors have maintained this usage (Rodrigues & Stehmann, 2013; Zamberlan & al., 2015). Vellozo's epithet predates that of Moricand (1837) by ten years. *Aureliana* Sendtn. is a later homonym of *Aureliana* Boehm. (Boehmer, 1760: 283), a synonym of *Panax* L. (Araliaceae); this has been overlooked by monographers (Hunziker & Barboza, 1991) and in generic treatments of Solanaceae (e.g., Hunziker, 2000). Recent molecular work (Zamberlan & al., 2015) has shown *Aureliana* Sendtn. and *Athenaea* Sendtn. form a monophyletic group, thus this epithet will need to be transferred to the available and correct generic name *Athenaea* Sendtn.

*Solanum flaccidum* Vell., Fl. Flumin.: 87. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 115. 1831 ("1827") – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Habitat silvis maritimis Pharmacopolim"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_118] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 115. 1831 (published plate designated as lectotype by Knapp, 2013: 144).
*Accepted name.* – *Solanum flaccidum* Vell.

The identification of Vellozo's (1831b) plate with this species is unambiguous. The unequal anthers and broadly cordate leaves of *S. flaccidum* are clearly depicted. Sendtner (1846) and Sampaio & Peckolt (1943) accepted this name as have all subsequent authors (e.g., Knapp, 2013).

*Solanum gnaphalocarpon* Vell., Fl. Flumin.: 82. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 91. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Crescit campis apricis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section

of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_094] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 91. 1831 (published plate designated as lectotype by Knapp, 2002: 272).

*Accepted name.* – *Solanum gnaphalocarpon* Vell.

The distinctive pubescent berries, anisophyllous sympodial units and small flowers are clearly depicted in Vellozo's plate and this name has long been in unambiguous use (Sendtner, 1846; Knapp, 2002; Mentz & Oliveira, 2004).

*Solanum havanense* Vell., Fl. Flumin.: 82. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 94. 1831 ("1827"), nom. illeg., non *Solanum havanense* Jacq. 1760 – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Silvis maritimis Pharmacopolitanis crescit"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_097] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 94. 1831 (published plate designated as lectotype by Knapp, 2008: 414).

*Accepted name.* – *Solanum lacteum* Vell.

Knapp (2008) included this name in the synonymy of *S. havanense* Jacq., a species confined to the islands of the Caribbean. It is probably the case that Vellozo was applying Jacquin's name to a species from Brazil, rather than coining a new name, but there is no evidence to that effect in the publication. The editor of the Index recognised the homonymy and non-identity of these names (Vellozo, 1831a: 10). Closer examination of the illustration suggests that the name is referring to *S. lacteum*, the distinctive constrictions at the base of the calyx lobes in fruit match that species. Members of the Geminata clade to which these taxa belong are very similar morphologically and are difficult to distinguish without good specimens. Sendtner (1846: 57) treated this name as dubious in a section entitled "Icones Florae Fluminensis et scientiae botanicae et artis defectum saepe parae ferentes de speciebus nos incertos reliquerunt, quae sequuntur" (Illustrations from Flora Fluminensis that are both botanically and artistically lacking that leave us uncertain as to their identity).

*Solanum hexandrum* Vell., Fl. Flumin.: 88. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 122. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat silvis nondum cultis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_125] and later published in Vellozo, Fl. Flumin.: 2: t. 122. 1831.

*Accepted name.* – *Solanum hexandrum* Vell.

The very large, usually 6-parted flowers upon which the epithet is based make identification of this taxon unambiguous. *Solanum hexandrum* was accepted by Sendtner (1846) and others (e.g., Whalen, 1984; Stehmann & al., 2014).

*Solanum inaequale* Vell., Fl. Flumin.: 87. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 116. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat silvis maritimis ad ripas fluvii vulgo dicti Taguahy"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_119] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 116. 1831 (published plate designated as lectotype by Knapp, 2002: 114):

*Accepted name.* – *Solanum pseudoquina* A.St.-Hil.

*Solanum inaequale* was a long-accepted name for this taxon prior to Knapp (2002) who found *S. pseudoquina* was the older name. The Vellozo name refers to the distinctive unequal anthers of this common species and the type of *S. pseudoquina* is in fruit. Sendtner (1846) accepted *S. inaequale* as a species distinct from *S. pseudoquina*.

*Solanum inodorum* Vell., Fl. Flumin.: 85. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 107. 1831 ("1827") – **Lectotype (designated here):** Brazil. [São Paulo?]: "Habitat ad radices Alpium Paratyensium"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_110] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 107. 1831 (published plate designated as lectotype by Knapp, 2013: 154).

*Accepted name.* – *Solanum inodorum* Vell.

*Solanum inodorum* is a distinctive species and is easily recognised from the plate based on its pseudoaxillary inflorescences and exfoliating bark (Knapp, 2013). Knapp (2013) incorrectly cited the state of Rio de Janeiro as the type locality, while the collection was more probably from the state of São Paulo.

*Solanum jubeba* Vell., Fl. Flumin.: 89. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 124. 1831 ("1827"), nom. utique rej. prop. – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat campis apricis mediterraneis apricis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_127] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 124. 1831 (published plate designated as lectotype by Chiarini, 2013b: 225).

*Accepted name.* – *Solanum insidiosum* Mart.

*Index Kewensis* (now available at IPNI, http://www.ipni.org) lists the name *Solanum juripeba* Vell. ex Steud. (Nomencl. Bot., ed. 2, 2: 603. 1841), but we can find no such name proposed in Steudel's work. Steudel (1841: 603) cites a "*juripeba Arrab.* pycnanthemum" (referring to Father Antônio de Arrábida, one of the editors of Vellozo's work) but no species "*S. juripeba*" occurs in Vellozo's work either in the descriptions, plates or later index; it is possible that this is a misprint or misinterpretation of Vellozo's *S. jubeba*. "Juripeba" or "jurubeba" is the common name for many spiny solanums in Brazil, but is only used by Vellozo (1829: 90) for his second instance of *S. bifissum* (see above). Sampaio & Peckolt (1943) suggested that Vellozo's *S. jubeba* should be the accepted name for *S. insidiosum* Mart. (an accepted species in the Erythrotrichum group that also includes *S. pycnanthemum* Sendtn., the species cited by Steudel; Agra, 2004). Chiarini (2013b) listed *S. jubeba* in the synonymy of *S. paniculatum* L., but the entire, apparently glabrescent leaves with strong three-parted

venation from the base, elongate thin buds and deeply lobed corolla depicted by Vellozo fit better with plants of *S. insidiosum* and we do not agree with the treatment of *S. jubeba* in the synonymy of *S. paniculatum*. We propose this name for suppression (Knapp & al., 2015b).

*Solanum lacteum* Vell., Fl. Flumin.: 82. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 93. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Silvis nondum cultis ad rivulos, vel stagna crescit"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_096] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 93. 1831 (published plate designated as lectotype by Knapp & al., 2015a: 24); epitype designated by Knapp & al. (2015a: 24).
*Accepted name.* – *Solanum lacteum* Vell.
*Solanum lacteum* is a member of the Geminata Clade, a group of glabrous forest species difficult to distinguish without good specimens (Knapp, 2002; Knapp & al., 2015a). Vellozo (1827) described several members of this clade and though some of the names have long been in use (e.g., *S. caavurana*, *S. gnaphalocarpon*) this is one that was treated as probably referring to a member of the genus *Aureliana* by Knapp (2002). It was resurrected by Stehmann & al. (2014) to refer to small shrubs with few flowers in tight clusters with white inflorescence axes; we retain that usage here.

*Solanum multiangulatum* Vell., Fl. Flumin.: 91. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 133. 1831 ("1827"), nom. utique rej. prop. – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat silvis maritimis, et mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_136] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 133. 1831.
*Accepted name.* – Possibly *Solanum echidnaeforme* Dunal
Although the leaf shape and cauline prickles in Vellozo's plate suggest this represents *S. echidnaeforme*, the calyces are not represented as covering the corolla in bud, not allowing a precise match, and no other species can be associated with this illustration. We have proposed this name for suppression (Knapp & al., 2015b).

*Solanum nigrum* Vell., Fl. Flumin.: 85. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 109. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Undequaeque nascitur"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_112] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 109. 1831.
*Accepted name.* – *Solanum americanum* Mill.
Vellozo might have been using the name *S. nigrum* here in its Linnaean sense, but the taxon depicted in the plate is clearly *S. americanum*, with pseudoumbellate inflorescences and tiny anthers. The editor of the Index recognised the homonymy and non-identity of these names (Vellozo, 1831a: 10). Sendtner (1846: 16) treated it as a synonym of *Solanum nodiflorum* var. *angulosum* Sendtn., a synonym of *S. americanum*. *Solanum americanum* is common in secondary habitats through the coastal areas of São Paulo and Rio de Janeiro states.

*Solanum odoriferum* Vell., Fl. Flumin.: 85. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 108. 1831 ("1827") – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Habitat silvis maritimis Pharmacopolitanis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_111] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 108. 1831 (published plate designated as lectotype by Morton, 1976: 61).
*Accepted name.* – *Solanum odoriferum* Vell.
The distinctive truncate calyx and elliptic leaves depicted in Vellozo's (1831b) illustration make identification of this species unambiguous (Mentz & Oliveira, 2004). The epithet refers to the fragrant flowers.

*Solanum oleraceum* Vell., Fl. Flumin.: 89. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 125. 1831 ("1827"), nom. illeg., non *Solanum oleraceum* Dunal 1813 ≡ *Solanum alternatopinnatum* Steud., Nomencl. Bot., ed. 2, 2: 600. 1841 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Silvis nondum cultis, tum maritimis, tam mediterraneis habitat"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_128] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 125. 1831 (published plate designated as lectotype by Matesevach Becerra, 2013: 290).
*Accepted name.* – *Solanum alternatopinnatum* Steud.
This species was known for a long time by the name *S. juciri* Mart. ex Sendtn. *Solanum juciri* is illegitimate because *S. alternatopinnatum* was cited in synonymy, with the comment "nomen ineptissimum plantae ab auctore non visae pinni tam alternantibus quam oppositis instructe datum" (this is a silly name given to this plant by the author who did not see alternate but opposite leaflets); Sendtner (1846) recognized the existence of Steudel's name but considered it inappropriate.

*Solanum paratyense* Vell., Fl. Flumin.: 90. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 130. 1831 ("1827") – **Lectotype (designated here):** Brazil. Rio de Janeiro: "Offendi ad littoral Pitaguaba dicta, trans cautes Cairusú tractu Pharmacopolitano"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_133] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 130. 1831.
*Accepted name.* – *Solanum jussiaei* Dunal
The hooked prickles depicted in Vellozo's (1831b) illustration are typical of this somewhat rare species of the littoral of Rio de Janeiro. The members of this alliance are rarely collected because they are often lianas of the canopy. Sampaio & Peckolt (1943) treat *S. paratyense* as an accepted name and cite Taubert's (1893: 16) treatment of two additional species in

synonymy (*S. ovalifolium* var. *campylacanthum* Dunal [a synonym of *S. scuticum* M.Nee] and *S. glaziovii* Hiern [a synonym of *S. jussiaei*]).

*Solanum perianthomega* Vell., Fl. Flumin.: 87. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 118. 1831 ("1827"), nom. utique rej. prop. – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Silvis maritimis crescit"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_121] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 118. 1831.

*Accepted name*. – *Athenaea picta* (Mart.) Sendtn.

Sampaio & Peckolt (1943) suggested that this taxon was the same as *Solanum megalochiton* Sendtn., but it is clear from the plate that it instead refers to a group of species with inflated calyces in the *Athenaea*/*Aureliana* complex (Rodrigues & Stehmann, 2013; Zamberlan & al., 2015). Both *Athenaea picta* and *A. pogogena* (Moric.) Sendtn. occur in the Rio de Janeiro area, but *A. pogogena* has a distinctly pubescent fruit, not depicted in the plate. We have proposed this name for suppression (Knapp & al., 2015b).

*Solanum repandum* Vell., Fl. Flumin.: 88. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 123. 1831 ("1827"), nom. illeg., non *Solanum repandum* G.Forst. 1786 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat campis apricis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_126] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 123. 1831.

*Accepted name*. – *Solanum variabile* Mart.

This name was treated by Sendtner (1846: 79) under his description *S. variabile* with the comment "quod foliis latioribus corollisque profundis partitis depictum" (that depicted with wider leaves and more deeply divided corollas). He did not list this name in the normal position of synonymy (before the description and after the diagnosis), but instead at the end of the description with a question mark indicating his uncertainty over the identity of the plate.

*Solanum sericeum* Vell., Fl. Flumin.: 83. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 97. 1831 ("1827"), nom. illeg., non *Solanum sericeum* Ruiz & Pav. 1799 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_100] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 97. 1831.

*Accepted name*. – Possibly *Solanum capoerum* Dunal

As with the preceeding taxon, Sendtner (1846: 45) did not list this name in the normal position of synonymy (before the description and after the diagnosis), but instead at the end of the description of his species *S. cinnamomeum* Sendtn. with a question mark indicating his uncertainty over the identity of the plate. He commented "huc forsan pertinent" (perhaps pertaining to this species). The plate clearly represents a member of the Brevantherum clade (sensu Weese & Bohs, 2007), although a precise match would require microscopic analysis of trichome types. Nevertheless, we consider this name more likely to represent *S. capoerum*, a species not treated by Sendtner, due to the conspicuous and dense indumentation represented in the adaxial leaf surfaces that is not observed in other species such as *S. itatiaiae* Dusén or *S. sellowianum* Sendtn. (Giacomin, 2015). The habitat cited by Vellozo – "campis mediterraneis" – that refers to open areas at higher elevations (Lima, 1995) is also the habitat of *S. capoerum*, whose type is from "Serra dos Orgãos".

*Solanum sinuatifolium* Vell., Fl. Flumin.: 91. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 132. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat mediterraneis et maritimis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_135] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 132. 1831.

*Accepted name*. – *Solanum capsicoides* All.

Sendtner (1846: 59) treated this (along with *S. arrebenta*) as a synonym of *S. aculeatissimum*, under which he grouped many names now referring to various species of sect. *Acanthophora* (see Nee, 1974). Considerable confusion over the identity of these species, all of which are native in southeastern Brazil, existed until Nee (1974) established the identity of these taxa and re-established use of *S. capsicoides*, rather than *S. ciliatum* Lam. by which name they were long known, for these Brazilian plants.

*Solanum stipulatum* Vell., Fl. Flumin.: 87. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 116. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Campis apricis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_120] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 116. 1831 (published plate designated as lectotype by Knapp, 2002: 340).

*Accepted name*. – *Solanum stipulatum* Vell.

Sendtner specifically rejected Vellozo's plate of *Solanum stipulatum* as "icon mala" (Sendtner, 1846: 25) and treated this as a synonym of his new *Solanum rivulare*. In fact, as stated in Knapp (2002) the plate is an accurate, if somewhat stylized depiction of this species. Sampaio & Peckolt (1943) pointed out that Vellozo's name had priority.

*Solanum subscandens* Vell., Fl. Flumin.: 90. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 128. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat silvis maritimis et mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_131] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 128. 1831 (published plate designated as lectotype by Agra, 2004: 201).

*Accepted name*. – *Solanum cordifolium* Dunal

Sendtner (1846) accepted *S. subscandens* as did Sampaio & Peckolt (1943). Agra (2004) in her synopsis of sect. *Erythrotrichum* A.Child listed it as a synonym of *S. cordifolium* citing the sinuate leaf margins characteristic of that species that are apparent in the Vellozo illustration.

*Solanum subumbellatum* Vell., Fl. Flumin.: 85. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 105. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat campis apricis mediterraneis"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_108] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 105. 1831.
*Accepted name.* – *Solanum subumbellatum* Vell.

This is the name that has long been used for a common species of spiny *Solanum* found all over southern Brazil. Although the illustration, like all the rest, is highly stylized, its identity is relatively clear. An epitype should be designated to aid with interpretation, but we feel this should be done in the context of monographic revision of the group to which this species belongs.

*Solanum tabaccifolium* Vell., Fl. Flumin.: 81. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 89. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Maritimis aeque, ae mediterraneis praecipue silvis recentur excultis crescit"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_092] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 89. 1831.
*Accepted name.* – *Solanum mauritianum* Scop.

Sendtner (1846) treated this as a synonym of *Solanum auriculatum* Ait., the name by which *S. mauritianum* was previously known and over which *S. mauritianum* has priority.

*Solanum terminale* Vell., Fl. Flumin.: 84. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 101. 1831 ("1827"), nom. illeg., non *Solanum terminale* Forssk. 1775 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat campis apricis mediterraneis prope Pagum Cunha"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_104] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 101. 1831.
*Accepted name.* – *Solanum itaitaie* Dusén

Sendtner (1846: 34) treated this name as a synonym of his *S. isodynamum* Sendtn., now considered an highly restricted range species only known from the hills of Minas Gerais (Giacomin, 2015). He also treated *S. terminale* Vell. as a synonym of *S. subumbellatum* (Sendtner 1846: 79); both citations were accompanied by question marks. From the locality citation, description and narrow leaves in the illustration it is more likely this name refers to the high-elevation *S. itaitaiae*, known from the Cunha region.

*Solanum triphyllum* Vell., Fl. Flumin.: 88. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 120. 1831 ("1827") – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat campis mediterraneis trans-alpinis. Offendi ad viam prope aediculam Praedii vulgo dicti Boavista"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_123] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 120. 1831 (published plate designated as lectotype by Knapp, 2013: 143).
*Accepted name.* – *Solanum flaccidum* Vell.

Knapp (2013) did not accept the synonymy proposed by Sendtner (1846), who placed this name in the synonymy of *S. prunifolium* Willd. (a synonym of the cultivated *S. seaforthianum* Andrews). The large flowers and dimorphic leaves suggest a young plant of *S. flaccidum*. It could, however, be either species, *S. seaforthianum* is known from this region usually in cultivation, but is naturalised in many tropical and subtropical parts of the world. The oldest Brazilian specimen cited in Knapp (2013) for *S. seaforthianum* is from the island of Fernando de Noronha (*Ridley & al. 69*, coll. 1887); *S. seaforthianum* was not in common cultivation in southern Brazil at the time Vellozo was collecting for *Flora Fluminensis*.

*Solanum uniflorum* Vell., Fl. Flumin.: 86. 1829 ("1825"); Fl. Flumin. Icon. 2: t. 114. 1831 ("1827"), nom. illeg., non *Solanum uniflorum* Dunal 1814 – **Lectotype (designated here):** Brazil. [Rio de Janeiro]: "Habitat campis mediterraneis prope praedium Boavista"; [illustration] Original parchment plate of *Flora Fluminensis* in the Manuscript Section of the Biblioteca Nacional, Rio de Janeiro [cat. no.: mss1198651_117] and later published in Vellozo, Fl. Flumin. Icon. 2: t. 114. 1831 (published plate designated as lectotype by Knapp, 2002: 62).
*Accepted name.* – *Solanum pseudocapsicum* L.

This name has been accepted as a synonym of *Solanum pseudocapsicum* by many authors (Sendtner, 1846; Sampaio & Peckolt, 1943; Knapp, 2002; Mentz & Oliveira, 2004).

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