

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Twenty-second meeting of the Plants Committee
Tbilisi (Georgia), 19-23 October 2015

Interpretation and Implementation of the Convention

Species trade and conservation

Standard nomenclature [Resolution Conf. 12.11 (Rev. CoP16)]

THE CITES CACTUS CHECKLIST

1. This document has been prepared by the editor of the CITES Cactus Checklist and submitted by the nomenclature specialist of the Plants Committee*. It includes a draft introduction to the 3rd edition of the Checklist and an updated account of *Opuntia* subgenus *Opuntia* and is submitted in relation to agenda point 21.1 and paragraph 3 of that report.

* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

CITES CACTACEAE CHECKLIST
Third Edition

Notes for the CITES Plant Committee

To facilitate comparison with the Second Edition, the first part of the Preamble below is arranged in four numbered paragraphs as in the Preamble to that edition (but in square brackets; English version only). However, it would seem more logical in this edition to place the former paragraphs 5. **How to use this Checklist** and 6. **Conventions employed in Parts I-III** immediately before the alphabetical list (see page 30), also **Part II. Reference data: List of Genera Summary table** and **Bibliography**. I have deleted para. 7. **Cactaceae controlled by CITES** at the suggestion of Noel McGough as these and the annotations may change and it would be better to let users go direct to current listings CITES website.

Preamble

[1.] **Background** (Noel McGough to suggest updating; as it is 16 years since publication of CCC ed. 2 it might be desirable to provide rather more initial 'background?')

[1.1] In the second half of the 20th century the generic classification of the Cactaceae became increasingly unstable following the replacement of the conservative system established by Schumann (1897–99, 1903; 21 genera) by that of Britton & Rose (1919–1923; 124 genera) and further splitting by Backeberg (233 genera) and other mostly amateur authors. In 1984 an attempt to restore a more conservative system was initiated by members of a working party established by the International Organization for Succulent Study (a member of the International Union of Biological Sciences). Subsequently, to assist the implementation of the CITES regulations, the 6th Conference of the Parties (July 1987) called for the development of a nomenclatorial reference for the Cactaceae (CITES Resolution Conf. 6.20) and asked IOS to undertake the work, adopting its 'consensus'-based approach. Compilation and publication of the first edition of this Checklist was achieved in 1992 as an official project at the Royal Botanic Gardens, Kew, with the collaboration of an international panel of advisers and collaborators. Funding assistance was provided by the CITES Plants Committee and the US Scientific Authority for CITES. The Checklist was widely circulated among amateur enthusiasts and nurserymen, as well as the Scientific Authorities for which it was mainly intended, and along with 2nd edition (1999) may be said to have restored a degree of nomenclatural stability within a framework recognizing less than half the number of genera accepted by Backeberg.

The first edition optimistically anticipated that the Checklist would provide the basis of a new manual of the Cactaceae by 1995 but it was not until the present century that overview treatments (Anderson 2001; Hunt et al. 2006), generated with the collaboration of members of the IOS working party (by then the International Cactaceae Systematics Group), were published. Broadly in line, as regards taxonomy and nomenclature, with the CITES Checklist, these have been widely utilized as the classificatory benchmark for regional, biogeographical, conservation-oriented, molecular systematic and other laboratory studies. The later of the two treatments, the *New Cactus Lexicon* (Hunt et al. 2006) was accompanied by a separate volume of illustrations featuring over 90% of the recognized species and serving as a useful adjunct to the reference data in the text volume. The text volume itself has been undergoing constant revision since its publication and it is planned to make it available electronically in due course.

[1.2] Arrangements for the preparation of a new edition.... [as before, updated]

[1.3] The new edition follows the general plan of the previous editions but the lists of genera and bibliography that formerly followed the main alphabetical listing of 'Names in Current Usage' are now appended to this preamble. The alphabetical listing of names of species, subspecies and synonyms that follows is now a summary of the *c.* 4500 entries of names and synonyms in the *New Cactus Lexicon*, to which they are linked by a 5-digit record number to the [projected] searchable pdf version of the *Lexicon* text volume. The list also includes the relevant page/plate numbers of the illustrations in the hardback *Lexicon* illustrations volume. The list of accepted taxa with synonymy etc formerly included in Part II of the Checklist will be superfluous as the data it comprises will be available for download from the *New Cactus Lexicon* text volume, but the listing of accepted taxa by countries that formed Part III in previous editions concludes the new Checklist, as before.

[2.] Computer aspects

Under this heading, details were given in the Preamble to the first edition of the Checklist of the hardware and software used in its preparation. An index of Cactaceae names was initially compiled in a 'flat' dBase III table from various reference works including *Index Kewensis* and additional entries sourced from the IOS publication *Repertorium Plantarum Succulentarum* or by the compiler and members of the panel of advisers. More recently, the IPNI website has been accessed on a regular basis for checking citations.

[3.] Compilation procedures

13.1] **Origination.** So far as possible, it is the aim of the *CITES Cactaceae Checklist* to reflect a consensus of informed current opinion on the classification and nomenclature to be employed. From 1984 onwards, meetings of the informal Working Party established under the auspices of the International Organization for Succulent Plant Study (IOS) were held at regular intervals, usually annually, to discuss research in progress on the Cactaceae and its bearing on the classification of the family. Reports of these meetings were published in the IOS Bulletin (1984–94), Bradleya (1986), Cactaceae Consensus Initiatives (1996–99). In 2000, the Working Party was renamed the International Cactaceae Systematics Group (ICSG) and its Bulletin 'Cactaceae Systematics Initiatives', where further meetings leading to the publication of the *New Cactus Lexicon* and the projected second edition have been reported.

For previous editions of this Checklist, numerous professional and amateur cactologists, acknowledged in the second edition as an international panel of advisers, were consulted during the compilation and revision of the list of taxa. For the second edition synonymized lists for individual countries were submitted to the principal specialists on the cactus flora of those countries.

Revision of the Checklist for this third edition has gone hand-in-hand with revision and updating of the original text of the *New Cactus Lexicon*. Apart from minor corrections and amendments, it has been mainly literature-based, supplemented by published and as yet unpublished results of fieldwork by the compiler and members of ICSG and others.

[3.2] List of genera and generic synonyms

This has been brought up to date in the light of changes in the generic list adopted in *New Cactus Lexicon* or further proposed below. The Bibliography has been extended to include various regional and taxonomic overviews that have become available since the first edition as well molecular systematic and other papers that potentially influence classification.

[3.3] *Cactaceae names in current usage*

[3.3.1–3]. The scope of the list of names in the first edition was explained in the Preamble to that edition (pp. 10–11). The list does not attempt to include all cactus names ever published at specific and subspecific (now approaching 15,000). It does attempt to include all names encountered as the *accepted* name of a taxon anywhere in the selected (‘benchmark’) bibliography. This ‘current usage’ requirement, effectively excludes many archaic synonyms and disused or inadmissible names that would otherwise clutter the list.

[3.3.4] The inclusion of names at subspecific rank in the second edition was a major change from the first. In recent times, however, the rank of subspecies has been increasingly proposed by collectors for variants cultivated from a single introduction. Names of subspecies (and the autonyms they generate) are not listed, however, if (a) the species as a whole is not an accepted taxon (unless the named subspecies is referred to a different species) or (b) division of the species at subspecific rank does not appear to be justified.

[3.3.5.] Synonymy at the species/subspecies level has been brought into line with changes in the generic list, current standard works and the views of reviewers. Where it has not been possible to resolve differences of opinion, the compiler has made a personal judgment. Combinations in genera not currently recognized or in conflict with current views on generic synonymy are not listed.

[3.3.6.] CITES Appendix I listings have been brought into line with changes formally approved by Conferences of the Parties (*see table, next page*).

[3.3.7.] In the first edition, **conservation ratings** according to the old IUCN categories were included in some of the country lists. For most countries these have yet to be reassessed according to the new IUCN Conservation Categories and for this reason they have been deleted throughout.

[4.2] **Disclaimer**

It must be stressed that the Checklist does not necessarily represent the views of reviewers, of the International Organization for Succulent Plant Study, its Executive Board or any individual contributor. The compiler accepts sole responsibility for the content of the Checklist and the taxonomic opinions implied, but gratefully acknowledges the invaluable assistance of the advisers and collaborators listed above and on p. 6.

Table / Tableau / Cuadro 1. Taxa controlled by the provisions of CITES Appendix I under their currently accepted names or any of their synonyms. Taxons soumis aux dispositions de l'Annexe I – noms actuellement acceptés ou synonymes. Taxa reglamentados por las disposiciones del Apéndice I de la CITES, según sus nombres aceptados normalmente o cualquiera de sus sinónimos.

- Ariocarpus** spp. (syn. *Neogomesia*, *Roseocactus*]
Astrophytum asterias (syn. *Echinocactus asterias*]
Aztekium ritteri
Coryphantha werdermannii (syn. *Mammillaria werdermannii*; *Coryphantha densispina*]
Discocactus spp.
Disocactus macdougallii (syn. *Lobeira macdougallii*, *Nopalxochia macdougallii*]
Echinocereus ferreirianus ssp. **lindsayi** (syn. *E. lindsayi*]
Echinocereus schmollii (syn. *Cereus schmollii*, *Wilcoxia schmollii*]
Escobaria minima (syn. *Coryphantha nellieae*, *Escobaria nellieae*]
Escobaria sneedii (syn. *Coryphantha sneedii*, *Escobaria sneedii* ssp. *leei*]
Mammillaria pectinifera (syn. *Solisia pectinata*]
Mammillaria solisioides
Melocactus conoideus
Melocactus deinacanthus
Melocactus glaucescens
Melocactus paucispinus
Obregonia denegrii
Pachycereus militaris (syn. *Backebergia militaris*, *Cephalocereus militaris*,
Mitrocereus militaris, *Pachycereus chrysomallus*]
Pediocactus bradyi (syn. *Pediocactus bradyi* ssp. *despainii*, *P. bradyi* ssp. *winkleri*, *P. despainii*, *P. winkleri*]
Pediocactus knowltonii
Pediocactus paradinei
Pediocactus peeblesianus (syn. *P. peeblesianus* var. *fickeisenii*, *Navajoa peeblesiana*,
Toumeyia peeblesiana, *Utahia peeblesiana*]
Pediocactus sileri (syn. *Echinocactus sileri*, *Utahia sileri*]
Pelecyphora spp. (syn. *Encephalocarpus*]
Sclerocactus brevihamatus ssp. **tobuschii** (syn. *Ancistrocactus tobuschii*, *Ferocactus tobuschii*]
Sclerocactus erectocentrus (syn. *Echinomastus erectocentrus*, *Neolloydia erectocentra*,
Echinomastus acunensis, *E. krausei*]
Sclerocactus glaucus (syn. *Ferocactus glaucus*, *S. brevispinus*, *S. wetlandicus*, *S. wetlandicus* ssp. *ilseae*]
Sclerocactus mariposensis (syn. *Echinocactus mariposensis*, *Echinomastus mariposensis*,
Neolloydia mariposensis]
Sclerocactus mesae-verdae (syn. *Coloradoa mesae-verdae*, *Echinocactus mesae-verdae*,
Ferocactus mesae-verdae, *Pediocactus mesae-verdae*]
Sclerocactus papyracanthus (syn. *Echinocactus papyracanthus*, *Mammillaria papyracantha*,
Pediocactus papyracanthus, *Toumeyia papyracantha*]
Sclerocactus pubispinus (syn. *Echinocactus pubispinus*, *Ferocactus pubispinus*]
Sclerocactus wrightiae (syn. *Pediocactus wrightiae*]
Strombocactus spp.
Turbincarpus spp. (syn. *Gymnocactus*, *Normanbokea*, *Rapicactus*]
Uebelmannia spp.

Proposed changes in classification from the previous edition
(provisional version; August 2015)

Changes in subfamilies Opuntioideae and Pereskioideae

The re-division of *Opuntia* already mentioned is the principal change in the catalogue of genera for this new edition of the Checklist ('CCC3' for short), compared with its predecessor. and is detailed along with other proposed changes at generic level below.

In essence, the 're-division' of *Opuntia*, the principal genus of Cactaceae subfamily Opuntioideae, in the light of the molecular systematic study by Wallace & Dickie (2002), and supported by vote of a meeting at the IOS Congress of 2002, was the acceptance as genera of various component groups already recognized and named at generic or infrageneric rank in more conservative treatments. In the first and second editions of the CITES Cactaceae Checklist, the subfamily Opuntioideae was represented by five groups at generic rank: *Opuntia*, *Pereskioipsis*, *Pterocactus*, *Quiabentia* and *Tacinga*. The eleven genera segregated from *Opuntia* in 2002 were *Austrocylindropuntia*, *Brasilopuntia*, *Consolia*, *Cumulopuntia*, *Cylindropuntia*, *Grusonia*, *Maihueniopsis*, *Miqueliopuntia*, *Nopalea*, *Tephrocactus*, *Tunilla* (bringing the total genera to 16). Subsequently, on molecular evidence, *Corynopuntia* was segregated from *Cylindropuntia* (but more recently included in *Grusonia*); *Nopalea* has been returned to *Opuntia* and a new monotypic genus *Punotia* proposed to avoid paraphyly in *Austrocylindropuntia*, so the net total remains at 16.

The subfamily Pereskioideae contains two genera only, *Pereskia* (17 spp.) and *Maihuenia* (2 spp.). Following molecular evidence, the division of *Pereskia* into two genera has been proposed but is not followed in the Checklist, where the lower rank of subgenus is preferred.

Changes in subfamily Cactoideae

Many of the molecular systematic studies published since CCC2 propose, favour or imply recognition of additional clade-based genera, to the point, in this subfamily, where a further period of nomenclatural instability is likely if wholesale changes are made without independent confirmation and critical discussion of the results, and in many cases wider sampling of taxa and markers. In any case, molecular evidence, by itself, does not dictate the rank at which taxa should be recognized, but the option of uniting genera to avoid paraphyly or utilizing conventional infrageneric ranks, as an alternative to splitting, is an option that has rarely been considered up to now. In the hope that a more conservative approach may prevail, serving the interests of nomenclatural stability, few 'substantive' changes will be made in this edition to the CCC2 list of genera in this subfamily:

Acanthocalycium (see 'Alternative' names, next page)

This small genus allied to *Echinopsis* was provisionally accepted in CCC2 but not in the *New Cactus Lexicon*. It was excluded from *Echinopsis s.l.* by Schlumpberger & Renner (2012) and grouped in a clade with the diverse monotypic genera *Denmoza* and *Setiechinopsis*. This places *Acanthocalycium* on a footing comparable with that of other small putative genera or subgenera that will continue to be listed under *Echinopsis* pending general acceptance of Schlumpberger & Renner's proposals.

Borzicactus Riccobono, Boll. R. Ort. Palermo 8: 261 (1909). Type: *B. ventimigliae* Riccobono. The IOS Working Party's decision to include this genus in *Cleistocactus* is now regarded an error, their similar pollination syndrome of the genera being a case of convergence mistaken for close affinity. The reinstated genus includes *Loxanthocereus* and *Seticereus* (already merged with *Borzicactus* by Kimmach 1960).

- Cephalocleistocactus* Ritter, Succulenta 1959: 108 (1959). Type: *C. chrysocephalus* Ritter. Taxa: 0+1. Distr.: Bolivia. → *Cleistocactus*. Provisionally accepted in CCC2 but not supported by Schlumberger & Renner's data, being 'nested' in their CLEISTOCACTUS clade.
- Cintia* Knize & Riha, Kaktusy 31(2): 35–39 (1996). Type: *C. knizei* Riha. Taxa: 1. Distr.: Bolivia. → *Rebutia* [subg. Weingartia]. A monotypic genus provisionally accepted in CCC2 but not supported by Ritz et al. (2007).
- Lymanbensonia** Kimmach, Cact. Succ. J. (US) 56: 101 (1984). Type: *L. micrantha* (Vaupel) Kimmach. Reinstated by Korotkova et al. (2011) for three species hitherto included in *Pfeiffera*: *P. micrantha* (type), *P. crenata* and *P. brevispina*, plus the previously misclassified *Lepismium incachacanum*.
- Pfeiffera** Salm-Dyck, Cact. Hort. Dyck. 1844: 40 (1845). Type: *P. cereiformis* Salm-Dyck (~ *P. ianthothele* (Monville) Weber). Included in *Lepismium* in previous editions, but molecular evidence has subsequently shown that the two genera are not closely related, and that *Pfeiffera* is closer to *Corryocactus* etc than to the Rhipsalideae (see Nyffeler 2000/CSI 10: 10–11). Species referable to *Lymanbensonia* are now excluded. Group status for the former genus *Acanthorhopsalis* is no longer necessary (Korotkova et al. 2011),
- Yavia** Piltz, Kakt. u.a. Sukk. 52(3): 57–62 (2001). Type: *Y. cryptocarpa* Kiesling & Piltz. Taxa 1. Distr.: Argentina. Referred to tribe Notocactae (Nyffeler & Eggl (2010).

'Alternative names'

To draw attention to proposed or potential changes in the catalogue of genera, without accepting them for the purpose of this edition of the Checklist (CCC3), **bold italic** print will also be used to indicate 'alternative' generic names proposed or reinstated by authors in the light of molecular or other evidence as well as provisionally accepted species etc. This convention will apply to about 25 generic names, mostly reinstated by Arias et al. (2005 etc; A+, A+T] for endemic Mexican genera, by Schlumberger & Renner (2012; S+R] in Tribe Trichocereae, or accepted by contributors to the treatment of the Cactaceae in volume 4 of the *Flora of North America* (2003; FNA), but not in the *New Cactus Lexicon* (NCL).

In the CCC3 alphabetical list and the updated version of the NCL text, names of recognized species referable to 'alternative' genera will be indicated by a two-letter abbreviation accompanying the currently preferred name.

Also in the CCC3 alphabetical list, where transfers of species from one recognized genus to another have been proposed on the basis of molecular evidence, and have been accepted in one or more regional or overview treatments, as for instance in the case of *Peniocereus* species transferred to *Acanthocereus* and *Stenocereus* species to *Pachycereus*, these will be indicated by the 'equivalent' symbol (≡).

Entries for taxa now with 'alternative' names, and other names whose status has changed since the first edition of the *New Cactus Lexicon* (2006) include page/no. references to the illustrations in the original 'Atlas' volume and the 'Illustrations' reprint (2013).

- Acanthocalycium** Backeberg in Backeberg & Knuth, Kaktus ABC, 224, 412 (1936). Type: *Echinocactus spiniflorus* Schumann. Distr.: Argentina. ~ *Echinopsis* [**Ac**] (see previous page]
- Ancistrocactus** Britton & Rose, Cact. 4: 3 (1923). Type: *Echinocactus megarhizus* Rose. ~ *Sclerocactus* [**An**]. Accepted by FNA as distinct from *Sclerocactus* but closer to *Ferocactus* (B+W); included in the FEROCACTUS clade by V+. → *Sclerocactus* [**An**]
- Aporocactus** Lemaire, Illustr. Hort. 7: Misc. 67 (1860). Type: *A. flagelliformis* (Linnaeus) Lemaire. ~ *Disocactus* [**Ap**]. Included in *Disocactus* by Barthlott (1991/Brdl. 9: 87) but

- excluded by A+T; a revision of *Disocactus* is in preparation. → *Disocactus* [Ap]
- Aylostera* Spegazzini, An. Soc. Cient. Argent. 96: 75 (1923). Type: *Echinopsis pseudominuscula* Spegazzini. ~ *Rebutia* subg. *Aylostera* (Speg.) Buining & Donald, Sukkulentkunde 7/8: 98, 101 (1963). [Ay]. One of three clades distinguished in *Rebutia* by Ritz et al. (2007).
- Backebergia* Bravo, An. Inst. Biol. Mex. 24: 230 (1953). Type: *Pilocereus chrysomallus* Lemaire. ~ *Pachycereus* [Ba]. Excluded from *Pachycereus* (and *Lophocereus*) by A+T
- Chamaecereus* Britton & Rose, Cact. 3: 48 (1922). Type: *Cereus silvestrii* Spegazzini. ~ → *Echinopsis* [Ch]. Excluded from *Echinopsis* and *Lobivia* by S+R.
- Cochemia* (K. Brandegee) Walton, Cactus Journal 2: 50 (1899). Type: *Mammillaria halei* K. Brandegee. ~ *Mammillaria* [Co]. Nested in the MAMMILLARIA clade (V+). Its present subgeneric position and circumscription is retained pending a consensus favouring either a broader or a narrower circumscription of the 'parent' genus.
- Corynopuntia* F. Knuth in Backeberg & Knuth, Kaktus ABC, 114, 410 (1936). Type: *Opuntia clavata* Engelmann. ~ *Grusonia* [Cr]. Accepted in NCL, following Griffith (2002/Hasl. 86–93), but included in *Grusonia sensu* Anderson (1999), in FNA and by Barcenas et al. (2004).
- Echinomastus* Britton & Rose, Cact. 3: 147 (1922). Type: *Echinocactus erectocentrus* J. Coulter. ~ *Sclerocactus* [Em]. Accepted by Zimmermann & Parfitt (2003) in their treatment for FNA, with the reservation that it 'is inferred to be a paraphyletic group, with some species (i.e. *E. johnsonii*) more closely related to *Sclerocactus* than to other members of *Echinomastus*.
- Isolatocereus* (Backeberg) Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 76 (1942). Type: *Cereus dumortieri* Scheidweiler. ~ *Stenocereus* [Is]. Accepted by Nyffeler & Egli 2010). The exclusion of the monotypic *Isolatocereus* from *Stenocereus* was supported by Gibson (1991) on morphological grounds but is not supported by molecular data (Arreola-Nava 2006).
- Lemaireocereus* Britton & Rose, Contr. US Nat. Herb. 12: 424 (1909). Type: *Cereus hollianus* Weber. ~ *Pachycereus* [Lm]. Excluded from *Pachycereus* by A+T.
- Leucosteles* Backeberg, Kakt. and. Sukk. 4: 40 (1953). Type: *L. rivierei* Backeberg. ~ *Echinopsis* [Ls] Accepted by S+R for a small clade including *E. atacamensis* and other Chilean species of *Echinopsis*.
- Leuenbergeria* Lodé, Cactus Aventures 97: 25–27 (2013). Type: *P. quisqueyana* Liogier. ~ *Pereskia* subg. *Leuenbergera* Rowley, Cact. Syst. Init. 32: 7 (2014). Type: *P. lychnidiflora* DC. [Le]. *Pereskia* is paraphyletic and the two major clades may deserve taxonomic recognition. (Rowley (CSI 32: 6–7. 2014). Species referable to the proposed segregate genus *Leuenbergeria* are indicated by the abbreviation '[Le]' after the name but in the absence of clear-cut distinctions Rowley's proposal to treat the clades as subgenera has the virtue of preserving nomenclatural stability.
- Lobivia* Britton & Rose, Cact. 3: 49 (1922). Type: *Echinocactus pentlandii* Hooker. ~ *Echinopsis* [Lo] Included in *Echinopsis* in previous editions but excluded from *Echinopsis s.l.* by S+R. This is the principal component of their LOBIVIA clade and restricted by them to numerous mainly small-growing species in Bolivia.
- Lophocereus* (Berger) Britton & Rose, Contr. US Nat. Herb. 12: 426 (1909). Type: *Cereus schottii* Engelmann. ~ *Pachycereus* [Lp]. Excluded from *Pachycereus* by A+T.
- Morangaya* Rowley, Ashingtonia 1: 44 (1974). Type: *Cereus pensilis* K. Brandegee. ~ *Echinocereus* [Mo]. Excluded from *Echinocereus* by V+.
- Nyctocereus* (Berger) Britton & Rose, Contr. US Nat. Herb. 12: 423 (1909). Type: *Cereus ser-*

- pentinus* (Lagasca & Rodriguez] De Candolle. ~ *Peniocereus* [Ny]. Currently included in *Peniocereus* but reinstated by A+T.
- Pseudomitrocereus*** Bravo & Buxbaum, Bot. Stud. 12: 49, 53 (1961). Type: *Pilocereus fulviceps* Weber. ~ *Cephalocereus* or *Neobuxbaumia* (not *Pachycereus*) [Pm]. *P. fulviceps*, the only species, is part of a polytomy with *Cephalocereus* and *Neobuxbaumia* so is misplaced in *Pachycereus* [A+T]
- Pterocereus*** MacDougall & Miranda, Ceiba 4: 135 (1954). Type: *Pterocereus foetidus* MacDougall & Miranda. ~ *Pachycereus* [Pt] Excluded from *Pachycereus* by [A+T]
- Rapicactus*** Buxbaum & Oehme, Cact. Jahrb. Deutsch. Kakt. Ges. 1942: 24 (1942). Type: *Rapicactus subterraneus* Buxbaum & Oehme. ~ *Turbinicarpus* [Ra]. A member of the LOPHOPHORA clade (V+) but hitherto included in the polyphyletic group *Turbinicarpus*
- Reicheocactus*** Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 76 (1942). Type: *R. pseudoreicheanus* Backeberg. ~ *Echinopsis* [Re]. Hitherto included in *Echinopsis* or *Lobivia* but found by S+R to occupy a basal position in the Trichocereae
- Setiechinopsis*** (Backeberg] De Haas, Succulenta 22: 9 (1940). Type: *Echinopsis mirabilis* Spegazzini. ~ *Echinopsis* [Se]. Monotypic. Accepted by S+R (DENMOZA clade]
- Soehrensia*** Backeberg, Blätt. Kakt.-Forsch. 1938(6): [21] (1938). Type: *Lobivia bruchii* Britton & Rose. ~ *Echinopsis* [So]. Accepted by S+R for numerous taxa previously included in *Lobivia* (*Helianthocereus*] and *Trichocereus*.
- Trichocereus*** (Berger] Riccobono, Boll. R. Ort. Palermo 8: 236 (1909). Type: *Cereus macrogonus* Otto. ~ *Echinopsis* group [Le], [So] and [Tr]
- According to S+R, the *Trichocereus* group *sensu* NCL includes three separate lineages. The neotypification of *Trichocereus* by Albesiano & Kiesling (2012), based on their application of the dubious name *Cereus macrogonus*, limits the generic name to *T. pachanoi* and its close relatives in Peru and Bolivia [Tr]. The more varied, mainly Argentine and partly day-flowering lineage becomes *Soehrensia* (including *Helianthocereus*) [So] and the mainly Chilean group, including the iconic Andean species *E. atacamensis* becomes *Leucostele* [Le] (see Schlumpberger 2012/CSI 28: 29–31). Pending general acceptance of this scheme, the species will continue to be listed alphabetically with their hypothetical lineage indicated by the relevant abbreviation.. ***Weingartia*** Werdermann, Kakteenkunde 1937: 20,21 (1937). Type: *Echinocactus fidanus* Backeberg. ~ *Rebutia* subg. *Weingartia* (Werderm.) Rowley, Cactus World 27(2): 89 (2009). [Wg]. One of three clades distinguished in *Rebutia* by Ritz et al. (2007).

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(to be updated]

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List of genera of Cactaceae and their principal synonyms

(to be further updated]

Notes: Names of genera currently accepted for the purpose of the Checklist are printed in **bold type**. ‘Alternative’ names (as defined on page10) are printed in **bold-italic** type. The currently preferred name of genera so treated (i.e. where the the relevant taxa are listed] is indicated at the end of the entry by the name of the preferred genus, preceded by a tilde (~). Synonyms are printed in *italic*, and the genera to which they are referred indicated after an arrow (→). The number of taxa quoted for each genus (‘Taxa:’) is the number of currently accepted species, plus (+) the total number of provisionally accepted species, heterotypic subspecies (both fully and provisionally accepted] and hybrids, if any. Total numbers of taxa are summarized in the [Summary Table on pp. .\[Not yet updated\]](#)

Acanthocalycium Backeberg in Backeberg & Knuth, *Kaktus ABC*, 224, 412 (1936). Type: *Echinocactus spiniflorus* Schumann. Taxa: 1+2. Distr.: Argentina. ~ *Echinopsis* [**Ac**]. This small genus allied to *Echinopsis* was provisionally accepted in CCC2 but not in the *New Cactus Lexicon*. It was excluded from *Echinopsis s.l.* by Schlumpberger & Renner (2012) and grouped in a clade with the diverse monotypic genera *Denmoza* and *Setiechinopsis*. This places *Acanthocalycium* on a footing comparable with that of other small putative genera or subgenera that will continue to be listed under *Echinopsis* pending general acceptance of Schlumpberger & Renner’s proposals.

Acanthocereus (Engelmann ex Berger] Britton & Rose, *Contr. US Nat. Herb.* 12: 432 (1909). Type: *Cereus baxaniensis* Karwinsky ex Pfeiffer. Taxa: 1+5. Distr.: Trop. America, Caribbean. Syn.: *Monvillea* Britton & Rose (1920), as to type.

Acantholobivia Backeberg, *Cact. Jahrb. Deutsch. Kakt. Ges.* 1941: 76 (1942). Type: *Lobivia tegeleriana* Backeberg. → *Echinopsis*

Acanthorhypsalis (Schumann] Britton & Rose, *Cact.* 4: 211 (1923). Type: *Rhipsalis monacantha* Grisebach. → Pfeiffera

Acanthorhypsalis Kimmach, *Cact. Succ. J. [US]* 55: 177 (1983), non (Schumann] Britton & Rose. Type: *Cereus micranthus* Vaupel. → *Lymanbensonia*

Akersia Buining, *Succulenta* 1961: 25 (1961). Type: *A. roseiflora* Buining. → *Borzicactus*

Ancistrocactus Britton & Rose, *Cact.* 4: 3 (1923). Type: *Echinocactus megarhizus* Rose. ~ *Sclerocactus* [**An**]. Accepted by FNA as distinct from *Sclerocactus* but closer to *Ferocactus* (B+W); included in the FEROCACTUS clade by V+. → *Sclerocactus* [**An**]

Anisocereus Backeberg, *Blätt. Kakt.-Forsch.* 1938(6): [8, 21] (1938). Type: *Cereus lepidanthus* Eichlam. → *Pachycereus*

Aporocactus Lemaire, *Illustr. Hort.* 7: Misc. 67 (1860). Type: *A. flagelliformis* (Linnaeus] Lemaire. ~ *Disocactus* [**Ap**]. Included in *Disocactus* by Barthlott (1991/Brdl. 9: 87) but excluded by A+T; a revision of *Disocactus* is in preparation.

Arequipa Britton & Rose, *Cact.* 3: 100 (1922). Type: *Echinocactus leucotrichus* Philippi. → *Oreocereus*

Arequipiopsis Kreuzinger & Buining, *Fedde’s Repert. Sp. Nov.* 50: 20 (1941). Type: *Echinopsis hempelianus* Gürke. → *Oreocereus*

Ariocarpus Scheidweiler, *Bull. Acad. Sci. Brux.* 5: 491 (1838). Type: *A. retusus* Scheidweiler. Taxa: 6+2. Distr.: SW USA (S Texas), N Mexico. Syn.: *Roseocactus* Berger (1925); *Neogomesia* Castañeda (1941). Ref.: Anderson (1960–64).

Armatocereus Backeberg, *Blätt. Kakt.-Forsch.* 1938(6): [21] (1938). Type: *A. laetus* (Kunth] Backeberg. Taxa: 10+5. Distr.: W South America.

Arrojadoa Britton & Rose, *Cact.* 2: 170 (1920). Type: *Cereus rhodanthus* Gürke. Taxa: 4+2. Distr.: E Brazil.

- Arthrocerus** Berger, Kakteen: 337 (1929), *nom. cons.*; F. Knuth, Den Nye Kaktusbog: 111 (1930). Type: Monatsschr. Kakt.-Kunde 28: illus. opp. p. 62 (1918), as '*Cereus damazioi*', *typ. cons.* (→ *A. glaziovii* (Schumann) Taylor & Zappi). Taxa: 4+2. Distr.: Brazil.
- Astrophytum** Lemaire, Cact. Gen. Nov. Sp. Hort. Monv., 3 (1839). Type: *A. myriostigma* Lemaire. Taxa: 4. Distr.: SW USA (S Texas), Mexico.
- Austroacetus** Britton & Rose, Cact. 3: 44 (1922). Type: *A. bertinii* (Cels) Britton & Rose. Taxa: 3+2. Distr.: S Argentina, S Chile.
- Austrocephalocereus* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [22] (1938). Type: *Cephalocereus purpureus* Gürke. Distr.: E Brazil. → *Micranthocereus*
- Austrocylindropuntia* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [3, 21] (1938). Type: *Opuntia exaltata* Berger. → *Opuntia*
- Aylostera** Spegazzini, An. Soc. Cient. Argent. 96: 75 (1923). Type: *Echinopsis pseudominuscula* Spegazzini. ~ *Rebutia* subg. *Aylostera* (Speg.) Buining & Donald, Sukkulentenkunde 7/8: 98, 101 (1963). [Ay]. One of three clades distinguished in *Rebutia* by Ritz et al. (2007).
- Aztekium** Bödeker, Monatsschr. Deutsch. Kakt. Ges. 1: 52 (1929). Type: *A. ritteri* Bödeker. Taxa: 2. Distr.: NE Mexico.
- Azureocereus* Akers & Johnson, Cact. Succ. J. (US) 21: 133 (1949). Type: *A. nobilis* Akers & Johnson. → *Browningia*
- Backebergia** Bravo, An. Inst. Biol. Mex. 24: 230 (1953). Type: *Pilocereus chrysomallus* Lemaire. ~ *Pachycereus* [Ba]. Excluded from *Pachycereus* (and *Lophocereus*) by A+T
- Bartschella* Britton & Rose, Cact. 4: 57 (1923). Type: *Mammillaria schumannii* Hildmann. → *Mammillaria*
- Bergerocactus** Britton & Rose, Contr. US Nat. Herb. 12: 435 (1909). Type: *B. emoryi* (Engelmann) Britton & Rose. Taxa: 1. Distr.: SW USA (S California), NW Mexico (NW Baja California).
- Binghamia* Britton & Rose, Cact. 2: 167 (1920). Type: *Cephalocereus melanostele* Vaupel. → *Epostoa*
- Bisnaga* Orcutt, Cactography, 1 (1926). Type: *Echinocactus cornigerus* De Candolle. → *Ferocactus*
- Blossfeldia** Werdermann, Kakteenkunde 1937: 162 (1937). Type: *B. liliputana* Werdermann. Taxa: 1. Distr.: N Argentina, Bolivia. ~ *Parodia*
- Boliviscereus* Cárdenas, Cact. Succ. J. (US) 23: 91 (1951). Type: *B. samaipatanus* Cárdenas. → *Cleistocactus*
- Bonifazia* Standley & Steyermark, Publ. Field Mus. Nat. Hist. bot. ser. 23: 66 (1944). Type: *B. quezalteca* Standley & Steyermark. → *Disocactus*
- Borzicactella* Ritter, Kakteen in Suedamerika 4: 1385 (1981). Type: *Cleistocactus tenuiserpens* Rauh & Backeberg. → *Cleistocactus*
- Borzicactus** Riccobono, Boll. R. Ort. Palermo 8: 261 (1909). Type: *B. ventimigliae* Riccobono. The IOS Working Party's decision to include this genus in *Cleistocactus* is now regarded an error, their similar pollination syndrome of the genera being a case of convergence mistaken for close affinity. The reinstated genus includes *Loxanthocereus* and *Seticereus* (already merged with *Borzicactus* by Kimmach 1960).
- Brachycalycium* Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 76 (1942). Type: *B. tilcarensis* (Backeberg) Backeberg. → *Gymnocalycium*
- Brachycereus** Britton & Rose, Cact. 2: 120 (1920). Type: *Cereus nesioticus* Schumann (LT: Backeberg 1959). Taxa: 1. Distr.: Ecuador (Galapagos Islands).
- Brasilicactus* Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 76 (1942). Type: *Echinocactus graessneri* Schumann. → *Parodia*
- Brasilicereus** Backeberg, Blätt. Kakt.-Forsch. 1938(6): [8, 22] (1938). Type: *Cereus phaeacanthus* Guerke. Taxa: 2. Distr.: Brazil.
- Brasiliopuntia* (Schumann) Berger, Entwicklungslinien Kakt., 17 (1926). Type: *Cactus*

- brasilienis* Willdenow. → *Opuntia*
- Brasiliparodia* Ritter, *Kakteen in Südamerika* 1: 144 (1979). Type: *Parodia buenekeri* Buining. → *Parodia*
- Bravocactus* Doweld, *Sukkulenty (Moscow)* 1998(1): 22 (1998). Type: *Bravocactus horripilus* (Lemaire) Doweld. → *Turbinicarpus*
- Browningia** Britton & Rose, *Cact.* 2: 63 (1920). Type: *B. candelaris* (Meyen) Britton & Rose. Taxa: 5+6. Distr.: W Paraguay, Bolivia, Peru, N Chile. Syn.: *Gymnanthocereus* Backeberg (1937); *Azurocereus* Akers & Johnson (1949); *Castellanosia* Cárdenas (1951); *Gymnocereus* Backeberg (1959).
- Buiningia* Buxbaum in Krainz, *Die Kakteen*, Lfg. 46–47 (1971). Type: *Buiningia brevicylindrica* Buining. → *Coleocephalocereus*
- Cactus* Linnaeus, *Species Plantarum*, 466 (1753). Type: *C. mammillaris* Linnaeus (see note). → *Mammillaria*
- Cactus* sensu Britton & Rose, *Cact.* 3: 220 (1922). → *Melocactus*
- Calymmanthium** Ritter, *Kakt. and. Sukk.* 13: 25 (1962). Type: *C. substerile* Ritter. Taxa: 1. Distr.: N Peru.
- Carnegia** Britton & Rose, *J. New York Bot. Gard.* 9: 187 (1908). Type: *C. gigantea* (Engelmann) Britton & Rose. Taxa: 1. Distr.: SW USA (Arizona), Mexico.
- Castellanosia* Cárdenas, *Cact. Succ. J. (US)* 23: 90 (1951). Type: *C. caineana* Cárdenas. → *Browningia*
- Cephalocereus** Pfeiffer, *Allg. Gartenz.* 6: 142 (1838). Type: *Cactus senilis* Haworth. Taxa: 3+2. Distr.: Mexico. Syn.: *Pilocereus* Lemaire (1839); *Haseltonia* Backeberg (1949); *Neodawsonia* Backeberg (1949).
- Cephalocleistocactus* Ritter, *Succulenta* 1959: 108 (1959). Type: *C. chrysocephalus* Ritter. Distr.: Bolivia. → *Cleistocactus*. Provisionally accepted in CCC2 but not supported by Schlumpberger & Renner's data, being 'nested' in their *CLEISTOCACTUS* clade.
- Cereus** Miller, *Gard. Dict. Abr. ed. 4*, [unpaged] (1754). Type: *C. hexagonus* (Linnaeus) Miller. Taxa: 23+16. Distr.: Caribbean, South America. Syn.: *Piptanthocereus* (Berger) Riccobono (1909); *Subpilocereus* Backeberg (1938); *Mirabella* Ritter (1979).
- Chamaecereus** Britton & Rose, *Cact.* 3: 48 (1922). Type: *Cereus silvestrii* Spegazzini. ~ → *Echinopsis* [Ch]. Excluded from *Echinopsis* and *Lobivia* by S+R.
- Chiapasia* Britton & Rose, *Cact.* 4: 203 (1923). Type: *Epiphyllum nelsonii* Rose. → *Disocactus*
- Chichipia* Backeberg in Marnier-Lapostolle, *Liste Cact.*, 12 (1950). Type: *Cereus chichipe* Gosselin. → *Polaskia*
- Chilita* Orcutt, *Cactography*, 2 (1926). Type: *Mammillaria grahamii* Engelmann. → *Mammillaria*
- Cintia* Knize & Riha, *Kaktusy* 31(2): 35–39 (1996). Type: *C. knizei* Riha. Taxa: 1. Distr.: Bolivia. → *Rebutia* [subg. Weingartia]. A monotypic genus provisionally accepted in CCC2 but not supported by Ritz et al. (2007).
- Cipocereus** Ritter, *Kakteen in Südamerika* 1: 54 (1979). Type: *Cipocereus pleurocarpus* Ritter. Taxa: 5+1. Distr.: Brazil (Minas Gerais). Syn.: *Floribunda* Ritter (1979).
- Cleistocactus** Lemaire, *Illustr. Hort.* 8: Misc. 35 (1861). Type: *Cereus baumannii* Lemaire. Taxa: 23+25. Distr.: W South America, S Brazil, N Argentina. Syn.: *Borzicactus* Riccobono (1909); *Loxanthocereus* Backeberg (1937); *Seticereus* Backeberg (1942); *Maritimocereus* Akers & Buining (1950); *Bolivocereus* Cárdenas (1951); *Akersia* Buining (1961); *Wintertia* Ritter (1962), non Murray; *Seticleistocactus* Backeberg (1963); *Winterocereus* Backeberg (1966); *Hildewintera* Ritter (1966); *Borzicactella* Ritter (1981).
- Cleistocana** Rowley, *Bradleya* 12: 5 (1994). (*Cleistocactus* 'Matucana'). Taxa: 1. Distr.: Peru.
- Cochemiea** (K. Brandegee) Walton, *Cactus Journal* 2: 50 (1899). Type: *Mammillaria halei* K. Brandegee. ~ *Mammillaria* [Co]. Nested in the *MAMMILLARIA* clade (V+). Its present sub-

- generic position and circumscription is retained pending a consensus favouring either a broader or a narrower circumscription of the 'parent' genus.
- Cochiseia* Earle, Saguaroiland Bull. no. 30: 61, 64–66 (1976). Type: *Cochiseia robbinsorum* Earle. → Escobaria
- Coleocephalocereus** Backeberg, Blätt. Kakt.-Forsch. 1938(6): [22] (1938). Type: *C. fluminensis* (Miquel) Backeberg. Taxa: 6+2. Distr.: E Brazil. Syn.: *Buiningia* Buxbaum (1971).
- Coloradoa* Boissevain & Davidson, Colorado Cacti, 54 (1940). Type: *C. mesae-verdae* Boissevain & Davidson. → Sclerocactus
- Consolea* Lemaire, Rev. Hort. 1862: 174 (1862). Type: *Opuntia rubescens* Salm-Dyck. → *Opuntia*
- Copiapo** Britton & Rose, Cact. 3: 85 (1922). Type: *C. marginata* (Salm-Dyck) Britton & Rose. Taxa: 20+9. Distr.: N Chile. Syn.: *Pilocopiapo* Ritter (1961).
- Corryocactus** Britton & Rose, Cact. 2: 66 (1920). Type: *C. brevistylus* (Schumann) Britton & Rose. Taxa: 12+23. Distr.: Bolivia, Peru, N Chile. Syn.: *Erdisia* Britton & Rose (1920).
- Corynopuntia** F. Knuth in Backeberg & Knuth, Kaktus ABC, 114, 410 (1936). Type: *Opuntia clavata* Engelm. ~ *Grusonia* [Cr]. Accepted in NCL, following Griffith (2002/Hasl. 86–93), but included in *Grusonia sensu* Anderson (1999), in FNA and by Barcenat et al. (2004).
- Coryphantha** (Engelmann) Lemaire, Les Cactées, 32 (1868). Type: *C. sulcata* (Engelmann) Britton & Rose (LT: Hunt & Benson 1976). Taxa: 41+16. Distr.: SW USA, Mexico. Syn.: *Lepidocoryphantha* Backeberg (1938); *Cumarinia* Buxbaum (1951).
- Cryptocereus* Alexander, Cact. Succ. J. (US) 22: 164 (1950). Type: *C. anthonyanus* Alexander. → *Selenicereus*
- Cullmannia* Distefano, Kakt. and. Sukk. 7: 8 (1956). Type: *Cereus viperinus* Weber. → *Peniocereus*
- Cumarinia* Buxbaum, Oesterr. Bot. Zeitschr. 98: 61 (1951). Type: *Coryphantha odorata* Bödeker. → *Coryphantha*
- Cumulopuntia* Ritter, Kakteen in Südamerika 2: 399 (1980). Type: *Opuntia ignescens* Vaupel. → *Opuntia*
- Cylindropuntia* (Engelmann) F. Knuth in Backeberg & Knuth, Kaktus ABC, 117 (1936). Type: *Opuntia imbricata* (Haworth) De Candolle. → *Opuntia*
- Deamia* Britton & Rose, Cact. 2: 212 (1920). Type: *Cereus testudo* Karwinsky ex Zuccarini. → *Selenicereus*
- Delaetia* Backeberg, Die Cact. 6: 3788 (1962). Type: *Delaetia woutersiana* Backeberg, *nom. inval.* → *Eriosyce*
- Dendrocereus** Britton & Rose, Cact. 2: 113 (1920). Type: *Cereus nudiflorus* Engelm. ex Sauvalle. Taxa: 1+1. Distr.: Cuba, Haiti. ~ *Acanthocereus*
- Denmoza** Britton & Rose, Cact. 3: 78 (1922). Type: *Echinocactus rhodacanthus* Salm-Dyck. Taxa: 1. Distr.: NW Argentina.
- Digitorebutia* Buining, Succulenta 22: 51 (1940). Type: *Rebutia haagei* Fric & Schelle. → *Rebutia*
- Discocactus** Pfeiffer, Allg. Gartenz. 5: 241 (1837). Type: *D. insignis* Pfeiffer. Taxa: 6+4. Distr.: E Bolivia, Brazil, N Paraguay.
- Disocactus** Lindley, Bot. Reg. 31: t. 9 (1845). Type: *D. biformis* (Lindley) Lindley. Taxa: 16. Distr.: S Mexico, Central America, Caribbean, N & W South America. Syn.: *Aporocactus* Lemaire (1860); *Wittia* Schumann (1903) non Pantocsek; *Heliocereus* (Berger) Britton & Rose (1909); *Mediocactus* Britton & Rose (1920), as to type; *Nopalxochia* Britton & Rose (1923); *Chiapasia* Britton & Rose (1923); *Lobeira* Alexander (1944); *Bonifazia* Standley & Steyermark (1944); *Pseudonopalxochia* Backeberg (1958); *Wittiocactus* Rauschert (1982).
- Dolichothele* (Schumann) Britton & Rose, Cact. 4: 61 (1923). Type: *Mammillaria longimamma* De Candolle. → *Mammillaria*

- Eccremocactus* Britton & Rose, Contr. US Nat. Herb. 16: 261 (1913). Type: *E. bradei* Britton & Rose. → *Weberocereus*
- Echinocactus** Link & Otto, Verh. Ver. Beförd. Gartenb. Preuss. Staaten, 420 (1827). Type: *E. platyacanthus* Link & Otto. Taxa: 6+1. Distr.: SW USA, Mexico. Syn.: *Homalocephala* Britton & Rose (1922); *Echinofossulocactus* Lawrence (1841) non Britton & Rose; *Emorycactus* Doweld (1996); *Meyerocactus* Doweld (1996).
- Echinocereus** Engelm in Wislizenus, Mem. Tour N. Mex., 91 (1848). Type: *E. viridiflorus* Engelm (LT: Britton & Rose). Taxa: 54+57. Distr.: SW USA, Mexico. Syn.: *Wilcoxia* Britton & Rose (1909); *Morangaya* Rowley (1974). Ref.: Taylor (1985, 1988, 1989, 1994). *Echinofossulocactus* Lawrence in Loudon, Gard. Mag. 17: 317 (1841). Type: *E. helophorus* (Lemaire) Lawrence (LT: Hunt 1980). → *Echinocactus*
- Echinofossulocactus* sensu Britton & Rose, Cact. 3: 109 (1922). Type: *E. coptonogonus* Lemaire (LT: Britton & Rose). → *Stenocactus*
- Echinomastus** Britton & Rose, Cact. 3: 147 (1922). Type: *Echinocactus erectocentrus* J. Coulter. ~ *Sclerocactus* [Em]. Accepted by Zimmermann & Parfitt (2003) in their treatment for FNA, with the reservation that it 'is inferred to be a paraphyletic group, with some species (i.e. *E. johnsonii*) more closely related to *Sclerocactus* than to other members of *Echinomastus*.
- Echinopsis** Zuccarini, Abh. Bayer. Akad. Wiss. München 2: 675 (1837). Type: *E. eyriesii* (Turpin) Zuccarini (LT: Britton & Rose 1922). Taxa: 61+85. Distr.: Bolivia, Peru, S Brazil, S South America. Syn.: *Trichocereus* (Berger) Riccobono (1909); *Chamaecereus* Britton & Rose (1922); *Lobivia* Britton & Rose (1922); *Soehrensia* Backeberg (1938); *Hymenorebutia* Fric ex Buining (1939); *Setiechinopsis* (Backeberg) De Haas (1940); *Acantholobivia* Backeberg (1942); *Pseudolobivia* (Backeberg) Backeberg (1942); *Reicheocactus* Backeberg (1942); *Helianthocereus* Backeberg (1949); *Neolobivia* Y. Ito, (1950); *Leucosteles* Backeberg (1953).
- Emorycactus* Doweld, Succulenta 75(6): 270 (1996). Type: *Echinocactus polycephalus* Engelm & Bigelow. → *Echinocactus*
- Encephalocarpus* Berger, Kakteen, 331, 332 (1929). Type: *Ariocarpus strobiliformis* Werdermann. → *Pelecypora*
- Eomaticana* Ritter, Kakt. and. Sukk. 16: 230 (1965). Type: *E. oreodoxa* Ritter. → *Maticana*
- Epiphyllanthus* Berger, Rep. Missouri Bot. Gard. 16: 84 (1905). Type: *Cereus obtusangulus* Schumann. → *Schlumbergera*
- Epiphyllopsis* (Berger) Backeberg & Knuth, Kaktus ABC, 158 (1936). Type: *Epiphyllum gaertneri* Schumann. → *Hatiora*
- Epiphyllum** Haworth, Syn. Pl. Succ., 197 (1812). Type: *E. phyllanthus* (Linnaeus) Haworth. Taxa: 8+11. Distr.: Trop. America, Caribbean. Syn.: *Phyllocactus* Link (1829).
- Epiphyllum* Pfeiffer, Enum. Cact., 123 (1837), non Haworth. Type: *Epiphyllum truncatum* Haworth. → *Schlumbergera*
- Epithelantha** Weber ex Britton & Rose, Cact. 3: 92 (1922). Type: *Mammillaria micromeris* Engelm. Taxa: 1+5. Distr.: SW USA (Texas), NE Mexico. → *Epithelantha*. Ref.: Glass & Foster (1978).
- Erdisia* Britton & Rose, Cact. 2: 104 (1920). Type: *Cereus squarrosus* Vaupel. → *Corryocactus*
- Eriocactus* Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 76 (1942). Type: *Echinocactus schumannianus* Nicolai. → *Parodia*
- Eriocephala* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [7,21] (1938), non *Eriocephalus* Linnaeus. → *Parodia*
- Eriocereus* Riccobono, Boll. R. Ort. Palermo 8: 238 (1909). Type: *Cereus gracilis* Miller. → *Harrisia*
- Eriosyce** Philippi, Anal. Univ. Chile 41: 721 (1872). Type: *Echinocactus sandillon* Gay (→

- Eriosyce aurata* (Pfeiffer) Backeberg; *E. ceratistes* sensu Britton & Rose. Taxa: 34+14. Distr.: Chile. Syn.: *Neoporteria* Britton & Rose (1922); *Islaya* Backeberg (1934); *Pyrrhocactus* Backeberg & Knuth (1936); *Horridocactus* Backeberg (1938); *Neochilenia* Backeberg ex Doelz (1942); *Thelocephala* Y. Ito (1957); *Rodentiophila* Backeberg (1959); *Delaetia* Backeberg (1962).
- Erythrorhipsalis* Berger, Monatsschr. Kakt. 30: 4 (1920). Type: *Rhipsalis pilocarpa* Loefgren. → *Rhipsalis*
- Escobaria** Britton & Rose, Cact. 4: 53 (1923). Type: *E. tuberculosa* (Engelmann) Britton & Rose. Taxa: 18+12. Distr.: W USA, N Mexico. Syn.: *Neobesseyia* Britton & Rose (1923); *Cochiseia* Earle (1976). Ref.: Taylor (1986).
- Escontria** Rose, Contr. US Nat. Herb. 10: 125 (1906). Type: *Cereus chiotilla* Weber. Taxa: 1. Distr.: Mexico.
- Espostoa** Britton & Rose, Cact. 2: 60 (1920). Type: *E. lanata* (Kunth) Britton & Rose. Taxa: 9+7. Distr.: W South America. Syn.: *Binghamia* Britton & Rose (1920); *Pseudoespostoa* Backeberg (1934); *Thrixanthocereus* Backeberg (1937); *Vatricania* Backeberg (1950).
- 'Espostocactus* Mottram, Contrib. New Class. Cact. Fam., 38 (1990). (*Cleistocactus* ' *Espostoa*). Taxa: 0+1. Distr.: Peru.
- Espositoopsis** Buxbaum, Krainz, Die Kakteen Lfg. 38–39 (1968). Type: *Cereus dybowskii* Roland-Gosselin. Taxa: 1. Distr.: E Brazil (Bahia). Syn.: *Gerocephalus* Ritter (1968).
- Eulychnia** Philippi, Florula Atacamensis, 23 (1860). Type: *E. breviflora* Philippi. Taxa: 5+2. Distr.: Chile, S Peru. Syn.: *Philippicereus* Backeberg (1942).
- Facheiroa** Britton & Rose, Cact. 2: 173 (1920). Type: *F. pubiflora* Britton & Rose. Taxa: 3+1. Distr.: Brazil. Syn.: *Zehntnerella* Britton & Rose (1920).
- Ferocactus** Britton & Rose, Cact. 3: 123 (1922). Type: *F. wislizeni* (Engelmann) Britton & Rose. Taxa: 23+16. Distr.: SW USA, Mexico. Syn.: *Bisnaga* Orcutt (1926). Ref.: Taylor (1984).
- Floribunda* Ritter, Kakteen in Südamerika 1: 58 (1979). Type: *Floribunda pusilliflora* Ritter. → *Cipocereus*
- Frailea** Britton & Rose, Cact. 3: 208 (1922). Type: *F. cataphracta* (Dams) Britton & Rose. Taxa: 11+14. Distr.: E Bolivia, S Brazil, Paraguay, Uruguay, N Argentina. ~ *Parodia*
- Geohintonia** Glass & Fitz Maurice, Cact. Suc. Mex. 37(1): 16–19 (1991). Type: *Geohintonia mexicana* Glass & Fitz Maurice. Taxa: 1. Distr.: NE Mexico.
- Gerocephalus* Ritter, Kakt. and. Sukk. 19: 156 (1968). Type: *Cereus dybowskii* Roland-Gosselin. → *Espositoopsis*
- Glandulicactus* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [10, 22] (1938). Type: *Echinocactus uncinatus* Galeotti. → *Sclerocactus*
- Grusonia* F. Reichenbach ex Britton & Rose, Cact. 1: 215 (1919). Type: *Cereus bradtiana* J. Coulter. → *Opuntia*
- Gymnanthocereus* Backeberg, Blätt. Kakt.-Forsch. 1937(7): Nachtr. 15 (1937). Type: *Cactus chlorocarpus* Kunth. → *Browningia*
- Gymnocactus* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [10, 22] (1938). Type: *Echinocactus saueri* Bödeker. → *Turbinicarpus*
- Gymnocalycium** Pfeiffer ex Mittler, Taschenbuch für Cactusliebhaber 2: 124 (1844) ('Gymnocalycium'); Pfeiffer, Abbild. Beschr. Cact. 2: (1845). Type: *G. denudatum* (Link & Otto) Pfeiffer (LT: Britton & Rose 1922). Taxa: 42+48. Distr.: Bolivia, S Brazil, S South America. Syn.: *Brachycalycium* Backeberg (1942).
- Gymnocereus* Backeberg, Die Cact. 2: 920 (1959). Type: *Cereus microspermus* Werdermann & Backeberg. → *Browningia*
- Haageocereus** Backeberg, Blätt. Kakt.-Forsch. 1934(6): [1] (1934). Type: *H. pseudomelanostele* (Werdermann & Backeberg) Backeberg. Taxa: 13+12. Distr.: Bolivia, Peru, N Chile. Syn.: *Peruvocereus* Akers (1947).

- 'Haagespostoa* Rowley, Nat. Cact. Succ. J. 37(3): 76 (1982). (*Espostoa* ' *Haageocereus*). Taxa: 0+2. Distr.: Peru.
- Hamatocactus* Britton & Rose, Cact. 3: 104 (1922). Type: *Echinocactus setispinus* Engelmann. → *Thelocactus*
- Harrisia** Britton, Bull. Torrey Bot. Club 35: 561 (1908). Type: *H. gracilis* (Miller] Britton. Taxa: 14+7. Distr.: SE USA (Florida), Caribbean, Brazil, Bolivia, Paraguay, Uruguay, Argentina. Syn.: *Eriocereus* Riccobono (1909); *Roseocereus* Backeberg (1938).
- Haseltonia* Backeberg, Blätt. Sukk.-Kunde 1: 3 (1949). Type: *Pilocereus hoppenstedtii* Weber. → *Cephalocereus*
- Hatiora** Britton & Rose in Bailey, Standard Cycl. Hort. 3: 1432 (1915). Type: *Rhipsalis salicornioides* Haworth. Taxa: 5+2. Distr.: NE to S Brazil. Syn.: *Rhipsalidopsis* Britton & Rose (1923); *Epiphyllopsis* Backeberg & Knuth (1936); *Pseudozygocactus* Backeberg (1938). Ref.: Barthlott (1987), Barthlott & Taylor (1995).
- Heliabravoa* Backeberg, Cact. Succ. J. Gt. Brit. 18: 23 (1956). Type: *Cereus chende* Roland-Gosselin. → *Polaskia*
- Helianthocereus* Backeberg, Cact. Succ. J. Gt. Brit. 11: 53 (1949). Type: *Trichocereus poco* Backeberg. → *Echinopsis*
- Heliocereus* (Berger] Britton & Rose, Contr. US Nat. Herb. 12: 433 (1909). Type: *Cactus speciosus* Cavanilles. Distr.: Mexico, Guatemala. → *Disocactus*
- Hertrichocereus* Backeberg, Cact. Succ. J. (US) 22: 153 (1950). Type: *Cereus beneckeii* Ehrenberg. → *Stenocereus*
- Hildewintera* Ritter, Kakt. and. Sukk. 17: 11 (1966). Type: *Winteria auresipina* Ritter. → *Cleistocactus*
- Homalocephala* Britton & Rose, Cact. 3: 181 (1922). Type: *Echinocactus texensis* Hopffer. → *Echinocactus*
- Horridocactus* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [7] (1938). Type: *Cactus horridus* Colla. → *Eriosyce*
- Hylocereus** (Berger] Britton & Rose, Contr. US Nat. Herb. 12: 428 (1909). Type: *H. triangularis* (Linnaeus] Britton & Rose. Taxa: 11+7. Distr.: Mexico, Central and N South America, Caribbean. Syn.: *Wilmattea* Britton & Rose (1920).
- Hymenorebutia* Fric ex Buining, Succulenta 21: 101 (1939). Type: *H. kreuzingeri* Fric ex Buining. → *Echinopsis*
- Islaya* Backeberg, Blätt. Kakt.-Forsch. 1934(10): [3] (1934). Type: *Islaya minor* Backeberg. → *Eriosyce*
- Isolatocereus** (Backeberg] Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 76 (1942). Type: *Cereus dumortieri* Scheidweiler. ~ *Stenocereus* [Is]. Accepted by Nyffeler & Eggli 2010). The exclusion of the monotypic *Isolatocereus* from *Stenocereus* was supported by Gibson (1991) on morphological grounds but is not supported by molecular data (Arreola-Nava 2006).
- Jasminocereus** Britton & Rose, Cact. 2: 146 (1920). Type: *J. galapagensis* (F.A.C. Weber] Britton & Rose (→ *J. thouarsii* (Weber] Backeberg). Taxa: 1. Distr.: Ecuador (Galapagos Is.). Ref.: Wiggins & Porter, Fl. Galapagos Is. 534–537 (1971).
- Kadenicarpus* Doweld, Sukkulenty (Moscow] 1998(1): 22 (1998). Type: *Kadenicarpus pseudomacroechele* (Backeberg] Doweld. → *Turbinicarpus*
- Krainzia* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [11, 21] (1938). Type: *Neomammillaria longiflora* Britton & Rose. → *Mammillaria*
- Lasiocereus** Ritter, Succulenta 48(8): (1966). Type: *Lasiocereus rupicola* Ritter. Taxa: 2. Distr.: Peru. ~ *Haageocereus*?
- Lemaireocereus** Britton & Rose, Contr. US Nat. Herb. 12: 424 (1909). Type: *Cereus hollianus* Weber. ~ *Pachycereus* [Lm]. Excluded from *Pachycereus* by A+T.
- Leocereus** Britton & Rose, Cact. 2: 108 (1920). Type: *L. bahiensis* Britton & Rose. Taxa: 1.

Distr.: E Brazil.

- Lepidocoryphantha* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [10, 22] (1938). Type: *Mammillaria macromeris* Engelmann. → *Coryphantha*
- Lepismium** Pfeiffer, Allg. Gartenz. 3: 315 (1835). Type: *L. commune* Pfeiffer (LT: Britton & Rose). Taxa: 14+1. Distr.: Brazil, Paraguay, Peru, Bolivia, Uruguay, Argentina. Syn.: *Pfeiffera* Salm-Dyck (1845); *Acanthorhypsalis* (Schumann) Britton & Rose (1923); *Acanthorhypsalis* Kimmach (1983); *Lymanbensonia* Kimmach (1984). Ref.: Barthlott (1987), Barthlott & Taylor (1995).
- Leptocereus** (Berger) Britton & Rose, Contr. US Nat. Herb. 12: 433 (1909). Type: *L. assurgens* (Grisebach) Britton & Rose. Taxa: 4+11. Distr.: Caribbean. Syn.: *Neoabbottia* Britton & Rose (1921).
- Leptocladodia* Buxbaum, Oesterr. Bot. Zeitschr. 101: 601 (1954). Type: *Mammillaria elongata* De Candolle. → *Mammillaria*
- Leuchtenbergia** Hooker, Curtis's Bot. Mag. 74: t.4393 (1848). Type: *L. principis* Hooker. Taxa: 1. Distr.: N Mexico.
- Leucosteles** Backeberg, Kakt. and. Sukk. 4: 40 (1953). Type: *L. rivierei* Backeberg. ~ *Echinopsis* [Ls] Accepted by S+R for a small clade including *E. atacemensis* and other Chilean species of *Echinopsis*.
- Leuenbergeria** Lodé, Cactus Aventures 97: 25–27 (2013). Type: *P. quisqueyana* Liogier. ~ *Pereskia* subg. *Leuenbergera* Rowley, Cact. Syst. Init. 32: 7 (2014). Type: *P. lychnidiflora* DC. [Le]. *Pereskia* is paraphyletic and the two major clades may deserve taxonomic recognition. (Rowley (CSI 32: 6–7. 2014). Species referable to the proposed segregate genus *Leuenbergeria* are indicated by the abbreviation '[Le]' after the name but in the absence of clear-cut distinctions Rowley's proposal to treat the clades as subgenera has the virtue of preserving nomenclatural stability.
- Lobeira* Alexander, Cact. Succ. J. (US) 16: 177 (1944). Type: *L. macdougallii* Alexander. → *Disocactus*
- Lobivia** Britton & Rose, Cact. 3: 49 (1922). Type: *Echinocactus pentlandii* Hooker. ~ *Echinopsis* [Lo] Included in *Echinopsis* in previous editions but excluded from *Echinopsis s.l.* by S+R. This is the principal component of their LOBIVIA clade and restricted by them to numerous mainly small-growing species in Bolivia.
- Lophocereus** (Berger) Britton & Rose, Contr. US Nat. Herb. 12: 426 (1909). Type: *Cereus schottii* Engelmann. ~ *Pachycereus* [Lp]. Excluded from *Pachycereus* by A+T.
- Lophophora** J. Coulter, Contr. US Nat. Herb. 3: 131 (1894). Type: *L. williamsii* (Lemaire) J. Coulter. Taxa: 2. Distr.: SW USA (S Texas), N Mexico.
- Loxanthocereus* Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1937: 24 (1937). Type: *Cereus acanthurus* Vaupel. → *Borzicactus*
- Lymanbensonia** Kimmach, Cact. Succ. J. (US) 56: 101 (1984). Type: *L. micrantha* (Vaupel) Kimmach. Reinstated by Korotkova et al. (2011) for three species hitherto included in *Pfeiffera*: *P. micrantha* (type), *P. crenata* and *P. brevispina*, plus the previously misclassified *Lepismium incachacanum*.
- Machaerocereus* Britton & Rose, Cact. 2: 114 (1920). Type: *Cereus eruca* Brandegee. → *Stenocereus*
- Maihuenia** (Philippi ex F.A.C. Weber) Schumann, Gesamtb. Kakt., 754 (1898). Type: *Opuntia poepigii* Otto ex Pfeiffer (LT). Taxa: 2. Distr.: Argentina and Chile. Ref.: Leuenberger (1997).
- Maihueniopsis** Spegazzini, An. Soc. Sci. Argent. 99: 86 (1925). Type: *Maihueniopsis molfinoi* Spegazzini. Taxa:
- Malacocarpus* Salm-Dyck, Cact. Hort. Dyck. 1849: 24, 141 (1850), non Fischer & Meyer. Type: *Echinocactus corynodes* Pfeiffer. → *Parodia*
- Mamillopsis* Morren ex Britton & Rose, Cact. 4: 19 (1923). Type: *Mammillaria senilis* Lod-

diges. → *Mammillaria*

- Mammillaria** Haworth, Syn. Pl. Succ., 177 (1812), *nom. cons.* Type: *M. simplex* Haworth (→ *Cactus mammillaris* Linnaeus; *M. mammillaria* (Linnaeus) Karsten). Taxa: 145+119. Distr.: SW USA, Mexico, Central America, Caribbean, Colombia, Venezuela. Syn.: *Cactus* Linnaeus (1753); *Cochemiea* (K. Brandegee) Walton (1899); *Bartschella* Britton & Rose (1923); *Dolichothele* (Schumann) Britton & Rose (1923); *Mamillopsis* Morren ex Britton & Rose (1923); *Phellosperma* Britton & Rose (1923); *Solisia* Britton & Rose (1923); *Neomammillaria* Britton & Rose (1923); *Porfiria* Bödeker (1926); *Chilita* Orcutt (1926); *Krainzia* Backeberg (1938); *Oehmea* Buxbaum (1951); *Pseudomammillaria* Buxbaum (1951); *Leptocladodia* Buxbaum (1954). Ref.: Hunt (1983–87, 1989–92, 1996–97).
- Mammilloidia** Buxbaum, Bot. Stud. 12: 64,65 (1951). Type: *Mammillaria candida* Scheidweiler. Taxa: 1. Distr.: N Mexico. → *Mammillaria*
- Marenopuntia* Backeberg, Desert Plant Life 22(3): 27 (1950). Type: *Opuntia marenae* Parsons. → *Opuntia*
- Marginatocereus* (Backeberg) Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 77 (1942). Type: *Cereus marginatus* De Candolle. → *Pachycereus*
- Maritimocereus* Akers & Buining, Succulenta 1950: 49 (1950). Type: *M. gracilis* Akers & Buining. → *Cleistocactus*
- Marniera* Backeberg, Cact. Succ. J. (US) 22: 153 (1950). Type: *Phyllocactus macropterus* Lemaire. → *Selenicereus*
- Marshallocereus* Backeberg, Cact. Succ. J. (US) 22: 154 (1950). Type: *Cereus aragonii* Weber. → *Pachycereus*
- Matucana** Britton & Rose, Cact. 3: 102 (1922). Type: *Echinocactus haynei* Otto. Taxa: 15+6. Distr.: Peru. Syn.: *Submatucana* Backeberg (1959); *Eomatuca* Ritter (1965). Ref.: Bregman et al. (1986–90); Bregman (1996).
- Mediocactus* Britton & Rose, Cact. 2: 210 (1920). Type: *Cereus coccineus* Salm-Dyck (→ *Disocactus*; cf. Hunt 1989); *Mediocactus* sensu Britton & Rose. → *Selenicereus*
- Mediobolivia* Backeberg, Blätt. Kakt.-Forsch. 1934(2): [3] (1934). Type: *Rebutia aureiflora* Backeberg. → *Rebutia*
- Melocactus** Link & Otto, Verh. Ver. Beförd. Gartenb. Preuss. Staaten, 417 (1827), *nom. cons.* Type: *Cactus melocactus* Linnaeus (= *M. caroli-linnaei* Taylor). Taxa: 29+16. Distr.: Mexico, Central America, Caribbean, N & W South America, E Brazil. Syn.: *Cactus* sensu Britton & Rose (1922). Ref.: Taylor (1991).
- Meyerocactus* Doweld, Succulenta 75(6): 271 (1996). Type: *Echinocactus horizonthalonius* Lemaire. → *Echinocactus*
- Micranthocereus** Backeberg, Blätt. Kakt.-Forsch. 1938(6): [22] (1938). Type: *Cereus polyanthus* Werdermann. Taxa: 9. Distr.: E Brazil. Syn.: *Austrocephalocereus* Backeberg (1938); *Siccobaccatus* Braun & Esteves (1990).
- Mila** Britton & Rose, Cact. 3: 211 (1922). Type: *M. caespitosa* Britton & Rose. Taxa: 1+3. Distr.: Peru. Ref.: Donald (1978).
- Mirabella* Ritter, Kakteen in Südamerika 1: 108 (1979). Type: *Acanthocereus albicaulis* Britton & Rose. → *Cereus*
- Mitrocereus* (Backeberg) Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 77 (1942). Type: *Pilocereus chrysomallus* Lemaire. → *Pachycereus*
- Monvillea* Britton & Rose, Cact. 2: 21 (1920). Type: *M. cavendishii* (Monville) Britton & Rose (→ *Acanthocereus*); *Monvillea* sensu Britton & Rose → *Praecereus*
- Morangaya** Rowley, Ashingtonia 1: 44 (1974). Type: *Cereus pensilis* K. Brandegee. ~ *Echinocereus* [Mo]. Excluded from *Echinocereus* by V+.
- Morawetzia* Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1936: 73 (1936). Type: *M. doelziana* Backeberg. → *Oreocereus*
- Myrtgerocactus* Moran, Cact. Succ. J. (US) 34: 186 (1962). (*Bergerocactus* 'Myrtillocactus').

Taxa: 1. Distr.: Mexico (Baja California).

- Myrtillocactus** Console, Boll. R. Ort. Bot. Palermo 1: 8 (1897). Type: *M. geometrizans* (Martius) Console. Taxa: 4. Distr.: Mexico.
- Navajoa* Croizat, Cact. Succ. J. (US) 15: 89 (1943). Type: *Navajoa peeblesiana* Croizat. → Pediocactus
- Neobabbottia* Britton & Rose, Smiths. Misc. Coll. 72: 2 (1921). Type: *Cactus paniculatus* Lamarck. → Leptocereus
- Neobesseya* Britton & Rose, Cact. 4: 51 (1923). Type: *Mammillaria missouriensis* Sweet. → Escobaria
- Neobinghamia* Backeberg, Cact. Succ. J. (US) 22(5): 154 (1950), gen. hybr. Type: *Binghamia climaxantha* Werdermann. → Haagespostoa
- Neobuxbaumia** Backeberg, Blätt. Kakt.-Forsch. 1938(6): [8,21] (1938). Type: *Pilocereus tetetzo* Weber. Taxa: 9. Distr.: Mexico. Syn.: *Rooksbya* (Backeberg) Backeberg (1959).
- Neocardenasia* Backeberg, Blätt. Sukk.-Kunde 1: 2 (1949). Type: *Neocardenasia herzogiana* Backeberg. → Neoraimondia
- Neochilenia* Backeberg ex Doelz, Fedde's Repert. Sp. Nov. 51: 60 (1942). Type: *Echinocactus jussieu* Monville. → Eriosyce
- Neodawsonia* Backeberg, Blätt. Sukk.-Kunde 1: 4 (1949). Type: *Cephalocereus apicicephalum* Dawson. → Cephalocereus
- Neovansia* Marshall in Marshall & Bock, Cactaceae, 84 (1941). Type: *Cereus diguetii* Weber. → Peniocereus
- Neogomesia* Castañeda, Cact. Succ. J. (US) 13: 98 (1941). Type: *N. agavoides* Castañeda. → Ariocarpus
- Neolloydia** Britton & Rose, Bull. Torrey Bot. Club 49: 251 (1922). Type: *N. conoidea* (De Candolle) Britton & Rose. Taxa: 1+1. Distr.: SW USA (S Texas), N Mexico. Ref.: Anderson (1986).
- Neolobivia* (Backeberg) Y. Ito, Bull. Takarazuka Insectarium 71: 18 (1950). → Echinopsis
- Neomammillaria* Britton & Rose, Cact. 4: 65 (1923). Type: *Mammillaria simplex* Haworth. → Mammillaria
- Neoporteria* Britton & Rose, Cact. 3: 94 (1922). Type: *N. subgibbosa* (Haworth) Britton & Rose. Distr.: S Peru, NW Argentina, Chile. → Eriosyce
- Neoraimondia** Britton & Rose, Cact. 2: 181 (1920). Type: *N. macrostibas* (Schumann) Britton & Rose. Taxa: 2+1. Distr.: Bolivia, Peru. Syn.: *Neocardenasia* Backeberg (1949).
- Neowerdermannia** Fric, Kaktusar 1(11): 85 (1930). Type: *N. vorwerkii* Fric. Taxa: 2+1. Distr.: Bolivia, N Argentina, N Chile.
- Nopalea* Salm-Dyck, Cact. Hort. Dyck. 1849: 63,233 (1850). Type: *Cactus cochenillifer* Linnaeus. → Opuntia
- Nopalxochia* Britton & Rose, Cact. 4: 204 (1923). Type: *Cactus phyllanthoides* De Candolle. → Disocactus
- Normanbokea* Kladiwa & Buxbaum, in Krainz, Die Kakteen Lfg. 40–41 (1969). Type: *Pelecyphora valdeziana* Moeller. → Turbinicarpus
- Notocactus* (Schumann) Fric, Price list for 1928 [unpaged] (1928). → Parodia
- Nyctocereus** (Berger) Britton & Rose, Contr. US Nat. Herb. 12: 423 (1909). Type: *Cereus serpentinus* (Lagasca & Rodriguez) De Candolle. ~ Peniocereus [Ny]. Currently included in *Peniocereus* but reinstated by A+T.
- Obregonia** Fric, Zivot v Prirode 29(2): 1–4 (1925). Type: *O. denegrii* Fric. Taxa: 1. Distr.: NE Mexico.
- Oehmea* Buxbaum, Sukkulentenkunde 4: 17 (1951). Type: *Neomammillaria nelsonii* Britton & Rose. → Mammillaria
- Opuntia** Miller, Gard. Dict. Abr. ed. 4, [] (1754). Type: *Cactus opuntia* Linnaeus (LT: Britton & Brown 1913). Taxa: 161+195. Distr.: S Canada, USA, Mexico, Caribbean, Central &

- South America. Syn.: *Nopalea* Salm-Dyck (1850); *Consolea* Lemaire (1862); *Tephrocactus* Lemaire (1868); *Grusonia* F. Reichenbach ex Britton & Rose (1919); *Maihueniopsis* Spegazzini (1925); *Brasiliopuntia* (Schumann) Berger (1926); *Cylindropuntia* (Engelmann) F. Knuth (1936); *Corynopuntia* F. Knuth (1936); *Austrocylindropuntia* Backeberg (1938); *Marenopuntia* Backeberg (1950); *Platyopuntia* (Engelmann) Ritter (1979); *Cumulopuntia* Ritter (1980); *Puna* Kiesling (1982).
- Oreocereus** (Berger] Riccobono, Boll. R. Ort. Palermo 8: 258 (1909). Type: *O. celsianus* (Lemaire) Riccobono. Taxa: 5+4. Distr.: Bolivia, Peru, NW Argentina, N Chile. Syn.: *Arequipa* Britton & Rose (1922); *Morawetzia* Backeberg (1936); *Arequipiopsis* Kreuzinger & Buining (1941).
- Oroya** Britton & Rose, Cact. 3: 102 (1922). Type: *Echinocactus peruvianus* Schumann. Taxa: 1+1. Distr.: Peru.
- Ortegocactus** Alexander, Cact. Succ. J. (US) 33: 39 (1961). Type: *Ortegocactus macdougallii* Alexander. Taxa: 1. Distr.: S Mexico.
- 'Pacherocactus** Rowley, Nat. Cact. Succ. J. 37(3): 78 (1982). (*Bergerocactus* ' *Pachycereus*). Taxa: 1. Distr.: Mexico (Baja California).
- Pachycereus** (Berger] Britton & Rose, Contr. US Nat. Herb. 12: 420 (1909). Type: *P. pringlei* (S. Watson] Britton & Rose. Taxa: 12. Distr.: SW USA (S Arizona), Mexico, Guatemala, Honduras. Syn.: *Lemaireocereus* Britton & Rose (1909); *Lophocereus* (Berger] Britton & Rose (1909); *Anisocereus* Backeberg (1938); *Marginatocereus* (Backeberg] Backeberg (1942); *Mitrocereus* (Backeberg] Backeberg (1942); *Backebergia* Bravo (1953); *Pterocereus* MacDougall & Miranda (1954); *Pseudomitrocereus* Bravo & Buxbaum (1961).
- Parodia** Spegazzini, An. Soc. Cient. Argent. 96: 70 (1923). Type: *P. microsperma* (F.A.C. Weber] Spegazzini. Taxa: 60+29. Distr.: Brazil, Paraguay, Bolivia, Uruguay, Argentina. Syn.: *Malacocarpus* Salm-Dyck (1850) non Fischer & Meyer; *Notocactus* (Schumann] Fric (1928); *Eriocephala* Backeberg (1938); *Brasilicactus* Backeberg (1942); *Eriocactus* Backeberg (1942); *Wigginsia* D.M. Porter (1964); *Brasiliparodia* Ritter (1979).
- Pediocactus** Britton & Rose, Britton & Brown, Ill. Fl. ed. 2, 2: 569 (1913). Type: *P. simpsonii* (Engelmann] Britton & Rose. Taxa: 6+10. Distr.: SW USA. Syn.: *Utahia* Britton & Rose (1922); *Navajoa* Croizat (1943); *Pilocanthus* B.W. Benson & Backeberg (1957).
- Pelecyphora** Ehrenberg, Bot. Zeit. 1: 737 (1843). Type: *P. aselliformis* Ehrenberg. Taxa: 2. Distr.: N Mexico. Syn.: *Encephalocarpus* Berger (1929).
- Peniocereus** (Berger] Britton & Rose, Contr. US Nat. Herb. 12: 428 (1909). Type: *P. greggii* (Engelmann] Britton & Rose. Taxa: 13+5. Distr.: SW USA, Mexico and Central America. Syn.: *Nyctocereus* (Berger] Britton & Rose (1909); *Neoevansia* Marshall (1941); *Cullmannia* Distefano (1956). Ref.: Sánchez-Mejorada (1974).
- Pereskia** Miller, Gard. Dict. Abr. ed. 4, [unpaged] (1754). Type: *P. aculeata* Miller. Taxa: 16+3. Distr.: S Mexico, Cent. America, Caribbean, trop. South America. Syn.: *Rhodocactus* (Berger] F. Knuth (1936). Ref.: Leuenberger (1986).
- Pereskioopsis** Britton & Rose, Smiths. Misc. Coll. 50: 331 (1907). Type: *P. porteri* (K. Brandege] Britton & Rose. Taxa: 6+1. Distr.: Mexico, Guatemala.
- Peruvocereus* Akers, Cact. Succ. J. (US) 19: 67 (1947). Type: *Peruvocereus salmonoideus* Akers. → Haageocereus
- Pfeiffera** Salm-Dyck, Cact. Hort. Dyck. 1844: 40 (1845). Type: *P. cereiformis* Salm-Dyck (~ *P. ianthothele* (Monville] Weber). Included in *Lepismium* in previous editions, but molecular evidence has subsequently shown that the two genera are not closely related, and that *Pfeiffera* is closer to *Corryocactus* etc than to the Rhipsalideae (see Nyffeler 2000/CSI 10: 10–11). Species referable to *Lymanbensonia* are now excluded. Group status for the former genus *Acanthorhipsalis* is no longer necessary (Korotkova et al. 2011),
- Phellosperma* Britton & Rose, Cact. 4: 60 (1923). Type: *Mammillaria tetrancistra* Engelmann. → Mammillaria

- Philippicereus* Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 75 (1942). Type: *Cereus castaneus* Schumann. → *Eulychnia*
- Phyllocactus* Link, Handb. Erkenn. Gewächse 2: 10 (1829). Type: *Cactus phyllanthus* Linnaeus. → *Epiphyllum*
- Pierrebraunia* Esteves Pereira, Cact. Succ. J. (US) 69: 296–302 (1997). Type: *Pierrebraunia bahiensis* (Braun & Esteves Pereira) Esteves Pereira. → Arrojadoa
- Pilocanthus* B.W. Benson & Backeberg, Kakt. and. Sukk. 8: 187 (1957). Type: *Pediocactus paradinei* B.W. Benson. → *Pediocactus*
- Pilocereus* Lemaire, Cact. Gen. Nov. Sp. Hort. Monv., 6 (1839). Type: *Cereus senilis* Haworth. → *Cephalocereus*
- Pilocereus* Schumann, Engler & Prantl, Nat. Pflanzenfam. 3, 6A: 179 (1894), non Lemaire. Type: *Pilocereus leucocephalus* Lemaire. → *Pilosocereus*
- Pilocopiapoa* Ritter, Kakt. and. Sukk. 13: 20 (1961). Type: *Pilocopiapoa solaris* Ritter. → *Copiapoa*
- Pilosocereus** Byles & Rowley, Cact. Succ. J. Gr. Brit. 19: 66 (1957). Type: *Pilocereus leucocephalus* Poselger. Taxa: 34+9. Distr.: Mexico, Caribbean, N & W South America, E Brazil, Paraguay. Syn.: *Pilocereus* Schumann (1894), non Lemaire; *Pseudopilocereus* Buxbaum (1968).
- Piptanthocereus* (Berger) Riccobono, Boll. R. Ort. Palermo 8: 255 (1909). Type: [?]. → *Cereus Platypuntia* (Engelmann) Ritter, Kakteen in Südamerika 1: 31 (1979). [Based on subgen. *Platopuntia* Engelmann.] → *Opuntia*
- Polaskia** Backeberg, Blätter f. Sukkulenteenkunde 1: 4 (1949). Type: *P. chichipe* Backeberg. Taxa: 2. Distr.: Mexico. Syn.: *Chichipia* Backeberg (1950); *Heliabravoa* Backeberg (1956).
- Porfiria* Bödeker, Zeitschr. Sukkulenteenk. 2: 210 (1926). Type: *Porfiria coahuilensis* Bödeker. → *Mammillaria*
- Praecereus** Buxbaum, Beitr. Biol. Pflanzen 44: 273 (1968). Type: *Cephalocereus smithianus*. Taxa: 2+4. Distr.: Trop. S America. Syn.: *Monvillea* Britton & Rose (1920), excl. type.
- Pseudoacanthocereus** Ritter, Kakteen in Südamerika 1: 47 (1979). Type: *Acanthocereus brasiliensis* Britton & Rose. Taxa: 2. Distr.: Colombia, Venezuela, Brazil.
- Pseudoespostoa* Backeberg, Blätt. Kakt.-Forsch. 1934(10): [1] (1934). Type: *Cephalocereus melanostele* Vaupel. → *Espostoa*
- Pseudolobivia* (Backeberg) Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 76 (1942). Type: *Echinopsis ancistrophora* Spegazzini. → *Echinopsis*
- Pseudomammillaria* Buxbaum, Bot. Stud. 12: 84 (1951). Type: *Mammillaria camptotricha* Dams. → *Mammillaria*
- Pseudomitrocereus** Bravo & Buxbaum, Bot. Stud. 12: 49, 53 (1961). Type: *Pilocereus fulviceps* Weber. ~ *Cephalocereus* or *Neobuxbaumia* (not *Pachycereus*) [**Pm**]. *P. fulviceps*, the only species, is part of a polytomy with *Cephalocereus* and *Neobuxbaumia* so is misplaced in *Pachycereus* [A+T]
- Pseudonopalxochia* Backeberg, Die Cact. 1: 69 (1958). Type: *Nopalxochia konzattiana* MacDougall. → *Disocactus*
- Pseudopilocereus* Buxbaum, Beitr. Biol. Pflanzen 44: 249 (1968). Type: *Pilocereus arrabidae* Lemaire. → *Pilosocereus*
- Pseudorhipsalis** Britton & Rose, Cact. 4: 213–214 (1923). Type: *Cactus alatus* Swartz. Taxa: 4+2. Distr.: Trop. America, Caribbean.
- Pseudozygocactus* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [5, 21] (1938). Type: *Rhipsalis epiphyloides* Campos-Porto & Werdermann. → *Hattoria*
- Pterocactus** Schumann, Monatsschr. Kakt. 7: 6 (1897). Type: *P. kuntzei* Schumann. Taxa: 9. Distr.: Argentina. Ref.: Kiesling, (1982).
- Pterocereus** MacDougall & Miranda, Ceiba 4: 135 (1954). Type: *Pterocereus foetidus* MacDougall & Miranda. ~ *Pachycereus* [**Pt**] Excluded from *Pachycereus* by [A+T]

- Puna* Kiesling, *Hickenia* 1: 289 (1982). Type: *Opuntia clavarioides* Pfeiffer. → *Opuntia*
- Pygmaeocereus** Johnson & Backeberg, *Nat. Cact. Succ. J.* 12: 86 (1957). Type: *P. bylesianus* Andreae & Backeberg. Taxa: 1+2. Distr.: Peru. ~ *Echinopsis*
- Pyrrhocactus* Berger, *Kakteen*, 345 (1929). Type: [not designated by Berger] *Echinocactus strausianus* Schumann. → *Eriosyce*
- Quiabentia** Britton & Rose, *Cact.* 4: 252 (1923). Type: *Pereskia zehntneri* Britton & Rose. Taxa: 2. Distr.: E Brazil, W Paraguay, S Bolivia, NW Argentina.
- Rapicactus** Buxbaum & Oehme, *Cact. Jahrb. Deutsch. Kakt. Ges.* 1942: 24 (1942). Type: *Rapicactus subterraneus* Buxbaum & Oehme. ~ *Turbinicarpus* [Ra]. A member of the LOPHOPHORA clade (V+) but hitherto included in the polyphyletic group *Turbinicarpus thbunia* Britton & Rose, *Contr. US Nat. Herb.* 12: 414 (1909). Type: *Cereus sonorensis* Runge. → *Stenocereus*
- Rauhocereus** Backeberg, *Descr. Cact. Nov.*, 5 (1957). Type: *Rauhocereus riosaniensis* Backeberg. Taxa: 1+1. Distr.: Peru. ~ *Browningia*
- Rebutia** Schumann, *Monatsschr. Kakteenk.* 5: 102 (1895). Type: *R. minuscula* Schumann. Taxa: 24+28. Distr.: Bolivia, Peru, N Argentina. Syn.: *Aylosteria* Spegazzini (1923); *Mediolobivia* Backeberg (1934); *Weingartia* Werdermann (1937); *Digitorebutia* Buining (1940); *Sulcorebutia* Backeberg (1951).
- Reicheocactus** Backeberg, *Cact. Jahrb. Deutsch. Kakt. Ges.* 1941: 76 (1942). Type: *R. pseudoeicheanus* Backeberg. ~ *Echinopsis* [Re]. Hitherto included in *Echinopsis* or *Lobivia* but found by S+R to occupy a basal position in the *Trichocereae*
- Rhipsalidopsis* Britton & Rose, *Cact.* 4: 209 (1923). Type: *Rhipsalis rosea* Lagerheim. → *Hatiora*
- Rhipsalis** Gaertner, *Fruct. Sem.* 1: 137 (1788). Type: *R. cassutha* Gaertner. Taxa: 35+16. Distr.: Trop. and subtrop. America, trop. Africa, Madagascar, Mascarenes, Sri Lanka. Syn.: *Erythrorhipsalis* Berger (1920). Ref.: Barthlott & Taylor (1995).
- Rhodocactus* (Berger) F. Knuth in Backeberg & Knuth, *Kaktus ABC*, 48, 96 (1936). Type: *Pereskia grandifolia* Haworth. → *Pereskia*
- Ritterocereus* Backeberg, *Cact. Jahrb. Deutsch. Kakt. Ges.* 1941: 76 (1942). Type: *Lemaireocereus standleyi* Gonzalez Ortega. → *Stenocereus*
- Rodentiophila* Backeberg, *Die Cact.* 3: 1799 (1959), *nom. inval.* → *Eriosyce*
- Rookshya* (Backeberg) Backeberg, *Die Cact.* 3: 2165 (1959). → *Neobuxbaumia*
- Roseocactus* Berger, *J. Wash. Acad. Sci.* 15: 45 (1925). Type: *Ariocarpus fissuratus* Schumann. → *Ariocarpus*
- Roseocereus* Backeberg, *Blätt. Kakt.-Forsch.* 1938(6): [21] (1938). Type: *Cereus tetracanthus* Labouret (*R. tephraacanthus* Backeberg). Ref.: Hunt (1987: 92). → *Harrisia*
- Samaipaticereus** Cárdenas, *Cact. Succ. J. (US)* 24: 141 (1952). Type: *S. corroanus* Cárdenas. Taxa: 1. Distr.: Bolivia.
- Schlumbergera** Lemaire, *Illustr. Hort.* 5: misc. 24 (1858). Type: *S. epiphylloides* Lemaire (→ *S. russelliana* (Gardner ex Hooker) Britton & Rose). Taxa: 6+4. Distr.: SE Brazil. Syn.: *Epiphyllum* Pfeiffer (1837); *Zygocactus* Schumann (1890); *Epiphyllanthus* Berger (1905). Ref.: McMillan & Horobin, *Succulent Pl. Res.* 4 (1995).
- Sclerocactus** Britton & Rose, *Cact.* 3: 212 (1922). Type: *Echinocactus polyancistrus* Engelmann & Bigelow. Taxa: 18+10. Distr.: SW USA, N Mexico. Syn.: *Toumeyia* Britton & Rose (1922); *Echinomastus* Britton & Rose (1922); *Ancistrocactus* Britton & Rose (1923); *Glandulicactus* Backeberg (1938); *Coloradoa* Boissievain & Davidson (1940).
- Selenicereus** (Berger) Britton & Rose, *Contr. US Nat. Herb.* 12: 429 (1909). Type: *S. grandiflorus* (Linnaeus) Britton & Rose. Taxa: 18+9. Distr.: Trop. America, Caribbean. Syn.: *Strophocactus* Britton & Rose (1913); *Deamia* Britton & Rose (1920); *Cryptocereus* Alexander (1950); *Marniera* Backeberg (1950). Ref.: Hunt (1989).
- Seticereus* Backeberg, *Cact. Jahrb. Deutsch. Kakt. Ges.* 1941: 75 (1942). Type: *Cactus*

- icosagonus* Kunth. → *Cleistocactus*
- Seticleistocactus* Backeberg, Descr. Cact. Nov. III, 13 (1963). Type: *Cleistocactus piraymirensis* Cárdenas. → *Cleistocactus*
- Setiechinopsis** (Backeberg) De Haas, Succulenta 22: 9 (1940). Type: *Echinopsis mirabilis* Spegazzini. ~ *Echinopsis* [Se]. Monotypic. Accepted by S+R (DENMOZA clade)
- Sicobaccatus* Braun & Esteves Pereira, Succulenta 69: 6 (1990). Type: *Austrocephalocereus dolichospermaticus* Buining & Brederoo. → *Micranthocereus*
- Soehrensia** Backeberg, Blätt. Kakt.-Forsch. 1938(6): [21] (1938). Type: *Lobivia bruchii* Britton & Rose. ~ *Echinopsis* [So]. Accepted by S+R for numerous taxa previously included in *Lobivia* (*Helianthocereus*) and *Trichocereus*.
- Solisia* Britton & Rose, Cact. 4: 64 (1923). Type: *Pelecyphora pectinata* Stein. → *Mammillaria*
- Stenocactus** (Schumann) A. W. Hill, Index Kewensis, suppl. 8: 228 (1933). Type: *Echinocactus coptonogonus* Lemaire (LT: Byles 1956). Taxa: 7+3. Distr.: Mexico. Syn.: *Echinofossulocactus* sensu Britton & Rose (1922) non Lawrence.
- Stenocereus** (Berger) Riccobono, Boll. R. Ort. Palermo 8: 253 (1909), *nom. cons.* Type: *S. stellatus* (Pfeiffer) Riccobono. Taxa: 19+6. Distr.: SW USA (Arizona), Mexico, Caribbean, N South America. Syn.: *Rathbunia* Britton & Rose (1909); *Machaerocereus* Britton & Rose (1920); *Isolatocereus* (Backeberg) Backeberg (1942); *Ritterocereus* Backeberg (1942); *Herrtrichocereus* Backeberg (1950).
- Stephanocereus** Berger, Entwicklungslinien Kakt., 97 (1926). Type: *S. leucostele* (Guerke) A. Berger. Taxa: 2. Distr.: Brazil (Bahia).
- Stetsonia** Britton & Rose, Cact. 2: 64 (1920). Type: *Cereus coryne* Salm-Dyck. Taxa: 1. Distr.: Paraguay, Argentina, Bolivia.
- Strombocactus** Britton & Rose, Cact. 3: 106 (1922). Type: *S. disciformis* (De Candolle) Britton & Rose. Taxa: 1+1. Distr.: E Mexico (Hidalgo and Querétaro).
- Strophocactus* Britton & Rose, Contr. US Nat. Herb. 16: 262 (1913). Type: *Cereus wittii* Schumann. → *Selenicereus*
- Submatucana* Backeberg, Die Cact. 2: 1059 (1959). Type: *Echinocactus aurantiacus* Vaupel. → *Matucana*
- Subpilocereus* Backeberg, Blätt. Kakt.-Forsch. 1938(6): [22] (1938). Type: *Cereus russel(l)ianus* Otto non Gardner ex Hooker (→ *C. fricii*). → *Cereus*
- Sulcorebutia* Backeberg, Cact. Succ. J. Gt. Brit. 13: 96 (1951). Type: *Rebutia steinbachii* Werdermann. → *Rebutia*
- Tacinga** Britton & Rose, Cact. 1: 39 (1919). Type: *T. funalis* Britton & Rose. Taxa: 2. Distr.: E Brazil.
- Tephrocactus* Lemaire, Les Cactées, 88 (1868). Type: *Opuntia diademata* Lemaire [LT: see Byles 1957: 30]. → *Opuntia*
- Thelocactus** (Schumann) Britton & Rose, Bull. Torrey Bot. Club 49: 251 (1922). Type: *T. hexaedrophorus* (Lemaire) Britton & Rose. Taxa: 10+11. Distr.: SW USA (Texas), Mexico. Syn.: *Hamatocactus* Britton & Rose (1922); *Torreyocactus* Doweld (1998). Ref.: Anderson (1987).
- Thelocephala* Y. Ito, Expl. Diagr., 292 (1957). Type: *Neoporteria napina* Backeberg. → *Eriosyce*
- Thrixanthocereus* Backeberg, Blätter Kakteenforsch. 1937: Nachtr. 15 (1937). Type: *Cephalocereus blossfeldiorum* Werdermann. → *Espostoa*
- Torreyocactus* Doweld, Sukkulenty (Moscow) 1998(1): 19 (1998). Type: *Torreyocactus conothelos* (Regel & Klein) Doweld. → *Thelocactus*
- Toumeyia* Britton & Rose, Cact. 3: 91 (1922). Type: *Mammillaria papyracantha* Engelmann. → *Sclerocactus*
- Trichocereus** (Berger) Riccobono, Boll. R. Ort. Palermo 8: 236 (1909). Type: *Cereus macrogonus* Otto. ~ *Echinopsis* group [Le], [So] and [Tr]. According to S+R, the *Trichocereus*

- group *sensu* NCL includes three separate lineages. The neotypification of *Trichocereus* by Albesiano & Kiesling (2012), based on their application of the dubious name *Cereus macrogonus*, limits the generic name to *T. pachanoi* and its close relatives in Peru and Bolivia [Tr]. The more varied, mainly Argentine and partly day-flowering lineage becomes *Soehrensia* (including *Helianthocereus*] [So] and the mainly Chilean group, including the iconic Andean species *E. atacamensis* becomes *Leucosteles* [Le] (see Schlumpberger 2012/CSI 28: 29–31). Pending general acceptance of this scheme, the species will continue to be listed alphabetically with their hypothetical lineage indicated by the relevant abbreviation. Kladiwa & Buxbaum (1969); *Bravocactus* Doweld (1998); *Kadenicarpus* Doweld (1998).
- Turbincarpus** (Backeberg] Buxbaum & Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1937: 27 (1937). Type: *Echinocactus schmiedeckeanus* Bödeker. Taxa: 16+17. Distr.: Mexico. Syn.: *Gymnocactus* Backeberg (1938); *Rapicactus* Buxbaum & Oehme (1942); *Normanbokea*
- Uebelmannia** Buining, Succulenta (NL) 46: 159 (1967). Type: *Parodia gummifera* Backeberg & Voll. Taxa: 3+2. Distr.: E Brazil (Minas Gerais).
- Utahia* Britton & Rose, Cact. 3: 215 (1922). Type: *Echinocactus sileri* Engelmann. → *Pediocactus*
- Vatricania** Backeberg, Cact. Succ. J. (US) 22: 154 (1950). Type: *Cephalocereus guentheri* Kupper. → *Cleistocactus*
- Weberbauerocereus** Backeberg, Cact. Jahrb. Deutsch. Kakt. Ges. 1941: 75 (1942). Type: *Cereus fascicularis* Meyen. Taxa: 7+1. Distr.: Peru. ~ *Echinopsis*
- Weberocereus** Britton & Rose, Contr. US Nat. Herb. 12: 431 (1909). Type: *W. tunilla* (F.A.C. Weber] Britton & Rose. Taxa: 9. Distr.: Mexico, Central America, W South America. Syn.: *Werckleocereus* Britton & Rose (1909); *Eccremocactus* Britton & Rose (1913).
- Weingartia** Werdermann, Kakteenkunde 1937: 20,21 (1937). Type: *Echinocactus fidanus* Backeberg. ~ *Rebutia* subg. *Weingartia* (Werderm.) Rowley, Cactus World 27(2): 89 (2009). [Wg]. One of three clades distinguished in *Rebutia* by Ritz et al. (2007).
- Werckleocereus* Britton & Rose, Contr. US Nat. Herb. 12: 432 (1909). Type: *Cereus tonduzii* Weber. → *Weberocereus*
- Wigginsia* D.M. Porter, Taxon 13: 210 (1964). Type: *Echinocactus corynodes* Pfeiffer. → *Parodia*
- Wilcoxia* Britton & Rose, Contr. US Nat. Herb. 12: 434 (1909). Type: *Echinocereus poselgeri* Lemaire. → *Echinocereus*
- Wilmattea* Britton & Rose, Cact. 2: 195 (1920). Type: *Cereus minutiflorus* Vaupel. → *Hylocereus*
- Winteria* Ritter, Kakt. and. Sukk. 13: 4 (1962), non Murray. Type: *Winteria aureispina*. → *Cleistocactus*
- Winterocereus* Backeberg, Kakteenlexikon, 455 (1966). Type: *Winteria aureispina* Ritter. → *Cleistocactus*
- Wittia* Schumann, Monatsschr. Kakt. 13: 117 (1903), non Pantocsek. Type: *W. amazonica* Schumann. → *Disocactus*
- Wittiocactus* Rauschert, Taxon 31: 558 (1982) [*nom. nov.* for *Wittia* Schumann]. → *Disocactus*
- Yavia** Piltz, Kakt. u.a. Sukk. 52(3): 57–62 (2001). Type: *Y. cryptocarpa* Kiesling & Piltz. Taxa 1. Distr.: Argentina. Referred to tribe *Notocacteae* (Nyffeler & Egli (2010)).
- Yungasocereus** Ritter, Kakteen in Südamerika 2: 668 (1980). Type: *Samaipaticereus inquisivensis* Cárdenas. Taxa: 1. Distr.: Bolivia. ~ *Cleistocactus*
- Zehntnerella* Britton & Rose, Cact. 2: 176 (1920). Type: *Zehntnerella squamulosa* Britton & Rose. → *Facheiroa*
- Zygocactus* Schumann, Martius, Fl. Bras. 4(4): 224 (1890). Type: *Epiphyllum truncatum* Haworth. → *Schlumbergera*

Summary Table of accepted and provisionally accepted taxa
(to be updated from new Cactus Lexicon text p. 5)

How to use the Checklist

Alphabetical list

The preferred names of accepted taxa (species and subspecies) are printed in **bold** (accepted) or **bold italic** (provisionally accepted or 'alternative'; see page 10). Synonyms and inadmissible names are printed in *italic*. *For the purpose of this Checklist the rank indicator for subspecies (subsp. or ssp.) is omitted.* Names covered by the provisions of CITES Appendix I are followed by a red bullet (●)

A unique five-digit **reference number** precedes each entry. This number is the key to further data for accepted and provisionally accepted and some synonyms concerning the author(s) of the name, the original date and place of its publication and other details given under the same number in the text volume of the *New Cactus Lexicon* available as a download. Searching by the reference will quickly find the relevant entry.

Accepted and provisionally accepted names are followed by country/area codes (see *below*) followed by a black bullet (●) and the page/plate number(s) (if any) of illustrations in the 2nd volume of the *New Cactus Lexicon* (not yet available as a download).

'Alternative' names are followed by the equivalent symbol (≡) and the preferred name of the taxon to which they are considered to apply.

Synonyms are followed by an arrowhead (>) and the preferred name of the taxon to which they are currently considered to apply.

Names of hybrids are followed by the multiplication sign [x] or the names of the presumed parent taxa; the ploidy of cytota may occasionally be indicated, e.g. [2x] etc.

Recently published names not yet evaluated are indicated by the symbol (N) preceding the name and (for the purpose of this draft), printed in magenta

Inadmissible names and names of indeterminate application are indicated by a symbol preceding the name and (for the purpose of this draft, printed in blue as it may be preferable, for the purpose of the Checklist, to delete them. Symbols (under review): (I) invalid or illegitimate; (M) misapplied; (N) not known; (R) recommended for rejection.

Country Codes

Two-letter ISO codes (except those marked * which are arbitrary) used to indicate the countries of origin and distribution of accepted and provisionally accepted taxa:

Argentina.....AR	El Salvador.....SV	Peru.....PE
Bahamas.....BS	French Guiana.....GF	Puerto Rico.....PR
Belize.....BZ	Guatemala.....GT	Suriname.....SR
Bolivia.....BO	Guyana.....GY	Trinidad & Tobago.....TT
Brazil.....BR	Haiti.....HT	Uruguay.....UY
Canada.....CA	Honduras.....HN	USA.....US
Cayman Islands.....KY	Jamaica.....JM	Venezuela.....VE
Chile.....CL	Lesser Antilles.....WI*	Virgin Islands.....VI
Colombia.....CO	Mexico.....MX	
Costa Rica.....CR	Neth. Antilles.....AN	Old World.....OW*
Cuba.....CU	Nicaragua.....NI	
Dominican Republic...DO	Panama.....PA	Cult. origin.....XC*
Ecuador.....EC	Paraguay.....PY	

Alphabetical List of Names in Current Usage



- 02795 *Acanthocalycium andreaeaeum* > *Eriosyce strausiana strausiana*
 08109 *Acanthocalycium aurantiacum* > *Echinopsis thionantha*
 08110 *Acanthocalycium brevispinum* > *Echinopsis thionantha*
 08111 *Acanthocalycium catamarcense* > *Echinopsis thionantha*
 08112 *Acanthocalycium chionanthum* > *Echinopsis thionantha*
 08113 ***Acanthocalycium ferrarii*** ≡ *Echinopsis thionantha ferrarii*
 08114 ***Acanthocalycium glaucum*** ≡ *Echinopsis thionantha glauca*
 08115 *Acanthocalycium griseum* > *Echinopsis thionantha*
 08089 *Acanthocalycium klimpelianum* > *Echinopsis spiniflora*
 14584 ***Acanthocalycium leucanthum*** ≡ *Echinopsis leucantha*
 08090 *Acanthocalycium peitscherianum* > *Echinopsis spiniflora*
 14585 ***Acanthocalycium rhodotrichum*** ≡ *Echinopsis rhodotricha*
 00016 ***Acanthocalycium spiniflorum*** ≡ *Echinopsis spiniflora*
 08091 ***Acanthocalycium thionanthum*** ≡ *Echinopsis thionantha*
 08116 *Acanthocalycium variflorum* > *Echinopsis spiniflora*
 08092 *Acanthocalycium violaceum* > *Echinopsis spiniflora*
- 08082 [Ⓡ*Acanthocereus acutangulus*](#) > [Ⓡ*Acanthocereus tetragonus*](#)
 08078 *Acanthocereus albicaulis* ≡ *Cereus albicaulis*
 00003 *Acanthocereus baxaniensis* > *Acanthocereus tetragonus*
 00001 *Acanthocereus brasiliensis* ≡ *Pseudoacanthocereus brasiliensis*
 14586 ***Acanthocereus castellae*** ≡ *Peniocereus castellae*
 00012 ***Acanthocereus chiapensis*** ≡ *Peniocereus chiapensis*
 00004 *Acanthocereus colombianus* > *Acanthocereus tetragonus*
 14587 ***Acanthocereus cuixmalensis*** ≡ *Peniocereus cuixmalensis*
 08079 *Acanthocereus floridanus* > *Acanthocereus tetragonus*
 14588 ***Acanthocereus fosterianus*** ≡ *Peniocereus fosterianus*
 00002 [Ⓡ*Acanthocereus griseus*](#) > [Ⓡ*Peniocereus macdougallii*](#)
 14589 ***Acanthocereus hirschtianus*** ≡ *Peniocereus hirschtianus*
 00005 *Acanthocereus horridus* > *Acanthocereus tetragonus*
 14590 ***Acanthocereus macdougallii*** ≡ *Peniocereus macdougallii*
 08080 ***Acanthocereus maculatus*** > *Peniocereus maculatus*
 14591 ***Acanthocereus oaxacensis*** ≡ *Peniocereus oaxacensis*
 00006 *Acanthocereus occidentalis* > *Acanthocereus tetragonus*
 08077 *Acanthocereus pentagonus* > *Acanthocereus tetragonus*
 02775 *Acanthocereus pitajaya* > *Hylocereus* sp.
 08081 [Ⓡ*Acanthocereus princeps*](#) > [Ⓡ*Acanthocereus tetragonus*](#)
 14592 ***Acanthocereus rosei*** ≡ *Peniocereus rosei*
 00010 *Acanthocereus sicariguensis* > *Pseudoacanthocereus sicariguensis*
 00007 *Acanthocereus subinermis* > *Acanthocereus tetragonus*

- 14593 *Acanthocereus tepalcatepecanus* ≡ *Peniocereus tepalcatepecanus*
 00009 *Acanthocereus tetragonus*AN, BZ, CO, CR, CU, US, GT, HN, MX,
 NI, PA, SV, TT, US, VE, WI • 20.4, 21.1-2
 00011 *Acanthocereus undulosus* > *Dendrocereus undulosus*
- 12879 *Acharagma aguirreanum*MX • 393.2
 14575 *Acharagma huasteca* > *Acharagma roseanum galeanense*
 13871 *Acharagma roseanum*MX •
 14115 *Acharagma roseanum galeanense*MX • 393.4
 14116 *Acharagma roseanum roseanum*MX • 393.3
- 08093 *Ancistrocactus brevihamatus* > *Sclerocactus brevihamatus brevihamatus*
 08128 *Ancistrocactus megarhizus* > *Sclerocactus scheeri*
 08094 *Ancistrocactus scheeri* > *Sclerocactus scheeri*
- 00023 *Ariocarpus agavoides* •MX • 363.1-2
 12085 *Ariocarpus bravoanus* •MX •
 12941 *Ariocarpus bravoanus bravoanus* •MX • 363.3
 12942 *Ariocarpus bravoanus hintonii* •MX • 363.4-5
 12821 *Ariocarpus confusus* • > *Ariocarpus retusus* • [• 364.5]
- 00024 [®Ariocarpus elongatus](#) • > [Ariocarpus retusus](#) •
 00025 *Ariocarpus fissuratus* •MX, US • 363.6, 364.1-2
 13404 *Ariocarpus fissuratus pailanus* • > *Ariocarpus fissuratus* •
 00026 *Ariocarpus kotschoubeyanus* •MX • 364.3-4
 12881 *Ariocarpus kotschoubeyanus albiflorus* • > *Ariocarpus kotschoubeyanus* •
 08144 *Ariocarpus lloydii* • > *Ariocarpus fissuratus* •
 00027 *Ariocarpus retusus* •MX • 364.5-6
 12838 *Ariocarpus retusus scapharostroides* • > *Ariocarpus retusus* •
 00028 *Ariocarpus scaphirostris* •MX • 365.1-2
 00029 *Ariocarpus trigonus* •MX • 365.3
- 08150 *Armatocereus arboreus* > *Armatocereus matucanensis*
 00032 *Armatocereus arduus* > *Armatocereus rauhii balsasensis*
 00033 *Armatocereus balsasensis* > *Armatocereus rauhii balsasensis*
 00034 *Armatocereus brevispinus* > *Armatocereus godingianus brevispinus*
 00030 *Armatocereus cartwrightianus*EC, PE • 12.1, 12.4
 08151 *Armatocereus churinensis* > *Armatocereus matucanensis*
 00020 [®Armatocereus ghiesbreghtii](#) > [Armatocereus sp.](#)
 00031 *Armatocereus godingianus*EC •
 14084 *Armatocereus godingianus brevispinus*EC • 12.2
 14083 *Armatocereus godingianus godingianus*EC • 12.3
 00035 *Armatocereus humilis* > *Stenocereus humilis*

- 00036 **Armatocereus laetus**EC, PE • 13.1
 00037 *Armatocereus mataranus* > *Armatocereus matucanensis*
 13195 *Armatocereus mataranus ancashensis* > *Armatocereus matucanensis*
 13193 *Armatocereus mataranus mataranus* > *Armatocereus matucanensis*
 00038 **Armatocereus matucanensis**PE • 13.2-4
 00039 *Armatocereus oligogonus* > *Armatocereus laetus*
 00040 **Armatocereus procerus**PE • 14.1
 00041 **Armatocereus rauhii**PE •
 12947 **Armatocereus rauhii balsasensis**PE • 14.2-3
 12946 **Armatocereus rauhii rauhii**PE • 14.4
 08153 **Armatocereus riomajensis**PE •
 00042 *Armatocereus rupicola* > *Armatocereus matucanensis*
- 00043 *Arrojadoa albiflora* [x]BR • 158.1
 08154 *Arrojadoa aureispina* > *Arrojadoa rhodantha*
 12158 **Arrojadoa bahiensis** > *Pierrebraunia bahiensis*
 08155 *Arrojadoa beateae* > *Arrojadoa dinae* [• 158.3]
 08156 *Arrojadoa canudosensis* > *Arrojadoa rhodantha*
 00044 **Arrojadoa dinae**BR • 158.2-3, 159.1
 12260 *Arrojadoa dinae nana* > *Arrojadoa dinae*
 08157 **Arrojadoa eriocaulis**BR • 158.4-5
 12261 *Arrojadoa eriocaulis albicoronata* > *Arrojadoa eriocaulis*
 13409 *Arrojadoa heimenii* > *Arrojadoa dinae*
 08158 *Arrojadoa horstiana* > *Arrojadoa rhodantha*
 14263 **Arrojadoa marylanae**BR • 159.2-3
 08159 *Arrojadoa multiflora* > *Arrojadoa dinae*
 13953 *Arrojadoa multiflora hofackeriana* > *Arrojadoa eriocaulis*
 00045 **Arrojadoa penicillata**BR • 159.4
 00046 **Arrojadoa rhodantha**BR • 159.5, 160.1-2
 12551 *Arrojadoa rhodantha reflexa* > *Arrojadoa rhodantha*
 08161 *Arrojadoa theunisseniana* > *Arrojadoa rhodantha*
- 08162 *Arthrocereus campos-portoi* > *Arthrocereus glaziovii*
 02620 **Arthrocereus glaziovii**BR • 229.1
 08165 *Arthrocereus itabiriticola* > *Arthrocereus glaziovii*
 00047 **Arthrocereus melanurus**BR •
 12264 *Arthrocereus melanurus estevesii* > *Arthrocereus melanurus melanurus*
 12721 **Arthrocereus melanurus magnus**BR • 229.2-3
 12949 **Arthrocereus melanurus melanurus**BR • 229.4
 12265 *Arthrocereus melanurus mello-barretoii* > *Arthrocereus melanurus melanurus*
 12720 **Arthrocereus melanurus odorus**BR • 229.5
 08167 *Arthrocereus microsphaericus* > *Schlumbergera microsphaerica*

- 08168 *Arthrocerus mirabilis* > *Echinopsis mirabilis*
- 00048 *Arthrocerus odorus* > *Arthrocerus melanurus odorus*
- 00049 **Arthrocerus rondonianus** BR ● 230.1-2
- 00050 **Arthrocerus spinosissimus** BR ● 230.3-4
- 00019 **Astrophytum asterias** MX, US ● 338.1-2
- 00051 **Astrophytum capricorne** MX ● 338.3-4
- 14215 **Astrophytum caput-medusae** MX ● 338.5-6
- 08097 **Astrophytum coahuilense** MX ● 339.1-2
- 00052 **Astrophytum myriostigma** MX ● 339.3
- 00053 **Astrophytum ornatum** MX ● 339.4-5
- 00054 **Austrocactus bertinii** AR, CL ● 8.4, 9.1
- 14722 (N) **Austrocactus colloncurensis** AR ●
- 056 **Austrocactus coxii** AR ●
- 00055 *Austrocactus dusenii* > *Austrocactus bertinii*
- 14594 **Austrocactus ferrarii** AR ●
- 08175 *Austrocactus gracilis* > *Austrocactus bertinii*
- 00057 **Austrocactus hibernus** CL ● 9.2-3
- 02845 (I) **Austrocactus intertextus**
- 14723 (N) **Austrocactus longicarpus** AR ●
- 00058 *Austrocactus patagonicus* > *Austrocactus bertinii*
- 00059 **Austrocactus philippii** > *Austrocactus bertinii*?
- 00060 **Austrocactus spiniflorus** CL ● 9.4-5
- 14167 *Austrocyliandropuntia floccosa yanganucensis*
- 08196 **Austrocyliandropuntia lauliacoana** PE ●
- 08185 *Austrocyliandropuntia chuquisacana* > *Austrocyliandropuntia vestita*
- 08188 **Austrocyliandropuntia cylindrica** EC, PE ● 456.1-
- 08189 *Austrocyliandropuntia exaltata* ≡ *Austrocyliandropuntia subulata exaltata*
- 08190 **Austrocyliandropuntia floccosa** BO, PE ● 456.3-6, 457.1-2
- 08191 *Austrocyliandropuntia haematacantha* > *Tephrocactus verschaffeltii*
- 13412 *Austrocyliandropuntia hirschii* > *Austrocyliandropuntia floccosa*
- 08192 *Austrocyliandropuntia humahuacana* > *Austrocyliandropuntia shaferi*
- 08195 **Austrocyliandropuntia lagopus** ≡ *Punotia lagopus* BO, PE ● 457.3-4
- 08196 *Austrocyliandropuntia lauliacoana* > *Austrocyliandropuntia floccosa*
- 08197 *Austrocyliandropuntia machacana* > *Austrocyliandropuntia floccosa*
- 08198 *Austrocyliandropuntia malyana* > *Punotia lagopus*
- 08200 **Austrocyliandropuntia pachypus** PE ● 457.5
- 13411 *Austrocyliandropuntia punta-caillan* > *Austrocyliandropuntia floccosa*
- 08202 **Austrocyliandropuntia shaferi** AR, BO ● 458.1-2
- 08204 **Austrocyliandropuntia subulata** BO, PE
- 14085 **Austrocyliandropuntia subulata exaltata** BO, PE ● 458.3
- 14086 **Austrocyliandropuntia subulata subulata** PE ● 458.4-5

- 08205 *Austrocyllindropuntia tephrocactoides* > *Austrocyllindropuntia floccosa*
 08099 *Austrocyllindropuntia teres* > *Austrocyllindropuntia vestita*
 08184 *Austrocyllindropuntia verschaffeltii* ≡ *Tephrocactus verschaffeltii* [• 459.1]
]08206 **Austrocyllindropuntia vestita**AR, BO • 458.6
 08207 *Austrocyllindropuntia weingartiana* > *Austrocyllindropuntia shaferi*
 13413 *Austrocyllindropuntia yanganucensis* > *Austrocyllindropuntia floccosa*
- 12086 **Aztekium hintonii**MX • 340.1-2
 00062 **Aztekium ritteri**MX • 340.3-4
 14690 (N) **Aztekium valdezii**MX •
- 08298 **Brasiliopuntia brasiliensis**AR, BO, BR, PE, PY, [US] • 485.1
 14580 **Brasiliopuntia schickendantzii**AR, BO • 489.3-5
- 04512 *Consolea bahamana* > *Opuntia stricta*
 08537 *Consolea corallicola* > *Consolea macracantha*
 08538 *Consolea falcata* > *Consolea macracantha*
 08539 **Consolea macracantha**BS, CU, DO, HT, KY, PR, US, VG. VI. WI
 • 485.2-4, 486, 1-2, 6
- 13426 *Consolea microcarpa* > *Consolea macracantha*
 08535 *Consolea millspaughii* > *Consolea macracantha*
 08540 **Consolea moniliformis**CU, DO, HT, PR • 486.4-5
 08536 *Consolea nashii* > *Consolea macracantha*
 13616 (I) *Consolea picardae* > *Consolea macracantha*
 08541 (R) *Consolea rubescens*
 08542 **Consolea spinosissima**JM, KY, US • 486.7-8
 08510 *Consolea urbaniana* > *Consolea moniliformis*
 14354 *Corynopuntia aggeria* ≡ *Grusonia aggeria* • 479.1
 08586 *Corynopuntia agglomerata* > *Grusonia grahamii*
 08587 *Corynopuntia bulbispina* ≡ *Grusonia bulbispina* • 479.2
 08588 *Corynopuntia clavata* ≡ *Grusonia clavata* • 479.3, 480.2
 08589 *Corynopuntia dumetorum* > *Opuntia pubescens*
 14344 *Corynopuntia emoryi* ≡ *Grusonia emoryi* • 479.4-5
 08582 *Corynopuntia grahamii* ≡ *Grusonia grahamii* • 479.6
 14506 *Corynopuntia guccinii* ≡ *Grusonia guccinii*
 08590 *Corynopuntia invicta* ≡ *Grusonia invicta* • 480.1
 14337 *Corynopuntia kunzei* ≡ *Grusonia kunzei* • 480.3
 14347 *Corynopuntia marenae* ≡ *Grusonia marenae* • 480.4
 08583 *Corynopuntia moelleri* ≡ *Corynopuntia moelleri* • 481.2
 14644 (N) *Corynopuntia nigrispina* [*Grusonia sp.*]MX •
 04520 *Corynopuntia parishii* ≡ *Grusonia parishii* • 481.1
 08591 *Corynopuntia pulchella* ≡ *Grusonia pulchella* • 480.5

- 08592 *Corynopuntia reflexispina* ≡ *Grusonia reflexispina*
 14720 *Corynopuntia robertsii* ≡ *Grusonia robertsii*
 08584 *Corynopuntia schottii* ≡ *Grusonia schottii* ● 481.3-4
 08585 *Corynopuntia stanlyi* > *Grusonia emoryi*
 08593 *Corynopuntia vilis* ≡ *Grusonia vilis*
- 08660 *Cumulopuntia alboareolata* > *Cumulopuntia sphaerica*
 08661  *Cumulopuntia berteri* > *Cumulopuntia sphaerica*
- 13317 **Cumulopuntia boliviana**.....AR, BO, CL, PE ●
 14104 **Cumulopuntia boliviana boliviana**AR, BO ● 459.2-3
 14105 **Cumulopuntia boliviana dactylifera**.....AR, BO, CL, PE ● 459.4
 14106 **Cumulopuntia boliviana echinacea**CL, PE ● 459.5
 14107 **Cumulopuntia boliviana ignescens**.....BO, CL, PE ● 460.1-2
 08662  *Cumulopuntia boliviana Ritt* > *Cumulopuntia chichensis*
- 13429 **Cumulopuntia chichensis**AR, BO ● 460.3
 13430 **Cumulopuntia corotilla**PE ●
- 08663 *Cumulopuntia crassicylindrica* > *Cumulopuntia sphaerica*
 13431 *Cumulopuntia dactylifera* ≡ *Cumulopuntia boliviana dactylifera*
 08664 *Cumulopuntia echinacea* ≡ *Cumulopuntia boliviana echinacea*
 08665 *Cumulopuntia famatinensis* > *Cumulopuntia boliviana*
 00362 *Cumulopuntia frigida* > *Cumulopuntia boliviana ignescens*
 13432 *Cumulopuntia fulvicoma* > *Cumulopuntia boliviana boliviana*
 00363 *Cumulopuntia galerasensis* > *Cumulopuntia boliviana boliviana*
 00364 *Cumulopuntia hystrix* > *Cumulopuntia boliviana ignescens*
 08666 *Cumulopuntia ignescens* ≡ *Cumulopuntia boliviana ignescens*
 08667 **Cumulopuntia ignota**PE ●
 14407 **Cumulopuntia iturbicola**.....AR ●
- 08668 *Cumulopuntia kuehnrichiana* > *Cumulopuntia sphaerica* ● 460.6
 14398 **Cumulopuntia leucophaea**.....PE, CL ●
- 13433 *Cumulopuntia mistiensis* > *Cumulopuntia corotilla*
 00365 *Cumulopuntia multiareolata* > *Cumulopuntia sphaerica*
 08669 *Cumulopuntia pampana* > *Cumulopuntia boliviana*
 08670 *Cumulopuntia pentlandii* > *Cumulopuntia boliviana boliviana*
 08671 *Cumulopuntia pyrhracantha* > *Cumulopuntia boliviana boliviana* ?
 08672 *Cumulopuntia rauppiana* > *Cumulopuntia sphaerica*
 13877 *Cumulopuntia recurvata* ≡ *Tephrocactus recurvatus*
- 00366 **Cumulopuntia rossiana**.....AR, BO ● 460.4-5
 13434 **Cumulopuntia sphaerica**CL, PE ● 460.6, 461.1-2
 08673 **Cumulopuntia subterranea**AR, BO ●
 14408 **Cumulopuntia subterranea pulcherrima**BO ●
 14409 **Cumulopuntia subterranea subterranea**AR, BO ●
 00367 *Cumulopuntia ticnামarensis* > *Cumulopuntia boliviana ignescens*

- 00368 *Cumulopuntia tortispina* > *Cumulopuntia boliviana ignescens*
00369 *Cumulopuntia tubercularis* > *Cumulopuntia sphaerica*
00370 *Cumulopuntia tumida* > *Cumulopuntia sphaerica*
08674 *Cumulopuntia unguispina* > *Cumulopuntia sphaerica*
08675 *Cumulopuntia zehnderi* PE •
- 08689 *Cylindropuntia abyssi* US •
08690 *Cylindropuntia acanthocarpa* MX, US • 470.1
08676 *Cylindropuntia alcahes* MX • 475.3
13602 *Cylindropuntia anteojoensis* MX • 478.2-3
08692 *Cylindropuntia arbuscula* MX, US • 477.1-2
08677 *Cylindropuntia bigelovii* MX, US • 475.4-5
08695 *Cylindropuntia burrageana* > *Cylindropuntia alcahes*
08696 *Cylindropuntia californica* MX, US • 470.2-3
08697 *Cylindropuntia calmalliana* MX •
13607 *Cylindropuntia campii* [*C. acanthocarpa* x *C. bigelovii*] US •
08698 *Cylindropuntia caribaea* AN, DO, HT, TT, VE • 472.3
13603 *Cylindropuntia cedrosensis* MX •
08678 *Cylindropuntia cholla* MX • 471.3
08679 *Cylindropuntia ciribe* MX •
04574 *Cylindropuntia congesta* [x] US •
08680 *Cylindropuntia davisii* US • 472.1-2
13617 *Cylindropuntia delgadilloana* MX •
13435 *Cylindropuntia deserta* [x] US (CA/NV) •
08701 *Cylindropuntia echinocarpa* MX, US • 470.4, 471.1
13619 *Cylindropuntia fosbergii* [x] US •
08702 *Cylindropuntia fulgida* MX, US • 476.1-2
13604 *Cylindropuntia ganderi* MX, US • 471.2
08706 *Cylindropuntia hystrix* CU • 472.3
08707 *Cylindropuntia imbricata* MX, US • 471.4-5
13605 *Cylindropuntia kelvinensis* [x] US
08681 *Cylindropuntia kleiniae* MX, US • 477.4-5
08709 *Cylindropuntia leptocaulis* MX, US • 477.6
13606 *Cylindropuntia lindsayi* MX •
08682 *Cylindropuntia lloydii* > *Cylindropuntia imbricata*
08711 *Cylindropuntia molesta* MX • 472.4-5
08712 *Cylindropuntia multigeniculata* [*C. echinocarpa* x *C. whipplei*] US • 475.2
08688 *Cylindropuntia munzii* MX •
04581 *Cylindropuntia neorbuscula* [*C. arbuscula* x *C. spinosior*] US •
04582 *Cylindropuntia pallida* > *Cylindropuntia rosea*
08683 *Cylindropuntia parryi* > *Cylindropuntia californica*
08714 *Cylindropuntia prolifera* MX, US • 476.3-4

- 08715 **Cylindropuntia ramosissima**MX, US • 478.4-5
 08717 *Cylindropuntia rosarica* > *Cylindropuntia californica*
 08718 **Cylindropuntia rosea**MX • 473.1-2
 13618 **Cylindropuntia sanfelipensis**MX •
 13608 **Cylindropuntia santamaria**MX •
 08719 **Cylindropuntia spinosior**MX, US • 473.3-4, 474.1
 08684 **Cylindropuntia tesajo**MX • 478.1
 08722 *Cylindropuntia tetracantha* [*C. acanthocarpa* x *C. leptocaulis*]US
 08685 **Cylindropuntia thurberi**MX •
 08723 **Cylindropuntia tunicata**MX, US, [AR, BO, CL, CU, EC, PE] • 474.2-3
 08724 **Cylindropuntia versicolor**MX, US • 474.4
 08725 *Cylindropuntia viridiflora* [*C. imbricata* x *C. whipplei*]US
 08726 *Cylindropuntia vivipara* [*C. arbuscula* x *C. versicolor*]US (AZ)
 08687 **Cylindropuntia whipplei**US • 475
 08727 *Cylindropuntia wigginsii* > *Cylindropuntia echinocarpa*
 13609 **Cylindropuntia wolfii**MX •
- 13448 **Grusonia aggeria**MX, US • 479.1
 09212 **Grusonia bradtiana**MX • 481.5-6
 09213 **Grusonia bulbispina**MX • 479.2
 05587 **Grusonia clavata**US • 479.3, 480.2
 13451 **Grusonia emoryi**MX, US • 479.4-5
 05588 **Grusonia grahamii**MX, US • 479.6
 14721 **Grusonia guccini**MX •
 13452 **Grusonia invicta**MX • 480.1
 13453 **Grusonia kunzei**MX, US • 480.3
 13454 **Grusonia marenae**MX •
 13455 **Grusonia moelleri**MX • 481.2
 13456 **Grusonia parishii**US • 481.1
 05589 **Grusonia pulchella**US (NV) • 480.5
 13457 **Grusonia reflexispina**MX •
 14222 **Grusonia robertsii**MX •
 09215 **Grusonia santamaria**MX •
 05590 **Grusonia schottii**MX, US • 481.3-4
 05592 **Grusonia vilis**MX •
- 09725 *Maihueniopsis albomarginata* > *Maihueniopsis glomerata*
 00986 **Maihueniopsis archiconoidea**CL • 461.3
 09726 **Maihueniopsis atacamensis**CL • 462.4
 09727 *Maihueniopsis boliviana* ≡ *Cumulopuntia boliviana*
 13468 *Maihueniopsis bonnieae* ≡ *Tephrocactus bonnieae*
 09728 **Maihueniopsis camachoii**CL • 462.3

- 13469 *Maihueniopsis clavarioides*AR • 461.4-5
 09729 *Maihueniopsis colorea*CL •
 09730 *Maihueniopsis conoidea*CL • 462.1
 00987 *Maihueniopsis crassispina*CL •
 09731 *Maihueniopsis darwinii*AR •
 00988 *Maihueniopsis domeykoensis*CL •
 14401 *Maihueniopsis glochidiata*AR •
 09732 *Maihueniopsis glomerata*AR, CL? • 462.2-4
 13993 *Maihueniopsis glomerata hypogaea* > *Maihueniopsis molfinoi*
 00989 *Maihueniopsis grandiflora* > *Maihueniopsis glomerata*?
 14402 *Maihueniopsis hickenii*AR •
 09733 *Maihueniopsis hypogaea* > *Maihueniopsis molfinoi*AR • 463.1
 09734 *Maihueniopsis leoncito* > *Maihueniopsis glomerata*?
 09735 *Maihueniopsis leptoclada* > *Maihueniopsis molfinoi*?
 09736 *Maihueniopsis mandragora* > *Maihueniopsis minuta* • 463.2-3
 09737 *Maihueniopsis minuta*AR • 463.3
 09746 *Maihueniopsis molfinoi*AR, BO •
 09738 *Maihueniopsis molinensis* ≡ *Tephrocactus molinensis*
 09739 *Maihueniopsis neuquensis* > *Maihueniopsis platyacantha*
 09740 *Maihueniopsis nigrispina* ≡ *Tephrocactus nigrispinus*
 13992 *Maihueniopsis nigrispina nigrispina* ≡ *T. nigrispinus nigrispinus*
 14428 *Maihueniopsis nigrispina atroglobosa* ≡ *T. nigrispinus atroglobosus*
 09742 *Maihueniopsis ovata*AR •
 09743 *Maihueniopsis pentlandii* > *Cumulopuntia boliviana boliviana*
 14403 *Maihueniopsis platyacantha*AR •
 09744 *Maihueniopsis rahmeri* > *Cumulopuntia leucophaea*?
 14209 *Maihueniopsis reicheana* [06938 *Opuntia reicheana*]
 13470 *Maihueniopsis subterranea* ≡ *Cumulopuntia subterranea*... • 463.4-6
 09745 *Maihueniopsis tarapacana* > *Maihueniopsis conoidea*?
 00990 *Maihueniopsis wagenknechtii*CL •
- 10031 *Marenopuntia marenae* ≡ *Grusonia marenae*
- 12868 *Micropuntia pulchella* ≡ *Grusonia pulchella*
- 10155 *Miqueliopuntia miquelii*CL • 482.1-2
- 10374 *Nopalea auberi* ≡ *Opuntia auberi* • 487.1-2
 10375 *Nopalea cochenillifera* ≡ *Opuntia cochenillifera* • 487.3-4
 10376 *Nopalea dejecta* ≡ *Opuntia dejecta* • 487.5-6
 01471 *Nopalea escuintlensis* > *Opuntia auberi*
 01470 *Nopalea gaumeri* > *Opuntia inaperta*

- 01472 *Nopalea guatemalensis* > *Opuntia auberi*?
 13966 *Nopalea hondurensis* > *Opuntia* sp.
 01473 *Nopalea inaperta* ≡ *Opuntia inaperta*..... • 487.7
 10377 ® *Nopalea karwinskiana* ≡ *Opuntia karwinskiana*
 01474 *Nopalea lutea* ≡ *Opuntia lutea*
 10378 *Nopalea nuda* > *Opuntia cochenillifera*
- 10500 *Opuntia abjecta* > *Opuntia triacantha*
 10501 *Opuntia abyssii* ≡ *Cylindropuntia abyssii*
 01620 *Opuntia acanthocarpa* ≡ *Cylindropuntia acanthocarpa*
 10502 ***Opuntia aciculata***MX, US •
 01622 *Opuntia aequatorialis* [*O. pubescens* x ?] [EC]
 02752 *Opuntia aggeria* ≡ *Grusonia aggeria*
 01623 *Opuntia agglomerata* > *Grusonia grahamii*
 12536 *Opuntia albicarpa* > *Opuntia ficus-indica*
 01624 *Opuntia albisaetacens* > *Tunilla corrugata*
 06871 *Opuntia alcahes* ≡ *Cylindropuntia alcahes*
 12259 *Opuntia alcerrecensis* > *Tunilla soehrensii*
 01532 *Opuntia alexanderi* ≡ *Tephrocactus alexanderi*
 01625 *Opuntia alko-tuna* > indet.
 01626 *Opuntia ammophila* > *Opuntia humifusa*
 01627 *Opuntia anacantha* > *O. elata*
 14350 *Opuntia andersonii* [*O. engelmannii* x *O. microdasys*]
 01628 *Opuntia anteojoensis* > *Cylindropuntia anteojoensis*
 01629 *Opuntia antillana* > *Opuntia xcubensis*
 01630 *Opuntia aoracantha* ≡ *Tephrocactus aoracanthus*
 12167 *Opuntia apurimacensis* > *Opuntia ficus-indica*
 13805 *Opuntia araucana* ≡ *Pterocactus araucanus*
 01534 *Opuntia arbuscula* ≡ *Cylindropuntia arbuscula*
 01631 *Opuntia arcei* > *Opuntia streptacantha*?
 12786 *Opuntia archiconoidea* ≡ *Maihueiniopsis archiconoidea*
 01535 ***Opuntia arechavaletae***AR, UY • 490.4
 01632 *Opuntia arenaria* > *Opuntia polyacantha*
 01634 ® *Opuntia armata* indet.
 01635 *Opuntia arrastradillo* > *Opuntia stenopetala*
 01636 *Opuntia articulata* ≡ *Tephrocactus articulatus*
 10506 *Opuntia asplundii* > *Cumulopuntia boliviana*
 01637 *Opuntia assumptionis* > *Opuntia elata*..... • 490.5
 01638 *Opuntia atacamensis* ≡ *Maihueiniopsis atacamensis*
 01639 ***Opuntia atrispina***.....MX, US • 502.1
 01641 *Opuntia atropes* > *Opuntia velutina*
 01640 *Opuntia atrovirens* > *Opuntia elata*

- 01536 *Opuntia auberi*.....MX • 487.1-2
01643 *Opuntia aurantiaca*AR, UY • 489.1?
01644 *Opuntia aurea*.....US • 500.1
01645 *Opuntia aureispina*.....MX, US • 502.2
01646 *Opuntia austrina* > *Opuntia humifusa*
01647 *Opuntia azurea* ~ *Opuntia phaeacantha*
01648 *Opuntia backebergii* > *Cumulopuntia boliviana boliviana*
10509 *Opuntia bahamana* [*Opuntia stricta* x *Consolea* sp.]
10510 *Opuntia bahiensis* > *Brasiliopuntia brasiliensis*
01649 *Opuntia bakeri* > *Opuntia aequatorialis*
10471 *Opuntia ballii* > *Opuntia arechavaletae*
01650 *Opuntia basilaris*MX, US • 500.2
01652 *Opuntia bella* > *Opuntia pittieri*
01653 *Opuntia bensonii* > *Opuntia engelmannii*
01537 *Opuntia bergeriana* > *Opuntia elatior*
02626 (M) *Opuntia berteri* > *Cumulopuntia leucophaea*
01538 *Opuntia bigelovii* ≡ *Cylindropuntia bigelovii*
01654 *Opuntia bisetosa* > *Opuntia caracassana*
01655 (R) *Opuntia bispinosa* > *Opuntia* sp.
01656 *Opuntia blancii* > *Austrocylindropuntia floccosa*
01539 *Opuntia boldinghii*AN, TT, VE • 494.2-3
01657 *Opuntia boliviana* ≡ *Cumulopuntia boliviana*
10511 *Opuntia boliviensis* > *Tunilla soehrensii*
10512 *Opuntia bonaerensis*AR •
13477 *Opuntia bonnieae* ≡ *Tephrocactus bonnieae*
01658 *Opuntia borinquensis* > *Opuntia curassavica*
12169 *Opuntia brachyacantha* > *Opuntia sulphurea*
01661 *Opuntia bradleyi* > *Austrocylindropuntia cylindrica*
01662 *Opuntia bradtiana* ≡ *Grusonia bradtiana*
01663 *Opuntia brasiliensis* ≡ *Brasiliopuntia brasiliensis*
12437 *Opuntia brasiliensis subacarpa* > *Brasiliopuntia brasiliensis*
01540 *Opuntia bravoana*.....MX • -
01664 *Opuntia brevispina* > *Cylindropuntia alcahes*
07886 *Opuntia bruchii* > *Tephrocactus alexanderi*
12170 *Opuntia brunneogemmia* > *Opuntia monacantha*
01665 *Opuntia brunnescens* > *Opuntia stricta*
01666 *Opuntia bulbispina* ≡ *Grusonia bulbispina*
01541 *Opuntia burrageana* > *Cylindropuntia alcahes*
10513 *Opuntia calcicola* > *Opuntia humifusa*
07956 *Opuntia californica* ≡ *Cylindropuntia californica*
01542 *Opuntia camachoii* > *Maihueiopsis glomerata* > • 462.3
01667 *Opuntia camanchica* > *Opuntia phaeacantha* > • 507.2


- 10515 *Opuntia campestris* > *Cumulopuntia sphaerica*
 13478 *Opuntia campii* > *Cylindropuntia campii*
 10517 **Opuntia canina**AR • 490.1
 01668 *Opuntia cantabrigiensis* > *Opuntia engelmannii*
 01543 *Opuntia canterae* > *Opuntia elata*
 01669 **Opuntia caracassana**AN, TT, VE, WI • 495.1
 01670 *Opuntia cardenche* > *Cylindropuntia imbricata*
 01671 *Opuntia cardiosperma* > *Opuntia elata*
 01672 *Opuntia caribaea* ≡ *Cylindropuntia caribaea*
 14578 *Opuntia carstenii* [*O. stenopetala* x *O. microdasys*]
 01673 *Opuntia catingicola* > *Tacinga palmadora*
 10472 *Opuntia cedergreniana* > *Tunilla soehrensii*
 01544 **Opuntia chaffeyi**MX • 488.1-3
 10519 *Opuntia chakensis* > *Opuntia elata*
 01674 *Opuntia chavena* > *Opuntia hyptiacantha*
 14500 *Opuntia chiangiana* >
 01675 *Opuntia chichensis* ≡ *Cumulopuntia chichensis*
 01676 *Opuntia chihuahuensis* > *Opuntia phaeacantha*
 01677 *Opuntia chisosensis* ~ *O. azurea*
 01678 **Opuntia chlorotica**MX, US • 502.4, 503.1
 02579 *Opuntia cholla* ≡ *Cylindropuntia cholla*
 01679 *Opuntia chuquisacana* > *Austrocylindropuntia vestita*
 01680 *Opuntia cineracea* > *Cylindropuntia tesajo*
 01681 *Opuntia clavarioides* ≡ *Maihueniopsis clavarioides*
 01682 *Opuntia clavata* ≡ *Grusonia clavata*
 01683 *Opuntia cochabambensis* > *Brasiliopuntia schickendantzii?*
 01684 **Opuntia cochenillifera**MX • 487.3-4
 07018 *Opuntia cochineria* [*O. robusta* x *O. streptacantha?*]
 12171 *Opuntia cognata* > *Opuntia elata*
 12809 *Opuntia colorea* ≡ *Maihueniopsis colorea*
 01685 *Opuntia colubrina* > *Brasiliopuntia schickendantzii*
 01686 *Opuntia columbiana* [*O. fragilis* x *O. polyacantha*]
 10520 *Opuntia comonduensis* > *Opuntia tapona?*
 10521 **Opuntia compressa** > *Opuntia humifusa*
 07021 *Opuntia congesta* > *Cylindropuntia congesta*
 12172 *Opuntia conjungens* > *Brasiliopuntia schickendantzii?*
 01687 *Opuntia conoidea* ≡ *Maihueniopsis conoidea*
 10522 *Opuntia corotilla* ≡ *Cumulopuntia corotilla*
 01689 *Opuntia corrugata* ≡ *Tunilla corrugata*
 01690 **Opuntia crassa**
 01691 *Opuntia crassicylindrica* > *Cumulopuntia sphaerica*
 12787 *Opuntia crassisipina* ≡ *Maihueniopsis crassisipina*

- 10524 *Opuntia crispicrinata* > *Austrocyllindropuntia floccosa*
 01692 [N](#) *Opuntia crystalenia*
 01693 *Opuntia cubensis* [*O. stricta* x *O. militaris*?]
 01695 **Opuntia curassavica**AN, CO, LA, VE
 10527 *Opuntia curvispina* [*O. chlorotica* x *O. phaeacantha*] • 507.3-4
 01696 *Opuntia cylindrarticulata* > *Cumulopuntia boliviana dactylifera*
 01697 *Opuntia cylindrica* ≡ *Austrocyllindropuntia cylindrica*
 10528 *Opuntia cylindrolanata* > *Austrocyllindropuntia floccosa*
 01698 *Opuntia cymochila* > *Opuntia tortispina*
 01699 *Opuntia dactylifera* ≡ *Cumulopuntia boliviana dactylifera*
 10474 *Opuntia darrahiana* > *Opuntia xlucaiana*?
 01546 *Opuntia darwinii* ≡ *Maihueniopsis darwinii*
 01547 *Opuntia davisii* ≡ *Cylindropuntia davisii*
 01549 **Opuntia deamii**GT, MX •
 13968 *Opuntia debreczyi*
 01700 **Opuntia decumbens**GT, HN, MX, NI, PA • 499.1
 01701 **Opuntia dejecta**[CU], MX • 487.5-6
 01548 *Opuntia delaetiana* > *Opuntia elata*
 10530 *Opuntia demissa* [*O. oricola* x *O. littoralis*?]
 12120 *Opuntia densispina* > *Grusonia schottii*
 01703 *Opuntia depauperata* > *Opuntia pubescens*
 01704 **Opuntia depressa**MX • 499.2
 10475 *Opuntia dillenii* > *Opuntia stricta* • 499.4-6
 01706 **Opuntia discolor**AR, BO •
 01707 *Opuntia distans* > *Opuntia quimilo*
 10476 *Opuntia dobbieana* > *Opuntia soederstromiana*
 12788 *Opuntia domeykoensis* ≡ *Maihueniopsis domeykoensis*
 10477 *Opuntia drummondii* > *Opuntia pusilla*
 01709 *Opuntia dumetorum* > *Opuntia pubescens*
 01710 *Opuntia durangensis* > *Opuntia leucotricha*
 01708 *Opuntia echinacea* ≡ *Cumulopuntia boliviana echinacea*
 01711 *Opuntia echinocarpa* ≡ *Cylindropuntia echinocarpa*
 01550 [1](#) *Opuntia echios* > *Opuntia galapageia*
 01712 *Opuntia edwardsii* [*O. engelmannii* x *O. macrorhiza*] • 496.6
 01551 *Opuntia eichlamii* > *Opuntia elatior*
 01552 *Opuntia ekmanii* > *Opuntia repens*
 01713 **Opuntia elata**AR, BR, PY, UY • 491.1
 01714 **Opuntia elatior**AN, CR?, PA, VE, WI •
 12121 *Opuntia elizondoana* > *Opuntia pubescens* hybrid?
 01553 *Opuntia ellisiana*[US; cultivar?] •
 01554 *Opuntia emoryi* ≡ *Grusonia emoryi*
 01555 **Opuntia engelmannii**MX, US • 503.2-4, 504.2-3

- 01715 *Opuntia erectoclada* ≡ Tunilla erectoclada
 01716 *Opuntia erinacea* > *Opuntia polyacantha* • 497.2
 02753 *Opuntia estevesii* ≡ *Tacinga saxatilis estevesii*
 10535 *Opuntia exaltata* ≡ *Austrocylindropuntia subulata exaltata*
 01717 ***Opuntia excelsa*** MX •
 01718 *Opuntia falcata* > *Consolea macracantha*
 01719 ***Opuntia feroacantha*** MX •
 01720 *Opuntia ferocior* > *Cumulopuntia chichensis*
 01556 ***Opuntia ficus-indica*** MX? • 508.5
 01722 *Opuntia flexuosa* > *Tephrocactus alexanderi*
 01723 *Opuntia floccosa* ≡ *Austrocylindropuntia floccosa*
 01557 *Opuntia fosbergii* > *Cylindropuntia fosbergii*
 01724 ***Opuntia fragilis*** CA, US •
 12537 *Opuntia frigida* > *Cumulopuntia boliviana ignescens*
 01725 *Opuntia fulgida* ≡ *Cylindropuntia fulgida*
 01726 ***Opuntia fuliginosa*** MX •
 01727 *Opuntia fulvicoma* > *Cumulopuntia boliviana boliviana*
 01728 ***Opuntia galapageia*** EC • 493.2-4, 494.1
 12790 *Opuntia galerasensis* > *Cumulopuntia boliviana boliviana*
 12538 *Opuntia ganderi* ≡ *Cylindropuntia ganderi*
 14581 *Opuntia gaumeri* ~ *Opuntia inaperta* [*Nopalea* sp.]
 01729 *Opuntia geometrica* > *Tephrocactus alexanderi*
 01731 *Opuntia glomerata* ≡ *Maihueniopsis glomerata*
 07848 ***Opuntia glomerata*** > *Tephrocactus articulatus*
 13806 ***Opuntia gonjianii*** ≡ *Pterocactus gonjianii*
 01558 ***Opuntia gosseliniana*** MX • 505.1-2
 01559 *Opuntia grahamii* ≡ *Grusonia grahamii*
 01560 *Opuntia grosseana* > *Opuntia* sp. aff. *O. elata*
 01733 ***Opuntia guatemalensis*** GT •
 12793 *Opuntia guatinensis* > *Cumulopuntia boliviana ignescens*
 01734 ***Opuntia guilanchi*** MX •
 01735 *Opuntia halophila* ≡ *Tephrocactus halophilus*
 10540 ***Opuntia hamiltoniae*** > *Cylindropuntia californica*
 01736 *Opuntia heacockiae* > *Opuntia polyacantha*
 10541 *Opuntia heliabravoana* > cf. *O. spinulifera*
 10542 *Opuntia heliae* > *Opuntia puberula*
 01563 *Opuntia helleri* > *Opuntia galapageia*
 07091 *Opuntia heteromorpha* > *Austrocylindropuntia vestita*
 10478 *Opuntia hickenii* ≡ *Maihueniopsis hickenii*
 13807 ***Opuntia hickenii*** ≡ *Pterocactus hickenii*
 01737 *Opuntia hirschii* > *Austrocylindropuntia floccosa*
 01566 *Opuntia hitchcockii* Indet.

- 01738 *Opuntia hondurensis* > *Opuntia* [Nopalea] sp.
01567 *Opuntia howeyi* indet.
01740 ***Opuntia huajuapensis***.....MX • 509.1-2
01741 ***Opuntia humifusa***CA, US • 498.4
01742 ***Opuntia hyptiacantha***.....MX • 509.4
12256 *Opuntia ianthinantha* > *Tunilla erectoclada*
01744 *Opuntia ignescens* ≡ *Cumulopuntia boliviana ignescens*
01746 *Opuntia imbricata* ≡ *Cylindropuntia imbricata*
01747 *Opuntia inaequilateralis* > *O. aff. streptacantha?*.....[PE] • 495.4
01748 *Opuntia inamoena* ≡ *Tacinga inamoena*
12789 ***Opuntia inaperta***.....MX • 487.7
12257 *Opuntia infesta* > *Opuntia pubescens*
01749 *Opuntia insularis* > *Opuntia galapageia*
04602 *Opuntia interjecta* [*O. retrorsa* x *O. sulphurea?*].....BO •
01750 *Opuntia invicta* ≡ *Grusonia invicta*
07110 *Opuntia ipatiana* > *Opuntia salmiana*
01751 *Opuntia jaliscana* > *Opuntia tomentosa?*
01752 *Opuntia jamaicensis* Indet.
02622 *Opuntia joconostle* > *Opuntia ficus-indica*
01568 ® *Opuntia karwinskiana* > *O. [Nopalea] sp.*
01753 *Opuntia kelvinensis* ≡ *Cylindropuntia kelvinensis*
10480 *Opuntia kiska-loro* > *Opuntia canina*
01569 *Opuntia kleiniae* ≡ *Cylindropuntia kleiniae*
10481 *Opuntia kuehnrhichiana* > *Cumulopuntia sphaerica*
13808 *Opuntia kuntzei* > *Pterocactus tuberosus*
01570 *Opuntia kunzei* ≡ *Grusonia kunzei*
01754 *Opuntia laetevirens* > *Tunilla sohrensii*
01755 *Opuntia laevis* > *Opuntia phaeacantha*
01756 *Opuntia lagopus* ≡ *Punotia lagopus*
01757 ***Opuntia lagunae***MX • 506.1
01571 *Opuntia larreyi* > *Opuntia robusta*
01759 ***Opuntia lasiacantha***MX • 510.2
01761 *Opuntia leptocaulis* ≡ *Cylindropuntia leptocaulis*
07120 *Opuntia leucophaea* ≡ *Cumulopuntia leucophaea*
01762 ***Opuntia leucotricha***MX • 510.3-5
02638 *Opuntia lilae* ≡ *Tacinga lilae*
12173 *Opuntia limitata* > *Opuntia elata*
12837 *Opuntia lindsayi* ≡ *Cylindropuntia lindsayi*
01763 *Opuntia linguiformis* > *Opuntia engelmannii*
01764 ***Opuntia littoralis***.....MX, US • 505.3
12791 *Opuntia llanos-de-huanta* ≡ *Maihueniopsis grandiflora*
01573 *Opuntia lloydii* > *Cylindropuntia imbricata*


- 01765 *Opuntia longiareolata* > *Opuntia basilaris*
 01766 *Opuntia longispina*
 01767 *Opuntia lucayana* [*O. dillenii* x *Consolea macracantha*]?BS •
 12792 **Opuntia lutea**CR, GT, HN, NI •
 01768 *Opuntia macracantha* ≡ *Consolea macracantha*
 01769 **Opuntia macrocentra**MX, US • 506.2
 01770 **Opuntia macrorhiza**MX, US • 496.3
 01771 *Opuntia mamillata* ≡ *Cylindropuntia fulgida*
 01772 *Opuntia mandragora* > *Maihueniopsis minuta*
 01575 *Opuntia marenae* ≡ *Grusonia marenae*
 01774 *Opuntia martiniana* [x] > *Opuntia xcurvispina*?
 01775 *Opuntia matudae* > *Opuntia hyptiacantha*
 01777 *Opuntia megacantha* > *Opuntia ficus-indica*
 02618 **Opuntia megapotamica**AR, BR, UY • 491.2-3 [to be revised]
 01779 **Opuntia megarrhiza**MX • 488.4-5
 01780 *Opuntia megasperma* > *Opuntia galapageia*
 13810 *Opuntia meglolioli* ≡ *Pterocactus meglolioli*
 10554 *Opuntia mesacantha* > *Opuntia humifusa*
 01782 **Opuntia microdasys**MX • 500.3, 501.1
 01783 *Opuntia microdisca* ≡ *Tunilla microdisca*
 01576 *Opuntia mieckleyi* > *Opuntia elata*
 10555 *Opuntia militaris* > *Opuntia triacantha*
 01577 *Opuntia millspaughii* > *Consolea macracantha*
 07148 *Opuntia minuscula* > *Tunilla soehrensii*
 01784 *Opuntia minuta* ≡ *Maihueniopsis minuta*
 01578 *Opuntia miquelii* ≡ *Miqueliopuntia miquelii*
 01785 *Opuntia mistiensis* > *Cumulopuntia corotilla*
 01579 *Opuntia moelleri* ≡ *Grusonia moelleri*
 01786 *Opuntia mojavensis* > *Opuntia phaeacantha*
 01787 *Opuntia molesta* ≡ *Cylindropuntia molesta*
 01788 *Opuntia molinensis* ≡ *Tephrocactus molinensis*
 01789 **Opuntia monacantha**AR, BR, PY, UY • 491.4-5
 12439 *Opuntia monacantha brunneogemma* > *Opuntia megapotamica*
 01790 *Opuntia moniliformis* ≡ *Consolea moniliformis*
 01791 *Opuntia montevideensis* > *Opuntia aurantiaca*
 01795 *Opuntia multigeniculata* ≡ *Cylindropuntia multigeniculata*
 01580 *Opuntia munzii* ≡ *Cylindropuntia munzii*
 07154 *Opuntia myriacantha* > *Opuntia galapageia*
 01581 *Opuntia nashii* > *Consolea macracantha*
 01796 *Opuntia nejapensis* > *Opuntia stricta*
 07156 *Opuntia neoarbuscula* ≡ *Cylindropuntia neoarbuscula*
 01797 *Opuntia neoargentina* > *Brasiliopuntia brasiliensis*

- 01798 *Opuntia neochrysantha* > *Opuntia engelmannii*
 10559 *Opuntia neuquensis* > *Maihueniopsis playacantha*
 01800 *Opuntia nigrispina* ≡ *Tephrocactus nigrispinus*
 10562 *Opuntia occidentalis* [*O. littoralis* x (*O. engelmannii* x *O. phaeacantha*)]
 10563 *Opuntia ochrocentra* > *Opuntia xcubensis*
 14558 *Opuntia olmeca* > ?MX •
 01803  *Opuntia orbiculata*
 01804 ***Opuntia oricola***MX, US • 506.3
 01805 *Opuntia orurensis* > *Tunilla soehrensii*
 01806 *Opuntia ovata* ≡ *Maihueniopsis ovata*
 01807 *Opuntia pachona* > *Opuntia streptacantha*
 01808 *Opuntia pachypus* ≡ *Austrocylindropuntia pachypus*
 13902 ***Opuntia pachyrrhiza*** [2x] ~ *Opuntia megarrhiza* [6x]MX •
 01809 *Opuntia pailana* > *Opuntia leucotricha*
 10566 *Opuntia pallida* > *Cylindropuntia rosea*
 01810 *Opuntia palmadora* ≡ *Tacinga palmadora*
 12440 *Opuntia palmadora catingicola* > *Tacinga palmadora*
 01812 *Opuntia paraguayensis* > *Opuntia ficus-indica*
 01582 *Opuntia parishii* ≡ *Grusonia parishii*
 01584 *Opuntia parryi* > *Cylindropuntia californica*
 12869 ***Opuntia parviclada***MX • 495.2
 10568 *Opuntia pascoensis* > *Opuntia pubescens*
 07169 *Opuntia patagonica* ≡ *Maihuenia patagonica*
 01813 *Opuntia penicilligera* > *Opuntia* aff. *phaeacantha*AR •
 01586 *Opuntia pennellii* > *Opuntia caracassana*
 01587 *Opuntia pentlandii* > *Cumulopuntia boliviana boliviana*
 10569 *Opuntia pestifer* > *Opuntia pubescens*[PE] • 495.5
 01814 ***Opuntia phaeacantha***MX, US • 507.1-2
 01816 ***Opuntia pilifera***MX • 511.1-2
 14307 ***Opuntia pinkavae***US •
 01588 ***Opuntia pittieri***CO • 494.4
 12258 *Opuntia pituitosa* > *Opuntia megapotamica*
 01817 *Opuntia platyacantha* ≡ *Maihueniopsis platyacantha*
 01818 *Opuntia plumbea* > *Opuntia macrorrhiza*
 01820 ***Opuntia polyacantha***CA, MX, US • 496.5, 497.1-4, 498.1-2
 01821 *Opuntia posnanskyana* > *Tephrocactus verschaefeltii*
 01589 ***Opuntia pottsii***MX, US • 496.4
 01822 *Opuntia prasina* > *Opuntia elata*
 01823 *Opuntia prolifera* ≡ *Cylindropuntia prolifera*
 10573 *Opuntia pseudo-udonis* > *Austrocylindropuntia floccosa*
 01824 ***Opuntia puberula***GT, MX • 499.3
 01825 ***Opuntia pubescens***BO, EC, GT, MX, PE, PY, VE • 495.3, 495.5

- 01828 *Opuntia pumila* > *Opuntia pubescens* > • 495.3
 01829 *Opuntia punta-caillan* > *Austrocylindropuntia floccosa*
 07182 *Opuntia purpurea* > *Tephrocactus nigrispinus*
 01830 **Opuntia pusilla**.....US • -
 01831 **Opuntia pycnantha**.....MX • 501.5
 01832 *Opuntia pyriformis* > *Opuntia leucotricha*
 10574 *Opuntia pyrrhacantha* > *Cumulopuntia boliviana boliviana*
 12174 *Opuntia pyrrhacantha* > *Opuntia elata*
 01590 **Opuntia quimilo**AR, BO, PY • 491.6, 492.1
 10491 *Opuntia quipa* [x] > *Tacinga xquipa*
 01833 **Opuntia quitensis**EC, PE • 492.5.493.1
 06937 *Opuntia rahmeri* > *Cumulopuntia leucophaea?*
 01834 *Opuntia ramosissima* ≡ *Cylindropuntia ramosissima*
 02619 **Opuntia rastrera** ~ *Opuntia engelmannii*MX • 504.1
 10575 *Opuntia rauhii* > *Austrocylindropuntia floccosa*
 10576 *Opuntia rauppiana* > *Cumulopuntia sphaerica*
 01835 *Opuntia reflexispina* ≡ *Grusonia reflexispina*
 06938 *Opuntia reicheana* ≡ *Maihue niopsis reicheana*
 01836 **Opuntia repens**PR • 495.6
 01837 **Opuntia retrorsa**AR, BO •
 01838 *Opuntia rhodantha* > *Opuntia polyacantha*
 01591 *Opuntia rileyi* > *Opuntia tomentosa*
 14582 **Opuntia rioplatense**.....AR, UY •
 01592 **Opuntia ritteri**MX •
 01839 *Opuntia riviereana* > *Opuntia stenopetala*
 01593 **Opuntia robinsonii**MX •
 00063 *Opuntia roborensis* > *Opuntia retrorsa?*
 01840 **Opuntia robusta**.....MX • 511.3-4
 13903 *Opuntia rooneyi* [*O. aureispina* x *O. macrocentra*]
 01841 *Opuntia rosarica* > *Cylindropuntia californica*
 01842 *Opuntia rosea* ≡ *Cylindropuntia rosea*
 12794 *Opuntia rossiana* ≡ *Cumulopuntia rossiana*
 01843 **Opuntia rubescens** ≡ *Consolea rubescens*
 01845 **Opuntia rufida**.....MX, US • 501.2-4
 10493 *Opuntia russellii* > *Maihue niopsis ovata*
 01846 *Opuntia rutila* > *Opuntia polyacantha*
 01847 *Opuntia rzedowskii* > *Opuntia lasiacantha*
 01848 *Opuntia salagria* > *Opuntia megapotamica*
 01594 **Opuntia salmiana**.....AR, BO, PY • 489.2
 01849 *Opuntia salvadorensis* > *Opuntia caracassana*
 12795 *Opuntia sanctae-barbarae* > *Cumulopuntia boliviana ignescens*
 13479 *Opuntia sanfelipensis* ≡ *Cylindropuntia sanfelipensis*

- 01850 **Opuntia sanguinea**.....JM • 494.5
 01851 *Opuntia santa-rita* > *Opuntia gosseliniana*
 01852 *Opuntia santamaria* ≡ *Cylindropuntia santamaria*
 01853 *Opuntia sarca* > *Opuntia tomentosa*
 11881 *Opuntia saxatilis* ≡ *Tacinga saxatilis*
 01854 *Opuntia saxicola* > *Opuntia galapageia*
 01595 **Opuntia scheeri**MX •
 02669 *Opuntia scheinvariana* > *Opuntia puberula*
 01596 *Opuntia schickendantzii* ≡ *Brasiliopuntia schickendantzii* ..[• 489.3-5]
 01597 *Opuntia schottii* ≡ *Grusonia schottii*
 01855 *Opuntia schulzii* > *Brasiliopuntia brasiliensis*
 01598 **Opuntia schumannii**CO?, VE • 494.6
 06945 *Opuntia schumannii* → > *Tephrocactus molinensis*
 01856 (N) **Opuntia securigera** AR •
 01599 *Opuntia shaferi* ≡ *Austrocyllindropuntia shaferi*
 01858 *Opuntia silvestris* > *Tunilla soehrensii*
 10495 *Opuntia skottsbergii* > *Pterocactus hickenii*
 01600 **Opuntia soederstromiana**EC • 494.7
 01601 *Opuntia soehrensii* ≡ *Tunilla soehrensii*
 01859 *Opuntia sphaerica* ≡ *Cumulopuntia sphaerica*
 01860 *Opuntia sphaerocarpa* > *Opuntia macrorhiza*
 01861 *Opuntia spinosibacca* [*O. aureispina* x *O. phaeacantha*] • 502.3
 01862 *Opuntia spinosior* ≡ *Cylindropuntia spinosior*
 01863 *Opuntia spinosissima* ≡ *Consolea spinosissima*
 01864 (N) **Opuntia spinulifera**MX •
 01602 *Opuntia spraguei* > *Opuntia tomentosa*
 01603 *Opuntia stanlyi* > *Grusonia emoryi*
 01865 *Opuntia steiniana* > *Tephrocactus verschaffeltii*
 01866 **Opuntia stenarthra**PY •
 01867 **Opuntia stenopetala**MX • 512.3-4
 01868 **Opuntia streptacantha**MX • 512.1-2
 01869 **Opuntia stricta**AN, BS, CU, DO, JM, KY, MX, US, WI • 499.4-6
 01604 **Opuntia strigil**MX, US • 508.1
 01870 *Opuntia subsphaerocarpa* > *Opuntia stricta*
 01871 *Opuntia subterranea* ≡ *Cumulopuntia subterranea*
 01872 *Opuntia subulata* ≡ *Austrocyllindropuntia subulata*
 01873 **Opuntia sulphurea**AR, BO, PY • 492.2-4
 12441 *Opuntia sulphurea brachyacantha* > *Opuntia sulphurea*
 12442 *Opuntia sulphurea spinibarbis* > *Opuntia sulphurea*
 01874 *Opuntia superbispina* > *Opuntia phaeacantha*
 01605 **Opuntia tapona**MX •
 01875 *Opuntia tarapacana* > *Maihueiniopsis conoidea*?

- 01606 *Opuntia taylorii* > *Opuntia repens*? DO, HT • 496.1
 12870 ***Opuntia tehuacana***MX • 509.3
 01876 *Opuntia tehuantepecana* > *Opuntia stricta*.....MX • 499.7
 01877 *Opuntia tenuiflora* > *Opuntia stricta*
 10589 *Opuntia tephrocactoides* > *Austrocyllindropuntia floccosa*
 01607 *Opuntia tesajo* ≡ *Cylindropuntia tesajo*
 01878 *Opuntia tetracantha* ≡ *Cylindropuntia tetracantha*
 01608 *Opuntia thurberi* ≡ *Cylindropuntia thurberi*
 12796 *Opuntia ticnamarensis* > *Cumulopuntia boliviana ignescens*
 10591 *Opuntia tilcarensis* ≡ *Tunilla tilcarensis*
 01880 *Opuntia tomentella* > *Opuntia tomentosa*
 01881 ***Opuntia tomentosa***.....MX •
 10592 *Opuntia tortispina* [*Opuntia macrorhiza* x ?]US • 498.3
 01609 *Opuntia treleasei* > *Opuntia basilaris*
 01882 ***Opuntia triacantha***.....CU, PR, US, VI, WI • 496.2
 01884 *Opuntia trichophora* > *Opuntia polyacantha*
 12798 *Opuntia tumida* > *Cumulopuntia sphaerica*
 01610 ***Opuntia tuna***.....JM •
 01886 *Opuntia tunicata* ≡ *Cylindropuntia tunicata*
 01887 *Opuntia turbinata* > *Opuntia triacantha*
 01888 *Opuntia undulata* > *Opuntia ficus-indica*?
 01889 *Opuntia unguispina* > *Cumulopuntia sphaerica*
 01611 *Opuntia urbaniana* > *Consolea moniliformis*
 07242 *Opuntia ursina* > *Opuntia polyacantha*
 10594 *Opuntia utahensis* > *Opuntia polyacantha*
 10497 *Opuntia utkilio* > *Opuntia retrorsa*
 01890 *Opuntia vaginata* > *Cylindropuntia leptocaulis*
 13811 *Opuntia valentinii* ≡ *Pterocactus valentinii*
 01612 *Opuntia vaseyi* [*O. littoralis* x *O. phaeacantha*] • 508.2
 01891 ***Opuntia velutina***MX • 508.3-4
 14579 ***Opuntia ventanensis***AR •
 01613 *Opuntia verschaffeltii* ≡ *Tephrocactus verschaffeltii*
 01892 *Opuntia versicolor* ≡ *Cylindropuntia versicolor*
 01893 *Opuntia vestita* ≡ *Austrocyllindropuntia vestita*
 01894 *Opuntia vilis* ≡ *Grusonia vilis*
 01895 *Opuntia violacea* > *Opuntia macrocentra*
 01896 *Opuntia viridiflora* ≡ *Cylindropuntia viridiflora*
 12175 *Opuntia viridirubra* > *Opuntia retrorsa*
 12443 *Opuntia viridirubra rubrogemmia* > *Opuntia elata*
 12177 *Opuntia vitelliniflora* > *Opuntia elata*
 12444 *Opuntia vitelliniflora interjecta* > *Opuntia elata*
 07249 *Opuntia vivipara* ≡ *Cylindropuntia vivipara*

- 07251 *Opuntia vulgaris* > *Opuntia humifusa*
 11721  *Opuntia vulgaris* > *Opuntia monacantha*
 12799 *Opuntia wagenknechtii* > *Maihueniopsis wagenknechtii*
 01614 *Opuntia weberi* ≡ *Tephrocactus weberi*
 01615 *Opuntia weingartiana* > *Austrocylindropuntia shaferi*
 10498 *Opuntia wentiana* > *Opuntia caracassana*
 12122 *Opuntia wernerii* ≡ *Tacinga wernerii*
 01616 *Opuntia wetmorei* > *Maihueniopsis glomerata*
 01617 *Opuntia whipplei* ≡ *Cylindropuntia whipplei*
 01897 *Opuntia wigginsii* > *Cylindropuntia echinocarpa*
 01618 ***Opuntia wilcoxii***MX ●
 12505 *Opuntia wolfii* ≡ *Cylindropuntia wolfii*
 10596 *Opuntia woodsii* [*Opuntia phaeacantha* x ?]
 01619 *Opuntia wootonii* [*O. engelmannii* x *O. phaeacantha*]
 01898 *Opuntia yanganucensis* > *Austrocylindropuntia floccosa*
 13812 *Opuntia zamudioi* > *Opuntia leucotricha*?
 01900 *Opuntia zehnderi* ≡ *Cumulopuntia zehnderi*
- 02071 ***Pereskiopsis aquosa***MX ● 468.5
 02066 ***Pereskiopsis blakeana***MX ● 468.6
 10754 *Pereskiopsis chapistle* > *Pereskiopsis rotundifolia*
 02067 ***Pereskiopsis diguetii***MX ● 469.1
 02068 *Pereskiopsis gatesii* > *Pereskiopsis porteri*
 02069 ***Pereskiopsis kellermanii***GT, HN, MX ● 469.2
 10755 *Pereskiopsis opuntiiflora* > *Pereskia lychnidiflora*
 10756 *Pereskiopsis pititache* > *Pereskia lychnidiflora*
 02070 ***Pereskiopsis porteri***MX ● 469.3-4
 02072 ***Pereskiopsis rotundifolia***MX ● 469.5
 02073 *Pereskiopsis scandens* > *Pereskiopsis kellermanii*
 02074 *Pereskiopsis spathulata* > *Pereskiopsis diguetii*
 10757 *Pereskiopsis velutina* > *Pereskiopsis diguetii*
- 02173 ***Pterocactus araucanus***AR ● 466.1
 02174 ***Pterocactus australis***AR ● 466.2
 10927 *Pterocactus decipiens* > *Pterocactus tuberosus*
 02169 ***Pterocactus fischeri***AR ● 466.3
 02175 ***Pterocactus gonjianii***AR ● 466.4
 02170 ***Pterocactus hickenii***AR ● 466.5-6, 467.1
 02171 *Pterocactus kuntzei* > *Pterocactus tuberosus*
 02176 ***Pterocactus megliolii***AR ● 467.2, 467.4
 02177 ***Pterocactus reticulatus***AR ● 467.3
 02178 *Pterocactus skottsbergii* > *Pterocactus hickenii*

- 10929 **Pterocactus tuberosus**AR ● 467.5
 02172 **Pterocactus valentinii**AR ● 467.6
- 14406 **Punotia lagopus**BO, PE ●
- 11013 *Quiabentia pflanzii* > *Quiabentia verticillata*
 02185 **Quiabentia verticillata**AR, BO, PY ● 468.1-2
 02184 **Quiabentia zehntneri**BR ● 468.3-4
- 11303 *Tacinga atropurpurea* > *Tacinga funalis*
 02460 **Tacinga braunii**BR ● 483.1
 02461 **Tacinga funalis**BR ● 483.2
 13612 **Tacinga inamoena**BR ● 483.3
 14577 **Tacinga lilae** ~ *Tacinga palmadora*VE ●
 13613 **Tacinga palmadora**BR ● 483.5
 13614 *Tacinga quipa* [*Tacinga inamoena* x *T. palmadora*]BR ●
 13610 **Tacinga saxatilis**BR ● 484.1-3
 13611 **Tacinga saxatilis estevesii**BR ● 484.1-2
 14162 **Tacinga saxatilis saxatilis**BR ● 484.3
 14576 **Tacinga subcylindrica**BR ● 483.4
 13615 **Tacinga wernerii**BR ● 484.4-5
- 11314 **Tephrocactus alexanderi**AR ● 464.1-2
 07743 **Tephrocactus aoracanthus**AR ● 464.3
 11315 **Tephrocactus articulatus**AR ● 464.4-5, 465.1
 13917 **Tephrocactus bonnieae**AR ● 465.2
 11336 *Tephrocactus geometricus* > *Tephrocactus alexanderi*
 07751 **Tephrocactus halophilus**AR ●
 11349 **Tephrocactus molinensis**AR ● 465.3
 11352 **Tephrocactus nigrispinus**AR ● 465.4
 14429 **Tephrocactus nigrispinus atroglobosus**●
 14583 **Tephrocactus nigrispinus nigrispinus**●
 14404 **Tephrocactus recurvatus**AR ●
 14405 **Tephrocactus verschaffeltii**●
 11310 **Tephrocactus weberi**AR ● 465.5-6
- 13584 *Tunilla albisaetacens* > *Tunilla corrugata*
 13585 *Tunilla chilensis* > *Tunilla soehrensii*
 13586 **Tunilla corrugata**AR ● 482.3
 13587 **Tunilla erectoclada**AR ● -
 13588 *Tunilla ianthinantha* > *Tunilla erectoclada*
 13589 **Tunilla microdisca**AR ● 482.4

-
- 13590 *Tunilla minuscula* > *Tunilla soehrensii*
 - 13591 *Tunilla orurensis* > *Tunilla soehrensii*
 - 13592 *Tunilla picardoi* > *Tunilla erectoclada*
 - 13593 *Tunilla silvestris* > *Tunilla soehrensii*
 - 13594 **Tunilla soehrensii**AR, BO, CL, PE • 482.5
 - 13595 **Tunilla tilcarensis**AR • 482.6

Appendix

List of taxa subject to the CITES exemption for stems, flowers, and parts and derivatives thereof of naturalized or artificially propagated plants of the genus *Opuntia* subgenus *Opuntia*.

Note: Following the classification of the genus *Opuntia* and its relatives proposed for the third edition of the CITES Cactaceae Checklist the genus is co-extensive with that of *Opuntia* subgenus *Opuntia* in previous editions.

- 10500 *Opuntia abjecta* > *Opuntia* aff. *humifusa*
- 10502 ***Opuntia aciculata***MX, US •
- 01622 *Opuntia aequatorialis* [*Opuntia pubescens* x ?]
- 12536 *Opuntia albicarpa* > *Opuntia ficus-indica*
- 01625 *Opuntia alko-tuna* > Indet.
- 01626 *Opuntia ammophila* > *Opuntia humifusa*
- 01627 *Opuntia anacantha* > *Opuntia elata* • 490.3
- 14350 *Opuntia andersonii* [*O. engelmannii* x *O. microdasys*]
- 01629 *Opuntia antillana* > *Opuntia xcubensis*
- 12167 *Opuntia apurimacensis* > *Opuntia ficus-indica*
- 01631 *Opuntia arcei* > *Opuntia streptacantha*?
- 01535 ***Opuntia arechavaletae***AR, UY • 490.4
- 01632 *Opuntia arenaria* > *Opuntia polyacantha*
- 01635 *Opuntia arrastradillo* > *Opuntia stenopetala*
- 01637 *Opuntia assumptionis* > *Opuntia elata*..... • 490.5
- 01639 ***Opuntia atrispina***.....MX, US • 502.1
- 01641 *Opuntia atropes* > *Opuntia velutina*
- 01640 *Opuntia atrovirens* > *Opuntia elata*
- 01536 ***Opuntia auberi*** [*Nopalea*]MX • 487.1-2
- 01643 ***Opuntia aurantiaca***AR, UY • 489.1?
- 01644 ***Opuntia aurea***.....US • 500.1
- 01645 ***Opuntia aureispina***.....MX, US • 502.2
- 01646 *Opuntia austrina* > *Opuntia humifusa*
- 01647 ***Opuntia azurea*** ~ *Opuntia phaeacantha*
- 10509 *Opuntia bahamana* [*Opuntia stricta* x *Consolea* sp.]
- 01649 *Opuntia bakeri* > *Opuntia aequatorialis*
- 10471 *Opuntia ballii* > *Opuntia arechavaletae*
- 01650 ***Opuntia basilaris***MX, US • 500.2
- 01652 *Opuntia bella* > *Opuntia pittieri*
- 01653 *Opuntia bensonii* > *Opuntia engelmannii*

- 01537 *Opuntia bergeriana* > *Opuntia elatior*
 01654 *Opuntia bisetosa* > *Opuntia caracassana*
 01539 **Opuntia boldinghii**AN, TT, VE • 494.2-3
 10512 **Opuntia bonaerensis**AR •
 01658 *Opuntia borinquensis* > *Opuntia curassavica*
 12169 *Opuntia brachyacantha* > *Opuntia sulphurea*
 01540 **Opuntia bravoana**MX • -
 12170 *Opuntia brunneogemmia* > *Opuntia monacantha*
 01665 *Opuntia brunnescens* > *Opuntia stricta*
 10513 *Opuntia calcicola* > *Opuntia humifusa*
 01667 *Opuntia camanchica* > *Opuntia phaeacantha* > • 507.2
 10517 **Opuntia canina**AR • 490.1
 01668 *Opuntia cantabrigiensis* > *Opuntia engelmannii*
 01543 *Opuntia canterae* > *Opuntia elata*
 01669 **Opuntia caracassana**AN, TT, VE, WI • 495.1
 01671 *Opuntia cardiosperma* > *Opuntia elata*
 14578 *Opuntia carstenii* [*O. stenopetala* x *O. microdasys*]
 01544 **Opuntia chaffeyi**MX • 488.1-3
 10519 *Opuntia chakensis* > *Opuntia elata*
 01674 *Opuntia chavena* > *Opuntia hyptiacantha*
 14500 **Opuntia chiangiana**
 01676 *Opuntia chihuahuensis* > *Opuntia phaeacantha*
 01677 *Opuntia chisosensis* ~ *Opuntia azurea*
 01678 **Opuntia chlorotica**MX, US • 502.4, 503.1
 01684 **Opuntia cochenillifera** [Nopalea]MX • 487.3-4
 07018 *Opuntia cochineria* [*O. robusta* x *O. streptacantha*?]
 12171 *Opuntia cognata* > *Opuntia elata*
 01686x*Opuntia columbiana* [*O. fragilis* x *O. polyacantha*]
 10520 *Opuntia comonduensis* > *Opuntia tapona*?
 10521 ① **Opuntia compressa** > *Opuntia humifusa*
 01690 ② **Opuntia crassa**
 01692 ③ **Opuntia crystalenia**
 01693 *Opuntia cubensis* [*O. stricta* x *O. militaris*]
 01695 **Opuntia curassavica**AN, CO, LA, VE
 10527 *Opuntia curvispina* [*O. chlorotica* x *O. phaeacantha*] • 507.3-4
 01698 *Opuntia cymochila* > *Opuntia tortispina*
 10474 *Opuntia darrahiana* > *Opuntia xluçayana*?
 01549 **Opuntia deamii**GT, MX •
 13968 **Opuntia debreczyi**
 01700 **Opuntia decumbens**GT, HN, MX, NI, PA • 499.1
 01701 **Opuntia dejecta** [Nopalea][CU], MX • 487.5-6

- 01548 *Opuntia delaetiana* > *Opuntia elata*
 10530 *Opuntia demissa* [*O. oricola* x *O. littoralis*]
 01703 *Opuntia depauperata* > *Opuntia pubescens*
 01704 **Opuntia depressa**MX ● 499.2
 10475 *Opuntia dillenii* > *Opuntia stricta* ● 499.4-6
 01706 **Opuntia discolor**AR, BO ●
 01707 *Opuntia distans* > *Opuntia quimilo*
 10476 *Opuntia dobbieana* > *Opuntia soederstromiana*
 10477 *Opuntia drummondii* > *Opuntia pusilla*
 01709 *Opuntia dumetorum* > *Opuntia pubescens*
 01710 *Opuntia durangensis* > *Opuntia leucotricha*
 01550 ①*Opuntia echios* > *Opuntia galapageia*
 01712 *Opuntia edwardsii* [*O. engelmannii* x *O. macrorhiza*]US ● 496.6
 01551 *Opuntia eichlamii* > *Opuntia elatior*
 01552 *Opuntia ekmanii* > *Opuntia repens*
 01713 **Opuntia elata**BR, PY, UY ● 491.1
 01714 **Opuntia elatior**AN, CR?, PA, VE, WI ●
 12121 *Opuntia elizondoana* > *Opuntia pubescens* hybrid?
 01553 *Opuntia ellisiana*[US; cultivar?] ●
 01555 **Opuntia engelmannii**MX, US ● 503.2-4, 504.2-3
 01716 *Opuntia erinacea* > *Opuntia polyacantha* ● 497.2
 01717 **Opuntia excelsa**MX ●
 01719 **Opuntia feroacantha**MX ●
 01556 **Opuntia ficus-indica**MX? ● 508.5
 01724 **Opuntia fragilis**CA, US ●
 01726 **Opuntia fuliginosa**MX ●
 01728 **Opuntia galapageia**EC ● 493.2-4, 494.1
 14581 *Opuntia gaumeri* ~ *Opuntia inaperta*
 01558 **Opuntia gosseliniana**MX ● 505.1-2
 01560 *Opuntia grosseana* > *Opuntia* sp. aff. *O. elata*
 01733 **Opuntia guatemalensis**GT ●
 01734 **Opuntia guilanchi**MX ●
 01736 *Opuntia heacockiae* > *Opuntia polyacantha*
 10541 *Opuntia heliabravoana* > cf. *O. spinulifera*
 10542 *Opuntia heliae* > *Opuntia puberula*
 01563 *Opuntia helleri* > *Opuntia galapageia*
 01566 *Opuntia hitchcockii* indet.
 01738 *Opuntia hondurensis* > *Opuntia* [*Nopalea*] sp.
 01567 *Opuntia howeyi* indet.
 01740 **Opuntia huajuapensis**MX ● 509.1-2
 01741 **Opuntia humifusa**CA, US ● 498.4

- 01742 **Opuntia hyptiacantha**.....MX ● 509.4
 01747 *Opuntia inaequilateralis* > *O. aff. streptacantha?*.....[PE] ● 495.4
 12789 **Opuntia inaperta** [Nopalea]MX ● 487.7
 12257 *Opuntia infesta* > *Opuntia pubescens*
 01749 *Opuntia insularis* > *Opuntia galapageia*
 04602 *Opuntia interjecta* [*O. retrorsa* x *O. sulphurea*].....BO ●
 07110 *Opuntia ipatiana* > *Opuntia salmiana*
 01751 *Opuntia jaliscana* > *Opuntia tomentosa?*
 01752 *Opuntia jamaicensis* Indet.
 02622 *Opuntia joconostle* > *Opuntia ficus-indica*
 01568 *Opuntia karwinskiana* > *Opuntia* [Nopalea] sp.
 10480 *Opuntia kiska-loro* > *Opuntia cf. canina*
 01755 *Opuntia laevis* > *Opuntia phaeacantha*
 01757 **Opuntia lagunae**MX ● 506.1
 01571 *Opuntia larreyi* > *Opuntia robusta*
 01759 **Opuntia lasiacantha**MX ● 510.2
 01762 **Opuntia leucotricha**MX ● 510.3-5
 12173 *Opuntia limitata* > *Opuntia elata*
 01763 *Opuntia linguiformis* > *Opuntia engelmannii*
 01764 **Opuntia littoralis**.....MX, US ● 505.3
 01765 *Opuntia longiareolata* > *Opuntia basilaris*
 01767 *Opuntia lucayana* [*O. stricta* x *Consolea macracantha?*].....BS ●
 12792 **Opuntia lutea**CR, GT, HN, NI ●
 01769 **Opuntia macrocentra**MX, US ● 506.2
 01770 **Opuntia macrorhiza**.....MX, US ● 496.3
 01774 *Opuntia martiniana* [x] > *Opuntia curvispina?*
 01775 *Opuntia matudae* > *Opuntia hyptiacantha*
 01777 *Opuntia megacantha* > *Opuntia ficus-indica*
 02618 **Opuntia megapotamica**AR, BR, UY ● 491.2-3 [to be revised]
 01779 **Opuntia megarrhiza**MX ● 488.4-5
 01780 *Opuntia megasperma* > *Opuntia galapageia*
 10554 *Opuntia mesacantha* > *Opuntia humifusa*
 01782 **Opuntia microdasys**.....MX ● 500.3, 501.1
 01576 *Opuntia mieckleyi* > *Opuntia elata*
 10555 *Opuntia militaris* > *Opuntia triacantha*
 01786 *Opuntia mojavensis* > *Opuntia phaeacantha*
 01789 **Opuntia monacantha**AR, BR, PY, UY ● 491.4-5
 12439 *Opuntia monacantha brunneogemma* > *Opuntia megapotamica*
 01791 *Opuntia montevideensis* > *Opuntia aurantiaca*
 07154 *Opuntia myriacantha* > *Opuntia galapageia*
 01796 *Opuntia nejapensis* > *Opuntia stricta*

- 01798 *Opuntia neochrysantha* > *Opuntia engelmannii*
 10562 *Opuntia occidentalis* [*O. littoralis* x (*O. engelmannii* x *O. phaeacantha*)]
 10563 *Opuntia ochrocentra* > *Opuntia xcupensis*
 14558 *Opuntia olmeca* > ?MX •
 01803 (R)*Opuntia orbiculata*
 01804 ***Opuntia oricola***MX, US • 506.3
 01807 *Opuntia pachona* > *Opuntia streptacantha*
 13902 ***Opuntia pachyrrhiza*** [2x] ~ *Opuntia megarrhiza* [6x]MX •
 01809 *Opuntia pailana* > *Opuntia leucotricha*
 01812 *Opuntia paraguayensis* > *Opuntia ficus-indica*
 12869 ***Opuntia parviclada***MX • 495.2
 10568 *Opuntia pascoensis* > *Opuntia pubescens*
 01813 *Opuntia penicilligera* > *Opuntia phaeacantha*[AR] •
 01586 *Opuntia pennellii* > *Opuntia caracassana*
 10569 *Opuntia pestifer* > *Opuntia pubescens*[PE] • 495.5
 01814 ***Opuntia phaeacantha***MX, US • 507.1-2
 01816 ***Opuntia pilifera***MX • 511.1-2
 14307 ***Opuntia pinkavae***US •-
 01588 ***Opuntia pittieri***CO • 494.4
 12258 *Opuntia pituitosa* > *Opuntia megapotamica*
 01818 *Opuntia plumbea* > *Opuntia macrorrhiza*
 01820 ***Opuntia polyacantha***CA, MX, US • 496.5, 497.1-4, 498.1-2
 01589 ***Opuntia pottsii***MX, US • 496.4
 01822 *Opuntia prasina* > *Opuntia elata*
 01824 ***Opuntia puberula***GT, MX • 499.3
 01825 ***Opuntia pubescens***BO, EC, GT, MX, PE, PY, VE • 495.3, 495.5
 01828 *Opuntia pumila* > *Opuntia pubescens* > • 495.3
 01830 ***Opuntia pusilla***US •
 01831 ***Opuntia pycnantha***MX • 501.5
 01832 *Opuntia pyriformis* > *Opuntia leucotricha*
 12174 *Opuntia pyrhantha* > *Opuntia elata*
 01590 ***Opuntia quimilo***AR, BO, PY • 491.6, 492.1
 01833 ***Opuntia quitensis***EC, PE • 492.5.493.1
 02619 ***Opuntia rastrera*** ~ *Opuntia engelmannii* MX • 504.1
 01836 ***Opuntia repens***PR • 495.6
 01837 ***Opuntia retrorsa***AR, BO •
 01838 *Opuntia rhodantha* > *Opuntia polyacantha*
 01591 *Opuntia rileyi* > *Opuntia tomentosa*
 14582 ***Opuntia rioplatense***AR, UY •
 01592 (N)*Opuntia ritteri* Indet.MX •
 01839 *Opuntia riviireana* > *Opuntia stenopetala*

- 01593 **N**Opuntia robinsonii Indet.....MX •
00063 Opuntia roborensis > Opuntia retrorsa?
01840 **Opuntia robusta**.....MX • 511.3-4
13903 Opuntia rooneyi [O. aureispina x O. macrocentra]
01845 **Opuntia rufida**.....MX, US • 501.2-4
01846 Opuntia rutila > Opuntia polyacantha
01847 Opuntia rzedowskii > Opuntia lasiacantha
01848 Opuntia salagria > Opuntia megapotamica
01594 **Opuntia salmiana**.....AR, BO, PY • 489.2
01849 Opuntia salvadorensis > Opuntia caracassana
01850 **Opuntia sanguinea**.....JM • 494.5
01851 Opuntia santa-rita > Opuntia gosseliniana
01853 Opuntia sarca > Opuntia tomentosa
01854 Opuntia saxicola > Opuntia galapageia
01595 **Opuntia scheeri**.....MX •
02669 Opuntia scheinvariana > Opuntia puberula
01598 **Opuntia schumannii**.....CO?, VE • 494.6
01856 **N**Opuntia securigera.....AR•
01600 **Opuntia soederstromiana**.....EC • 494.7
01860 Opuntia sphaerocarpa > Opuntia macrorhiza
01861 Opuntia spinosibacca [O. aureispina x O. phaeacantha] • 502.3
01864 **N**Opuntia spinulifera..... MX •
01602 Opuntia spraguei > Opuntia tomentosa
01866 **Opuntia stenarthra**.....PY •
01867 **Opuntia stenopetala**.....MX • 512.3-4
01868 **Opuntia streptacantha**.....MX • 512.1-2
01869 **Opuntia stricta**.....AN, BS, CU, DO, JM, KY, MX, US, WI • 499.4-6
01604 **Opuntia strigil**.....MX, US • 508.1
01870 Opuntia subsphaerocarpa > Opuntia stricta
01873 **Opuntia sulphurea**.....AR, BO, PY • 492.2-4
12441 Opuntia sulphurea brachyacantha > Opuntia sulphurea
12442 Opuntia sulphurea spinibarbis > Opuntia sulphurea
01874 Opuntia superbispina > Opuntia phaeacantha
01605 **Opuntia tapona**.....MX •
01606 Opuntia taylorii > Opuntia repens?..... DO, HT • 496.1
12870 **Opuntia tehuacana**.....MX • 509.3
01876 Opuntia tehuantepecana > Opuntia stricta.....MX • 499.7
01877 Opuntia tenuiflora > Opuntia stricta
01880 Opuntia tomentella > Opuntia tomentosa
01881 **Opuntia tomentosa**.....MX •
10592 Opuntia tortispina [O. macrorhiza x ?].....US • 498.3

- 01609 *Opuntia treleasei* > *Opuntia basilaris*
 01882 **Opuntia triacantha**.....CU, PR, US, VI, WI • 496.2
 01884 *Opuntia trichophora* > *Opuntia polyacantha*
 01610 *Opuntia tuna*JM •
 01887 *Opuntia turbinata* > *Opuntia triacantha*
 01888 *Opuntia undulata* > *Opuntia ficus-indica*?
 07242 *Opuntia ursina* > *Opuntia polyacantha*
 10594 *Opuntia utahensis* > *Opuntia polyacantha*
 10497 *Opuntia utkilio* > *Opuntia retrorsa*
 01612 *Opuntia vaseyi* [*O. littoralis* x *O. phaeacantha*]US • 508.2
 01891 **Opuntia velutina**MX • 508.3-4
 14579 **Opuntia ventanensis**AR •
 01895 *Opuntia violacea* > *Opuntia macrocentra*
 12175 *Opuntia viridirubra* > *Opuntia retrorsa*
 12443 *Opuntia viridirubra rubrogemma* > *Opuntia elata*
 12177 *Opuntia vitelliniflora* > *Opuntia elata*
 12444 *Opuntia vitelliniflora interjecta* > *Opuntia elata*
 07251 *Opuntia vulgaris* > *Opuntia humifusa*
 11721 **M***Opuntia vulgaris* > *Opuntia monacantha*
 10498 *Opuntia wentiana* > *Opuntia caracassana*
 01618 **Opuntia wilcoxii**.....MX •
 10596 *Opuntia woodsii* [*Opuntia phaeacantha* x ?]..... US •
 01619 *Opuntia wootonii* [*O. engelmannii* x *O. phaeacantha*]
 13812 *Opuntia zamudioi* > *Opuntia leucotricha*?