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SHORT COMMUNICATION

The identity of two obscure names of Violaceae from the Flora Brasiliensis context: nomenclatural novelties within *Hybanthus communis*

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Background and aims – *Ionidium racemosum* Nees & Mart. and *I. maximilianii* Eichler had their identities obscured by missing types and poor descriptions. Recent searches through historical collections revealed that they are synonyms of *Hybanthus communis* (A.St.-Hil.) Taub., and the nomenclatural revision that followed this finding required some typological adjustments that are presented here.
Methods – The main collections known to house specimens from the context of Flora Brasiliensis were consulted, especially in Europe and North America. Further searches were performed at the libraries and archives of these institutions or on the internet, in order to gather pertinent historical literature.
Key results – A nomenclatural revision of *Hybanthus communis* is provided with a historical background to support the typological modifications that were performed. Three lectotypifications and four new synonyms are presented here.

Key words – Historical collections, Flora Brasiliensis, *Hybanthus communis*, *Ionidium maximilianii*, *Ionidium racemosum*, nomenclature, taxonomy, Violaceae.

INTRODUCTION

The beginning of the 19th century in Brazil was marked by the arrival of the Portuguese Court to its territory, which inspired an urge for the settlement and conquest of the land. The transfer of the Portuguese crown to Brazil was shortly followed by the *Decree of the Opening of Ports to Friendly Nations* signed by King João VI, an event which is considered a landmark in the history of country's scientific research, disrupting the old colonial system, and inaugurating a golden age for the pursuit of knowledge (Papavero 1971, Costa 2008). With respect to biological resources, the 19th century is thus marked by the journeys of several European naturalists and collectors who pioneered in the survey of the Brazilian natural resources (Lorenz & Peixoto 1980).

One of the most famous naturalists whose name is deservedly closely associated with the Brazilian flora is Carl Friedrich Philipp von Martius, who traveled some 10,000 km around the country from 1817 to 1820. Martius' expedition resulted in around 20,000 plant specimens, which were used as the starting point to the only complete flora of Brazil ever published, *Flora Brasiliensis* (FAPESP 2013). Martius' Brazilian herbarium represented only part of the material botanists had available to elaborate their descriptions of the species. As a collaborative effort of specialists from all around the world, Martius' collections were complemented by other naturalists' and collectors' who would take the products of their trips back to their institutions or private collections. Many of these samples were eventually sent away to other herbaria in such a way that today taxonomists are able to find duplicates of a given collection in several herbaria around the globe. Thus, after almost seventy years of work, when the last volume of Flora Brasiliensis was published in 1906, the impressive figures produced by this project, including the treatment of nearly 23,000 species, were in great extent guaranteed by names as Johann Baptist Pohl, Auguste de Saint-Hilaire, Ludwig Riedel, Prince Maximilian zu Wied, Friedrich Sellow, George Gardner, among many others who wandered around the Brazilian wilderness in the 1800's (Urban 1906, Dwyer 1955, Prance 1971, Ewan 1991, Moraes 2009).

A myriad of events throughout history have made this priceless material – especially with regard to types – to go temporarily missing or inexorably lost from wars and political/economic instability, the lack of methods and technology to properly label and identify the specimens, and the

inaccuracy of information in protologues (Voss 1999, Poppendieck 2001, Lendemer & Hewitt 2002, Eggli & Leuenberger 2008), all of which has forced present-day botanists to undergo an enduring detective work to track the location of type specimens.

This study brings to light the identity of two names in *Ionidium* (= *Hybanthus*, Violaceae, Melchior 1925, Paula-Souza 2014) linked to Prince Wied's and Riedel's collections, both of which have long remained as uncertain taxa due to their missing type specimens and poor descriptions: *I. racemosum*, described by Nees and Martius in Prince Maximilian's *Beitrag zur Flora Brasiliensis* (Wied-Neuwied 1824) and *I. maximilianii*, published in *Flora Brasiliensis* (Eichler 1871). Careful searches through historical collections within European herbaria succeeded in locating the missing collections, allowing their proper identification as co-specific with *Ionidium commune* A.St.-Hil. [= *Hybanthus communis* (A.St.-Hil.) Taub.], a frequent shrub throughout eastern South America. The nomenclatural revision of *I. commune* and its synonyms that followed this finding revealed the necessity of some typological adjustments that are herein presented.

MATERIALS AND METHODS

Searches were performed at the main collections known to house specimens from the context of Flora Brasiliensis, especially in Europe and North America, as follows: B, BM, BR, G, GOET, GZU, K, LE, M, MEL, NY, P, R, RB, S, TO, US, W, and WU (acronyms according to Thiers 2013). Further searches were performed at the libraries and archives of these institutions, or on the internet, in order to gather pertinent historical literature regarding the original descriptions of names and biography of the botanists involved.

NOMENCLATURAL TREATMENT AND DISCUSSION

Hybanthus communis (A.St.-Hil.) Taub. (Reiche & Taubert 1895: 333). – *Ionidium commune* A.St.-Hil. (Saint-Hilaire 1824: 252). – *Solea commune* (A.St.-Hil.) Spreng. (Sprengel 1827: 97). – *Calceolaria communis* (A.St.-Hil.) Kuntze (Kuntze 1891: 41). – Type: Brazil. [protologue] "Habitat in sylvis primaevis et caeduis, circa domos. Floret Januario–Aprili". [label] "Près de la maison d'Itajuru, Cap. des MGerais, Janvier 1817" [between Araxá and Cachoeirinha, Apr. 1819], *Saint-Hilaire* Catal. C1-469[bis] (lecto-: P 00594918, **designated here** by Paula-Souza & Moraes).

Note – Saint-Hilaire did not mention any specimen as type in the protologue of *Ionidium commune*, besides the very short description of the new taxa. A few months later, the French botanist provided a more detailed description for *I. commune* in his *Tableau Monographique* (Saint Hilaire 1825[1]), but still failed to precisely indicate any specimen from his collections, mentioning only "Habitat in sylvis primaevis et caeduis, circà domos". Our searches pointed to the existence of two collections held in French herbaria that could equally fit this description. According to what is known of Saint-Hilaire's itineraries, the syntypes were both gathered in Minas Gerais state but were given different collection numbers (371 and C1-469) in Saint-Hilaire's collection at P, the former also having duplicates in Montpellier. Searches through Saint-Hilaire's field books (CRIA 2013) indicated that his collection number 371 belongs to catalogue B1, and that number 469 of catalogue C1 is a Myrtaceae, the precise reference to this *Ionidium* being '469[bis]'

The sheet deposited at MPU (MPU 010794) and cited at the virtual database as nr. 371 might be a mixed collection of both numbers, as it shows two separate branches, each one with its own label attached by a string, but both faced down preventing their visualization. Another specimen at P (P 00594919) has a label '371' tied to the branch, but is annotated '469' at the sheet's label, not by Saint-Hilaire's handwriting, which should be disregarded as a posterior mistaken addition to the label. Furthermore, incompatibilities between the label in specimen number 469 and the itinerary/dates corresponding to this collection in catalogue C1 suggests that it is probably a case of mixed labels with nr. 371, as this particular field book was written in 1819-1820 and Itajuru was not visited in this trip (Urban 1906: 95, Pignal et al. 2013: 14). The precise collecting site and date are not indicated at catalogue C1, but the itinerary provided by Urban (1906: 95) combined with neighbouring collection numbers at the field book place 469[bis] between Araxá and 'Caxueirinha' (Cachoeirinha, a district c. 100 km E of Araxá), and point the correct collection date for this plant in April 1819.

Despite the mixed labels, sample nr. 469 is the one that bears the characteristic sheet with the original description of the species by Saint-Hilaire's own handwriting, which often indicates the author's holotypes at P, and for this reason it is here elected as lectotype. The citation of the type's label includes the original mistaken information followed by the derived, accurate data in brackets, as recommended by Pignal et al. (2013).

Another issue that needs to be addressed is concerning the accurate spell of the collecting site in specimen 469's label (though mistaken). The virtual herbarium of the collection in Paris reproduces this label as "près de la maison d'Huguon", a misconstruction that may lead to erroneous citations. The correct interpretation for the label at the lectotype of *I. commune* is not 'Huguon', but 'Itajuru', a frequent toponym within Saint-Hilaire's collections.

= *Ionidium guaraniticum* A.St.-Hil. (Saint-Hilaire 1824: 253). – *Hybanthus guaraniticus* (A.St.-Hil.) Baill. (Baillon 1884: 841). – Type: Brazil. [protologue] "Crescit in sylvulis ad ripas fluminis *Ibicui* in provinciâ dictâ *Missoes*. Florebat Februario". [label] "Rio Grande do Sul. Bois au bord de l'Ibicui province de Missoes", Feb. 1820, *Saint-Hilaire* Catal. C2-2626[bis] ["2626'] (holo-: P 00594917; iso-: P 00594922).

Note – According to Saint-Hilaire's field books (CRIA 2013), the correct reference for the type of *Ionidium guaraniticum* is C2-2626[bis], C2-2626 being a Passifloraceae.

1 This exact content was later published by Saint-Hilaire in the "*Histoire des Plantes les plus Remarquables du Brésil et du Paraguay*", probably in 1826.

= *Ionidium sylvaticum* A.St.-Hil. (Saint-Hilaire 1824: 252). – *Solea sylvatica* (A.St.-Hil.) Spreng. (Sprengel 1827: 97). – Type: Brazil. [protologue] "Inveni in silvis propè praedium *Cana braba* circiter 14l. ab urbe dicta *Villa do príncipe*. Florebat Aprili". [label] "Bois près Cana Braba Province de MGerais", [Apr.] 1817, *Saint-Hilaire* Catal. B1-1058 (holo-: P 02141258; iso-: P 02141259).

Note – Pignal et al. (2013) state that numbers 103–2085 of Saint-Hilaire's catalogue B1 were collected between December 1816 and March 1818. Although there is no indication on the specimen, the information provided in the protologue of *Ionidium sylvaticum* leaves no doubts as to assigning its precise collection date as April 1817.

= *Ionidium racemosum* Nees & Mart. (Wied-Neuwied 1824: 49). – *Hybanthus racemosus* (Nees & Mart.) Hassl. (Hassler 1909: 214). – Type: Brazil. [protologue] "Circa via Felisbertiam, Decembri". [label] "Str. v. C. F. B.", Dec. 1816, *Prinz Wied-Neuwied* s.n. (LV) (holo-: LE; iso-: BR 0000006593100), **syn. nov.**

Note – According to Stafleu & Cowan (1981), Beitrag zur Flora Brasiliensis was published in two parts in 1823 and 1824 – volumes 11 and 12 of Nova Acta, respectively, and the treatment of 'Violarieae' in the second volume, part 1, raises doubts regarding the priority between *Ionidium racemosum* and *I. commune*. The first report of incoming materials at the Leopoldina Academy between 1823 and 1824, "Continuatio Catalogi …" indicates that the entries were received on 28 Nov. 1824 (volume 12, part 1), meaning that this volume could only be published in December. In Isis von Oken for the year 1824, the reception of volume 12 part 1 of Nova Acta Leopoldina was just acknowledged and briefly commented, but its contents were not reproduced (under the "Literarischer Anzeiger Nr. XXXVIII, 1824, p. 1095"), which only happened in the 1825 volume (under the "Allgemeine Naturgeschichte, p. 191–193"). The exact release date of Saint-Hilaire's original description of *Ionidium commune* (Saint-Hilaire 1824) is uncertain. However, comparisions with other Saint Hilaire's works published in 1824 indicate that this species was published before August, thus previous to the volume in Wied's work where *I. racemosum* is described.

An incontestable type of *Ionidium racemosum* was found at LE (electronic appendix A), bearing Prince Maximilian's original label where it reads "Str. v. C. F. B. [Strasse von Colonel Felisberto Brant] / Blume weißl./ 2 f. hoher / LV" ("Road of Colonel Felisberto Brant / flower whitish / 2 ft. high / LV"), and label from the Herbarium of Nees von Esenbeck, with Nees' own handwriting annotating the identification of the specimen as "*Ionidium racemosum* n. sp.". Another type specimen was later found in Meise (BR 0000006593100, electronic appendix B[2]), labeled with the same original label by Wied, but also a Flora Brasiliensis' label "Eichler in Martii Flora Brasil", annotated by Eichler as "*Ionidium maximiliani* Eichl.". This specimen shows the same morphological pattern exhibited by the type of *I. racemosum* found at LE, but the absence of further types of *I. maximilianii* and the difficulty to interpret Wied's handwriting in gothic German could mislead to the assumption that the specimen at BR is one of the syntypes of Eichler's species, instead of a duplicate of the type in LE (see further details under *I. maximilianii*).

It is known that a set of 650 numbers from Prince Maximilian's collection was either donated or sold to Martius (Eichler 1869: 13, Urban 1906, Moraes 2009), but his whole collection is actually dispersed in several herbaria, including Saint Petersburg. Moraes (2009) states that part of the materials received by Martius, currently deposited at BR, were used and described by him and Nees von Esenbeck. Nonetheless, there is no evidence that this particular specimen of *Ionidium* in Meise was seen by either of the authors, and the specimen at LE is the one that shows unquestionable proof of Nees's handling, thus being treated here as holotype of *I. racemosum*.

= *Ionidium maximilianii* Eichler (Eichler 1871: 370). – *Calceolaria maximilianii* (Eichler) Kuntze (Kuntze 1891: 41). – *Hybanthus maximilianii* (Eichler) Hassl. (Hassler 1909: 213). – Type: Brazil. "In umbrosis pr. Castel-Novo", Apr. 1822, *Riedel* 715 (lecto-: LE 00003765, **designated here** by Paula-Souza & Moraes; isolecto-: LE 00003764), **syn. nov.**

Note – Eichler (1871) indicated two syntypes for *Ionidium maximilianii*, one collected by Prince Maximilian in Cabo Frio (Rio de Janeiro state), and the other by Riedel in Castelo Novo (Bahia state). A couple of specimens belonging to the latter collection were found at LE, but the identity of the other syntype is rather puzzling. A specimen in Saint Petersburg (LE 00003766) collected by Wied was doubtfully annotated by N. Imkhanitskaya as a syntype, and is further annotated by Nees with "Ionidium ? / Cap frio / Klaenze No 24" in a label from Herbarium Nees ab Esenbeck. The same material was found in Meise and Munich (BR0000005849765, BR0000005850099, M 0113140), but not separated as types. As it turns out, this specimen is actually a Turneraceae, listed under the entry number 1051 of the Catalogue of Brazilian plants collected by Prince Maximilian of Wied (Moraes et al. 2013b: 198), and extensive searches by this author failed to locate any record for *Ionidium* or Violaceae by Wied at this particular collecting site in Rio de Janeiro. It remains unclear the reasons why this specimen was separated as a syntype of *I. maximilianii* at LE, whether Wied ever collected a *Ionidium* in Cabo Frio or whether Eichler really intended to indicate a Wied specimen from this site in his monograph. All evidence point to the fact that Prince Maximilian's collection of *Ionidium* from Via Felisbertia – the isotype of *Ionidium racemosum* housed in BR and annotated by Eichler as *Ionidium maximilianii* (BR 0000006593100, see further details in *I. racemosum*) – is the specimen used in the description of *I. maximilianii* and that should have been indicated in the protologue of Flora Brasiliensis, but for some unknown reason, Wied's specimen from Cabo Frio was erroneously indicated instead. Whatever deviation occurred and as reasonable as the evidence might be proving that Eichler did not mean to choose a *Turnera* as syntype for his new species of

2 Image available at http://www.br.fgov.be/RESEARCH/COLLECTIONS/HERBARIUM/zoomifyimaging.php?filename=0000006593100

Ionidium, he explicitly indicates in the protologue a collection by Wied in Cabo Frio that is so far missing, leading us to the obvious choice of Riedel's syntype as the lectotype of *Ionidium maximilianii*.

Even though *Ionidium racemosum* is co-authored by the mastermind of Flora Brasiliensis and its type is readily available at Martius' Herbarium, it is odd that this name is not found anywhere in Eichler's monograph of Violaceae. Either Eichler was unaware of a pre-existing name for Wied's collection in Via Felisbertia, or he deliberately had the intention of giving a new name to the species, obscuring Martius' binomial by publicizing his own tribute to Prince Maximilian in a work that would be the reference for the family for many years to come.

= *Ionidium commune* A.St.-Hil. var. *glabrifolium* ("*glabrifolia*") Chodat (Chodat 1898: 13). – Type: Paraguay. "Ad ripam fluvii Iuqueri", Nov., *Hassler* 1537 (holo-: G; iso-: BM, K, NY, P), **syn. nov.**

= *Ionidium commune* A.St.-Hil. var. *circaeoides* ("*circaeoide*") Chodat (Chodat 1902: 733). – Type: Paraguay. "In regione vicine San Estanislao", Aug., *Hassler* 4156 (lecto-: G, **designated here** by Paula-Souza; isolecto-: BM, K, NY), **syn. nov.**

Note – Chodat cited three different specimens as types for his new variety of *Ionidium commune*, all of them equally suitable as lectotypes: *Hassler* nr. 4156 and 4156a, gathered on the same occasion, and nr. 5018, collected in October "in dumeto pr. Ipé-hu". The remaining syntypes are deposited at BM and G.

= *Solea martii* Colla (Colla 1833: 269). Type: Brazil. Loco haud indicato, s.d., *Anonymous* s.n. (lecto-: TO, designated by Moraes et al. 2013a).

Note – *Solea martii* is one of the many names described by Colla based on samples received from Martius' Brazilian herbarium (Fryxell 1976, Moraes et al. 2013a). Colla places his new species of Violaceae as "*Species dubia*", due to the uncertainty concerning the most adequate generic designation to use among the several names applied to the genus *Hybanthus* at the time. The author does not indicate a particular specimen as type for *S. martii*, but mentions that it had been sent by Martius under the name *Jonidium* without further indication other than being collected in Brazil ("Specimen missum a cl. Martio sub nomine *Jonidii* sine alia indication, atque in *Brasilia* lectum…"). The only specimen found in TO that is liable to be considered as type bears a label that faithfully reproduces Colla's protologue, leaving no doubt as to its recognition as the holotype. However, the position accepted here regarding the typification of *S. martii* follows a general recommendation of the curators in Turin, that Colla's types be treated as lectotypes for historical reasons (Moraes et al. 2013a: 24).

SUPPLEMENTARY MATERIAL

Supplementary data are available in pdf at *Plant Ecology and Evolution*, Supplementary Data Site (http://www.ingentaconnect.com/content/botbel/plecevo/supp-data), and consist of images of the holotype (LE) and isotype (BR) of *Ionidium racemosum*.

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REFERENCES

Baillon H.E. (1884) Traité de botanique médicale phanérogamique, fasc. 2. Paris, Hachette et Cie.

Chodat R. (1898) Plantae Hasslerianae soit énumération des plantes récoltées au Paraguay par le Dr. Émile Hassler, d'Aarau (Suisse) de 1885–1895 et déterminées par le Prof. Dr. R. Chodat avec l'aide de plusieurs collaborateurs. Bulletin de l'Herbier Boissier 6, app. 1: 1–42.

Chodat R. (1902) Plantae Hasslerianae soit énumération des plantes récoltées au Paraguay par le Dr. Émile Hassler, d'Aarau (Suisse), de 1885 à 1895 et de 1898 à 1900 (à suivre). Bulletin de l'Herbier Boissier, sér. 2, 2(8): 733–747.

Colla L.A. (1833) Herbarium Pedemontanum, Vol. 1. Ex Typis Regiis, Torino. http://dx.doi.org/10.5962/bhl.title.44905

Costa C.R. (2008) O príncipe Maximiliano de Wied-Neuwied e sua viagem ao Brasil (1815–1817). Ms thesis, University of São Paulo, São Paulo, Brazil.

CRIA (2013) Herbário Virtual de A. de Saint-Hilaire [online]. Available from http://hvsh.cria.org.br/works [accessed 23 Sep. 2013].

Dwyer J.D. (1955) The botanical catalogues of Auguste de St. Hilaire. Annals of the Missouri Botanical Garden 42: 153–170. http://dx.doi.org/10.2307/2394600

Eggli U., Leuenberger B.E. (2008) Type specimens of Cactaceae in the Berlin Herbarium (B). Willdenowia 38: 213–280. http://dx.doi.org/10.3372/wi.38.38116

Eichler A.W. (1869) Das Herbarium Martii. München, Kgl. Hofbuchdruckerei von Dr. C. Wolf & Sohn.

Eichler A.W. (1871) Violaceae. In: Martius C.F.P, Eichler A.W. (eds) Flora Brasiliensis 13(1): 345–396. Leipzig, Frid. Fleischer.

Ewan J. (1991) Who conquered the New World? Or four centuries of exploration in an indehiscent capsule. Annals of the Missouri Botanical Garden 78: 57–64. http://dx.doi.org/10.2307/2399590

FAPESP (2013) Flora Brasiliensis On-Line. Available from http://www.fapesp.br/publicacoes/flora/ [accessed 19 Sep. 2013].

Fryxell P.A. (1976) On some Brazilian Malvaceae of Martius, published by Colla in 1833. Taxon 25(5/6): 589–593. http://dx.doi.org/10.2307/1220115

Hassler E. (1909) La nomenclature des espèces Austro-Américaines du genre Hybanthus Jacq. Bulletin de la Société botanique de Genève, sér. 2, 1: 212–215.

Kuntze C.E.O. (1891) Revisio generum plantarum vascularium omnium atque cellularium multarum secundum leges nomen-

claturae internationales cum enumeratione plantarum exoticarum in itinere mundi collectarum. Pars I. Leipzig, Arthur Feliz; London, Dulau & Co.; Milano, U. Hoepli; New York, Gust. E. Stechert; Paris, Charles Klincksieck.

Lendemer J.C., Hewitt D.A. (2002) A catalogue of the type specimens of lichens in the Herbarium of The Academy of Natural Sciences of Philadelphia. Proceedings of the Acacemy of Natural Sciences of Philadelphia 152: 173–204. http://dx.doi.org/10.1635/0097-3157(2002)152%5B0173:ACOTTS%5D2.0.CO;2

Lorenz K.M., Peixoto M.I.H. (1980) Os itinerários de seis grandes expedições científicas realizadas no Brasil [The itineraries of six great scientific expeditions in Brazil]. Ciência e Cultura, São Paulo, Brasil: Sociedade Brasileira para o Progresso da Ciência 32(11): 1518–1525.

Melchior H. (1925) Violaceae. In: Engler H.G.A, Prantl K.A. (eds) Die natürlichen Pflanzenfamilien, 2nd Ed., 21: 329–377. Leipzig, Berlin, Wilhelm Engelmann.

Moraes P.L.R. de (2009) The Brazilian herbarium of Maximilian, Prince of Wied. Neodiversity 4: 16–51. http://dx.doi.org/10.13102/neod.42.1

Moraes P.L.R. de, De Smedt S., Esser H.-J., Gallagher C., Guglielmone L. (2013a) On some Brazilian plants distributed by Martius in 1827 and published by Colla in 1833. Harvard Papers in Botany 18: 23–36. http://dx.doi.org/10.3100/025.018.0105

Moraes P.L.R. de, Robbrecht E., De Smedt S., Dressler S., Heinrichs J., Reiner-Drehwald M.H., Drescher A., Scharfetter A., Frödén P., Esser H.-J., Gallagher C., Guglielmone L., Rainer H. (2013b) Catalogue of Brazilian plants collected by Prince Maximilian of Wied. Scripta Botanica Belgica, vol. 49. Meise, National Botanic Garden of Belgium.

Papavero N. (1971) Essays on the history of Neotropical Dipterology, with special reference to collectors (1750 – 1905), vol. 1. São Paulo, Museu de Zoologia, Universidade de São Paulo.

Paula-Souza J. de (2014) Violaceae in lista de espécies da Flora do Brasil. Jardim Botânico do Rio de Janeiro [online]. Available from http://floradobrasil.jbrj.gov.br/jabot/floradobrasil/FB15225 [accessed 13 Jun. 2014].

Pignal M., Romaniuc-Neto S., Souza S., Chagnoux S., Canhos D.A.L. (2013) Saint-Hilaire virtual herbarium, a new upgradeable tool to study Brazilian botany. Adansonia, sér. 3, 35(1): 7–18. http://dx.doi.org/10.5252/a2013n1a1

Poppendieck H-H. (2001) A botanical odyssey: the evacuation of the Hamburg Herbarium 1943–1990. In: Rushton B.S., Hackney P., Tyrie C.R. (eds) Biological collections and biodiversity. Otley, Westbury Academic & Scientific Publishing.

Prance G.T. (1971) An index of plant collectors in Brazilian Amazonia. Acta Amazonica 1(1): 25–65.

Reiche K.F., Taubert P.H.W. (1895) Violaceae. In: Engler H.G.A., Prantl K.A.E. (eds) Die natürlichen Pflanzenfamilien nebst ihren Gattungen und wichtigeren Arten insbesondere den Nutzpflanzen, unter Mitwirkung zahlreicher hervorragender Fachgelehrten. Teil III, Abteilung 6. Leipzig, Wilhelm Engelmann.

Saint-Hilaire A.F.C.P. (1824) Indication abrégée des plantes de la flore du Brésil méridional, qui appartiennent au groupe des Droséracées, des Violacées, des Cistées et des Frankeniées. Annales des Sciences Naturelles, ser. 1, 2: 248–255.

Saint-Hilaire A.F.C.P. (1825) Tableau monographique des plantes de la flore du Brésil méridional appartenant au groupe (classe Br.) qui comprend les Droséracées, les Violacées, les Cistées et les Frankeniées. Mémoires du Muséum d'Histoire Naturelle 11: 445–498.

Sprengel K.P.J. (1827) Caroli Linnæi, ... Systema Vegetabilium. Editio Decima Sexta, Curante Curtio Sprengel… Voluminis IV. Pars II. Curae Posteriores. Göttingen, Sumtibus Librariae Dieterichianae.

Stafleu F.A., Cowan R.S. (1981) Taxonomic literature: a selective guide to botanical publications and collections, with dates, commentaries and types. 2nd Ed., vol. 3. Utrecht, Bohn, Scheltema & Holkema; The Hague, dr. W. Junk b.v., Publishers.

Thiers B. (2013) [continuously updated] Index Herbariorum: a global directory of public herbaria and associated staff. New York Botanical Garden's Virtual Herbarium [online]. Available from http://sweetgum.nybg.org/ih/ [accessed 19 Sep. 2013].

Urban I. (1906) Vitae itineraque collectorum botanicorum, notae collaboratorum biographicae, Florae Brasiliensis ratio edendi chronologica, systema, index familiarum. In: Martius C.F.P., Eichler A.W., Urban I. (eds) Flora Brasiliensis 1(1):1–268. München, Leipzig, apud R. Oldenbourg in comm.Typographia Regia C. Wolf et fil., Monachii et Lipsiae apud R. Oldenbourg in comm.

Voss E.G. (1999) Labeling of herbarium specimens. The Michigan Botanist 38: 57–63.

Wied-Neuwied M.A.P. zu (1824) Beitrag zur Flora Brasiliens. Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae Naturae Curiosorum 12(1):1–54.

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NOTE

While this paper was in advanced stage of proof, a molecular phylogenetic study confirmed the polyphyly of *Hybanthus* and showed the need to resurrect the genus *Pombalia* for many *Hybanthus* species, including *Hybanthus communis* dealt with here (Paula-Souza & Ballard 2014). These authors provide the combination *Pombalia communis* (A.St.-Hil.) Paula-Souza.

Paula-Souza J. de, Ballard H.E. (2014) Re-establishment of the name Pombalia, and new combinations from the polyphyletic Hybanthus (Violaceae). Phytotaxa 183: 1–15. http://dx.doi.org/10.11646/phytotaxa.183.1.1