



IOS

**Repertorium
Plantarum
Succulentarum
XLIX (1998)**

Repertorium Plantarum Succulentarum XLIX (1998)

*Index nominum novarum plantarum succulentarum anno MCMXCVIII
editorum nec non bibliographia taxonomica ab U. Eggli et D. C. Zappi
compositus.*

International Organization for Succulent Plant Study
Internationale Organisation für Sukkulantenforschung

October 1999

ISSN 0486-4271

Conventions used in Repertorium Plantarum Succulentarum

- Repertorium Plantarum Succulentarum attempts to list, under separate headings, newly published names of succulent plants and relevant literature on the systematics of these plants, on an annual basis. New names noted after the issue for the relevant year has gone to press are included in later issues. Specialist periodical literature is scanned in full (as available at the libraries at ZSS and Z or received by the compilers). Also included is information supplied to the compilers direct. It is urgently requested that any reprints of papers not published in readily available botanical literature be sent to the compilers.
- Validly published names are given in bold face type, accompanied by an indication of the nomenclatural type (name or specimen dependent on rank), followed by the herbarium acronyms of the herbaria where the holotype and possible isotypes are said to be deposited (first acronym for holotype), according to Index Herbariorum, ed. 8 and supplements as published in Taxon. Invalid, illegitimate, or incorrect names are given in *italic* type face. In either case a full bibliographic reference is given. For new combinations, the basionym is also listed. For invalid, illegitimate or incorrect names, the articles of the ICBN which have been contravened are indicated in brackets (note that the numbering of some regularly cited articles has changed in the Tokyo (1994) edition of ICBN).
- The compilers would like to point out that they do not accept any names that might be inadvertently validated in this volume of RPS.
- Bibliographic details of papers dealing only with the description of one or two new taxa are not repeated in the bibliographic section.
- Abbreviations for periodicals are those suggested in 'Bibliography of Succulent Plant Periodicals' (U. Eggli in Friciana 60: 1-139, 1998 ('1995')) for specialized periodicals, or those of Bibliographia Periodicorum Huntianum (including Supplement) for most other periodicals.

Konventionen im Zusammenhang mit dem Repertorium Plantarum Succulentarum

- Das Repertorium Plantarum Succulentarum ist eine jährlich herausgegebene Zusammenstellung neuer Namen für sukkulente Pflanzen und der relevanten systematischen Literatur. Neue Namen, die nach der Drucklegung der Ausgabe des betreffenden Jahres bekannt werden, erscheinen in der nächsten erreichbaren Ausgabe. Spezialisierte Zeitschriften werden umfassend durchgesehen, soweit sie in den Bibliotheken von Z und ZSS vorhanden sind oder den Herausgebern privat vorliegen. Die Herausgeber bitten alle Autoren dringend, Separata relevanter Publikationen zur Verfügung zu stellen, vor allem wenn es sich um Beiträge in schwer zugänglichen Serien handelt.
- Gültig veröffentlichte Namen werden in Fettschrift wiedergegeben unter Angabe des nomenklatortischen Typs (Name oder Belegexemplar je nach Rangstufe; gefolgt von den Herbarakürzungen [entsprechend Index Herbariorum, ed. 8, und in Taxon publizierten Supplementen] der publizierten Hinterlegungsorte für Holotyp [1. Abkürzung] und Isotyphen). Ungültige, illegitime oder falsch angewandte Namen erscheinen in *Kursivschrift* unter Angabe (in Klammer) derjenigen Artikel des ICBN, die verletzt worden sind. In allen Fällen folgen die kompletten bibliographischen Angaben. Für Umkombinationen wird auch das Basionym angegeben. Dabei ist zu beachten, dass die Nummerierung einiger häufig zitieter Artikel mit dem Erscheinen der Tokyo-Version (1994) des ICBN geändert hat.
- Die Herausgeber weisen mit aller Deutlichkeit darauf hin, dass sie keinen Namen anerkennen, der zufälligerweise in dieser Ausgabe des RPS validiert worden sein könnte.
- Beiträge, welche nur Beschreibungen eines oder zweier Taxa enthalten, werden in der bibliographischen Liste nicht separat aufgeführt.
- Die Abkürzungen für spezialisierte Sukkulanten-Zeitschriften richten sich nach 'Bibliography of Succulent Plant Periodicals' (U. Eggli in Friciana 60: 1-139, 1998 ('1995')), für allgemeine botanische Zeitschriften in der Regel nach Bibliographia Periodicorum Huntianum und Supplement.

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Available from (incl. back issues) / Erhältlich durch (inkl. bereits erschienene Hefte):

IOS, c/o Städtische Sukkulanten-Sammlung (address above / Adresse siehe oben).

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Preface

This is the largest issue of RPS ever published! The reasons for this flood of new names and literature references are several-fold: On one hand, novelties are still being found and described from around the World. On the other hand, the forthcoming new Succulent Plant Lexicon, as well as the second edition of the CITES *Cactaceae* Checklist (published May 1999), have led to a number of new combinations. And thirdly, some important (in terms of numbers of new names) papers published in 1997 have only recently become available and are now included. Finally, numerous additional literature references have become available, especially through the help of Reto Nyffeler. Words of thank are due to Reto, as well to all the colleagues that have provided us with separate prints of their papers.

The Compilers

Vorwort

Dies ist die umfangreichste je publizierte RPS-Ausgabe! Die Gründe für diese Flut neuer Namen und Literaturhinweise sind vielfältig: Einerseits werden weiterhin in der ganzen Welt Neuheiten gefunden und beschrieben. Andererseits haben sowohl das in Arbeit befindliche neue Sukkulantenlexikon, wie auch die im Mai 1999 publizierte zweite Ausgabe der CITES *Cactaceae* Checklist zahlreiche Neukombinationen nötig gemacht. Schliesslich sind drittens einige wichtige (insbesondere mit Blick auf die Anzahl neuer Namen) bereits 1997 veröffentlichte Beiträge erst kürzlich zugänglich geworden, und werden in dieser Ausgabe behandelt. Im Weiteren wurden zahlreiche zusätzliche Literaturverweise aus früheren Jahren eingearbeitet, in erster Linie dank der Hilfe von Reto Nyffeler. Worte des Dankes gehen an Reto, sowie an alle Kolleginnen und Kollegen, die uns mit Separatdrucken ihrer Beiträge versorgt haben.

Die Herausgeber

Corrections to previous volumes

- Wolfgang Papsch, Austria, has kindly pointed out a spelling error in RPS 47, where the name *Gymnocalycium gibbosum* fa. *cerebriforme* has been mis-spelled as 'crebriforme'.
- The name *Sinocrassula luteorubra* var. *maculosa*, included as valid in RPS 48, is invalid under Art. 43.1, since the name *Sinocrassula luteorubra* is invalid under Art. 33. Our thanks go to J. Thiede for pointing out this error.

Korrekturen zu früheren Bänden

- Wolfgang Papsch, Österreich, hat freundlicherweise auf einen Schreibfehler in RPS 47 aufmerksam gemacht, wo *Gymnocalycium gibbosum* var. *cerebriforme* irrtümlich als 'crebriforme' geschrieben wurde.
- Der Name *Sinocrassula luteorubra* var. *maculosa* wurde in RPS 48 irrtümlich als gültig aufgenommen, ist aber unter Art. 43.1 ungültig, weil der Name *Sinocrassula luteorubra* selbst unter Art. 33 ungültig ist. Unser Dank geht an J. Thiede, der uns auf diesen Fehler hingewiesen hat.

NOMINA NOVA

AGAVACEAE

- Yucca capensis* L. W. Lenz, Cact. Succ. J. (US) 70(6): 289-293, ills., 1998. Typus: Lenz 4501 (RSA).
- Yucca mixteca* García-Mendoza, Acta Bot. Mex. 42: 1-4, ills., 1998. Typus: García-Mendoza et al. 6198 (MEXU, BM, ENCB, MO, OAX, TEX).
- Yucca nana* Hochstätter, Succulenta 77(2): 71-74, ills., 1998. Typus: Hochstätter 1178.78 (SRP). [Simultaneously also published in Kaktusblüte No. 15: 29-32, ills., 1998.]

AIZOACEAE

- Acrodon purpleostylus* (L. Bolus) Burgoyne, Aloe 35(2): 61, ills., 1998. Basionym: *Mesembryanthemum purpleostylum*.
- Amphibolia hutchinsonii* (L. Bolus) H. E. K. Hartmann, Bradleya 16: 46, 1998. Basionym: *Ruschia hutchinsonii*.
- Amphibolia obscura* H. E. K. Hartmann, Bradleya 16: 47, ills. (p. 50), 1998. Typus: Hartmann et al. 20805 (HBG).
- Amphibolia saginata* (L. Bolus) H. E. K. Hartmann, Bradleya 16: 48, ills. (p. 50), 1998. Basionym: *Ruschia saginata*.
- Amphibolia succulenta* (L. Bolus) H. E. K. Hartmann, Bradleya 16: 48, ills. (p. 51), 1998. Basionym: *Ruschia succulenta*.
- Antimima addita* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Ruschia addita*.
- Antimima amoena* (Schwantes) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Ruschia amoena*.
- Antimima androsacea* (Marloth & Schwantes) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Mesembryanthemum androsacea*.
- Antimima argentea* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Ruschia argentea*.
- Antimima biformis* (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Mesembryanthemum biforme*.
- Antimima bina* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Ruschia bina*.
- Antimima bracteata* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Ruschia bracteata*.
- Antimima brevicarpa* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 70, 1998. Basionym: *Ruschia brevicarpa*.
- Antimima brevicollis* (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Mesembryanthemum brevicolle*.

- Antimima buchubergensis* (Dinter) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Ruschia buchubergensis*.
- Antimima compacta* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Ruschia biformis*.
- Antimima compressa* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Ruschia compressa*.
- Antimima concinna* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Ruschia concinna*.
- Antimima condensa* (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Mesembryanthemum condensum*.
- Antimima crassifolia* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Ruschia crassifolia*.
- Antimima dasypylla* (Schlechter) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Mesembryanthemum dasypyllum*.
- Antimima defecta* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 71, 1998. Basionym: *Ruschia defecta*.
- Antimima dekenahii* (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Mesembryanthemum dekenahii*.
- Antimima distans* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Mesembryanthemum distans*.
- Antimima dolomitica* (Dinter) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Mesembryanthemum dolomiticum*.
- Antimima eendornensis* (Dinter) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Mesembryanthemum eendornense*.
- Antimima elevata* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Ruschia elevata*.
- Antimima emarcescens* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Ruschia emarcescens*.
- Antimima erosa* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Ruschia erosa*.
- Antimima evoluta* (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 72, 1998. Basionym: *Mesembryanthemum evolutum*.
- Antimima exsurgens* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 73, 1998. Basionym: *Ruschia exsurgens*.
- Antimima fenestrata* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 73, 1998. Basionym: *Ruschia fenestrata*.
- Antimima fergusoniae* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 73, 1998. Basionym: *Ruschia fergusoniae*.
- Antimima gracillima* (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 73, 1998. Basionym: *Ruschia gracillima*.
- Antimima granitica* (L. Bolus) H. E. K. Hart-

- mann, Bothalia 28(1): 73, 1998. Basionym: *Mesembryanthemum graniticum*.
- Antimima hallii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 73, 1998. Basionym: *Ruschia hallii*.
- Antimima hamatilis** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 73, 1998. Basionym: *Ruschia hamatilis*.
- Antimima herrei** (Schwantes) H. E. K. Hartmann, Bothalia 28(1): 73-74, 1998. Basionym: *Ruschia herrei*.
- Antimima intervallaris** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Ruschia intervallaris*.
- Antimima ivorii** (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Mesembryanthemum ivorii*.
- Antimima karroidea** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Ruschia karroidea*.
- Antimima klaverensis** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Mesembryanthemum klaverense*.
- Antimima koekenaapensis** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Ruschia koekenaapensis*.
- Antimima komkansica** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Ruschia komkansica*.
- Antimima lawsonii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Mesembryanthemum lawsonii*.
- Antimima leipoldtii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 74, 1998. Basionym: *Ruschia leipoldtii*.
- Antimima leucanthera** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 75, 1998. Basionym: *Mesembryanthemum leucantherum*.
- Antimima limbata** (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 75, 1998. Basionym: *Mesembryanthemum limbatum*.
- Antimima lodewykii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 75, 1998. Basionym: *Ruschia lodewykii*.
- Antimima loganii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 75, 1998. Basionym: *Ruschia loganii*.
- Antimima lokenbergensis** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 75, 1998. Basionym: *Ruschia lokenbergensis*.
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- Antimima maxwellii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 75, 1998. Basionym: *Ruschia maxwellii*.
- Antimima menniei** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 75, 1998. Basionym: *Ruschia menniei*.
- Antimima mesklipensis** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 76, 1998. Basionym: *Ruschia mesklipensis*.
- Antimima meyeriae** (Schwantes) H. E. K. Hartmann, Bothalia 28(1): 76, 1998. Basionym: *Ruschia meyeriae*.
- Antimima minima** (Fischer) H. E. K. Hartmann, Bothalia 28(1): 76, 1998. Basionym: *Cheiridopsis minima*.
- Antimima minutifolia** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 76, 1998. Basionym: *Ruschia minutifolia*.
- Antimima modesta** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 76, 1998. Basionym: *Ruschia modesta*.
- Antimima mucronata** (Haworth) H. E. K. Hartmann, Bothalia 28(1): 76, 1998. Basionym: *Mesembryanthemum mucronatum*.
- Antimima mutica** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 76-77, 1998. Basionym: *Ruschia mutica*.
- Antimima nobilis** (Schwantes) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia nobilis*.
- Antimima nordenstamii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia nordenstamii*.
- Antimima oviformis** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia oviformis*.
- Antimima papillata** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia papillata*.
- Antimima paucifolia** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia paucifolia*.
- Antimima pauper** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia pauper*.
- Antimima peersii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia peersii*.
- Antimima perforata** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 77, 1998. Basionym: *Ruschia perforata*.
- Antimima persistens** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 78, 1998. Basionym: *Ruschia persistens*.
- Antimima pilosula** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 78, 1998. Basionym: *Ruschia pilosula*.
- Antimima piscodora** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 78, 1998. Basionym: *Ruschia piscodora*.
- Antimima prolongata** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 78, 1998. Basionym: *Ruschia prolongata*.
- Antimima propinqua** (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 78, 1998. Basionym: *Ruschia propinqua*.
- Antimima prostrata** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 78, 1998. Basionym: *Ruschia prostrata*.
- Antimima pumila** (L. Bolus ex Fedde & Schuster) H. E. K. Hartmann, Bothalia 28(1): 78, 1998. Basionym: *Mesembryanthemum pumilum*.
- Antimima pusilla** (Schwantes) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym:

- Ruschia pusilla.*
- Antimima pygmaea** (Haworth) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym: *Mesembryanthemum pygmaeum*.
- Antimima quarzitica** (Dinter) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym: *Mesembryanthemum quarziticum*.
- Antimima roseola** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym: *Mesembryanthemum roseolum*.
- Antimima saturata** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym: *Ruschia saturata*.
- Antimima saxicola** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym: *Ruschia saxicola*.
- Antimima schlechteri** (Schwantes) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym: *Ruschia schlechteri*.
- Antimima simulans** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 79, 1998. Basionym: *Ruschia simulans*.
- Antimima sobrina** (N. E. Brown) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Mesembryanthemum sobrinum*.
- Antimima solidia** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Mesembryanthemum solidum*.
- Antimima stayneri** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Ruschia stayneri*.
- Antimima stokoei** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Ruschia stokoei*.
- Antimima subtruncata** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Ruschia subtruncata*.
- Antimima triquetra** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Ruschia triquetra*.
- Antimima tuberculosa** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Ruschia tuberculosa*.
- Antimima turneriana** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 80, 1998. Basionym: *Ruschia turneriana*.
- Antimima vanzylii** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 81, 1998. Basionym: *Ruschia vanzylii*.
- Antimima varians** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 81, 1998. Basionym: *Ruschia varians*.
- Antimima ventricosa** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 81, 1998. Basionym: *Mesembryanthemum ventricosum*.
- Antimima verruculosa** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 81, 1998. Basionym: *Ruschia verruculosa*.
- Antimima watermeyeri** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 81, 1998. Basionym: *Ruschia watermeyeri*.
- Antimima wittebergensis** (L. Bolus) H. E. K. Hartmann, Bothalia 28(1): 81, 1998. Basionym: *Mesembryanthemum wittebergense*.
- Caulipsolon Klak**, Bot. Jahrb. Syst. 120(3): 364, 1998. Typus: *Mesembryanthemum rapaceum* Jacquin.
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- Cerochlamys gemina** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 53, ill. (p. 51), 1998. Basionym: *Ruschia gemina*.
- Cerochlamys purpureostyla** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 56, 1998. Basionym: *Mesembryanthemum purpureostylum*.
- Conophytum bruynsii** S. A. Hammer, Cactus & Co. 2(4): 5-6, ills. (incl. p. 8), 1998. Typus: *Bruyns* 6784 (BOL, HNT).
- Conophytum jarmilae** Halda, Acta Mus. Richnov. Sect. Nat. 5(4): 164, 1998. Typus: *Halda* 97080159 (Herb. Halda).
- Dorotheanthus clavatus** (Haworth) Struck, Feddes Repert. 109(5-6): 379-383, 1998. Basionym: *Mesembryanthemum clavatum*.
- Eberlanzia cyathiformis** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 60, ills. (p. 54), 1998. Basionym: *Ruschia cyathiformis*.
- Eberlanzia dichotoma** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 60, ills. (p. 54), 1998. Basionym: *Ruschia dichotoma*.
- Eberlanzia ebracteata** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 60, ills. (p. 54), 1998. Basionym: *Ruschia ebracteata*.
- Eberlanzia gravida** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 61, 1998. Basionym: *Ruschia gravida*.
- Eberlanzia parvibracteata** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 61, ill. (p. 55), 1998. Basionym: *Ruschia parvibracteata*.
- Eberlanzia schneideriana** (A. Berger) H. E. K. Hartmann, Bradleya 16: 61, ill. (p. 55), 1998. Basionym: *Mesembryanthemum schneiderianum*.
- Erepsia aristata** (L. Bolus) Liede & H. E. K. Hartmann, Bradleya 16: 64, ills. (p. 55), 1998. Basionym: *Ruschia aristata*.
- Esterhuysenia drepanophylla** (Schlechter & A. Berger) H. E. K. Hartmann, Bradleya 16: 65, 1998. Basionym: *Mesembryanthemum drepanophyllum*.
- Esterhuysenia inclaudens** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 66, 1998. Basionym: *Ruschia inclaudens*.
- Esterhuysenia stokoei** (L. Bolus) H. E. K. Hartmann, Bradleya 16: 66, 1998. Basionym: *Mesembryanthemum stokoei*.
- Gibbaeum nebrownii** ssp. *johnstonii* (van Jaarsveld & S. A. Hammer) Pavelka, Astridia 3: 39, 1998. Basionym: *Gibbaeum johnstonii*. [Dated 1997, publ. Dec. 1998. Sp. Phal. 'johnsonii'.]
- Hammeria Burgoyne**, Cact. Succ. J. (US) 70(4): 204-205, 1998. Typus: *Ruschia salteri* L. Bolus.
- Hammeria gracilis** Burgoyne, Cact. Succ. J. (US) 70(4): 206-208, ill., 1998. Typus: *Hammer et Vlok* 1406 (PRE).
- Hammeria salteri** (L. Bolus) Burgoyne, Cact. Succ. J. (US) 70(4): 206, ills. (pp. 204-206),

1998. Basionym: *Ruschia salteri*.
- Lampranthus amphibolius** (G. D. Rowley) H. E. K. Hartmann, Bradleya 16: 67, 1998. Basionym: *Ruschia amphibolia*.
- Lampranthus arenarius** H. E. K. Hartmann, Bradleya 16: 67, 1998. Typus: *Bolus* 19304II (BOL [lecto]) [Lectotype designated from among 2 sheets by H. E. K. Hartmann, l.c., 1998]. [*Nom. nov. pro Ruschia arenosa* L. *Bolus* 1933 (*non Lampranthus arenosus* (L. *Bolus*) *L. Bolus*).]
- Lampranthus curviflorus** (Haworth) H. E. K. Hartmann, Bradleya 16: 67, 1998. Basionym: *Mesembryanthemum curviflorum*.
- Lampranthus dissimilis** (G. D. Rowley) H. E. K. Hartmann, Bradleya 16: 67-68, 1998. Basionym: *Ruschia dissimilis*.
- Lampranthus francesiae** H. E. K. Hartmann, Bradleya 16: 68, 1998. Typus: *Leighton* 21422 (BOL). [*Nom. nov. pro Ruschia leightoniae* L. *Bolus* 1935 (*non Lampranthus leightoniae* (L. *Bolus*) *L. Bolus*).]
- Lampranthus marginatus** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 68, 1998. Basionym: *Ruschia marginata*.
- Lampranthus mutatus** (G. D. Rowley) H. E. K. Hartmann, Bradleya 16: 68, 1998. Basionym: *Ruschia mutata*.
- Lampranthus pakpassensis** H. E. K. Hartmann, Bradleya 16: 70, 1998. Typus: *Bolus* 20479 (BOL). [*Nom. nov. pro Ruschia pakhuisensis* L. *Bolus* 1933 (*Non Lampranthus pakhuisensis* (L. *Bolus*) *L. Bolus*).]
- Lampranthus profundus** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 70, 1998. Basionym: *Ruschia profunda*.
- Lampranthus tanquanus** H. E. K. Hartmann, Bradleya 16: 70, 1998. Lectotypus: *Salter* 2668 (BOL [lecto]) [Lectotype designated from among 2 syntypes by H. E. K. Hartmann l.c. 1998]. [*Nom. nov. pro Ruschia salteri* L. *Bolus* 1932 (*non Lampranthus salteri* (L. *Bolus*) *L. Bolus*).]
- Octopoma quadrisepalum** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 73, ill. (p. 82), 1998. Basionym: *Ruschia quadrisepala*.
- Octopoma tetrasepalum** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 74, 1998. Basionym: *Ruschia tetrapala*.
- Oscularia alba** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 75, 1998. Basionym: *Mesembryanthemum album*.
- Oscularia cedarbergensis** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 76, 1998. Basionym: *Mesembryanthemum cedarbergense*.
- Oscularia compressa** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 76, 1998. Basionym: *Lampranthus compressus*.
- Oscularia comptonii** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 76, 1998. Basionym: *Mesembryanthemum comptonii*.
- Oscularia copiosa** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 76, 1998. Basionym: *Mesembryanthemum copiosum*.
- Oscularia excedens** (L. *Bolus*) H. E. K. Hartmann,
- Bradleya 16: 77, 1998. Basionym: *Mesembryanthemum excedens*.
- Oscularia falciformis** (Haworth) H. E. K. Hartmann, Bradleya 16: 77, ill. (p. 83), 1998. Basionym: *Mesembryanthemum falciforme*.
- Oscularia guthriae** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 77, 1998. Basionym: *Mesembryanthemum guthriae*.
- Oscularia lunata** (Willdenow) H. E. K. Hartmann, Bradleya 16: 77, 1998. Basionym: *Mesembryanthemum lunatum*.
- Oscularia ornata** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 78, 1998. Basionym: *Lampranthus ornatus*.
- Oscularia paardebergensis** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 78, 1998. Basionym: *Mesembryanthemum paardebergense*.
- Oscularia piquetbergensis** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 78, 1998. Basionym: *Mesembryanthemum piquetbergense*.
- Oscularia prasina** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 78, 1998. Basionym: *Lampranthus prasinus*.
- Oscularia primiverna** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 79, 1998. Basionym: *Mesembryanthemum primivernum*.
- Oscularia steenbergensis** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 79, ill. (p. 83), 1998. Basionym: *Mesembryanthemum steenbergense*.
- Oscularia superans** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 79, 1998. Basionym: *Mesembryanthemum superans*.
- Oscularia thermarum** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 79, 1998. Basionym: *Mesembryanthemum thermarum*.
- Oscularia vernalicolor** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 79, 1998. Basionym: *Mesembryanthemum vernalicolor*.
- Oscularia vredenburgensis** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 79, 1998. Basionym: *Lampranthus vredenburgensis*.
- Rhombophyllum albanense** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 81, ill. (p. 86), 1998. Basionym: *Hereroa albanensis*.
- Rhombophyllum dyeri** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 81, 1998. Basionym: *Hereroa dyeri*.
- Ruschia dielsiana** (A. Berger) H. Jacobsen ex H. E. K. Hartmann, Bradleya 16: 84, 1998. Basionym: *Mesembryanthemum dielsianum*. [Name first used (*nom. inval.*, Art. 33.2) by H. Jacobsen, Handb. Succ. Pl. 3: 1272, 1378, 1960.]
- Ruschia punctulata** (L. *Bolus*) H. E. K. Hartmann, Bradleya 16: 85, 1998. Basionym: *Mesembryanthemum punctulatum*. [Attributed to L. *Bolus* 1950 in RPS 1, but such a combination was not published before.]
- Ruschia recurva** (Moench) H. E. K. Hartmann, Bradleya 16: 85, 1998. Basionym: *Mesembryanthemum recurvum*.
- Ruschia sessilis** (Thunberg) H. E. K. Hartmann, Bradleya 16: 85, 1998. Basionym: *Mesembryanthemum sessile*.
- Ruschia vetovalida** H. E. K. Hartmann, Bradleya

- 16: 85, 1998. Typus: Bowie s.n. (K). [*Nom. nov. pro Mesembryanthemum validum Haworth 1826 (non Ruschia valida Schwantes).*] *Zeuktophyllum calycinum* (L. Bolus) H. E. K. Hartmann, Bradleya 16: 88-89, illus. (p. 87), 1998. Basionym: *Ruschia calycina*.

ALOACEAE

- Aloe* cv. *Benvenue* P. I. Forster, Haworthiad 12(1): 12, 1998. [= *Aloe jucunda* × *A. jacksonii*.]
- Aloe* cv. *Bill Morris* P. I. Forster, Haworthiad 12(1): 12, 1998. [= (*Aloe jucunda* × *A. bakeri*) × *A. somaliensis*.]
- Aloe* cv. *Blackdown* P. I. Forster, Haworthiad 12(1): 12, 1998. [= *Aloe deltoideodonta* × *A. bellatula*.]
- Aloe* cv. *Blue Lady* D. M. Cumming, Haworthiad 12(1): 12, 1998. [= (*Aloe albida* × *A. albiflora*) × *A. antandroi*.]
- Aloe* cv. *Bountiful* (G. D. Rowley) P. I. Forster, Haworthiad 12(1): 12, 1998. Basionym: *Allauminia* cv. *Bountiful*.
- Aloe* cv. *Bromley* P. I. Forster, Haworthiad 12(1): 12, 1998. [= (*Aloe bellatula* × *A. bakeri*) × *A. rauhii*.]
- Aloe* cv. *Connal* D. M. Cumming, Haworthiad 12(1): 12, 1998. [= *Aloe thompsoniae* × *A. jacksonii*.]
- Aloe* cv. *Dainty* D. M. Cumming, Haworthiad 12(1): 12, 1998. [= *Aloe descoingsii* × *A. haworthioides*.]
- Aloe* cv. *Delaine* D. M. Cumming, Haworthiad 12(1): 12, 1998. [Parentage unknown.]
- Aloe* cv. *Dorian Black* R. Wright ex P. I. Forster & D. M. Cumming, Haworthiad 12(1): 12, 1998. [Parentage unknown.]
- Aloe* cv. *Dreamer* D. M. Cumming, Haworthiad 12(1): 12, 1998. [Parentage unknown but including *Aloe haworthioides*.]
- Aloe* cv. *Dunnet* P. I. Forster, Haworthiad 12(1): 12, 1998. [= (*Aloe bakeri* × *A. millotii*) × *A. bellatula*.]
- Aloe* cv. *Eleta* D. M. Cumming, Haworthiad 12(1): 12, 1998. [Parentage unknown.]
- Aloe* cv. *Elga* D. M. Cumming, Haworthiad 12(1): 12, 1998. [= (*Aloe jucunda* × *A. jacksonii*) × (*A. millotii* × *A. bellatula*).]
- Aloe* cv. *Fabia* D. M. Cumming, Haworthiad 12(1): 12, 1998. [= (*Aloe aristata* × *A. sp.*) × *A. rauhii*.]
- Aloe* cv. *Gaila* D. M. Cumming, Haworthiad 12(1): 12, 1998. [= *Aloe albiflora* × *A. antandroi*.]
- Aloe* cv. *Green Shark* D. M. Cumming, Haworthiad 12(1): 12, fig. 14 (p. 30), 1998. [Additional data in l.c. 13(1): 28-29, 1999. Parentage unknown but including *Aloe haworthioides*.]
- Aloe* cv. *Green Wonder* P. I. Forster, Haworthiad 12(1): 13, 1998. [= *Aloe rauhii* × *A. saundersiae*.]
- Aloe* cv. *Hestia* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= *Aloe perrieri* × *A. millotii*.]
- Aloe* cv. *Irmadel* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= (*Aloe bellatula* × *rauhii*) × (*A. albiflora* × *A. millotii*).]
- Aloe* cv. *Japade* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown.]
- Aloe* cv. *Jason* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown.]
- Aloe* cv. *Jelena* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= *Aloe bakeri* × *A. karasbergensis*.]
- Aloe* cv. *Jofrid* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= *Aloe bakeri* × *A. rauhii*.]
- Aloe* cv. *Landis* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= (*Aloe brevifolia* × *A. somaliensis*) × *A. antandroi*.]
- Aloe* cv. *Link* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= (*Aloe bellatula* × *A. millotii*) × *A. jacksonii*.]
- Aloe* cv. *Little One* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= (*Aloe descoingsii* × *A. haworthioides*) × *A. descoingsii*.]
- Aloe* cv. *Little Three* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown but including *Aloe descoingsii*.]
- Aloe* cv. *Lok* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown.]
- Aloe* cv. *Luther* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= *Aloe perrieri* × *A. millotii*.]
- Aloe* cv. *Lysa* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= *Aloe bakeri* × *A. variegata*.]
- Aloe* cv. *Madora* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= (*Aloe albida* × *A. albiflora*) × *A. jacksonii*.]
- Aloe* cv. *Moyna* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= (*Aloe bellatula* × *A. rauhii*) × *A. jacksonii*.]
- Aloe* cv. *Novar* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown.]
- Aloe* cv. *Parjay* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown but including *Aloe descoingsii* and *A. parvula*.]
- Aloe* cv. *Pink Sensation* P. I. Forster, Haworthiad 12(1): 13, 1998. [= *Aloe bakeri* × *A. antandroi*.]
- Aloe* cv. *Purple Delight* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown but including *Aloe descoingsii* and *A. parvula*.]
- Aloe* cv. *Purple Dream* D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown but including *Aloe parvula*.]
- Aloe* cv. *Purple Shark* D. M. Cumming, Haworthiad 12(1): 13, fig. 4 (p. 21), (4): 142-143, 1998. [Parentage unknown but including *Aloe descoingsii* and *A. haworthioides*.]
- Aloe* cv. *Sabra* (Innes) P. I. Forster, Haworthiad 12(1): 13, 1998. Basionym: *Allauminia* cv. *Sabra*.
- Aloe* cv. *Silver Cloud* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= (*Aloe parvula* × *A. rauhii*) × *A. sp.*]
- Aloe* cv. *Surprise* D. M. Cumming, Haworthiad 12(1): 13, 1998. [= *Aloe ferox* × *A. millotii*.]
- Aloe* cv. *Versad* D. M. Cumming, Haworthiad

- 12(1): 13, 1998. [Parentage unknown but including *Aloe variegata*.]
- Aloe* cv. Winter Sky S. Lyons ex P. I. Forster, Haworthiad 12(1): 13, 1998. [= *Aloe descoingsii* × *A. rauhii*.]
- Aloe* cv. Zyglo D. M. Cumming, Haworthiad 12(1): 13, 1998. [Parentage unknown.]
- Aloe anivoranoensis* (Rauh & Hebding) L. E. Newton & G. D. Rowley, Bradleya 16: 114, 1998. Basionym: *Lomatophyllum anivoranense*.
- Aloe ballii* var. *makurupiniensis* Ellert, Cact. Succ. J. (US) 70(3): 130-131, ills., 1998. Typus: Ellert 525 (SRGH).
- Aloe berevoana* Lavranos, Kakt. and. Sukk. 49(7): 161-162, ills., 1998. Typus: *Röösli et Hoffmann* s.n. (P, MO).
- Aloe compressa* var. *paucituberculata* Lavranos, Kakt. and. Sukk. 49(7): 158-159, ills., 1998. Typus: *Röösli et Hoffmann* 7/95 (P, MO, TAN).
- Aloe cyrtophylla* Lavranos, Kakt. and. Sukk. 49(7): 159-161, ills., 1998. Typus: *Röösli et Hoffmann* 36/95 (P, MO, TAN).
- Aloe lucile-allorgeae* Rauh, Bradleya 16: 97-98, 100, ills., 1998. Typus: Humbert 13738 (P).
- Aloe megalocarpa* Lavranos, Kakt. and. Sukk. 49(7): 162-163, ills., 1998. Typus: Lavranos et al. 28728 (P).
- Aloe namorokaensis* (Rauh) L. E. Newton & G. D. Rowley, Bradleya 16: 114, 1998. Basionym: *Lomatophyllum namorokaense*.
- Aloe pembana* L. E. Newton, Cact. Succ. J. (US) 70(1): 27-31, ills., 1998. Typus: Brown 206 (K, EA).
- Aloe propagulifera* (Rauh & Razafindrantsira) L. E. Newton & G. D. Rowley, Bradleya 16: 114, 1998. Basionym: *Lomatophyllum propaguliferum*.
- Aloe rauhii* cv. *Tuberculata* Rauh, Succ. Xerophyt. Pl. Madag. 2: 297, ill., 1998.
- Astroloba corrugata* N. L. Meyer & G. F. Smith, Bothalia 28(1): 61-62, ill., 1998. Typus: van Jaarsveld 13913 (PRE).
- ×*Gasteraloe sculptilis* G. D. Rowley ex L. E. Newton, Haseltonia 5: 94, 1998. Typus: [icono]: Cact. Succ. J. (US) 7(9): 136, 1936. [First used by G. D. Rowley, Nation. Cact. Succ. J. 37(2): 49, 1982, as combination for *Gastrolea sculptilis* Poindexter 1936 (*nom. inval.*, Art. 36.1, 43).]
- Gasteria* cv. Fader hort. ex R. Scott, Haworthiad 12(2): 71, fig. 15 (p. 70), 1998. [Parentage unknown.]
- Gasteria* cv. Old Man Silver hort. ex R. Scott, Haworthiad 12(2): 69, fig. 12 (p. 70), 1998. [Name probably in circulation since c. 1980.]
- Gasteria* cv. Perfectus D. M. Cumming ex R. Scott, Haworthiad 12(2): 69, 1998. [= *Gasteria armstrongii* (cv. ?) × *G. 'Old Man Silver'*.]
- Gasteria* cv. Platinum Hort. Burks ex R. Scott, Haworthiad 12(2): 71, 1998. [Parentage unknown.]
- Gasteria* cv. Schweickerdtiana hort. ex R. Scott, Haworthiad 12(2): 72, 1998. [Parentage un-
- known.]
- Gasteria* cv. Silver Star hort. ex R. Scott, Haworthiad 12(2): 71, fig. 14 (p. 70), 1998. [= *Gasteria liliputana* × *G. 'Old Man Silver'*.]
- Gasteria* cv. Silver Toad Hort. Hummel ex R. Scott, Haworthiad 12(2): 71, fig. 13 (p. 70), 1998. [Parentage unknown.]
- Gasteria carinata* var. *glabra* (Salm-Dyck) van Jaarsveld, Cact. Succ. J. (US) 70(2): 70, ill. (p. 68), 1998. Basionym: *Aloe glabra*.
- Gasteria carinata* var. *thunbergii* (N. E. Brown) van Jaarsveld, Cact. Succ. J. (US) 70(2): 4, ill., 1998. Basionym: *Gasteria thunbergii*.
- Gasteria glauca* van Jaarsveld, Cact. Succ. J. (US) 70(2): 65-66, ills., 1998. Typus: van Jaarsveld et Welsh 14670 (PRE).
- Haworthia* cv. Down Under R. Evans, Haworthiad 12(1): 23, fig. 10 (p. 20), 1998. [Parentage unknown but including *Haworthia truncata*.]
- Haworthia* cv. Gerald Barad Southwell, Cact. Succ. J. (US) 70(4): 198, ill., 1998. [= *Haworthia maughanii* × *H. gigas*.]
- Haworthia* cv. Harry Johnson hort., Haworthiad 12(1): 23, 1998. [Parentage unknown but including *Haworthia truncata*.]
- Haworthia* cv. Tropic World R. Evans, Haworthiad 12(1): 23, fig. 9 (p. 20), 1998. [= *Haworthia truncata* × *H. retusa*.]
- Haworthia* Subgen. *Fusiformes* (W. F. Barker) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 34, 1997. Basionym: *Haworthia* Sect. *Fusiformes*. [Omitted previously, including all the remaining combinations by Halda 1997.]
- Haworthia arachnoidea* ssp. *pearsonii* (C. H. Wright) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 43, 1997. Basionym: *Haworthia pearsonii*.
- Haworthia arachnoidea* ssp. *setata* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 43, 1997. Basionym: *Haworthia setata*.
- Haworthia arachnoidea* ssp. *tenera* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 44, 1997. Basionym: *Haworthia tenera*.
- Haworthia arachnoidea* var. *bolusii* (Baker) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 43, 1997. Basionym: *Haworthia bolusii*.
- Haworthia arachnoidea* var. *gracilis* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 44, 1997. Basionym: *Haworthia gracilis*.
- Haworthia arachnoidea* var. *marumiana* (Uitewaal) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 44, 1997. Basionym: *Haworthia marumiana*.
- Haworthia arachnoidea* var. *pearsonii* (C. H. Wright) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 44, 1997. Basionym: *Haworthia pearsonii*.
- Haworthia arachnoidea* var. *pehlemaniæ* (C. L. Scott) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 44, 1997. Basionym: *Haworthia pehlemaniæ*.
- Haworthia arachnoidea* var. *semiviva* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 43, 1997. Basionym: *Haworthia bo-*

- lusii* var. *semiviva*.
Haworthia arachnoidea var. *tenera* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 44, 1997. Basionym: *Haworthia tenera*.
Haworthia arachnoidea var. *translucens* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 43, 1997. Basionym: *Aloe translucens*.
Haworthia arachnoidea var. *xiphiophylla* (Baker) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 43, 1997. Basionym: *Haworthia xiphiophylla*. [Repeated by M. B. Bayer, *Haworthia Revisited*, 36, 1999.]
Haworthia aristata ssp. *helmliae* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 48, 1997. Basionym: *Haworthia helmliae*.
Haworthia blackburniae ssp. *graminifolia* (G. G. Smith) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 34, 1997. Basionym: *Haworthia graminifolia*.
Haworthia chloracantha ssp. *angustifolia* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia angustifolia*.
Haworthia chloracantha ssp. *baylissii* (C. L. Scott) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 41, 1997. Basionym: *Haworthia baylissii*.
Haworthia chloracantha ssp. *variegata* (L. Bolus) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia variegata*.
Haworthia chloracantha var. *angustifolia* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia angustifolia*.
Haworthia chloracantha var. *floribunda* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia floribunda*.
Haworthia chloracantha var. *mclarenii* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia mclareni*.
Haworthia chloracantha var. *monticola* (Fourcade) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia monticola*.
Haworthia chloracantha var. *pulchella* (M. B. Bayer) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia pulchella*.
Haworthia chloracantha var. *serrata* (M. B. Bayer) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia serrata*.
Haworthia chloracantha var. *variegata* (L. Bolus) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia variegata*.
Haworthia chloracantha var. *zantneriana* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 42, 1997. Basionym: *Haworthia zantneriana*.
Haworthia cooperi ssp. *batteniae* (C. L. Scott) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 48, 1997. Basionym: *Haworthia batteniae*.
- Haworthia limifolia* ssp. *koelmaniorum* (Obermeyer & D. S. Hardy) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 38, 1997. Basionym: *Haworthia koelmaniorum*.
Haworthia magnifica var. *splendens* S. A. Hammer & D. J. Venter, Cact. Succ. J. (US) 70(4): 180-182, ills., 1998. Typus: *Venter* 93/57 (NBG).
Haworthia mucronata ssp. *lockwoodii* (Archibald) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 45, 1997. Basionym: *Haworthia lockwoodii*.
Haworthia mucronata var. *altilinea* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 45, 1997. Basionym: *Haworthia altilinea*.
Haworthia mucronata var. *nortieri* (G. G. Smith) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 45, 1997. Basionym: *Haworthia nortieri*. [The name is not indicated as "stat. nov." as are all other new names in the same paper, and the basionym (incl. reference) is cited before the entry for the new name, but all of these shortcomings can be interpreted as "bibliographical inaccuracies"]
Haworthia pumila ssp. *attenuata* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 36, 1997. Basionym: *Aloe attenuata*.
Haworthia pumila ssp. *fasciata* (Willdenow) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 37, 1997. Basionym: *Apicra fasciata*.
Haworthia pumila ssp. *longiana* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 37, 1997. Basionym: *Haworthia longiana*.
Haworthia pumila ssp. *minima* (Aiton) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 36, 1997. Basionym: *Aloe margaritifera* var. *minima*.
Haworthia pumila ssp. *radula* (Jacquin) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 37, 1997. Basionym: *Aloe radula*.
Haworthia pumila var. *kingiana* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 36, 1997. Basionym: *Haworthia kingiana*.
Haworthia pumila var. *smitii* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 36, 1997. Basionym: *Haworthia smitii*.
Haworthia reinwardtii ssp. *coarctata* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 40, 1997. Basionym: *Haworthia coarctata*.
Haworthia reinwardtii ssp. *glauca* (Baker) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 41, 1997. Basionym: *Haworthia glauca*.
Haworthia reinwardtii var. *coarctata* (Haworth) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 40, 1997. Basionym: *Haworthia coarctata*.
Haworthia reinwardtii var. *glauca* (Baker) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 41, 1997. Basionym: *Haworthia glauca*.
Haworthia reinwardtii var. *greenii* (Baker) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 41, 1997. Basionym: *Haworthia greenii*.
Haworthia reinwardtii var. *herrei* (von Poellnitz) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 41, 1997. Basionym: *Haworthia herrei*.
Haworthia reticulata ssp. *batesiana* (Uitewaal) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 47,

1997. Basionym: *Haworthia batesiana*.
***Haworthia reticulata* var. *integra* (von Poellnitz)**
 Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 47,
 1997. Basionym: *Haworthia integra*.
***Haworthia retusa* ssp. *asperula* (Haworth)** Halda,
 Acta Mus. Richnov. Sect. Nat. 4(2): 50, 1997.
 Basionym: *Haworthia asperula*.
***Haworthia retusa* ssp. *emelyae* (von Poellnitz)**
 Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 49,
 1997. Basionym: *Haworthia emelyae*.
***Haworthia retusa* var. *asperula* (Haworth)** Halda,
 Acta Mus. Richnov. Sect. Nat. 4(2): 50, 1997.
 Basionym: *Haworthia asperula*.
***Haworthia retusa* var. *bryuynsii* (M. B. Bayer)**
 Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 49,
 1997. Basionym: *Haworthia bryuynsii*.
***Haworthia retusa* var. *comptoniana* (G. G. Smith)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 50, 1997. Basionym: *Haworthia comptoniana*.
***Haworthia retusa* var. *emelyae* (von Poellnitz)**
 Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 49,
 1997. Basionym: *Haworthia emelyae*.
***Haworthia retusa* var. *heidelbergensis* (G. G. Smith)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 49, 1997. Basionym: *Haworthia heidelbergensis*.
***Haworthia retusa* var. *magnifica* (von Poellnitz)**
 Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 50,
 1997. Basionym: *Haworthia magnifica*.
***Haworthia retusa* var. *mirabilis* (Haworth)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 50, 1997. Basionym: *Aloe mirabilis*.
***Haworthia retusa* var. *springbokvlakensis* (C. L. Scott)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 50, 1997. Basionym: *Haworthia springbokvlakensis*.
***Haworthia scabra* ssp. *granulata* (Marloth)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 35, 1997. Basionym: *Haworthia granulata*.
***Haworthia scabra* ssp. *sordida* (Haworth)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 34, 1997. Basionym: *Haworthia sordida*.
***Haworthia scabra* ssp. *starkiana* (von Poellnitz)**
 Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 35, 1997. Basionym: *Haworthia starkiana*.
***Haworthia scabra* var. *lavrani* (C. L. Scott)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 35, 1997. Basionym: *Haworthia sordida* var. *lavrani*.
***Haworthia scabra* var. *sordida* (Haworth)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 34, 1997. Basionym: *Haworthia sordida*.
***Haworthia scabra* var. *tuberculata* (von Poellnitz)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 35, 1997. Basionym: *Haworthia tuberculata*.
***Haworthia venosa* ssp. *nigra* (Haworth)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 39, 1997. Basionym: *Apicra nigra*.
***Haworthia venosa* ssp. *woolleyi* (von Poellnitz)**
 Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 40,
 1997. Basionym: *Haworthia woolleyi*. [Repeated by M. B. Bayer, *Haworthia Revisited*, 204, ills., 1999.]

- Haworthia venosa* var. *tessellata* (Haworth)** Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 39, 1997. Basionym: *Haworthia tessellata*.
***Haworthia viscosa* ssp. *derek-clarki* Halda, Cactaceae etc.** 8(2): 44-45, ills., 1998. Typus: *Halda* s.n. (Herb. Halda 9703015). [Repeated in Acta Mus. Richnov. Sect. Nat. 5(1): 43, 1998.]
***Haworthia viscosa* ssp. *nigra* (Haworth)** Halda, Cactaceae etc. 8(2): 46, 1998. Basionym: *Apicra nigra*. [Repeated in Acta Mus. Richnov. Sect. Nat. 5(1): 44, 1998.]
***Lomatophyllum anivoranoense* Rauh & Hebbing**, Bradleya 16: 93, ills. (p. 99), 1998. Typus: *Rauh* 22864 (HEID).
***Lomatophyllum namorokaense* Rauh, Bradleya 16: 94-95, ills. (p. 99), 1998. Typus: *Rauh* 72140 (HEID).
***Lomatophyllum pemanum* (L. E. Newton)**
 Rauh, Bradleya 16: 96, 1998. Basionym: *Aloe pemanum*.
***Lomatophyllum peyrierasii* (Cremers)** Rauh, Bradleya 16: 95, ills., 1998. Basionym: *Aloe peyrierasii*.
Lomatophyllum propaguliferum* Rauh & Razafindratsira, Bradleya 16: 93-94, ills. (p. 98), 1998. Typus: *Razafindratsira* s.n. in *Rauh* 74409 (HEID).*

APOCYNACEAE

- Pachypodium ×hojnyi* Halda, Cactaceae etc.** 8(3): 83-85, ills. (incl. p. 81), 1998. Typus: Herb. Halda 980516 [Ex cult.]. [= *Pachypodium rosulatum* ssp. *rosulatum* × *P. densiflorum* ssp. *densiflorum*.]
***Pachypodium rosulatum* fa. *bicolor* (Lavranos & Rapanarivo)** G. D. Rowley, Bradleya 16: 107, in clavi, 1998. Basionym: *Pachypodium bicolor*.
***Pachypodium rosulatum* var. *eburneum* (Lavranos & Rapanarivo)** G. D. Rowley, Bradleya 16: 107, in clavi, 1998. Basionym: *Pachypodium eburneum*.
***Pachypodium rosulatum* var. *inopinatum* (Lavranos)** G. D. Rowley, Bradleya 16: 107, in clavi, 1998. Basionym: *Pachypodium inopinatum*.

ASCLEPIADACEAE

- Angolluma lenewtonii* Lavranos, Asklepios No. 73: 15-16, ills., 1998. Typus: Newton et al. 4148 (K).
***Caralluma flavovirens* L. E. Newton, Asklepios No. 74: 24-25, ills., 1998. Typus: Newton 5589 (K, EA).
Caralluma turneri* ssp. *ukambensis* (P. R. O. Bally) L. E. Newton, Asklepios No. 72: 9, ills. (p. 10), 1998. Basionym: *Caralluma dicapuae* ssp. *ukambensis*. [Dated 1997, publ. Feb. 1998.]***

- Ceropegia adrienneae** Rauh & Gerold, Succulentae 21(3): 5, 7-8, (4): 9, ill., 1998. Typus: *Robivelo et Gerold s.n.* in BG Heidelberg 75006 (HEID). [Validity doubtful since the Latin diagnosis was only added later (l.c. (4): 9) without a full page reference to the previous publication or repetition of the typification data.]
- Ceropegia andamanica** Sreekumar & al., Blumea 43(1): 215-217, ill., 1998. Typus: *Sreekumar et Veenakumari* 15493 (CAL, L, PBL).
- Ceropegia dichotoma** ssp. *fusca* (Bolle) G. D. Rowley, Asklepios No. 75: 36, 1998. Basionym: *Ceropegia fusca*. [Dated Dec. 1998, received 25. Jan. 1999.]
- Ceropegia gikyi** Rauh & Gerold, Succulentae 21(3): 3-4, 6-7, ill., 1998. Typus: *Gerold et Robivelo s.n.* in BG Heidelberg 75007 (HEID).
- Ceropegia inornata** P. R. O. Bally ex Masinde, Kew Bull. 53(4): 949-953, ill., 1998. Typus: *Masinde et al.* 838 (EA, K, MSUN).
- Ceropegia robivelonae** Rauh & Gerold, Succulentae 21(4): 3-9, ill., SEM-ills., 1998. Typus: *Robivelo s.n.* in BGH 74007 (HEID).
- Ceropegia striata** Meve & Masinde, Novon 8(1): 38-40, ill., 1998. Typus: *Grubenmann s.n.* (ZSS, MO, MSUN).
- Hoodia Sect. Cactoidea** (A. C. White & B. Sloane) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 31, 1998. Basionym: *Trichocaulon Sect. Cactoidea*.
- Hoodia Sect. Lavrania** (Plowes) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 32, 1998. Basionym: *Lavrania*.
- Hoodia Subgen. Lavrania** (Plowes) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 30, 1998. Basionym: *Lavrania*.
- Hoodia cactiformis** (Hooker) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 31, 1998. Basionym: *Stapelia cactiformis*.
- Hoodia dinteri** (A. Berger) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 31, 1998. Basionym: *Trichocaulon dinteri*. [*Non Hoodia dinteri* Schlechter ex Dinter 1922 (*nom. nud.*).]
- Hoodia felina** (D. T. Cole) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 31, 1998. Basionym: *Trichocaulon felinum*.
- Hoodia haagnerae** (Plowes) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 33, 1998. Basionym: *Lavrania haagnerae*.
- Hoodia marlothii** (N. E. Brown) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 31, 1998. Basionym: *Trichocaulon marlothii*.
- Hoodia meloformis** (Marloth) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 32, 1998. Basionym: *Trichocaulon meloforme*.
- Hoodia perlata** (Dinter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 32, 1998. Basionym: *Trichocaulon perlatum*.
- Hoodia picta** (N. E. Brown) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 32, 1998. Basionym: *Trichocaulon pictum*.
- Hoodia similis** (N. E. Brown) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 32, 1998. Basionym:
- Trichocaulon simile**. [*Non Hoodia similis* Dinter 1928 (*nom. nud.*).]
- Hoodia sociarum** (A. C. White & B. Sloane) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 32, 1998. Basionym: *Trichocaulon sociarum*.
- Hoodia tirasmontana** (Plowes) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 32, 1998. Basionym: *Leachiella tirasmontana*.
- Hoya odetteae** Kloppenburg, Fraterna 11(2): 8-11, ill., 1998. Typus: *Cumming* 5604 (BISH, UC, PNH).
- Huernia keniensis** var. *globosa* L. E. Newton, Asklepios No. 74: 23-24, ill., 1998. Typus: *Newton* 2927 (K, EA, MSUN).
- Huernia macrocarpa** fa. *schimperi* (A. Berger) S. Brodie, Curtis's Bot. Mag., ser. nov., 15(1): 6, 1998. Basionym: *Huernia penzigii* var. *schimperi*.
- Karimbolea mariensis** Meve & Liede, Bradleya 16: 10-13, ill., 1998. Typus: *Liede et Conrad* 2825 (K, MSUN, ULM).
- Stapelia johni-lavrani** Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 42-43, ill. (p. 47), 1998. Typus: *Halda* 9708416 (PR). [Repeated (without Latin and type) in Cactaceae etc. 8(3): 96-97, ill., 1998.]
- Tenaris bikitaensis** (Peckover) J. Victor & Nicholas, South Afr. J. Bot. 64(3): 207, 1998. Basionym: *Brachystelma bikitaense*.
- Tenaris christianeae** (Peckover) J. Victor & Nicholas, South Afr. J. Bot. 64(3): 207, 1998. Basionym: *Brachystelma christianeae*.

ASPHODELACEAE

Bulbine bruynsii S. A. Hammer, Cactus & Co. 2(4): 6-7, ill., 1998. Typus: *Bruyns* 6126 (BOL).

ASTERACEAE

Othonna herrei ssp. *armiana* (van Jaarsveld) Halda, Cactaceae etc. 8(1): 4, ill., 1998. Basionym: *Othonna armiana*.

CACTACEAE

Acanthocalycium thionanthum var. *munitum* (Rausch) J. G. Lambert, Cact. Argentine, ed. 2, 16, 1998. *Nom. inval.* (Art. 34.1a), based on *Lobivia thionanthum* var. *munita*. [First published invalidly (Art. 33.2, 34.1a) in Cact. Argentine [ed. 1], 14, 1993 (cf. RPS 44).]

Acharagma (N. P. Taylor) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [ACAG], 1997. Basionym: *Escobaria* Sect. *Acharagma*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]

Acharagma aguirreana (Glass & Foster) Glass,

- Guía Ident. Cact. Amenaz. Mex. Vol. 1, [AC/AG], 1997. Basionym: *Gymnocalycium aguirreanum*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Aporocactus ×moennighoffii* (Fischer) McMillan, Brit. Cact. Succ. J. 16(4): 205, ill., 1998. Basionym: *Cereus ×moennighoffii*. [= *Aporocactus flagelliformis* × *A. martianus*.]
- Ariocarpus* Sect. *Encephalocarpus* (A. Berger) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 38, 1998. Basionym: *Encephalocarpus*.
- Ariocarpus* Sect. *Pelecyphora* (Ehrenberg) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 38, 1998. Basionym: *Pelecyphora*.
- Ariocarpus* Subgen. *Obregonia* (Fric) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 37, 1998. Basionym: *Obregonia*.
- Ariocarpus* Subgen. *Pelecyphora* (Ehrenberg) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 37, 1998. Basionym: *Pelecyphora*.
- Ariocarpus* Subgen. *Strombocactus* (Britton & Rose) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 37, 1998. Basionym: *Strombocactus*.
- Ariocarpus bravoanus* ssp. *hintonii* (Stuppy & N. P. Taylor) E. F. Anderson & Fitz Maurice, Heseltonia 5: 10-11, 1998. Basionym: *Ariocarpus fissuratus* var. *hintonii*. [Vol. for 1997, publ. March 1998.]
- Ariocarpus disciformis* ssp. *jarmilae* (Halda) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 37, 1998. Basionym: *Strombocactus jarmilae*.
- Ariocarpus elongatus* ssp. *horacekii* (Halda) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 36, 1998. Basionym: *Ariocarpus trigonus* var. *horacekii*.
- Ariocarpus fissuratus* ssp. *hintonii* (Stuppy & N. P. Taylor) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 36, 1998. Basionym: *Ariocarpus fissuratus* var. *hintonii*.
- Ariocarpus kotschoubeyanus* ssp. *agavooides* (Castañeda) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 35, 1998. Basionym: *Neogomesia agavooides*.
- Ariocarpus kotschoubeyanus* ssp. *albiflorus* (Backeberg) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [AR/KO ssp. *albiflorus*], 1997. Basionym: *Roseocactus kotschoubeyanus* var. *albiflorus*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998. Basionym erroneously given as *Ariocarpus*; treated as bibliographical error and here corrected.]
- Ariocarpus kotschoubeyanus* ssp. *bravoanus* (H. M. Hernández & E. F. Anderson) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 35, 1998. Basionym: *Ariocarpus bravoanus*.
- Ariocarpus kotschoubeyanus* ssp. *tulensis* Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 35, 1998. Typus: Not typified. *Nom. illeg.* (Art. 52.1). [*Nom. nov. pro Roseocactus kotschoubeyanus* var. *albiflorus* Backeberg 1951. Illegitimate versus *Ariocarpus kotschoubeyanus* ssp. *albiflorus* (Backeberg) Glass 1997 (or early 1998).]
- Ariocarpus kotschoubeyanus* var. *albiflorus* (Backeberg) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [AR/KO ssp. *albiflorus*], 1997. Basionym: *Roseocactus kotschoubeyanus* var. *albiflorus*. [Ascribed to Backeberg, but Backeberg published the taxon as *Roseocactus* in 1951.]
- Ariocarpus pulcherrimus* (Halda) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 37, 1998. Basionym: *Strombocactus pulcherrimus*.
- Ariocarpus retusus* ssp. *horacekii* Halda & Panarotto, Acta Mus. Richnov. Sect. Nat. 5(4): 163, 1998. Typus: *Halda* 8511035 (PR). [Sphalm. 'horaceki'.]
- Ariocarpus retusus* ssp. *jarmilae* Halda & al., Acta Mus. Richnov. Sect. Nat. 5(4): 162, 1998. Typus: *Halda* 8511038 (PR).
- Ariocarpus retusus* ssp. *panarottoi* Halda & Horacek, Acta Mus. Richnov. Sect. Nat. 5(4): 163, 1998. Typus: *Panarotto* 851028 (PR).
- Ariocarpus retusus* ssp. *trigonus* (F. A. C. Weber) E. F. Anderson & Fitz Maurice, Heseltonia 5: 18, 1998. Basionym: *Anhalonium trigonum*. [Vol. for 1997, publ. March 1998.]
- Ariocarpus scapharostrus* var. *swobodae* Halda & al., Acta Mus. Richnov. Sect. Nat. 5(4): 163, 1998. Typus: *Swoboda* 85110608 (PR).
- Armatocereus mataranus* ssp. *ancashensis* (F. Ritter) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Armatocereus mataranus* var. *ancashensis*.
- Armatocereus rauhii* ssp. *balsasensis* (F. Ritter) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Armatocereus balsasensis*.
- Bravocactinae* Doweld, Succulents (Moscow) 1: 19, 1998. Typus: *Bravocactus* Doweld.
- Bravocactus* Doweld, Succulents (Moscow) 1: 22, 1998. Typus: *Mammillaria horripila* Lemaire.
- Bravocactus horripilus* (Lemaire) Doweld, Succulents (Moscow) 1: 22, 1998. Basionym: *Mammillaria horripila*.
- Cereus hildmannianus* ssp. *uruguayanus* (R. Kiesling) N. P. Taylor, Cact. Consensus Init. No. 6: 15, 1998. Basionym: *Cereus uruguayanus*.
- Cleistocactus acanthurus* ssp. *faustianus* (Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Borzicactus faustianus*.
- Cleistocactus acanthurus* ssp. *pullatus* (Rauh & Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Loxanthocereus pullatus*.
- Cleistocactus baumannii* ssp. *horstii* (P. J. Braun) N. P. Taylor, Cact. Consensus Init. No. 6: 15, 1998. Basionym: *Cleistocactus horstii*.
- Cleistocactus clavispinus* (Rauh & Backeberg) Ostolaza, Brit. Cact. Succ. J. 16(3): 133, 1998. Basionym: *Loxanthocereus clavispinus*.
- Cleistocactus fieldianus* ssp. *sammensis* (F. Ritter) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Borzicactus sammensis*.
- Cleistocactus fieldianus* ssp. *tessellatus* (Akers & Buining) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Borzicactus tessellatus*.
- Cleistocactus hystric* (Rauh & Backeberg) Osto-

- laza*, Brit. Cact. Succ. J. 16(3): 133, ill. (p. 135), 1998. Basionym: *Loxanthocereus hystrix*.
Cleistocactus pachycladus (Rauh & Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Loxanthocereus pachycladus*.
- Cleistocactus peculiaris* (Rauh & Backeberg) Ostolaza, Brit. Cact. Succ. J. 16(3): 129, ill. (p. 130), 1998. Basionym: *Loxanthocereus peculiaris*.
- Copiapoa calderana* ssp. *longistaminea* (F. Ritter) N. P. Taylor, Cact. Consensus Init. No. 6: 15, 1998. Basionym: *Copiapoa longistaminea*.
- Copiapoa cinerea* var. *krainziana* (F. Ritter) G. J. Charles, Brit. Cact. Succ. J. 16(1): 15, 1998. Basionym: *Copiapoa krainziana*. [Name first used, but without proper combination, by Slaba, Kaktusy 33(Special): 3, 1997.]
- Copiapoa humilis* var. *tenuissima* (F. Ritter) G. J. Charles, Brit. Cact. Succ. J. 16(1): 15, 1998. Nom. inval., based on *Copiapoa tenuissima*, nom. inval. (Art. 37.1).
- Copiapoa humilis* var. *tocopillana* (F. Ritter) G. J. Charles, Brit. Cact. Succ. J. 16(1): 15, 1998. Basionym: *Copiapoa tocopillana*.
- Copiapoa hypogaea* var. *montana* (F. Ritter) G. J. Charles, Brit. Cact. Succ. J. 16(1): 15, 1998. Basionym: *Copiapoa montana*.
- Copiapoa knizei* (Kníže & Ríha) Halda, Cactaceae etc. 8(4): 134, ills., 1998. Basionym: *Cintia knizei*.
- Corryocactus brevistylus* ssp. *puiquensis* (Rauh & Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 8, 1998. Basionym: *Corryocactus puiquensis*.
- Coryphantha hintoniorum* Dicht & A. Lüthy, Kakt. and. Sukk. 50(1): 14-16, ills. (pp. 13, 17), 1998. Typus: *Hinton et al.* 27111 (Herb. G. B. Hinton). [Dated Jan. 1999, publ. 28. Dec. 1998.]
- Coryphantha macromeris* ssp. *runyonii* (Britton & Rose) N. P. Taylor, Cact. Consensus Init. No. 6: 15, 1998. Basionym: *Coryphantha runyonii*.
- Coryphantha macrothele* (Martius ex Pfeiffer) Kümmler, Mitteilungsbl. AfM 22(2): 109, 1998. Basionym: *Mammillaria macrothele*.
- Coryphantha robustispina* ssp. *scheeri* (Lemaire) N. P. Taylor, Cact. Consensus Init. No. 6: 18, 1998. Basionym: *Coryphantha scheeri*.
- Coryphantha robustispina* ssp. *uncinata* (L. Benson) N. P. Taylor, Cact. Consensus Init. No. 6: 18, 1998. Basionym: *Coryphantha scheeri* var. *uncinata*.
- Coryphantha salinensis* (Poselger) Dicht & A. Lüthy, Kakt. and. Sukk. 49(11): 257, 1998. Basionym: *Echinocactus salinensis*. [First published invalidly (Art. 34.1a, cf. RPS 42) by Bravo, Cact. Mexico 3: 461, 1991. Repeated in J. Mammillaria Soc. 39(1): 5, 1999.]
- Discocactus heptacanthus* var. *riomortensis* P. J. Braun & E. Esteves P., Succulenta 77(4): 181-184, ills., 1998. Nom. inval. (Art. 34.1b). [Published as provisional name.]
- Discocactus squamibaccatus* var. *longiflorus* P. J. Braun, Succulenta 77(6): 270-271, ill., 1998. Based on Horst et Uebelmann HU 643(1985). Nom. inval. (Art. 34.1b). [Published as provisional name.]
- Echinocactus horizonthalonius* var. *subikii* Stanšk & Dráb, Cactaceae etc. 8(1): 8-9, ills., 1998. Typus: Staník et Dráb 861131 (PR). [Sphalm. 'subiki'.]
- Echinocactus polycephalus* ssp. *xeranthemoides* (J. M. Coulter) N. P. Taylor, Cact. Consensus Init. No. 5: 12, 1998. Basionym: *Echinocactus polycephalus* var. *xeranthemoides*.
- Echinocactus* Subgen. *Morangaya* (G. D. Rowley) Mich. Lange, in W. Blum & al., *Echinocactus* [preprint], [1], 1998. Basionym: *Morangaya*. [Repeated in W. Blum & al., *Echinocactus*, 46, 1998.]
- Echinocactus* Subgen. *Triglochidiati* (Bravo) W. Blum & al., *Echinocactus* [preprint], [1], 1998. Basionym: *Echinocactus* Sect. *Triglochidiati*. [Repeated in W. Blum & al., *Echinocactus*, 353, 1998.]
- Echinocactus acifer* ssp. *tubiflorus* Rischer, in W. Blum & al., *Echinocactus* [preprint], [1], 1998. Typus: *Rischer* 17 (ZSS) [Ex cult. W. Rischer.]. [Repeated in W. Blum & al., *Echinocactus*, 404, 1998.]
- Echinocactus adustus* ssp. *bonatzii* (R. C. Römer) N. P. Taylor, Cact. Consensus Init. No. 6: 15, 1998. Basionym: *Echinocactus bonatzii*.
- Echinocactus apachensis* W. Blum & Rutow, in W. Blum & al., *Echinocactus* [preprint], [1], 1998. Typus: *McKelvey* 735 (US 1532949). [Repeated in W. Blum & al., *Echinocactus*, 101, 1998.]
- Echinocactus arizonicus* ssp. *nigrihorridispinus* W. Blum & Rutow, in W. Blum & al., *Echinocactus* [preprint], [2], 1998. Typus: *Kuenzler* 1054 (ZSS) [Ex cult. W. Rischer.]. [Repeated in W. Blum & al., *Echinocactus*, 365, 1998.]
- Echinocactus bristolii* ssp. *floresii* (Backeberg) W. Blum & Mich. Lange, in W. Blum & al., *Echinocactus* [preprint], [2], 1998. Basionym: *Echinocactus floresii*. [Repeated in W. Blum & al., *Echinocactus*, 348, 1998.]
- Echinocactus carmenensis* W. Blum & al., *Echinocactus* [preprint], [2], 1998. Typus: *Brack* 1476 (ZSS) [Ex cult. W. Rischer.]. [Repeated in W. Blum & al., *Echinocactus*, 221, 1998.]
- Echinocereus chloranthus* ssp. *cylindricus* (Engelmann) W. Blum & Mich. Lange, *Echinocereus* [preprint], [2], 1998. Basionym: *Cereus viridiflorus* var. *cylindricus*. [Repeated in W. Blum & al., *Echinocereus*, 205, 1998. First published as a provisional name by Fürsch in Kakt. and. Sukk. 44(7): 137, 1993 (cf. RPS 44).]
- Echinocereus chloranthus* ssp. *rhyolithensis* W. Blum & Mich. Lange, in W. Blum & al., *Echinocereus* [preprint], [3], 1998. Typus: *Piers* 110 (NM). [Repeated in W. Blum & al., *Echinocereus*, 208, 1998.]
- Echinocereus cinerascens* ssp. *ehrenbergii* (Pfeiffer) W. Blum & Rutow, in W. Blum & al.,

- Echinocereus* [preprint], [3], 1998. Basionym: *Cereus ehrenbergii*. [Repeated in W. Blum & al., *Echinocereus*, 141, 1998.]
- Echinocereus coccineus* ssp. *aggregatus* (Engelmann ex B. D. Jackson) W. Blum & al., *Echinocereus* [preprint], [3], 1998. Basionym: *Mammillaria aggregata*. [Repeated in W. Blum & al., *Echinocereus*, 423, 1998. Based on *Mammillaria aggregata* Engelmann ex S. Watson, Bibl. Ind. North Amer. Bot., 398, 1878, which is treated as bibliographical error.]
- Echinocereus coccineus* ssp. *paucispinus* (Engelmann) W. Blum & al., *Echinocereus* [preprint], [3], 1998. Basionym: *Cereus paucispinus*. [Repeated in W. Blum & al., *Echinocereus*, 430, 1998.]
- Echinocereus coccineus* ssp. *roemerii* (Mühlenpfört) W. Blum & al., *Echinocereus* [preprint], [3], 1998. Basionym: *Cereus roemerii*. [Repeated in W. Blum & al., *Echinocereus*, 428, 1998.]
- Echinocereus coccineus* ssp. *rosei* (Wooton & Standley) W. Blum & Rutow, in W. Blum & al., *Echinocereus* [preprint], [3], 1998. Basionym: *Echinocereus rosei*. [Repeated in W. Blum & al., *Echinocereus*, 421, 1998.]
- Echinocereus dasycanthus* ssp. *rectispinus* (Trocha & Fethke) W. Blum & al., *Echinocereus* [preprint], [4], 1998. Basionym: *Echinocereus dasycanthus* var. *rectispinus*. [Repeated in W. Blum & al., *Echinocereus*, 118, 1998.]
- Echinocereus engelmannii* ssp. *decumbens* (Clover & Jotter) W. Blum & Mich. Lange, in W. Blum & al., *Echinocereus* [preprint], [4], 1998. Basionym: *Echinocereus decumbens*. [Repeated in W. Blum & al., *Echinocereus*, 77, 1998.]
- Echinocereus engelmannii* ssp. *fasciculatus* (Engelmann ex Watson) W. Blum & Mich. Lange, in W. Blum & al., *Echinocereus* [preprint], [4], 1998. [Repeated in W. Blum & al., *Echinocereus*, 79, 1998. Based on *Mammillaria fasciculata* Engelmann ex Watson, Bibl. Index North Amer. Bot., 402, 1878. PLEASE CHECK VALIDITY, basionym otherwise often treated as nom. prov. from 1848.]
- Echinocereus fendleri* ssp. *hempelii* (Fobe) W. Blum, in W. Blum & al., *Echinocereus* [preprint], [4], 1998. Basionym: *Echinocereus hempelii*. [Repeated in W. Blum & al., *Echinocereus*, 93, 1998.]
- Echinocereus fitchii* ssp. *albertii* (L. Benson) W. Blum & Mich. Lange, *Echinocereus* [preprint], [5], 1998. Basionym: *Echinocereus reichenbachii* var. *albertii*. [Repeated in W. Blum & al., *Echinocereus*, 309, 1998.]
- Echinocereus fitchii* ssp. *armatus* (Poselger) W. Blum & al., *Echinocereus* [preprint], [5], 1998. Basionym: *Cereus pectinatus* var. *armatus*. [Repeated in W. Blum & al., *Echinocereus*, 310, 1998.]
- Echinocereus fodeanus* ssp. *metornii* (G. R. W. Frank) W. Blum & Mich. Lange, *Echinocereus* [preprint], [5], 1998. Basionym: *Echinocereus metornii*. [Repeated in W. Blum & al., *Echinocereus*, 303, 1998.]
- Echinocereus klapperii* W. Blum, *Echinocereus* [preprint], [5], 1998. Typus: *Klapper* 121 (ZSS) [Ex cult. W. Rischer]. [Repeated in W. Blum & al., *Echinocereus*, 376, 1998.]
- Echinocereus knippelianus* ssp. *kruegeri* (Glass & Foster) Glass & Foster, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [ECHINOCE/KN ssp. *kruegeri*], 1997. Basionym: *Echinocereus knippelianus* var. *kruegeri*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998. Repeated by W. Blum & Mich. Lange, *Echinocereus* [preprint], [5], 1998.]
- Echinocereus knippelianus* ssp. *reyesii* (A. B. Lau) W. Blum & Mich. Lange, *Echinocereus* [preprint], [6], 1998. Basionym: *Echinocereus knippelianus* var. *reyesii*. [Repeated in W. Blum & al., *Echinocereus*, 248, 1998.]
- Echinocereus longisetus* ssp. *freudenbergeri* (G. R. W. Frank) W. Blum, *Echinocereus* [preprint], [6], 1998. Basionym: *Echinocereus freudenbergeri*. [Repeated in W. Blum & al., *Echinocereus*, 187, 1998.]
- Echinocereus mapimiensis* E. F. Anderson & al., Cact. Succ. J. (US) 70(6): 284-285, illus., 1998. Typus: *Keil et McGill* 8136 (DES).
- Echinocereus maritimus* ssp. *hancockii* (E. Y. Dawson) W. Blum & Rutow, *Echinocereus* [preprint], [6], 1998. Basionym: *Echinocereus hancockii*. [Repeated in W. Blum & al., *Echinocereus*, 57, 1998.]
- Echinocereus neocapillus* (Weniger) W. Blum & Mich. Lange, *Echinocereus* [preprint], [6], 1998. Basionym: *Echinocereus chloranthus* var. *neocapillus*. [Repeated in W. Blum & al., *Echinocereus*, 219, 1998.]
- Echinocereus pacificus* ssp. *mombergerianus* (G. R. W. Frank) W. Blum & al., *Echinocereus* [preprint], [6], 1998. Basionym: *Echinocereus mombergerianus*. [Repeated in W. Blum & al., *Echinocereus*, 413, 1998.]
- Echinocereus parkeri* fa. *arteagensis* (W. Blum & Mich. Lange) G. R. W. Frank & E. Scherer, *Echinocereenfreund* 11(Sonderausgabe 1998): 61, 1998. Nom. inval. (Art. 33.2), based on *Echinocereus parkeri* ssp. *arteagensis*.
- Echinocereus parkeri* ssp. *arteagensis* W. Blum & Mich. Lange, *Echinocereus* [preprint], [7], 1998. Typus: *Guzmán* s.n. in *Sánchez Mejorada* 3807 (MEXU). [Repeated in W. Blum & al., *Echinocereus*, 175, 1998.]
- Echinocereus parkeri* ssp. *mazapilensis* W. Blum & Mich. Lange, *Echinocereus* [preprint], [6-7], 1998. Typus: *Sánchez Mejorada* et al. 4041 (MEXU). [Repeated in W. Blum & al., *Echinocereus*, 173, 1998.]
- Echinocereus pectinatus* ssp. *wenigeri* (L. Benson) W. Blum & Rutow, *Echinocereus* [preprint], [7], 1998. Basionym: *Echinocereus pectinatus* var. *wenigeri*. [Repeated in W. Blum & al., *Echinocereus*, 111, 1998.]
- Echinocereus pentalophus* ssp. *procumbens* (Engelmann) W. Blum & Mich. Lange, *Echinocereus* [preprint], [7], 1998. Basionym: *Cereus*

- procumbens*. [Repeated in W. Blum & al., *Echinocereus*, 129, 1998.]
- Echinocereus pulchellus* ssp. *acanthosetus* (S. Arias & L. U. Guzmán) W. Blum, *Echinocereus* [preprint], [8] (3. April), 1998. Basionym: *Echinocereus pulchellus* var. *acanthosetus*. [Repeated in W. Blum & al., *Echinocereus*, 259, 1998 (rec. 20. 10. 1998) and by N. P. Taylor, *Cact. Consensus Init.* No. 5: 12, 1998 (rec. 30. 10. 1998)]
- Echinocereus pulchellus* ssp. *venustus* W. Blum & Rischer, *Echinocereus* [preprint], [7], 1998. Typus: *Lau* 1036 (ZSS) [Ex cult. W. Rischer.]. [Repeated in W. Blum & al., *Echinocereus*, 255, 1998.]
- Echinocereus reichenbachii* ssp. *caespitosus* (Engelmann) W. Blum & Mich. Lange, *Echinocereus* [preprint], [8], 1998. Basionym: *Cereus caespitosus*. [Repeated in W. Blum & al., *Echinocereus*, 320, 1998.]
- Echinocereus russanthus* ssp. *fiehnii* (Trocha) W. Blum & Mich. Lange, *Echinocereus* [preprint], [8], 1998. Basionym: *Echinocereus russanthus* var. *fiehnii*. [Repeated in W. Blum & al., *Echinocereus*, 213, 1998.]
- Echinocereus russanthus* ssp. *weedinii* Leuck ex W. Blum & Mich. Lange, *Echinocereus* [preprint], [8], 1998. Typus: *Weedin* 913 (OKL). [Repeated in W. Blum & al., *Echinocereus*, 216, 1998.]
- Echinocereus salm-dyckianus* ssp. *bacanorensis* Rischer & Trocha, *Echinocereenfreund* 11(1): 3-10, ill., (2): 31, 1998. Typus: *Trocha* s.n. (ZSS).
- Echinocereus santaritensis* W. Blum & Rutow, *Echinocereus* [preprint], [9], 1998. Based on *Rutow* 52. *Nom. inval.* (Art. 37.5?). [Repeated in W. Blum & al., *Echinocereus*, 369, 1998. Since 'UA' is not recorded in the published Index Herbariorum, the nape appears to be invalid under Art. 37.5.]
- Echinocereus scheeri* ssp. *paridensis* Rischer & Trocha, *Echinocereenfreund* 11(3): 58-65, ill., SEM-ill., 1998. Typus: *Rischer* 1992/312 (ZSS).
- Echinocereus scopulorum* ssp. *pseudopectinatus* (N. P. Taylor) W. Blum & Mich. Lange, *Echinocereus* [preprint], [9], 1998. Basionym: *Echinocereus bristolfii* var. *pseudopectinatus*. [Repeated in W. Blum & al., *Echinocereus*, 337, 1998.]
- Echinocereus triglochidiatus* fa. *inermis* (K. Schumann) D. J. Ferguson ex W. Blum, *Echinocereus* [preprint], [9], 1998. Basionym: *Echinocereus phoeniceus* var. *inermis*. [Repeated in W. Blum & al., *Echinocereus*, 360, 1998. First published invalidly (Art. 33.2) by D. J. Ferguson, *Cact. Succ. J. (US)* 61(5): 219, 1989 (cf. RPS 40).]
- Echinocereus triglochidiatus* ssp. *mojavensis* (Engelmann & Bigelow) W. Blum & Mich. Lange, *Echinocereus* [preprint], [9], 1998. Basionym: *Cereus mojavensis*. [Repeated in W. Blum & al., *Echinocereus*, 357, 1998.]
- Echinocereus viereckii* ssp. *huastecensis* W. Blum & al., *Echinocereus* [preprint], [9-10], 1998. Typus: *Taylor* 192 (K). [Repeated in W. Blum & al., *Echinocereus*, 157, 1998.]
- Echinocereus viridiflorus* ssp. *correllii* (L. Benson) W. Blum & Mich. Lange, *Echinocereus* [preprint], [10], 1998. Basionym: *Echinocereus viridiflorus* var. *correllii*. [Repeated in W. Blum & al., *Echinocereus*, 198, 1998.]
- Echinomastus unguispinus* ssp. *laui* (G. Frank & Zecher) Glass, *Güia Ident. Cact. Amenaz. Mex.* Vol. 1, [ECHINOM/UN ssp. *laui*], 1997. Basionym: *Echinocereus laui*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, *Cact. Consensus Init.* No. 5: 6, 1998.]
- Echinopsis densispina* var. *amblayensis* (Rausch) J. G. Lambert, *Cact. Argentine*, ed. 2, 50, 1998. Basionym: *Lobivia amblayensis*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 44, 1993 (cf. RPS 44).]
- Echinopsis densispina* var. *pectinifera* (Wessner) J. G. Lambert, *Cact. Argentine*, ed. 2, 51, 1998. Basionym: *Lobivia pectinifera*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 45, 1993 (cf. RPS 44).]
- Echinopsis dobeana* (Dölz) J. G. Lambert, *Cact. Argentine*, ed. 2, 51, 1998. Basionym: *Lobivia dobeana*.
- Echinopsis fallax* var. *cylindrica* (Backeberg) J. G. Lambert, *Cact. Argentine*, ed. 2, 55, 1998. Basionym: *Lobivia cylindrica*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 47, 1993 (cf. RPS 44).]
- Echinopsis haematantha* var. *chorrilloensis* (Rausch) J. G. Lambert, *Cact. Argentine*, ed. 2, 57, 1998. Basionym: *Lobivia elongata*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 49, 1993 (cf. RPS 44).]
- Echinopsis haematantha* var. *elongata* (Backeberg) J. G. Lambert, *Cact. Argentine*, ed. 2, 57, 1998. Basionym: *Lobivia elongata*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 49, 1993 (cf. RPS 44).]
- Echinopsis haematantha* var. *hualfinensis* (Rausch) J. G. Lambert, *Cact. Argentine*, ed. 2, 57, 1998. Basionym: *Lobivia hualfinensis*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 49, 1993 (cf. RPS 44).]
- Echinopsis haematantha* var. *jasimanensis* (Rausch) J. G. Lambert, *Cact. Argentine*, ed. 2, 57, 1998. Basionym: *Lobivia haematantha* var. *jasimanensis*.
- Echinopsis haematantha* var. *kuehnrichii* (Fric) J. G. Lambert, *Cact. Argentine*, ed. 2, 59, 1998. Basionym: *Lobivia kuehnrichii*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 49, 1993 (cf. RPS 44).]
- Echinopsis peruviana* ssp. *puquiensis* (Rauh & Backeberg) Ostolaza, *Cact. Consensus Init.* No. 6: 8, 1998. Basionym: *Trichocereus puquiensis*.
- Echinopsis saltensis* var. *nealeana* (Backeberg) J. G. Lambert, *Cact. Argentine*, ed. 2, 65, 1998. Basionym: *Lobivia nealeana*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 55, 1993 (cf. RPS 44).]
- Echinopsis saltensis* var. *pseudocachensis* (Backeberg) J. G. Lambert, *Cact. Argentine*, ed. 2,

- 66, 1998. Basionym: *Lobivia pseudocachensis*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 56, 1993 (cf. RPS 44).]
- Echinopsis stilociana* (Backeberg) J. G. Lambert, *Cact. Argentine*, ed. 2, 70, 1998. Basionym: *Lobivia stilociana*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 59, 1993 (cf. RPS 44).]
- Epithelantha micromeris* ssp. *greggii* (Engelmann) N. P. Taylor, *Cact. Consensus Init.* No. 5: 12, 1998. Basionym: *Mammillaria micromeris* var. *greggii*.
- Epithelantha micromeris* ssp. *pachyrhiza* (W. T. Marshall) N. P. Taylor, *Cact. Consensus Init.* No. 5: 13, 1998. Basionym: *Epithelantha micromeris* var. *pachyrhiza*.
- Epithelantha micromeris* ssp. *polyccephala* (Backeberg) Glass, *Guia Ident. Cact. Amenaz. Mex.* Vol. 1, [EP/MI ssp. *polyccephala*], 1997. Basionym: *Epithelantha polyccephala*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, *Cact. Consensus Init.* No. 5: 6, 1998.]
- Epithelantha micromeris* ssp. *unguispina* (Bödeker) N. P. Taylor, *Cact. Consensus Init.* No. 5: 12, 1998. Basionym: *Mammillaria micromeris* var. *unguispina*.
- Eriosyce omasensis* (Ostolaza & T. Mischler) Ostolaza, *Cact. Consensus Init.* No. 6: 8, 1998. Basionym: *Islaya omasensis*.
- Escobaria chihuahuensis* ssp. *henricksonii* (Glass & Foster) N. P. Taylor, *Cact. Consensus Init.* No. 5: 13, 1998. Basionym: *Escobaria henricksonii*.
- Escobaria dasycantha* ssp. *chaffeyi* (Britton & Rose) N. P. Taylor, *Cact. Consensus Init.* No. 5: 13, 1998. Basionym: *Escobaria chaffeyi*.
- Escobaria missouriensis* ssp. *asperispina* (Bödeker) N. P. Taylor, *Cact. Consensus Init.* No. 5: 13, 1998. Basionym: *Coryphantha asperispina*.
- Ferocactus alamosanus* ssp. *reppenhagenii* (G. Unger) N. P. Taylor, *Cact. Consensus Init.* No. 6: 15, 1998. Basionym: *Ferocactus reppenhagenii*.
- Ferocactus chrysacanthus* ssp. *grandiflorus* (G. E. Lindsay) N. P. Taylor, *Cact. Consensus Init.* No. 6: 15, 1998. Basionym: *Ferocactus fordii* var. *grandiflorus*.
- Ferocactus cylindraceus* ssp. *lecontei* (Engelmann) N. P. Taylor, *Cact. Consensus Init.* No. 6: 16, 1998. Basionym: *Echinocactus lecontei*.
- Ferocactus cylindraceus* ssp. *tortulispinus* (H. E. Gates) N. P. Taylor, *Cact. Consensus Init.* No. 6: 16, 1998. Basionym: *Ferocactus tortulispinus*.
- Ferocactus emoryi* ssp. *rectispinus* (Engelmann) N. P. Taylor, *Cact. Consensus Init.* No. 6: 16, 1998. Basionym: *Echinocactus emoryi* var. *rectispinus*.
- Ferocactus gracilis* ssp. *coloratus* (H. E. Gates) N. P. Taylor, *Cact. Consensus Init.* No. 6: 16, 1998. Basionym: *Ferocactus coloratus*.
- Ferocactus hamatacanthus* ssp. *sinuatus* (A. Dietrich) N. P. Taylor, *Cact. Consensus Init.* No. 5: 13, 1998. Basionym: *Echinocactus sinuatus*.
- Ferocactus latispinus* ssp. *spiralis* (Karwinski ex Pfeiffer) N. P. Taylor, *Cact. Consensus Init.* No. 5: 13, 1998. Basionym: *Echinocactus spiralis*.
- Ferocactus macrodiscus* ssp. *septentrionalis* (J. Meyrán) N. P. Taylor, *Cact. Consensus Init.* No. 5: 13, 1998. Basionym: *Ferocactus macrodiscus* var. *septentrionalis*.
- Frailea pygmaea* ssp. *albicolumnaris* (F. Ritter) Hofacker, *Cact. Consensus Init.* No. 6: 11, 1998. Basionym: *Frailea albicolumnaris*.
- Griseocereus* (P. V. Heath) P. V. Heath, *Calyx* 6(1): 1, 1998. Basionym: *Stenocereus* Subgen. *Griseocereus*.
- >Grisulatocereus* P. V. Heath, *Calyx* 6(1): 1, 1998. [= *Griseocereus* × *Insulatocereus*. Spelling of the second parent's name in dispute (vs. *Insulatocereus*).]
- Gymnocalycium angelae* Meregalli, *Kakt. and. Sukk.* 49(12): 287-289, illus. (pp. 283-284), 1998. Typus: *Kiesling* s.n. (TO HG2705) [Ex cult. Meregalli].
- Gymnocalycium nigriareolatum* fa. *carmineum* H. Till, *Gymnocalycium* 11(3): 254-255, illus., 1998. Typus: *Amerhauser* 255-2 (BA, WU).
- Gymnocalycium nigriareolatum* var. *densispinum* Backeberg ex H. Till, *Gymnocalycium* 11(3): 255-256, illus., 1998. Typus: *Fechser* s.n. (BA, WU). [First published invalidly (Art. 32.1c, 36.1) by Backeberg, *Kat. 10 Jahre Kakt.-Forsch.*, 16, 1937, and repeated by Backeberg in *Die Cact.* 3: 1759, 1959 (erroneously included as valid in RPS 10).]
- Gymnocalycium nigriareolatum* var. *simoi* H. Till, *Gymnocalycium* 11(3): 258, illus. (p. 256), 1998. Typus: *Borth* 126 (BA, WU).
- Gymnocalycium ×pazoutianum* Halda, *Acta Mus. Richnov. Sect. Nat.* 5(4): 164, 1998. Typus: Herb. Halda 9806003. [= *Gymnocalycium denudatum* × *G. baldianum*. Long-cultivated and known as "red-flowering" *G. denudatum* 'Jan Suba'.]
- Gymnocalycium pflanzii* ssp. *dorisiae* Amerhauser, *Gymnocalycium* 11(4): 267-268, illus., 1998. Typus: *Amerhauser* 95-1004-2 (LPB, WU).
- Gymnocalycium sanluisense* Sorma, *Gymnofil* 27(1-2): 2-3, illus., 1998. *Sorma* 1 (O. [Published as provisional name.]
- Haageocereus acranthus* ssp. *olowinskianus* (Backeberg) Ostolaza, *Cact. Consensus Init.* No. 6: 8, 1998. Basionym: *Haageocereus olowinskianus*.
- Haageocereus pseudomelanostele* ssp. *aureispinus* (Rauh & Backeberg) Ostolaza, *Cact. Consensus Init.* No. 6: 9, 1998. Basionym: *Haageocereus aureispinus*.
- Haageocereus pseudomelanostele* ssp. *carminiflorus* (Rauh & Backeberg) Ostolaza, *Cact. Consensus Init.* No. 6: 9, 1998. Basionym: *Haageocereus pseudomelanostele* var. *carminiflorus*.

- Haageocereus pseudomelanosteles ssp. turbidus** (Rauh & Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 9, 1998. Basionym: *Haageocereus turbidus*.
- Haageocereus pseudomelanosteles** var. *turbidus* (Rauh & Backeberg) Ostolaza, Brit. Cact. Succ. J. 16(3): 132, 1998. Basionym: *Haageocereus turbidus*.
- Hamatocactus uncinatus** ssp. *crassihamatus* (F. A. C. Weber) Glass, Guia Ident. Cact. Amenaz. Mex. Vol. 1, [HAUN ssp. *crassihamatus*], 1997. Basionym: *Echinocactus crassihamatus*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Kadenicarpus Doweld, Succulents (Moscow)** 1: 22, 1998. Typus: *Strombocactus pseudomacrocbole* Backeberg.
- Kadenicarpus pseudomacrocole** (Backeberg) Doweld, Succulents (Moscow) 1: 22, 1998. Basionym: *Strombocactus pseudomacrocole*.
- Kadenicarpus pseudomacrocole** var. *lausseri* (Diers & G. Frank) Doweld, Succulents (Moscow) 1: 22, 1998. Basionym: *Turbinicarpus pseudomacrocole* var. *lausseri*.
- Kadenicarpus pseudomacrocole** var. *sphaelatus* (Diers & G. Frank) Doweld, Succulents (Moscow) 1: 22, 1998. Nom. inval., based on *Turbinicarpus pseudomacrocole* var. *sphaelatus*, nom. inval. (Art. 37.3).
- Lophophora viridescens** (Halda) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 71, 1997. Basionym: *Lophophora diffusa* ssp. *viridescens*. [Omitted previously.]
- Maihueniopsis** Subgen. *Astrocytropuntia* (Backeberg) R. Kiesling, Tephrocactus Study Group 4(1): 238, 1998. Basionym: *Astrocytropuntia*. [English translation of a Spanish text submitted "with permission to publish it ... as a draft document" and thus probably invalid under Art. 34.1b.]
- Maihueniopsis cylindrica** (Lamarck) R. Kiesling, Tephrocactus Study Group 4(1): 238, 1998. Basionym: *Cactus cylindricus*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis exaltata** (A. Berger) R. Kiesling, Tephrocactus Study Group 4(1): 238, 1998. Basionym: *Opuntia exaltata*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis floccosa** (Salm-Dyck) R. Kiesling, Tephrocactus Study Group 4(1): 239, 1998. Basionym: *Opuntia floccosa*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*. The basionym given is already a combination. It is here treated as bibliographical error and corrected.]
- Maihueniopsis lagopus** (K. Schumann) R. Kiesling, Tephrocactus Study Group 4(1): 239, 1998. Basionym: *Opuntia lagopus*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis miquelii** (Monville) R. Kiesling, Tephrocactus Study Group 4(1): 239, 1998. Basionym: *Opuntia miquelii*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis pachypus** (K. Schumann) R. Kiesling, Tephrocactus Study Group 4(1): 239, 1998. Basionym: *Opuntia pachypus*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis shaferi** (Britton & Rose) R. Kiesling, Tephrocactus Study Group 4(1): 240, 1998. Basionym: *Opuntia shaferi*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis shaferi** var. *humahuacana* (Backeberg) R. Kiesling, Tephrocactus Study Group 4(1): 240, 1998. Basionym: *Cylindropuntia humahuacana*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis subulata** (Mühlenpförtner) R. Kiesling, Tephrocactus Study Group 4(1): 240, 1998. Basionym: *Pereskia subulata*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis verschaffeltii** (Cesl ex F. A. C. Weber) R. Kiesling, Tephrocactus Study Group 4(1): 241, 1998. Basionym: *Opuntia verschaffeltii*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Maihueniopsis vestita** (Salm-Dyck) R. Kiesling, Tephrocactus Study Group 4(1): 241, 1998. Basionym: *Opuntia vestita*. [See comment for *Maihueniopsis* Subgen. *Astrocytropuntia*.]
- Mammillaria brandegeei** ssp. *lewisiana* (H. E. Gates) D. R. Hunt, Mammillaria Postscripts No. 7: 3, 1998. Basionym: *Mammillaria lewisiana*.
- Mammillaria coahuilensis** ssp. *albiarmata* (Bödeker) D. R. Hunt, Mammillaria Postscripts No. 7: 3, 1998. Basionym: *Mammillaria albiarmata*.
- Mammillaria crinita** fa. *zeilmanniana* (Bödeker) Glass, Guia Ident. Cact. Amenaz. Mex. Vol. 1, [MA/CR f. *zeilmanniana*], 1998. Basionym: *Mammillaria zeilmanniana*.
- Mammillaria crinita** ssp. *scheinvariana* (R. Ortega & Glass) W. A. & B. Fitz Maurice, Cact. Succ. J. (US) 70(2): 94, illus. (pp. 91, 93), 1998. Basionym: *Mammillaria scheinvariana*.
- Mammillaria crucigera** var. *grandinosa* Linzen & al., Mitteilungsbl. AfM 21(4): 203-207, illus. (pp. 208, 210-211), 1998. Typus: *Otero* 223 (UNAM 1025). [Dated 1997, publ. Feb. 1998.]
- Mammillaria crucigera** var. *tlalocii* (Repenhaugen) Linzen & al., Mitteilungsbl. AfM 21(4): 202, 1998. Basionym: *Mammillaria tlalocii*. [Dated 1997, publ. Feb. 1998.]
- Mammillaria dioica** ssp. *angeliensis* (R. T. Craig) D. R. Hunt, Mammillaria Postscripts No. 7: 3, 1998. Basionym: *Mammillaria angeliensis*.
- Mammillaria dioica** ssp. *estebanensis* (G. E. Lindsay) D. R. Hunt, Mammillaria Postscripts No. 7: 3, 1998. Basionym: *Mammillaria estebanensis*.
- Mammillaria formosa** ssp. *chionocephala* (J. A. Purpus) D. R. Hunt, Mammillaria Postscripts

- No. 7: 3, 1998. Basionym: *Mammillaria chionocephala*.
- Mammillaria lasiacantha* ssp. *egregia* (Backeberg ex Rogozinski & Appenzeller) D. R. Hunt, *Mammillaria Postscripts* No. 7: 3, 1998. Basionym: *Mammillaria egregia*.
- Mammillaria luthieniae* Laferrière, J. *Mammillaria Soc.* 38(2): 18-19, ill., 1998. Typus: *Laferrière* 2328 (ARIZ, MEXU).
- Mammillaria mazatlanensis* ssp. *patonii* (Bravo) D. R. Hunt, *Mammillaria Postscripts* No. 7: 3, 1998. Basionym: *Neomammillaria patonii*.
- Mammillaria melilotiae* Laferrière, J. *Mammillaria Soc.* 38(2): 18-21, ills., 1998. Typus: *Laferrière* 2093 (ARIZ, MEXU).
- Mammillaria petrophila* ssp. *arida* (Rose ex Quehl) D. R. Hunt, *Mammillaria Postscripts* No. 7: 3, 1998. Basionym: *Mammillaria arida*.
- Mammillaria petrophila* ssp. *baxteriana* (H. E. Gates) D. R. Hunt, *Mammillaria Postscripts* No. 7: 3, 1998. Basionym: *Neomammillaria baxteriana*.
- Mammillaria saboae* ssp. *haudeana* (A. B. Lau & Wagner) D. R. Hunt, *Mammillaria Postscripts* No. 7: 3, 1998. Basionym: *Mammillaria haudeana*.
- Mammillaria scheinvariana* R. Ortega-Varela & Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [MA/SCHE 2 pp.], 1997. Typus: *Ortega-Varela et al. s.n.* (CANTE 564). [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Mammillaria tinuvieliae* Laferrière, J. *Mammillaria Soc.* 38(2): 19, 21, ills., 1998. Typus: *Laferrière* 1443 (ARIZ, MEXU).
- Mammillaria volubilis* Laferrière, Dandy Dime, March: [], 1997. Nom. inval. (Art. 30.3). [Cited from D. R. Hunt, *Mammillaria Postscripts* No. 7: 9, 1998.]
- Neoraimondia arequipensis* ssp. *roseiflora* (Wedermann & Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 9, 1998. Basionym: *Cereus macrostibas* var. *roseiflorus*.
- Neowerdermannia chilensis* var. *peruviana* (F. Ritter) Ostolaza, Cact. Consensus Init. No. 6: 9, 1998. Basionym: *Neowerdermannia peruviana*.
- Nigellicereus* (P. V. Heath) P. V. Heath, Calyx 6(1): 1, 1998. Basionym: *Stenocereus* Subgen. *Nigellicereus*.
- Opuntia acanthantha* var. *kiska-loro* (Spegazzini) R. Kiesling, Candollea 53(2): 475, 1998. Basionym: *Opuntia kiska-loro*.
- Opuntia acanthantha* var. *retrorsa* (Spegazzini) R. Kiesling, Candollea 53(2): 475, 1998. Basionym: *Opuntia retrorsa*.
- Opuntia acanthantha* var. *utkilio* (Spegazzini) R. Kiesling, Candollea 53(2): 476, 1998. Basionym: *Opuntia utkilio*.
- Opuntia humifusa* ssp. *minor* (Engelmann) Crook & Mottram, Bradleya 16: 135, 1998. Basionym: *Opuntia rafinesquei* var. *minor*.
- Opuntia pinkavae* B. D. Parfitt, Rhodora 99(899): 223-225, ills., 1997. Typus: *Parfitt* 2874 (ASU). [Dated 1997, publ. 1998.]
- Opuntia polyacantha* var. *arenaria* (Engelmann) B. D. Parfitt, Cact. Succ. J. (US) 70(4): 188, 1998. Basionym: *Opuntia arenaria*.
- Opuntia polyacantha* var. *erinacea* (Engelmann & J. M. Bigelow) B. D. Parfitt, Cact. Succ. J. (US) 70(4): 188, 1998. Basionym: *Opuntia erinacea*.
- Opuntia polyacantha* var. *hystricina* (Engelmann & J. M. Bigelow) P. D. Parfitt, Cact. Succ. J. (US) 70(4): 188, 1998. Basionym: *Opuntia hystricina*.
- Opuntia polyacantha* var. *nicholii* (L. Benson) B. D. Parfitt, Cact. Succ. J. (US) 70(4): 188, 1998. Basionym: *Opuntia nicholii*.
- Pachycereus tepamo* S. Gama & S. Arias, Novon 8(4): 359-361, ills., 1998. Typus: *Guzmán-Cruz* 906 (MEXU, ENCB, IBUG, MO).
- Parodia alacriportana* ssp. *brevihamata* (W. Haage) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Parodia brevihamata*.
- Parodia alacriportana* ssp. *buenekeri* (Buining) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Parodia buenekeri*.
- Parodia alacriportana* ssp. *catarinensis* (F. Ritter) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Brasiliparodia catarinensis*.
- Parodia arnoldiana* (Lisal & Kolarik) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus arnoldianus*.
- Parodia aureicentra* var. *muhrii* (F. H. Brandt) J. G. Lambert, Cact. Argentine, ed. 2, 207, 1998. Basionym: *Parodia muhrii*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 190, 1993 (cf. RPS 44).]
- Parodia aureicentra* var. *rauschii* (Backeberg) J. G. Lambert, Cact. Argentine, ed. 2, 209, 1998. Basionym: *Parodia rauschii*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 192, 1993 (cf. RPS 44).]
- Parodia aureicentra* var. *varicolor* (F. Ritter) J. G. Lambert, Cact. Argentine, ed. 2, 210, 1998. Basionym: *Parodia varicolor*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 193, 1993 (cf. RPS 44).]
- Parodia carambeiensis* (Buining & Brederoo) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus carambeiensis*.
- Parodia catamarcensis* var. *riojensis* (F. Ritter & Weskamp) J. G. Lambert, Cact. Argentine, ed. 2, 226, 1998. Basionym: *Parodia riojensis*. [First published invalidly (Art. 33.2, 34.1a) in *Cact. Argentine* [ed. 1], 208, 1993 (cf. RPS 44).]
- Parodia concinna* ssp. *agnetae* (van Vliet) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus agnetae*.
- Parodia concinna* ssp. *blaauwiana* (van Vliet) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus blaauwianus*. [Spahm. 'blaawiana'.]
- Parodia fusca* (F. Ritter) Hofacker & P. J. Braun,

- Cact. Consensus Init.** No. 6: 10, 1998. Basionym: *Notocactus fuscus*.
- Parodia haselbergii** ssp. *graessneri* (K. Schumann) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Echinocactus graessneri*.
- Parodia mammulosa** ssp. *brasiliensis* (Havlicek) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus mammulosus var. brasiliensis*.
- Parodia mammulosa** ssp. *erythracanthus* (Schlosser & Brederoo) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus erythracanthus*.
- Parodia mammulosa** ssp. *eugeniae* (van Vliet) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus eugeniae*.
- Parodia mammulosa** ssp. *submammulosa* (Lemaire) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Echinocactus submammulosus*.
- Parodia meonacantha** (Prestlé) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus meonacanthus*.
- Parodia microperma** var. *weberiana* (F. H. Brandt) J. G. Lambert, Cact. Argentine, ed. 2, 240, 1998. Basionym: *Parodia weberiana*. [First published invalidly (Art. 33.2, 34.1a) in Cact. Argentine [ed. 1], 220, 1993 (cf. RPS 44).]
- Parodia mueller-melchersii** ssp. *gutierrezii* (Abraham) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus gutierrezii*.
- Parodia mueller-melchersii** ssp. *winkleri* (van Vliet) Hofacker, Cact. Consensus Init. No. 6: 11, 1998. Basionym: *Notocactus winkleri*.
- Parodia muricata** (Otto ex Pfeiffer) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Echinocactus muricatus*.
- Parodia nothomimuscula** Hofacker, Cact. Consensus Init. No. 6: 11, 1998. [Nom. nov. pro *Notocactus minusculus* Hofacker & Herm (non *Parodia minuscula* Rausch 1985).]
- Parodia ottonis** ssp. *horstii* (F. Ritter) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus arechavaletae* var. *horstii*.
- Parodia oxycostata** (Buining & Brederoo) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus oxycostatus*.
- Parodia oxycostata** ssp. *gracilis* (F. Ritter) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus glaucinus* var. *gracilis*.
- Parodia permutteri** (F. Ritter) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus permutteri*.
- Parodia rudibuenekeri** (Abraham) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Notocactus rudibuenekeri*.
- Parodia rudibuenekeri** ssp. *glomerata* (Gerloff) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus glomeratus*.
- Parodia rutilans** ssp. *veeniana* (van Vliet) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus veenianus*.
- Parodia schumanniana** ssp. *claviceps* (F. Ritter) Hofacker & P. J. Braun ex Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Eriocactus claviceps*.
- Parodia scopula** ssp. *marchesii* (Abraham) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus scopula* var. *marchesii*.
- Parodia scopula** ssp. *neobuenekeri* (F. Ritter) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Notocactus neobuenekeri*.
- Parodia scopula** ssp. *succinea* (F. Ritter) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Notocactus succineus*.
- Parodia stockingeri** (Prestlé) Hofacker & P. J. Braun, Cact. Consensus Init. No. 6: 10, 1998. Basionym: *Notocactus stockingeri*.
- Parodia tabularis** ssp. *bommeljei* (van Vliet) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus bommeljei*.
- Parodia turbinata** (Arechavaleta) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Echinocactus sellowii* var. *turbinatus*.
- Parodia wernerii** Hofacker, Cact. Consensus Init. No. 6: 12, 1998. [Nom. nov. pro *Notocactus uebelmannianus* Buining 1968 (non *Parodia uebelmanniana* F. Ritter 1980).]
- Parodia wernerii** ssp. *pleiocephala* (Gerloff & Königs) Hofacker, Cact. Consensus Init. No. 6: 12, 1998. Basionym: *Notocactus uebelmannianus* var. *pleiocephalus*.
- Pediocactus** Sect. **Gymnocactus** (Backeberg) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 17, 1998. Basionym: *Gymnocactus*.
- Pediocactus** Sect. **Neolloydia** (Britton & Rose) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 23, 1998. Basionym: *Neolloydia*.
- Pediocactus** Sect. **Sclerocactus** (Britton & Rose) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 14, 1998. Basionym: *Sclerocactus*.
- Pediocactus** Sect. **Turbinicarpus** (Buxbaum & Backeberg) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 19, 1998. Basionym: *Turbinicarpus*.
- Pediocactus** Subgen. **Neolloydia** (Britton & Rose) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 23, 1998. Basionym: *Neolloydia*.
- Pediocactus** Subgen. **Toumeya** (Britton & Rose) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 17, 1998. Basionym: *Toumeya*.
- Pediocactus** Subsect. **Pectinatae** Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Typus: *Pelecyphora aselliformis* H. Möller. Probably technically based on *Normanbokeea Kladiwa* & Buxbaum 1969.
- Pediocactus alonsoi** (Glass & S. Arias) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Turbinicarpus alonsoi*.
- Pediocactus bonatzii** (G. Frank) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Turbinicarpus bonatzii*.
- Pediocactus brevihamatus** (Engelmann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 14, 1998. Basionym: *Echinocactus brevihamatus*.
- Pediocactus brevihamatus** ssp. *tobuschii* (W. T. Marshall) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 15, 1998. Basionym: *Mammillaria*

- tobuschii.*
- Pediocactus cloveriae** (K. D. Heil & J. M. Porter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 15, 1998. Basionym: *Sclerocactus cloveriae*. [Sphalm. 'cloverae'.]
- Pediocactus cloveriae** ssp. *brackii* (K. D. Heil & J. M. Porter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 15, 1998. Basionym: *Sclerocactus cloveriae* ssp. *brackii*.
- Pediocactus conoideus** (De Candolle) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 23, 1998. Basionym: *Mammillaria conoidea*.
- Pediocactus erectocentrus** (J. M. Coulter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 24, 1998. Basionym: *Echinocactus erectocentrus*.
- Pediocactus gautii** (L. Benson) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 19, 1998. Basionym: *Neolloydia gautii*.
- Pediocactus gielsdorffianus** (Werdermann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 18, 1998. Basionym: *Echinocactus gielsdorffianus*.
- Pediocactus hoferi** (J. Lüthy & A. B. Lau) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Turbinicarpus hoferi*.
- Pediocactus horripilus** (Lemaire) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 18, 1998. Basionym: *Mammillaria horripila*.
- Pediocactus intertextus** (Engelmann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 24, 1998. Basionym: *Echinocactus intertextus*.
- Pediocactus intertextus** var. *dasyacanthus* (Engelmann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 24, 1998. Basionym: *Echinocactus intertextus* var. *dasyacanthus*.
- Pediocactus johnsonii** (Parry ex Engelmann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 24, 1998. Basionym: *Echinocactus johnsonii*.
- Pediocactus knuthianus** (Bödeker) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 18, 1998. Basionym: *Echinocactus knuthianus*.
- Pediocactus laui** (Glass & Foster) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Turbinicarpus laui*.
- Pediocactus lophophoroides** (Werdermann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Thelocactus lophophoroides*.
- Pediocactus lophophoroides** var. *jauernigii* (G. Frank) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Turbinicarpus jauernigii*.
- Pediocactus mandragora** (Fric ex A. Berger) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 18, 1998. Basionym: *Echinocactus mandragora*.
- Pediocactus mariposensis** (Hester) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 24, 1998. Basionym: *Echinomastus mariposensis*.
- Pediocactus nyensis** (Hochstätter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 15, 1998. Basionym: *Sclerocactus nyensis*.
- Pediocactus parviflorus** (Clover & Jotter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 15, 1998. Basionym: *Sclerocactus parviflorus*.
- Pediocactus parviflorus** ssp. *havasupaiensis* (Clover) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 15, 1998. Basionym: *Sclerocactus havasupaiensis*.
- Pediocactus parviflorus** ssp. *intermedius* (Peebles) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Sclerocactus intermedius*.
- Pediocactus parviflorus** ssp. *terrae-canyonae* (K. D. Heil) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Sclerocactus terra-canyonae*.
- Pediocactus pseudomacrochele** (Backeberg) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Strombocactus pseudomacrochele*.
- Pediocactus pseudomacrochele** var. *krainzianus* (G. Frank) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Toumeya krainziana*.
- Pediocactus pseudomacrochele** var. *lausseri* (Diers & G. Frank) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Turbincarpus pseudomacrochele* var. *lausseri*.
- Pediocactus pseudomacrochele** var. *sphaelatus* (Diers & G. Frank) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Nom. inval., based on *Turbinicarpus pseudomacrochele* var. *sphaelatus*, nom. inval. (Art. 37.3). [Sphalm. 'sphaelatus'.]
- Pediocactus pseudopectinatus** (Backeberg) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Pelecyphora pseudopectinata*.
- Pediocactus pubispinus** ssp. *sileri* (L. Benson) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Sclerocactus pubispinus* var. *sileri*.
- Pediocactus rioverdensis** (G. Frank) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Turbinicarpus rioverdensis*.
- Pediocactus saueri** (Bödeker) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 18, 1998. Basionym: *Echinocactus saueri*.
- Pediocactus scheeri** (Salm-Dyck) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 25, 1998. Basionym: *Echinocactus scheeri*.
- Pediocactus schmiedickeanus** (Bödeker) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 20, 1998. Basionym: *Echinocactus schmiedickeanus*.
- Pediocactus schmiedickeanus** var. *dickisoniae* (Glass & Foster) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 20, 1998. Basionym: *Turbinicarpus schmiedickeanus* var. *dickisoniae*.
- Pediocactus schmiedickeanus** var. *flaviflorus* (G. Frank & A. B. Lau) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Turbinicarpus flaviflorus*.
- Pediocactus schmiedickeanus** var. *gracilis* (Glass & Foster) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 20, 1998. Basionym: *Turbinicarpus gracilis*.
- Pediocactus schmiedickeanus** var. *klinkerianus* (Backeberg & H. Jacobsen) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 20, 1998. Basionym: *Turbinicarpus klinkerianus*.
- Pediocactus schmiedickeanus** var. *macrochele*

- (Werdermann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 20, 1998. Basionym: *Echinocactus macrochele*.
- Pediocactus schmiedickeanus* var. *rubriflorus* (G. Frank) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Turbinicarpus schwarzii* var. *rubriflorus*.
- Pediocactus schmiedickeanus* var. *schwarzii* (Shurly) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 21, 1998. Basionym: *Strombocactus schwarzii*.
- Pediocactus simpsonii* ssp. *bradyi* (L. Benson) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 13, 1998. Basionym: *Pediocactus bradyi*.
- Pediocactus simpsonii* var. *despainii* (S. L. Welsh & Goodrich) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 14, 1998. Basionym: *Pediocactus despainii*.
- Pediocactus simpsonii* var. *knowltonii* (L. Benson) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 13, 1998. Basionym: *Pediocactus knowltonii*.
- Pediocactus simpsonii* var. *paradinei* (B. W. Benson) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 13, 1998. Basionym: *Pediocactus paradigm*.
- Pediocactus simpsonii* var. *winkleri* (K. D. Heil) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 14, 1998. Basionym: *Pediocactus winkleri*.
- Pediocactus smithii* (Mühlenfordt) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 19, 1998. Basionym: *Echinocactus smithii*.
- Pediocactus spinosior* (Engelmann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Echinocactus whipplei* var. *spiniosior*.
- Pediocactus spinosior* ssp. *blainei* (S. L. Welsh & Thorne) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Sclerocactus blainei*.
- Pediocactus spinosior* var. *schleseri* (K. D. Heil & S. L. Welsh) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Sclerocactus schleseri*. [Sphalm. 'schlesseri'.]
- Pediocactus subterraneus* (Backeberg) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 17, 1998. Basionym: *Echinocactus subterraneus*.
- Pediocactus subterraneus* var. *zaragozae* (Glass & Foster) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 18, 1998. Basionym: *Gymnocalyx subterraneus* var. *zaragozae*.
- Pediocactus swobodae* (Diers) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Turbinicarpus swobodae*.
- Pediocactus uncinatus* (Galeotti) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 25, 1998. Basionym: *Echinocactus uncinatus*.
- Pediocactus uncinatus* var. *crassihamatus* (F. A. C. Weber) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 25, 1998. Basionym: *Echinocactus crassihamatus*.
- Pediocactus uncinatus* var. *wrightii* (Engelmann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 25, 1998. Basionym: *Echinocactus uncinatus* var. *wrightii*.
- Pediocactus unguispinus* (Engelmann) Halda, Ac-
- ta Mus. Richnov. Sect. Nat. 5(1): 25, 1998. Basionym: *Echinocactus unguispinus*.
- Pediocactus unguispinus* var. *durangensis* (Runge) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 26, 1998. Basionym: *Echinocactus durangensis*.
- Pediocactus valdezianus* (H. Möller) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 22, 1998. Basionym: *Pelecyphora valdeziana*.
- Pediocactus viereckii* (Werdermann) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 19, 1998. Basionym: *Echinocactus viereckii*.
- Pediocactus viereckii* var. *major* (Glass & Foster) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 19, 1998. Basionym: *Gymnocalyx viereckii* var. *major*.
- Pediocactus warnockii* (L. Benson) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 26, 1998. Basionym: *Neolloydia warnockii*.
- Pediocactus wetlandicus* (Hochstätter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Sclerocactus wetlandicus*.
- Pediocactus wetlandicus* fa. *ilseae* (Hochstätter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 16, 1998. Basionym: *Sclerocactus wetlandicus* var. *ilseae*.
- Pediocactus whipplei* ssp. *busekii* (Hochstätter) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 17, 1998. Basionym: *Sclerocactus whipplei* ssp. *busekii*. [Bracket author erroneously given as 'K. D. Heil & J. M. Porter'.]
- Pediocactus ysabelae* (Schlange) Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 18, 1998. Basionym: *Thelocactus ysabelae*.
- Pereskia horrida* ssp. *rauhii* (Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 9, 1998. Basionym: *Pereskia vargasii* var. *rauhii*.
- Praecereus euchlorus* ssp. *jaenensis* (Rauh & Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 9, 1998. Basionym: *Monvillea jaenensis*.
- Praecereus rhodoleucanthus* (K. Schumann) Schmeda-Hirschmann, Candollea 53(1): 27, 1998. Nom. inval. (Art. 33.2), based on *Cereus rhodoleucanthus*. [Attributed to N. P. Taylor.]
- Pyrrohocactus marayensis* (Backeberg) J. G. Lambert, Cact. Argentine, ed. 2, 265, 1998. Nom. inval., based on *Pyrrohocactus umadeave* var. *marayensis*, nom. inval. (Art. 9.5). [First published invalidly (Art. 33.2, 34.1a) in Cact. Argentine [ed. 1], 245, 1993 (cf. RPS 44).]
- Rauhocereus riosaniensis* ssp. *jaenensis* (Rauh ex Backeberg) Ostolaza, Cact. Consensus Init. No. 6: 9, 1998. Basionym: *Rauhocereus riosaniensis* var. *jaenensis*.
- Rhipsalis* cv. *Diana*, Princess of Wales Supplie, Brit. Cact. Succ. J. 16(1): 49, ill., 1998. [= (*Rhipsalis* *xgraeseri* × *R. 'Crimson Heart'*) × *Rhipsalis* 'Yvonne']. The comma in the cultivar epithet is probably not permissible.]
- Rhipsalis floccosa* ssp. *oreophila* N. P. Taylor & Zappi, Cact. Consensus Init. No. 6: 7, 1998. Lectotypus: *Ritter* 1247 (SGO [lecto]) [Lectotype (for the replaced synonym) designated by N. P. Taylor & Zappi l.c. 7, 1998]. [Nom. nov. pro *Rhipsalis monteazulensis* F. Ritter 1979.]

- xRitterlicereus** P. V. Heath, Calyx 6(1): 1, 1998.
[= *Ritterocereus* × *Nigellicereus*.]
- Sclerocactinae** Doweld, Succulents (Moscow) 1: 16, 1998. Typus: *Sclerocactus* Britton & Rose.
- Sclerocactus parviflorus** fa. *macropermus* Hochstätter, Cactaceae Rev. 1(1): 11-12, ill., 1998. Typus: *Hochstätter* 69.0.2 (SRP).
- Sclerocactus parviflorus** fa. *terrae-canyonae* (K. D. Heil) Hochstätter, Cactaceae Rev. 1(1): 14-15, ill., 1998. Basionym: *Sclerocactus terra-canyonae*.
- Sclerocactus parviflorus** fa. *variiflorus* Hochstätter, Cactaceae Rev. 1(1): 8-10, ill., 1998. Typus: *Hochstätter* 56 (SRP).
- Sclerocactus uncinatus** ssp. *crassihamatus* (F. A. C. Weber) N. P. Taylor, Cact. Consensus Init. No. 5: 13, 1998. Basionym: *Echinocactus crassihamatus*.
- Sclerocactus uncinatus** ssp. *wrightii* (Engelmann) N. P. Taylor, Cact. Consensus Init. No. 5: 13, 1998. Basionym: *Echinocactus uncinatus* var. *wrightii*.
- Sclerocactus whipplei** subvar. *azteca* Hochstätter, Piante Grasse 17(3): 228-231, ill., 1998. *Nom. inval.* (Art. 33.2, 36.1). [Dated 1997, publ. Jan. 1998. Given as 'comb. et stat. nov.' with 4 heterotypic synonyms enumerated but without combining any of the 4 epithets.]
- Stenocereus thurberi** ssp. *litoralis* (K. Brandegee) N. P. Taylor, Cact. Consensus Init. No. 5: 13, 1998. Basionym: *Cereus thurberi* var. *litoralis*.
- Strombocactus disciformis** ssp. *jarmilae* (Halda) Halda, Acta Mus. Richnov. Sect. Nat. 4(2): 71, 1997. Basionym: *Strombocactus jarmilae*. [Omitted previously.]
- Tephrocactus aoracanthus** var. *pediophilus* (A. Castellanos) J. G. Lambert, Cact. Argentine, ed. 2, 297, 1998. Basionym: *Opuntia pediophila*. [First published invalidly (Art. 33.2, 34.1a) in Cact. Argentine [ed. 1], 271, 1993 (cf. RPS 44). Sphalm. 'paediophilus'.]
- Thelocactus bicolor** ssp. *flavispinus* (Backeberg) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Thelocactus bicolor* var. *flavispinus*.
- Thelocactus bicolor** ssp. *schwarzii* (Backeberg) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Thelocactus schwarzii*.
- Thelocactus conothelos** ssp. *argenteus* (Glass & Foster) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TH/CON ssp. *argenteus*], 1997. Basionym: *Thelocactus conothelos* var. *argenteus*. [Sphalm. 'conothele'. Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Thelocactus conothelos** ssp. *aurantiacus* (Glass & Foster) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TH/CON ssp. *aurantiacus*], 1997. Basionym: *Thelocactus conothelos* var. *aurantiacus*. [Sphalm. 'conothele'. Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Thelocactus garciae** Glass & M. Mendoza-García, in Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TH/GA 2 pp.], 1997. Typus: *García Luna* 383 (CANTE 456). [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Thelocactus hexaedrophorus** ssp. *lloydii* (Britton & Rose) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Thelocactus lloydii*.
- Thelocactus multicephalus** Halda & Panarotto ex Halda, Acta Mus. Richnov. Sect. Nat. 5(1): 40, 1998. Typus: *Halda* 8502133 (PR). [Repeated in Cactaceae etc. 8(4): 123, ill.]
- Thelocactus panarottanus** Halda, Acta Mus. Richnov. Sect. Nat. 5(4): 161, 1998. Typus: *Panarotto* 8502130 (PR).
- Thelocactus rinconensis** ssp. *nidulans* (Quehl) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TH/RIN ssp. *hintonii* p. 2], 1997. Basionym: *Echinocactus nidulans*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998. Repeated by Doweld, Succulents (Moscow) 1999(1): 30, 1999.]
- Thelocactus rinconensis** ssp. *phymatothelos* (Poselger) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TH/RIN ssp. *hintonii* p. 2], 1997. Basionym: *Echinocactus phymatothelos*. [Sphalm. 'phymatothele'. Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998. Repeated by Doweld, Succulents (Moscow) 1999(1): 30, 1999.]
- Thelocactus tulensis** ssp. *buekii* (Klein) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Echinocactus buekii*.
- Thelocactus tulensis** ssp. *matudae* (Sánchez-Mejorada & A. B. Lau) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Thelocactus matudae*.
- Torreycactus** Doweld, Succulents (Moscow) 1: 19, 1998. Typus: *Echinocactus conothelos* Regel & Klein.
- Torreycactus conothelos** (Regel & Klein) Doweld, Succulents (Moscow) 1: 19, 1998. Basionym: *Echinocactus conothelos*.
- Torreycactus conothelos** var. *argenteus* (Glass & Foster) Doweld, Succulents (Moscow) 1: 19, 1998. Basionym: *Thelocactus conothelos* var. *argenteus*.
- Torreycactus conothelos** var. *aurantiacus* (Glass & Foster) Doweld, Succulents (Moscow) 1: 19, 1998. Basionym: *Thelocactus conothelos* var. *aurantiacus*.
- Trichocereus walteri** (Kiesling) J. G. Lambert, Cact. Argentine, ed. 2, 321, 1998. Basionym: *Lobivia walteri*. [First published invalidly (Art. 33.2, 34.1a) in Cact. Argentine [ed. 1], 295, 1993 (cf. RPS 44).]
- Turbinicarpinae** Doweld, Succulents (Moscow) 1: 23, 1998. Typus: *Turbinicarpus* F. Buxbaum & Backeberg.
- Turbinicarpus dickisoniae** (Glass & Foster) Glass & A. Hofer, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TU/DI], 1997. Basionym: *Turbinicarpus schmiedickeanus* var. *dickisoniae*. [Dated

- 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Turbinicarpus pailanus* Halda & Panarotto, Acta Mus. Richnov. Sect. Nat. 5(4): 162, 1998. Typus: *Panarotto* 850477 (PR).
- Turbinicarpus pseudomacrochele* ssp. *kraenzianus* (G. Frank) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TU/PSUEDOM ssp. *kraenzianus*], 1997. Basionym: *Toumeya kraenziana*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Turbinicarpus pseudomacrochele* ssp. *lausseri* (Diers & G. Frank) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TU/PS ssp. *kraenzianus* p. 2], 1997. Basionym: *Turbinicarpus pseudomacrochele* var. *lausseri*. [Dated 1998, publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Turbinicarpus saueri* ssp. *nelissae* Halda & Panarotto, Acta Mus. Richnov. Sect. Nat. 5(4): 161-162, 1998. Typus: *Panarotto* 8502144 (PR).
- Turbinicarpus schmiedickeanus* ssp. *dickisoniae* (Glass & Foster) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Turbinicarpus schmiedickeanus* var. *dickisoniae*.
- Turbinicarpus schmiedickeanus* ssp. *flaviflorus* (G. Frank & A. B. Lau) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TU/SCH ssp. *flaviflorus*], 1997. Basionym: *Turbinicarpus flaviflorus*. [Dated 1998 but publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Turbinicarpus schmiedickeanus* ssp. *gracilis* (Glass & Foster) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TU/SCH ssp. *gracilis*], 1997. Basionym: *Turbinicarpus gracilis*. [Dated 1998 but publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Turbinicarpus schmiedickeanus* ssp. *klinkerianus* (Backeberg & H. Jacobsen) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Turbinicarpus klinkerianus*. [Repeated by Panarotto, Piante Grasse 18(3): 120, 1999 (dated 1998).]
- Turbinicarpus schmiedickeanus* ssp. *macrochele* (Werdermann) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Echinocactus macrochele*. [Repeated by Panarotto, Piante Grasse 18(3): 120, 1999 (dated 1998).]
- Turbinicarpus schmiedickeanus* ssp. *schwarzii* (Shurly) N. P. Taylor, Cact. Consensus Init. No. 5: 14, 1998. Basionym: *Strombocactus schwarzii*.
- Turbinicarpus viereckii* ssp. *major* (Glass & Foster) Glass, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TU/VI ssp. *major*], 1997. Basionym: *Gymnocalycium viereckii* var. *major*. [Dated 1998 but publ. 15. Dec. 1997 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]
- Turbinicarpus zaragozae* (Glass & Foster) Glass & A. Hofer, Guía Ident. Cact. Amenaz. Mex. Vol. 1, [TU/ZA], 1997. Basionym: *Gymnocac-*

tus subterraneus var. *zaragozae*. [Sphalm. 'zaragozae'. Dated 1998 but publ. 15. Dec. 1998 according to D. R. Hunt, Cact. Consensus Init. No. 5: 6, 1998.]

CRASSULACEAE

- Crassula ausensis* ssp. *titanopsis* Pavelka, Kaktusy 34(2): 39-43, ills., 1998. Typus: *Pavelka* 954 (PRC).
- Echeveria agavoidea* cv. *Corderoyi* (Morren) Kimnach, Cact. Succ. J. (US) 70(6): 300, 1998. Basionym: *Echeveria corderoyi*.
- Echeveria agavoidea* cv. *Multifida* (E. Walther) Kimnach, Cact. Succ. J. (US) 70(6): 300, 1998. Basionym: *Echeveria agavoidea* var. *multifida*.
- Echeveria agavoidea* cv. *Prolifera* (E. Walther) Kimnach, Cact. Succ. J. (US) 70(6): 300, 1998. Basionym: *Echeveria agavoidea* var. *prolifera*.
- Echeveria bella* fa. *major* (E. Walther) Kimnach, Haseltonia 5: 51, 1998. Basionym: *Echeveria bella* var. *major*. [Vol. for 1997, publ. March 1998.]
- Echeveria chilensis* fa. *backebergii* (von Poellnitz) Kimnach, Haseltonia 5: 51, 1998. Basionym: *Echeveria backebergii*. [Vol. for 1997, publ. March 1998.]
- Echeveria colorata* fa. *brandtii* (Kimmach) Kimnach, Haseltonia 5: 51, 1998. Basionym: *Echeveria colorata* var. *brandtii*. [Vol. for 1997, publ. March 1998.]
- Echeveria fulgens* var. *obtusifolia* (Rose) Kimnach, Haseltonia 5: 51, 1998. Basionym: *Echeveria obtusifolia*. [Vol. for 1997, publ. March 1998.]
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