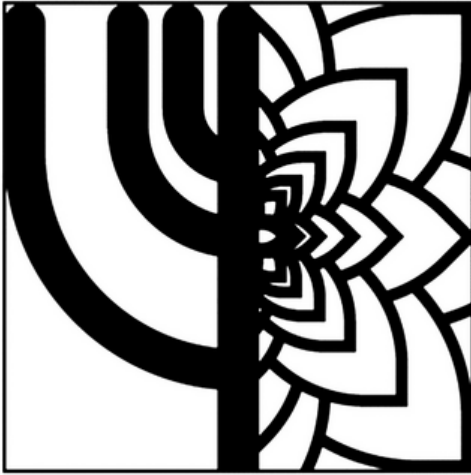


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International Organization
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Organización Internacional
para el Estudio de
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Organisation Internationale
de Recherche sur les
Plantes Succulentes

Internationale Organisation
für Sukkulenten-Forschung

IOS

**Repertorium
Plantarum
Succulentarum
LXXII (2021)**

A short history of *Repertorium Plantarum Succulentarum*

The first issue of *Repertorium Plantarum Succulentarum* (RPS) was produced in 1951 by Michael Roan (1909–2003), one of the founder members of the International Organization for Succulent Plant Study (IOS) in 1950. It listed the ‘majority of the new names [of succulent plants] published the previous year’. The first issue, edited by Roan himself with the help of A. J. A. Uitewaal (1899–1963), was published for IOS by the National Cactus & Succulent Society, and the next four (with Gordon Rowley as Associate and later Joint Editor) by Roan’s newly formed British Section of the IOS. For issues 5–12, Gordon Rowley became the sole editor. Issue 6 was published by IOS with assistance by the Acclimatisation Garden Pinya de Rosa, Costa Brava, Spain, owned by Fernando Riviere de Caralt (1904–1992), another founder member of IOS.

In 1957, an arrangement for closer cooperation with the International Association of Plant Taxonomy (IAPT) was reached, and RPS issues 7–22 were published in their *Regnum Vegetabile* series with the financial support of the International Union of Biological Sciences (IUBS). Issues 23–25 were published by Abbey Garden Press of Pasadena, California, USA, after which IOS finally resumed full responsibility as publisher with issue 26 (for 1975).

Gordon Rowley retired as editor after the publication of issue 32 (for 1981) along with Len E. Newton, who had assisted him with issues 13 onwards. Starting with issue 33, RPS was compiled and edited by Urs Eggli and Nigel Taylor, who enhanced it by adding data on nomenclatural types and enlarging the ‘Bibliographia’ section, first introduced in issue 20 (for 1969). After issue 45 (for 1994), Nigel Taylor handed over as co-editor to his wife Daniela Zappi, who assisted with issues 46–59. Reto Nyffeler joined the editorial team for issues 55–65.

Starting in 1986, a nomenclatural and bibliographical database was created at the Zürich Succulent Plant Collection to compile the individual issues. Over the years all earlier issues were added to this database, making it possible to produce the ‘IOS Index of Names of Cactaceae published 1950–1990’. This was published by the Royal Botanic Gardens Kew in 1991, and followed by an equivalent list for the ‘other succulents’ in 1994.

After 60 issues conventionally printed, *Repertorium Plantarum Succulentarum* has been made available in digital form in pdf format (‘portable document format’) from issue 61 onwards, as an ‘open access’ publication under a Creative Commons licence, accessible over the internet (e.g. <http://succulentresearch.org/publications/>). In 2024, all issues of RPS were digitized and are now available in the Bibliothèque numérique du Cactus Francophone (<https://www.cactuspro.com/biblio/en:rpsbis>).

Repertorium Plantarum Succulentarum LXXII (2021)

*Index nominum novarum plantarum succulentarum anno MMXXI
editorum nec non bibliographia taxonomica ab U. Egli compositus.*

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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 library at ZSS or received by the compiler). Also included is information supplied to the compiler direct.
- Validly published names are given in **bold face** type (except for epithets of new cultivars), accompanied, in the case of newly described taxa, 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 isotypes are said to be deposited (first acronym for holotype), according to the Index Herbariorum database. Invalid, illegitimate, or incorrect names are given in *italic* type face. In either case a full bibliographic reference is given. For new combinations and replacement names, the basionym or replaced name is listed. For invalid, illegitimate or incorrect names, the articles of the ICBN/ICN or ICNCP which have been contravened are indicated in brackets. For names before 2012, the articles cited are those of the ICBN (Vienna Code, 2006), while the ICN (Melbourne Code, 2012, and Shenzhen Code, 2018) is used for newer names.
- The compiler would like to point out that he does not accept any names that might be inadvertently validated in this volume of RPS.
- Bibliographic details of papers dealing only with the names of one or few new taxa are usually not repeated in the bibliographic section.
- Starting with RPS 61, abbreviations for periodicals are those suggested in Bibliographia Periodicorum Huntianum Ed. 2 (BPH2), or are constructed according to BPH2 guidelines for other periodicals. For some titles where BPH2 has incomplete data, the abbreviations suggested in the ‘Bibliography of Succulent Plant Periodicals’ (U. Eggli in Friciana 60: 1-139, 1998 (‘1995’)) are used.

Compiled by:

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Compilers' Preface

Finally, the RPS volume covering the year 2021 has become a reality. Rather than accelerating the compilation of RPS, we have fallen even more behind schedule. As explained in the preface to the preceding RPS volume, one of the reasons for this is a new database environment we have been installing at the end of 2023. Migration of our data to the new BRAHMS database has now been successfully completed, and all daily operations are now performed with this powerful database environment.

The change in database also brought about a change in the way publications such as RPS are produced, i.e. how data is extracted from the database and formatted according to the desired layout. You will notice that as a result of the new workflow, a number of small enhancements to RPS contents have been made (such as adding information on type locality nation and major administrative unit), alongside with a number of minor typographical changes. The overall layout and structuring of the information has been conserved, however.

The production of the present volume of RPS would not have been possible without the help of Emmanuel Wyss, science assistant at the Zürich Succulent Collection, who has meticulously added most of the bibliography details into the database. Numerous colleagues from all over the world have greatly helped by supplying pdf versions of their works.

Urs Eggli

NOMINA NOVA

AGAVACEAE

Agave cryptica G. D. Starr & T. J. Davis, Cact. Succ. J. (US) 93(4): 275-276, ills. (pp. 274-276, 279-280), 2021. Typus: Starr 2021-006: Mexico, Nuevo León (ARIZ, MEXU).

Agave garciamartinezii Beutelspacher & Najarro, Lacandonia 15(1): 13-14, ills. (pp. 19-21), 2021. Typus: García Martínez 141: Mexico, Chiapas (CHIP).

Agave guadarramae N. C. Jiménez & García-Mendoza, Revista Mex. Biodivers. 92(3: e923726): 2-5, ills., 2021. Typus: Jiménez-Pérez & al. 4943: Mexico, Tabasco (UJAT, CICY, MEXU, XAL).

×*Hansara* Avent ex J. Spath & J. Moore, Agaves Species Cultivars & Hybrids, 36, 2021. *Nom. illeg.* (ICN Art. 53.1). = *Agave* × *Manfreda* × *Polianthes*. *Non* ×*Hansara* M. H. J. van der Meer 2019 (*Poaceae*).

×*Hansara* 'Jumping Jacks' J. Spath & J. Moore, Agaves Species Cultivars & Hybrids, 36, 2021. *Incorrect name* (ICN Art. 11.4). [Parentage not disclosed, stated as "crossed and back-crossed *Agave*, *Manfreda*, and *Polianthes*".]

Matuda-pina Hochstätter, Cact.-Advent. Int. (Almeria) 33(1): 64, 2021. *Nom. in val.* (ICN Art. 38.5(b)). Typus: *Yucca endlichiana*. Sphalm. 'Matuda-Pina'.

Matuda-pina endlichiana (Trelease) Hochstätter, Cact.-Advent. Int. (Almeria) 33(1): 64, 2021. Basionym: *Yucca endlichiana*. *Nom. inval.* (ICN Art. 35.1).

Yucca carrii Clary & T. P. Adams, Lundellia 24(1): 12-15, ills., 2021. Typus: Clary 427: USA, Texas (TEX, MO, US).

Yucca quinnarjenii Hochstätter, Cact.-Advent. Int. (Almeria) 33(1): 60, ills. (pp. 61-62), 2021. Typus: Hochstätter 1188.76.0: USA, Arizona/New Mexico (SRP). [Name first used invalidly (ICN Art. 29.1, Ex. 2) in a digital resource dated 2016 (http://www.fhirt.org/yucca/y_quinnarjenii.php, accessed Dec. 2018), cf. RPS 68).]

AIZOACEAE

Mesembryanthemum ×**vascosilvae** (Gideon F. Smith & al.) L. Sáez & Aymerich, Butl. Inst. Catalana Hist. Nat. Secc. Bot. 84: 71, 2020. Basionym: *Aptenia* ×*vascosilvae*. [Omitted previously.]

Sesuvium americanum (Gillies ex Arnott) Joscou & Minué, Hacquetia 20(1): 35, figs. 2, 3C,F.I, 4C,F.I, 2021. Basionym: *Trianthema americana*.

Sesuvium curassavicum Sukhorukov, Kew Bull. 76(4): 656, ills. (p. 657-658, 660-661), 2021. Typus: Sukhorukov 100: Netherlands Antilles, Curaçao (MW, G).

ANACAMPSEROTACEAE

Anacampseros septentrionalis Bruyns, Phytotaxa 524(1): 67-68, ills., 2021. Typus: Bruyns 8061: Namibia (WIND).

APOCYNACEAE

Adenium crispum (Chiovenda) Dimmitt & T. Edwards, Cact. Succ. J. (US) 93(4): 261, ills., 2021. Basionym: *Adenium somalense* var. *crispum*. *Nom. inval.* (ICN Art. 41.5).

Brachystelma ananthagiriense Paramesh & al., Nordic J. Bot. 39(7: e03003): 2, ills. (pp. 3-5), 2021. Typus: Paramesh & Vijaya Bhasker Reddy 0344: India, Telangana (BSI, BSID, HY).

Brachystelma maculatum var. **breviflorum** Nagendra & al., Rheedeia 31(1): 31-34, ills., 2021. Typus: Nagendra & Nagaraju 5170: India, Andhra Pradesh (BSID, Yogi Vemana Herb., Yogi Vemana Univ. Kadapa).

Brachystelma tumakurense Gundappa & al., Rheedeia 31(2): 48-51, ills., 2021. Typus: Gundappa & Bhaskar 2546: India, Karnataka (UASSB, BSI).

Ceropegia ansariana Murugesan & A. A. Mao, Taiwania 66(2): 122-124, ills., 2021. Typus: Ansari & Murugesan 137396: India, Mizoram (ASSAM, MH).

Ceropegia aquamontana Peckover, Cactus-World 39(1): 62-63, ills. (pp. 61-65), 2021. Typus: Peckover 292: RSA, Limpopo (PRU).

- Ceropegia calcicola** Kidyoo, Trop. Nat. Hist. 21(1): 2-5, ills., 2021. Typus: Kidyoo 1561: Thailand, Chiang Mai (BKF, BCU).
- Ceropegia citrina** Kidyoo & A. Kidyoo, Pl. Syst. Evol. 307(2): 14; 10, ills. (pp. 7, 13-14), 2021. Typus: Kidyoo 1644: Thailand, Ubon Ratchathani (BKF, BCU).
- Ceropegia khalidbinsultanii** (Plowes & T. A. McCoy) Alharbi & Al-Qthanin, PhytoKeys 174: 62, figs. 6-7 (pp. 64-65), 2021. Basionym: *Huernia khalidbinsultanii*.
- Ceropegia lodarensis** var. **foetida** (Plowes) Alharbi & Al-Qthanin, PhytoKeys 174: 73, figs. 12-13 (pp. 74-75), 2021. Basionym: *Huernia foetida*.
- Ceropegia lodarensis** var. **rubrosticta** (Plowes) Alharbi & Al-Qthanin, PhytoKeys 174: 75, figs. 14-15 (pp. 76-77), 2021. Basionym: *Huernia rubrosticta*.
- Ceropegia longirostris** Thulin & al., Nordic J. Bot. 2021(12): e03416: 2-4, ills., 2021. Typus: Kaariye 1: Ethiopia, Harerge (ETH).
- Ceropegia munbyanasp. hispanica** (Coinc y) Serra, Flora Montiber. 71: 139, ill. (p. 146), 2021. Basionym: *Boucerosia munbyanav* ar. *hispanica*.
- Ceropegia thorutii** Kidyoo, Trop. Nat. Hist. 31(1): 6-9, ills., 2021. Typus: Kidyoo 1552: Thailand, Chiang Mai (BKF, BCU).
- Chthamalia decumbens** (W. D. Stevens) L. O. Alvarado & E. B. Cortez, Phytoneuron 2021-47: 11, 2021. Basionym: *Matelea decumbens*.
- Dischidia argentii** Arshed & al., Taiwania 66(4): 499-501, ills., 2021. Typus: Tandang & Callado s.n.: Philippines, Luzon (PNH, DLSUH, FEUH).
- Hoya batutikarensis** R. Ahmad & al., Phytotaxa 501(1): 81-83, ills., 2021. Typus: Ahmad 015: Indonesia, Sulawesi (CEB, BO, SING).
- Hoya bauensis** T. Green, Asklepios 127: 63-64, ills., 2021. Typus: Kastberg s.n.: Malaysia, Sarawak (BISH 780529).
- Hoya buntokensis** S. Rahayu & Rodda, Blumea 66(3): 237-239, ills., 2021. Typus: Rahayu 873: Indonesia; Borneo, Kalimantan (BO).
- Hoya pyriformis** E. F. Huang, PhytoKeys 174: 101-104, ills., 2021. Typus: Huang 1905009: China, Yunnan (PE, PE).
- Hoya tetrantha** J. Feng Zhang & al., J. Trop. Subtrop. Bot. 29(2): 140-141, ills., 2021. Typus: Chen & Zhang SCBG-20170340: China, Yunnan (IBSC, KUN).

ASPHODELACEAE

- Aloe xselmarii** G. F. Smith & Klopper, Phytotaxa 521(4): 295-298, ills., 2021. Typus: Smith 1124: RSA (cult.) (PRU). [= *Aloe davyana* × *A. parvibracteata*, in cultivation.]
- Aloe uigensis** Gideon F. Smith & T. Lautenschläger, Phytotaxa 521(3): 228-229, ills., 2021. Typus: Lautenschläger 2015-11-63: Angola, Uíge Prov. (DR, B).
- Aloiampelos tenuior** var. **decidua** (Reynolds) Van Jaarsveld, Flow. Pl. Afr. 67: 33, ill. (p. 36), 2021. Basionym: *Aloe tenuior* var. *decidua*.
- Aloiampelos tenuior** var. **densiflora** (Reynolds) Van Jaarsveld, Flow. Pl. Afr. 67: 34, ill. (p. 36), 2021. Basionym: *Aloe tenuior* var. *densiflora*.
- Aloiampelos tenuior** var. **rubriflora** (Reynolds) Van Jaarsveld, Flow. Pl. Afr. 67: 34, ill., 2021. Basionym: *Aloe tenuior* var. *rubriflora*.
- Aloiampelos tenuior** var. **viridifolia** (Van Jaarsveld) Van Jaarsveld, Flow. Pl. Afr. 67: 33, ills. (t. 2363, p. 37), 2021. Basionym: *Aloe tenuior* var. *viridifolia*.
- Bulbine audreyae** N. R. Crouch & Gideon F. Smith, Bradleya 39: 127-129, ills., 2021. Typus: Crouch 1295: RSA, Western Cape (BNRH).

BROMELIACEAE

- Cryptanthus brevibracteatus** D. M. C. Ferreira & Louzada, Phytotaxa 523(1): 107, ills. (pp. 105-106), 2021. Typus: Daneu 744: Brazil, Bahia (UFP, CEPEC, RB).
- Dyckia altoana** P. J. Braun & K.-H. Tank, Bromeliea 2021(3): 135, ills. (pp. 134-146), 2021. Typus: Tank 1917: Brazil, Goiás (HAS).
- Dyckia avacanoeira** Forzza & Faria, Feddes Repert. 132(3): 270, 2021. Typus: Faria & al. 10276: Brazil, Goiás (HEPH, RB, SPF).
- Dyckia inconspicua** P. J. Braun & K.-H. Tank, Bromeliea 2021(3): 101, ills. (pp. 100-108), 2021. Typus: Tank 1916: Brazil, Goiás (HAS, HAS).
- Dyckia josinoi-narcisae** (P. J. Braun & Esteves) Forzza, Feddes Repert. 132(3): 277, 2021. Basionym: *Encholirium josinoi-narcisae*.

- Dyckia oreadica** Forzza & Antar, Feddes Repert. 132(3): 273, 2021. Typus: Antar & al. 2783: Brazil, Goiás (SPF).
- Dyckia viridiflora** Forzza, Feddes Repert. 132(3): 276, 2021. Typus: Forzza & Forzza 4078: Brazil, Bahia (RB, B, HUEFS, K, NY, SPF, US). [*Nom. nov. pro Encholirium splendidum* Forzza 2015 (*non Dyckia splendida* (Forzza) Forzza 2019).]
- Encholirium avacanoeirum** (Forzza & Faria) P. J. Braun & K.-H. Tank, Bromelie 2021(3): 144, 2021. Basionym: *Dyckia avacanoeira*.
- Encholirium nibertii** P. J. Braun & Gastaldi ex P. J. Braun, Bromelie 2021(2): 85-87, ills. (pp. 84-88, 93-94, back cover), 2021. Typus: Nibert s.n.: Brazil, Minas Gerais (HAS 97.419).
- Encholirium oreadicum** (Forzza & Antar) P. J. Braun & K.-H. Tank, Bromelie 2021(3): 145, 2021. Basionym: *Dyckia oreadica*.
- Hechtia marthae** I. Ramírez & al., Phytotaxa 523(1): 63-65, ills., 2021. Typus: Ramírez-Morillo & Carnevali 1627: Mexico, Durango (CICY).

CACTACEAE

- Acanthocalycium rhodotrichum** ssp. **chacoanum** (K. Schumann) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Echinopsis chacoana*. [First published invalidly under ICN Art. 29.1 (no ISSN) by Lodé, Cact.-Advent. Init. 32(1): 52, 2020 (sphalm. 'chacoanus'), becoming effective but superfluous in Sept. 2022 when a pdf with ISSN was made available.]
- Acanthocalycium thionanthum** ssp. **ferrarii** (Rausch) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Acanthocalycium ferrarii*.
- Acanthocereus atropurpureus** González-Zamora & Dan. Sánchez, Phytotaxa 522(2): 132, ills. (pp. 134-136), 2021. Typus: González-Zamora 8: Mexico, Jalisco (IBUG, MEXU).
- Acharagma roseanum** ssp. **menzeliorum** Nitzschke, Kaktusy 57(Special 3): 26-28, ills., 2021. *Nom. inval.* (ICN Art. 39.2, 40.1). [Published as provisional name.]
- Acharagma roseanum** ssp. **rudolphiorum** Nitzschke, Kaktusy 57(Special 3): 29-31, ills., 2021. *Nom. inval.* (ICN Art. 39.2, 40.1). [Published as provisional name.]
- Arrojadoa leucosteles** (Gürke) Anceschi & Magli, Cactusinhabitat South America 2013/2021, 39, 2021. Basionym: *Cereus leucosteles*.
- Arrojadoa olsthoorniana** Hofacker & al., Kakt. and. Sukk. 72(10): 306, ills. (pp. 305-310), 2021. Typus: Mendes & Machado 40: Brazil, Bahia (HURB).
- Arthroceres grandiflorus** D. R. Gonzaga & Menini, Phytotaxa 510(2): 180-181, ills., 2021. Typus: Gonzaga & Campanharo 1133: Brazil, Minas Gerais (RB, HDJF).
- ×**Arthronopsis** Modrakowski, Kakt. Inne 12(2): 73, ills., 2021. [Volume dated 2020, digital publication announced 4. 1. 2021.] = *Arthroceres* × *Echinopsis*.
- ×**Arthrowinterocereus** Modrakowski, Kakt. Inne 12(3): 88, ills., 2021. [Volume dated 2020, published 28. 3. 2021 according to the metadata of the pdf.] = *Arthroceres* × *Winterocereus*.
- Cereus bradei** (Backeberg & Voll) Anceschi & Magli, Cactusinhabitat South America 2013/2021, 41, 2021. Basionym: *Pilocereus bradei*.
- Cereus laniflorus** (N. P. Taylor & Zappi) Anceschi & Magli, Cactusinhabitat South America 2013/2021, 41, 2021. Basionym: *Cipocereus laniflorus*.
- Chichimecactus** Bárcenas & al., Phytotaxa 512(3): 155, 2021. Typus: *Strombocactus corregidorae*.
- Chichimecactus corregidorae** (S. Arias & E. Sánchez) Bárcenas & al., Phytotaxa 512(3): 155, ills. (pp. 149, 154), 2021. Basionym: *Strombocactus corregidorae*.
- Cochemiea albicans** (Britton & Rose) P. B. Breslin & Majure, Taxon 70(2): 318, 2021. Basionym: *Neomammillaria albicans*.
- Cochemiea angelensis** (R. T. Craig) P. B. Breslin & Majure, Taxon 70(2): 318, 2021. Basionym: *Mammillaria angelensis*.
- Cochemiea armillata** (K. Brandegee) P. B. Breslin & Majure, Taxon 70(2): 318, 2021. Basionym: *Mammillaria armillata*.
- Cochemiea blossfeldiana** (Bödeker) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Mammillaria blossfeldiana*.
- Cochemiea blossfeldiana** ssp. **rectispina** (E. Y. Dawson) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Mammillaria goodridgei* var. *rectispina*.

- Cochemia boolii** (G. E. Lindsay) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Mammillaria boolii*.
- Cochemia bullardiana** (H. E. Gates) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Neomammillaria bullardiana*.
- Cochemia cerralboa** (Britton & Rose) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Neomammillaria cerralboa*.
- Cochemia conoidea** (De Candolle) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Mammillaria conoidea*.
- Cochemia estebanensis** (G. E. Lindsay) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Mammillaria estebanensis*.
- Cochemia fraileana** (Britton & Rose) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Neomammillaria fraileana*.
- Cochemia goodridgei** (Scheer ex Salm-Dyck) P. B. Breslin & Majure, Taxon 72(2): 319, 2021. Basionym: *Mammillaria goodridgei*.
- Cochemia guelzowiana** (Werdermann) P. B. Breslin & Majure, Taxon 72(2): 319, 2021. Basionym: *Mammillaria guelzowiana*.
- Cochemia hutchisoniana** (H. E. Gates) P. B. Breslin & Majure, Taxon 72(2): 319, 2021. Basionym: *Neomammillaria hutchisoniana*.
- Cochemia hutchisoniana** ssp. **louisae** (G. E. Lindsay) Majure, Willdenowia 51(2): 264, 2021. Basionym: *Mammillaria louisae*.
- Cochemia insularis** (H. E. Gates) P. B. Breslin & Majure, Taxon 72(2): 319, 2021. Basionym: *Mammillaria insularis*.
- Cochemia macdougallii** (Alexander) P. B. Breslin & Majure, Taxon 72(2): 319, 2021. Basionym: *Ortegocactus macdougallii*.
- Cochemia mainiae** (K. Brandege) P. B. Breslin & Majure, Taxon 70(2): 319, 2021. Basionym: *Mammillaria mainiae*.
- Cochemia multidigitata** (Radley ex G. E. Lindsay) P. B. Breslin & Majure, Taxon 70(2): 320, 2021. Basionym: *Mammillaria multidigitata*.
- Cochemia palmeri** (J. M. Coulter) P. B. Breslin & Majure, Taxon 70(2): 320, 2021. Basionym: *Cactus palmeri*.
- Cochemia schumannii** (Hildmann) P. B. Breslin & Majure, Taxon 70(2): 320, 2021. Basionym: *Mammillaria schumannii*.
- Cochemia tetrancistra** (Engelmann) P. B. Breslin & Majure, Taxon 70(2): 320, 2021. Basionym: *Mammillaria tetrancistra*.
- Cochemia thornberi** (Orcutt) P. B. Breslin & Majure, Taxon 70(2): 320, 2021. Basionym: *Mammillaria thornberi*.
- Cochemia thornberi** ssp. **yaquensis** (R. T. Craig) P. B. Breslin & Majure, Taxon 70(2): 320, 2021. Basionym: *Mammillaria yaquensis*.
- Cochemia viridiflora** (Britton & Rose) P. B. Breslin & Majure, Taxon 70(2): 320, 2021. Basionym: *Neomammillaria viridiflora*.
- Consolea millsbaughii** ssp. **corallicola** (Small) Majure, Willdenowia 51(2): 264, 2021. Basionym: *Consolea corallicola*.
- Corryocactus aureus** ssp. **dillonii** (A. Pauca & Quipuscoa) Ostolaza, Todos Cact. Perú, ed. 2, 475, ills. (p. 477), 2019. Basionym: *Corryocactus dillonii*.
- Coryphantha durangensis** ssp. **cincomay oensis** Matuszewski & Snicer, Mitteilungsbl. AfM 45(1): 4, ills. (pp. 2-9), 2021. Typus: Matuszewski & Hinton 29626: Mexico, Coahuila (Herb. G. B. Hinton).
- Coryphantha ibarrana** Matuszewski & Snicer, Mitteilungsbl. AfM 45(4): 211, ills. (pp. 210-215), 2021. Typus: Matuszewski & Hinton 29627: Mexico, Durango (Herb. G. B. Hinton).
- Coryphantha sneedii** var. **organensis** (D. A. Zimmerman) A. D. Zimmerman ex Gorelick, Haseltonia 27: 45, 2021. Basionym: *Coryphantha organensis*. *Incorrect name* (ICN Art. 11.4). [Inadvertent combination, full reference to the basionym given on p. 57, but invalid versus *Coryphantha vivipara* var. *sneedii*, published and accepted in the same paper. Publication date given as 28. 12. 2020 on the inside front cover, but stated as 1. 3. 2021 in the digital version on BioOne.]
- Coryphantha sneedii** var. **sandbergii** (Castetter & al.) A. D. Zimmerman ex Gorelick, Haseltonia 27: 46, 2021. Basionym: *Escobaria sandbergii*. *Incorrect name* (ICN Art. 11.4). [Inadvertent combination, full reference to the basionym given on p. 57, but invalid versus *Coryphantha vivipara* var. *sneedii*, published and accepted in the same paper. Publication date given as 28. 12. 2020 on the inside front cover, but stated as 1. 3. 2021 in the digital version on BioOne.]
- Coryphantha sneedii** var. **villardii** (Castetter & al.) A. D. Zimmerman ex Gorelick, Haseltonia 27: 47, 2021. Basionym: *Escobaria villardii*. *Incorrect name* (ICN Art. 11.4). [In-

- advertent combination, full reference to the basionym given on p. 57, but invalid versus *Coryphantha vivipara* var. *sneedii*, published and accepted in the same paper. Publication date given as 28. 12. 2020 on the inside front cover, but stated as 1. 3. 2021 in the digital version on BioOne.]
- Coryphantha vivipara** var. **sneedii** (Britton & Rose) Gorelick, *Haseltonia* 27: 57, 2021. Basionym: *Escobaria sneedii*. [Publication date given as 28. 12. 2020 on the inside front cover, but stated as 1. 3. 2021 in the digital version on BioOne. The name is treated as valid by IPNI (acc. Sept. 2024), but is arguably invalid under ICBN Art. 36.1a, as its provisional nature is stated at the bottom of the preceding text page ("should probably be reduced to a synonym of *C. vivipara*, albeit as a new variety".)]
- Cumulopuntia flexibilispina** Hoxey & M. Lowry, *Bradleya* 39: 46-49, ills., 2021. Typus: Hoxey & Lowry 5: Bolivia, La Paz (LPB).
- Cumulopuntia variiflora* (Backeberg) E. Sarnes & N. Sarnes, *Cact. Succ. Rev.* 30: 18, ill., 2021. Basionym: *Tephrocactus variiflorus*. *Nom. inval.* (ICN Art. 36.1). [Provisionally suggested only.]
- Cylindropuntia perrita** (Griffiths) Majure, *Willdenowia* 51(2): 264, 2021. Basionym: *Opuntia perrita*.
- Discocactus zehntneri** ssp. **alagoihensis** Zachar & Halfar, *Kaktusy* 57(4): 118, ills. (pp. 115-118), 2021. Typus: Zachar 1790: Brazil, Piauí (UB 217306).
- Discocactus zehntneri** ssp. **mir ohalfarii** Zachar, *Kaktusy* 57(4): P51, 2021. Typus: Zachar 1787: Brazil, Piauí (UB 217307). [First published invalidly (ICN Art. 40.1) l.c. 57(3): 95-98, ills., 2021.]
- Echinopsis acrantha** (K. Schumann ex Vaupel) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 38, 2021. Basionym: *Cereus acranthus*.
- Echinopsis aurea** ssp. **leucomalla** (Wessner) Schlumpberger, *Willdenowia* 51(2): 264, 2021. Basionym: *Lobivia leucomalla*.
- Echinopsis hennigiana** Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 38, 2021. Typus: Soukup 6311: Peru, Apurímac (SMF 6102). [*Nom. nov. pro Weberbauerocereus cuzcoensis* Knize 1969 (*non Echinopsis cuzcoensis* (Britton & Rose) H. Friedrich & G. D. Rowley 1974).]
- Echinopsis hystrix** (Rauh & Backeberg) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 38, 2021. Basionym: *Loxanthocereus hystrix*.
- Echinopsis laniceps** (K. Schumann) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 38, 2021. Basionym: *Cereus laniceps*.
- Echinopsis luisramirezii** (Lodé & F. Carlier) M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(4): 1, 2021. Basionym: *Chamaecereus luisramirezii*.
- Echinopsis martinii** (Labouret) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 38, 2021. Basionym: *Cereus martinii*.
- Echinopsis micropetala** (F. Ritter) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 39, 2021. Basionym: *Cleistocactus micropetalus*.
- Echinopsis rondoniana** (Backeberg) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 39, 2021. Basionym: *Arthrocareus rondonianus*.
- Echinopsis smaragdiflora** (F. A. C. Weber) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 39, 2021. Basionym: *Cereus smaragdiflorus*.
- Echinopsis strausii** (Heese) Anceschi & Magli, *Cactusinhabitat South America* 2013/2021, 39, 2021. Basionym: *Pilocereus strausii*.
- Echinopsis tubiflora** ssp. **callochrysea** (F. Ritter) Schlumpberger, *Willdenowia* 51(2): 264, 2021. Basionym: *Hymenorebutia aurea* var. *callochrysea*.
- ×**Echinosteles** M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(1): 1, 2021. =*Ec hinopsis* × *Leucosteles*.
- ×**Echinosteles cabreræ** (R. Kiesling) M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(1): 1, 2021. Basionym: *Trichocereus ×cabreræ*.
- Epiphyllum ×bauericardium** (E. Meier & Mangelsdorff) M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(5): 1, 2021. Basionym: ×*Seleniphylllum bauericardium*.
- Epiphyllum phyllanthus** ssp. **plattsii** (Proctor) M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(5): 2, 2021. Basionym: *Epiphyllum phyllanthus* var. *plattsii*.
- Eriosyce camanaensis** (F. Cáceres) M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(4): 1, 2021. Basionym: *Islaya camanaensis*.

- Espostoa calva** ssp. **cremnophila** (Hoxey) Ostolaza, Todos Cact. Perú, ed. 2, 312, ills. (p. 314), 2019. Basionym: *Espostoa cremnophila*.
- Espostoa grandiareolata* Burghardt, Kakt. Inne 12(3): 84-87, ills., 2021. Typus: based on several syntypes (herbarium not indicated). *Nom. inval.* (ICN Art. 40.1, 40.7). [Volume dated 2020, published 28. 3. 2021 according to the metadata of the pdf.]
- Espostoa huanucoensis* ssp. *viridis* Burghardt, Kakt. Inne 12(2): 59, ills. (pp. 59, 61), 2021. Typus: Burghardt 043.01: Peru, Huánuco (herbarium not indicated). *Nom. inval.* (ICN Art. 40.7). [Volume dated 2020, digital publication announced 4. 1. 2021.]
- Ferocactus grusonii**(Hildmann) Guiggi, Cactology 5(Suppl. 12): [1], 2021. Basionym: *Echinocactus grusonii*. [Repeated invalidly (ICN Art. 41.5) by Afferni, Piante Grasse 42(1): 44, 2022.]
- Gymnocalycium acentracanthum** (F. Berger) Nycz, *Gymnocalycium New Classif.*, 19, 2021. Basionym: *Gymnocalycium ritterianum* var. *acentracanthum*. [Basionym rank erroneously given as ssp.]
- Gymnocalycium aeneum**(Mere galli & Guglielmo) Nycz, *Gymnocalycium New Classif.*, 31, 2021. Basionym: *Gymnocalycium strigianum* ssp. *aeneum*.
- Gymnocalycium anisitsii** ssp. **tucavocense** (Backeberg ex H. Till & Amerhauser) Schädlich, Schütziana 12(2): 25, ills. (pp. 23-25), 12(3): 5 [erratum], 2021. Basionym: *Gymnocalycium anisitsii* var. *tucavocense*. [The reference to the publication place of the basionym was incorrect l.c. 12(2): 25 and was corrected subsequently, but ICN Art. 41.6 is thought to apply.]
- Gymnocalycium argentinense** (H. Till & W. Till) Nycz, *Gymnocalycium New Classif.*, 11, 2021. Basionym: *Gymnocalycium pflanzii* ssp. *argentinense*.
- Gymnocalycium armillatum** (Piltz) Nycz, *Gymnocalycium New Classif.*, 19, 2021. Basionym: *Gymnocalycium castellanosii* var. *armillatum*.
- Gymnocalycium bicolor** (Repka) V. Gapon, Kakt.-Klub 5(1): 63, ills., 2021. Basionym: *Gymnocalycium mostii* ssp. *bicolor*.
- Gymnocalycium bicolor** ssp. **simplex** (Repka) V. Gapon, Kakt.-Klub 5(1): 63, ills. (pp. 60-61), 2021. Basionym: *Gymnocalycium prochazkianum* ssp. *simplex*.
- Gymnocalycium boessii*(R. Kiesling & al.) Nycz, *Gymnocalycium New Classif.*, 31, 2021. Basionym: *Gymnocalycium schroederianum* ssp. *boessii*. *Nom. illeg.* (ICN Art. 52.1). [Illegitimate vs. the prioritable *G. erolesii* Neuhuber & C. A. L. Bercht 2002, which is explicitly cited being the same taxon l.c. p. 33.]
- Gymnocalycium cardenasianum** ssp. **armatum** (F. Ritter) V. Gapon & Vikulov, Kakt.-Klub 5(1): 50, ills. (pp. 39-42, 49, 51-52), 2021. Basionym: *Gymnocalycium armatum*.
- Gymnocalycium cardenasianum** ssp. **pseudarmatum** V. Gapon & Vikulov, Kakt.-Klub 5(1): 50, ills. (pp. 48, 51-52), 2021. Typus: Gapon 935a: Bolivia, Tarija (WU, WU).
- Gymnocalycium ferocius** (Backeberg ex H. Till & Amerhauser) Nycz, *Gymnocalycium New Classif.*, 19, ills. (p. 21), 2021. Basionym: *Gymnocalycium mostii* ssp. *ferocius*.
- Gymnocalycium hossei** ssp. **ferrarii** (Rausch) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 52, ills. (p. 53), 2021. Basionym: *Gymnocalycium ferrarii*.
- Gymnocalycium huettneri**(F. Berger) Nycz, *Gymnocalycium New Classif.*, 31, 2021. Basionym: *Gymnocalycium parvulum* ssp. *huettneri*.
- Gymnocalycium hyptiacanthum** ssp. **leanum** (Hooker) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 52, 2021. Basionym: *Echinocactus leeanus*.
- Gymnocalycium marekiorum** ssp. **sanjoseanum** Schädlich, Schütziana 12(3): 29, ills. (pp. 27-29), 2021. Typus: Schädlich 03-40: Bolivia, Santa Cruz (WU 4141).
- Gymnocalycium marekiorum** var. **guarani-orum** Schädlich, Schütziana 12(3): 25, ills. (pp. 22-25), 2021. Typus: Schädlich 11-946/1543: Bolivia, Santa Cruz. (WU 4038).
- Gymnocalycium marekiorum** var. **roboreanum** Schädlich, Schütziana 12(3): 19, ills. (pp. 15-18), 2021. Typus: Schädlich 03-45: Bolivia, Santa Cruz. (WU 4140).
- Gymnocalycium megatae**ssp. **holdii** (Amerhauser) Schädlich, Schütziana 12(1): 14, ills. (pp. 9-13), 2021. Basionym: *Gymnocalycium anisitsii* ssp. *holdii*.

- Gymnocalycium oenanthemum** ssp. **ambatoense** (Piltz) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 52, ill. (p. 53), 2021. Basionym: *Gymnocalycium ambatoense*.
- Gymnocalycium paucicostatum** (R. Kiesling) Nycz, *Gymnocalycium* New Classif., 31, 2021. Basionym: *Gymnocalycium schroederianum* ssp. *paucicostatum*.
- Gymnocalycium suyuquense** (F. Berger) Nycz, *Gymnocalycium* New Classif., 31, 2021. Basionym: *Gymnocalycium fischeri* ssp. *suyuquense*.
- Gymnocalycium victorii** Neuhuber, Kakt.-Klub 5(3): 5-6, ill. (pp. 7-9), 2021. Typus: Neuhuber 11-1597: Argentina, San Luis (WU, WU).
- Jasminocereus thouarsii** ssp. **delicatus** Lodé, Cact.-Advent. Int. (Almeria) 33(1): 54, 2021. Basionym: *Jasminocereus howellii* [Nom. nov. pro *Jasminocereus howellii* E. Y. Dawson 1962. Although the name appears to have been intended as combination for *J. howellii* var. *delicatus*, only the name of the species is given, and the page reference, the cited figures and esp. the cited type all refer to *J. howellii*, which is therefore the replaced synonym (U. Eggli, June 2024).]
- Jasminocereus thouarsii** ssp. **sclerocarpus** (K. Schumann) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 54, 2021. Basionym: *Cereus sclerocarpus*.
- Kadencarpus heliae** (García-Morales & al.) D. Aquino, Willdenowia 51(2): 264, 2021. Basionym: *Turbincarpus heliae*.
- Leptocereus velozianus** Clase & al., PhytoKeys 172: 23-24, ill. (pp. 25-26), 2021. Typus: Majure 7843: Dominican Republic, Prov. Independencia (JBSD, FLAS).
- × **Leucomozia** M. H. J. van der Meer, Cact. Phantast. [n.s.] 1(3): 1, 2021. = *Leucosteles* × *Denmoza*.
- × **Leucomozia roseiflora** (F. Font & Picca) M. H. J. van der Meer, Cact. Phantast. [n.s.] 1(3): 1, 2021. Basionym: × *Trichomoza roseiflora*.
- Leucosteles atacamensis** ssp. **pasacana** (F. A. C. Weber ex Rümpler) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Pilocereus pasacana*.
- Leucosteles chiloensis** ssp. **australis** (F. Ritter) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Trichocereus chiloensis* var. *australis*.
- Leucosteles chiloensis** ssp. **eb urneus** (Philippi ex K. Schumann) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Eulychnia eburnea*.
- Leucosteles chiloensis** ssp. **panhoplites** (K. Schumann) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Cereus chiloensis* var. *panhoplites*.
- Leucosteles faundezii** (Albesiano) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Trichocereus faundezii*.
- Leucosteles pectinifera** (Albesiano) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Trichocereus pectinifer*.
- Leucosteles undulosus** (Albesiano) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Trichocereus undulosus*.
- Lobivia bridgesi** ssp. **v allegrandensis** (Cárdenas) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Echinopsis vallegrandensis*.
- Lobivia bridgesi** ssp. **yungasensis** (F. Ritter) Schlumpberger, Willdenowia 51(2): 264, 2021. Basionym: *Echinopsis yungasensis*.
- Lobivia hertrichiana** var. **acchaensis** (Eb. Scholz & al.) Eb. Scholz, Echinopseen 18(1): 98, 100, 2021. Basionym: *Lobivia acchaensis*. [The reference to the basionym is given on p. 100.]
- Lobivia perezii** (Cárdenas) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 56, 2021. Basionym: *Echinopsis perezii*.
- Lobivia sucrensis** (Cárdenas) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 56, 2021. Basionym: *Echinopsis sucrensis*.
- Mammillaria blossfeldiana** ssp. **rectispina** (E. Y. Dawson) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 58, 2021. Basionym: *Mammillaria goodridgei* var. *rectispina*.
- Mammillaria columbiana** ssp. **hennisii** (Bödeker) Lodé, Cact.-Advent. Int. (Almeria) 33(1): 58, 2021. Basionym: *Mammillaria hennisii*.
- Mammillaria thomasii** (García-Morales & al.) M. H. J. van der Meer, Cact. Phantast. [n.s.] 1(4): 1, 2021. Basionym: *Cochemiea thomasii*.
- Melocactus caloxanthus** Hoxey & al., Cactus-World 39(2): 98, ill. (pp. 93-97), 2021. Typus: Hoxey & Gdaniec s.n.: Haiti, Dept. Sud-Est (GIB 2021001).
- Melocactus onychacanthus* ssp. *mayor* Burghardt, Kakt. Inne 12(4): 131-132, ill., 2021. Typus: Burghardt 026.05: Peru, Caja-

- marca (herbarium not indicated). *Nom. in val.* (ICN Art. 40.7).
- Melocactus oreas** ssp. **alex-bragae** (P. J. Braun & Esteves) Guiggi, *Phytotaxa* 496(1): 97, 2021. Basionym: *Melocactus alex-bragae*.
- Neoabbottia demissa** (Areces) Guiggi, *Cactology* 5(Suppl. 12): 2, 2021. Basionym: *Leptocereus demissus*.
- Neoabbottia veloziana** (Clase & al.) Guiggi, *Cactology* 5(Suppl. 12): 2, 2021. Basionym: *Leptocereus velozianus*.
- Opuntia caboensis** F. Mercado & León de la Luz, *Phytotaxa* 508(3): 271-274, ills., 2021. Typus: León de la Luz 08-087: Mexico, Baja California Sur (HCIB, MEXU).
- Opuntia xcrystalensis** Oakley & al., *Syst. Biodivers.* 19(8): 1035-1036, ills. (pp. 1029, 1032), 2021. Typus: Köhler 491: Argentina, Santa Fe (ICN). [= *Opuntia ficus-indica* × *O. rioplatensis*.]
- Opuntia leoglossa** Font & M. Köhler, *Phytotaxa* 510(3): 282-284, ills., 2021. Typus: Stajsic 1006: Australia, Victoria (MEL [2 sheets + 1 spirit collection], CANB, NSW). [A cultigen of unknown origin recorded from Australia and Spain.]
- Opuntia sierralagunensis** León de la Luz & F. Mercado, *Phytotaxa* 508(3): 269-272, ills., 2021. Typus: León de la Luz 10-014: Mexico, Baja California Sur (HCIB, MEXU).
- × *Oreolobivia celox* Skro van, *Cactaceae* etc. 31(4): 159-160, ills., 2021. *Nom. inval.* (ICN Art. 39.2, 40.1). [= *Or eocereus celsianus* × *Lobivia ferox*.]
- Papyrocactus** Doweld, *Phytotaxa* 524(2): 95, 2021. Basionym: *Toumeyia* *Nom. nov. pro Toumeyia* Britton & Rose 1922 (*non Toumeyia* W. H. Harvey 1858; *Algae*).
- Papyrocactus papyracanthus** (Engelmann) Doweld, *Phytotaxa* 524(2): 95, 2021. Basionym: *Mammillaria papyracantha*.
- Parodia gladiata** (V. Gapon & Ponomareva) M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(4): 1, 2021. Basionym: *Wigginsia gladiata*.
- × **Patrocereus** M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(2): 1, 2021. = *P achyocereus* × *Mitrocereus*.
- × **Patrocereus apicicostatus** (S. Arias & Terrazas) M. H. J. van der Meer, *Cact. Phantast.* [n.s.] 1(2): 1, 2021. Basionym: *Pachebergia apicicostata*.
- Pereskia bahiensis** ssp. **minensis** N. P. Taylor & Albuquerque-Lima, *Phytotaxa* 494(3): 294-295, ills. (pp. 291-293), 2021. Typus: Zappi & al. 5106: Brazil, Minas Gerais (UB, RB, UFP).
- Pilosocereus armatus** (Otto ex Pfeiffer) A. R. Franck, *Willdenowia* 51(2): 264, 2021. Basionym: *Cereus armatus*.
- Pilosocereus brevispinus** Hoxey & Gdaniec, *Cact. Succ. J. (US)* 93(2): 102-104, ills., 2021. Typus: Hoxey & Gdaniec s.n.: Haiti, Dept. Centre (GIB).
- Pilosocereus excelsus** Hoxey & Gdaniec, *Cact. Succ. J. (US)* 93(2): 104-106, ills., 2021. Typus: Salazar & al. 318: Dominican Republic, Prov. La Altagracia (NY, JBSD).
- Pilosocereus samanensis** Hoxey & Gdaniec, *Cact. Succ. J. (US)* 93(2): 107-108, ills., 2021. Typus: Abbott 1190: Dominican Republic, Prov. Samaná (US, NY).
- Punotia lagopus** ssp. **malyana** (D. R. Hunt) Ostolaza, *Todos Cact. Perú*, ed. 2, 228, ill. (p. 229), 2019. Basionym: *Tephrocactus malyanus*.
- Rebutia nataliarum** V. Gapon, *Kakt.-Klub* 5(3): 11-12, ills. (pp. 10, 14-16, 18), 2021. Typus: Gapon 09-952: Bolivia, Tarija (WU, WU).
- Rhipsalis trigonoides** (Doweld) N. Korotkova, *Willdenowia* 51(2): 265, 2021. Basionym: *Hylorhipsalis trigonoides*.
- Salmonopuntia schickendantzii** (F. A. C. Weber) Font & M. Köhler, *Phytotaxa* 505(3): 267, ills. (p. 263), 2021. Basionym: *Opuntia schickendantzii*.
- Selenicereus plumieri** (Roland-Gosselin) Hoxey & Gdaniec, *Phytotaxa* 483(1): 58, 2021. Basionym: *Cereus plumieri*.
- Soehrensia formosa** ssp. **kieslingii** (Rausch) Schlumpberger, *Willdenowia* 51(2): 265, 2021. Basionym: *Lobivia kieslingii*.
- Soehrensia formosa** ssp. **korethroides** (Werdermann) Schlumpberger, *Willdenowia* 51(2): 265, 2021. Basionym: *Echinopsis korethroides*.
- Soehrensia formosa** ssp. **randallii** (Cárdenas) Schlumpberger, *Willdenowia* 51(2): 265, 2021. Basionym: *Trichocereus randallii*.
- Soehrensia formosa** ssp. **rosarioana** (Rausch) Schlumpberger, *Willdenowia* 51(2): 265, 2021. Basionym: *Lobivia rosarioana*.

- Soehrensia huascha** ssp. **robusta** (Rausch) Schlumpberger, Willdenowia 51(2): 265, 2021. Basionym: *Lobivia huascha* var. *robusta*.
- Soehrensia ×mendocina** (Méndez) Schlumpberger, Willdenowia 51(2): 265, 2021. Basionym: *Trichocereus ×mendocinus*.
- Soehrensia sandiensis** (Hox ey) Schlumpberger, Willdenowia 51(2): 265, 2021. Basionym: *Echinopsis sandiensis*.
- Soehrensia serpentina** (M. Lowry & M. Mendoza) Schlumpberger, Willdenowia 51(2): 265, 2021. Basionym: *Echinopsis serpentina*.
- Soehrensia shafari** (Britton & Rose) Schlumpberger, Willdenowia 51(2): 265, 2021. Basionym: *Trichocereus shafari*.
- Soehrensia tarijensis** ssp. **bertramiana** (Backeberg) Schlumpberger, Willdenowia 51(2): 265, 2021. Basionym: *Trichocereus bertramianus*.
- Tacinga armata** J. G. Freitas & E. M. Almeida, Phytotaxa 490(3): 241, ills. (pp. 242, 245), 2021. Typus: Araújo s.n.: Brazil, Paraíba (EAN).
- Tacinga ×flammea** J. G. Freitas & E. M. Almeida, Phytotaxa 490(3): 247, 249, ills. (pp. 244-245), 2021. Typus: Almeida 1980: Brazil, Minas Gerais (EAN). [= *Tacinga inamoena* × *T. wernerii*, naturally occurring.]
- Tacinga gladispina** J. G. Freitas & E. M. Almeida, Phytotaxa 490(3): 246-247, ills. (pp. 243, 245), 2021. Typus: Almeida 1829: Brazil, Bahia (EAN).
- Wigginsia langsdorffii** ssp. **eddiewarasii** (N. Gerloff) V. Gapon, Kakt.-Klub 5(3): 84, ills. (pp. 85-89), 2021. Basionym: *Notocactus langsdorffii* fa. *eddiewarasii*.
- Wigginsia sessiliflora* fa. *debilicantha* W. R. Abraham, Internoto 42(4): 99, ill., 2021. *Nom. inval.* (ICN Art. 36.1b, 39.2). [Published as provisional name.]
- Wigginsia sessiliflora** fa. **martinii** (Labouret ex Rümpler) W. R. Abraham, Internoto 42(4): 100, ills. (pp. 101-103), 2021. Basionym: *Malacocarpus martinii*.
- Wigginsia sessiliflora** fa. **stegmannii** (Backeberg) W. R. Abraham, Internoto 42(4): 99, 2021. Basionym: *Malacocarpus stegmannii*.
- Wigginsia vorwerkiana* fa. *hensisii* W. R. Abraham, Internoto 42(4): 101-102, 2021. *Nom. inval.* (ICN Art. 36.1b, 38.1a). [Published as provisional name.]

CRASSULACEAE

- Aeonium ×acebesii** O. Arango, Vieraea 47: 81-82, ills. (pp. 82-84, 86-87), 2021. Typus: Arango s.n.: Spain, Islas Canarias (TFC 52.549, LPA). [= *Aeonium cuneatum* × *A. urbicum* ssp. *urbicum*, naturally occurring.]
- Aeonium ×bornmuelleri** nssp. **subglabrum** O. Arango, Vieraea 47: 105, ills. (pp. 106-107, 109), 2021. Typus: Arango s.n.: Spain, Islas Canarias (TFC 53.343). [= *Aeonium canariense* ssp. *canariense* × *A. urbicum* ssp. *boreale*, naturally occurring.]
- Aeonium ×contortiflorum** O. Arango, Vieraea 47: 99, ills. (pp. 100-101, 103), 2021. Typus: Arango s.n.: Spain, Islas Canarias (TFC 53.396, LPA). [= *Aeonium lindleyi* ssp. *lindleyi* × *A. volkeri*, naturally occurring.]
- Aeonium ×experimentale** O. Arango, Bot. Macaronés. 31: 35-39, ills., 2021. Typus: Arango s.n.: cult. (LPA 38599, TFC). [= *Aeonium haworthii* × *A. sedifolium*, obtained in cultivation from controlled crossing.]
- Aeonium ×grandipetalum** Bañares, Vieraea 47: 142-144, ills., 2021. Typus: Bañares s.n.: Spain, Islas Canarias (TFC 48718). [= *Aeonium canariense* ssp. *cristii* × *A. escobarii*, naturally occurring.]
- Aeonium ×tagananense** O. Arango, Vieraea 47: 89, ills. (pp. 90-91, 93), 2021. Typus: Arango s.n.: Spain, Islas Canarias (TFC 53.341). [= *Aeonium tab uliforme* × *A. ciliatum*, naturally occurring.]
- Aichryson ×cumbrense** Bañares, Vieraea 47: 152-154, ills., 2021. Typus: Bañares s.n.: Spain, Islas Canarias (TFC 48717). [= *Aichryson bollei* × *A. laxum* ssp. *laxum*, naturally occurring.]
- Cotyledon nielsii** N. R. Crouch & al., Bradleya 39: 133, ills. (pp. 132, 134), 2021. Typus: Jacobsen 3344: RSA, KwaZulu-Natal (PRE, NU).
- Crassula floribunda** (Friedrich ex Toelken) N. R. Crouch & al., Bradleya 39: 157, ills. (pp. 154, 160-162), 2021. Basionym: *Crassula multicava* ssp. *floribunda*.
- Crassula moniliformis** N. H. G. Jacobsen, CactusWorld 39(3): 197-200, ills., 2021. Typus: Jacobsen 7429: RSA, Western Cape (SCHG, COMPT, GRA).
- Crassula ×mortii** Gideon F. Smith & N. R. Crouch, Phytotaxa 487(1): 97-100, ills., 2021. Typus: Crouch 1298: RSA, Western Cape (PRU). [= *Crassula perforata* × *C.*

- rubricaulis*, naturally occurring.]
- Crassula sandrae**N. H. G. Jacobsen, Bradle ya 39: 236-238, ills., 2021. Typus: Jacobsen 7334: RSA, Western Cape (SCHG, GRA, PRE).
- Crassula sarcocaulis** var. **lignosa** (Burt Davy) J. M. H. Shaw, Bradleya 39: 249, ills. (pp. 247-248, 250), 2021. Basionym: *Crassula lignosa*.
- Crassula sarcocaulis** var. **parvisepala** (Schönland) J. M. H. Shaw, Bradleya 39: 248, ills. (pp. 250-251), 2021. Basionym: *Crassula parvisepala*.
- Crassula sarcocaulis** var. **rupicola** (Toelken) J. M. H. Shaw, Bradleya 39: 251, 2021. Basionym: *Crassula sarcocaulis* ssp. *rupicola*. *Nom. inval.* (ICN Art. 41.5). [Combination not formally published in the belief that it is an autonym for ssp. *rupicola*, b ut the autonym rule only applies to trinomials.]
- Crassula stylesii** Gideon F. Smith & N. R. Crouch, Phytotaxa 518(3): 227-228, ills. (pp. 224-225), 2021. Typus: Styles & al. 5898: RSA, KwaZulu-Natal (BNRH, NU).
- Echeveria incaica** Pino & al., Cact. Succ. J. (US) 93(4): 286-290, ills., 2021. Typus: Pino & al. 3276: Peru, Huancavelica (USM 324183).
- Echeveria intiwayta** Pino & Payano, Cact. Succ. J. (US) 93(4): 290-292, ills., 2021. Typus: Pino & Payano 3297: Peru, Junín (USM 324185).
- Echeveria islasiae** J. Reyes & L. E. Cruz-López, Brittonia 73(4): 365-367, ills., 2021. Typus: Reyes 8823: Mexico, Guerrero. (MEXU, MEXU).
- Echeveria kristenii** L. E. Cruz-López & J. Reyes, Brittonia 73(4): 375, ills. (pp. 376-377, 379), 2021. Typus: Etter & Kristen 3569: Mexico, Durango (MEXU, MEXU).
- Echeveria ostolazae** Pino & al., Cact. Succ. J. (US) 93(4): 293-296, ills., 2021. Typus: Pino & al. 3269: Peru, Huancavelica (USM 324182).
- Graptopetalum rosanevadoense** A. Vázquez & Acevedo-Rosas, Phytotaxa 596(2): 162-166, ills., 2021. Typus: Vázquez-García & al. 7990: Mexico, Jalisco. (IBUG, MO, NY). [Sphalm. 'rosanevadoensis'.]
- ×**Greenonium garafiense** O. Arango, Vieraea 47: 94-95, ills. (pp. 95-96, 98), 2021. Typus: Arango s.n.: Spain, Islas Canarias (TFC 53.395). [= *Aeonium canariense* ssp. *christii* × *Greenovia diplocycla*, naturally occurring.]
- ×**Greenonium gordonii**(T avormina & S. Tavormina ex O. Arango) O. Arango, Bot. Macaronés. 31: 28, 2021. Basionym: *Aeonium ×gordonii*. [= *Gr eenovia millennium* × *Aeonium haworthii*. Given as *no v.* with 3 homotypic names, of which *Aeonium ×gordonii* O. Arango 2016 is the only valid name (with the parentage published as *Aeonium (Greenovia) dodrantale* × *A. haworthii*, but the *Greenovia* parent is now described as new species), and therefore interpreted as combination for this name.]
- ×**Greenonium rochae** O. Arango, Bot. Macaronés. 31: 34-35, ills. (pp. 26-27), 2021. Typus: Arango s.n.: Spain, Islas Canarias (TFC 53.344). [= *Gr eenovia millennium* × *Aeonium urbicum*, naturally occurring.]
- Greenovia millennium** O. Arango, Bot. Macaronés. 31: 14-18, ills., 2021. Typus: del Arco & al. s.n.: Spain, Canary Islands (TFC 13.633).
- Kalanchoe** sect. **Invasores** Shtein & Gideon F. Smith, Phytotaxa 482(2): 105, 2021. [Typus: *Kalanchoe tubiflora* (Harvey) Raymond-Hamet.]
- Kalanchoe** ser. **Vilana** Shtein & Gideon F. Smith, Phytotaxa 482(2): 107, 2021. [Typus: *Kalanchoe beauverdii* Raymond-Hamet.]
- Kalanchoe** subgen. **Fernandesiae** Gideon F. Smith, Haseltonia 27: 5, 2021. [Typus: *Kalanchoe thyrsoflora* Harvey. *Nom. nov. pro Kalanchoe* [unranked] *Transvaalenses* A. Berger 1930. Publication date given as 28. 12. 2020 on the inside front cover, but stated to be 1. 3. 2021 in the digital version at BioOne.]
- Kalanchoe beauverdii** var. **pertinax** Shtein & Gideon F. Smith, Phytotaxa 482(2): 109, figs. 1D, 2E (pp. 94-95), 2021. Typus: Smith 1126: RSA (cult.) (PRU).
- Kalanchoe benbothae** Gideon F. Smith & N. R. Crouch, Phytotaxa 521(2): 109, ills. (p. 107), 2021. Typus: Botha 1: RSA, KwaZulu-Natal (PRU).
- Kalanchoe costantinii** var. **unguifera** Shtein & Gideon F. Smith, Phytotaxa 482(2): 111, figs. 1A, 2A, 4A, 6C (pp. 94-95, 97, 101), 2021. Typus: Dumetz 1302: Madagascar, To-liara (P).
- Kalanchoe darainensis**D.-P. Klein & Callmanner, Candollea 76(1): 119-122, ills., 2021. Typus: Ranirison 749: Madagascar, Antsir-anana (G, P, TEF).

- Kalanchoe ×descoingsii** Shtein & al., Phytotaxa 524(4): 249-250, ills. (pp. 239-240), 2021. Typus: Ikeda s.n. in Shtein 501: Madagascar, Toliara (TELA). [= *Kalanchoe laetivirens* × *K. tubiflora*, spontaneous garden hybrid from Madagascar.]
- Kalanchoe ×forbesiae** Gideon F. Smith & Hankey, Phytotaxa 528(5): 295-297, ills., 2021. Typus: Smith 1162: RSA (cult.) (PRU). [= *Kalanchoe lubangensis* × *K. sexangularis*, spontaneous garden hybrid from Pretoria BG.]
- Kalanchoe guignardii** var. **schistosepala** Shtein & Gideon F. Smith, Phytotaxa 482(2): 112, figs. 1G, 2G, 4F, 6B (p. 94-95, 97, 101), 2021. Typus: Richaud s.n. in Shtein 212: Madagascar, Toliara (TELA).
- Kalanchoe ×leistneri** Gideon F. Smith, Phytotaxa 509(2): 250-252, ills., 2021. Typus: Smith 1146: RSA (cult.) (PRU). [= *Kalanchoe sexangularis* var. *sexangularis* × *K. winteri*, obtained in cultivation.]
- Kalanchoe perrieri** Shtein & al., Phytotaxa 502(3): 270-271, ills. (figs. 1, 4D, 5F, pp. 261, 265-266), 2021. Typus: Richaud s.n. in Shtein 909: Madagascar, Toliara? (TELA, TELA).
- Kalanchoe porphyrocalyx** (Baker) Baillon ‘Sunny Balloon’ Gideon F. Smith & Shtein, Phytotaxa 478(2): 233, ills. (pp. 229, 233), 2021. [A horticultural selection, also found in the trade as *K. manginii* ‘Wendy Sunny Balloon’.]
- Kalanchoe pubescens** var. **tsinjoarivensis** (H. Perrier) Gideon F. Smith & Shtein, Phytotaxa 514(2): 126, 2021. Basionym: *Kalanchoe miniata* var. *tsinjoarivensis*.
- Kalanchoe torrejacqii** Shtein & Gideon F. Smith, Phytotaxa 498(3): 206-207, ills., 2021. Typus: Torrebruno & Jacq s.n. in Shtein 580: Madagascar, Fianarantsoa (TELA, TELA).
- Kalanchoe variifolia** (Guillaumin & Humbert) Shtein & al., Phytotaxa 496(3): 233, ills. (pp. 229, 231), 2021. Basionym: *Kalanchoe rosei* ssp. *variifolia*.
- Kalanchoe variifolia** var. **seyrigii** (Boiteau & Mannoni) Shtein & al., Phytotaxa 496(3): 236, ills., 2021. Basionym: *Kalanchoe rosei* var. *seyrigii*. [Validity of the name depends on the interpretation of the validity of the basionym.]

Sedum xerophilum Pino & al., Cact. Succ. J. (US) 93(4): 298-300, ills., 2021. Typus: Pino & al. 3251: Peru, Huancavelica (USM 324174).

Tylecodon ectypus F. Grenier & van Jaarsveld, Haseltonia 27: 11-12, ills. (pp. 9-12), 2021. Typus: Van Jaarsveld 27904: RSA, Northern Cape (NBG). [Dated 18. 12. 2020 on the inside front cover, but publication date given as 1. 3. 2021 by BioOne for the digital version.]

EUPHORBIACEAE

Euphorbia agatheae Hae vermans & Hettterscheid, Phytotaxa 492(1): 4-6, ills., 2021. Typus: Haevermans & al. 331: Madagascar, Toliara (TAN, P).

Euphorbia antsingiensis (Cremers) Haevermans & Hettterscheid, Phytotaxa 492(1): 52, ills. (pp. 53-54), 2021. Basionym: *Euphorbia moratii* var. *antsingiensis*.

Euphorbia begardii (Cremers) Hae vermans & Hettterscheid, Phytotaxa 488(1): 24, fig. 22B-C (p. 32), 2021. Basionym: *Euphorbia primulifolia* var. *begardii*.

Euphorbia crassa (Cremers) Haevermans & Hettterscheid, Phytotaxa 492(1): 55, ills. (p. 56), 2021. Basionym: *Euphorbia enterophora* ssp. *crassa*.

Euphorbia crassicaulis (Rauh) Hae vermans & Hettterscheid, Phytotaxa 488(1): 27, fig. 23 (p. 33), 2021. Basionym: *Euphorbia francoisii* var. *crassicaulis*.

Euphorbia cylindroclada Haevermans & Hettterscheid, Phytotaxa 488(1): 57, fig. 43A, C-D (p. 58), 2021. Typus: Hettterscheid H.EU.056-T: Madagascar (cult.) (P).

Euphorbia durispina Hae vermans & Hettterscheid, Euphorbia World 17(2): 14-15, ills., 2021. Typus: Rakotomalaza 596: Madagascar, Toliara (P [given as MNHN]).

Euphorbia elburensis Baldesi & S. Carter, Nordic J. Bot. 39(10): e03360: 2-3, ills., 2021. Typus: Bavazzano 1207: Somalia, Galguduud Region (FT, FT).

Euphorbia fanjahiraensis Hae vermans & Hettterscheid, Phytotaxa 488(1): 32, figs. 25-26 (pp. 35-36), 2021. Typus: Humbert 2761: Madagascar, Fianarantsoa (P, P).

Euphorbia fuscoclada Haevermans & Hettterscheid, Phytotaxa 492(1): 9-12, ills., 2021. Typus: Bosser 16715: Madagascar, Mahajanga (P).

- Euphorbia graciliramulosa** Haevermans & Hettterscheid, Phytotaxa 492(1): 32-34, ills., 2021. Typus: Haevermans 626: Madagascar, Toliara (TAN, P).
- Euphorbia hardyi** (Rauh) Haevermans & Hettterscheid, Phytotaxa 488(1): 60, fig. 44 (p. 59), 2021. Basionym: *Euphorbia platyclada* var. *hardyi*.
- Euphorbia imperatae** (Leandri ex J.-P. Castillon & J.-B. Castillon) Haevermans & Hettterscheid, Phytotaxa 488(1): 16, figs. 15-16 (pp. 26-27), 2021. Basionym: *Euphorbia milii* var. *imperatae*.
- Euphorbia itampolensis** (Rauh) Haevermans & Hettterscheid, Phytotaxa 492(1): 36, ills. (p. 38), 2021. Basionym: *Euphorbia neobosseri* var. *itampolensis*.
- Euphorbia kalambatitrensis** Haevermans & al., Phytotaxa 492(1): 12-14, ills., 2021. Typus: Humbert 11796: Madagascar, Toliara (P).
- Euphorbia lakshminarasimhanii** Malpure & al., Nordic J. Bot. 39(7): e03142: 2-5, ills., 2021. Typus: Malpure 0035: India, Maharashtra (CAL, BSI, MH, SUK).
- Euphorbia linguifolia** Hettterscheid & al., Phytotaxa 497(2): 172, 2021. Typus: Humbert 3026: Madagascar, Fianarantsoa (P, P). [*Nom. nov. pro Euphorbia linguiformis* Hettterscheid & al. 2021 (*nom. illeg.*, ICN Art. 53.1, non *E. linguiformis* McVaugh 1961).]
- Euphorbia linguiformis* Hettterscheid & al., Phytotaxa 492(1): 16, ills. (pp. 14-15), 2021. Typus: Humbert 3026: Madagascar, Fianarantsoa (P, P). *Nom. illeg.* (ICN Art. 53.1). [*Non Euphorbia linguiformis* McVaugh 1961. Renamed *E. linguifolia* Hettterscheid & al. 2021.]
- Euphorbia makayensis** Haevermans & Hettterscheid, Phytotaxa 492(1): 18-21, ills., 2021. Typus: Perrier de la Bâthie 9681: Madagascar, Toliara (P).
- Euphorbia mbuinzaensis** N. Wei & al., Phytotaxa 492(1): 26-27, ills. (pp. 25-26), 2021. Typus: Spannring 2020-01: Madagascar, Mahajanga (TAN).
- Euphorbia multibrachiata** Hettterscheid & al., Phytotaxa 492(1): 26-27, ills. (pp. 25-26), 2021. Typus: Spannring 2020-01: Madagascar, Mahajanga (TAN).
- Euphorbia neocastillonii** Houyelle, CactusWorld 39(4): 288-289, ills., 2021. Typus: Castillon 70: Madagascar, Mahajanga (TAN).
- Euphorbia pachyospina** Haevermans & Hettterscheid, Phytotaxa 488(1): 42, fig. 31 (p. 44), 2021. Typus: Decary 5652: Madagascar, Fianarantsoa (P).
- Euphorbia parvimedusae** Haevermans & Hettterscheid, Phytotaxa 492(1): 21-23, ills., 2021. Typus: Humbert 30239: Madagascar, Fianarantsoa (P).
- Euphorbia perrierioides** Hettterscheid & al., Phytotaxa 492(1): 27-30, ills., 2021. Typus: Perrier de la Bâthie 13229: Madagascar, Mahajanga (P, P).
- Euphorbia psammiticola* Haevermans & Hettterscheid, Phytotaxa 488(1): 51, figs. 39A, 40B-C (pp. 53-54), 2021. Typus: Humbert 11346: Madagascar, Toliara (P). *Nom. illeg.* (ICN Art. 52.1?). [The validity of the name depends on the correct typification of *E. leandriana*; the type given for *E. psammiticola* was designated as lectotype for *E. leandriana* in 2020.]
- Euphorbia pseudoaprica** J.-P. Castillon, CactusWorld 39(4): 290-292, ills., 2021. Typus: Humbert 11208: Madagascar, Toliara (P 220649).
- Euphorbia radfanensis** Al-Fatimi & N. Kilian, Euphorbia World 17(1): 9-10, ills. (pp. 5-11), 2021. Typus: Al-Fatimi MF-LH 002: Yemen, Lahij Governorate (Herb. M. Al-Fatimi, to be distributed).
- Euphorbia rigidispina** Haevermans & Hettterscheid, Phytotaxa 492(1): 43, ills. (p. 42), 2021. Typus: Aubriot & al. 63: Madagascar, Toliara (TAN, MICH, MO, P).
- Euphorbia sahyadrica** Sardesai & Malpure, Phytotaxa 500(4): 286-290, ills., 2021. Typus: Malpure 0030: India, Maharashtra (CAL, BSI, SUK).
- Euphorbia sobolifera** O. L. M. Silva & P. J. Braun, Eur. J. Taxon. 733: 78-80, ills., 2021. Typus: Brito 11: Brazil, Bahia (SP, HUEFS, RB, SPF).
- Euphorbia spannringii** Haevermans & Hettterscheid, Phytotaxa 492(1): 23-24, ills., 2021. Typus: Spannring 2020-15: Madagascar, Antananarivo (TAN).
- Euphorbia spirosticha** (Rauh & Buchloh) Haevermans & Hettterscheid, Euphorbia World 17(2): 10, ills. (pp. 6-9), 2021. Basionym: *Euphorbia decaryi* var. *spirosticha*.
- Euphorbia tananarivae** (Leandri ex J.-P. Castillon & J. B. Castillon) Haevermans & Hettterscheid, Phytotaxa 488(1): 21, fig. 19 (p. 30), 2021. Basionym: *Euphorbia splen-*

dens var. *tananarivae*.

Euphorbia tsihombensis Haevermans & Heterscheid, Phytotaxa 492(1): 43-45, ills., 2021. Typus: Haevermans & Randrianjohany 60: Madagascar, Toliara (P, MO, TAN).

Euphorbia wernerii Haevermans & Heterscheid, Phytotaxa 488(1): 53, figs. 41, 42 (pp. 55-56), 2021. Typus: Humbert 13732: Madagascar, Toliara (P).

GERANIACEAE

Pelargonium hammansbergense E. M. Marais & A. Le Roux, Phytotaxa 516(1): 94-95, ills., 2021. Typus: Le Roux & De Wet 1305: RSA, Western Cape (NBG, K, PRE).

Pelargonium roseopetalum E. M. Marais, Phytotaxa 516(1): 96-97, ills., 2021. Typus: Marais 456: RSA, Northern Cape (NBG, K, PRE).

HYACINTHACEAE

Eliokarmos rossouwii (U. Müller-Doblies & D. Müller-Doblies) Martínez-Azorín & al., Phytotaxa 524(1): 60, ills., 2021. Basionym: *Ornithogalum rossouwii*.

Ledebouria kikiae J. M. H. Shaw, CactusWorld 39(2): 164, ill., 2021. Typus: Lebatha 045: RSA, KwaZulu-Natal (PUC, PRE). *Nom. inval.* (ICN Art. 36.3). [Simultaneously published with *Drimiopsis kikiae*, which was subsequently validated l.c. 40(1): 69, 2022.]

MELASTOMATACEAE

Sonerila epedunculata J. Mathew, Species 20: 73-74, ills., 2019. Typus: Mathew 5113: India, Kerala (KUBH). [Omitted previously.]

MENISPERMACEAE

Stephania kaweesakii Jenjittikul & Ruchisan-sakun, Phytotaxa 464(3): 257-259, ills., 2020. Typus: Keeratikiat 307: Thailand, Kanchanaburi (QBG, BK, BKF).

MONTIACEAE

Rumicastrum nanum Carolin e x Hershkovitz, EcoEvoRxiv g6s3a: 5, 2021. Basionym: *Talinum nanum*. *Nom. inval.* (ICN Art. 29.1, 30.2?). [E-published as preprint, but without ISSN or ISBN.]

OXALIDACEAE

Oxalis mollendoensis J. M. H. Shaw, Cactus-World 39(1): 71, 2021. Typus: Johnston 6291: Peru, Arequipa (GH). [*Nom. nov. pro Oxalis carnosua* var. *hirta* R. Knuth 1930.]

PIPERACEAE

Peperomia ostolazae Pino & Samain, Quepo 35: 25-28, ills. (pp. 21-39), 2021. Typus: Ostolaza 991372: Peru: Apurímac (USM 325360).

Peperomia renzopalmae Pino & Ric. Fernández, Haseltonia 27: 123-125, ills., 2021. Typus: Palma s.n. in Fernández & Pino 252: Peru, Piura (USM). [Dated 28. 12. 2020 on the inside front cover, but publication date given as 1. 3. 2021 in the digital version on BioOne.]

Peperomia ricardofernandezii Pino & Samain, Haseltonia 27: 126-128, ills., 2021. Typus: Pino & Fernández 3153: Peru, Piura (USM). [Dated 28. 12. 2020 on the inside front cover, but publication date given as 1. 3. 2021 in the digital version on BioOne.]

PORTULACACEAE

Portulaca avinoamii García-Beltrán, Brittonia 73: 300, 2021. Typus: Klug 1214: Peru, Loreto (US). *Nom. illeg.* (ICN Art. 52.1). [*Nom. nov. illeg. pro Portulaca tuberculata* (Danin & H. G. Baker) Danin 2006 (*non P. tuberculata* León 1950); *P. daninii* Galasso & al. 2011 has priority.]

Portulaca oleracea var. **trituberculata** (Danin & al.) J.-M. Tison, Evaxiana 8: 224, 2021. Basionym: *Portulaca trituberculata*.

Portulaca waterbergensis Peckover, Cactus-World 39(4): 328, ills. (pp. 327-328, 330), 2021. Typus: Peckover 305: RSA, Limpopo (PRU).

RUSCACEAE

Dracaena ascendens ar. **bhwirei** (R. H. Webb & L. E. Newton) Takawira-Nyenyia & Thiede, Phytotaxa 524(4): 294, 2021. Basionym: *Sansevieria ascendens* var. *bhwirei*.

Dracaena brevifolia (L. E. Newton) Takawira-Nyenyia & Thiede, Phytotaxa 524(4): 294, 2021. Basionym: *Sansevieria brevifolia*.

- Dracaena coleana** (T. G. Forrest) Takawira-Nyenyanya & Thiede, Phytotaxa 524(4): 294, 2021. Basionym: *Sansevieria coleana*.
- Dracaena conduplicata** (T. C. Cole & T. G. Forrest) Takawira-Nyenyanya & Thiede, Phytotaxa 524(4): 294, 2021. Basionym: *Sansevieria conduplicata*.
- Dracaena enchiridifolia** (R. H. Webb & L. E. Newton) Takawira-Nyenyanya & Thiede, Phytotaxa 524(4): 294, 2021. Basionym: *Sansevieria enchiridifolia*.
- Dracaena forestii** (L. E. Newton & R. H. Webb) Takawira-Nyenyanya & Thiede, Phytotaxa 524(4): 294, 2021. Basionym: *Sansevieria forestii*.
- Dracaena marachiensis** (T. G. Forrest) Takawira-Nyenyanya & Thiede, Phytotaxa 524(4): 295, 2021. Basionym: *Sansevieria marachiensis*.
- Dracaena pfennigii** (Mbugua) Takawira-Nyenyanya & Thiede, Phytotaxa 524(4): 295, 2021. Basionym: *Sansevieria pfennigii*.
- Dracaena pinguicula** fa. **disticha** (Pfennig ex A. Butler) Takawira-Nyenyanya & Thiede, Phytotaxa 254(4): 296, 2021. Basionym: *Sansevieria pinguicula* ssp. *disticha*. [Repeated by L. E. Newton, *Sansevieria* 47: 12, 2022.]
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