

HOW MANY SPECIES OF PLEUROTHALLIDINAE ARE THERE?

Franco Pupulin^{*1,3}, Diego Bogarín^{1,4,5}, and Adam P. Karremans^{1,4}

¹Lankester Botanical Garden, University of Costa Rica, P. O. Box 303-7050, Cartago, Costa Rica; ²Harvard University Herbaria, Cambridge, MA 02138, USA; ³The Marie Selby Botanical Gardens, Sarasota, FL 33577, USA; ⁴Naturalis Biodiversity Center, Leiden, The Netherlands; ⁵Herbarium UCH, Autonomous University of Chiriquí, Chiriquí, Panama

*Corresponding author: franco.pupulin@ucr.ac.cr

Subtribe Pleurothallidinae is possibly the most species-rich of all orchid groups. Nevertheless, they are a young group of plants in terms of scientific learning. The last three decades have been the most active with respect to taxonomic and systematic studies within the group, contributing an increasing rate of new taxa in the subtribe. Can a reasonable estimation of the real diversity of Pleurothallidinae be made at this time? We addressed the question through an analysis of the partial results of a 15-year study of the pleurothallid flora of Costa Rica. We summarized the main historical stages of the discovery of Pleurothallidinae richness and show how much it has changed our understanding of diversity as a consequence of more focused research. In 15 years the number of Pleurothallidinae increased from 433 species to 561 species (+30%). New taxa have been described in most of the pleurothallid genera recorded from Costa Rica, including *Acianthera*, *Anathallis*, *Brachionidium*, *Dracula*, *Dresslerella*, *Echinosepala*, *Lepanthes*, *Masdevallia*, *Myoxanthus*, *Octomeria*, *Pabstiella*, *Platystele*, *Pleurothallis*, *Restrepella*, *Trichosalpinx*, *Trisetella*, *Specklinia*, and *Stelis*. The largest pleurothallid genera in Costa Rica are *Lepanthes* (with 150 species so far), *Stelis* (106 species), and *Pleurothallis* s.s. (51 species), three genera that we have not yet fully monographed. Projecting the trend observed in the genera and groups studied in more detail and mapping the collection effort carried out in Costa Rica, a further 300 new species of Pleurothallidinae could be expected. We can now estimate with some confidence that the total number of Pleurothallidinae for the flora of Costa Rica would exceed 800 species, and this means that roughly 2 of every 5 orchid species recorded in the country will be a pleurothallid. An updated checklist of Pleurothallidinae accepted for the flora of Costa Rica is presented, including 561 species in 30 genera. A new name and two new combinations are proposed in *Stelis*.

Keywords: Pleurothallidinae, diversity, flora of Costa Rica, *Stelis*, nomenclatural novelties

Subtribe Pleurothallidinae is possibly the most species-rich of all orchid groups. Out of the more than 150 genera that have been established to accommodate the diversity of the pleurothallid orchids, only 23 were proposed during the 18th and 19th centuries, and more than half of the genera are less than 15 years old. The proliferation of new genera in Pleurothallidinae is the obvious result of the increasingly rapid discovery of an unsuspected diversity in terms of species, the interrelationships of which proved difficult to assess on the basis of morphological similarities alone. The last three decades have been without a doubt the most active with respect to taxonomic and systematic studies in the group. Publication of monographic works on almost all genera have helped in understanding the extremely high diversity of the Pleurothallidinae and contributed to an increase in the rate of new taxa discovered in each group.

The history of Pleurothallidinae in Costa Rica: The 19th century

The discovery and appreciation of the diversity in Central American Pleurothallidinae (Orchidaceae: Epidendroideae) has been a long and non-linear process. In the last decades of the 19th century, William Botting Hemsley (1843-1924), in his chapter devoted to Orchidaceae for Godman and Salvin's *Biologia*

Centrali-Americana (Hemsley 1883), as well as in the precursor, condensed version of the catalogue published in the *Gardener's Chronicle* (Hemsley 1879), enumerated only 103 species of Pleurothallidinae, arranged in seven genera (Hemsley 1883). The hyper-diversity of *Lepanthes* Sw. in the region spanning from Mexico to Panama was represented in Hemsley's catalog by 18 species only (four of which still unnamed at that time), *Stelis* Sw. *sensu stricto* by 16 species, and *Pleurothallis* R.Br. *sensu lato* (including at least *Acianthera* Scheidw., *Loddigesia* La Llave & Lex., *Specklinia* Lindl., and *Stelis*) by a grand total of 56 taxa.

This information was the result of the botanical activities carried out by a select group of botanists and naturalists who traveled in Central America during the second half of 19th century and who, in the midst of the extraordinary richness of Neotropical flora, devoted their time also to collect quite insignificant plants belonging to Pleurothallidinae. Among them, we must remember at least the seminal work by George Barker (1776-1845), Eugène Bourgeau (1813-1877), Thomas Coulter (1793-1843), Christian Gottfried Ehrenberg (1795-1876), Henri Guillaume Galeotti (1814-1858), John Henchman (?), Wilhelm Friedrich Karwinski (1780-1855), Pablo de la Llave (1773-1833), Friedrich Ernst Leibold (1804-1864), Frederik Michael Liebmann (1813-1856), Jean-Jules Linden (1817-1898), Carl Christian Wilhelm Sartorius (1796-1872), Johann Wilhelm Schaffner (1830-1882), and Christian Julius Wilhelm Schiede (1798-1836) in Mexico; George Ure Skinner (1804-1867) in Guatemala; Berthold Carl Seeman (1825-1871), Ralph Tate (1840-1901), Hermann Wendland (1825-1903), and Charles Wright (1811-1885) in Nicaragua; Auguste R. Endres (1838-1874), Anders Sandoe Oersted (1816-1872), H. Wendland, and Gottlieb Zahn (?-1870) in Costa Rica; B. C. Seeman, Benedikt Roetzl (1823-1885), and Józef Warszewicz (1812-1866) in Panama.

Among the countries of the American isth-

mus, Costa Rica was undoubtedly blessed with the visits of great naturalists of the caliber of the Dane Anders S. Oersted who botanized through the entire accessible areas of the country and was justly labeled "the most important botanist of Central America" (Pennell 1946) and also the German Hermann Wendland, who collected in the mountains around the capital city, in San Ramón, and in the Caribbean plains (Ossenbach 2009). Reichenbach described five new species of Pleurothallidinae from collections of Oersted (Reichenbach 1855, 1858) and another 15 species from the gatherings made in Costa Rica by Wendland in 1857 (Reichenbach 1866). However, the event that changed our knowledge and interpretation of Pleurothallidinae from Central America, and more generally of the great diversity of this subtribe, was the landing in Costa Rica in 1866 of a true alien in the study and illustration of orchids, a figure who could not be described better than as a "perfect orchidologist," Auguste Endrés (Ossenbach *et al.* 2013). Endrés spent the next seven years searching for orchids, traveling by mule and on foot, in an often-inhospitable environment, to reach all possible (and some nearly impossible) corners of Costa Rica known and explored at that time. He was an indefatigable explorer (Ossenbach *et al.* 2010; Ossenbach and Pupulin 2013, Pupulin *et al.* 2014). As a result of this solitary work, a Herculean enterprise accomplished by a single man in the midst of economic constraints and professional delusions, Endrés discovered and collected in Costa Rica over 3500 orchid specimens, most of which were duly prepared for the herbarium. He left more than 800 orchid descriptions ready for the press – half of the whole orchid flora of Costa Rica as we know it. Of these, more than 60% correspond to species of Pleurothallidinae, Endrés' specialty group of orchids. Finally, he prepared more than 1200 illustrations of orchid plants and flowers, mostly including detailed floral analyses. He left 710 drawings of pleurothallids, 221 of *Lepanthes* species alone, 121 of *Stelis sensu stricto*, 65 of *Pleurothallis* in the narrow sense.

At the time of Endrés' journey in Costa Rica, 95% of them were new to science (Pupulin *et al.* 2013). No individual ever produced anything similar before or after him.

One cannot explain why the “king of orchids,” Professor Reichenbach in Hamburg, received from Endrés all the shipments charged with the treasures he sent from the orchid El Dorado (which were perfectly described and illustrated) but then decided to let them lie abandoned in his herbarium. During the short career of Endrés in Costa Rica (he died in 1874 climbing the Sierra Nevada de Santa Marta in Colombia), and during a few years after his death, Reichenbach described only 14 new Pleurothallidinae from Endrés' legacy. By the end of the 19th century, botanists knew less than 40 species of pleurothallids from Costa Rica. Hundreds of species were revealed by Endrés but then forgotten among

the materials of the Reichenbach herbarium, including members of *Acianthera*, *Brachionidium* Lindl., *Lepanthes* Sw., *Masdevallia* Ruiz & Pav., *Myoxanthus* Poepp. & Endl., *Octomezia* R.Br., *Pleurothallis* R.Br., *Restrepia* Kunth, *Specklinia* Lindl., and *Stelis* Sw. There were also the first specimens, drawings and descriptions of taxa belonging to genera that had not been described before, such as *Anathallis* Barb. Rodr., *Barbosella* Schltr., *Diodonopsis* Pridgeon & M.W.Chase, *Dracula* Luer, *Dresslerella* Luer, *Dryadella* Luer, *Echinosepala* Pridgeon & M.W. Chase, *Lepanthopsis* Ames, *Pabstiella* Brieger & Senghas, *Phloeophila* Hoehne & Schltr., *Platystele* Schltr., *Pleurothallopsis* Porto & Brade, *Restrepiella* Garay & Dunst., *Salpistele* Dressler, *Scaphosepalum* Pfitzer, *Trichosalpinx* Luer, *Trisetella* Luer, and *Zootrophion* Luer. This represented perhaps the greatest lost opportunity in the whole of orchid history.

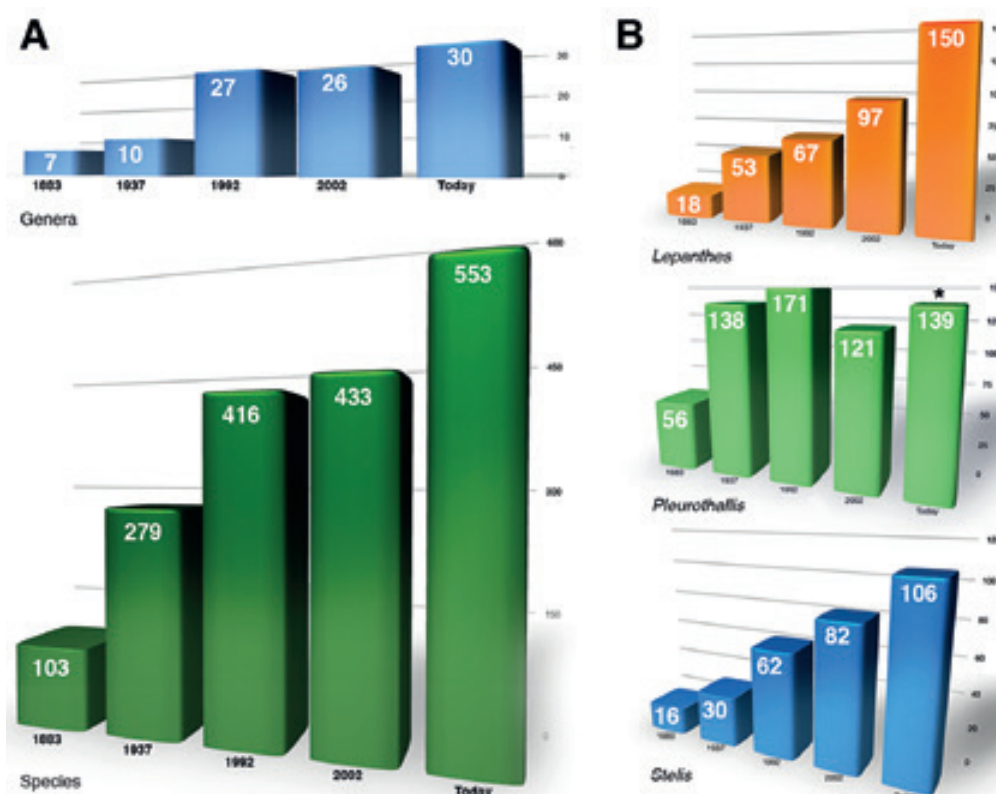


Fig. 1. Number of genera and species of Pleurothallidinae and number of species in the most diverse genera, recorded for the flora of Costa Rica from 1883 to the present. A. Number of genera (blue) and species (green); B. Number of species in the most diverse genera: *Lepanthes* (orange), *Pleurothallis* (green), and *Stelis* (blue). Dates refer to the figures recorded in the following catalogues: 1883 (Hemsley 1883), 1937 (Ames 1937), 1992 (Mora-Retana and García-Castro 1992), 2002 (Pupulin 2002), present-day (Pupulin *et al.*, in prep.). In B, the total number of *Pleurothallis* (indicated with an asterisk) includes species of segregate genera (see text) to facilitate comparison.



Fig. 2. Species of Pleurothallidinae from Costa Rica described in the framework of the project *Flora Costaricensis*. 1. *Acianthera cabiriae*; 2. *A. hamata*; 3. *Brachionidium cornu-nigrum*; 4. *B. kirbii*; 5. *Dracula inexperata*; 6. *Echinosepala expolita*; 7. *E. longipedunculata*; 8. *E. vittata*; 9. *Lepanthes caroli-lueri*; 10. *L. casasaiae*; 11. *L. castilloae*; 12. *L. cribbii*; 13. *L. danieljimenezii*; 14. *L. dikoensis*; 15. *L. durikænsis*; 16. *L. elvirae*. All photos by the authors, except 2 (photo by M. Fernández) and 13 (photo by D. Jiménez).

The 20th century

It was not until the end of the 1930s when a new catalog, in the framework of Paul Standley's activities on the floras of the Central American isthmus (Standley 1925, 1927, 1931, 1933, 1934, 1936, 1937, 1946), brought together the knowledge accumulated about the orchid flora of Costa Rica. Sitting in the middle of the isthmus, Costa Rica was undoubtedly the richest country in Central America for orchid flora, a point on which Standley (1924) had already commented during his first visit to the country in the summer of 1923-1924: "Really to see orchids one must go to Costa Rica, where they almost fill the role of weeds." In preparing his *Flora of Costa Rica* (Standley 1937), he was able to take advantage of the botanical work of a large number of naturalists who had been active in the Central American country during the early decades of the century. Among these, we note Guillermo Acosta Piepper (1878-1955), Pablo Biolley (1861-1908), the brothers Alfred (1867-1955) and

Alexander Curt Brade (1881-1971), Alberto M. Brenes (1870-1948), Otón Jiménez (1895-1988), the same Pittier (who collected the type specimens of ten species of Costa Rican orchids), Adolphe Tonduz (1862-1921), and Carl Wercklé (1860-1924), each of whom contributed several collections to enrich the list of Costa Rican pleurothallids (Barringer 1986; Pupulin 2010a; Pupulin *et al.* 2016). Most of them had taken part in the birth of the autochthonous scientific system promoted in Costa Rica at the beginning of the 1920s, a system basically designed, developed, and led by the Swiss Henry Pittier (1857-1950) through the institutions that the country had created for this purpose, namely the Museo Nacional and the Instituto Físico-Geográfico de Costa Rica (Ossenbach 2009). The role of the Museum in discovering the enormous diversity of orchids in Costa Rica was particularly relevant, as most of its botanists and associated naturalists participated in an unprecedented collective work. This had been motivated by the greatest German specialist of the time, Rudolf Schlechter (1872-1925) of the Botanical Museum of Berlin-Dahlem, through the mediation of doña Amparo Calleja de Zeledón (1863-1957), rightly recognized as the "patroness" of Costa Rican orchidology (Ossenbach 2009). The other great academic orchidologist of that time, Professor Oakes Ames (1874-1950), mainly counted on the collaboration from Costa Rica of Charles H. Lankester (1879-1969), a British naturalist who supplied his friend at the Harvard University with hundreds of orchid collections, many of which were still unpublished species of Pleurothallidinae. Their scientific relationship was productive until the end of the 1930s, when Ames became more and more involved with administration issues

at Harvard University; their warm friendship endured until the death of Ames in 1950 (Ossenbach 2009; Pupulin and Fernández 2013). Between 1920 and 1938 Ames described 66 new species of Pleurothallidinae from Costa Rica, half of which were based on collections made by Charles Lankester. The last types of Lankester's pleurothallids were published in 1935, and only a few others were successively described from materials gathered by Harvey Elmer Stork (1890-1959) and Alexander Frank Skutch (1904-2004) (Ames 1935, 1937, 1938).

When Ames (1937) eventually wrote the chapter on Orchidaceae for Standley's *Flora of Costa Rica*, he could list 279 species of Pleurothallidinae in 10 genera. This figures represented only 8% of the genera in Costa Rican orchid flora but more than 30% of all orchid species recorded in the country. The more diverse genera were *Pleurothallis sensu lato*, *Lepanthes*, and *Stelis*, with 138, 53, and 30 species, respectively.

After the death of Schlechter in 1925 and the progressive reduction of the scientific work of Ames before the Second World War, the discovery and study of Costa Rican orchids entered a long period of inactivity, which lasted four decades. Following a common pattern in Latin America during the 1930s and 1940s, the budget of botanical institutions was severely reduced in Costa Rica. The Museo Nacional, incorporated in the University of Costa Rica (UCR), "remained almost moribund until the 1960s" (McCook 2008), barely surviving an era that Carlos Ossenbach (2009) called "the Great Depression of Costa Rican orchidology." It was not until the end of the 1970s that new, concrete efforts aimed at knowing and describing the orchid richness of the country began. The Lankester Botanical Garden was founded in this period, inheriting part of Charles Lankester's orchid collections and the "wild" garden where he had grown them naturally. Under the administration of the UCR, this research center progressively took clear leadership in the academic study

of the national and Central American orchid flora. An international net of orchid researchers (including John T. Atwood, Stig Dalström, Robert Louis Dressler, Joaquín Bernardo García Castro, Carlyle August Luer, Willow Zuchowski) gathered under Lankester Botanical Garden's flag by its Director, Dora Emilia Mora-Monge de Retana (1940-2001), opened the way to the rebirth of Costa Rican orchidology. Particularly relevant was the contribution by Carl Luer, a North American botanist who was just starting what would be a unique and extraordinary career in the systematics of Pleurothallidinae. In 1979, in the 15th issue of his series "Icones Pleurothallidarum" (Luer 1979a), he described the first new species of pleurothallids from Costa Rica after a void of 41 years, presenting seven new species in the genera *Dracula*, *Masdevallia*, *Pleurothallis*, and *Zootrophion* (as *Cryptophoranthus*). Between 1979 and 2001 Luer described 140 species of Pleurothallidinae from Costa Rica in the genera *Barbosella*, *Brachionidium*, *Cryptophoranthus*, *Dracula*, *Dryadella*, *Lepanthes*, *Lepanthopsis*, *Masdevallia*, *Platystele*, *Pleurothallis*, *Restrepia*, *Stelis*, and *Trichosalpinx* (Luer 1979b, 1980, 1981, 1985, 1987a, 1987b, 1991, 1995a, 1995b; Luer and Hermans 1995; Luer 1996, 1999, 2001). Among them, he named 85 new species of *Lepanthes*, almost tripling the number of the taxa known from the country, and 33 new species of *Pleurothallis*.

In 1992, 55 years after the enumeration made by Ames in 1937, Mora-Retana and Joaquín García Castro produced a new catalogue of Costa Rican Orchidaceae, updating the list of the species recorded for the country according to a broad spectrum of bibliographical sources (Mora-Retana and García Castro 1992). In their list, which includes several unconfirmed records based on quotes in literature and estimations of distributional ranges, the authors accepted 416 species of Pleurothallidinae in 27 genera, almost doubling the diversity recorded by Ames. The most diverse genera were *Pleurothallis* (171 spp.), *Lepanthes* (67), and *Stelis* (62) (Fig. 1).

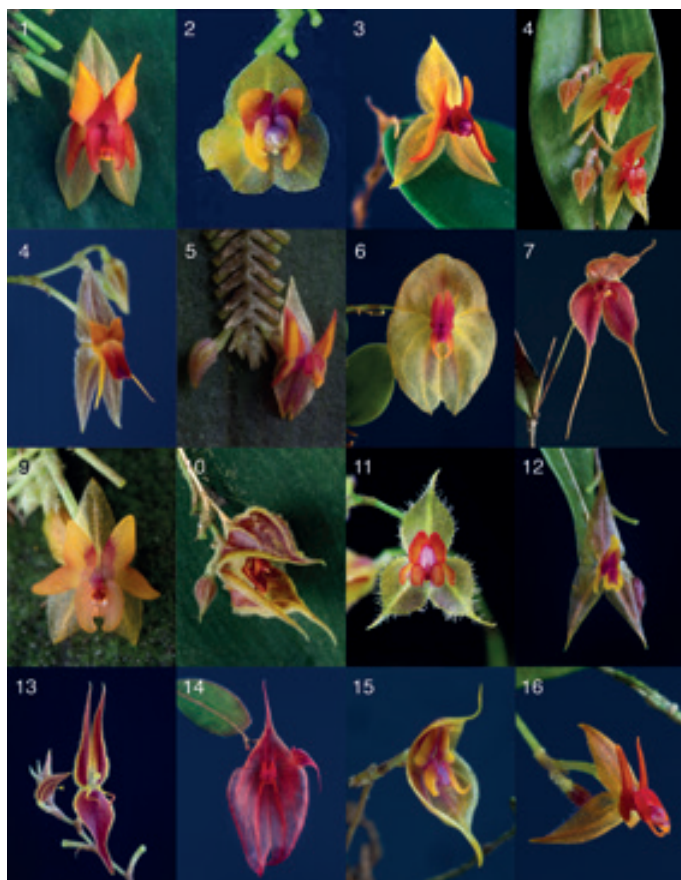


Fig. 3. Species of Pleurothallidinae from Costa Rica described in the framework of the project *Flora Costaricensis*. 1. *Lepanthes erubescens*; 2. *L. expansilabia*; 3. *L. false-bellica*; 4. *L. garciae*; 5. *L. gratiosa*; 6. *L. kleinii*; 7. *L. leporina*; 8. *L. matamorosii*; 9. *L. montis-narae*; 10. *L. pelvis*; 11. *L. pulcherrima*; 12. *L. queveriensis*; 13. *L. rafaelliana*; 14. *L. ruberrima*; 15. *L. sanctiorum*; 16. *L. sandiorum*. All photos by the authors, except 11 (photo by D. Jiménez).

The new millennium

Since the turn of the century, the torch of orchid research in Costa Rica passed to the hands of the Lankester Botanical Garden (LBG). In 2001, the scientists of the Garden formally proposed to the UCR a general research project aimed at producing a formal treatment of Orchidaceae for the flora of Costa Rica. This followed the systematic work on the family initiated by Atwood and Mora-Retana during the 1990s with their monograph on the subtribes Oncidiinae and Maxillariinae, published in 1999 in the framework of Williams Burger's *Flora Costaricensis* (Atwood and Mora de Retana 1999). A new catalogue of the orchid flora previously recorded for the country was produced (Pupulin 2002) as a core task of the research center. The new list critically examined the long series of synonymies, evaluating most of the type materials and accepting only those species for which a Costa Rican voucher could be retrieved in one of the major Costa Rican and foreign herbaria. The catalogue of Pleu-

rothallidinae species formally recorded for the country rose to 433 species in 26 genera, with significant increases in the number of species of *Lepanthes* (97 spp.) and *Stelis* (82) but also with a significant decrease in the diversity of some groups (i.e., *Pleurothallis*, with 121 spp., using a circumscription comparable to the one adopted by Mora-Retana and García-Castro) (Fig. 1). Even though the total number of species is comparable with that recorded by Mora-Retana and García-Castro (1992) ten years before, the composition of the species and their genetic arrangement are profoundly different, and we estimate that the overlap of taxonomic concepts between the two catalogues does not exceed 70%. That means that 120 species of Pleurothallidinae recorded for the Costa Rican flora in 1992 were not confirmed in 2002.

With the revision of subtribe Zygopetalinae already completed (Pupulin 2010b), and those of the subtribes Laeliinae, the remnant Maxillariinae, and Stanhopeinae almost ready for publication, the attention of the researchers could now focus more closely on pleurothallids. In the last 15 years or so, the group of researchers at the LBG have described some 70 new species of Pleurothallidinae in the genera *Acianthera*, *Brachionidium*, *Dracontia*, *Echinosepala*, *Lepanthes*, *Masdevallia*, *Myoxanthus*, *Platystele*, *Pleurothallis*, *Restrepia*, *Specklinia*, *Stelis*, *Trichosalpinx*, and *Trisetella* (Bogarín and Jiménez 2015; Bogarín and Kisel 2014; Bogarín and Karremans 2016; Bogarín and Pupulin 2011; Bogarín *et al.* 2008, 2010, 2012a, 2012b, 2013, 2014, 2015; Fernández 2011, 2013; Fernández and Bogarín 2011, 2013; Fernández *et al.* 2014; Karremans 2012, 2014; Karremans and Bogarín 2011, 2013; Karremans and Díaz-Morales 2017; Karremans and

Smith 2012; Karremans *et al.* 2012, 2015a, 2015b; Osés Salas and Karremans 2016; Pupulin 2000, 2001a., 2001b; Pupulin and Blanco 2001; Pupulin and Bogarín 2007, 2010, 2011a, 2011b, 2012, 2014a, 2014b; Pupulin *et al.* 2007, 2009, 2010a, 2010b., 2010c, 2011a, 2011b, 2012, 2017a, 2017b, 2017c; Smith and Pupulin 2012; Smith *et al.* 2013, 2015) (Fig. 2-4). Considering the new records of pleurothallids that are regularly added to the flora of Costa Rica (Bogarín *et al.* 2008; Pupulin *et al.* 2009; Karremans *et al.* 2012; Fernández *et al.* 2014), we maintain an updated catalogue (Pupulin *et al.*, in preparation) accounting for 561 species of Pleurothallidinae in 30 genera. As the generic nomenclature utilized in modern checklists of Costa Rican Orchidaceae (e.g. Mora-Retana and García-Castro 1992; Dressler 1993; Pupulin 2002; Dressler 2003) do not reflect the phylogenetic classification of Pleurothallidinae, in Appendix 1 we present a complete catalogue of the pleurothallid orchids known from Costa Rica to date, in the hope that it will contribute to a better understanding of the phylogeography of this group in the Mesoamerican region.

The comparison of the results attained today in our knowledge of Costa Rican Pleurothallidinae with previous catalogues of Orchidaceae recorded in the country is made somewhat difficult by the nomenclature we use for the classification of this group of plants, largely based on the phylogenetic generic circumscriptions adopted in *Genera Orchidacearum* (Pridgeon 2005). Nevertheless, the enumeration of *Lepanthes* reached 150 species (*ca.* 35% more than those recorded in Pupulin 2002), and *Stelis sensu lato* now includes 106 spp. *Pleurothallis sensu stricto* has 51 species, but this figure rises to 139 (+20%) when the genera split from *Pleurothallis* (namely *Acianthera*, *Anathallis*, *Lankesteriana*, *Muscarella*, and *Specklinia*) are combined together (Fig. 1). The results show that Pleurothallidinae roughly represent one of every three orchid species in Costa Rica. The progression of this ratio has been linear. Only one in every nine species of

orchids was a pleurothallid in the catalogue by Hemsley (1883). There was one in every five in the enumeration proposed by Ames (1937) and one in every four species in the checklist of Costa Rican orchids at the beginning of the century (Pupulin 2002). We are now quickly reaching a ratio of 1:3, and we expect that the number of new taxa in Pleurothallidinae will far exceed that of all the remaining orchid groups together in the coming years (Bogarín 2011).

Flora Costaricensis: Subtribe Pleurothallidinae

In 2009, we presented to the Vice-Presidency of Research of the UCR a five-year project called *Flora Costaricensis: Pleurothallidinae*, aimed at describing and illustrating the entire flora of Costa Rican pleurothallids. Of course, we were aware that five years would not be sufficient to carry out a project of this magnitude, but this is the maximum period of time during which a research project receives financial support by the UCR. The quinquennium was highly productive, allowing the researchers to improve and fine-tune the methods of analysis. We split Pleurothallidinae into blocks of genera, and the largest genera into smaller complexes of related species. Extensive collections were made from around the country. Hundreds of pleurothallid specimens were grown and documented in detail.

The preliminary results of the project clearly show that the pleurothallid flora of Costa Rica is only partially known. We studied *Echinosepala*, and we described three new species in this small genus of less than a dozen taxa (Pupulin *et al.* 2017c). The groups of large-sized *Pleurothallis* species close to *P. cardiothallis* Rchb.f. and *P. phyllocardia* Rchb.f. were revised, describing five new species (Pupulin *et al.* 2017a, 2017 b). We have now completed the revision of the Mesoamerican group of *Pleurothallis* (*sensu* Wilson *et al.* 2013), adding three new species to the four already known (Pupulin and Wilson, in prep.). The group of *Specklinia* species



Fig. 4. Species of Pleurothallidinae from Costa Rica described in the framework of the project *Flora Costaricensis*. 1. *Masdevallia jorge-warneri*; 2. *M. luerorum*; 3. *Pleurothallis luna-crescens*; 4. *P. scotinantha*; 5. *Restrepiella lueri*; 6. *Specklinia blancoi*; 7. *S. gersonii*; 8. *S. lugduno-batavae*; 9. *S. remotiflora*; 10. *S. vierlingii*; 11. *Stelis aenigma*; 12. *S. dies-natali*; 13. *S. hydra*; 14. *S. viridiflava*; 15. *T. reflexa*; 16. *T. sanctuarii*. All photos by the authors, except 2 (photo by C. M. Smith) and 16 (photo by M. Fernández).

close to *S. endotrachys* (Rchb.f.) Pridgeon & M.W.Chase was studied, describing two new species and resurrecting two old names from synonymy (Pupulin *et al.* 2012; Karremans *et al.* 2015) and showing that this well-characterized group is made up of five species in Costa Rica instead of one. We studied the group of *Specklinia condylata* (Luer) Pridgeon & M.W.Chase (Bogarín *et al.* 2014), adding three species to the two previously known in the country. The group of species of the glandulous *Specklinia* was revisited by Karremans and collaborators (2015), and the “variable” *S. glandulosa* (Ames) Pridgeon & M.W.Chase was treated as a complex of six different species, two of which are new to science. A new species was added to the three known species of the *S. digitale* (Luer) Pridgeon & M.W.Chase group (Karremans *et al.* 2015). Reviewing *Anathallis*, the group of *A. barbulata* (Lindl.) Pridgeon & M.W.Chase was recognized as more closely related to *Trichosalpinx* and segregated into a new genus (Karremans 2014). We characterized the group of species close to *Lepanthes*

thes guatemalensis Schltr., describing three new species in addition to the five already known (Pupulin and Bogarín 2014). The revision of the *L. ovalis* (Sw.) Fawc. & Rendle group (seven previously known taxa) prompted the description of three new species (Bogarín *et al.* 2012). Two new species were added to the *L. jimenezii* Schltr. group (Pupulin and Bogarín 2010). Another two species were proposed to complete the description of the *L. schizocardia* Luer group (Pupulin *et al.* 2010). Five new species were added to the “*Dracontia* group” of *Stelis* (Karremans and Smith 2012; Karremans and Bogarín 2013; Karremans and Díaz-Morales 2017); another few, probably new taxa are awaiting verification. The revision of *Trichosalpinx* required the description of three additional species to accommodate the taxa of Costa Rica (Fernández 2011; Fernández and Bogarín 2011, 2013). In the groups studied, the diversity of species in Costa Rica exceeds that previously recorded for the country, and it is not uncommon for a careful revision of a given group to double or triple the number of known taxa. In the drawers of our desks at the LBG we have descriptions and illustrations of tens of pleurothallid species, just awaiting some final verifications before being proposed as new taxa.

What we learned

Lepanthes

Lepanthes represents the most fascinating case in Costa Rica as to the recent, rapid increment in the number of newly described species. More than one third of the diversity in *Lepanthes* has been revealed only in the last ten years, simply as a result of increased exploration. In fact, *Lepanthes* is not a difficult

genus from a taxonomic point of view. Apart from some morphologically difficult-to-distinguish complexes of species, such as the complexes of *L. disticha* (A.Rich. & Galeotti) Garay & R.E.Schult. and *L. glicensteinii* Luer, species of *Lepanthes* are in general quite easy to characterize by specific sets of vegetative and floral features, usually highly characteristic of each species. Most of the species of *Lepanthes* were described in the 20th century, and the documentation associated with the original protologues is easy to interpret correctly. It is noteworthy, in the checklist of *Lepanthes* species recorded in Appendix 1, that only 28 synonyms apply to 150 ‘good’ species in Costa Rica (ca. 18% of the names), compared with the 151 synonyms referable to the 51 ‘good’ species of *Pleurothallis* (75% of the names), a genus for which the accumulation curve of alternative names over time has been longer. Due to the hyper-diversity of the genus, the alpha-taxonomy of *Lepanthes* requires a “mature” research system, which relies on a vast repository of primary information sources and also on advanced technical skills to document the morphology of miniature-sized specimens properly.

When plotting the type localities of the recently proposed species, it was also noted that they equally span previously unexplored, as well as already explored and even over-explored regions, reflecting their random distribution pattern. Pupulin and Bogarín (2012) described three new species of *Lepanthes* from trees surrounding the parking area of the main viewpoint at Tapantí National Park, undoubtedly one of the more over-examined spots of Costa Rica. Considering the highly specific preferences in habitat and phorophytes of most species, with populations often restricted to a single tree and sometimes limited to 1-5 individuals (Tremblay and Ackerman 2001; Fernández *et al.* 2003), coupled with a pollination syndrome based on pseudocopulation (Blanco and Barboza 2005), it is not surprising that new species of *Lepanthes* could be continuously discovered by the random sampling

of different phorophytes in previously studied areas. On the other hand, random short transects made through areas of pristine forest in less explored regions of suitable habitats invariably result in the discovery of new species of *Lepanthes*. Pupulin and collaborators (2009), Bogarín and Fernández (2010), and Pupulin and Bogarín (2014) described six species of *Lepanthes* from two adjacent transects at Macho Gaff, in the Tapantí-Machizo de la Muerte National Park, totaling ca. 6 km in length. The composition of *Lepanthes* species communities, both new and old, along the two transects on opposite sides of the same valley showed almost no overlap, confirming the high degree of endemism that characterizes most species of *Lepanthes*. They are often restricted to specific habitats and exclusively limited to a single valley or to the slopes or the top of a given hill or mountain. Of the approximately 250 species of *Lepanthes* recorded from Mesoamerica (Ossenbach *et al.* 2007), almost 80% do not cross national borders. Eighteen taxa, which are not endemic to any country according to political boundaries, are in fact strictly endemic to the Chiriquí region in the southern Talamanca range, spanning Costa Rica and western Panama (Ossenbach *et al.* 2007). Less than 10% of the Mesoamerican taxa can be considered of “broad distribution,” spanning over three or more countries of the Central American isthmus, but this figure is likely flawed, at least in some cases, by misidentifications of the species. This led Pupulin and Bogarín (2012) to estimate that half of the *Lepanthes* species from Costa Rica probably remain undescribed.

Pleurothallis

The split of *Pleurothallis sensu lato* into more natural, and smaller, taxonomic units (Pridgeon *et al.* 2001a, b) has allowed researchers at LBG to undertake the revision of some of the segregates while continuing work on the larger groups. We revised two small subgroups within *P.* sect. *Macrophyllae-Fasciculatae*, previously encompassing two species (the group of

P. cardiothallis) and eight species (the group of *P. phyllocardia*), and discovered nine new taxa, rescuing at least two others from synonymy, and doubling the number of taxa. Some new discoveries have been already published (Karremans and Bogarín 2011; Karremans and Muñoz 2011; Pupulin *et al.* 2017a, 2017b). The largest group of species in *P.* sect. *Macrophyllae-Fasciculatae* includes the poorly known and poorly documented species with small plant habit and small, highly schematic flowers, known as the “frog” *Pleurothallis*. Seven species are recognized in this group in Costa Rica, but our preliminary observations on this taxonomically difficult complex of species clearly show that this figure is inadequate to describe the diversity of the “frog” species. We suspect that at least twice the recorded species have gone unnoticed and are already documented among our materials. We also studied the group that Wilson and co-workers (2013) refer to as the “Mesoamerican clade”, made up of 6-8 species, mostly with small, non-resupinate flowers characterized by a deeply cymbiform lip without a basal glenion. One new species has already been described (Pupulin and Zúñiga 2007), and there are another two or three taxa in this small group to be described soon (Pupulin *et al.*, in prep.). Most of the other groups of *Pleurothallis* s.s. in Costa Rica are composed of a few, highly distinctive species; based on our preliminary documentation, we do not expect to find a significant increase in their diversity. There are 51 species of *Pleurothallis* in the country, and we reduced 53 names to heterotypic synonyms, and predict that the genus will grow to include 65-70 taxa.

Stelis

Stelis has been treated according to the phylogenetic recircumscription of the genus as proposed by Pridgeon *et al.* (2001), and as such we recognize 106 species in Costa Rica. Karremans and collaborators are engaged in the revision of the “Dracontia group” of *Stelis*, a complex (17 recognized spp., 5 heterotypic synonyms) on which they have already

published a number of new taxa (Karremans 2012; Karremans and Bogarín 2013; Karremans and Díaz-Morales 2017). The “Unciferia group”, with eight species recorded in Costa Rica, has been hitherto poorly studied, but our documentation shows that it is grossly underestimated as to diversity. In Appendix 1 we propose a substitution in this group for *Pleurothallis wercklei* Schltr. With six recorded species, the “Effusiella group” is likely to be completely documented, but *Stelis imraei* (Lindl.) Pridgeon & M.W.Chase probably deserves a second look as to diversity (Rojas-Alvarado and Karremans, in prep.).

Stelis sensu stricto (including *Apatostelis* Garay), a group characterized by basically triangular flowers with extremely reduced petals and lip, requires a further note. We actually accept 60 species of *Stelis* in the narrower sense (with 98 heterotypic basionyms), but the taxonomy of this group is largely provisional. A consistent methodology is lacking for the documentation of *Stelis*, a problem that plagues any attempt at understanding its real diversity. The flowers of *Stelis* are highly diagrammatic in their shape, basically organized around a simple combination of broadly ovate-triangular sepals and thick, subrectangular petals and lip. The lip and the petals are deeply three-dimensional, difficult to describe with unspecialized botanical jargon and difficult to properly illustrate due the apparent variations in shape produced by subtle variations in the observation angle. Most of the old descriptions of *Stelis* species are useless to understand the specific features of the proposed taxa, and the iconographic body associated with the history of the genus is often too schematic to be of any practical help. In several species, the flowers are highly sensitive to humidity, and they quickly close (or become deeply cupped) under suboptimal condition of humidity, particularly under the light of the microscope. This sensitivity, which is not present in all species of the group, has seldom been noted in descriptions of new taxa, but it is possible that the cupped flower shape of several species might be just an ar-

tifact in observation. Oxalate crystals, mostly concentrated on the petals, are a common feature in species of *Stelis*, but their occurrence is usually ignored in the literature, reducing the taxonomic utility of this character. We observed that plants of *Stelis* under cultivation may flower when still young and small, well before reaching mature size. No observations exist on juvenile forms of the species, and we cannot exclude the possibility that some of the formally described taxa are nothing more than juveniles of species already described. Some features, which could be important in the taxonomy of the group, for example the arrangement of the flower along the rachis, are rarely described in detail and less frequently illustrated.

We are convinced that only a combination of macro- and microphotography, presenting the various stages of the fertile plants, details of the inflorescences, the flowers in their true colors, and different views of the three-dimensional structures, can establish a sound taxonomy of the group. Blind barcoding is not a viable alternative with *Stelis*. Plants of *Stelis* are among the most common inhabitants of the medium and lower canopy in almost any life zones in Costa Rica, from close the sea level to 3000 meters above sea level. On a single *Protium* sp. tree in the Alberto Brenes Biological Reserve close to San Ramón, on the Caribbean watershed of the Cordillera de Tilarán, we counted 292 individuals of *Stelis*, belonging to at least five morphospecies (Pupulin *et al.* 1995), making random sampling a useless strategy with this group of plants.

In 2004, Calaway Dodson recorded 427 species of *Stelis* s.s. in his list of Ecuador orchids (Dodson 2004). When Carl Luer revised the genus for the flora of Ecuador, he described 400 new species, doubling the number of known species in just seven years (Luer 2002, 2004, 2007, 2009). There may be another 60 or more species of *Stelis* to be discovered in Costa Rica.

Other groups

Karremans, Fernández, and Pupulin had worked extensively on *Acianthera*, a genus with 23 species recorded in Costa Rica (based on 51 different types), of which three were described by our group (Pupulin *et al.* 2007; Karremans 2016). The sampling of this genus is probably almost complete. Bogarín has amassed material of the rare species of *Brachionidium*, of which he described two new species (Bogarín *et al.* 2015; Bogarín and Karremans 2016) and has already documented most of the 10 taxa he recognizes. Pupulin and collaborators have revised *Echinosepala* (Pupulin *et al.*, in prep.), with 10 species in Costa Rica, of which three (30% of the taxa) have been described by our group (Pupulin and Blanco 2001; Pupulin *et al.* 2017c). We consider that the diversity of *Echinosepala* is well represented in our material, even though the application of names to species of alleged broad distribution could be questionable. Christina M. Smith and Lizbeth Osés Salas worked on the systematics of *Masdevallia* for their postgraduate studies at the University of Costa Rica, helping to clarify the complex phylogeny and taxonomy of this group in Costa Rica (Smith and Pupulin 2012; Smith *et al.* 2015; Osés Salas and Karremans 2016; Bogarín *et al.* 2017). They recognize 35 species, with 25 heterotypic synonyms, which probably represents an almost complete treatment for the flora of Costa Rica. Bogarín and Karremans are working on a revision of *Platystele*, a genus in which they recognize 20 species in Costa Rica, approximately one third of which were described by them (Bogarín and Karremans 2010, 2011; Karremans and Bogarín 2017). Due to the high rate of species discovery in the few last years, and the intrinsic difficulty of spotting and studying orchid plants and flowers that are among the smallest on the world, we expect that *Platystele* may perhaps reach 30 species in Costa Rica. Bogarín, Karremans, and Pupulin revised *Specklinia* and related genera (*Anathallis sensu* Karremans 2016, *Lankesteriana* Karremans, *Muscarella* Luer, *Pabstiella*, and *Phleophila*), recording 68

species with 334 synonyms, of which 87 are heterotypic basionyms. Our group has described one of every five species in this complex (Pupulin 2000; Pupulin *et al.* 2012; Bogarín *et al.* 2013, 2014; Karremans 2014; Karremans *et al.* 2015a, b), and we estimate that approximately 20% of the species remain unknown. Melania Fernández clarified the taxonomy of *Trichosalpinx* for her Masters thesis (Fernández 2015), recognizing 23 species, describing two new species, synonymizing 31 heterotypic taxa, and showing the polyphyly of the genus (Fernández 2011; Fernández and Bogarín 2011, 2013; Fernández *et al.* 2014).

How far we are?

Nearly 1700 orchid species are now recorded in Costa Rica, with an increment of 20% of the known taxa in the last 15 years. We estimate that the Costa Rican flora will eventually include more than 2000 species. The rate of growth in the number of new taxa in Pleurothallidinae is four times faster than that of all the other groups of Costa Rican orchids considered together. The LBG activities of exploration and sampling are likely to result in reaching 2000 species within the next two decades. With the expected increase in the number of Pleurothallidinae species relative to the total number of new discoveries, two species in every five in the Costa Rican orchid flora will be a pleurothallid by 2040.

Acknowledgments

This article is dedicated to colleagues of the Research Department at the Lankester Botanical Garden who made possible the understanding and description of the diversity of the pleurothallid flora of Costa Rica, namely Jaime Aguilar, Noelia Belfort Oconitrillo, Mario A. Blanco, Melissa Díaz Morales, Melania Fernández Campos, Lizbeth Oses Salas, Gustavo Rojas, Christina M. Smith, Jorge Warner, and José Daniel Zúñiga. A special acknowledgment to the Ministry of Environment and Energy (MINAE, its acronym in Spanish), who made possible the conservation and manage-

ment of vast natural areas throughout Costa Rica, including hundreds of orchid species that would have disappeared without the efforts of the Ministry, and who provided permits for the authors to access the biodiversity of Costa Rica for their studies. We warmly thank our University, and particularly the Vice-Presidency of Research, for 12 years of support for projects aimed at completing the treatment of the family Orchidaceae for “Flora Costaricensis”. Peter Adams and an anonymous reviewer greatly enhanced the manuscript with their observations and suggestions.

Literature cited

- Ames, O. 1935. Studies in *Stelis*. III. *Botanical Museum Leaflets* 3: 53.
- Ames, O. 1937. Orchidaceae. In *Flora of Costa Rica* (ed. P. C. Standley), pp. 197-306. Botanical series 18. Publications of the Field Museum of Natural History, Chicago.
- Ames, O. 1938. Studies in *Stelis*. VII. *Botanical Museum Leaflets* 6: 13-17.
- Atwood, J. T. and Mora-Retana, D. E. 1999. *Family #39 Orchidaceae: Tribe Maxillariaceae: subtribes Maxillariinae and Oncidiinae*. Chicago Natural History Museum, Chicago.
- Barringer, K. A. 1986. Typification of Schlechter's Costa Rican Orchidaceae. I. Types collected by A. Brenes. *Fieldiana (Bot.) n.s.* 17: 1-24.
- Blanco, M. A. and Barboza, G. 2005. Pseudocopulatory pollination in *Lepanthes* (Orchidaceae: Pleurothallidinae) by fungus gnats. *Annals of Botany* 95: 763-772.
- Bogarín, D. 2011. How many orchid species in Costa Rica? A review of the latest discoveries. In *Proceedings of the Third Scientific Conference on Andean Orchids* (ed. A. M. Pridgeon and H. G. Navarrete Zambrano). *Lankesteriana* 11: 185-205.
- Bogarín, D. and Fernández, M.. 2010. *Lepanthes arenasiana* (Pleurothallidinae: Orchidaceae), a new species from Costa Rica. *Lankesteriana* 9: 487-489.
- Bogarín D. and Jiménez, D. 2015. *Lepanthes Novae Durikaenses*. *Orchids* 84: 430-440.
- Bogarín, D. and Kisel, Y. 2014. A new *Lepanthes* from Costa Rica. *Orchid Review* 122: 28-31.
- Bogarín, D. and Karremans, A. P. 2010. A new *Platystele* (Orchidaceae: Pleurothallidine) from Central Costa Rica. *Orquideología* 27: 208-220.
- Bogarín, D. and Karremans, A. P. 2016. A new *Brachionidium* (Orchidaceae: Pleurothallidinae) from the first botanical ex-

- pedition to the Volcán Cacho Negro, Costa Rica. *Systematic Botany* 4: 919-923.
- Bogarín, D. and Pupulin, F. 2011. *Lepanthes danieljimenezii* Bogarín & Pupulin, spec. nov. (Pleurothallidinae: Orchidaceae), eine neue Spezies aus Costa Rica, nahe verwandt mit *Lepanthes guardiana*. *Lepanthes danieljimenezii* Bogarín & Pupulin, spec. nov. (Pleurothallidinae: Orchidaceae), a new species from Costa Rica close to *Lepanthes guardiana*. *Orchidee (Hamburg)* 62: 111-115.
- Bogarín, D., Karremans, A., and Pupulin, F. 2008. New species and records of Orchidaceae from Costa Rica. *Lankesteriana* 8: 53-74.
- Bogarín, D., Karremans, A. P., and Pupulin, F. 2012a. Three new *Lepanthes* (Orchidaceae: Pleurothallidinae) from south-east Costa Rica. *Lankesteriana* 12: 107-114.
- Bogarín, D., Smith, C. M., and Jiménez, D. 2012b. The *Lepanthes ovalis* group (Pleurothallidinae) with three new species from Costa Rica. *Journal of the Botanical Research Institute of Texas* 6: 361-373.
- Bogarín, D., Karremans, A. P., Rincón, R., and Gravendeel, B. 2013. A new *Specklinia* (Orchidaceae: Pleurothallidinae) from Costa Rica and Panama. *Phytotaxa* 115: 31-41.
- Bogarín, D., Serracin, Z., and Samudio, Z. 2014. Illustrations and studies in Neotropical Orchidaceae. The *Specklinia condylata* group (Orchidaceae) in Costa Rica and Panama. *Lankesteriana* 13: 185-206.
- Bogarín, D., Karremans, A. P., and Muñoz García, M. 2015. *Brachionidium kirbyi*, eine neue Art zu Ehren des Gründers des Orchideenprojektes "Bosque de Paz" in Costa Rica. *Orchidee (Hamburg)* 66: 404-409.
- Bogarín, D., Oses, L., and Smith, C. M. 2017. *Masdevallia luerorum* (Orchidaceae: Pleurothallidinae), a new species from Costa Rica. *Lankesteriana* 17: 235-244.
- Dodson, C. A. 2004. Ecuador Orchid List. In *Native Ecuadorian Orchids. Volume V: Rodriguezia-Zygosepalum* (ed. C. A. Dodson), pp. 1112-1156. Dodson Publishing, Sarasota, Florida.
- Dressler, R. L. 1993. *Field guide to the orchids of Costa Rica and Panama*. Cornell University Press, Ithaca, New York, USA.
- Dressler, R. L. 2003. Orchidaceae. In *Manual de plantas de Costa Rica – Volumen III, monocotiledóneas (Orchidaceae-Zingiberaceae)* (ed. B. E. Hammel, M. H. Grayum, C. Herrera, and N. Zamora), pp. 1-595. *Monographs in Systematic Botany from the Missouri Botanical Garden* 93.
- Fernández, D. S., Tremblay, R. L., Ackerman, J. D., Rodríguez, E., and López, L. N.. 2003. Reproductive potential, growth rate and light environment in *Lepanthes rupestris* Stimson. *Lankesteriana* 7: 73-76.
- Fernández, M. 2011. Reconsideración de *Trichosalpinx minutipetala* (Ames & C.Schweinf.) Luer (Orchidaceae: Pleurothallidinae). Reconsideration of *Trichosalpinx minutipetala* (Ames & C.Schweinf.) Luer (Orchidaceae: Pleurothallidinae). *Orquideología* 28: 119-134.
- Fernández, M. 2013. *Tubella* - die etwas anderen *Trichosalpinx*. *Tubella: Those other Trichosalpinx*. *Orchidee (Hamburg)* 64: 310-317.
- Fernández, M. 2015. *Revisión taxonómica de Trichosalpinx (Orchidaceae: Pleurothallidinae) en Costa Rica*. MSc thesis, Universidad de Costa Rica. San José, Costa Rica.
- Fernández, M. and Bogarín, D. 2011. A new *Trichosalpinx* (Orchidaceae: Pleurothallidinae) from the northern Pacific lowlands of Costa Rica. *Phytotaxa* 38: 41-48.
- Fernández, M. and Bogarín, D. 2013. A new species of *Trichosalpinx* (Orchidaceae: Pleurothallidinae) from Costa Rica. *Brittonia* 65: 96-101.
- Fernández, M., Bogarín, D., Karremans, A. P., and Jiménez, D. 2014. New species and records of Orchidaceae from Costa Rica III. *Lankesteriana* 13: 259-282.
- Hemsley, W. B. 1879. Mexican and Central American Orchids (an alphabetic list of all the species hiterto published with a short historical introduction condensed, by Mr. Godman's permission, from a more detailed enumeration drawn up for the botany of Messrs. Godman and Salvin's forthcoming *Biologia Centrali-Americana*). *The Gardeners Chronicle* 11(2)-12.
- Hemsley, W. B. 1883. Order XCL. Orchideae. In *Biologia Centrali-Americana. Botany. Vol. III* (ed. F. D. Godman and O. Salvin), pp. 197-308. R. H. Porter, London.
- Karremans, A. P. 2012. Illustrations and Studies in Neotropical Orchidaceae. 3. On the identity of *Dracontia pachyglossa* and *D. ramonensis*; with a new species, *D. lueriana* (Pleurothallidinae). *Annalen des Naturhistorisches Museums in Wien* 113B: 119-132.
- Karremans, A. P. 2014. *Lankesteriana*, a new genus in the Pleurothallidinae (Orchidaceae). *Lankesteriana* 13: 319-332.
- Karremans, A. P. 2016. *Genera Pleurothallidarum*: an updated phylogenetic overview of Pleurothallidinae. *Lankesteriana* 16: 219-241.
- Karremans, A. P. and Bogarín, D. 2011. *Pleurothallis adventurae* (Orchidaceae: Pleurothallidinae), eine neue Art aus einer unerforschten Region in Costa Rica. *Orchideen Journal* 18: 111-114.
- Karremans, A. P. and Bogarín, D. 2013. Three new species of *Dracontia* (Pleurothallidinae, Orchidaceae) from Costa Rica. *Systematic Botany* 38: 307-315.
- Karremans, A. P. and Bogarín, D.. Two novelties in genus *Platystele* (Orchidaceae: Pleurothallidinae) from Costa Rica. *Lankesteriana* 17: 215-221.
- Karremans, A. P. and Díaz-Morales, M. 2017. Novelties in Costa Rican *Stelis* (Orchidaceae: Pleurothallidinae): two new species and a new record in the "Dracontia group". *Lankesteriana* 17: 193-202.

- Karremans, A. P. and Muñoz, M. 2011. *Pleurothallis silvae-pacis*, a new species. *Orchid Review* 121: 155-159.
- Karremans, A. P. and Smith, C. M. 2012. A note on genus *Dracontia* (Orchidaceae: Pleurothallidinae), with a new species. *Harvard Papers in Botany* 17: 13-17.
- Karremans, A. P., Bogarín, D., Fernández, M., Smith, C. M., and Blanco, M. A. 2012. New species and records of Orchidaceae from Costa Rica. II. *Lankesteriana* 12: 19-51.
- Karremans, A. P., Bogarín, D., and Gravendeel, B. 2015a. *Specklinia lugduno-batavae* (Pleurothallidinae: Orchidaceae), a new species in the *S. digitalis* group. *Blumea* 59: 180-184.
- Karremans, A. P., Pupulin, F., and Gravendeel, B. 2015b. *Specklinia dunstervillei*, a new species long confused with *Specklinia endotrachys* (Orchidaceae: Pleurothallidinae). *PLOS ONE* 10(7): e0131971.
- Karremans, A. P., Bogarín, D., Díaz-Morales, M., Fernández, M., Osés, L., and Pupulin, F. 2016. Phylogenetic reassessment of *Acianthera* (Orchidaceae: Pleurothallidinae). *Harvard Papers in Botany* 21: 171-187.
- Luer, C. A. 1979a. Icones Pleurothallidarum, miscellaneous new species in the Pleurothallidinae. *Selbyana* 5: 145-196.
- Luer, C. A. 1979b. Miscellaneous new species in the Pleurothallidinae. *Phytologia* 44: 164-174.
- Luer, C. A. 1980. Miscellaneous new species in the Pleurothallidinae. *Phytologia* 46: 345-386.
- Luer, C. A. 1981. Miscellaneous new species and combinations in the Pleurothallidinae. *Phytologia* 49: 197-240.
- Luer, C. A. 1985. Eine neue *Pleurothallis*-Art aus Costa Rica: *Pleurothallis horichii*. *Orchidee (Hamburg)* 36: 23-26.
- Luer, C. A. 1987a. Resolution to the problem of *Lepanthes turialvae* in Costa Rica and Panama. *Lindleyana* 2: 180-184.
- Luer, C. A. 1987b. New *Lepanthes* species from Costa Rica and Panama. *Lindleyana* 2: 185-217.
- Luer, C. A. 1991. New species of *Pleurothallis* and a new combination. *Lindleyana* 6: 94-108.
- Luer, C. A. 1992. New species in *Lepanthes* Sw. *Lindleyana* 7: 100-120.
- Luer, C. A. 1995a. New species of *Lepanthes* from Costa Rica. *Lindleyana* 10: 133-173.
- Luer, C. A. 1995b. New species of *Masdevallia*, part VII. *Lindleyana* 10: 115-126.
- Luer, C. A. 1996. New species in the Pleurothallidinae from Costa Rica. *Lindleyana* 11: 54-113.
- Luer, C. A. 1999. Icones Pleurothallidarum, 18. *Monographs in Systematic Botany from the Missouri Botanical Garden* 76: 97-134.
- Luer, C. A. 2001. Miscellaneous new species in the Pleurothallidinae. *Revista de la Sociedad Boliviana de Botánica* 3: 37-63.
- Luer, C. A. 2002. Icones Pleurothallidarum, 24. A first century of new species of *Stelis* of Ecuador. Part one. Addenda to the *Lepanthes* of Ecuador. Addenda to *Barbosella*, *Dracula*, *Dresslerella*, *Lepanthopsis*, *Platystele*, *Pleurothallis*, *Restrepia*, *Scaphosepalum*, *Teagueia* and *Trichosalpinx*. *Monographs in Systematic Botany from the Missouri Botanical Garden* 88.
- Luer, C. A. 2004. Icones Pleurothallidarum, 26. *Pleurothallis* subgenus *Acianthera* and three allied subgenera. A second century of new species of *Stelis* of Ecuador. *Epibator*, *Ophidion*, *Zootrophion*. *Monographs in Systematic Botany from the Missouri Botanical Garden* 95.
- Luer, C. A. 2007. Icones Pleurothallidarum, 29. A third century of *Stelis* of Ecuador. Systematics of *Apoda-Prorepentia*. Systematics of miscellaneous small genera. Addenda: new genera, species, and combinations. *Monographs in Systematic Botany from the Missouri Botanical Garden* 112.
- Luer, C. A. 2009. Icones Pleurothallidarum, 30. *Lepanthes* of Jamaica: Systematics of *Stelis*. *Stelis* of Ecuador, Part 4. Systematics of *Masdevallia*. New species of *Lepanthes* from Ecuador, and miscellaneous new combinations. *Monographs in Systematic Botany from the Missouri Botanical Garden* 115.
- Luer, C. A. and Hermans, J. 1995. Four new species of *Lepanthes* Sw. from Costa Rica. *Orchid Review*: 103: 60-67.
- McCook, S. 2008. Coffee and flowers: recent research on commodity chains, neoliberalism, and alternative trade in Latin America. *Latin American Research Review* 43: 268-277.
- Mora-Retana, D. E. and García-Castro, J. B. 1992. Lista actualizada de las orquídeas de Costa Rica (Orchidaceae). *Brenesia* 37: 79-124.
- Osés Salas, L. and Karremans, A. P. 2016. A note on *Masdevallia zahlbruckneri* and *M. utriculata* (Orchidaceae). *Harvard Papers in Botany* 21: 325-336.
- Ossenbach, C. 2009. Orchids and orchidology in Central America: 500 years of history. *Lankesteriana* 9: 1-268.
- Ossenbach, C. and Pupulin, F. 2013. Orchid collecting on that Rich Coast. In *Orchids in the life and work of Auguste R. Endrés. Vol. 1. The texts* (ed. C. Ossenbach, F. Pupulin, and R. Jenny), pp. 83-111. Naturhistorisches Museum, Vienna, Austria.
- Ossenbach, C., Pupulin, F., and Dressler, R. L. 2007. *Orchids of the Central American isthmus. Checklist and conservation status*. Editorial 25 de Mayo, San José, Costa Rica.
- Ossenbach, C., Pupulin, F., and Jenny, R. 2010. Orchid itineraries of Augustus R. Endrés in Central America: a biographic and geographic sketch. *Lankesteriana* 10:19-47.
- Ossenbach, C., Pupulin, F., and Jenny, R. (ed.). 2013. *Orchids in the life and work of Auguste R. Endrés. 2 Vol.* Naturhistorisches Museum, Vienna, Austria.

- Pennel, F. W. 1946. Reconsideration of the Bacopa-Herpestis problem of the Scrophulariaceae. *Proceedings of the Academy of Natural Sciences Philadelphia* 98: 83-98.
- Pridgeon, A. M. 2005. Subtribe Pleurothallidinae. In *Genera Orchidacearum. Vol. 4. Epidendroideae, part 1* (ed. A. M. Pridgeon, P. J. Cribb, M. W. Chase, and F. Rasmussen), pp. 319-422. Oxford University Press.
- Pridgeon, A. M. and Chase, M. W. 2001. A phylogenetic reclassification of Pleurothallidinae (Orchidaceae). *Lindleyana* 16: 235-271.
- Pridgeon, A. M., Solano, R., and Chase, M. W. 2001. Phylogenetic relationships in subtribe Pleurothallidinae (Orchidaceae): combined evidence from nuclear and plastid DNA sequences. *American Journal of Botany* 88: 2286-2308.
- Pupulin, F. 2000. Una nuova *Pleurothallis* (Orchidaceae) dalla Costa Rica / A new *Pleurothallis* (Orchidaceae) from Costa Rica. *Caesiana* 15: 1-4.
- Pupulin, F. 2001a. Extending the range. A new *Dracula* from Costa Rica. *Orchids* 70: 564-567.
- Pupulin, F. 2001b. Miscellaneous new taxa in Neotropical Orchidaceae. *Selbyana* 22: 14-26.
- Pupulin, F. 2002. Catálogo revisado y anotado de las Orchidaceae de Costa Rica. *Lankesteriana* 4: 1-88.
- Pupulin, F. 2010a. Orchidaceae Werckleanae: typification of Costa Rican orchid species described from collections by K. Wercklé. *Botanical Journal of the Linnean Society* 163: 111-154.
- Pupulin, F. 2010b. Flora Costaricensis. Family #39 Orchidaceae: Tribe Cymbidiidae: Subtribe Zygopetalinae. *Fieldiana, Botany* 49: i-iv, 1-60.
- Pupulin, F. and Blanco, M. A. 2001. *Myoxanthus vittatus* (Orchidaceae), a new species from Costa Rica. *Lankesteriana* 2: 15-18.
- Pupulin, F. and Bogarín, D. 2007. A second species of *Restrepia* (Orchidaceae: Pleurothallidinae). *Willdenowia* 37: 323-329.
- Pupulin, F. and Bogarín, D. 2010. Illustrations and studies in Neotropical Orchidaceae - The *Lepanthes jimenezii* group (Pleurothallidinae). *Harvard Papers in Botany* 15: 111-121.
- Pupulin, F. and Bogarín, D. 2011a. Eine neue, großblütige *Lepanthes*-Art aus Costa Rica. A new, large-flowered species of *Lepanthes* from Costa Rica. *Orchideen (Hamburg)* 62: 469-477.
- Pupulin, F. and Bogarín, D. 2011b. Two new *Lepanthes* from Costa Rica. *Lindleyana* in *Orchids* 80: 178-181.
- Pupulin, F. and Bogarín, D. 2012. *Lepanthes novae Tapantiensis*. *Orchid Digest* 76: 20-29.
- Pupulin, F. and Bogarín, D. 2014a. *Aliae Lepanthes Machogaffenses* (Orchidaceae: Pleurothallidinae). *Harvard Papers in Botany* 19: 194-201.
- Pupulin, F. and Bogarín, D. 2014b. Illustrations and studies in Neotropical Orchidaceae. 6. The *Lepanthes guatemalensis* group (Pleurothallidinae) in Costa Rica. *Anales del Garden Botánico de Madrid* 71: 1-17.
- Pupulin, F. and Fernández, M. 2013. In C. Lankester. *Costa Rican Orchids* (ed. C. H. Dodson, F. Pupulin, and M. Fernández), pp. v-x. Lankester Botanical Garden, Cartago, Costa Rica.
- Pupulin, F., Bianchi, E., German, M., Pedruzzi, D., and Wagner, A. 1995. Orchid diversity and distribution on a tree at Reserva Forestal de San Ramón, Costa Rica. *Brenesia* 43-44: 47-54.
- Pupulin, F. and Zúñiga, J. D. 2007. The upside-down *Pleurothallis* of Mesoamerica, with a new species from Costa Rica. *Orchids* 76: 690-695.
- Pupulin, F., Rojas, G., and Zúñiga, J. D. 2007. Three new species of *Acianthera* (Orchidaceae: Pleurothallidinae) from Costa Rica. *Harvard Papers in Botany* 12: 155-162.
- Pupulin, F., Bogarín, D., and Jiménez, D. 2009. New species and records in Mesoamerican *Lepanthes*. *Orchid Digest* 73: 136-145.
- Pupulin, F., Bogarín, D., and Fernández, M. 2010a. On the identity of *Myoxanthus scandens* (Orchidaceae: Pleurothallidinae), with a new species from Costa Rica. *Lankesteriana* 9: 467-473.
- Pupulin, F., Bogarín, D., and Smith, M. C. 2010b. Two new species of *Lepanthes* (Orchidaceae: Pleurothallidinae) close to *Lepanthes schizocardia*. *Lankesteriana* 9: 423-430.
- Pupulin, F., Medina, H., and Bogarín, D. 2010c. Two *Lepanthes* (Orchidaceae: Pleurothallidinae) with strongly reduced corolla. *Orchideen Journal* 17: 117-121.
- Pupulin, F., Bogarín, D., and Fernández, M. 2011a. Illustrations and studies in Neotropical orchids. 2. A note on *Pleurothallis luctuosa* (Orchidaceae: Pleurothallidinae), with a new species. *Annalen des Naturhistorisches Museums in Wien. Serie B* 112: 239-252.
- Pupulin, F., Medina, H., and Bogarín, D. 2011b. Two *Lepanthes* (Orchidaceae: Pleurothallidinae) with strongly reduced corolla. *OrchidJournal* 1: 31-35.
- Pupulin, F., Karremans, A. P., and Gravendeel, B. 2012. A reconsideration of the empusellous species of *Specklinia* (Orchidaceae: Pleurothallidinae) in Costa Rica. *Phytotaxa* 63: 1-20.
- Pupulin, F., Ossenbach, C., Jenny, R., and Vitek, E. 2013. Species Endresianae. In *Orchids in the life and work of Auguste R. Endrés. Vol. 1. The texts* (ed. C. Ossenbach, F. Pupulin, and R. Jenny), pp. 305-343. Naturhistorisches Museum, Vienna, Austria.
- Pupulin, F., Ossenbach, C., and Jenny, R. 2014. Mr. Auguste R. Endrés: not so mysterious, after all. *Orchids* 83: 604-617.

- Pupulin, F., Bogarín, D., Fernández, M., Díaz-Morales, M., Aguilar, J., and Ossenbach, C. 2016. Orchidaceae Tonduziana: typification of Costa Rican Orchidaceae described from collections of Adolphe Tonduz. *Harvard Papers in Botany* 21: 263-320.
- Pupulin, F., Díaz-Morales, M., Aguilar, J., and Fernández, M. 2017a. Two new species of *Pleurothallis* (Orchidaceae: Pleurothallidinae) allied to *P. cardiothallis*, with a note on flower activity. *Lankesteriana* 17: 329-356.
- Pupulin, F., Díaz-Morales, M., Fernández, M., and Aguilar, J. 2017b. Two new species of *Pleurothallis* (Orchidaceae: Pleurothallidinae) from Costa Rica in the *P. phyllocardia* group. *Lankesteriana* 17: 153-164.
- Pupulin, F., Karremans, A. P., and Belfort Oconitrillo, N. 2017c. Two new species of *Echinosepala* (Orchidaceae: Pleurothallidinae). *Lankesteriana* 17: 285-304.
- Reichenbach, H. G. 1855. Symbolae Orchidaceae. *Bonplandia* 3: 212-227.
- Reichenbach, H. G. 1858. *Xenia Orchidacea* 1: pl. 50, IV, 11-14.
- Reichenbach, H. G. 1866. *Beiträge zu einer Orchideenkunde Central-Amerika's*. Druck von T.G. Meissner, Hamburg.
- Smith, C. M. and Pupulin, F. 2012. Contributions to a taxonomic revision of *Masdevallia* (Orchidaceae: Pleurothallidinae) in Costa Rica. A note on *Masdevallia attenuata*. *Harvard Papers in Botany* 17: 25-38.
- Smith, C. M., Pupulin, F., and Jiménez, D. 2013. *Lepanthes variabilis* (Orchidaceae: Pleurothallidinae), a new endemic species from Costa Rica. *Brittonia*: DOI 10.1007/s12228-013-9305-1.
- Smith, C. M., Bogarín, D., and Pupulin, F. 2015. A new *Reichantha* (Orchidaceae: Pleurothallidinae) from Nicaragua and Costa Rica. *Systematic Botany* 40: 83-87.
- Standley, P. C. 1924. Trees and shrubs of Mexico. *Contributions from the U.S. National Herbarium* 23, part 4.
- Standley, P. C. 1927. New plants from Central America. VII. *Journal of the Washington Academy of Sciences* 17: 159-171.
- Standley, P. C. 1928. *Flora of the Panama Canal Zone*. U. S. Government Printing Office, Washington.
- Standley, P. C. 1931. *Flora of the Lancetilla Valley-Honduras*. Botanical series 10. Publications of the Field Museum of Natural History, Chicago.
- Standley, P. C. 1933. The flora of Barro Colorado Island, Panama. *Contributions from the Arnold Arboretum of Harvard University* 5: 5-159.
- Standley, P. C. 1936. *The forests and flora of British Honduras*. Botanical series 12. Publications of the Field Museum of Natural History, Chicago.
- Standley, P. C. 1937. *Flora of Costa Rica*. Botanical series 18. Publications of the Field Museum of Natural History, Chicago.
- Standley, P. C. and Calderón, S. 1925. *Lista preliminar de las plantas de El Salvador*. Tipografía La Unión, Dutriz hermanos. San Salvador, El Salvador ,.
- Standley, P. C. and Williams, S. 1946. *Flora of Guatemala*. Botanical series 24. Publications of the Field Museum of Natural History, Chicago.
- Tremblay, R. and Ackerman, J. D. 2001. Gene flow and effective population size in *Lepanthes* (Orchidaceae): a case for genetic drift. *Biological Journal of the Linnean Society* 72: 47-62.
- Wilson, M., Pupulin, F., Archila Morales, F. L., Damon, A., and Solano Gómez, R. 2013. A newly recognized clade of *Pleurothallis* with Mesoamerican distribution. *Lankesteriana* 13: 138.

Appendix 1. Updated checklist of the orchid species belonging to Pleurothallidinae recorded in the flora of Costa Rica.

Acianthera Scheidw.

- Acianthera aberrans*** (Luer) Pupulin & Bogarín, Lankesteriana 8(2): 53. 2008.
Pleurothallis aberrans Luer, Selbyana 2: 382. 1978.
Aberantia aberrans (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 310. 2005.
- Acianthera brunnescens*** (Schltr.) Karremans, Harvard Pap. Bot. 21(2): 185. 2016.
Pleurothallis brunnescens Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 183. 1923.
- Acianthera lojae*** (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 254. 2004.
Pleurothallis lojae Schltr., Repert. Spec. Nov. Regni Veg. Beih. 8: 60. 1921.
Pleurothallis citrophila Luer, Selbyana 3: 266. 1977.
Pleurothallis florosa Luer, Selbyana 3: 302. 1977.
Acianthera citrophila (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
Acianthera florosa (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
- Acianthera butcheri*** L.O.Williams) Pridgeon & M.W.Chase, Lindleyana 16: 242. 2001.
Pleurothallis butcheri L.O.Williams, Fieldiana, Bot. 29: 346. 1961.
Didactylus butcheri (L.O.Williams) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 310. 2005.
- Acianthera cabiriae*** Pupulin, G.A.Rojas & J.D.Zuñiga, Harvard Pap. Bot. 12: 160. 2007.
- Acianthera cachensis*** (Ames) Karremans, Harvard Pap. Bot. 21(2): 185. 2016.
Pleurothallis cachensis Ames, Schedul. Orchid. 4: 17. 1923.
Unguella cachensis (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 310. 2005.
- Acianthera circumplexa*** (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
Pleurothallis circumplexa Lindl., Edwards's Bot. Reg. 24(Misc.): 24. 1838.
Humboltia circumplexa (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Pleurothallis mesophylla A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 16. 1845.
- Acianthera cogniauxiana*** (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
Pleurothallis cogniauxiana Schltr., Repert. Spec. Nov. Regni Veg. 3: 246. 1907.
Pleurothallis congruens Luer, Selbyana 2: 39. 1978.
Acianthera congruens (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
- Acianthera crassilabia*** (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 253. 2004.
Pleurothallis crassilabia Ames & C.Schweinf., Schedul. Orchid. 8: 25. 1925.
- Acianthera decipiens*** (Ames & C.Schweinf.) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
Pleurothallis decipiens Ames & C.Schweinf., Schedul. Orchid. 8: 26. 1925.
Pleurothallis pterocaulis L.O.Williams, Ann. Missouri Bot. Gard. 27: 280. 1940.
- Acianthera ellipsophylla*** (L.O.Williams) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
Pleurothallis ellipsophylla L.O.Williams, Ann. Missouri Bot. Gard. 29: 344. 1942.
- Acianthera fecunda*** Pupulin, G.A.Rojas & J.D.Zuñiga, Harvard Pap. Bot. 12: 158. 2007.
- Acianthera geminicaulina*** (Ames) Pridgeon & M.W.Chase, Lindleyana 16: 243. 2001.
Pleurothallis geminicaulina Ames, Schedul. Orchid. 6: 59. 1923.
- Acianthera hamata*** Pupulin & G.A.Rojas, Harvard Pap. Bot. 12: 156. 2007.

- Acianthera hondurensis*** (Ames) Pridgeon & M.W.Chase, *Lindleyana* 16: 244. 2001.
Pleurothallis hondurensis Ames, *Schedul. Orchid.* 7: 20. 1924.
- Acianthera johnsonii*** (Ames) Pridgeon & M.W.Chase, *Lindleyana* 16: 244. 2001.
Pleurothallis johnsonii Ames, *Schedul. Orchid.* 2: 21. 1923.
Brenesia johnsonii (Ames) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 255. 2004.
Brenesia costaricensis Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 19: 200. 1923.
Pleurothallis lateralis L.O.Williams, *Ceiba* 5: 84. 1956.
- Acianthera lepidota*** (L.O.Williams) Pridgeon & M.W.Chase, *Lindleyana* 16: 244. 2001.
Pleurothallis lepidota L.O.Williams, *Ann. Missouri Bot. Gard.* 27: 279. 1940.
Unguella lepidota (L.O.Williams) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 103: 311. 2005.
- Acianthera oscitans*** (Ames) Pridgeon & M.W.Chase, *Lindleyana* 16: 245. 2001.
Pleurothallis oscitans Ames, *Bot. Mus. Leafl.* 2: 25. 1934.
Didactylus oscitans (Ames) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 103: 310. 2005.
- Acianthera pantasmi*** (Rchb.f.) Pridgeon & M.W.Chase, *Lindleyana* 16: 245. 2001.
Pleurothallis pantasmi Rchb.f., *Bonplandia* (Hannover) 3: 224. 1855.
Humboltia pantasmi (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Pleurothallis cingens Ames & C.Schweinf., *Schedul. Orchid.* 10: 23. 1930.
- Acianthera pubescens*** (Lindl.) Pridgeon & M.W.Chase, *Lindleyana* 16: 245. 2001.
Pleurothallis pubescens Lindl., *Companion Bot. Mag.* 2: 355. 1837.
Humboltia pubescens (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Pleurothallis vittata Lindl., *Edwards's Bot. Reg.* 24(Misc.): 73. 1838.
Pleurothallis smithiana Lindl., *Edwards's Bot. Reg.* 29(Misc.): 57. 1843.
Pleurothallis polystachya A.Rich. & Galeotti, *Ann. Sci. Nat., Bot., sér. 3*, 3: 16. 1845.
Pleurothallis bufonis Klotzsch, *Allg. Gartenzeitung* 22: 225. 1854.
Pleurothallis truxillensis Rchb.f., *Bonplandia* (Hannover) 2: 25. 1854.
Pleurothallis janeirensis Barb.Rodr., *Gen. Spec. Orchid.* 2: 29. 1881.
Pleurothallis rio-grandensis Barb.Rodr., *Gen. Spec. Orchid.* 2: 28. 1881.
Pleurothallis rio-grandensis var. *viridicata* Barb.Rodr., *Gen. Spec. Orchid.* 2: 30. 1881.
Pleurothallis janeirensis var. *viridicata* Barb.Rodr., *Gen. Spec. Orchid.* 2: 30. 1882.
Pleurothallis coriacea Bello, *Anales Soc. Esp. Hist. Nat.* 12: 116. 1883.
Humboltia bufonis (Klotzsch) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.
Humboltia polystachya (A.Rich. & Galeotti) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891, nom. illeg.
Humboltia smithiana (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Humboltia truxillensis (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Humboltia vittata (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Pleurothallis rio-grandensis var. *longicaulis* Cogn. in C.F.P.von Martius & auct. suc. (eds.), *Fl. Bras.* 3(4): 542. 1896.
Pleurothallis smithiana var. *viridicata* Cogn. in C.F.P.von Martius & auct. suc. (eds.), *Fl. Bras.* 3(4): 533. 1896.
Pleurothallis mandibularis Kraenzl., *Vidensk. Meddel. Naturhist. Foren. Kjøbenhavn* 71: 169. 1920.
Pleurothallis bourgeauii Kraenzl., *Ark. Bot.* 16(8): 15. 1921.

- Pleurothallis porphyrantha* Kraenzl., Ark. Bot. 16(8): 10. 1921.
- Acianthera sicaria*** (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 246. 2001.
- Pleurothallis sicaria* Lindl., Edwards's Bot. Reg. 27(Misc.): 91. 1841.
- Humboltia sicaria* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis tripteris* Rchb.f., Linnaea 22: 829. 1850.
- Pleurothallis trigonopoda* Klotzsch, Allg. Gartenzeitung 21: 361. 1853.
- Pleurothallis alpina* Ames, Schedul. Orchid. 5: 14. 1923.
- Acianthera alpina* (Ames) Pridgeon & M.W.Chase, Lindleyana 16: 242. 2001.
- Acianthera testifolia*** (Sw.) Solano, Acta Bot. Mex. 97: 50. 2011.
- Epidendrum testifolium* Sw., Prodr. Veg. Ind. Occ.: 122. 1788.
- Cymbidium testifolium* (Sw.) Sw., Nova Acta Regiae Soc. Sci. Upsal. 6: 71. 1799.
- Pleurothallis testifolia* (Sw.) Lindl., Ann. Mag. Nat. Hist., ser. 3, 1: 328. 1858.
- Humboltia testifolia* (Sw.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Apoda-prorepentia testifolia* (Sw.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 255. 2004.
- Pleurothallis sarcophylla* Rchb.f., Bonplandia (Hannover) 3: 224. 1855.
- Humboltia sarcophylla* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Cryptophoranthus sarcophyllus* (Rchb.f.) Schltr., Repert. Spec. Nov. Regni Veg. Beih. 6: 57. 1919.
- Cryptophoranthus pectinatus* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 277. 1923.
- Pleurothallis helleriana* L.O.Williams, Fieldiana, Bot. 31: 42. 1964.
- Acianthera verecunda*** (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 246. 2001.
- Pleurothallis verecunda* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 24. 1922.
- Anathallis*** Barb.Rodr.
- Anathallis endresii*** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 248. 2001.
- Pleurothallis endresii* Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 76: 172. 1999.
- Specklinia endresii* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Panmorphia endresii* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 153. 2006.
- Pleurothallis endresii* Luer, Orquideologia 21: 33. 2000, *nom. illeg.*
- Anathallis funerea*** (Barb.Rodr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 115: 258. 2009.
- Lepanthes funerea* Barb.Rodr., Vellozia, ed. 2, 1: 118. 1891.
- Pleurothallis funerea* (Barb.Rodr.) Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 567. 1896.
- Specklinia funerea* (Barb.Rodr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Panmorphia funerea* (Barb.Rodr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 156. 2006.
- Pleurothallis breviscapa* C.Schweinf., Bot. Mus. Leafl. 3: 79. 1935.
- Pleurothallis praemorsa* Luer, Selbyana 2: 388. 1978.
- Anathallis breviscapa* (C.Schweinf.) Pridgeon & M.W.Chase, Lindleyana 16: 248. 2001.
- Specklinia breviscapa* (C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 259. 2004.
- Specklinia praemorsa* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 263. 2004.
- Anathallis grayumii*** (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 115: 258. 2009.
- Pleurothallis grayumii* Luer, Lindleyana 11: 78. 1996.

- Specklinia grayumii* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Panmorphia grayumii* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 157-2006.
- Anathallis haberi** (Luer) Solano & Soto Arenas, Icon. Orchid. 5-6: t. 520. 2002 (2003).
- Pleurothallis haberi* Luer, Selbyana 23: 36. 2002.
- Specklinia haberi* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 261. 2004.
- Panmorphia haberi* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 158. 2006.
- Anathallis lewisiae** (Ames) Solano & Soto Arenas, Icon. Orchid. 5-6: x. 2002 (2003).
- Pleurothallis lewisiae* Ames, Proc. Biol. Soc. Wash. 44: 42. 1931.
- Specklinia lewisiae* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 261. 2004.
- Panmorphia lewisiae* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 164-2006.
- Anathallis minutalis** (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 249. 2001.
- Pleurothallis minutalis* Lindl., Fol. Orchid. 9: 40. 1859.
- Humboltia minutalis* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Specklinia minutalis* (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 262. 2004.
- Panmorphia minutalis* (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 167. 2006.
- Pleurothallis crassifolia* Rchb.f., Linnaea 22: 832. 1850, nom. illeg.
- Palmoglossum crassifolium* Klotzsch, Xenia Orchid. 1: 174. 1856, pro syn.
- Humboltia pachyphylla* Kuntze, Revis. Gen. Pl. 2: 666. 1891, nom. illeg.
- Anathallis sertularioides** (Sw.) Pridgeon & M.W.Chase, Lindleyana 16: 250. 2001.
- Epidendrum sertularioides* Sw., Prodr. Veg. Ind. Occ.: 122. 1788.
- Dendrobium sertularioides* (Sw.) Sw., Nova Acta Regiae Soc. Sci. Upsal. 6: 83. 1799.
- Pleurothallis sertularioides* (Sw.) Spreng., Syst. Veg. 3: 731. 1826.
- Specklinia sertularioides* (Sw.) Lindl., Gen. Sp. Orchid. Pl.: 8. 1830.
- Humboltia sertularioides* (Sw.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Panmorphia sertularioides* (Sw.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 174. 2006.
- Pleurothallis tenuissima* Rchb.f., Linnaea 18: 399. 1845.
- Pleurothallis trichopoda* A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 17. 1845.
- Humboltia tenuissima* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Humboltia trichopoda* (A.Rich. & Galeotti) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Barbosella** Schltr.
- Barbosella dolichorhiza** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 117. 1920.
- Masdevallia anaristella* Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 417. 1921.
- Barbosella bradeorum* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 111. 1923.
- Pleurothallis bradeorum* (Schltr.) Ames, F.T.Hubb. & C.Schweinf., Bot. Mus. Leafl. 3: 39. 1934.
- Pleurothallis anaristella* (Kraenzl.) L.O.Williams, Ceiba 1: 186. 1950.
- Barbosella fuscata* Garay, Orquideologia 4: 153. 1969.
- Barbosella anaristella* (Kraenzl.) Garay, Orquideologia 9: 114. 1974.
- Triaristellina anaristella* (Kraenzl.) Rauschert, Feddes Repert. 94: 469. 1983.
- Barbosella geminata** Luer, Phytologia 46: 345. 1980.

Barbosella orbicularis Luer, Selbyana 3: 10. 1976.

Barbosella prorepens (Rchb.f.) Schltr., Repert. Spec. Nov. Regni Veg. 15: 263. 1918.

Restrepia prorepens Rchb.f., Gard. Chron., n.s., 7: 810. 1877.

Pleurothallis prorepens (Rchb.f.) Ames, F.T.Hubb. & C.Schweinf., Bot. Mus. Leafl. 3: 39. 1934.

Pleurothallis dussii Cogn. in I.Urban, Symb. Antill. 6: 413. 1909.

Barbosella brenesii Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 201. 1923.

Pleurothallis monstrabilis Ames, Schedul. Orchid. 6: 63. 1923.

Restrepia caespitifica F.Lehm. & Kraenzl., Repert. Spec. Nov. Regni Veg. 24: 358. 1928.

Restrepia tolimensis Kraenzl., Repert. Spec. Nov. Regni Veg. 24: 358. 1928.

Barbosella caespitifica (F.Lehm. & Kraenzl.) Garay, Orquideologia 9: 114. 1974.

Barbosella monstrabilis (Ames) Garay, Orquideologia 9: 114. 1974.

Barbosella tolimensis (Kraenzl.) Garay, Orquideologia 9: 114. 1974.

Barbosella dussii (Cogn.) Dod, Moscosoa 4: 192. 1986.

Brachionidium Lindl.

Brachionidium cornu-nigrum Bogarín & Karremans, Syst. Bot. 41(4): 921. 2016.

Brachionidium cruziae L.O.Williams, Brittonia 14: 441. 1962.

Brachionidium dressleri Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 57: 40. 1995.

Brachionidium folsomii Dressler, Orquideologia 15: 154. 1982.

Brachionidium haberi Luer, Monogr. Syst. Bot. Missouri Voucher: W. Haber et al. 4485 (MO).

Brachionidium kirbyi Bogarín, Karremans & M.Muñoz, Orchidee (Hamburg) 66(5): 405. 2015.

Brachionidium minusculum Luer & Dressler, Monogr. Syst. Bot. Missouri Bot. Gard. 57: 82. 1995.

Brachionidium polypodium Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 57: 98. 1995.

Brachionidium pusillum Ames & C.Schweinf., Schedul. Orchid. 10: 52. 1930.

Brachionidium valerioi Ames & C.Schweinf., Schedul. Orchid. 10: 53. 1930.

Diodonopsis Pridgeon & M.W.Chase

Diodonopsis erinacea (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.

Masdevallia erinacea Rchb.f., Linnaea 41: 11. 1876.

Scaphosepalum erinaceum (Rchb.f.) Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 219. 1920.

Masdevallia echinocarpa Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 78. 1920.

Masdevallia horrida Teusch. & Garay, Amer. Orchid Soc. Bull. 29: 23. 1960.

Diodonopsis pygmaea (Kraenzl.) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.

Masdevallia pygmaea Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 92. 1925.

Masdevallia muriculata Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 99. 1925.

Masdevallia exigua Ames & C.Schweinf., Schedul. Orchid. 10: 17. 1930.

Dracula Luer

Dracula astuta (Rchb.f.) Luer, Selbyana 2: 193. 1978.

Masdevallia astuta Rchb.f., Gard. Chron., n.s., 26: 584. 1886.

Masdevallia erythrochaete var. *astuta* (Rchb.f.) Woolward, Masdevallia: 11. 1886.

Dracula erythrochaete subsp. *astuta* (Rchb.f.) Hermans, Orchid Digest 61(4): 14. 1997.

Masdevallia gorgo Rchb.f. ex Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 136. 1925.

Dracula gorgo (Rchb.f. ex Kraenzl.) Luer, Selbyana 2: 195. 1978.

Dracula carlueri Hermans & P.J.Cribb, Orchid Rev. 105: 301. 1997.

Dracula erythrochaete (Rchb.f.) Luer, Selbyana 2: 195. 1978.

Masdevallia erythrochaete Rchb.f., Gard. Chron., n.s., 18: 392. 1882.

Masdevallia gaskelliana Rchb.f., Gard. Chron., n.s., 20: 294. 1883.

Masdevallia erythrochaete var. *gaskelliana* (Rchb.f.) Woolward, *Masdevallia*: 11. 1886.

Dracula gaskelliana (Rchb.f.) Luer, Selbyana 2: 195. 1978.

Dracula inexperata Pupulin, Orchids (West Palm Beach) 70: 564. 2001.

Dracula maduroi Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 234. 2004.

Dracula pusilla (Rolfe) Luer, Selbyana 2: 196. 1978.

Masdevallia pusilla Rolfe, Bull. Misc. Inform. Kew 1893: 335. 1893.

Masdevallia johannis Schltr., Repert. Spec. Nov. Regni Veg. 10: 359. 1912.

Dracula vagabunda Luer & R.Escobar, Orquideologia 15: 35. 1981.

Dracula ripleyana Luer, Selbyana 5: 147. 1979.

Dracula vespertilio (Rchb.f.) Luer, Selbyana 2: 198. 1978.

Masdevallia vespertilio Rchb.f., Bot. Zeitung (Berlin) 31: 390. 1873.

Dresslerella Luer

Dresslerella hispida (L.O.Williams) Luer, Selbyana 3: 4. 1976.

Pleurothallis hispida L.O.Williams, Ann. Missouri Bot. Gard. 27: 277. 1940.

Dresslerella pilosissima (Schltr.) Luer, Selbyana 2: 185. 1978.

Pleurothallis pilosissima Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 289. 1923.

Restrepia pilosissima (Schltr.) Ames & C.Schweinf., Bot. Mus. Leafl. 4: 100. 1937.

Restrepiella pilosissima (Schltr.) Garay & Dunst., Venez. Orchids Ill. 4: 266. 1966.

Dresslerella stellaris Luer & R.Escobar, Selbyana 2: 188. 1978.

Dryadella Luer

Dryadella fuchsii Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 76: 162. 1999.

Dryadella gnoma (Luer) Luer, Selbyana 2: 208. 1978.

Pleurothallis gnoma Luer, Selbyana 3: 110. 1976.

Dryadella misasii Luer & R.Escobar, Orquideologia 13

Dryadella greenwoodiana Soto Arenas, Salazar & Solano, Icon. Orchid. 5-6: t. 550. 2002[2003].

Dryadella guatemalensis (Schltr.) Luer, Selbyana 2: 208. 1978.

Masdevallia guatemalensis Schltr., Repert. Spec. Nov. Regni Veg. 15: 201. 1918.

Masdevallia simula var. *guatemalensis* (Schltr.) Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 191. 1925.

Dryadella odontostele Luer, Lindleyana 11: 54. 1996.

Dryadella sororcula Luer, Lindleyana 11(2): 56, f. 2. 1996.

Echinosepala Pridgeon & M.W.Chase

Echinosepala aspicensis (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 17: 101. 2002.

Pleurothallis aspicensis Rchb.f., Bonplandia (Hannover) 3: 73. 1855.

- Humboltia aspasicensis* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Myoxanthus aspasicensis* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 15: 38. 1986.
- Echinella aspasicensis* (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.
- Brenesia aspasicensis* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 255. 2004.
- Pleurothallis pastacensis* Luer, Selbyana 3: 156. 1976.
- Myoxanthus pastacensis* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 15: 38. 1986.
- Echinosepala expolita*** Pupulin & Belfort, Lankesteriana 17(2): 294–299. 2017.
- Echinosepala lappiformis*** (A.H.Heller & L.O.Williams) Pridgeon & M.W.Chase, Lindleyana 17: 101. 2002.
- Pleurothallis lappiformis* A.H.Heller & L.O.Williams, Fieldiana, Bot. 31: 42. 1964.
- Myoxanthus lappiformis* (A.H.Heller & L.O.Williams) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 15: 38. 1986.
- Echinella lappiformis* (A.H.Heller & L.O.Williams) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.
- Brenesia lappiformis* (A.H.Heller & L.O.Williams) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 255. 2004.
- Echinosepala longipedunculata*** Pupulin & Karremans, Lankesteriana 17(2): 299–303. 2017.
- Echinosepala pan*** (Luer) Pridgeon & M.W.Chase, Lindleyana 17: 101. 2002.
- Pleurothallis pan* Luer, Selbyana 3: 360. 1977.
- Myoxanthus pan* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 15: 38. 1986.
- Echinella pan* (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.
- Brenesia pan* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 255. 2004.
- Echinosepala sempergemmata*** (Luer) Pridgeon & M.W.Chase, Lindleyana 17: 101. 2002.
- Echinosepala stonei*** (Luer) Pridgeon & M.W.Chase, Lindleyana 17: 101 (2002).
- Pleurothallis stonei* Luer, Phytologia 44: 171. 1979.
- Myoxanthus stonei* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 15: 38. 1986.
- Echinella stonei* (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.
- Brenesia stonei* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 255. 2004.
- Echinosepala tomentosa*** (Luer) Pridgeon & M.W.Chase, Lindleyana 17: 101. 2002.
- Pleurothallis tomentosa* Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 76: 177. 1999.
- Echinella tomentosa* (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.
- Myoxanthus tomentosus* (Luer) Pupulin & M.A.Blanco, Lankesteriana 2: 18. 2001.
- Brenesia tomentosa* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 255. 2004.
- Pleurothallis tomentosa* Luer, Orquideologia 21: 337. 2000, nom. illeg.
- Echinosepala uncinata*** (Fawc.) Pridgeon & M.W.Chase, Lindleyana 17: 101. 2002.
- Pleurothallis uncinata* Fawc., J. Bot. 33: 12. 1895.
- Myoxanthus uncinatus* (Fawc.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 15: 38. 1986.
- Echinella uncinata* (Fawc.) Pridgeon & M.W.Chase, Lindleyana 16: 253. 2001.
- Brenesia uncinata* (Fawc.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 255. 2004.
- Echinosepala vittata*** (Pupulin & M.A.Blanco) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 119. 2007.
- Myoxanthus vittatus* Pupulin & M.A.Blanco, Lankesteriana 2: 16. 2001.
- Echinella vittata* (Pupulin & M.A.Blanco) Pupulin, Lankesteriana 4: 17. 2002.
- Pleurothallis grammata* Dressler, Lankesteriana 3: 28. 2002.

***Kraenzlinella* Kuntze**

Kraenzlinella erinacea (Rchb.f.) Solano, Icon. Orchid. 5-6: xi. 2002 (2003).

Pleurothallis erinacea Rchb.f., Bonplandia (Hannover) 3: 72. 1855.

Humboltia erinacea (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.

Pleurothallis muricata Schltr., Repert. Spec. Nov. Regni Veg. 10: 293. 1912.

Pleurothallis sororia Schltr., Repert. Spec. Nov. Regni Veg. 10: 294. 1912.

Kraenzlinella muricata (Schltr.) Rolfe, Orchid Rev. 23: 326. 1915.

Kraenzlinella rufescens Rolfe, Orchid Rev. 23: 326. 1915.

Kraenzlinella sororia (Schltr.) Rolfe, Orchid Rev. 23: 326. 1915.

Pleurothallis rufescens (Rolfe) Schltr., Repert. Spec. Nov. Regni Veg. Beih. 9: 142. 1921.

Pleurothallis diuturna Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 19. 1922.

Pleurothallis muricata T.Hashim., Bull. Natl. Sci. Mus. Tokyo, B 13: 35. 1987, nom. illeg.

Kraenzlinella sigmoidea (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 258. 2004.

Pleurothallis sigmoidea Ames & C.Schweinf., Schedul. Orchid. 10: 36. 1930.

***Lankesteriana* Karremans**

Lankesteriana barbulata (Lindl.) Karremans, Lankesteriana 13(3): 326. 2014.

Pleurothallis barbata H.Focke, Bot. Zeitung (Berlin) 11: 227. 1853, nom. illeg.

Pleurothallis barbulata Lindl., Fol. Orchid. 9: 40. 1859.

Humboltia barbulata (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.

Specklinia barbulata (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 259. 2004.

Panmorphia barbulata (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 146. 2006.

Anathallis barbulata (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 247. 2001.

Pleurothallis abjecta Ames, Schedul. Orchid. 2: 17. 1923.

Pleurothallis ciliilabia Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 185. 1923.

Pleurothallis nubensis Foldats, Acta Bot. Venez. 3: 384. 1968.

Pleurothallis minutissima Luer, Orquideologia 20: 218. 1996.

Specklinia minutissima (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 262. 2004.

Lankesteriana casualis (Ames) Karremans, Lankesteriana 13(3): 327. 2014.

Pleurothallis casualis Ames, Schedul. Orchid. 9: 30. 1925.

Anathallis casualis (Ames) Pridgeon & M.W.Chase, Lindleyana 16: 248. 2001.

Specklinia casualis (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 259. 2004.

Panmorphia casualis (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 149. 2006.

Lankesteriana caudatipetala (C.Schweinf.) Karremans, Lankesteriana 13(3): 327. 2014.

Pleurothallis caudatipetala C.Schweinf., Bot. Mus. Leafl. 10: 175. 1942.

Specklinia caudatipetala (C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 259. 2004.

Panmorphia caudatipetala (C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 150. 2006.

Anathallis caudatipetala (C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 115: 257. 2009.

Lankesteriana cuspidata (Luer) Karremans, Lankesteriana 13(3): 327. 2014.

Pleurothallis cuspidata Luer, Selbyana 3: 282. 1977.

- Anathallis cuspidata* (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 248. 2001.
- Specklinia cuspidata* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Panmorphia cuspidata* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 152. 2006.
- Lankesteriana duplooyi*** (Luer & Sayers) Karremans, Lankesteriana 13(3): 327. 2014.
- Pleurothallis duplooyi* Luer & Sayers, Revista Soc. Boliv. Bot. 3: 48. 2001.
- Specklinia duplooyi* (Luer & Sayers) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Panmorphia duplooyi* (Luer & Sayers) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 153. 2006.
- Anathallis duplooyi* (Luer & Sayers) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 115: 257. 2009.
- Lankesteriana fractiflexa*** (Ames & C.Schweinf.) Karremans, Lankesteriana 13(3): 327. 2014.
- Anathallis fractiflexa* (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 115: 258. 2009.
- Pleurothallis fractiflexa* Ames & C.Schweinf., Schedul. Orchid. 10: 26-27. 1930.
- Pleurothallis corynophora* Luer, Phytologia 55(3): 201. 1984.
- Anathallis corynophora* (Luer) Pridgeon & M.W.Chase, Lindleyana 16(4): 248. 2001.
- Specklinia fractiflexa* (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Panmorphia fractiflexa* (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 154-155. 2006.
- Lepanthes* Sw.**
- Lepanthes acoridilabia*** Ames & C.Schweinf., Schedul. Orchid. 10: 38. 1930.
- Lepanthes amplectens*** Luer & Hermans, Orchid Rev. 103: 61. 1995.
- Lepanthes ankistra*** Luer & Dressler, Orquideologia 16(3): 12. 1986.
- Lepanthes antilocapra*** Luer & Dressler, Orquideología 16(3): 15. 1986.
- Lepanthes arenasiana*** Bogarín & Mel.Fernández, Lankesteriana 9: 487. 2010.
- Lepanthes atrata*** Endrés ex Luer, Lindleyana 10: 135. 1995.
- Lepanthes atwoodii*** Luer, Lindleyana 7: 100. 1992.
- Lepanthes barbae*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 98. 1923.
- Lepanthes barbosa*** Luer, Lindleyana 10: 135. 1995.
- Lepanthes blephariglossa*** Schltr., Beih. Bot. Centralbl. 36(2): 394. 1918.
- Lepanthes collaris* Luer, Lindleyana 2: 185. 1987.
- Lepanthes blepharistes*** Rchb.f., Beitr. Orchid.-K. C. Amer.: 92. 1866.
- Lepanthes acostae* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 280. 1923.
- Lepanthes bradei*** Schltr., Beih. Bot. Centralbl. 36(2): 394. 1918.
- Lepanthes candida*** Endrés ex Luer, Lindleyana 10: 138. 1995.
- Lepanthes caroli-lueri*** Bogarín & Pupulin, Harvard Pap. Bot. 15: 116. 2010.
- Lepanthes casasa*** Pupulin, Orchidee (Hamburg) 54: 76. 2003.
- Lepanthes cascajalensis*** Ames, Schedul. Orchid. 4: 27. 1923.
- Lepanthes castilloae*** Bogarín & Kisel, Orchid Review 122(1305): 29-30, f. A-E. 2014.
- Lepanthes chameleon*** Ames, Schedul. Orchid. 4: 28. 1923.
- Lepanthes chiriquensis*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 17. 1922.
- Lepanthes microtica* Luer & R.Escobar, Phytologia 55: 189. 1984.
- Lepanthes ciliisepala*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 99. 1923.

- Lepanthes circularis* Luer, Lindleyana 10: 140. 1995.
- Lepanthes clareae* Luer & Hermans, Orchid Rev. 103: 62. 1995.
- Lepanthes coeloglossa* Luer, Phytologia 55: 180. 1984.
- Lepanthes comet-halleyi* Luer, Lindleyana 2(4): 185, 188. 1987.
- Lepanthes confusa* Ames & C.Schweinf., Schedul. Orchid. 10: 40. 1930.
- Lepanthes costaricensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 22. 1923.
- Lepanthes cribbii* Pupulin, Kew Bull. 59: 559. 2004.
- Lepanthes cuspidata* Luer, Lindleyana 10: 140. 1995.
- Lepanthes daniel-jimenezii* Bogarín & Pupulin, Orchidee (Hamburg) 62(2): 112-113. 2011.
- Lepanthes davidsei* Luer, Lindleyana 11: 56. 1996.
- Lepanthes decipiens* Ames & C.Schweinf., Schedul. Orchid. 10: 41. 1930.
- Lepanthes deformis* Luer & Hirtz, Orchidee (Hamburg) 38: 38. 1987.
- Lepanthes demissa* Luer, Phytologia 55: 182. 1984.
- Lepanthes dichroma* Luer, Lindleyana 11: 59. 1996.
- Lepanthes dikoensis* Bogarín & C.M.Sm., J. Bot. Res. Inst. Texas 6(2): 362-365. 2012.
- Lepanthes disticha* (A.Rich. & Galeotti) Garay & R.E.Schult., Rhodora 61: 6. 1959.
- Pleurothallis disticha* A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 16. 1845.
- Lepanthes oestlundiana* R.E.Schult. & Dillon, Rhodora 61: 10. 1959.
- Lepanthes pubilabia* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 282. 1923., *syn. nov.*
- Lepanthes dolabriformis* Luer, Lindleyana 11: 59. 1996.
- Lepanthes dotae* Endrés ex Luer, Lindleyana 10: 143. 1995.
- Lepanthes droseroides* Luer, Lindleyana 2: 188. 1987.
- Lepanthes durikäänsis* Pupulin & Bogarín, An. Jard. Bot. Madrid 71(1): 4. 2014.
- Lepanthes edentula* Luer, Lindleyana 10: 143. 1995.
- Lepanthes edwardsii* Ames, Bot. Mus. Leafl. 1(4): 4. 1933.
- Lepanthes elata* Rchb.f., Beitr. Orchid.-K. C. Amer.: 90. 1866.
- Lepanthes elegans* Luer, Lindleyana 10: 146. 1995.
- Lepanthes elvirae* Pupulin, Harvard Pap. Bot. 19(2): 194-197. 2014.
- Lepanthes empticia* Luer & Béhar, Monogr. Syst. Bot. Missouri Bot. Gard. 76: 166. 1999.
- Lepanthes erinacea* Rchb.f., Bonplandia (Hannover) 3: 225. 1855.
- Lepanthes wercklei* Schltr., Repert. Spec. Nov. Regni Veg. 10: 396. 1912.
- Lepanthes apiculifera* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 177. 1923.
- Lepanthes endresii* Luer, Lindleyana 7: 106. 1992.
- Lepanthes erubescens* Bogarín, Pupulin & Karremans, Lankesteriana 12(2): 108. 2012.
- Lepanthes estrellensis* Ames, Schedul. Orchid. 4: 30. 1923.
- Lepanthes excedens* Ames & Correll, Bot. Mus. Leafl. 10: 72. 1942.
- Lepanthes empis* Luer, Phytologia 55: 183. 1984.
- Lepanthes eximia* Ames, Schedul. Orchid. 5: 21. 1923.
- Lepanthes abnormis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 21. 1923.

- Lepanthes expansilabia* Bogarín & C.M.Sm., J. Bot. Res. Inst. Texas 6(2): 367-369. 2012.
- Lepanthes falcifera* Luer, Lindleyana 10: 148. 1995.
- Lepanthes falx-bellica* Pupulin & Bogarín, Orchids (West Palm Beach) 80: 178. 2011.
- Lepanthes fascinata* Luer, Lindleyana 10: 148. 1995.
- Lepanthes ferrelliae* Luer, Orchid Rev. 103: 65. 1995.
- Lepanthes fimbriata* Ames, Schedul. Orchid. 3: 11. 1923.
- Lepanthes lindleyana* var. *major* Ames, F.T.Hubb. & C.Schweinf., Bot. Mus. Leafl. 3: 38. 1934.
- Lepanthes setos* Luer, Phytologia 55: 193. 1984.
- Lepanthes forcipifera* Luer, Lindleyana 10: 151. 1995.
- Lepanthes fugiens* Luer, Lindleyana 10: 151. 1995.
- Lepanthes garciae* Bogarín & D.Jiménez, Orchids (Bull. Amer. Orch. Soc.) 84(7): 433-434.
- Lepanthes gerardensis* M.A.Blanco, Lankesteriana 8: 19. 2003.
- Lepanthes glicensteinii* Luer, Lindleyana 2: 191. 1987.
- Lepanthes gracillima* Endrés ex Luer, Lindleyana 10: 154. 1995.
- Lepanthes grandiflora* Ames & C.Schweinf., Schedul. Orchid. 10: 44. 1930.
- Lepanthes mulderae* Luer, Lindleyana 2: 204. 1987.
- Lepanthes jennyi* Luer, Lindleyana 6: 7.1991.
- Lepanthes gratiosa* Pupulin & D.Jiménez, Orchid Digest 73: 137. 2009.
- Lepanthes guanacastensis* Ames & C.Schweinf., Schedul. Orchid. 10: 45. 1930.
- Lepanthes guardiana* Endrés ex Luer, Lindleyana 10: 156. 1995.
- Lepanthes hamulifera* Luer, Lindleyana 10: 156. 1995.
- Lepanthes helleri* A.D.Hawkes, Phytologia 14: 6. 1966.
- Lepanthes infundibulum* Luer, Phytologia 55: 186. 1984.
- Lepanthes hermansii* Luer, Orchid Rev. 103: 66. 1995.
- Lepanthes horichii* Luer, Lindleyana 2: 194. 1987.
- Lepanthes horrida* Rchb.f., Bonplandia (Hannover) 3: 70. 1855.
- Lepanthes sanchoi* Ames, Schedul. Orchid. 4: 34. 1923.
- Lepanthes rostrata* Ames, Schedul. Orchid. 5: 22. 1923.
- Lepanthes inaequiloba* Ames & C.Schweinf., Schedul. Orchid. 10: 46. 1930.
- Lepanthes reflexa* Luer & Hermans, Lindleyana 10: 167. 1995.
- Lepanthes inescata* Luer, Lindleyana 2: 197. 1987.
- Lepanthes ingramii* Luer, Lindleyana 7(2): 108. 1992.
- Lepanthes inornata* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 178. 1923.
- Lepanthes jimenezii* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 281. 1923.
- Lepanthes crossota* Luer, Lindleyana 2: 188. 1987.
- Lepanthes jugum* Luer, Lindleyana 2: 197. 1987.
- Lepanthes kabebatae* Bogarín, Karremans & Mel.Fernández, Lankesteriana 12(1): 35. 2012.
- Lepanthes kleinii* Bogarín & Pupulin, Orchid Digest 76: 24. 2012.
- Lepanthes lancifolia* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 281. 1923.

- Lepanthes lappacea* Luer, Lindleyana 11: 61. 1996.
- Lepanthes latisejala* Ames & C.Schweinf., Schedul. Orchid. 10: 48. 1930.
- Lepanthes leporina* Pupulin & Bogarín, An. Jard. Bot. Madrid 71(1): 9. 2014.
- Lepanthes limbellata* Endrés ex Luer, Lindleyana 10: 159. 1995.
- Lepanthes lindleyana* Oerst. & Rchb.f. in H.G.Reichenbach, Xenia Orchid. 1: 149. 1858.
- Lepanthes micrantha* Ames, Schedul. Orchid. 4: 31. 1923.
- Lepanthes exasperata* Ames & C.Schweinf., Schedul. Orchid. 8: 36. 1925.
- Lepanthes lindleyana* var. *angustifolia* Ames, F.T.Hubb. & C.Schweinf., Bot. Mus. Leaflet. 3: 37. 1934.
- Lepanthes macalpinii* Luer, Lindleyana 2: 197. 1987.
- Lepanthes machogaffensis* Pupulin & D.Jiménez, Orchid Digest 73: 139. 2009.
- Lepanthes mariposa* Luer, Phytologia 55: 187. 1984.
- Lepanthes matamorosii* Pupulin & Bogarín, Orchideen (Hamburg) 62(6): 472-477. 2011.
- Lepanthes maxonii* Schltr., Repert. Spec. Nov. Regni Veg. 12: 204. 1913.
- Lepanthes mentosa* Luer, Lindleyana 2: 201. 1987.
- Lepanthes microglottis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 101. 1923.
- Lepanthes minutilabia* Ames & C.Schweinf., Schedul. Orchid. 10: 49. 1930.
- Lepanthes minutissima* Endrés ex Luer, Lindleyana 10: 159. 1995.
- Lepanthes monteverdensis* Luer & R.Escobar, Lindleyana 2: 201. 1987.
- Lepanthes montis-narae* Pupulin, Bogarín & C.M.Sm., Lankesteriana 9: 425. 2010.
- Lepanthes myiophora* Luer, Lindleyana 2: 204. 1987.
- Lepanthes mystax* Luer & R.Escobar, Phytologia 54: 355. 1983.
- Lepanthes nymphalis* Luer, Phytologia 54: 357. 1983.
- Lepanthes odontolabis* Luer, Lindleyana 2: 207. 1987.
- Lepanthes orbella* Luer, Lindleyana 11: 64. 1996.
- Lepanthes otopetala* Luer, Lindleyana 6: 76. 1991.
- Lepanthes ova-rajae* Luer, Lindleyana 2: 207. 1987.
- Lepanthes pantomima* Luer & Dressler, Orquideologia 16: 3. 1986.
- Lepanthes arachnion* Luer & Dressler, Orquideologia 16: 6. 1986.
- Lepanthes parvilabia* Luer, Lindleyana 10: 162. 1995.
- Lepanthes pelvis* Pupulin & D.Jiménez, Orchid Digest 73: 142. 2009.
- Lepanthes pexa* Luer, Lindleyana 2: 181. 1987.
- Lepanthes poasensis* Luer, Lindleyana 10: 164. 1995.
- Lepanthes posthon* Luer, Lindleyana 2: 210. 1987.
- Lepanthes psyche* Luer, Phytologia 55: 192. 1984.
- Lepanthes pulcherrima* Endrés ex Bogarín & Pupulin, Harvard Pap. Bot. 15: 118. 2010.
- Lepanthes purpurea* Luer, Lindleyana 10: 164. 1995.
- Lepanthes pygmaea* Luer, Lindleyana 2: 210. 1987.
- Lepanthes queveriensis* Bogarín & Pupulin, Harvard Pap. Bot. 19(2): 197-199. 2014.
- Lepanthes rafaeliana* Pupulin, Harvard Pap. Bot. 6: 289. 2001.

- Lepanthes ramonensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 179. 1923.
Lepanthes stenorhyncha Luer, Lindleyana 10: 170. 1995., *syn. nov.*
- Lepanthes regularis* Luer, Lindleyana 2: 210. 1987.
- Lepanthes rotundifolia* L.O.Williams, Ann. Missouri Bot. Gard. 27: 275. 1940.
- Lepanthes ruberrima* Pupulin, Orchid Digest 76: 25. 2012.
Lepanthes johnsonii subsp. *costaricensis* Pupulin, Harvard Pap. Bot. 6: 291. 2001.
- Lepanthes sanctiorum* Bogarín & Pupulin, An. Jard. Bot. Madrid 71(1): 12. 2014.
- Lepanthes sandiorum* Bogarín & Karremans, Lankesteriana 12(2): 108-110. 2012.
- Lepanthes sanjuanensis* Bogarín & Karremans, Lankesteriana 12(2): 113. 2012.
- Lepanthes sannio* Luer & R.Escobar, Lindleyana 2: 214. 1987.
- Lepanthes schugii* Pupulin, Orchidee (Hamburg) 54: 78. 2003.
- Lepanthes selliana* Endrés ex Luer, Lindleyana 10: 167. 1995.
- Lepanthes siboei* Bogarín & D.Jiménez, Orchids (Bull. Amer. Orch. Soc.) 84(7): 434-436.
- Lepanthes similis* Luer, Lindleyana 11: 64. 1996.
- Lepanthes sotoana* Pupulin, Bogarín & C.M.Sm., Lankesteriana 9: 427. 2010.
- Lepanthes spadariae* Pupulin, Harvard Pap. Bot. 6: 291. 2001.
- Lepanthes standleyi* Ames, Schedul. Orchid. 9: 44. 1925.
- Lepanthes subdimidiata* Ames & C.Schweinf., Schedul. Orchid. 8: 38. 1925.
- Lepanthes talamancana* Bogarín & D.Jiménez, Orchids (Bull. Amer. Orch. Soc.) 84(7): 436-437.
- Lepanthes tapantiensis* Pupulin & Bogarín, Orchid Digest 76: 27. 2012.
- Lepanthes tarrazuensis* Bogarín & D.Jiménez, J. Bot. Res. Inst. Texas 6(2): 370-372. 2012.
- Lepanthes tipulifera* Rchb.f., Beitr. Orchid.-K. C. Amer.: 91. 1866.
Lepanthes insectiflora C.Schweinf., Bot. Mus. Leafl. 7: 153. 1939.
- Lepanthes tridens* Ames, Schedul. Orchid. 4: 32. 1923.
- Lepanthes tristis* Bogarín & Pupulin, Orchid Digest 76: 28. 2012.
- Lepanthes truncata* Luer & Dressler, Orquideologia 16(3): 9. 1986.
- Lepanthes tonduziana* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 180. 1923.
- Lepanthes turialvae* Rchb.f., Bonplandia (Hannover) 3: 255. 1855.
Lepanthes brenesii Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 177. 1923.
- Lepanthes umbonifera* Endrés ex Luer, Lindleyana 10: 173. 1995.
- Lepanthes utyumii* Bogarín & D.Jiménez, Orchids (Bull. Amer. Orch. Soc.) 84(7): 437-439.
- Lepanthes valerioi* Luer, Lindleyana 11: 67. 1996.
- Lepanthes variabilis* C.M.Sm., Pupulin & D. Jimenez, Brittonia 2013.
- Lepanthes vestigialis* Bogarín & Pupulin, OrchideenJ. 17: 119. 2010.
- Lepanthes viridis* Pupulin & Bogarín, Orchids (West Palm Beach) 80: 179. 2011.
- Lepanthes volsella* Luer & R.Escobar, Phytologia 55: 196. 1984.
- Lepanthes wendlandii* Rchb.f., Beitr. Orchid.-K. C. Amer.: 91. 1866.
- Lepanthes whittenii* Pupulin & Bogarín, Kew Bull. 59: 561. 2004.

Lepanthopsis (Cogn.) Ames

Lepanthopsis comet-halleyi Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 39: 70. 1991.

Lepanthopsis floripecten (Rchb.f.) Ames, Bot. Mus. Leafl. 1(9): 11. 1933.

Pleurothallis floripecten Rchb.f., Bonplandia (Hannover) 2: 25. 1854.

Humboltia floripecten (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.

Lepanthes secunda Barb.Rodr., Gen. Spec. Orchid. 2: 70. 1881.

Pleurothallis unilateralis Cogn. in C.F.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 592. 1896.

Lepanthopsis unilateralis (Cogn.) Porto & Brade, Rodriguésia 1(2): 37. 1935.

Lepanthopsis secunda (Barb.Rodr.) Hoehne, Bol. Mus. Nac. Rio de Janeiro 12(2): 29. 1936.

Lepanthopsis obliquipetala (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 39: 76. 1991.

Physosiphon obliquipetalus Ames & C.Schweinf., Schedul. Orchid. 8: 12. 1925.

Stelis obliquipetala (Ames & C.Schweinf.) L.O.Williams, Ceiba 5: 54. 1956.

Pleurothallis connata Luer, Selbyana 5: 388. 1981.

Trichosalpinx obliquipetala (Ames & C.Schweinf.) Luer, Phytologia 54: 396. 1983.

Masdevallia Ruiz & Pav.

Masdevallia attenuata Rchb.f., Gard. Chron. 1871: 834. 1871.

Acinopetala attenuata (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.

Masdevallia scabrilinguis Luer, Phytologia 44: 168. 1979.

Acinopetala scabrilinguis (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.

Masdevallia calura Rchb.f., Gard. Chron., n.s., 20: 230. 1883.

Reichantha calura (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.

Masdevallia chasei Luer, Phytologia 46: 349. 1980.

Reichantha chasei (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.

Masdevallia chontalensis Rchb.f., Oria Bot. Hamburg.: 17. 1878.

Acinopetala chontalensis (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.

Masdevallia diantha Schltr., Beih. Bot. Centralbl. 36(2): 384. 1918.

Masdevallia cupularis Rchb.f., Beitr. Orchid.-K. C. Amer.: 93. 1866.

Reichantha cupularis (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.

Alaticaulia cupularis (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 118. 2007.

Masdevallia odontocheila Schltr., Repert. Spec. Nov. Regni Veg. 9: 29. 1910.

Masdevallia reflexa Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 276. 1923.

Masdevallia demissa Rchb.f., Gard. Chron., ser. 3, 2: 9. 1887.

Reichantha demissa (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.

Masdevallia epallax Königer, Arcula 2: 33. 1994. [?]

Masdevallia flaveola Rchb.f., Gard. Chron., n.s., 21: 638. 1884.

Acinopetala flaveola (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.

Masdevallia floribunda Lindl., Edwards's Bot. Reg. 29(Misc.): 72. 1843.

Acinopetala floribunda (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.

Masdevallia galeottiana A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 17. 1845.

Masdevallia lindeniana A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 17. 1845.

- Masdevallia myriostigma* E.Morren, Ann. Gén. Hort. 9: 131. 1870.
- Masdevallia floribunda* var. *myriostigma* E.Morren, Ann. Hort. Belge Étrangère 23: 380. 1873.
- Masdevallia floribunda* f. *lindeniana* (A.Rich. & Galeotti) O.Gruss & M.Wolff, Orchid. Atlas: 214. 2007.
- Masdevallia fonsecae*** Königer, Arcula 2: 35. 1994.
- Masdevallia fulvescens*** Rolfe, Gard. Chron., ser. 3, 8: 324. 1890.
- Masdevallia schroederiana* var. *fulvescens* (Rolfe) Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 83. 1925.
- Reichantha fulvescens* (Rolfe) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia jorge-warneri*** (C.M.Sm., Bogarín & Pupulin) Bogarín, Orquideologia 33(1): 18. 2016.
- Reichantha jorge-warneri* C.M.Sm., Bogarín & Pupulin, Syst. Bot. 40(1): 83. 2015
- Masdevallia lankesteriana*** Luer, Lindleyana 10: 120. 1995.
- Reichantha lankesteriana* (Luer) (Luer), Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia lata*** Rchb.f., Gard. Chron., n.s., 7: 653. 1877.
- Alaticaulia lata* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 5. 2006.
- Masdevallia borucana* P.H.Allen, Ceiba 3: 147. 1952.
- Masdevallia laucheana*** J.Fraser, Gard. World 11: 134. 1894.
- Acinopetala laucheana* (J.Fraser) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.
- Masdevallia livingstoneana*** Roezl ex Rchb.f., Gard. Chron., n.s., 2: 322. 1874.
- Acinopetala livingstoneana* (Roezl ex Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 118. 2007.
- Scaphosepalum panamense* Schltr., Repert. Spec. Nov. Regni Veg. 12: 205. 1913.
- Masdevallia panamensis* (Schltr.) Ames, Schedul. Orchid. 4: 9. 1923.
- Masdevallia luerorum*** Bogarín, Oses & C.M. Sm., Lankesteriana 17(2): 237–239. 2017.
- Masdevallia marginella*** Rchb.f., Gard. Chron., n.s., 20: 38. 1883.
- Reichantha marginella* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia costaricensis* Rolfe, Gard. Chron., ser. 3, 8: 183. 1890.
- Masdevallia molossoides*** Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 416. 1921.
- Buccella molossoides* (Kraenzl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 7. 2006.
- Masdevallia anura* Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 433. 1921.
- Masdevallia rhopalura* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 14. 1923.
- Masdevallia nicaraguae*** Luer, Selbyana 5: 148. 1979.
- Acinopetala nicaraguae* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.
- Masdevallia nidifica*** Rchb.f., Otia Bot. Hamburg.: 18. 1878.
- Buccella nidifica* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 7. 2006.
- Masdevallia cyathogastra* Schltr., Beih. Bot. Centralbl. 36(2): 383. 1918.
- Masdevallia tenuicauda* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 15. 1923.
- Masdevallia picturata*** Rchb.f., Otia Bot. Hamburg.: 16. 1878.
- Fissia picturata* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 9. 2006.
- Masdevallia meleagris* Rchb.f., Xenia Orchid. 1: 198. 1858, nom. illeg.
- Masdevallia picturata* var. *minor* Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 329. 1896.
- Masdevallia ocanensis* Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 429. 1921.

- Masdevallia cryptocopis* Rchb.f. ex Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 182. 1925.
- Rodrigoa cryptocopis* (Rchb.f. ex Kraenzl.) Braas, Orchidee (Hamburg) 30: 220. 1979.
- Masdevallia picturata subsp. minor* (Cogn.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 16: 12. 1986.
- Masdevallia rafaiana*** Luer, Selbyana 5: 149. 1979.
- Spilotantha rafaiana* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 15. 2006.
- Masdevallia reichenbachiana*** Endrés ex Rchb.f., Gard. Chron., n.s., 4: 257. 1875.
- Reichantha reichenbachiana* (Endrés ex Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia normanii* auct., Gard. Chron., n.s., 16: 230. 1881.
- Masdevallia reichenbachiana* var. *aurantiaca* Rchb.f., Gard. Chron., n.s., 20: 360. 1883.
- Masdevallia funebris* Endrés ex Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 435. 1921.
- Masdevallia reichenbachiana* var. *funebris* (Endrés ex Kraenzl.) Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 83. 1925.
- Masdevallia rolfeana*** Kraenzl., Gard. Chron., ser. 3, 9: 488. 1891.
- Reichantha rolfeana* (Kraenzl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia schizopetala*** Kraenzl., Bull. Misc. Inform. Kew 1925: 101. 1925.
- Acinopetala schizopetala* (Kraenzl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.
- Masdevallia morenoi* Luer, Phytologia 39: 213. 1978.
- Masdevallia schroederiana*** H.J.Veitch, Gard. Chron., ser. 3, 8: 51. 1890.
- Reichantha schroederiana* (H.J.Veitch) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia smallmaniana*** Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 87: 505a. 2002.
- Luzama smallmaniana* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 10. 2006.
- Masdevallia striatella*** Rchb.f., Gard. Chron., n.s., 26: 103. 1886.
- Reichantha striatella* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia chloracra* Rchb.f., Flora 69: 560. 1886.
- Masdevallia superflua* Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 414. 1921.
- Masdevallia demissa* var. *superflua* (Kraenzl.) Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 80. 1925.
- Masdevallia thienii*** Dodson, Selbyana 2: 54. 1977.
- Reichantha thienii* (Dodson) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Alaticaulia thienii* (Dodson) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 118. 2007.
- Masdevallia tonduzii*** Woolward, Bull. Herb. Boissier, sér. 2, 6: 82. 1906.
- Reichantha tonduzii* (Woolward) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia tubuliflora*** Ames, Orchidaceae 2: 265. 1908.
- Acinopetala tubuliflora* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 3. 2006.
- Masdevallia ecaudata* Schltr., Beih. Bot. Centralbl. 36(2): 384. 1918.
- Masdevallia utriculata*** Luer, Phytologia 44(3): 169-170. 1979.
- Regalia utriculata* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 12. 2006.
- Masdevallia walteri*** Luer, Selbyana 5: 151. 1979.
- Reichantha walteri* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 13. 2006.
- Masdevallia zahlbruckneri*** Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 413. 1921.
- Zahleria zahlbruckneri* (Kraenzl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 17. 2006.

Masdevallia humilis Luer, *Phytologia* 46: 350. 1980.

Muscarella Luer

Muscarella aristata (Hook.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 96. 2006.

Pleurothallis aristata Hook., *Ann. Nat. Hist.* 2: 329. 1839.

Humboltia aristata (Hook.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.

Specklinia aristata (Hook.) Pridgeon & M.W.Chase, *Lindleyana* 16: 256. 2001.

Pleurothallis barberiana Rchb.f., *Gard. Chron.*, n.s., 16: 6. 1881.

Pleurothallis urbaniana Rchb.f., *Ber. Deutsch. Bot. Ges.* 3: 279. 1885.

Humboltia barberiana (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.

Pleurothallis dichotoma Ames, *Schedul. Orchid.* 6: 58. 1923, *nom. illeg.*

Pleurothallis divexa Ames, *Schedul. Orchid.* 7: 20. 1924.

Muscarella fimbriata (Ames & C.Schweinf.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 103. 2006.

Masdevallia fimbriata Ames & C.Schweinf., *Schedul. Orchid.* 10: 18. 1930.

Pleurothallis setosa C.Schweinf., *Bot. Mus. Leafl.* 9: 64. 1941.

Specklinia setosa (C.Schweinf.) Pridgeon & M.W.Chase, *Lindleyana* 16: 259. 2001, *nom. superfl.*

Specklinia fimbriata (Ames & C.Schweinf.) Solano, *Icon. Orchid.* 5-6: t. 671. 2002 (2003).

Muscarella herpestes (Luer) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 106. 2006.

Pleurothallis herpestes Luer, *Selbyana* 5: 167. 1979.

Specklinia herpestes (Luer) Pridgeon & M.W.Chase, *Lindleyana* 16: 258. 2001.

Muscarella marginata (Rich.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 111. 2006.

Epidendrum marginatum Rich., *Actes Soc. Hist. Nat. Paris* 1: 112. 1792.

Pleurothallis alata A.Rich. & Galeotti, *Ann. Sci. Nat., Bot.*, sér. 3, 3: 17. 1845.

Specklinia alata (A.Rich. & Galeotti) Solano & Soto Arenas, *Icon. Orchid.* 5-6: x. 2002 [2003].

Pleurothallis spectrilinguis Rchb.f., *Gard. Chron.*, n.s., 18: 457. 1882.

Pleurothallis marginata (Rich.) Cogn. in C.F.P.von Martius & auct. suc. (eds.), *Fl. Bras.* 3(4): 478. 1896., *nom. illeg.*

Pleurothallis hastata Ames, *Orchidaceae* 2: 268. 1908.

Pleurothallis scopula Schltr., *Repert. Spec. Nov. Regni Veg.* 9: 28. 1910.

Pleurothallis liebmannaiana Kraenzl., *Vidensk. Meddel. Naturhist. Foren. Kjøbenhavn* 71: 170. 1920.

Specklinia hastata (Ames) Pridgeon & M.W.Chase, *Lindleyana* 16: 258. 2001.

Specklinia spectrilinguis (Rchb.f.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 264. 2004.

Muscarella quinqueseta (Ames) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 114. 2006.

Pleurothallis quinqueseta Ames, *Schedul. Orchid.* 9: 35. 1925.

Specklinia quinqueseta (Ames) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 263. 2004.

Muscarella samacensis (Ames) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 115. 2006.

Pleurothallis samacensis Ames, *Schedul. Orchid.* 2: 22. 1923.

Specklinia samacensis (Ames) Pridgeon & M.W.Chase, *Lindleyana* 16: 259. 2001.

Muscarella segregatifolia (Ames & C.Schweinf.) Karremans, *Phytotaxa* 272(1): 31. 2016.

Pleurothallis segregatifolia Ames & C.Schweinf., *Schedul. Orchid.* 8: 33. 1925.

Pleurothallis calyptrosepala L.O.Williams, *Amer. Orchid Soc. Bull.* 11: 65. 1942.

Specklinia segregatifolia (Ames & C.Schweinf.) Solano & Soto Arenas, *Icon. Orchid.* 5-6: xi. 2002[2003].

Muscarella strumosa (Ames) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 118. 2006.

Pleurothallis strumosa Ames, *Schedul. Orchid.* 9: 41. 1925.

Specklinia strumosa (Ames) Pridgeon & M.W.Chase, *Lindleyana* 16: 259. 2001.

Myoxanthus Poepp. & Endl.

Myoxanthus affinis (Lindl.) Luer, *Selbyana* 7: 35. 1982.

Pleurothallis affinis Lindl., *Companion Bot. Mag.* 2: 354. 1837.

Humboldtia affinis (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.

Pleurothallis rigidifolia Rchb.f., *Bonplandia* 3: 224. 1855.

Humboldtia rigidifolia (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.

Pleurothallis furfuracea F.Lehm. & Kraenzl., *Bot. Jahrb. Syst.* 26(3-4): 441. 1899.

Myoxanthus cereus (Ames) Luer ex Rojas-Alv. & Karremans, *Lankesteriana* 17(2): 210.

Pleurothallis cerea Ames, *Schedul. Orchid.* 4: 19, 1923.

Myoxanthus colothrix (Luer) Luer, *Selbyana* 7: 36. 1982.

Pleurothallis colothrix Luer, *Phytologia* 49: 202. 1981.

Myoxanthus hirsuticaulis (Ames & C.Schweinf.) Luer, *Selbyana* 7: 43. 1982.

Pleurothallis hirsuticaulis Ames & C.Schweinf., *Schedul. Orchid.* 10: 29. 1930.

Myoxanthus exasperatus (Lindl.) Luer, *Selbyana* 7: 36. 1982.

Pleurothallis exasperata Lindl., *Fol. Orchid.* 9: 15. 1859.

Humboltia exasperata (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.

Pleurothallis peduncularis Lindl., *Edwards's Bot. Reg.* 29(Misc.): 47. 1843, *nom. illeg.*

Anathallis parahybunensis Barb.Rodr., *Gen. Spec. Orchid.* 2: 76. 1881.

Humboltia peduncularis Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.

Pleurothallis macropus Schltr., *Repert. Spec. Nov. Regni Veg.* 14: 130. 1915.

Myoxanthus parahybunensis (Barb.Rodr.) Luer, *Selbyana* 7: 47. 1982.

Specklinia peduncularis (Kuntze) F.Barros, *Hoehnea* 10: 110. 1983. 1984.

Myoxanthus octomeriae (Schltr.) Luer, *Selbyana* 7: 47. 1982.

Pleurothallis octomeriae Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 17: 21. 1922.

Myoxanthus octomerioides var. *octomeriae* (Schltr.) O.Gruss & M.Wolff, *Orchid. Atlas*: 237. 2007.

Myoxanthus scandens (Ames) Luer, *Selbyana* 7: 49. 1982.

Pleurothallis scandens Ames, *Schedul. Orchid.* 5: 18. 1923.

Myoxanthus sotoanus Pupulin, Bogarin & Mel.Fernández, *Lankesteriana* 9: 470. 2010.

Myoxanthus speciosus (Luer) Luer, *Selbyana* 7: 51. 1982.

Pleurothallis speciosa Luer, *Selbyana* 3: 392. 1977.

Myoxanthus trachychlamys (Schltr.) Luer, *Selbyana* 7: 51. 1982.

Pleurothallis trachychlamys Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 17: 23. 1922.

Pleurothallis cymbicalli Pabst, *Arq. Bot. Estado São Paulo, n.s., f.m.*, 3: 268. 1962.

Octomeria R.Br.

Octomeria costaricensis Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 19: 111. 1923.

- Octomeria valerioi* Ames & C.Schweinf., *Schedul. Orchid.* 10: 51. 1930.
- Octomeria graminifolia*** (L.) R.Br. in W.T.Aiton, *Hortus Kew.* 5: 211. 1813.
- Epidendrum graminifolium* L., *Sp. Pl.* ed. 2: 1353. 1763.
- Dendrobium graminifolium* (L.) Willd., *Sp. Pl.* 4: 135. 1805.
- Enothrea graminifolia* (L.) Raf., *Fl. Tellur.* 4: 44. 1838.
- Octomeria baueri* Lindl., *Gen. Sp. Orchid. Pl.*: 10. 1830.
- Octomeria loddigesii* Lindl., *Companion Bot. Mag.* 2: 354. 1837.
- Octomeria graminifolia* var. *lancifolia* Regel, *Index Seminum (LE)* 1858: 28. 1859.
- Pleurothallis apiculata* Lindl., *Fol. Orchid.* 9: 17. 1859.
- Octomeria graminifolia* var. *ophioglossoides* Griseb., *Fl. Brit. W. I.*: 611. 1864.
- Humboltia apiculata* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.
- Octomeria longerepens* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 27: 58. 1924.
- Octomeria serpens* Schltr., *Beih. Bot. Centralbl.* 42(2): 92. 1925.
- Octomeria apiculata* (Lindl.) Garay & H.R.Sweet, *J. Arnold Arbor.* 53: 391. 1972.
- Octomeria valerioi*** Ames & C. Schweinf., *Schedul. Orch.* 10: 51-52. 1930.
- Octomeria yauaperyensis*** Barb.Rodr., *Vellozia*, ed. 2, 1: 120. 1891.
- Octomeria hondurensis* Ames, *Bot. Mus. Leafl.* 1(4): 1. 1933.
- Octomeria complanata* C.Schweinf., *Bot. Mus. Leafl.* 10: 195. 1942.
- Pabstiella*** Brieger & Senghas
- Pabstiella aryter*** (Luer) F.Barros, *Bradea* 8: 296. 2002.
- Pleurothallis aryter* Luer, *Selbyana* 3: 54. 1976.
- Anthereon aryter* (Luer) Pridgeon & M.W.Chase, *Lindleyana* 16: 252. 2001.
- Specklinia aryter* (Luer) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 259. 2004.
- Ronaldella aryter* (Luer) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 195. 2006.
- Pabstiella parvifolia*** (Lindl.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 139. 2006.
- Pleurothallis parvifolia* Lindl., *Companion Bot. Mag.* 2: 355. 1837.
- Humboltia parvifolia* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
- Specklinia parvifolia* (Lindl.) Pridgeon & M.W.Chase, *Lindleyana* 16: 258. 2001.
- Lepanthes cryptophyta* Barb.Rodr., *Gen. Spec. Orchid.* 2: 65. 1881.
- Pleurothallis subumbellata* Cogn., *Bull. Soc. Roy. Bot. Belgique* 43: 313. 1907.
- Pabstiella tripterantha*** (Rchb.f.) F.Barros, *Bradea* 8: 296. 2002.
- Pleurothallis tripterantha* Rchb.f., *Bonplandia (Hannover)* 2: 24. 1854.
- Humboltia tripterantha* (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
- Anthereon tripteranthus* (Rchb.f.) Pridgeon & M.W.Chase, *Lindleyana* 16: 252. 2001.
- Specklinia tripterantha* (Rchb.f.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 264. 2004.
- Pleurothallis tripterygia* Rchb.f., *Bonplandia (Hannover)* 2: 24. 1854.
- Pleurothallis procumbens* Lindl., *Fol. Orchid.* 9: 35. 1859.
- Lepanthes tricarinata* Barb.Rodr., *Gen. Spec. Orchid.* 2: 43. 1881.
- Humboltia procumbens* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.

- Humboltia tripterygia* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
Pleurothallis trialata Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 500. 1896.
Masdevallia tricarinata (Barb.Rodr.) F.Lehm. & Kraenzl., Bot. Jahrb. Syst. 26: 456. 1899.
Pleurothallis medellinensis Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 236. 1920.
Masdevallia aperta Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 430. 1921.
Masdevallia carphophora Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 427. 1921.
Pleurothallis hunteriana Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 20. 1922.
Pleurothallis hamata Rolfe ex Ames, Schedul. Orchid. 3: 8. 1923.
Pleurothallis aperta (Kraenzl.) Ames, Schedul. Orchid. 7: 17. 1924.
Scaphosepalum carphophorum (Kraenzl.) Garay, Bot. Mus. Leafl. 21: 251. 1967.

Phloeophila Hoehne & Schltr.

- Phloeophila peperomioides*** (Ames) Garay, Orquideologia 9: 118. 1974.
Pleurothallis peperomioides Ames, Schedul. Orchid. 6: 64. 1923.
Specklinia peperomioides (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 263. 2004.

Platystele Schltr.

- Platystele carl-lueriana*** Karremans & Bogarín, Lankesteriana 17(2): 215–218. 2017.
Platystele caudatisepala (C.Schweinf.) Garay, Orquideologia 9: 119. 1974.
Pleurothallis caudatisepala C.Schweinf., Bot. Mus. Leafl. 4: 113. 1937.
Platystele catiensis Karremans & Bogarín, Lankesteriana 13(3): 265. 2014.
Platystele compacta (Ames) Ames, Proc. Biol. Soc. Wash. 35: 85. 1922.
Stelis compacta Ames, Orchidaceae 3: 76. 1908.
Pleurothallis compacta (Ames) Ames & C.Schweinf., Schedul. Orchid. 10: 24. 1930.
Platystele bulbinella Schltr., Repert. Spec. Nov. Regni Veg. 8: 565. 1910.
Platystele jane-lueriana Karremans & Bogarín, Lankesteriana 17(2): 219–220. 2017.
Platystele jungermannioides (Schltr.) Garay, Orquideologia 9: 120. 1974.
Pleurothallis jungermannioides Schltr., Repert. Spec. Nov. Regni Veg. 11: 42. 1912.
Platystele lancilabris (Rchb.f.) Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 102. 1923.
Stelis lancilabris Rchb.f., Beitr. Orchid.-K. C. Amer.: 94. 1866.
Pleurothallis lancilabris (Rchb.f.) Schltr., Repert. Spec. Nov. Regni Veg. 12: 205. 1913.
Platystele microtatantha (Schltr.) Garay, Bot. Mus. Leafl. 21: 251. 1967.
Pleurothallis microtatantha Schltr., Repert. Spec. Nov. Regni Veg. 3: 276. 1907.
Pleurothallis perparva Standl. & L.O.Williams, Ceiba 3: 193. 1953.
Platystele minimiflora (Schltr.) Garay, Orquideologia 9: 120. 1974.
Pleurothallis minimiflora Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 288. 1923.
Pleurothallis halbingiana R.E.Schult., Bot. Mus. Leafl. 9: 30. 1941.
Platystele halbingiana (R.E.Schult.) Garay, Orquideologia 9: 119. 1974.
Platystele obtecta Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 52: 127. 1994.
Platystele ovatilabia (Ames & C.Schweinf.) Garay, Orquideologia 9: 120. 1974.
Pleurothallis ovatilabia Ames & C.Schweinf., Schedul. Orchid. 10: 33. 1930.

- Platystele oxyglossa** (Schltr.) Garay, Orquideologia 9: 120. 1974.
Pleurothallis oxyglossa Schltr., Repert. Spec. Nov. Regni Veg. 10: 354. 1912.
Pleurothallis lancilabris var. *oxyglossa* (Schltr.) C.Schweinf., Bot. Mus. Leafl. 6: 200. 1938.
Pleurothallis schulzeana Schltr., Beih. Bot. Centralbl. 36(2): 396. 1918.
Pleurothallis pygmaea Hoehne, Bol. Agric. (São Paulo) 34: 604. 1933 publ. 1934.
Platystele brasiliensis Brade, Arch. Jard. Bot. Rio de Janeiro 11: 73. 1951.
Platystele pygmaea (Hoehne) Pabst, Rodriguésia 18-19: 30. 1956.
Platystele schulzeana (Schltr.) Garay, Orquideologia 9: 120. 1974.
- Platystele sylvestrei** Karremans & Bogarin, Lankesteriana 13(3): 268. 2014.
- Platystele pedicellaris** (Schltr.) Garay, Orquideologia 9: 120. 1974.
Pleurothallis pedicellaris Schltr., Repert. Spec. Nov. Regni Veg. 10: 395. 1912.
- Platystele perpusilla** (Rchb.f.) Garay, Orquideologia 9: 120. 1974.
Pleurothallis perpusilla Rchb.f. in B.Seemann, Bot. Voy. Herald: 215. 1854.
Humboltia perpusilla (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Platystele propinqua** (Ames) Garay, Caldasia 10: 233. 1968.
Pleurothallis propinqua Ames, Schedul. Orchid. 6: 68. 1923.
- Platystele speckmaieri** Luer & Sijm, Monogr. Syst. Bot. Missouri Bot. Gard. 120: 146, f. 17. 2010.
- Platystele stenostachya** (Rchb.f.) Garay, Caldasia 8: 520. 1962.
Pleurothallis stenostachya Rchb.f., Linnaea 18: 399. 1845.
Humboltia stenostachya (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
Pleurothallis dubia A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 16. 1845.
Pleurothallis minutiflora S.Watson, Proc. Amer. Acad. Arts 23: 286. 1888.
Humboltia dubia (A.Rich. & Galeotti) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Pleurothallis myriantha F.Lehm. & Kraenzl., Bot. Jahrb. Syst. 26: 445. 1899.
Pleurothallis lankesteri Rolfe, Bull. Misc. Inform. Kew 1914: 210. 1914.
Pleurothallis dubia var. *myriantha* (F.Lehm. & Kraenzl.) Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 20. 1922.
Pleurothallis stenostachya var. *lankesteri* (Rolfe) Ames, Schedul. Orchid. 7: 31. 1924.
- Platystele tausensis** Bogarin & Karremans, Orquideologia 27: 210. 2010 (2011).
- Platystele tica** Karremans & Bogarin, Lankesteriana 13(3): 271. 2014.
- Pleurothallis* R.Br.**
- Pleurothallis acutipetala*** Schltr., Repert. Spec. Nov. Regni Veg. 10: 353. 1912.
- Pleurothallis adventurae*** Karremans & Bogarin, Orchideen J. 18: 112. 2011.
- Pleurothallis angusta*** Ames & C.Schweinf., Schedul. Orchid. 8: 23. 1925.
- Pleurothallis aurita*** C.Schweinf., Bot. Mus. Leafl. 8: 39. 1940.
Acronia aurita (C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 91. 2005.
Zosterophyllanthos auritus (C.Schweinf.) Szlach. & Kulak, Richardiana 6: 186. 2006.
- Pleurothallis bitumida*** Luer, Lindleyana 11: 70. 1996.
Acronia bitumida (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 93. 2005.
- Pleurothallis bogarinii*** Pupulin & J.D.Zuñiga, Orchids (West Palm Beach) 76: 690. 2007.

Pleurothallis bothros Luer, Lindleyana 11: 70. 1996.

Acronia bothros (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 97. 2005.

Zosterophyllanthos bothros (Luer) Szlach. & Kulak, Richardiana 6: 18. 2006.

Pleurothallis caniceps Luer, Selbyana 7: 114. 1982.

Ancipitia caniceps (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 254. 2004.

Pleurothallis cardiorthallis Rchb.f., Bot. Zeitung (Berlin) 15: 158. 1857.

Humboltia cardiorthallis (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.

Acronia cardiorthallis (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 106. 2005.

Zosterophyllanthos cardiorthallis (Rchb.f.) Szlach. & Kulak, Richardiana 6: 187. 2006.

Pleurothallis subulata Rolfe, Bull. Misc. Inform. Kew 1892: 137. 1892.

Pleurothallis chavezii Luer, Lindleyana 11: 72. 1996.

Acronia chavezii (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 110. 2005.

Zosterophyllanthos chavezii (Luer) Szlach. & Kulak, Richardiana 6: 188. 2006.

Pleurothallis chloroleuca Lindl., Orchid. Linden.: 2. 1846.

Humboltia chloroleuca (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.

Pleurothallis ventricosa Lindl., Fol. Orchid. 9: 16. 1859.

Pleurothallis rhomboglossa Rchb.f., Flora 71: 154. 1888. *nom. illeg.*

Pleurothallis wendlandiana Rchb.f., Flora 71: 153. 1888.

Humboltia ventricosa (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.

Pleurothallis reichenbachiana Schltr., Repert. Spec. Nov. Regni Veg. Beih. 8: 131. 1921.

Pleurothallis glomerata Ames, Schedul. Orch. 4: 21-22. 1923.

Pleurothallis colossus Kraenzl. ex Kerch., Livre Orchid.: 376. 1894.

Pleurothallis praegrans Ames, Schedul. Orchid. 5: 17. 1923.

Pleurothallis saccata Ames, Schedul. Orchid. 4: 25. 1923.

Pleurothallis hirtzii Luer, Phytologia 47: 76. 1980.

Pleurothallis compressa Luer, Lindleyana 11: 75. 1996.

Acronia compressa (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 112. 2005.

Zosterophyllanthos compressus (Luer) Szlach. & Kulak, Richardiana 6: 188. 2006.

Pleurothallis crescentilabia Ames, Schedul. Orchid. 4: 20. 1923.

Pleurothallis crocodiliceps Rchb.f., Bonplandia (Hannover) 3: 72. 1855.

Humboltia crocodiliceps (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.

Ancipitia crocodiliceps (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 254. 2004.

Pleurothallis arietina Ames, Schedul. Orchid. 4: 16. 1923.

Pleurothallis nelsonii Ames, Schedul. Orchid. 4: 22. 1923.

Pleurothallis microchila L.O. Williams, Fieldiana, Bot. 31: 259. 1967.

Pleurothallis dentipetala Rolfe ex Ames, Schedul. Orchid. 3: 7. 1923.

Acronia dentipetala (Rolfe ex Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 57. 2005.

Pleurothallis cooperi Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 286. 1923.

Pleurothallis stolidiformis Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 195. 1923.

- Pleurothallis stevensii* Luer, Selbyana 5: 181. 1979.
- Pleurothallis discoidea*** Lindl., Edwards's Bot. Reg. 21: t. 1797. 1835.
- Humboltia discoidea* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Acronia discoidea* (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 128. 2005.
- Pleurothallis morrisii* Fawc. & Rendle, J. Bot. 47: 3. 1909.
- Pleurothallis leptopetala* Cogn. in I.Urban, Symb. Antill. 6: 693. 1910.
- Pleurothallis scleropus* Schltr., Repert. Spec. Nov. Regni Veg. 27: 53. 1929.
- Pleurothallis juninensis* var. *angustifolia* C.Schweinf., Bot. Mus. Leafl. 16: 52. 1951.
- Pleurothallis mariae* I.Bock, Orchidee (Hamburg) 36: 128. 1985.
- Pleurothallis sugdenii* Luer, Orquideologia 20: 229. 1996.
- Pleurothallis dorotheae*** Luer, Phytologia 46: 365. 1980.
- Acronia dorotheae* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 129. 2005.
- Pleurothallis eumecocaulon*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 187. 1923.
- Ancipitia eumecocaulon* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 254. 2004.
- Pleurothallis excavata*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 287. 1923.
- Acronia excavata* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 133. 2005.
- Zosterophyllanthos excavatus* (Schltr.) Szlach. & Kulak, Richardiana 6: 189. 2006.
- Pleurothallis concaviflora* C.Schweinf., Bot. Mus. Leafl. 4: 114. 1937.
- Pleurothallis imago* Luer, Selbyana 3: 318. 1977.
- Pleurothallis fantastica*** Ames, Bot. Mus. Leafl. 4: 41. 1936.
- Acronia fantastica* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 134. 2005.
- Pleurothallis horichii* Luer, Orchidee (Hamburg) 36: 23. 1985.
- Zosterophyllanthos horichii* (Luer) Szlach. & Marg., Polish Bot. J. 46: 119. 2001.
- Pleurothallis gonioglossa*** Schltr., Repert. Spec. Nov. Regni Veg. 19: 189. 1923.
- Zosterophyllanthos gonioglossus* (Schltr.) Szlach. & Marg., Polish Bot. J. 46(2): 119. 2001.
- Pleurothallis helleri*** A.D.Hawkes, Phytologia 14: 12. 1966.
- Pleurothallis homalantha*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 24. 1923.
- Zosterophyllanthos homalanthus* (Schltr.) Szlach. & Marg., Polish Bot. J. 46: 119. 2001.
- Acronia homalantha* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 143. 2005.
- Pleurothallis homalanthoides* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 190. 1923.
- Pleurothallis nemorum* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 191. 1923.
- Pleurothallis nervosa* Braid, Bull. Misc. Inform. Kew 1924: 201. 1924.
- Pleurothallis imitor*** Luer, Lindleyana 11: 78. 1996.
- Acronia imitor* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 58. 2005.
- Pleurothallis instar*** Luer, Selbyana 3: 320. 1977.
- Pleurothallis isthmica*** Luer, Selbyana 3: 322. 1977.
- Acronia isthmica* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 146. 2005.
- Zosterophyllanthos isthmicus* (Luer) Szlach. & Kulak, Richardiana 6: 189. 2006.

- Pleurothallis leucantha** Schltr., Repert. Spec. Nov. Regni Veg. 10: 353. 1912.
Zosterophyllum leucanthus (Schltr.) Szlach. & Marg., Polish Bot. J. 46: 119. 2001.
Acronia leucantha (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 149. 2005.
- Pleurothallis longipedicellata** Ames & C.Schweinf., Schedul. Orchid. 8: 27. 1925.
Acronia longipedicellata (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 58. 2005.
- Pleurothallis loranthophylla** Rchb.f., Bot. Zeitung (Berlin) 10: 674. 1852.
Humboltia loranthophylla (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Rhynchopera loranthophylla (Rchb.f.) Szlach. & Marg., Polish Bot. J. 46: 118. 2001.
Rhynchopera punctata H.Karst., Auswahl Gew. Venez. 2: 21. 1849.
Pleurothallis subpellucida Klotzsch, Index Seminum (B) 1852(App.): 1. 1852.
Pleurothallis loranthophylla var. *pellucida* Regel, Ann. Sci. Nat., Bot., sér. 4, 6: 373. 1856.
Pleurothallis navicularis Lindl., Fol. Orchid. 8: 6. 1859.
Humboltia navicularis (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
Humboltia subpellucida (Klotzsch) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
Pleurothallis intermedia Schltr., Repert. Spec. Nov. Regni Veg. Beih. 6: 85. 1919.
Pleurothallis punctata (H.Karst.) Schltr., Repert. Spec. Nov. Regni Veg. Beih. 6: 63. 1919, nom. illeg.
Pleurothallis violaceorosea Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 198. 1923.
Pleurothallis spathata Schltr., Repert. Spec. Nov. Regni Veg. 27: 54. 1929.
- Pleurothallis luna-crescens** Pupulin, J. Aguilar & Mel. Fernández, Lankesteriana 17(2): 158–163. 2017.
- Pleurothallis luctuosa** Rchb.f., Linnaea 41: 48. 1876.
Humboltia luctuosa (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Acronia luctuosa (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 58. 2005.
- Pleurothallis neglecta** Pupulin, Bogarin & Mel. Fernández, Ann. Naturhist. Mus. Wien, B 112: 248. 2010 (2011).
- Pleurothallis oncoglossa** Luer, Lindleyana 11: 86. 1996.
Acronia oncoglossa (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 166. 2005.
Zosterophyllum oncoglossus (Luer) Szlach. & Kulak, Richardiana 6: 191. 2006.
- Pleurothallis palliolata** Ames, Proc. Biol. Soc. Wash. 35: 86. 1922.
Acronia palliolata (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 168. 2005.
Zosterophyllum palliolatus (Ames) Szlach. & Kulak, Richardiana 6: 191. 2006.
- Pleurothallis peculiaris** Luer, Selbyana 3: 158. 1976.
Zosterophyllum peculiaris (Luer) Szlach. & Marg., Polish Bot. J. 46: 120. 2001.
Acronia peculiaris (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 170. 2005.
- Pleurothallis phyllocardia** Rchb.f., Beitr. Orchid.-K. C. Amer.: 97. 1866.
Humboltia phyllocardia (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
Zosterophyllum phyllocardius (Rchb.f.) Szlach. & Marg., Polish Bot. J. 46: 120. 2001.
Acronia phyllocardia (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 173. 2005.
Pleurothallis triangulilabia C.Schweinf., Ann. Missouri Bot. Gard. 24: 183. 1937.
- Pleurothallis phyllocardioides** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 193. 1923.
Zosterophyllum phyllocardioides (Schltr.) Szlach. & Marg., Polish Bot. J. 46: 120. 2001.

- Acronia phyllocardioides* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 174. 2005.
- Pleurothallis acostaei* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 285. 1923.
- Pleurothallis raphidopus* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 54. 1924.
- Pleurothallis graciliscapa* C.Schweinf., Bot. Mus. Leafl. 15: 93. 1951.
- Pleurothallis pruinosa*** Lindl., Edwards's Bot. Reg. 28(Misc.): 75. 1842.
- Humboltia pruinosa* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Stelis flavida* H.Focke, Tijdschr. Natuurk. Wetensch. Kunsten 2: 202. 1849.
- Pleurothallis flavida* (H.Focke) Lindl., Fol. Orchid. 9: 44. 1859.
- Pleurothallis brachyglottis* Rchb.f., Flora 48: 275. 1865.
- Pleurothallis aequiflora* Griseb., Cat. Pl. Cub.: 258. 1866, nom. nud.
- Pleurothallis pauciflora* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 192. 1923.
- Pleurothallis radula*** Luer, Selbyana 5: 177. 1979.
- Zosterophyllum radula* (Luer) Szlach. & Marg., Polish Bot. J. 46: 120. 2001.
- Acronia radula* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 179. 2005.
- Pleurothallis rectipetala*** Ames & C.Schweinf., Schedul. Orchid. 8: 32. 1925.
- Acronia rectipetala* (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 180. 2005.
- Zosterophyllum rectipetalus* (Ames & C.Schweinf.) Szlach. & Kulak, Richardiana 6: 192. 2006.
- Pleurothallis scitula* Luer, Selbyana 3: 384. 1977.
- Pleurothallis rhodoglossa*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 22. 1922.
- Zosterophyllum rhodoglossus* (Schltr.) Szlach. & Marg., Polish Bot. J. 46: 120. 2001.
- Acronia rhodoglossa* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 182. 2005.
- Pleurothallis rowleei*** Ames, Schedul. Orchid. 1: 11. 1922.
- Acronia rowleei* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 58. 2005.
- Pleurothallis cucullata* Ames, Schedul. Orchid. 3: 5. 1923.
- Pleurothallis rhodocardia* Garay, Svensk Bot. Tidskr. 47: 204. 1953.
- Pleurothallis ruscifolia*** (Jacq.) R.Br. in W.T.Aiton, Hortus Kew. 5: 211. 1813.
- Epidendrum ruscifolium* Jacq., Enum. Syst. Pl.: 29. 1760.
- Dendrobium ruscifolium* (Jacq.) Sw., Nova Acta Regiae Soc. Sci. Upsal. 6: 84. 1799.
- Humboltia ruscifolia* (Jacq.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis laurifolia* Kunth in F.W.H.von Humboldt, A.J.A.Bonpland & C.S.Kunth, Nov. Gen. Sp. 1: 364. 1816.
- Humboltia succosa* Pav. ex Lindl., Gen. Sp. Orchid. Pl.: 5. 1830.
- Pleurothallis succosa* Lindl., Gen. Sp. Orchid. Pl.: 5. 1830.
- Pleurothallis multicaulis* Poepp. & Endl., Nov. Gen. Sp. Pl. 1: 47. 1836.
- Humboltia laurifolia* (Kunth) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Pleurothallis ruscifolia* var. *caquetana* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 55. 1924.
- Pleurothallis sanchoi*** Ames, Schedul. Orchid. 4: 26. 1923.
- Zosterophyllum sanchoi* (Ames) Szlach. & Marg., Polish Bot. J. 46: 120. 2001.
- Acronia sanchoi* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 186. 2005.
- Pleurothallis gonioglossa* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 189. 1923.

- Zosterophyllum gonioglossus* (Schltr.) Szlach. & Marg., Polish Bot. J. 46: 119. 2001.
- Pleurothallis nitida* Luer, Selbyana 3: 352. 1977.
- Acronia nitida* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 164. 2005.
- Zosterophyllum nitidus* (Luer) Szlach. & Kulak, Richardiana 6: 191. 2006.
- Pleurothallis scaphipetala*** Luer, Lindleyana 11: 94. 1996.
- Acronia scaphipetala* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 189. 2005.
- Pleurothallis schlechteriana*** Ames, Schedul. Orchid. 2: 24. 1923.
- Pleurothallis costaricensis* Schltr., Beih. Bot. Centralbl. 36(2): 395. 1918, nom. illeg.
- Pleurothallis scotinantha*** Pupulin, M. Díaz & J. Aguilar, Lankesteriana 17(2): 337–344. 2017.
- Pleurothallis silvae-pacis*** Karremans, Orchid Rev. 119: 156. 2011.
- Pleurothallis tonduzii*** Schltr., Beih. Bot. Centralbl. 36(2): 397. 1918.
- Acronia tonduzii* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 199. 2005.
- Zosterophyllum tonduzii* (Schltr.) Szlach. & Kulak, Richardiana 6: 193. 2006.
- Pleurothallis volcanica*** Luer, Selbyana 3: 406. 1977.
- Acronia volcanica* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 103: 58. 2005.
- Pleurothallopsis*** Porto & Brade
- Pleurothallopsis reichenbachiana*** (Endrés ex Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 255. 2001.
- Restrepia reichenbachiana* Endrés ex Rchb.f., Gard. Chron., n.s., 4: 356. 1875.
- Barbosella reichenbachiana* (Endrés ex Rchb.f.) Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 26. 1923.
- Pleurothallis cruciformis* Ames, F.T.Hubb. & C.Schweinf., Bot. Mus. Leafl. 3: 39. 1934.
- Restrepiopsis reichenbachiana* (Endrés ex Rchb.f.) Luer, Selbyana 5: 387. 1981.
- Pleurothallopsis tubulosa*** (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 255. 2001.
- Pleurothallis tubulosa* Lindl., Fol. Orchid. 9: 19. 1859.
- Humboltia tubulosa* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Restrepiella tubulosa* (Lindl.) Garay & Dunst., Venez. Orchids Ill. 4: 266. 1966.
- Restrepiopsis tubulosa* (Lindl.) Luer, Selbyana 2: 200. 1978.
- Pleurothallis viridula* Lindl., Fol. Orchid. 9: 19. 1859.
- Humboltia viridula* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis caliensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 102. 1920.
- Pleurothallis flavescens* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 188. 1923.
- Restrepiella viridula* (Lindl.) Garay & Dunst., Venez. Orchids Ill. 4: 268. 1966.
- Restrepiopsis viridula* (Lindl.) Luer, Selbyana 2: 200. 1978.
- Pleurothallopsis ujarensis*** (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 255. 2001.
- Restrepia ujarensis* Rchb.f., Bonplandia (Hannover) 3: 225. 1855.
- Pleurothallis ujarensis* (Rchb.f.) Lindl., Fol. Orchid. 9: 19. 1859.
- Humboltia ujarensis* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Restrepiella ujarensis* (Rchb.f.) Garay & Dunst., Venez. Orchids Ill. 4: 266. 1966.
- Restrepiopsis ujarensis* (Rchb.f.) Luer, Selbyana 2: 200. 1978.
- Restrepiella lenkenhoffii* Braas & H.Mohr, Orchidee (Hamburg) 33: 154. 1982.

***Restrepia* Kunth**

- Restrepia aberrans*** Luer, *Orquideología* 20: 117. 1996.
- Restrepia muscifera*** (Lindl.) Rchb.f. ex Lindl., *Fol. Orchid.* 8: 7. 1859.
- Pleurothallis muscifera* Lindl., *Edwards's Bot. Reg.* 28(Misc.): 79. 1842.
- Restrepia lansbergii* Hook., *Bot. Mag.* 87: t. 5257. 1861, nom. illeg.
- Restrepia xanthophthalma* Rchb.f., *Hamburger Garten- Blumenzeitung* 21: 300. 1865.
- Restrepia dayana* Rchb.f., *Gard. Chron.*, n.s., 4: 257. 1875.
- Restrepia shuttleworthii* Rolfe, *Bull. Misc. Inform. Kew* 1892: 138. 1892.
- Restrepia powellii* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 17: 25. 1922.
- Restrepia tonduzii* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 19: 291. 1923.
- Pleurothallis dayana* (Rchb.f.) L.O.Williams, *Bot. Mus. Leafl.* 8: 144. 1940.
- Pleurothallis xanthophthalma* (Rchb.f.) L.O.Williams, *Bot. Mus. Leafl.* 8: 144. 1940.
- Restrepia muscifera* subsp. *shuttleworthii* (Rolfe) H.Mohr, *Leafl. Schlechter Inst.* 2: 8. 1996.
- Restrepia muscifera* f. *dayana* (Rchb.f.) O.Gruss & M.Wolff, *Orchid. Atlas*: 387. 2007.
- Restrepia trichoglossa*** F.Lehm. ex Sander, *Sander's Orch. Guide*: 215. 1901.
- Restrepia leontoglossa* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 7: 120. 1920.
- Restrepia serrilabia* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 7: 121. 1920.
- Restrepia angustilabia* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 19: 290. 1923.
- Restrepia subserrata* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 19: 291. 1923.
- Restrepia filamentosa* Ames & C.Schweinf., *Schedul. Orchid.* 8: 19. 1925.
- Restrepia lankesteri* Ames & C.Schweinf., *Schedul. Orchid.* 10: 20. 1930.
- Pleurothallis amesiana* L.O.Williams, *Bot. Mus. Leafl.* 8: 143. 1940.
- Pleurothallis filamentosa* (Ames & C.Schweinf.) L.O.Williams, *Bot. Mus. Leafl.* 8: 144. 1940.
- Pleurothallis subserrata* (Schltr.) L.O.Williams, *Bot. Mus. Leafl.* 8: 144. 1940.
- Restrepia angustilabia* subsp. *subserrata* (Schltr.) H.Mohr, *Leafl. Schlechter Inst.* 2: 14. 1996.
- Restrepia antennifera* subsp. *leontoglossa* (Schltr.) H.Mohr, *Leafl. Schlechter Inst.* 2: 13. 1996.
- Restrepia brachypus* subsp. *serrilabia* (Schltr.) H.Mohr, *Leafl. Schlechter Inst.* 2: 14. 1996.

***Restrepiella* Garay & Dunst.**

- Restrepiella lueri*** Pupulin & Bogarin, *Willdenowia* 37: 325. 2007.
- Restrepiella ophiocephala*** (Lindl.) Garay & Dunst., *Venez. Orchids Ill.* 4: 266. 1966.
- Pleurothallis ophiocephala* Lindl., *Edwards's Bot. Reg.* 24(Misc.): 34. 1838.
- Restrepia ophiocephala* (Lindl.) Rchb.f., *Bonplandia* (Hannover) 2: 88. 1854.
- Pleurothallis peduncularis* Hook., *J. Bot. (Hooker)* 3: 308. 1841.
- Pleurothallis puberula* Klotzsch, *Allg. Gartenzeitung* 22: 393. 1854.
- Pleurothallis stigmatoglossa* Rchb.f. ex Lindl., *Fol. Orchid.* 9: 18. 1859.
- Restrepiella ophiocephala* f. *clausa* I.Bock, *Orchidee* (Hamburg), *Suppl.* 3: 6. 1996.

***Scaphosepalum* Pfitzer**

- Scaphosepalum anchoriferum*** (Rchb.f.) Rolfe, *J. Bot.* 28: 136. 1890.
- Masdevallia anchorifera* Rchb.f., *Gard. Chron.*, n.s., 21: 577. 1884.

- Masdevallia punctata* Rolfe, Gard. Chron., ser. 3, 4: 323. 1888.
Scaphosepalum punctatum (Rolfe) Rolfe, J. Bot. 28: 137. 1890.
Scaphosepalum endresianum Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 435. 1921.
Scaphosepalum naviculare Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 435. 1921.

Scaphosepalum clavellatum Luer, Selbyana 3: 32. 1976.

Scaphosepalum manningii Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 65: 119–121. 1998.

Scaphosepalum microdactylum Rolfe, Bull. Misc. Inform. Kew 1893: 335. 1893.

- Scaphosepalum pittieri* Schltr., Repert. Spec. Nov. Regni Veg. 3: 78. 1906.
Scaphosepalum elasmatopus Schltr., Repert. Spec. Nov. Regni Veg. 12: 204. 1913.
Scaphosepalum longirepens Ames, Proc. Biol. Soc. Wash. 34: 153. 1921.
Scaphosepalum standleyi Ames, Schedul. Orchid. 9: 24. 1925.

Specklinia Lindl.

Specklinia absurda Bogarín, Karremans & Rincón, Phytotaxa 115(2): 34–39. 2013.

Specklinia acicularis (Ames & C.Schweinf.) Pridgeon & M.W.Chase, Lindleyana 16: 256. 2001.

- Pleurothallis acicularis* Ames & C.Schweinf., Schedul. Orchid. 10: 21. 1930.
Sarcinula acicularis (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 202. 2006.
Pleurothallis dixiorum Luer & Béhar, Lindleyana 6: 97. 1991.

Specklinia acoana Bogarín, Lankesteriana 13(3): 188. 2014.

Specklinia acrisepala (Ames & C.Schweinf.) Pridgeon & M.W.Chase, Lindleyana 16: 256. 2001.

- Pleurothallis acrisepala* Ames & C.Schweinf., Schedul. Orchid. 8: 22. 1925.
Sarcinula acrisepala (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 203. 2006.

Specklinia alajuelensis Karremans & Pupulin, Phytotaxa 218(2): 108. 2015.

Specklinia barbae (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 259. 2004.

- Pleurothallis barbae* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 104. 1923.
Sarcinula barbae (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 205. 2006.

Specklinia berolinensis Bogarín, Lankesteriana 13(3): 191. 2014.

Specklinia blancoi (Pupulin) Soto Arenas & Solano, Icon. Orchid. 5-6: t. 669. 2002 (2003).

- Pleurothallis blancoi* Pupulin, Caesiana 15: 1. 2000.
Tribulago blancoi (Pupulin) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 230. 2006.

Specklinia brighamii (S.Watson) Pridgeon & M.W.Chase, Lindleyana 16: 256. 2001.

- Pleurothallis brighamii* S.Watson, Proc. Amer. Acad. Arts 23: 285. 1888.
Sarcinula brighamii (S.Watson) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 206. 2006.

Specklinia calyptrosteale (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 257. 2001.

- Pleurothallis calyptrosteale* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 23. 1923.
Pleurothallis biflora Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 181. 1923, nom. illeg.
Pleurothallis geminiflora Ames, F.T.Hubb. & C.Schweinf., Bot. Mus. Leafl. 3: 39. 1934.

Specklinia chontalensis (A.H.Heller & A.D.Hawkes) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 259. 2004.

- Pleurothallis chontalensis* A.H.Heller & A.D.Hawkes, Phytologia 14: 10. 1966.
Sarcinula chontalensis (A.H.Heller & A.D.Hawkes) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 208. 2006.

- Specklinia condylata*** (Luer) Pridgeon & M.W.Chase, *Lindleyana* 16: 257. 2001.
Pleurothallis condylata Luer, *Selbyana* 3: 80. 1976.
Sarcinula condylata (Luer) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 208. 2006.
- Specklinia corniculata*** (Sw.) Steud., *Nomencl. Bot.*, ed. 2, 2: 489. 1841.
Epidendrum corniculatum Sw., *Prodr. Veg. Ind. Occ.*: 123. 1788.
Dendrobium corniculatum (Sw.) Sw., *Nova Acta Regiae Soc. Sci. Upsal.* 6: 83. 1799.
Cymbidium corniculatum (Sw.) Spreng., *Syst. Veg.* 3: 722. 1826.
Pleurothallis corniculata (Sw.) Lindl., *Edwards's Bot. Reg.* 28(Misc.): 83. 1842.
Humboltia corniculata (Sw.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.
Sarcinula corniculata (Sw.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 105: 209. 2006.
Epidendrum alpestre Sw., *Prodr. Veg. Ind. Occ.*: 125. 1788.
Dendrobium alpestre (Sw.) Sw., *Nova Acta Regiae Soc. Sci. Upsal.* 6: 84. 1799.
Epidendrum monophyllum Hook., *Exot. Fl.* 2: t. 109. 1824.
Liparis monophylla (Hook.) Spreng., *Syst. Veg.* 3: 741. 1826.
Pleurothallis alpestris (Sw.) Lindl., *Gen. Sp. Orchid. Pl.*: 7. 1830.
Specklinia emarginata Lindl., *Gen. Sp. Orchid. Pl.*: 8. 1830.
Physosiphon emarginatus (Lindl.) Lindl., *Edwards's Bot. Reg.* 24: t. 1797. 1838.
Pleurothallis vilipensa Rchb.f., *Hamburger Garten-Blumenzeitung* 13: 3. 1857.
Pleurothallis nubigena Lindl., *Ann. Mag. Nat. Hist.*, ser. 3, 1: 326. 1858.
Pleurothallis emarginata (Lindl.) Lindl., *Fol. Orchid.* 9: 25. 1859, nom. illeg.
Pleurothallis pyrsoles Rchb.f., *Gard. Chron.*, n.s., 6: 386. 1876.
Humboltia alpestris (Sw.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.
Humboltia monophylla (Hook.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Humboltia pyrsoles (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Specklinia pyrsoles (Rchb.f.) Pridgeon & M.W.Chase, *Lindleyana* 16: 259. 2001.
Humboltia vilipensa (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
Pleurothallis monophylla (Hook.) Fawc. & Rendle, *Fl. Jamaica* 1: 60. 1910.
Pleurothallis barboselloides Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 17: 18. 1922.
Pleurothallis jocolensis Ames, *Schedul. Orchid.* 2: 19. 1923.
Specklinia barboselloides (Schltr.) Pridgeon & M.W.Chase, *Lindleyana* 16: 256. 2001.
Antilla alpestris (Sw.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 255. 2004.
- Specklinia costaricensis*** (Rolfe) Pridgeon & M.W.Chase, *Lindleyana* 16: 257. 2001.
Pleurothallis costaricensis Rolfe, *Bull. Misc. Inform. Kew* 1917: 80. 1917.
Pleurothallis ehrhartiiflora Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 19: 187. 1923.
- Specklinia dunstervillei*** Karremans, Pupulin & Gravend., *PLOS ONE* 10(7): e131971 (5). 2015.
- Specklinia endotrachys*** (Rchb.f.) Pridgeon & M.W.Chase, *Lindleyana* 16: 257. 2001.
Pleurothallis endotrachys Rchb.f., *Linnaea* 41: 95. 1876.
Humboltia endotrachys (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.
Empusella endotrachys (Rchb.f.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 258. 2004.

- Specklinia fuegi*** (Rchb.f.) Solano & Soto Arenas, Icon. Orchid. 5-6: x. 2002[2003].
Pleurothallis fuegi Rchb.f., Beitr. Orchid.-K. C. Amer.: 97. 1866.
Humboltia fuegi (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Anathallis fuegi (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 248. 2001.
Sylphia fuegi (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 228. 2006.
Pleurothallis fuegi var. *echinata* L.O.Williams, Ann. Missouri Bot. Gard. 33: 120. 1946.
Pleurothallis hagsateri Luer, Orquidea (Mexico City), n.s., 6: 168. 1977.
Specklinia echinata (L.O.Williams) Soto Arenas & Solano, Icon. Orchid. 5-6: t. 670. 2002[2003].
- Specklinia fulgens*** (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 257. 2001.
Pleurothallis fulgens Rchb.f., Gard. Chron., n.s., 4: 516. 1875.
Humboltia fulgens (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Sarcinula fulgens (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 213. 2006.
Pleurothallis brenesii Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 182. 1923.
- Specklinia geminiflora*** (Ames, F.T.Hubb. & C.Schweinf.) Pridgeon & M.W.Chase, Lindleyana 16: 257. 2001.
- Specklinia gersonii*** Bogarín & Karremans, Phytotaxa 218(2): 112. 2015.
- Specklinia glandulosa*** (Ames) Pridgeon & M.W.Chase, Lindleyana 16: 257. 2001.
Pleurothallis glandulosa Ames, Schedul. Orchid. 6: 60. 1923.
Sarcinula glandulosa (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 214. 2006.
Pleurothallis vittariifolia Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 26. 1923.
Pleurothallis pertenuis C.Schweinf., Bot. Mus. Leafl. 3: 83. 1935.
Specklinia vittariifolia (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 259. 2001.
- Specklinia grobyi*** (Bateman ex Lindl.) F.Barros, Hoehnea 10: 110. 1983 (1984).
Pleurothallis grobyi Bateman ex Lindl., Edwards's Bot. Reg. 21: t. 1797. 1835.
Humboltia grobyi (Bateman ex Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Pleurothallis marginalis Rchb.f., Bonplandia (Hannover) 3: 224. 1855.
Pleurothallis perplexa Rchb.f., Hamburger Garten-Blumenzeitung 16: 15. 1860.
Pleurothallis trilineata Barb.Rodr., Gen. Spec. Orchid. 1: 6. 1877.
Pleurothallis crepidophylla Rchb.f., Otia Bot. Hamburg.: 18. 1878.
Lepanthes marmorata Barb.Rodr., Gen. Spec. Orchid. 2: 42. 1881.
Lepanthes trilineata (Barb.Rodr.) Barb.Rodr., Gen. Spec. Orchid. 2: 42. 1881.
Pleurothallis choconiana S.Watson, Proc. Amer. Acad. Arts 23: 285. 1888.
Humboltia crepidophylla (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
Humboltia marginalis (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
Humboltia trilineata (Barb.Rodr.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
Pleurothallis pergracilis Rolfe, Bull. Misc. Inform. Kew 1893: 334. 1893.
Pleurothallis grobyi var. *trilineata* (Barb.Rodr.) Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 496. 1896.
Pleurothallis marmorata (Barb.Rodr.) Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 490. 1896.
Pleurothallis marmorata var. *concolor* Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(6): 559. 1906.
Pleurothallis barbosa Schltr., Repert. Spec. Nov. Regni Veg. Beih. 9: 143. 1921.

- Pleurothallis biglandulosa* Schltr., Notizbl. Bot. Gart. Berlin-Dahlem 8: 119. 1922.
- Pleurothallis ezechiasi* Hoehne, Arq. Bot. Estado São Paulo, n.s., f.m., 2: 21. 1946.
- Pleurothallis grobyi* var. *marmorata* (Barb.Rodr.) Garay, Arch. Jard. Bot. Rio de Janeiro 11: 54. 1951.
- Specklinia marginalis* (Rchb.f.) F.Barros, Hoehnea 10: 110. 1983 (1984).
- Specklinia biglandulosa* (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 256. 2001.
- Specklinia ezechiasi* (Hoehne) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Pabstiella ezechiasi* (Hoehne) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 119. 2007.
- Specklinia guanacastensis*** (Ames & C.Schweinf.) Pridgeon & M.W.Chase, Lindleyana 16: 258. 2001.
- Pleurothallis guanacastensis* Ames & C.Schweinf., Schedul. Orchid. 10: 27. 1930.
- Sarcinula guanacastensis* (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 215. 2006.
- Specklinia icterina*** Bogarín, Lankesteriana 13(3): 201. 2014.
- Specklinia lanceola*** (Sw.) Lindl., Gen. Sp. Orchid. Pl.: 8. 1830.
- Epidendrum lanceola* Sw., Prodr. Veg. Ind. Occ.: 123. 1788.
- Dendrobium lanceola* (Sw.) Sw., Nova Acta Regiae Soc. Sci. Upsal. 6: 83. 1799.
- Pleurothallis lanceola* (Sw.) Spreng., Syst. Veg. 3: 731. 1826.
- Humboltia lanceola* (Sw.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Pleurothallis lateritia* Rchb.f., Gard. Chron. 1872: 731. 1872.
- Pleurothallis sclarea* Rchb.f., Linnaea 41: 49. 1876.
- Humboltia lateritia* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Specklinia lateritia* (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 258. 2001.
- Specklinia sclarea* (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 259. 2001.
- Specklinia lentiginosa*** (F.Lehm. & Kraenzl.) Pridgeon & M.W.Chase, Lindleyana 16: 258. 2001.
- Pleurothallis lentiginosa* F.Lehm. & Kraenzl., Bot. Jahrb. Syst. 26: 446. 1899.
- Pseudoctomeria lentiginosa* (F.Lehm. & Kraenzl.) Kraenzl., Bull. Misc. Inform. Kew 1925: 116. 1925.
- Specklinia lugduno-batavae*** Karremans, Bogarín & Gravend., Blumea 59: 180. 2015.
- Specklinia luis-diegoi*** (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 262. 2004.
- Pleurothallis luis-diegoi* Luer, Revista Soc. Boliv. Bot. 3: 55. 2001.
- Specklinia microphylla*** (A.Rich. & Galeotti) Pridgeon & M.W.Chase, Lindleyana 16: 258. 2001.
- Pleurothallis microphylla* A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 17. 1845.
- Humboltia microphylla* (A.Rich. & Galeotti) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis rotundifolia* Rolfe, Bull. Misc. Inform. Kew 1895: 191. 1895.
- Specklinia minuta*** (Ames & C.Schweinf.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 262. 2004.
- Pleurothallis minuta* Ames & C.Schweinf., Schedul. Orchid. 10: 30. 1930.
- Specklinia mirifica*** Pridgeon & M.W.Chase, Lindleyana 16: 258. 2001.
- Acostaea costaricensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 284. 1923.
- Acostaea pleurothalloides* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 285. 1923.
- Specklinia montezumae*** (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 262. 2004.
- Pleurothallis montezumae* Luer, Lindleyana 11: 83. 1996.
- Gerardoa montezumae* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 86. 2006.

- Kraenzlinella rinkei* Luer, Harvard Pap. Bot. 16: 326. 2011.
- Specklinia pfavii*** (Rchb.f.) Pupulin & Karremans, Phytotaxa 63: 8. 2012.
- Pleurothallis pfavii* Rchb.f., Flora 69: 555. 1886.
- Masdevallia platyrachis* Rolfe, Gard. Chron., ser. 3, 4: 179. 1888.
- Pleurothallis platyrachis* (Rolfe) Rolfe ex Hook.f., Bot. Mag. 116: t. 7129. 1890.
- Kraenzlinella platyrachis* (Rolfe) Rolfe, Orchid Rev. 23: 326. 1915.
- Specklinia picta*** (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 259. 2001.
- Pleurothallis picta* Lindl., Edwards's Bot. Reg. 21: t. 1797. 1835.
- Humboltia picta* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis marginata* Lindl., Edwards's Bot. Reg. 24(Misc.): 42. 1838.
- Pleurothallis surinamensis* H.Focke, Tijdschr. Natuurk. Wetensch. Kunsten 2: 194. 1849.
- Pleurothallis florulenta* Linden & Rchb.f., Bonplandia (Hannover) 3: 223. 1855.
- Humboltia florulenta* (Linden & Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Humboltia marginata* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Lepanthes plurifolia* Barb.Rodr., Vellozia, ed. 2, 1: 118. 1891.
- Pleurothallis densifolia* Rolfe, Mem. Torrey Bot. Club 4: 260. 1895.
- Pleurothallis lindleyana* Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 489. 1896, nom. superfl.
- Pleurothallis pluriflora* Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 492. 1896, nom. illeg.
- Pleurothallis panamensis* Schltr., Repert. Spec. Nov. Regni Veg. 17: 140. 1921.
- Pleurothallis dryadum* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 186. 1923, nom. illeg.
- Pleurothallis arevaloi* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 43. 1924.
- Pleurothallis integrilabia* Ames, F.T.Hubb. & C.Schweinf., Bot. Mus. Leafl. 3: 39. 1934.
- Specklinia florulenta* (Linden & Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 257. 2001.
- Specklinia marginata* (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 258. 2001.
- Specklinia psichion*** (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 263. 2004.
- Pleurothallis psichion* Luer, Lindleyana 11: 89. 1996.
- Sarcinula psichion* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 216. 2006.
- Specklinia recula*** (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 263. 2004.
- Pleurothallis recula* Luer, Lindleyana 11: 92. 1996.
- Specklinia remotiflora*** Pupulin & Karremans, Phytotaxa 63: 11. 2012.
- Specklinia simmleriana*** (Rendle) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 263. 2004.
- Pleurothallis simmleriana* Rendle, J. Bot. 38: 274. 1900.
- Sarcinula simmleriana* (Rendle) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 218. 2006.
- Pleurothallis periodica* Ames, Schedul. Orchid. 7: 21. 1924.
- Specklinia periodica* (Ames) Pridgeon & M.W.Chase, Lindleyana 16: 258. 2001.
- Specklinia spectabilis*** (Ames & C.Schweinf.) Pupulin & Karremans, Phytotaxa 63: 15. 2012.
- Pleurothallis spectabilis* Ames & C.Schweinf., Schedul. Orchid. 8: 34. 1925.
- Specklinia tribuloides*** (Sw.) Pridgeon & M.W.Chase, Lindleyana 16: 259. 2001.
- Epidendrum tribuloides* Sw., Prodr. Veg. Ind. Occ.: 123. 1788.

- Dendrobium tribuloides* (Sw.) Sw., Nova Acta Regiae Soc. Sci. Upsal. 6: 83. 1799.
- Cymbidium tribuloides* (Sw.) Spreng., Syst. Veg. 3: 721. 1826.
- Pleurothallis tribuloides* (Sw.) Lindl., Gen. Sp. Orchid. Pl.: 6. 1830.
- Humboltia tribuloides* (Sw.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Cryptophoranthus tribuloides* (Sw.) H.Dietr., Revista Jard. Bot. Nac. Univ. Habana 5: 48. 1984.
- Tribulago tribuloides* (Sw.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 265. 2004.
- Pleurothallis spatulata* A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 17. 1845.
- Pleurothallis fallax* Rchb.f., Bonplandia (Hannover) 3: 224. 1855.
- Cryptophoranthus acaulis* Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 232. 1925.
- Specklinia turrialbae*** (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 264. 2004.
- Pleurothallis turrialbae* Luer, Lindleyana 6: 105. 1991.
- Sylphia turrialbae* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 229. 2006.
- Specklinia vierlingii*** Baumbach, Orchideen (Hamburg) 63(5): 405-406. 2012.
- Stelis* Sw.**
- Stelis acostaei*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 278. 1923.
- Stelis aemula*** Schltr., Beih. Bot. Centralbl. 36(2): 385. 1918.
- Stelis sarcodantha* Schltr., Beih. Bot. Centralbl. 36(2): 392. 1918.
- Stelis perplexa* Ames, Schedul. Orchid. 1: 7. 1922.
- Stelis aenigma*** Karremans & M. Díaz, Lankesteriana 17(2): 197-200. 2017.
- Stelis alajuelensis*** Pridgeon & M.W.Chase, Lindleyana 17: 98. 2002.
- Pleurothallis ramonensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 193. 1923.
- Stelis ramonensis* (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 266. 2001, *nom. illeg.*
- Dracontia ramonensis* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis alfredii*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 93. 1923.
- Stelis alta*** Pridgeon & M.W.Chase, Lindleyana 17: 98. 2002.
- Stelis argentata*** Lindl., Edwards's Bot. Reg. 28(Misc.): 64. 1842.
- Stelis heylidyana* H.Focke, Tijdschr. Natuurk. Wetensch. Kunsten 2: 201. 1849.
- Stelis endresii* Rchb.f., Gard. Chron. 1870: 1373. 1870.
- Stelis littoralis* Barb.Rodr., Gen. Spec. Orchid. 2: 85. 1881.
- Stelis yauaperyensis* Barb.Rodr., Vellozia, ed. 2, 1: 120. 1891.
- Stelis bernoullii* Schltr., Repert. Spec. Nov. Regni Veg. 15: 201. 1918.
- Stelis parvibracteata* Ames, Orchidaceae 7: 131. 1922.
- Stelis glandulosa* Ames, Schedul. Orchid. 3: 3. 1923.
- Stelis praesecta* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 175. 1923.
- Stelis violascens* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 176. 1923.
- Stelis huebneri* Schltr., Beih. Bot. Centralbl. 42(2): 88. 1925.
- Stelis pichincae* Dodson & Garay, Icon. Pl. Trop. 1: t. 330. 1980.
- Stelis acicularis* Luer, Phytologia 49: 224. 1981.
- Stelis atwoodii*** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 261. 2001.

- Pleurothallis atwoodii* Luer, Lindleyana 11: 67. 1996.
- Crocodeilanthe atwoodii* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 256. 2004.
- Stelis bifalcis** (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 261. 2001.
- Pleurothallis bifalcis* Schltr., Beih. Bot. Centralbl. 26(2): 395. 1918.
- Unciferia bifalcis* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 265. 2004.
- Stelis bracteata** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 171. 1923.
- Stelis brunnea** (Dressler) Pridgeon & M.W.Chase, Lindleyana 16: 261. 2001.
- Salpistele brunnea* Dressler, Orquideologia 14: 6. 1979.
- Stelis butcheri** Luer, Phytologia 49: 224. 1981.
- Stelis canae** (Ames) Pridgeon & M.W.Chase, Lindleyana 16: 261. 2001.
- Pleurothallis canae* Ames, Schedul. Orchid. 2: 18. 1923.
- Unciferia canae* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 265. 2004.
- Stelis carnosiflora** Ames & C.Schweinf., Schedul. Orchid. 8: 15. 1925.
- Stelis carnosilabia** (A.H.Heller & A.D.Hawkes) Pridgeon & M.W.Chase, Lindleyana 16: 261. 2001.
- Pleurothallis carnosilabia* A.H.Heller & A.D.Hawkes, Phytologia 14: 9. 1966.
- Dracontia carnosilabia* (A.H.Heller & A.D.Hawkes) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Pleurothallis caligularis* Luer, Selbyana 3: 74. 1976.
- Stelis carpintera** (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 261. 2001.
- Pleurothallis carpintera* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 105. 1923.
- Elongatia carpintera* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis chasei** Luer, Selbyana 22: 121. 2001.
- Stelis chihobensis** Ames, Schedul. Orchid. 1: 3. 1922.
- Stelis ciliaris** Lindl., Companion Bot. Mag. 2: 353. 1837.
- Apatostelis ciliaris* (Lindl.) Garay, Bot. Mus. Leafl. 27: 188. 1979.
- Stelis atropurpurea* Hook., Bot. Mag. 69: t. 3975. 1842.
- Stelis micrantha* var. *atropurpurea* (Hook.) Josst, Beschr. Cult. Orchid.: 38. 1851.
- Stelis confusa* Schltr., Beih. Bot. Centralbl. 36(2): 386. 1918.
- Stelis pendulispica* Ames, Bot. Mus. Leafl. 2: 85. 1934.
- Apatostelis pendulispica* (Ames) Garay, Bot. Mus. Leafl. 27: 190. 1979.
- Apatostelis garayi* Dunst., Amer. Orchid Soc. Bull. 50: 1075. 1981.
- Stelis garayi* (Dunst.) Carnevali & I.Ramírez, Ann. Missouri Bot. Gard. 77: 556. 1990.
- Stelis cobanensis** (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 262. 2001.
- Pleurothallis cobanensis* Schltr., Repert. Spec. Nov. Regni Veg. 11: 42. 1912.
- Dracontia cobanensis* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Rhynchopera cobanensis* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 121. 2007.
- Stelis commixta** Schltr., Beih. Bot. Centralbl. 36(2): 387. 1918.
- Stelis ingramii* Luer, Lindleyana 11: 100. 1996.
- Stelis conochila** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 262. 2001.
- Pleurothallis conochila* Luer, Lindleyana 11: 75. 1996.

- Dracontia conochila* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis convallaria** (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 262. 2001.
- Pleurothallis convallaria* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 185. 1923.
- Specklinia convallaria* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 259. 2004.
- Effusiella convallaria* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 106. 2007.
- Stelis cooperi** Schltr., Repert. Spec. Nov. Regni Veg. 3: 276. 1907.
- Stelis costaricensis** Rchb.f., Bonplandia (Hannover) 3: 225. 1855.
- Apatostelis costaricensis* (Rchb.f.) Garay, Bot. Mus. Leafl. 27: 188. 1979.
- Stelis minutiflora* Ames & C.Schweinf., Schedul. Orchid. 8: 18. 1925, nom. illeg.
- Stelis crescenticola** Schltr., Repert. Spec. Nov. Regni Veg. 16: 442. 1920.
- Apatostelis crescenticola* (Schltr.) Garay, Bot. Mus. Leafl. 27: 188. 1979.
- Stelis croatii** Luer, Lindleyana 11: 97. 1996.
- Stelis crystallina** Ames, Bot. Mus. Leafl. 3: 45. 1935.
- Stelis planipetala* Ames, Bot. Mus. Leafl. 6: 13. 1938.
- Stelis cucullata** Ames, Schedul. Orchid. 6: 52. 1923.
- Stelis cuspidata** Ames, Schedul. Orchid. 3: 2. 1923.
- Stelis cylindrata** Pridgeon & M.W.Chase, Lindleyana 17: 98. 2002.
- Pleurothallis macrantha* L.O.Williams, Ann. Missouri Bot. Gard. 28: 417. 1941.
- Stelis macrantha* (L.O.Williams) Pridgeon & M.W.Chase, Lindleyana 16: 264. 2001, nom. illeg.
- Dracontia macrantha* (L.O.Williams) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis deregularis** Barb.Rodr., Gen. Spec. Orchid. 2: 94. 1881.
- Physosiphon deregularis* (Barb.Rodr.) Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 341. 1896.
- Pseudostelis deregularis* (Barb.Rodr.) Schltr., Anexos Mem. Inst. Butantan, Secç. Bot. 1(4): 38. 1922.
- Pleurothallis deregularis* (Barb.Rodr.) Luer, Selbyana 2: 385. 1978.
- Physosiphon spiralis* Lindl., Edwards's Bot. Reg. 21: t. 1797. 1835.
- Pleurothallis clausa* De Puydt, Orchidées 32-33: f. 44-53. 1880, an nom. valid.?
- Pseudostelis bradei* Schltr., Anexos Mem. Inst. Butantan, Secç. Bot. 1(4): 38. 1922.
- Pseudostelis spiralis* (Lindl.) Schltr., Anexos Mem. Inst. Butantan, Secç. Bot. 1(4): 38. 1922.
- Physosiphon minutiflorus* Ames & C.Schweinf., Schedul. Orchid. 8: 11. 1925.
- Pleurothallis schweinfurthiana* L.O.Williams, Ceiba 5: 92. 1956.
- Stelis despectans** Schltr., Repert. Spec. Nov. Regni Veg. 8: 453. 1910.
- Stelis chiriquensis* Schltr., Beih. Bot. Centralbl. 36(2): 386. 1918.
- Stelis nutantiflora* Schltr., Beih. Bot. Centralbl. 36(2): 390. 1918.
- Stelis dies-natalis** Karremans & M. Diaz, Lankesteriana 17(2): 194–197. 2017.
- Stelis dracontea** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 262. 2001.
- Pleurothallis dracontea* Luer, Phytologia 49: 204. 1981.
- Dracontia dracontea* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Pleurothallis perennis* Luer, Lindleyana 11: 86. 1996.
- Stelis perennis* (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 265. 2001.

- Dracontia perennis* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis dressleri*** Luer, Phytologia 49: 227. 1981.
- Stelis effusa*** Schltr., Repert. Spec. Nov. Regni Veg. 3: 247. 1907.
- Stelis distantiflora* Ames, Schedul. Orchid. 6: 53. 1923.
- Stelis ferrelliae*** Pridgeon & M.W.Chase, Lindleyana 17: 99. 2002.
- Pleurothallis ingramii* Luer, Lindleyana 11: 81. 1996.
- Stelis ingramii* (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 263. 2001, nom. illeg.
- Dracontia ingramii* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis fractiflexa*** Ames & C.Schweinf., Schedul. Orchid. 8: 17. 1925.
- Stelis gelida*** (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 263. 2001.
- Pleurothallis gelida* Lindl., Edwards's Bot. Reg. 27(Misc.): 91. 1841.
- Humboltia gelida* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Specklinia gelida* (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Niphantha gelida* (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 120: 154. 2010.
- Pleurothallis univaginata* Lindl., Ann. Mag. Nat. Hist., ser. 3, 1: 326. 1858.
- Pleurothallis polylyria* Endrés & Rchb.f., Gard. Chron. 1871: 1483. 1871.
- Anathallis hebesepala* Barb.Rodr., Gen. Spec. Orchid. 2: 75. 1881.
- Humboltia polylyria* (Endrés & Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Humboltia univaginata* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis puberula* Rolfe, Bull. Misc. Inform. Kew 1893: 169. 1893.
- Pleurothallis hebesepala* (Barb.Rodr.) Cogn. in C.F.P.von Martius & auct. suc. (eds.), Fl. Bras. 3(4): 568. 1896.
- Pleurothallis chiquindensis* F.Lehm. & Kraenzl., Bot. Jahrb. Syst. 26: 438. 1899.
- Pleurothallis tenuispica* Schltr., Repert. Spec. Nov. Regni Veg. 14: 133. 1915.
- Pleurothallis chiriquensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 19. 1922.
- Pleurothallis pidax* Luer, Selbyana 5: 174. 1979.
- Anathallis pidax* (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 250. 2001.
- Specklinia pidax* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 263. 2004.
- Niphantha pidax* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 120: 154. 2010.
- Stelis gigantea*** Pridgeon & M.W.Chase, Lindleyana 17: 99. 2002.
- Pleurothallis powellii* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 22. 1922.
- Stelis powellii* (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 265. 2001, nom. illeg.
- Dracontia powellii* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis glossula*** Rchb.f., Gard. Chron. 1870: 1373. 1870.
- Apatostelis glossula* (Rchb.f.) Garay, Bot. Mus. Leafl. 27: 188. 1979.
- Stelis inaequalis* Ames, Schedul. Orchid. 4: 12. 1923.
- Apatostelis inaequalis* (Ames) Garay, Bot. Mus. Leafl. 27: 189. 1979.
- Stelis gracilifolia*** C.Schweinf., Bot. Mus. Leafl. 17: 38. 1955.
- Apatostelis gracilifolia* (C.Schweinf.) Garay, Bot. Mus. Leafl. 27: 188. 1979.
- Stelis gracilis*** Ames, Orchidaceae 2: 266. 1908.

- Stelis panamensis* Schltr., Beih. Bot. Centralbl. 36(2): 391. 1918.
- Stelis guatemalensis*** Schltr., Bull. Herb. Boissier 7: 541. 1899.
- Stelis patula* Schltr., Repert. Spec. Nov. Regni Veg. 10: 359. 1912.
- Stelis hammelii*** Luer, Selbyana 22: 122. 2001. Voucher: *B. Hammel 12374* (MO).
- Stelis hydra*** (Karremans & C.M.Sm.) Karremans, Phytotaxa 203(3): 292. 2015.
- Dracontia hydra* Karremans & C.M.Sm., Harvard Pap. Bot. 17(1): 13–15. 2012.
- Stelis hymenantha*** Schltr., Repert. Spec. Nov. Regni Veg. 10: 291. 1912.
- Stelis cuspidilabia* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 17. 1923.
- Stelis seleniglossa* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 97. 1923.
- Stelis immersa*** (Linden & Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 263. 2001.
- Pleurothallis immersa* Linden & Rchb.f., Bonplandia (Hannover) 3: 224. 1855.
- Humboltia immersa* (Linden & Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Specklinia immersa* (Linden & Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 261. 2004.
- Effusiella immersa* (Linden & Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 106. 2007.
- Pleurothallis krameriana* Rchb.f., Hamburger Garten- Blumenzeitung 21: 294. 1865.
- Humboltia krameriana* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Pleurothallis lasiosepala* Schltr., Repert. Spec. Nov. Regni Veg. 11: 43. 1912.
- Pleurothallis calerae* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 184. 1923.
- Stelis imraei*** (Lindl.) Pridgeon & M.W.Chase, Lindleyana 16: 263. 2001.
- Pleurothallis imraei* Lindl., Fol. Orchid. 9: 9. 1859.
- Humboltia imraei* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Specklinia imraei* (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 261. 2004.
- Effusiella imraei* (Lindl.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 106. 2007.
- Pleurothallis vaginata* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 197. 1923.
- Pleurothallis umbraticola* Schltr., Repert. Spec. Nov. Regni Veg. 27: 56. 1929.
- Stelis vaginata* (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 267. 2001.
- Specklinia vaginata* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 264. 2004.
- Effusiella vaginata* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 107. 2007.
- Pleurothallis imraei* var. *vaginata* (Schltr.) O.Gruss & M.Wolff, Orchid. Atlas: 359. 2007.
- Stelis janetiae*** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 264. 2001.
- Pleurothallis janetiae* Luer, Selbyana 5: 169. 1979.
- Elongatia janetiae* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis jimenezii*** Schltr., Beih. Bot. Centralbl. 36(2): 389. 1918.
- Apatostelis jimenezii* (Schltr.) Garay, Bot. Mus. Leaflet. 27: 189. 1979.
- Stelis gratiosa* Luer, Selbyana 5: 192. 1979.
- Stelis fimbriata* R.K.Baker, Ann. Missouri Bot. Gard. 55: 68. 1968.
- Stelis kareniae*** Luer, Lindleyana 11: 100. 1996.
- Stelis lamprophylla*** (Schltr.) Karremans, Lankesteriana 13(3): 329. 2014.
- Pleurothallis lamprophylla* Schltr., Repert. Spec. Nov. Regni Veg. 15: 205. 1918.

- Pleurothallis dolichopus* Schltr., Repert. Spec. Nov. Regni Veg. 10(257-259): 394. 1912.
- Anathallis dolichopus* (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 248. 2001.
- Specklinia dolichopus* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 260. 2004.
- Pleurothallis dolichopus* var. *bradeorum* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 106. 1923.
- Pleurothallis poasensis* Ames, Schedul. Orch. 1: 10-11. 1922.
- Stelis lankesteri*** Ames, Schedul. Orchid. 3: 4. 1923.
- Stelis latipetala*** Ames, Bot. Mus. Leafl. 3: 53. 1935.
- Apatostelis latipetala* (Ames) Garay, Bot. Mus. Leafl. 27: 189. 1979.
- Stelis listerophora*** (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 264. 2001.
- Pleurothallis listerophora* Schltr., Repert. Spec. Nov. Regni Veg. 3: 107. 1906.
- Specklinia listerophora* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 261. 2004.
- Effusiella listerophora* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 106. 2007.
- Pleurothallis campicola* Luer, Selbyana 5: 161. 1979.
- Stelis lueriana*** (Karremans) J.M.H.Shaw, Orchid Rev. 122(1308): 77. 2014.
- Dracontia lueriana* Karremans, Ann. Naturhist. Mus. Wien, B 113: 128. 2012.
- Stelis megachlamys*** (Schltr.) Pupulin, Lankesteriana 4: 74. 2002.
- Pleurothallis megachlamys* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 108. 1923.
- Pleurothallis tuerckheimii* Schltr., Repert. Spec. Nov. Regni Veg. 10: 292. 1912.
- Stelis tuerckheimii* (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 267. 2001, nom. illeg.
- Stelis megachlamys* subsp. *teotepicensis* Soto Arenas, Icon. Orchid. 5-6: t. 685. 2002 (2003).
- Dracontia tuerckheimii* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Dracontia tuerckheimii* f. *viridiflavens* Roeth & Baumbach, Orchidee (Hamburg) 58: 98. 2007.
- Stelis melicoides*** (Schltr.) Bogarin, **comb. nov.**
- Bas.: *Pleurothallis melicoides* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 24. 1923.
- Stelis micragrostis*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 95. 1923.
- Stelis microchila*** Schltr., Repert. Spec. Nov. Regni Veg. 9: 289. 1911.
- Stelis barbata* Rolfe, Bull. Misc. Inform. Kew 1913: 141. 1913.
- Stelis cinerea* Schltr., Beih. Bot. Centralbl. 36(2): 444. 1918.
- Stelis costaricensis* Schltr., Beih. Bot. Centralbl. 36(2): 388. 1918, nom. illeg.
- Stelis bryophila* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 16. 1923.
- Stelis montis-mortensis*** (Karremans & Bogarin) Bogarin & Karremans, Lankesteriana 14(3): 270. 2014.
- Dracontia montis-mortensis* Karremans & Bogarin, Syst. Bot. 38(2): 307-308, f. 1. 2013.
- Stelis morae*** Luer, Lindleyana 11: 103. 1996.
- Stelis nubis*** Ames, Schedul. Orchid. 9: 18. 1925.
- Stelis oscitans*** Luer, Lindleyana 11: 105. 1996.
- Stelis ovatilabia*** Schltr., Repert. Spec. Nov. Regni Veg. 15: 211. 1918.
- Stelis cyclopetala* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 279. 1923.
- Stelis papillifera*** (Rolfe) Pridgeon & M.W.Chase, Lindleyana 16: 265. 2001.
- Pleurothallis papillifera* Rolfe, Bull. Misc. Inform. Kew 1916: 77. 1916.

- Dracontia papillifera* (Rolfe) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis pardipes*** Rchb.f., Beitr. Orchid.-K. C. Amer.: 96. 1866.
- Stelis triseta* var. *pardipes* (Rchb.f.) C.Schweinf., Bot. Mus. Leafl. 15: 24. 1951.
- Stelis longicuspis* Schltr., Repert. Spec. Nov. Regni Veg. 9: 28. 1910.
- Stelis albertii* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 170. 1923.
- Stelis vagans* Schltr., Repert. Spec. Nov. Regni Veg. 27: 48. 1929, nom. illeg.
- Stelis bella* O.Duque, Orquideologia 20: 331. 1997.
- Stelis parvula*** Lindl., Fol. Orchid. 8: 7. 1859.
- Stelis microstigma* Rchb.f., Beitr. Orchid.-K. C. Amer.: 94. 1866.
- Stelis microtis* Rchb.f., Beitr. Orchid.-K. C. Amer.: 95. 1866.
- Stelis obscurata* Rchb.f., Beitr. Orchid.-K. C. Amer.: 95. 1866.
- Stelis bidentata* Schltr., Repert. Spec. Nov. Regni Veg. 10: 358. 1912.
- Stelis bradei* Schltr., Beih. Bot. Centralbl. 36(2): 385. 1918.
- Stelis rhodochila* Schltr., Beih. Bot. Centralbl. 36(2): 392. 1918.
- Stelis amparoana* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 16. 1923.
- Stelis barbae* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 94. 1923.
- Stelis brenesii* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 172. 1923.
- Stelis brevis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 172. 1923.
- Stelis platycardia* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 18. 1923.
- Stelis ramonensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 176. 1923.
- Pleurothallis platyglottis* L.O.Williams, Ceiba 1: 228. 1951.
- Stelis powellii*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 16-17. 1922.
- Stelis pileata*** (Karremans & Bogarín) Karremans & Bogarín, Phytotaxa 203(3): 293. 2015.
- Dracontia pileata* Karremans & Bogarín, Syst. Bot. 38(2) 308, 310-311. 2013.
- Stelis pilosa*** Pridgeon & M.W.Chase, Lindleyana 17: 100. 2002.
- Pleurothallis amparoana* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 23. 1923.
- Stelis amparoana* (Schltr.) Pridgeon & M.W.Chase, Lindleyana 16: 261. 2001, nom. illeg.
- Specklinia amparoana* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 258. 2004.
- Effusiella amparoana* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 106. 2007.
- Stelis pilostoma*** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 265. 2001.
- Pleurothallis pilostoma* Luer, Lindleyana 11: 89. 1996.
- Unciferia pilostoma* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 265. 2004.
- Stelis platystylis*** (Schltr.) Solano & Soto Arenas, Icon. Orchid. 10: t. 1097. 2008.
- Pleurothallis platystylis* Schltr., Repert. Spec. Nov. Regni Veg. 10: 395. 1912
- Stelis pompalis*** (Ames) Pridgeon & M.W.Chase, Lindleyana 16: 265. 2001.
- Pleurothallis pompalis* Ames, Schedul. Orchid. 7: 23. 1924.
- Unciferia pompalis* (Ames) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 265. 2004.
- Stelis powellii*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 17: 16. 1922.
- Stelis psilantha*** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 266. 2001.

- Pleurothallis psilantha* Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 72: 95 . 1998.
- Unciferia psilantha* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 265. 2004.
- Stelis pulchella*** Kunth in F.W.H.von Humboldt, A.J.A.Bonpland & C.S.Kunth, Nov. Gen. Sp. 1: 364. 1816.
- Pleurothallis pulchella* (Kunth) Lindl., Gen. Sp. Orchid. Pl.: 7. 1830.
- Humboltia pulchella* (Kunth) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Crocodelanthe pulchella* (Kunth) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 256. 2004.
- Pleurothallis sphenochila* Lindl., Fol. Orchid. 9: 22. 1859.
- Pleurothallis naraniensis* Rchb.f., Beitr. Orchid.-K. C. Amer.: 96. 1866.
- Humboltia naraniensis* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Humboltia sphenochila* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis ecuadorensis* Schltr., Repert. Spec. Nov. Regni Veg. 14: 129. 1915.
- Pleurothallis pteroglossa* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 112. 1920.
- Pleurothallis lloensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 8: 59. 1921.
- Pleurothallis bogotensis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 162.1 924, nom. illeg.
- Pleurothallis tepuiensis* Carnevali & I.Ramírez, Novon 3: 121. 1993.
- Crocodelanthe tepuiensis* (Carnevali & I.Ramírez) Carnevali & I.Ramírez in O.Hokche, P.E.Berry & O.Huber (eds.), Nuevo Cat. Fl. Vasc. Venezuela: 758. 2008.
- Stelis punctulata*** (Rchb.f.) Soto Arenas, Icon. Orchid. 5-6: t. 690. 2002 (2003).
- Physosiphon punctulatus* Rchb.f., Bot. Zeitung (Berlin) 24: 385. 1866.
- Lomax punctulata* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 105: 88. 2006.
- Physosiphon minor* Rendle, J. Bot. 38: 275. 1900.
- Physosiphon cooperi* Ames, Schedul. Orchid. 1: 2. 1922.
- Pleurothallis minor* (Rendle) L.O.Williams, Ceiba 1: 186. 1950.
- Specklinia minor* (Rendle) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 262. 2004.
- Stelis purpurascens*** A.Rich. & Galeotti, Ann. Sci. Nat., Bot., sér. 3, 3: 18. 1845.
- Stelis bourgeauii* Schltr., Repert. Spec. Nov. Regni Veg. 9: 284. 1911.
- Stelis curvata* Schltr., Repert. Spec. Nov. Regni Veg. 10: 358. 1912.
- Stelis carioi* Schltr., Repert. Spec. Nov. Regni Veg. 15: 202. 1918.
- Stelis fulva* Schltr., Beih. Bot. Centralbl. 37(2): 388. 1918.
- Stelis maxonii* Schltr., Beih. Bot. Centralbl. 36(2): 389 . 1918.
- Stelis purpusii* Schltr., Beih. Bot. Centralbl. 36(2): 391. 1918.
- Stelis alfaroi* Ames & C.Schweinf., Schedul. Orchid. 8: 14. 1925.
- Stelis chiapensis* Solano, Orquidea (Mexico City), n.s., 13: 23. 1993.
- Stelis sotoana* Solano, Orquidea (Mexico City), n.s., 13: 97. 1993.
- Stelis thermatica* Luer & Dodson, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 53. 2007.
- Stelis sanchoi*** Ames, Schedul. Orchid. 4: 13. 1923.
- Stelis sarcophylla*** Luer, Phytologia 49(3): 238. 1981.
- Stelis segoviensis*** (Rchb.f.) Pridgeon & M.W.Chase, Lindleyana 16: 266. 2001.
- Pleurothallis segoviensis* Rchb.f., Bonplandia (Hannover) 3: 223. 1855.

- Humboltia segoviensis* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Unciferia segoviensis* (Rchb.f.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 265. 2004.
- Pleurothallis johannis* Schltr., Repert. Spec. Nov. Regni Veg. 17: 140. 1921.
- Pleurothallis amethystina* Ames, Schedul. Orchid. 4: 14. 1923.
- Stelis simplex*** (Ames & C.Schweinf.) Pridgeon & M.W.Chase, Lindleyana 16: 266. 2001.
- Pleurothallis simplex* Ames & C.Schweinf., Schedul. Orchid. 10: 37. 1930.
- Stelis skutchii*** Ames, Bot. Mus. Leafl. 6: 17. 1938.
- Apatostelis skutchii* (Ames) Garay, Bot. Mus. Leafl. 27: 190. 1979.
- Stelis spathulata*** Poepp. & Endl., Nov. Gen. Sp. Pl. 1: 46. 1836.
- Stelis tricuspis* Schltr., Repert. Spec. Nov. Regni Veg. 3: 276. 1907.
- Stelis standleyi*** Ames, Schedul. Orchid. 9: 21. 1925.
- Apatostelis standleyi* (Ames) Garay, Bot. Mus. Leafl. 27: 191. 1979.
- Stelis persimilis* Ames, Bot. Mus. Leafl. 2: 14. 1934.
- Apatostelis persimilis* (Ames) Garay, Bot. Mus. Leafl. 27: 190. 1979.
- Stelis storkii*** Ames, Bot. Mus. Leafl. 3: 54. 1935.
- Stelis subinconspicua*** Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 19. 1923.
- Stelis superbiens*** Lindl., Fol. Orchid. 8: 8. 1859.
- Stelis leucopogon* Rchb.f., Beitr. Orchid.-K. C. Amer.: 95. 1866.
- Stelis koehleri* Schltr., Repert. Spec. Nov. Regni Veg. 10: 386. 1912.
- Stelis cascajalensis* Ames, Schedul. Orchid. 4: 11. 1923.
- Stelis eximia* Ames, Schedul. Orchid. 6: 54. 1923.
- Stelis propinqua* Ames, Schedul. Orchid. 6: 55. 1923.
- Stelis convallarioides* Garay, Canad. J. Bot. 34: 351. 1956.
- Stelis thecoglossa*** Rchb.f., Beitr. Orchid.-K. C. Amer.: 93. 1866.
- Stelis colioglossa* Schltr., Repert. Spec. Nov. Regni Veg. 8: 453. 1910.
- Stelis tintinnabula*** (Luer) Pridgeon & M.W.Chase, Lindleyana 16: 267. 2001.
- Pleurothallis tintinnabula* Luer, Lindleyana 11: 94. 1996.
- Dracontia tintinnabula* (Luer) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 257. 2004.
- Stelis tonduziana*** Schltr., Beih. Bot. Centralbl. 36(2): 393. 1918.
- Apatostelis tonduziana* (Schltr.) Garay, Bot. Mus. Leafl. 27: 191. 1979.
- Stelis mirabilis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 96. 1923.
- Stelis transversalis*** Ames, Bot. Mus. Leafl. 2: 91. 1934.
- Stelis triangulabia*** Ames, Schedul. Orchid. 9: 23. 1925.
- Stelis tridentata*** Lindl., Fol. Orchid. 8: 6. 1859.
- Stelis leptophylla* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 174. 1923.
- Stelis elliptica* Ames & C.Schweinf., Schedul. Orchid. 8: 16. 1925.
- Stelis ferax* Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot. Gard. 88: 46. 2002.
- Stelis uncinata*** Pridgeon & M.W.Chase, Lindleyana 17: 100. 2002.
- Pleurothallis kareniae* Luer, Lindleyana 11: 83. 1996.

- Stelis kareniae* (Luer) Pridgeon & M.W.Chase, *Lindleyana* 16: 264. 2001.
- Unciferia kareniae* (Luer) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 265. 2004.
- Stelis veraguasensis*** Luer, *Selbyana* 22(2): 126-127, f. 19. 2001.
- Stelis vestita*** Ames, *Schedul. Orchid.* 6: 56. 1923.
- Stelis villosa*** (Knowles & Westc.) Pridgeon & M.W.Chase, *Lindleyana* 16: 267. 2001.
- Pleurothallis villosa* Knowles & Westc., *Fl. Cab.* 2: 78. 1838.
- Humboltia villosa* (Knowles & Westc.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
- Specklinia villosa* (Knowles & Westc.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 264. 2004.
- Effusiella villosa* (Knowles & Westc.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 112: 107. 2007.
- Pleurothallis schiedei* Rchb.f., *Linnaea* 22: 826. 1850.
- Humboltia schiedei* (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 668. 1891.
- Pleurothallis hirsuta* Ames, *Orchidaceae* 2: 270. 1908.
- Stelis vinacea*** (Ames) Bogarín, **comb. nov.**,
 Bas.: *Pleurothallis vinacea* Ames, *Schedul. Orchid.* 6: 69. 1923.
- Stelis viridiflava*** (Karremans & Bogarín) Karremans & Bogarín, *Phytotaxa* 203(3): 294. 2015.
- Dracontia viridiflava* Karremans & Bogarín, *Syst. Bot.* 38(2) 311-312. 2013.
- Stelis vulgaris*** Pridgeon & M.W.Chase, *Lindleyana* 17: 100. 2002.
- Pleurothallis pittieri* Schltr., *Repert. Spec. Nov. Regni Veg.* 3: 247. 1907.
- Pleurothallis floribunda* Poepp. & Endl., *Nov. Gen. Sp. Pl.* 1: 48. 1836.
- Humboltia floribunda* (Poepp. & Endl.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.
- Pleurothallis pluriracemosa* Garay, *Arch. Jard. Bot. Rio de Janeiro* 12: 174. 1953.
- Stelis floribunda* (Poepp. & Endl.) Pridgeon & M.W.Chase, *Lindleyana* 16: 263. 2001, *nom. illeg.*
- Crocodelanthe floribunda* (Poepp. & Endl.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 256. 2004.
- Stelis wagneri*** (Schltr.) Pridgeon & M.W.Chase, *Lindleyana* 16: 267. 2001.
- Pleurothallis wagneri* Schltr., *Repert. Spec. Nov. Regni Veg.* 17: 141. 1921.
- Unciferia wagneri* (Schltr.) Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 265. 2004.
- Pleurothallis falcatiloba* Ames, *Proc. Biol. Soc. Wash.* 34: 152. 1921.
- Pleurothallis aguilarii* Ames, *Schedul. Orchid.* 9: 28. 1925.
- Stelis werckleana*** Bogarín & Pupulin, **nom. nov.**,
Pleurothallis wercklei Schltr., *Repert. Spec. Nov. Regni Veg.* 9: 213. 1911, non *Stelis wercklei* 1923.
- Stelis wercklei*** Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 19: 20. 1923.
- Trichosalpinx*** Luer
- Trichosalpinx arbuscula*** (Lindl.) Luer, *Phytologia* 54: 394. 1983.
- Pleurothallis arbuscula* Lindl., *Edwards's Bot. Reg.* 28(Misc.): 72. 1842.
- Humboltia arbuscula* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 667. 1891.
- Tubella arbuscula* (Lindl.) Archila, *Revista Guatemal.* 3(1): 49. 2000.
- Pleurothallis dinotherii* Rchb.f. & Warsz., *Bonplandia* (Hannover) 2: 114. 1854.
- Pleurothallis diptera* Lindl., *Fol. Orchid.* 9: 44. 1859.
- Pleurothallis moschata* Rchb.f., *Xenia Orchid.* 3: 42. 1881.

- Humboltia dinotherii* (Rchb.f. & Warsz.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Humboltia diptera* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Humboltia moschata* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis lepanthoides* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 106. 1920.
- Pleurothallis tricaudata* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 9: 77. 1921.
- Pleurothallis arbusculoides* T.Hashim., Bull. Natl. Sci. Mus. Tokyo, B 4: 9. 1978.
- Trichosalpinx arbusculoides* (T.Hashim.) Luer, Phytologia 54: 394. 1983.
- Trichosalpinx dinotherii* (Rchb.f. & Warsz.) Luer, Phytologia 54: 395. 1983.
- Trichosalpinx moschata* (Rchb.f.) Luer, Phytologia 54: 396. 1983.
- Tubella moschata* (Rchb.f.) Archila, Revista Guatemal. 3(1): 60. 2000.
- Specklinia lepanthoides* (Schltr.) Luer, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 261. 2004.
- Trichosalpinx blaisdellii*** (S.Watson) Luer, Phytologia 54: 394. 1983.
- Pleurothallis blaisdellii* S.Watson, Proc. Amer. Acad. Arts 23: 284. 1888.
- Pleurothallis peraltensis* Ames, Schedul. Orchid. 6: 65. 1923.
- Pleurothallis standleyi* Ames, Schedul. Orchid. 9: 37. 1925.
- Trichosalpinx tamayoana* Soto Arenas, Orquidea (Mexico City), n.s., 10: 264. 1987.
- Trichosalpinx lankesteriana* Luer, Lindleyana 11: 108. 1996.
- Trichosalpinx carinilabia*** (Luer) Luer, Phytologia 54: 394. 1983.
- Pleurothallis carinilabia* Luer, Selbyana 3: 256. 1977.
- Tubella carinilabia* (Luer) Archila, Revista Guatemal. 3(1): 51. 2000.
- Pleurothallis broadwayi* var. *tricarinata* C.Schweinf., Bot. Mus. Leafl. 8(2): 42. 1940.
- Trichosalpinx caudata*** Luer & R.Escobar, Monogr. Syst. Bot. Missouri Bot. Gard. 64: 20. 1997.
- Trichosalpinx cedralensis*** (Ames) Luer, Phytologia 54: 394. 1983.
- Pleurothallis cedralensis* Ames, Schedul. Orchid. 4: 18. 1923.
- Tubella cedralensis* (Ames) Archila, Revista Guatemal. 3(1): 52. 2000.
- Pleurothallis myrtilus* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 25. 1923.
- Trichosalpinx ciliaris*** (Lindl.) Luer, Phytologia 54: 395. 1983.
- Specklinia ciliaris* Lindl., Edwards's Bot. Reg. 24(Misc.): 31. 1838.
- Pleurothallis ciliaris* (Lindl.) L.O.Williams, Caldasia 1(5): 14. 1942.
- Pleurothallis lepanthiformis* Rchb.f., Linnaea 18: 398. 1845.
- Humboltia lepanthiformis* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Pleurothallis purpusii* Schltr., Orchis 9: 49. 1915.
- Trichosalpinx dura*** (Lindl.) Luer, Phytologia 54: 395. 1983.
- Pleurothallis dura* Lindl., Fol. Orchid. 9: 32. 1859.
- Humboltia dura* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Tubella dura* (Lindl.) Archila, Revista Guatemal. 3(1): 54. 2000.
- Pleurothallis foliata* Griseb., Fl. Brit. W. I.: 610. 1864.
- Humboltia foliata* (Griseb.) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Pleurothallis corazonica* F.Lehm. & Kraenzl., Bot. Jahrb. Syst. 26: 443. 1899.

- Pleurothallis broadwayi* Ames, Orchidaceae 2: 267. 1908.
- Pleurothallis guadalupensis* Cogn. in I.Urban, Symb. Antill. 6: 432. 1909.
- Pleurothallis lepanthopsis* Schltr., Repert. Spec. Nov. Regni Veg. 14: 386. 1916.
- Pleurothallis williamsii* Ames, Orchidaceae 7: 120. 1922.
- Pleurothallis anomala* Hoehne, Arch. Inst. Biol. Defesa Agric. 2: 43. 1929.
- Pleurothallis broadwayi* subsp. *anomala* (Hoehne) Garay, Arch. Jard. Bot. Rio de Janeiro 11: 53. 1951.
- Trichosalpinx foliata* (Griseb.) Luer, Phytologia 54: 395. 1983.
- Tubella broadwayi* (Ames) Archila, Revista Guatemal. 3(1): 51. 2000.
- Tubella foliata* (Griseb.) Archila, Revista Guatemal. 3(1): 56. 2000.
- Trichosalpinx fruticosa*** Luer, Lindleyana 11: 105. 1996.
- Tubella fruticosa* (Luer) Archila, Revista Guatemal. 3(1): 56. 2000.
- Trichosalpinx membraniflora*** (C.Schweinf.) Luer, Phytologia 54: 396. 1983.
- Pleurothallis membraniflora* C.Schweinf., Bot. Mus. Leaflet. 5: 91. 1938.
- Tubella membraniflora* (C.Schweinf.) Archila, Revista Guatemal. 3(1): 59. 2000.
- Trichosalpinx memor*** (Rchb.f.) Luer, Phytologia 54: 396. 1983.
- Pleurothallis memor* Rchb.f., Bonplandia (Hannover) 4: 330. 1856.
- Humboltia memor* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis brevis* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 183. 1923.
- Pleurothallis gnomonifera* Ames, Schedul. Orchid. 6: 61. 1923.
- Trichosalpinx greenwoodiana* Soto Arenas, Orquídea (Mexico City), n.s., 10: 257. 1987.
- Trichosalpinx nageliana* Soto Arenas, Orquídea (Mexico City), n.s., 10: 259. 1987.
- Trichosalpinx minutipetala*** (Ames & C.Schweinf.) Luer, Phytologia 54: 396. 1983.
- Pleurothallis minutipetala* Ames & C.Schweinf., Schedul. Orchid. 10: 32. 1930.
- Trichosalpinx nana*** (Ames & C.Schweinf.) Luer, Phytologia 54: 396. 1983.
- Pleurothallis nana* Ames & C.Schweinf., Schedul. Orchid. 8: 29. 1925.
- Tubella nana* (Ames & C.Schweinf.) Archila, Revista Guatemal. 3(1): 60. 2000.
- Trichosalpinx navarrensis*** (Ames) Mora-Ret. & García Castro, Brenesia 37: 125. 1992.
- Pleurothallis navarrensis* Ames, Schedul. Orchid. 9: 34. 1925.
- Trichosalpinx orbicularis*** (Lindl.) Luer, Phytologia 54: 396. 1983.
- Specklinia orbicularis* Lindl., Edwards's Bot. Reg. 25(Misc.): 31. 1839.
- Pleurothallis orbicularis* (Lindl.) Lindl., Edwards's Bot. Reg. 28(Misc.): 79. 1842.
- Humboltia orbicularis* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 668. 1891.
- Pleurothallis biflora* H.Focke, Tijdschr. Natuurk. Wetensch. Kunsten 2: 197. 1849.
- Lepanthes orbiculata* Lindl. ex Rchb.f., Xenia Orchid. 1: 152. 1856.
- Humboltia biflora* (H.Focke) Kuntze, Revis. Gen. Pl. 2: 667. 1891.
- Pleurothallis trachytheca* F.Lehm. & Kraenzl., Bot. Jahrb. Syst. 26: 444. 1899.
- Pleurothallis lancifera* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 48. 1924.
- Trichosalpinx lancifera* (Schltr.) Luer, Phytologia 54: 396. 1983.
- Trichosalpinx oxychilos* Carnevali & G.A.Romero, Novon 3: 21. 1993.

Trichosalpinx parsonsii Luer & Dodson, Monogr. Syst. Bot. Missouri Bot. Gard. 64: 72. 1997.

Tubella parsonsii (Luer & Dodson) Archila, Revista Guatemal. 3(1): 62. 2000.

Trichosalpinx pergrata (Ames) Luer, Phytologia 54: 396. 1983.

Pleurothallis pergrata Ames, Schedul. Orchid. 4: 24. 1923.

Tubella pergrata (Ames) Archila, Revista Guatemal. 3(1): 62. 2000.

Pleurothallis falcipetala Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 163. 1924.

Trichosalpinx falcipetala (Schltr.) Luer, Phytologia 54: 395. 1983.

Trichosalpinx pusilla (Kunth) Luer, Phytologia 54: 397. 1983.

Dendrobium pusillum Kunth in F.W.H.von Humboldt, A.J.A.Bonpland & C.S.Kunth, Nov. Gen. Sp. 1: 357. 1816.

Specklinia pusilla (Kunth) Lindl., Edwards's Bot. Reg. 21: t. 1797. 1835.

Pleurothallis pusilla (Kunth) Lindl., Edwards's Bot. Reg. 28(Misc.): 82. 1842.

Humboltia pusilla (Kunth) Kuntze, Revis. Gen. Pl. 2: 668. 1891.

Tubella pusilla (Kunth) Archila, Revista Guatemal. 3(1): 62. 2000.

Trichosalpinx reflexa Mel.Fernández & Bogarin, Phytotaxa 38: 42. 2011.

Trichosalpinx ringens Luer, Lindleyana 11: 108. 1996.

Trichosalpinx rotundata (C.Schweinf.) Dressler, Novon 7: 124. 1997.

Pleurothallis rotundata C.Schweinf., Bot. Mus. Leafl. 4: 115. 1937.

Pleurothallis operculata Luer, Phytologia 49: 213. 1981.

Trichosalpinx operculata (Luer) Luer, Phytologia 54: 396. 1983.

Trichosalpinx sanctuarii Mel.Fernandez & Bogarin, Brittonia 65(1): 96-101. 2013.

Trichosalpinx todziae Luer, Lindleyana 11: 111. 1996.

Tubella todziae (Luer) Archila, Revista Guatemal. 3(1): 66. 2000.

Trichosalpinx trachystoma (Schltr.) Luer, Phytologia 54: 397. 1983.

Pleurothallis trachystoma Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 196. 1923.

Trisetella Luer

Trisetella lasiochila Pupulin, Lindleyana 15: 30. 2000.

Trisetella triaristella (Rchb.f.) Luer, Phytologia 47: 58. 1980.

Masdevallia triaristella Rchb.f., Gard. Chron., n.s., 6: 226. 1876.

Triaristella reichenbachii Brieger ex Luer, Selbyana 2: 206. 1978.

Triaristellina triaristella (Rchb.f.) Rauschert, Feddes Repert. 94: 469. 1983.

Trisetella trigloch (Rchb.f.) Luer, Phytologia 47: 58. 1980.

Masdevallia trigloch Rchb.f., Gard. Chron., n.s., 8: 648. 1877.

Triaristella trigloch (Rchb.f.) Luer, Selbyana 2: 206. 1978.

riaristellina trigloch (Rchb.f.) Rauschert, Feddes Repert. 94: 469. 1983.

Masdevallia trichaete Rchb.f., Gard. Chron., n.s., 20: 360. 1883.

Masdevallia tridactylites Rchb.f., Gard. Chron., n.s., 19: 784. 1883.

Masdevallia huebneri Schltr., Beih. Bot. Centralbl. 42(2): 88. 1925.

Masdevallia triseta Rchb.f. ex Kraenzl., Repert. Spec. Nov. Regni Veg. Beih. 34: 201. 1925.

Masdevallia allenii L.O.Williams, Ann. Missouri Bot. Gard. 27: 273. 1940.

- Triaristella huebneri* (Schltr.) Luer, Selbyana 2: 205. 1978.
Triaristella trichaete (Rchb.f.) Luer, Selbyana 2: 206. 1978.
Triaristella tridactylites (Rchb.f.) Luer, Selbyana 2: 206. 1978.
Trisetella huebneri (Schltr.) Luer, Phytologia 47: 57. 1980.
Trisetella trichaete (Rchb.f.) Luer, Phytologia 47: 58. 1980.
Trisetella tridactylites (Rchb.f.) Luer, Phytologia 47: 58. 1980.
Triaristellina huebneri (Schltr.) Rauschert, Feddes Repert. 94: 469. 1983.
Triaristellina trichaete (Rchb.f.) Rauschert, Feddes Repert. 94: 469. 1983.
Triaristellina tridactylites (Rchb.f.) Rauschert, Feddes Repert. 94: 469. 1983.

Zootrophion Luer

- Zootrophion endresianum*** (Kraenzl.) Luer, Selbyana 7: 82. 1982.
Cryptophoranthus endresianus Kraenzl., Repert. Spec. Nov. Regni Veg. 17: 437. 1921.
Zootrophion gracilentum (Rchb.f.) Luer, Selbyana 7: 82. 1982.
Masdevallia gracilenta Rchb.f., Gard. Chron., n.s., 4: 98. 1875.
Cryptophoranthus gracilentus (Rchb.f.) Rolfe, Gard. Chron., ser. 3, 2: 693. 1887.
Cryptophoranthus lehmannii Rolfe, Orchid Rev. 11: 303. 1903.
Cryptophoranthus lepidotus L.O. Williams, Ann. Missouri Bot. Gard. 29: 340. 1942.
Zootrophion vulturiceps (Luer) Luer, Selbyana 7: 84. 1982.
Cryptophoranthus vulturiceps Luer, Selbyana 5: 146. 1979.
Zootrophion williamsii Luer, Selbyana 23: 41. 2002.