



Lectotypification of names in the genus *Lycianthes* (Solanaceae)

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Abstract

As part of a revision of the Mexican and Central American species of the genus *Lycianthes* (Solanaceae), 15 names or synonyms in the genus, including many names published by the German botanist Georg Bitter, are lectotypified.

Keywords: *Lycianthes*, Solanaceae, Mexico, Central America, plant taxonomy

Introduction

Lycianthes (Dunal 1852: 29) Hassler (1917: 180) (Solanaceae) has both Old World and New World representatives and includes 150 to 200 species (D'Arcy 1991, Hunziker 2001). Its center of distribution and the majority of its taxa are found in the New World (from Mexico to Argentina). As part of a project that will provide online species descriptions for all New World *Lycianthes* species at the Solanaceae Sources website (<http://solanaceaesource.org/>), it is necessary to lectotypify both accepted names and synonyms. This paper, which concentrates on the *Lycianthes* of Mexico and Central America, is a first contribution to that effort.

The genus *Lycianthes* was last monographed in 1919 by the German botanist Georg Bitter. In his monograph, Bitter included 189 taxa (species, subspecies, and varieties), and he added 11 more *Lycianthes* taxa in two subsequent publications (Bitter 1919, 1922, 1924). Many of the taxa treated by Bitter were transferred from other genera such as *Solanum* Linnaeus (1753: 184) or *Brachistus* Miers (1849: 264), but he also named new taxa. Bitter's species descriptions were notably detailed, however he did not indicate holotype specimens. His descriptions are followed by a short list of the specimens that he examined and the herbaria housing the specimens. The specimens cited by Bitter after the taxa that he named himself serve as syntypes from which a lectotype needs to be chosen (McNeill *et al.* 2012). Similarly, some of the taxon names that Bitter transferred into *Lycianthes* also lack holotypes and need to be lectotypified.

Materials and methods

Using the resources provided by Global Plants (available at <https://plants.jstor.org/>) and other online virtual herbaria, we searched for the syntype specimens cited by Bitter and other authors online. If not available online, requests for images of the syntype specimens were sent to the herbaria cited as housing the syntypes in the original protologues. In a few cases, we obtained specimens on loan. We studied the specimens kept in the following public herbaria (acronyms according to Thiers 2018): A, B, BM, BR, C, E, ENCB, F, G, GH, GOET, K, LD, LE, M, MICH, MO, MPU, NDG, NY, P, PH, S, U, US, W, WIS.

Specimens and digital images were examined to make sure that they had been annotated by the author who published the taxon and that the specimen is the best representation of the original description. Whenever possible, lectotypes were chosen to correspond with the home institution of the taxon author. In some cases, the herbarium listed

as housing an important syntype is the Berlin herbarium. Unfortunately, most type material at the Berlin Herbarium, including that of the Solanaceae, was destroyed when the Berlin herbarium was bombed in 1943 (Hiepko 1978, 1987). As the fate of a particular specimen cited by Bitter is not easily known, alternate syntypes not housed at Berlin that were cited and seen by Bitter were often chosen to be the lectotype. We were able to view some photos of Berlin types at the Field Museum of Natural History (F) website (http://emuweb.fieldmuseum.org/botany/search_berlin.php), although the photos themselves cannot be designated as types (see Grimé and Plowman 1986, for an explanation of the Field Museum type photograph project).

Typifications of names

Lycianthes amatitlanensis (J.M.Coult. & Donn.Sm.) Bitter (1919: 441)

≡ *Solanum amatitlanense* J.M.Coult. & Donn.Sm. in Donnell Smith (1904: 420).

Type (lectotype, designated here):—GUATEMALA. Alta Verapaz: Cubilquitz, 350 m, Feb 1903, *von Tuerckheim 8488* (US barcode 01269192!, isolectotypes F barcode 0073066F [digital photo!], M barcode M-0171813 [digital photo!], NY barcode 00138963 [digital photo!], NY barcode 00138964!, US barcode 01014253!; image of the lectotype is available at <https://collections.nmnh.si.edu/search/botany/>).

Nomenclatural notes:—Donnell Smith (1904) cited three gatherings in the protologue with no herbaria specified: *von Tuerckheim 8488*, *von Tuerckheim 7753*, *Donnell Smith 1457*. We traced several specimens in the herbaria F, GH, K, M, NY, and US belonging to the cited gatherings: *von Tuerckheim 8488* (US barcode 01269192, F barcode 0073066F, M barcode M-0171813, NY barcode 00138963, NY barcode 00138964, US barcode 01014253); *von Tuerckheim 7753* (NY barcode 00138966, US barcode 01014252, US barcode 01269193); *Donnell Smith 1457* (F barcode 0073065F, GH barcode 00077435, K barcode K000585748, US barcode 00027445). These specimens completely agree with the protologue and with the current application of the name (Benitez de Rojas and D’Arcy 1997, Dean 2018) and can be safely considered as original material (Art. 9.3. of the ICN, McNeill *et al.* 2012). The *von Tuerckheim 8488* specimen at US (US barcode 01269192) is selected here as the lectotype for the name *Solanum amatitlanense*.

Taxonomic notes:—*Lycianthes amatitlanensis*, a member of Bitter’s cohesive series *Strigulosae* (Bitter 1919), is a small shrub with simple, strigose trichomes that ranges from southern Mexico to South America (Benítez de Rojas and D’Arcy 1997; Villaseñor 2016). With further study, this name may be synonymized with the South American *L. inaequilatera* (Rusby 1896: 90) Bitter (1919: 439).

Lycianthes anomala Bitter (1919: 514)

Type (lectotype, designated here):—MEXICO. Veracruz: Rio Blanco, Orizaba, *Bourgeau 2536* (BR barcode 000000552905 [digital photo!], isolectotypes G barcode G00415142 [digital photo!], GH barcode 00077065 [digital photo!], K barcode K000063121 [digital photo!], MPU barcode MPU310734 [digital photo!], P barcode P00385091 [digital photo!], P barcode P00385092 [digital photo!], S [cited by Bitter, but not seen]; image of the lectotype is available at <http://www.br.fgov.be/RESEARCH/COLLECTIONS/HERBARIUM/detail.php?ID=503587>).

Nomenclatural notes:—Bitter (1919) cited three gatherings in the protologue: *Bourgeau 2536*, *Bourgeau 1753*, *Ross 1158*, and he cited the herbaria housing the specimens that he examined (BR, G, MPU, P, and S). We located most of the original material that he cited and annotated: *Bourgeau 2536* (BR barcode 000000552905), G barcode G00415142, MPU barcode MPU310734, P barcode P00385091, P barcode P00385092, S [not seen]; *Bourgeau 1753* (BR barcode 000000552839, G barcode G00415141, M barcode M-0171795, MPU barcode MPU310733, P barcode P00368664, P barcode P00368663, S [not seen]; *Ross 1158* (M barcode M-0171796). The *Bourgeau 2536* specimen at BR (BR barcode 000000552905) is selected here as the lectotype for the name *Lycianthes anomala*.

Taxonomic notes:—*Lycianthes anomala* is an epiphytic vine or shrub with dendritic trichomes and purple, stellate corollas. Traditionally, it has been treated as a Mexican endemic (known from the states of Veracruz and Oaxaca), but it may also occur in Central America (Reyes Cornejo 2015, Villaseñor 2016).

Lycianthes ceratocalycia (Donn.Sm.) Bitter (1919: 498)

≡ *Brachistus ceratocalycius* Donnell Smith (1909: 297).

Type (lectotype, designated here):—GUATEMALA. Alta Vera Paz: Bergwald bei Cobán, 1600 m, Jan 1908, *von Tuerckheim II 2060* (US

barcode 00624002!, islectotypes BM barcode 000514916(BM) [digital photo!], E barcode E00190707 [digital photo!], F barcode 0072757F [digital photo!], M barcode M-0171534 [digital photo!], NY barcode 00007074 [digital photo!], US barcode 00624001!; image of the lectotype is available at <https://collections.nmnh.si.edu/search/botany/>).

Nomenclatural notes:—Donnell Smith (1909) cited one gathering in the protologue: *von Tuerckheim II 2060* with no herbarium specified. We traced several specimens in the herbaria BM, E, F, M, NY, and US belonging to the cited gathering: *Tuerckheim II 2060* (US barcode 00624002), BM barcode 000514916(BM), E barcode E00190707, F barcode 0072757F, M barcode M-0171534, NY barcode 00007074, US barcode 00624001). These specimens completely agree with the protologue and with the current application of the name (Gentry & Standley 1974) and can be safely considered as original material (Art. 9.3. of the ICN, McNeill *et al.* 2012). One of the *von Tuerckheim II 2060* specimens at US (US No. 1335153 [barcode 00624002]) is selected here as the lectotype for the name *Brachistus ceratocalycius*.

Taxonomic notes:—*Lycianthes ceratocalycia* is an herb to shrub with purple, stellate corollas that occurs in southern Mexico and Guatemala. It was under-collected until quite recently and mainly known from the type specimens. One of its most distinctive characters is a rough, scurfy texture on the young branches formed by horizontal indentations.

***Lycianthes ferruginea* Bitter (1919: 339)**

Type (lectotype, designated here):—VENEZUELA. [Aragua]: Colonia Tovar, 6500 feet, *Fendler 991* (GOET barcode GOET003445 [digital photo!], islectotypes BR barcode 000000552909 [digital photo!], G [cited by Bitter but not seen], K barcode K000585770 [digital photo!], K barcode K000585771 [digital photo!], MO barcode MO-503608 [digital photo!], MO barcode MO-503614 [digital photo!], NY barcode 00007287 [digital photo!], NY barcode 00007290 [digital photo!], PH barcode 00016310 [digital photo!]; image of the lectotype is available at https://plants.jstor.org/stable/10.5555/al.ap.specimen.goet003445?searchUri=filter%3Dname%26so%3Dps_group_by_genus_species%2Basc%26Query%3Dlycianthes%2Bferruginea).

Nomenclatural notes:—Bitter (1919) cited three gatherings in the protologue: *Fendler 991*, *Moritz 1642*, and *Gollmer s.n.*, and he cited the herbaria housing the specimens that he examined. We located most of the original material he cited and annotated at the herbaria B, BM, BR, G, GOET, and HBG: *Fendler 991* (GOET barcode GOET003445, BR barcode 000000552909, G [not seen]; *Moritz 1642* (B [specimen not seen; F photo negative available # 2572!], BM barcode BM000799670, HBG barcode HBG-511432); *Gollmer s.n.* (B [not seen; F photo negative not available]). The *Fendler 991* specimen at GOET (GOET barcode GOET003445) is selected here as the lectotype for the name *Lycianthes ferruginea*.

Taxonomic notes:—*Lycianthes ferruginea* is a Central and South American shrub or vine with brown, dendritic trichomes, a calyx structure that resembles the closely-related *Lycianthes pauciflora* (Vahl 1797: 20) Bitter (1919: 341), and white, entire corollas.

***Lycianthes ferruginea* Bitter var. *firmior* Bitter (1919: 340)**

Type (lectotype, designated here):—COSTA RICA. [San Jose]: Descende de la Ardilla près San Marcos, 900–1355 m, Mar 1893, *Tonduz 7666* (BR barcode 000000552844 [digital photo!], islectotype BR barcode 000000552877 [digital photo!]; image of the lectotype is available at <http://www.br.fgov.be/RESEARCH/COLLECTIONS/HERBARIUM/detail.php?ID=503627>).

Nomenclatural notes:—Bitter (1919) cited two gatherings in the protologue: *Tonduz 7666* and *Tonduz 7939*, and he cited the herbaria housing the specimens that he examined. Bitter cited and annotated material of *Tonduz 7666* at BR (BR barcode 000000552844, BR barcode 000000552877). The only original material cited by Bitter of *Tonduz 7939* was at B and has not been traced, and no F photo negative is available. One of the *Tonduz 7666* specimens at BR (BR barcode 000000552844) is selected here as the lectotype for the name *Lycianthes ferruginea* var. *firmior*.

Taxonomic notes:—This variety was described by Bitter based on Costa Rican material, and with further study it may be treated as a synonym of *Lycianthes ferruginea*.

***Lycianthes furcatistellata* Bitter (1919: 401)**

Type (lectotype, designated here):—COSTA RICA. [San José:] La Palma, 1550 m [approximately 10.049246, -83.988661], 18 Dec 1888, *Pittier 685* (BR barcode 000000552910 [digital photo!]; image of the lectotype is available at <http://www.br.fgov.be/RESEARCH/COLLECTIONS/HERBARIUM/detail.php?ID=503667>).

Nomenclatural notes:—Bitter (1919) cited three gatherings in the protologue: *Pittier 685*, *Tonduz 12612*, and *Wercklé 61*, and he cited the herbaria housing the specimens that he examined. We were able to locate the original material that he examined at B, BR, and US: *Pittier 685* (BR barcode 000000552910); *Tonduz 12612* (US No. 861202, barcode 00027877); *Wercklé 61* (B [specimen not seen; F photo negative available # 2573!]). The *Pittier 685* specimen at BR (BR barcode 000000552910) is selected here as the lectotype for the name *Lycianthes furcatistellata*.

Taxonomic notes:—*Lycianthes furcatistellata* is a Central American shrub or vine with simple to dendritic, brown trichomes, leaves with rounded bases, long pedicels, and purplish, entire corollas.

Lycianthes geminiflora (M.Martens & Galeotti) Bitter (1919: 497)

≡ *Solanum geminiflorum* Martens & Galeotti (1845: 142).

Type (lectotype, designated here):—MEXICO. Oaxaca: Chinantla, 3000 ft, *Galeotti 1242* (BR barcode 000000552845 [digital photo!], islectotypes BR barcode 000000552904 [digital photo!]; LE barcode LE00016926 [digital photo!]; image of the lectotype is available at <http://www.br.fgov.be/RESEARCH/COLLECTIONS/HERBARIUM/detail.php?ID=503672>).

Nomenclatural notes:—Martens and Galeotti (1845) cited one gathering in the protologue: *Galeotti 1242*, and although no herbarium or exact specimen was specified, the original material collected by Galeotti was first deposited at herbarium BR. We traced two specimens at BR: BR barcodes 000000552845 and 000000552904. One of the *Galeotti 1242* specimens at BR (BR barcode 000000552845) is selected here as the lectotype for the name *Solanum geminiflorum*.

Taxonomic notes:—*Lycianthes geminiflora* is an herb to shrub with white stellate corollas that occurs in the cloud forests of Mexico. It is closely related to *Lycianthes heteroclita* (Sendtner 1846: 193) Bitter (1919: 494) but occurs at higher elevations and has a smaller calyx. The relationship between the two species needs study.

Lycianthes heteroclita (Sendtn.) Bitter var. *gracilis* Bitter (1919: 496)

Type (lectotype, designated here):—PANAMA. Canal Zone: Railroad relocation between Gorgona and Gatun, 10–50 m, *Pittier 2281* (US No. 676535 [digital photo!], islectotype US No. 676536 [not found]).

Nomenclatural notes:—Bitter (1919) cited three gatherings in the protologue: *Pittier 2281*, *Williams 818*, *Tonduz 14727*, and he cited the herbaria housing the specimens he examined (and sometimes the accession number). We were able to locate part of the original material that he examined at the herbaria G-BOIS and US: *Pittier 2281* (US No. 676535 [annotated by Bitter as *L. geminiflora*], US No. 676536 [not found at US]); *Williams 818* (US No. 678304 [not found at US]); *Tonduz 14727* (G-BOIS-00415144! [annotated by Bitter as *L. heteroclita* ssp. *coalescens* Bitter (1919: 496)]. The original material pertaining to *L. heteroclita* var. *gracilis* is problematic in that part of it is missing and the two specimens that we were able to locate were annotated by Bitter with a different name. Despite having annotated the US specimen of *Pittier 2281* as *L. geminiflora*, the specimen label specifies the floral color (violet) mentioned in Bitter's description of *L. heteroclita* var. *gracilis* which differs from that of *L. geminiflora* (white). Therefore the specimen of *Pittier 2281* at US (US No. 676535) is selected here as the lectotype for the name *L. heteroclita* var. *gracilis*.

Taxonomic notes:—This variety of the widespread *L. heteroclita* was described from Costa Rica and Panama as a variant with purple, stellate corollas (as opposed to the more common white color found further north). This color variant is the only color variant known from Costa Rica and Panama and merits further study.

Lycianthes inaequilatera (Rusby) Bitter (1919: 439)

≡ *Bassovia inaequilatera* Rusby (1896: 90).

≡ *Brachistus inaequilaterus* (Rusby) Rusby (1907: 470).

Type (lectotype, designated here):—BOLIVIA. [La Paz: Prov. Larecaja] Between Tipuani and Guanai, Dec 1892, *Bang 1708* (NY barcode 00138545!, islectotypes A barcode 00076919 [digital photo!], B [cited by Bitter (1919), not seen; F photo negative not available], BM barcode BM-000815915 [digital photo!], E barcode E00190709 [digital photo!], F barcode 0072756F [digital photo!], GH barcode 00077688 [digital photo!], K barcode K000585784 [digital photo!], LE barcode LE-00016827 [digital photo!], M barcode M-0171840 [digital photo!], MICH barcode 1109881 [digital photo!], MO barcode 503604 [digital image!], NDG barcode 45053 [digital photo!], NY barcode 00138544!, NY barcode 00138546!, PH barcode 00030426 [digital photo!], US barcode 00027421!, US barcode 00027422!, US barcode 00811226 [digital photo!], W-5612 [cited by Bitter (1919), not seen], WRSL [cited by Bitter (1919), not seen], WU [cited by Bitter (1919), not seen]; image of lectotype available at <http://sweetgum.nybg.org/science/vh/>.

Nomenclatural notes:—Rusby (1896) cited one gathering, *Bang 1708*, in the protologue with no herbarium or accession numbers specified. We were able to trace many duplicates of the gathering in herbaria worldwide: NY barcode 00138545, A barcode 00076919, B [cited by Bitter (1919), not seen; F photo negative not available], BM barcode BM-000815915, E barcode E00190709, F barcode 0072756F, GH barcode 00077688, K barcode K000585784, LE barcode LE-00016827, M barcode M-0171840, MICH barcode 1109881, MO barcode 503604, NDG barcode 45053, NY barcode 00138544, NY barcode 00138546, PH barcode 00030426, US barcode 00027421, US barcode 00027422, US barcode 00811226, W-5612 [cited by Bitter (1919), not seen], WRSL [cited by Bitter (1919), not seen], WU [cited by Bitter (1919), not seen]. These specimens completely agree with the protologue and can be safely considered as original material (Art. 9.3. of the ICN, McNeill *et al.* 2012). One of the specimens of *Bang 1708* at NY (NY barcode 00138545) is selected here as the lectotype for the name *Bassovia inaequilatera*.

Taxonomic notes:—As discussed above under *L. amatitlanensis*, further study is needed to decide whether *L. inaequilatera* is a separate species or the same as *L. amatitlanensis*. Both species are small shrubs with strigose trichomes belonging to the cohesive series *Strigulosae* (Bitter 1919).

Lycianthes multiflora Bitter (1919: 361)

Type (lectotype, designated here):—COSTA RICA. Cartago: Las Vueltas, Tukurrique, 635 m, Jan 1899, *Tonduz 13173* (M barcode M-0165975 [digital photo!], isolectotypes B [not seen; F photo negative available # 2584], BM barcode 000775268 [digital photo!], ENCB barcode ENCB003797 [digital photo!], G barcode G00343135 [digital photo!], K barcode K000585740 [digital photo!], LD barcode 1688216 [digital photo!], US [cited by Bitter (1919), not seen], W-12658 [cited by Bitter (1919), not seen]; image of lectotype available at <https://plants.jstor.org/stable/viewer/10.5555/al.ap.specimen.m0165975>).

Nomenclatural notes:—Bitter (1919) cited three gatherings in the protologue, and he cited the herbaria that housed the specimens he examined. We were able to locate very few of the specimens from the original material that Bitter examined at B, M, US, and W: *Tonduz 13173* (M barcode M-0165975, B [not seen; F photo negative available # 2584], US, [cited by Bitter (1919), not seen], W-12658 [cited by Bitter (1919), not seen]); *Tonduz 9308* (B [not seen; F photo negative not available], BR barcode 000000563193); *Tonduz 14732* (B [not seen; F photo negative not available]). The specimen of *Tonduz 13173* at M (M barcode M-0165975) is selected here as the lectotype for the name *L. multiflora*.

Taxonomic notes:—*Lycianthes multiflora* is a very common vine in Costa Rica, but its species and geographic boundaries need further study. It has dendritic trichomes and white corollas.

Lycianthes multiflora Bitter var. *plicitomentosa* Bitter (1919: 363)

Type (lectotype designated here):—COSTA RICA. [Alajuela?]: Naranjo, *Oersted 1384* (C barcode C10021744 [digital photo!], isolectotype C barcode C10021743 [digital photo!]).

Nomenclatural notes:—Bitter (1919) cited one gathering in the protologue, *Oersted 1384* at C. Two specimens of this original material were located at C that were annotated by Bitter: (C barcode C10021744, C barcode C10021743). The specimen of *Oersted 1384* (C barcode C10021744) is selected here as the lectotype for the name *Lycianthes multiflora* var. *plicitomentosa*.

Taxonomic notes:—This variant of *Lycianthes multiflora* was described by Bitter based on trichome characters of the corolla (Bitter, 1919).

Lycianthes nitida Bitter (1919: 501)

Type (lectotype designated here):—GUATEMALA. [Alta Verapaz:] Cubilquitz, 350 m, Aug 1907, *von Tuerckheim II 59* (BR barcode 000000552878 [digital photo!], isolectotypes E barcode E00190704 [digital photo!], M [cited by Bitter (1919), not found at M], NY barcode 00007318 [digital photo!], NY barcode 00007334 [digital photo!], U barcode U-0113931 [digital photo!], US barcode 00027489 [digital photo!], WIS!).

Nomenclatural notes:—Bitter cited two gatherings in the protologue, and he cited the herbaria that housed the specimens that he examined: *von Tuerckheim II 59* (M) and *Donn. Sm. 7637* (B and M). We could not locate the original syntypes seen and cited by Bitter at M or at B, and no F photo negative of the B specimens is available. However, the gathering of *von Tuerckheim II 59* was widely distributed and we were able to trace specimens in the herbaria BR, E, M, NY, U, US, and WIS: (BR barcode 000000552878, E barcode E00190704, M [cited by Bitter (1919), not found at M], NY barcode 00007318, NY barcode 00007334, U barcode U-0113931, US barcode 00027489, WIS). Therefore, we are designating an isosyntype at BR (BR barcode 000000552878) as the lectotype of the name *Lycianthes nitida*.

Although Bitter did not mention or annotate the BR specimen, it is considered part of the original material (see Art. 9.3(c) of the ICN, McNeill *et al.* 2012).

Taxonomic notes:—*Lycianthes nitida* is a relatively common and widely distributed (southern Mexico through Central America) epiphytic herb or shrub with glabrous foliage and purple, stellate corollas.

Lycianthes pilifera (Benth.) Bitter (1919: 427)

≡ *Solanum piliferum* Bentham (1840: 68).

Type (lectotype designated here):—MEXICO. Oaxaca: Llano Verde, 1839, *Hartweg 499* (K barcode K000585745 [digital photo!], isolectotype LD barcode 1212266 [digital photo!]; image of the lectotype available at <https://plants.jstor.org/stable/viewer/10.5555/al.ap.specimen.k000585745>).

Nomenclatural notes:—Bentham cited one gathering, *Hartweg 499*, in the protologue with no herbarium or accession numbers specified. We were able to trace two specimens of *Hartweg 499*: K barcode K000585745, LD barcode 1212266. These specimens completely agree with the protologue and can be safely considered as original material (Art. 9.3. of the ICN, McNeill *et al.* 2012). The *Hartweg 499* specimen at K (K barcode K000585745) is selected here as the lectotype for the name *Solanum piliferum*.

Taxonomic notes:—*Lycianthes pilifera* is a Mexican endemic that occurs in the states of Veracruz and Oaxaca. It is distinguished by its brownish, simple, acute trichomes and showy flowers with white to purple entire corollas and equal stamens. The lustrous, dark purple fruits with large dark seeds are also unusual.

Lycianthes pilifera (Benth.) Bitter var. ***pilosiuscula*** (M.Martens & Galeotti) Bitter (1919: 428)

≡ *Solanum pilosiusculum* Martens & Galeotti (1845: 136).

Type (lectotype, designated here):—MEXICO. Oaxaca: Cerro del Malacate (Pelado Capulalpan and Llano Verde), near Villa Alta, 7500 ft., Nov to Apr 1840, *Galeotti 1171* (BR barcode 000000552882 [digital photo!] [photo WIS!], isolectotypes BR barcode 000000552849 [digital photo!], BR barcode 000000552911 [digital photo!], G barcode G00343182 [digital photo!], K barcode K000585746 [digital photo!], LE barcode LE-00017009 [digital photo!], NY barcode 00139019 [digital photo!], US barcode 00027745 [digital photo!], W No. 156335 [specimen not seen but photos of specimen at WIS! and MO No. 1690668!]).

Nomenclatural notes:—Martens and Galeotti (1845) cited one gathering, *Galeotti 1171*, in the protologue, and duplicates of the gathering were widely distributed at herbaria internationally. We were able to trace specimens kept in BR, G, K, LE, NY, US: (BR barcode 000000552882, BR barcode 000000552849, BR barcode 000000552911, G barcode G00343182, K barcode K000585746, LE barcode LE-00017009, NY barcode 00139019, US barcode 00027745, W No. 156335 [specimen not seen but photos of specimen at WIS and MO No. 1690668]). These specimens completely agree with the protologue and can be safely considered as original material (Art. 9.3. of the ICN, McNeill *et al.* 2012). One of the *Galeotti 1171* specimens at BR, annotated by M. Nee in 1986 as the lectotype (BR barcode 000000552882), is selected here as the lectotype for the name *Solanum pilosiusculum*.

Taxonomic notes:—This taxon will be considered a synonym of *L. pilifera* in an upcoming work by the first author.

Lycianthes symphyandra Bitter (1919: 430)

≡ *Solanum symphyandrum* (Bitter) C.V.Morton in Lundell (1940: 27).

Type (lectotype, designated here):—MEXICO. Veracruz: Mirador, 1842, *Liebmann 1456* (C barcode C10022133 [digital photo!]).

Nomenclatural notes:—Bitter cited four gatherings in the protologue, all from herbarium C. We were able to locate the original material that Bitter cited and annotated at C: *Liebmann 1456* (C barcode C10022133), *Liebmann 1455* (C barcode C10022132), *Liebmann 1458* (C barcode C10022135), *Liebmann 1459* (C barcode C10022134). The specimen of *Liebmann 1456* (C barcode C10022133), is selected here as the lectotype for the name *Lycianthes symphyandra*.

Taxonomic notes:—The name *Lycianthes symphyandra* is considered a synonym of *Lycianthes stephanocalyx* (Brandegee 1917: 374) Bitter (1922: 315–316) (Nee, 1986).

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