

# CRASSULACEA

No. 4      JANUARY 2015

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Miscellaneous notes and observations of the International  
Crassulaceae Network



Roy Mottram

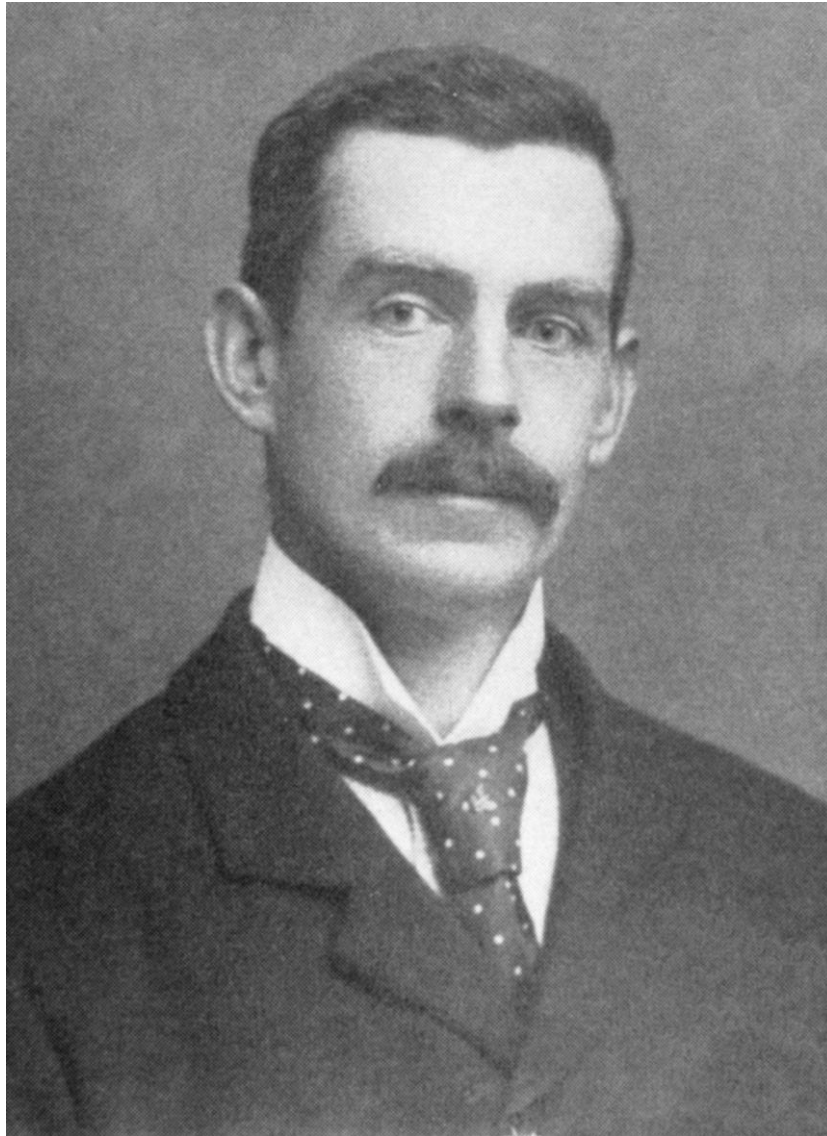
Aeonium  
nothospecies

Published by  
International Crassulaceae Network - Switzerland  
ISSN 2296-1666

### Impressum

Publisher International Crassulaceae Network

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Portrait of pioneer semperviva specialist Robert Lloyd Praeger, aged 36 in 1901. (Praeger collection, Royal Irish Academy)

**Summary:**

A comprehensive checklist of nothospecies of the genus *Aeonium* and their current status based on species names in current usage is presented.

New taxa proposed in this paper:

*Aeonium* *×aureozoon* (Bramwell & G.D.Rowley) Mottram **comb. nov.** (see page 6).

*Aeonium* *×uhlii* Tavorm. & S.Tavorm. ex Mottram **nothosp. nov.** (see page 25-26).

The rules of nomenclature as they relate to nothospecies are complex and difficult to apply when their synonymy or ranks are changed. The rules encourage the use of hybrid formulae rather than nothospecies (Rec. H.10B.1), but in the case of *Aeonium* authors have largely ignored this advice.

The biggest problem is that authors adopt different concepts of the rank of species, and reductions of many familiar names to trinomials has unfortunately become all too fashionable. Thus, hybrids may be legitimate in one person's system, but illegitimate under that of another. In the present list, alternative parentages of nothospecies are given, and the user of these names may select whichever nothospecific status is appropriate to their own system. Botany is a democratic process, so a stable, absolute and single system unfortunately cannot be expected, without defining the names accepted as parent species first.

The family *Crassulaceae*, and especially *Aeonium* are very promiscuous and will usually interact with each other to produce hybrids or (allo)polyploids wherever different taxa happen to grow together in nature. It is the same in cultivation of course, and randomly produced seedlings produced by open pollination in a greenhouse are notoriously unreliable. Precautions to prevent cross-contamination in reserve collections should be exercised if the objective is to maintain natural gene pools, which is rather difficult to achieve in practice.

In nature, insect pollinators are not highly specific in visiting the rather unspecialised flowers of aeoniums. The very length of this present list is testimony to this, yet probably still does not yet entirely reflect the full state of affairs. Human transfers caused by garden escapes will in time no doubt result in further future interactions that will serve only to add to already confused patterns of distribution.

Apart from a scattering of old names, the subject of this paper was pioneered by Robert Lloyd Praeger (1865-1953), who undertook a three months field study of the *Crassulaceae* of the Canary Isles in 1924, and a further brief follow-up visit in 1927. He found no less than 32 hybrids of semperviva, mostly aeoniums, culminating in a landmark paper of 1929, where he characterised them all, mostly with Latin

descriptions and sketches, under hybrid formulae of their parent names. As the use of hybrid formulae is outside the provisions of the International Code of Nomenclature, Praeger's Latin descriptions were effectively superfluous, but they came in handy for use by later authors.

The fashion for giving nothospecies names to these plants began in earnest in 1973, when Bramwell and Rowley created 31 nothospecies based on Praeger's Latin descriptions and drawings, even though they were largely not cultivated and Praeger had said that for some he often found only single plants in the field. Types were not designated, but as Praeger had left single illustrations with his circumscriptions, these automatically became the holotypes in accordance with Art. 9.1 of the ICN. Bramwell and Rowley's names were therefore validly published except for an odd few where Praeger had left no Latin description or illustration.

Additional contributions from other authors followed, and today 65 *Aeonium* nothotaxa have so far been proposed, mostly validly published, but with a complex and checkered history of superfluous synonyms. This paper attempts to summarise and clarify this confused history of nothotaxa.

*×aguajilvense*

*Par.* *Aeonium castello-paivae* Bolle × *Aeonium gomerense* (Praeger) Praeger

*Aeonium ×aguajilvense* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III, *Vieraea* **25**: 182-184. 1996 (publ. 1997).

*Etym*: Named for Aguajilva, the type locality.

*T*: Islas Canarias, La Gomera, Barranco de Aguajilva, c. 6km NW of San Sebastián de la Gomera; May 1991, Ángel BAÑARES.

*HT*: TFC 37.963.

*×anagense*

*Par.* *Aeonium lindleyi* Webb & Berthel. × *Aeonium tabuliforme* (Haw.) Webb & Berthel.

*Aeonium lindleyi* Webb & Berthel. × *Aeonium tabuliforme* (Haw.) Webb & Berthel., in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 476-477, t.11, fig. 14. (24 Sep) 1929.

*Aeonium anagense* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973 ("anagensis") nom. inval. [protologue includes two illustrations without designation of the type]

*Aeonium anagense* Bramwell & G.D.Rowley ex P.V.Heath, The type of *Aeonium* Webb & Berthelot, *Calyx* **2**(2): 57-58. (Oct) 1992.

*Etym*: Named for Macizo de Anaga, a mountain range of eastern Tenerife. From Naga, or Ahanaga, the name of the region in the extinct Guanche language of the aboriginal Berber inhabitants of the Canary Islands, spoken until the 17C.

*T*: Islas Canarias, Tenerife, among rocks on the coast below Taganana, 100m; Oscar BURCHARD.

*HT*: Photo of cluster at the type locality from Burchard, Beiträge zur Ökologie und Biologie der Kanarenpflanzen, *Bibliotheca Botanica* **98**: t.43. 1929.

**×aureozoon**

*Par:* *Aeonium aizoon* (Bolle) Mes × *Aeonium aureum* (Hornem.) Mes

*Greenovia aizoon* Bolle × *Greenovia aurea* (Hornem.) Webb & Berthel., in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 484-485, t.14, fig. 24. (24 Sep) 1929.

*Greenovia ×aureozoon* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Aeonium ×banaresii* Tavorm. & S.Tavorm., *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 48. (Apr) 2006 nom. inval. (Art. 40.1) & illeg. (Art. 52.1). [Created as a new name in the mistaken belief that *Greenovia ×aureozoon* Bramwell & G.D.Rowley was not validly published.]

*Aeonium ×candelariense* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos IV, *Vieraea* **35**: 11-12. 2006 nom. illeg. (Art. 52.1). [Created as a new name in the mistaken belief that *Greenovia ×aureozoon* Bramwell & G.D.Rowley was not validly published.]

*Aeonium ×aureozoon* (Bramwell & G.D.Rowley) Mottram **comb. nov.**

*Bas:* *Greenovia ×aureozoon* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973, 2015

*Etym:* Condensed formula.

*T:* Islas Canarias, Tenerife, barrancos above Güimar, 750-1950m; *R.* Lloyd PRAEGER.

*HT:* Sketch of 2 leaves, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 484, t.14, fig.24. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

**×beltranii**

*Par:* *Aeonium decorum* Bolle × *Aeonium subplanum* Praeger  
[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium decorum* Bolle if *subplanum* is included in *canariense*]

*Aeonium ×beltranii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 69, 70. (Jun) 1986.

*Etym:* Named for Esperanza BELTRÁN Tejera, Professor of Botany, Universidad de La Laguna.

*T:* Islas Canarias, La Gomera, Parque Nacional de Garajonay, Mirador del Bailadero, 950m; Mar 1981, Ángel BAÑARES.

HT: TFC 19.946.

**×bollei**

Par: *Aeonium percarneum* (R.P.Murray) Pit. & Proust × *Aeonium undulatum* Webb & Berthel.

*Aeonium percarneum* (R.P.Murray) Pit. & Proust × *Aeonium undulatum* Webb & Berthel., Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 479, t.12, fig.17 (24 Sep) 1929.

*Aeonium* ×*bollei* Kunkel, Enumeración de las plantas vasculares de Gran Canaria, *Monographiae Biologicae Canariensis* **3**: 39, 41. (Oct) 1972 nom. inval. (Art. 40.1) [Protologue listed two original included elements, the author's specimen and Praeger's illustration, without designating which was the type.]

*Aeonium* ×*bollei* Kunkel ex Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 10. (Oct) 2007.

*Etym*: Named for the German botanist Carlos BOLLE (1828-1901).

*T*: Islas Canarias, N Gran Canaria, Barranco de los Tilos de Moya, above the road; 1924, R. Lloyd PRAEGER.

*HT*: Sketch of a leaf in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): t.12, fig.17. 1929. Designated by Bañares, *Vieraea* **35**: 10. (Oct) 2007. [Designated as lectotype, but that is a correctable error (Art. 9.9)]

*Obs*: On p.41 of the protologue Kunkel stated that material was preserved in his own private herbarium, *Herbarium kunkelianum*, but that has not been traced.

**×bornmuelleri**

Par: *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium urbicum* (Hornem.) Webb & Berthel.

*Aeonium* ×*bornmuelleri* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 10-11, 21, 31, t.1, 11. (Oct) 2007. [Based on *Aeonium canariense* (L.) Webb & Berthel. var. *canariense* × *Aeonium urbicum* (Hornem.) Webb & Berthel. var. *urbicum*]

*Etym*: Named for Joseph Friedrich Nicolaus BORNMÜLLER (1862-1948).

*T*: Islas Canarias, Tenerife, Santa Cruz de Tenerife Prov., Valle Guerra, 350-450m; Jun 1998, Ángel BAÑARES.

HT: TFC 43.438.



*Obs:* Also found by the author at a similar altitude in the hills above San Andrés. Note that this name is illegitimate (Art. 52.1) if *pseudourbicum* is included in *urbicum*.

×*bramwellii*

*Par:* *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium cuneatum* Webb & Berthel.

*Aeonium canariense* (L.) Webb & Berthel. × *Aeonium cuneatum* Webb & Berthel., in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 467-468, t.9, fig.4 (24 Sep) 1929.

*Aeonium ×bramwellii* G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Aeonium ×tahodiense* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias, *Vieraea* **35**: 17. (Oct) 2007 nom. illeg. (Art. 53.1).

*Etym:* Named for David BRAMWELL (1942- ).

*T:* Islas Canarias, Tenerife, above Santa Cruz, above the 30ft. waterfall on the most easterly branch of the Barranco Tajodio stream, in woods, 700m; 1924, *R. Lloyd PRAEGER*.

*HT:* Sketch of a leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 460, t.9, fig.4. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

×*bravoanum*

*Par:* *Aeonium castello-paivae* Bolle × *Aeonium viscatum* Bolle  
[or *Aeonium castello-paivae* Bolle × *Aeonium lindleyi* Webb & Berthel. when *A. viscatum* is included in *A. lindleyi*. (Art. H.5.2)]

*Sempervivum castello-paivae* (Bolle) H.Christ × *Sempervivum viscatum* (Bolle) H.Christ), Praeger, Notes on Canarian and Madeiran Semperviva, *Transactions of the Botanical Society of Edinburgh* **29**: 200. 1925 nom. nud.

*Aeonium castello-paivae* Bolle × *Aeonium viscatum* Bolle, Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 469, t.10, fig. 6. (24 Sep) 1929.

*Aeonium ×bravoanum* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Etym:* Named in honour of Ventura BRAVO, a friend of the botanist Eric SVENTENIUS from La Gomera.

*T*: Islas Canarias, La Gomera, 2km SW of Hermigua, below the high waterfall; 1924, R. Lloyd PRAEGER.

*HT*: Sketch of flower & leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 469, t.10, fig. 6. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

**×*burchardii***

*Par*: *Aeonium pseudourbicum* Bañares × *Aeonium sedifolium* (Bolle) Pit. & Proust [or *Aeonium sedifolium* (Bolle) Pit. & Proust × *Aeonium urbicum* (Hornem.) Webb & Berthel. when *pseudourbicum* is included in *urbicum*]

*Sempervivum ×burchardii* Praeger, Notes on Canarian and Madeiran Semperviva, *Transactions of the Botanical Society of Edinburgh* **29**: 202. 1925 (pro sp.).

*Aeonium ×burchardii* (Praeger) Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 465. (24 Sep) 1929 (pro sp.).

*Etym*: Named for Oscar BURCHARD (1863-1949).

*T*: Islas Canarias, Tenerife, Teno Mtns., on the roadside between Masca and Santiago, 800-900m; Jan 1923, Oscar BURCHARD.

*HT*: Not cited.

*NT*: Praeger's analytical sketch, in Praeger, *An account of the Sempervivum group*: 176, fig. 73. 1932. Designated by Bañares, *Vieraea* **35**: 11. (Oct) 2007 [as LT].

**×*cabrerorum***

*Par*: *Aeonium diplocyclum* (Webb ex Bolle) Mes × *Aeonium spathulatum* (Hornem.) Praeger

×*Greenonium cabrerorum* A.Santos, *Vegetacion y flora de La Palma*: 184, 185. 1983 ("cabreræ").

*Aeonium ×cabrerorum* (A.Santos) Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III, *Vieraea* **25**: 184. 1996 (publ. 1997) ("cabreræ").

*Etym*: Named for Miriam CABRERA and family.

*HT*: Sketch of a sterile cluster, on p.185 of the protologue. Autotype (Art. 9.1). The only included element.

**×casanovense**

*Par:* *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust. × *Aeonium spathulatum* (Hornem.) Praeger

*Aeonium casanovense* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias, *Vieraea* **35**: 12. (Oct) 2007.

*Etym:* Named for its discoverer, José Garcia CASANOVA.

*T:* Islas Canarias, Tenerife, Teno, above Masca; 1 May 1997, *José Garcia CASANOVA*.

*HT:* TFC 43.437.

*Obs:* This and *A. loartei* were both published in Oct 2007. The exact date of publication for the two journals is not known, but authorised lexicographers have adopted *A. loartei* as the priority name.

*Ref:* *Aeonium ×loartei* Tavorm.

**×castellodecorum**

*Par:* *Aeonium castello-paivae* Bolle × *Aeonium decorum* Bolle

*Aeonium ×castellodecorum* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 64, 65. (Jun) 1986.

*Etym:* Condensed formula.

*T:* Islas Canarias, La Gomera, Parque Nacional de Garajonay, Mirador del Bailadero, 950m; May 1983, *Ángel BAÑARES*.

*HT:* TFC 19.944.

**×castelloplanum**

*Par:* *Aeonium castello-paivae* Bolle × *Aeonium subplanum* Praeger  
[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium castello-paivae* Bolle  
when *subplanum* is included in *A. canariense*. (Art. H.5.2)]

*Aeonium castello-paivae* Bolle × *Aeonium subplanum* Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 468-469, t.9, fig. 5. (24 Sep) 1929.

*Aeonium ×castelloplanum* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 7. (Mar) 1973.

*Etym*: Condensed formula.

*T*: Islas Canarias, Gomera, near Degollada de San Sebastián & Hermigua; 1924, R. Lloyd PRAEGER.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 468, t.9, fig. 5. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

### ×*cilifolium*

*Par*: *Aeonium ciliatum* Webb & Berthel. × *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust.

[or *Aeonium davidbramwellii* H.-Y.Liu × *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust. if *davidbramwellii* is considered to be distinct from *ciliatum*]

*Aeonium ×cilifolium* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 59-61. (Jun) 1986.

*Etym*: Condensed formula.

*T*: Islas Canarias, La Palma, El Time; Apr 1980, Manuel NOGALES & Ángel BAÑARES.

*HT*: TFC 19.937.

### ×*davidii*

*Par*: *Aeonium dodrantale* (Willd.) Mes × ?*Aeonium spathulatum* (Hornem.) Praeger

*Greenovia dodrantalis* (Willd.) Webb & Berthel. × *Aeonium ?spathulatum* (Hornem.) in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 460, 487, t.15, fig. 26. (24 Sep) 1929.

×*Greenonium bramwellii* G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 7. (Mar) 1973.

*Aeonium ×zoeae* Tavorm. & S.Tavorm., *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 49. (Apr) 2006 ("zoeae") nom. inval. (Art. 41.5) [Intended as a replacement name, but there was no complete reference to the basionym.]

*Aeonium ×davidii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias, *Vieraea* **35**: 12. (Oct) 2007 [Replacement for ×*Greenonium bramwellii* G.D.Rowley when transferred to *Aeonium* to avoid conflict with *Aeonium ×bramwellii* G.D.Rowley (1973)]

*Etym*: Named for David BRAMWELL (1942- ).

*T*: Islas Canarias, Tenerife, nr. Carrizal; *Oscar BURCHARD*.

*HT*: Sketch of plant & leaf, in Praeger, *Semperviva* of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 487, t.15, fig. 26. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

### *×exsul*

*Par*: *Aeonium canariense* (L.) Webb & Berthel. × ?

*Sempervivum ×exsul* Bornm., *Sempervivum exsul* Bornm. (nov. spec.) . Sectio: *Aeonium*. In Fedde (ed.) *Repertorium specierum novarum regni vegetabilis* **13**(347): 2-4. (20 Jul) 1913.

*Aeonium ×exsul* (Bornm.) Praeger, *An account of the Sempervivum group*: 247. 1932.

*Etym*: From the Latin noun *exsul*, an exile.

*T*: Thought to have arisen in cultivation at the Royal Botanic Garden, Göttingen. There are no known herbarium specimens or illustrations.

*Obs*: Probably no longer extant. Both Bornmüller and Praeger speculated on the parentage, but did not agree. Praeger was quite convinced that he could see *canariense* in its makeup.

### *×extinctum*

*Par*: *Aeonium aureum* (Hornem.) Mes × *Aeonium glutinosum* (Aiton) Webb & Berthel.

*Sempervivum ×spurium* Haw. (pro var. of *calyciforme* = *A. aureum*), *Revisiones plantarum succulentarum*: 63. 1821 nom. illeg. (Art. 53.1) [non *Sempervivum spurium* Camus].

*×Greenonium extinctum* P.V.Heath, The type of *Aeonium* Webb & Berthelot, *Calyx* **2**(2): 59. (Oct) 1992.

*Aeonium ×extinctum* (P.V.Heath) Tavorm. & S.Tavorm., *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 48. (Apr) 2006 nom. inval. (Art. 41.5) [Incomplete basionym reference].

*Etym*: From the Latin *spurius*, bastard or hybrid, replaced with the Latin *extinctum*, the passive perfect participle of *extinguere*, to extinguish.

*T*: Occurred spontaneously in the Chelsea Physic Garden, London, raised from seed taken from *A. aureum* "perhaps crossed with *A. glutinosum*".

*Obs:* A valid name in *Aeonium* does not exist for this taxon. As it is a hybrid of cultivated origin and not known today, the need for a name seems scarcely necessary.

**×gordonii**

*Par:* *Aeonium dodrantale* (Willd.) Mes × *Aeonium haworthii* Webb & Berthel.

*Greenovia dodrantalis* (Willd.) Webb & Berthel. × *Aeonium haworthii* Webb & Berthel., in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 460, 486-487, t.14, fig. 25. (24 Sep) 1929.

*Greenonium ×rowleyi* Bramwell, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 7. (Mar) 1973.

*Aeonium ×gordonii* Tavorm. & S.Tavorm., *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 50. (Apr) 2006 nom. inval. (Art. 41.5) [Intended as a replacement name, but there was no complete reference to the basionym.]

*Aeonium ×gordonii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 13. (Oct) 2007.

*Etym:* Named for the English botanist Gordon Douglas ROWLEY (1921- ).

*T:* Islas Canarias, Tenerife, nr. Carrizal; *Oscar BURCHARD*.

*HT:* Sketch of plant & leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 487, t.15, fig. 26. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

**×hawbicum**

*Par:* *Aeonium haworthii* Webb & Berthel. × *Aeonium urbicum* (Hornem.) Webb & Berthel.

*Aeonium haworthii* Webb & Berthel. × *Aeonium urbicum* (Hornem.) Webb & Berthel., Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 474, t.11, fig. 15. (24 Sep) 1929.

*Aeonium ×hawbicum* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Aeonium mixtum* P.V.Heath, The type of *Aeonium* Webb & Berthelot, *Calyx* **2**(2): 57. (Oct) 1992 nom. illeg. (Art. 52.1).

*Etym:* Condensed formula.

*T:* Islas Canarias, Tenerife, Los Silos Distr., 150-600m; 1924, *R. Lloyd PRAEGER*.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 474, t.11, fig. 15. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

×*hernandezii*

*Par*: *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium haworthii* Webb & Berthel.

*Aeonium ×hernandezii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 13. (Oct) 2007. [Based on *Aeonium canariense* (L.) Webb & Berthel. var. *canariense* × *Aeonium volkeri* E.Hern. & Bañares (= *A. haworthii* Webb & Berthel.)]

*Etym*: Named for Efraín HERNÁNDEZ.

*T*: Islas Canarias, Tenerife, Anaga, Barranco del Balayo; May 1996, Ángel BAÑARES & Efraín HERNÁNDEZ.

*HT*: TFC 43.440.

×*holospathulatum*

*Par*: *Aeonium holochrysum* Webb & Berthel. × *Aeonium spathulatum* (Hornem.) Praeger  
[or *Aeonium arboreum* (L.) Webb & Berthel. × *Aeonium spathulatum* (Hornem.) Praeger if *holochrysum* is included in *arboreum*]

*Aeonium ×holospathulatum* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 66, 68. (Jun) 1986.

*Etym*: Condensed formula.

*T*: Islas Canarias, Tenerife, Santa Cruz de Tenerife Prov., Arafo, 950m; Mar 1981, Ángel BAÑARES.

*HT*: TFC 19.949.

*Obs*: The correct name for *Aeonium arboreum* × *Aeonium spathulatum* when *holochrysum* is not used at specific rank.

×*hybridum*

*Par*: *Aeonium simsii* (Sweet) Stearn × *Aeonium spathulatum* (Hornem.) Praeger

*Sempervivum ciliare* var. *hybridum* Haw., *Revisiones plantarum succulentarum*: 64. 1821 [as *Sempervivum ciliare* × *S. lineolare*].

*Sempervivum hybridum* (Haw.) Sweet, *Hortus britannicus*: 180. 1826.

*Aeonium* × *hybridum* (Haw.) G.D.Rowley, *Aeonium simsii* × *A. spathulatum*, *Taxon* **18**(5): 484. (Aug) 1969.

*Etym*: An adjective *hybridus*, derived from the Latin noun *hybrida*, a mongrel.

*T*: Based on a plant in the collection of Mr. Law in 1820, believed to have arisen in cultivation. It has not been typified, but is well supported by the illustration of Praeger, *An account of the Sempervivum group*: 198. (Aug) 1932.

*Obs*: *Aeonium barbatum* Webb & Berthel. (1840) & *Aeonium floribundum* A.Berger (1930) were said to be heterotypic synonyms by Rowley (1969: 484).

### ×*isorense*

*Par*: *Aeonium hierrense* (R.P.Murray) Pit. & Proust × *Aeonium holochrysum* Webb & Berthel.

[or *Aeonium arboreum* (L.) Webb & Berthel. × *Aeonium hierrense* (R.P.Murray) Pit. & Proust if *holochrysum* is included in *arboreum*.

*Aeonium* × *isorense* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III, *Vieraea* **25**: 184-186. 1996 (publ. 1997).

*Etym*: Named for its type locality in the Barranco de Isora, El Hierro.

*T*: Islas Canarias, El Hierro, Barranco de Isora, on the east coast, 975m; Mar 1993, Ángel BAÑARES.

*HT*: TFC 37.968.

### ×*jacobsenii*

*Par*: *Aeonium hierrense* (R.P.Murray) Pit. & Proust × *Aeonium palmense* Webb ex H.Christ

[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium hierrense* (R.P.Murray) Pit. & Proust when *A. palmense* is considered to be included in *A. canariense*. (Art. H.5.2)]

*Sempervivum hierrense* R.P.Murray × *Sempervivum palmense* (H.Christ) H.Christ, Praeger, Notes on Canarian and Madeiran Semperviva, *Transactions of the Botanical Society of Edinburgh* **29**: 200. 1925 nom. nud.

*Aeonium hierrense* (R.P.Murray) Pit. & Proust × *Aeonium palmense* H.Christ, Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 475, t.11, fig. 12. (24 Sep) 1929.



*Aeonium ×jacobsenii* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Etym*: Named for Hermann Johannes Heinrich JACOBSEN (1898-1978).

*T*: Islas Canarias, Hierro, widespread around the north coast; 1924, *R. Lloyd PRAEGER*.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 475, t.11, fig. 12. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

### ×*junionae*

*Par.* *Aeonium ciliatum* Webb & Berthel. × *Aeonium palmense* Webb ex H.Christ [or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium ciliatum* Webb & Berthel. when *A. palmense* is considered to be included in *A. canariense* (Art. H.5.2), or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium davidbramwellii* H.-Y.Liu if *davidbramwellii* is considered to be different from *ciliatum*.]

*Sempervivum christii* Praeger nom. illeg. [= *Aeonium palmense* H.Christ] × *Sempervivum "urbicum"*, Praeger, Notes on Canarian and Madeiran Semperviva, *Transactions of the Botanical Society of Edinburgh* **29**: 200. 1925 nom. nud.

*Aeonium ciliatum* Webb & Berthel. × *Aeonium palmense* Webb ex H.Christ, Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 471, t.10, fig. 8. (24 Sep) 1929.

*Aeonium ×junionae* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Etym*: Not explained. Some authors have assumed that it derives from the Latin name for the island of La Palma, Junonia Major, but that is not certain. Rowley continued to use the original spelling so it was intentional and therefore should not be 'corrected'. Rowley's sense of humour is such that he may have decided to make Juniona an anagram of Junonia, and specific epithets can be arbitrarily formed from any source whatsoever (Art. 23.2).

*T*: Islas Canarias, La Palma, frequent where both parents occur together; 1924, *R. Lloyd PRAEGER*.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 471, t.10, fig. 8. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

*Obs*: In the Barranco Angustias, the presence of many plants "of identical character" suggests that they are allopolyploids at that location.

×*kunkelii*

*Par.* *Aeonium ciliatum* Webb & Berthel. × *Aeonium holochrysum* Webb & Berthel.  
 [or *Aeonium arboreum* (L.) Webb & Berthel. × *Aeonium ciliatum* Webb & Berthel.  
 when *Aeonium holochrysum* is considered to be included in *A. arboreum*,  
 or *Aeonium davidbramwellii* H.-Y.Liu × *Aeonium holochrysum* Webb & Berthel.  
 when *davidbramwellii* is segregated from *ciliatum*,  
 or *Aeonium arboreum* (L.) Webb & Berthel. × *Aeonium davidbramwellii* H.-Y.Liu  
 when *Aeonium holochrysum* is considered to be included in *A. arboreum*, &  
*davidbramwellii* is segregated from *ciliatum*]

*Aeonium ciliatum* Webb & Berthel. × *Aeonium holochrysum* Webb & Berthel.,  
 Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 470, t.10, fig. 9. (24 Sep) 1929.

*Aeonium* ×*kunkelii* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Etym*: Named for Günther W. H. KUNKEL (1928-2007).

*T*: Islas Canarias, La Palma, Barranco Angustias; 1924, R. Lloyd PRAEGER.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 470, t.10, fig. 9. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

×*lambii*

*Par.* *Aeonium palmense* Webb ex H.Christ × *Aeonium valverdense* (Praeger) Praeger  
 [or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium valverdense* (Praeger)  
Praeger when *A. palmense* is considered to be included in *A. canariense*. (Art. H.5.2)]

*Sempervivum canariense* L. × *Sempervivum valverdense* Praeger, Notes on Canarian and Madeiran Semperviva, *Transactions of the Botanical Society of Edinburgh* **29**: 200. 1925 nom. nud.

*Aeonium palmense* Webb ex H.Christ × *Aeonium valverdense* (Praeger) Praeger,  
 Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 478-479, t.12, fig. 16. (24 Sep) 1929.

*Aeonium* ×*lambii* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Aeonium edgarrii* P.V.Heath, The type of *Aeonium* Webb & Berthelot, *Calyx* **2**(2): 58. (Oct) 1992 nom. illeg. (Art. 52.1).

*Etym*: Named for Edgar LAMB (1904-1980).

*T*: Islas Canarias, Hierro; 1924, *R. Lloyd PRAEGER*.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 474, t.12, fig. 16. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

×*laxiflorum*

*Par*: *Aeonium decorum* Bolle × *Aeonium diplocycla* (Bolle) Mes

×*Greenonium laxiflorum* Macarrón & Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. II, *Vieraea* **18**: 68, 84, t.21. 1990.

*Aeonium* ×*laxiflorum* (Macarrón & Bañares) Tavorm. & S.Tavorm., *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 49. (Apr) 2006 nom. inval. (Art. 41.5) [Lacking complete basionym reference].

*Aeonium* ×*laxiflorum* (Macarrón & Bañares) Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 14. (Oct) 2007.

*Etym*: A compound adjective meaning loose-flowered, from the Latin *laxus*, loose, and *flos*, flower.

*T*: Islas Canarias, La Gomera, Barranco de la Laja, 550m; Mar 1987, *Jose Manuel MACARRÓN*.

*HT*: TFC 25.003.

×*lemsii*

*Par*: *Aeonium percarneum* (R.P.Murray) Pit. & Proust × *Aeonium virgineum* Webb ex H.Christ  
[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium percarneum* (R.P.Murray) Pit. & Proust when *A. virgineum* is considered to be a variety of *A. canariense*]

*Aeonium percarneum* (R.P.Murray) Pit. & Proust × *Aeonium virgineum* H.Christ, Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 479-480, t.12, fig. 19. (24 Sep) 1929.

*Aeonium* ×*lemsii* G.Kunkel, Enumeración de las plantas vasculares de Gran Canaria, *Monographiae Biologicae Canariensis* **3**(1): 40, 41. 1972.

*Etym*: Named for Kornelius LEMS (1931-1968).

*T:* Islas Canarias, Gran Canaria, Cuesta de Silva, frequent in a valley on the E side of the road; also in the barranco E of Cuesta de Silva, near the road bridge; 1924, *R. Lloyd PRAEGER*.

*HT:* Citation of two original included elements, the author's specimen and Praeger's illustration, necessitated lectotypification.

*LT:* Sketch of a leaf in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): t.12, fig.19. 1929. Designated by Bañares, *Vieraea* **35**: 14. (Oct) 2007.

*Obs:* On p.41 of the protologue Kunkel stated that material was preserved in his own private herbarium, *Herbarium kunkelianum*, but this has not been traced.

### ×*lidii*

*Par:* *Aeonium percarneum* (R.P.Murray) Pit. & Proust × *Aeonium simsii* (Sweet) Stearn

*Aeonium caespitosum* Webb & Berthel. × *Aeonium percarneum* (R.P.Murray) Pit. & Proust, Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 466-467, t.9, fig. 2. (24 Sep) 1929.

*Aeonium ×lidii* Sunding & G.Kunkel, New names in the Canary Islands' flora, *Cuadernos de Botánica Canarias* **14-15**: 49-50. 1972.

*Etym:* Named for Johannes LID.

*T:* Islas Canarias, Gran Canaria, above Las Lagunetas, on road-side banks; *Günther KUNKEL s.n.*

*HT:* Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 466, t.9, fig. 2. (24 Sep) 1929. Autotype (Art. 9.1). The only eligible included element.

*Obs:* Cited as "Hortus Acclimatationis 'Llano de la Piedra', Santa Lucía de Tirajana, Gran Canaria (ex-hort.)", with isotype at "Jardín Canario 'Viera y Clavijo', Tafira, Las Palmas de Gran Canaria. These were live plants and therefore not eligible as types. Of the two cited illustrations, the one from Burchard was included in error, not being of this parentage, leaving only one other eligible element in the protologue.

### ×*loartei*

*Par:* *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust. × *Aeonium spathulatum* (Hornem.) Praeger

*Aeonium ×loartei* Tavorm., Un nuovo ibrido endemico del Barranco de Masca, Tenerife, *Cactus & Co.* **11**(3): Collage 3-4-8. (Oct) 2007 [dated Sep but not distributed till Oct].

*Etym*: Named for Felix LOARTE Garcia.

*T*: Islas Canarias, Tenerife, Teno, Barranco de Masca, 500m.; May 2006, *Giuseppe TAVORMINA*.

*HT*: FT 418.1.

### *×lowei*

*Par*: *Aeonium glandulosum* (Aiton) Webb & Berthel. × *Aeonium glutinosum* (Aiton) Webb & Berthel.

*Sempervivum glandulosum* Aiton × *Sempervivum glutinosum* Aiton, R. P. Murray, Canarian and Madeiran Crassulaceae, *Journal of Botany* **37**: 203. 1899.

*Aeonium glandulosum* (Aiton) Webb & Berthel. × *Aeonium glutinosum* (Aiton) Webb & Berthel. Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* 38 Sect.B (1): 473, t.10, fig. 10. (24 Sep) 1929.

*Aeonium ×lowei* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973.

*Etym*: Named for Richard T. LOWE (1802-1874), a British clergyman and botanist, who was a chaplain in Madeira from 1832 to 1854.

*T*: Madeira, Seixal & Levada de San Roque; 1925, *Père J. G. COSTA*.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 473, t.10, fig. 10. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

*Ref*: *Aeonium ×meyerheimii* Bolle

### *×mascaense*

*Par*: *Aeonium haworthii* Webb & Berthel. × *Aeonium sedifolium* (Bolle) Pit. & Proust

*Aeonium ×mascaense* Bramwell, *Aeonium mascaense*, a new species of *Crassulaceae* from the Canary Islands, *Botanica Macaronesica* **10**: 57-58-66. 1982 (publ. 1984).

*Etym*: Named for the type locality in the Barranco de Masca.

*T*: Islas Canarias, Tenerife, Barranco de Masca, 400m; 26 Mar 1969, *David BRAMWELL 1386*.

*HT*: JVC.

**×meridionale**

*Par*: *Aeonium davidbramwellii* H.-Y.Liu × *Aeonium spathulatum* (Hornem.) Praeger [or *Aeonium ciliatum* Webb & Berthel. × *Aeonium spathulatum* (Hornem.) Praeger when *A. davidbramwellii* is considered to be included in *A. ciliatum*. (Art. H.5.2)]

*Aeonium ciliatum* Webb & Berthel. × *Aeonium spathulatum* (Hornem.) Praeger, in A. Santos-Guerra, *Vegetacion y flora de La Palma*: 181, 183. 1983.

*Aeonium ×meridionale* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. II, *Vieraea* **18**: 68. 1990 ("×meridionalis") nom. inval. (Art. 39.1).

*Aeonium ×meridionale* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos IV, *Vieraea* **35**: 14. (Oct) 2007.

*Etym*: A Latin adjective, *meridionalis*, southern.

*T*: Islas Canarias, La Palma, Las Manchas, 500m.; Apr 1993, *Ángel BAÑARES & O. BERMÚDEZ*.

*HT*: TFC 37.975 (as *A. urbicum* var. *meridionale*).

**×meyerheimii**

*Par*: *Aeonium glandulosum* (Aiton) Webb & Berthel. × *Aeonium glutinosum* (Aiton) Webb & Berthel.

*Aeonium ×meyerheimii* Bolle, *Addenda Atlantidis, praecipue insularum Canariensium Gorgadumque, Bonplandia* **7**: 239. 1859 pro sp.

*Sempervivum ×meyerheimii* (Bolle) R.P.Murray, *Canarian and Madeiran Crassulaceae, Journal of Botany* **37**: 203. 1899 pro sp.

*Etym*: Named for Claus Paul MEYERHEIM ( -1859), the young artist who drew this plant for the author before dying prematurely on 19 Jul 1859.

*T*: Madeira, among rocks in full sun not far from the town of Funchal; autumn 1856, *Claus Nicola KROHN*.

*HT*: B.

*IT*: BM.

***×nogalesii***

*Par*: *Aeonium palmense* H. Christ × *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust.

[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust. if *palmense* is considered to be part of *canariense*]

*Aeonium ×nogalesii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 61, 62. (Jun) 1986.

*Etym*: Named for Manuel NOGALES Hidalgo.

*T*: Islas Canarias, La Palma, El Time; Jul 1980, Manuel NOGALES & Ángel BAÑARES.

*HT*: TFC 19.938.

***×nogalesii dasyphyllum***

*Par*: *Aeonium canariense* (L.) Webb & Berthel. [var. *canariense*] × *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust.

*Aeonium ×nogalesii* nothovar. *dasyphyllum* Bañares & Macarrón, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III, *Vieraea* **25**: 187, 188. 1996 (publ. 1997).

*Etym*: From the Greek prefix *dasy-*, densely hairy, and *-phyllus*, leaved.

*T*: Islas Canarias, Tenerife, Barranco de Masca; Nov 1992, J. M. MACARRÓN Machado & Ángel BAÑARES.

*HT*: TFC 37.970.

***×occidentale***

*Par*: *Aeonium goochiae* Webb & Berthel. × *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust.

*Aeonium goochiae* Webb & Berthel. × *Aeonium sedifolium* (Webb ex Bolle) Pit. & Proust., in A. Santos-Guerra, *Vegetacion y flora de La Palma*: 177, 179-180. 1983.

*Aeonium ×occidentale* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos II, *Vieraea* **18**: 68. 1990 ("×occidentalis") nom. inval. (Art. 39.1).

*Aeonium ×occidentale* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos IV, *Vieraea* **35**: 14. (Oct) 2007.

*Etym*: A Latin adjective, *occidentalis*, western.

*T*: Islas Canarias, La Palma, El Time; Mar 1980, Ángel BAÑARES & M. NOGALES.

*HT*: TFC 19.936.

### ***×ombriosum***

*Par*: *Aeonium hierrense* (R.P.Murray) Pit. & Proust × *Aeonium valverdense* (Praeger) Praeger

*Sempervivum hierrense* R.P.Murray × *Sempervivum valverdense* Praeger, Praeger, Notes on Canarian and Madeiran Semperviva, *Transactions of the Botanical Society of Edinburgh* **29**: 200. 1925 (without description).

*Aeonium hierrense* (R.P.Murray) Pit. & Proust × *Aeonium valverdense* (Praeger) Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* 38 Sect.B (1): 475-476. (24 Sep) 1929.

*Aeonium ×ombriosum* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar) 1973 nom. inval. (Art. 39.1, 40.1).

*Aeonium ×ombriosum* Bramwell & G.D.Rowley ex P.V.Heath, Miscellaneous amendments, *Calyx* **5**(2): 51. (Jan) 1995.

*Etym*: Derived from Ombrios, an early Greek name for the island of Hierro.

*T*: Islas Canarias, El Hierro, Taibique, 900m; Aug 1987, Ángel BAÑARES & T. FELIPE.

*HT*: TFC 25.033.

### ***×orbelindanum***

*Par*: *Aeonium canariense* (L.) Webb & Berthel. var. *canariense* × *Aeonium pseudourbicum* Bañares  
[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium urbicum* if *pseudourbicum* is included in *urbicum*.]

*Aeonium ×orbelindanum* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III, *Vieraea* **25**: 188-190. 1996 (publ. 1997) ("orbelindense").

*Etym*: Named in dedication to Orbelinda BERMÚDEZ Domínguez.



*T:* Islas Canarias, Tenerife, Barranco de Masca, 600m; May 1991, Ángel BAÑARES.

*HT:* TFC 37.966.

*Obs:* Also found by the author in the Barranca de los Carrizales. The name termination is corrected in accordance with Art. 60.12.

**×perezii**

*Par:* *Aeonium decorum* Bolle × *Aeonium urbicum* (Hornem.) Webb & Berthel.

*Aeonium ×perezii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos II, *Vieraea* 18: 68, 81, t.18. 1990.

*Etym:* Named for Pedro Luis Pérez de Paz, botanist at the Universidad de La Laguna.

*T:* Islas Canarias, La Gomera, Barranco de Benchijigua, 600m; Apr 1985, Ángel BAÑARES.

*HT:* TFC 25.024.

**×praegeri**

*Par:* *Aeonium simsii* (Sweet) Stearn × *Aeonium undulatum* Webb & Berthel.

*Aeonium caespitosum* Webb & Berthel. × *Aeonium undulatum* Webb & Berthel., Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* 38 Sect.B (1): 467, t.9, fig. 3. (24 Sep) 1929.

*Aeonium ×praegeri* G.Kunkel, Notas misceláneas: Nombre nuevo para un híbrido: *Aeonium ×praegeri*, *Cuadernos de Botánica Canarias* 5: 50-51 ("praegerii").

*Etym:* Named for its discoverer Robert Lloyd PRAEGER (1865-1953).

*T:* Islas Canarias, Gran Canaria, Tenteniguada, Baranco Umbrada, Cueva del Corcho, 960m.; 1924, R. Lloyd PRAEGER.

*HT:* Sketch of leaf in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* 38 Sect.B (1): 467, t.9, fig. 3. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

**×proliferum**

*Par:* *Aeonium davidbramwellii* H.-Y.Liu × *Aeonium hierrense* (R.P.Murray) Pit. & Proust

[or *Aeonium ciliatum* Webb & Berthel. × *Aeonium hierrense* (R.P.Murray) Pit. & Proust if *davidbramwellii* is not considered to be distinct from *ciliatum*]

*Aeonium ×proliferum* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos IV, *Vieraea* **35**: 15, 24, t.4. (Oct) 2007.

*Etym*: A Latin adjective, *prolifer*, offsetting.

*T*: Islas Canarias, La Palma, Los Llanos District, Jedey, 4km S of Las Manchas; May 1997, Ángel BAÑARES.

*HT*: TFC 43.439.

***×proliferum glabrifolium***

*Par*: As for *Aeonium ×proliferum*.

*Aeonium ×proliferum* var. *glabrifolium* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos IV, *Vieraea* **35**: 15-16, 25, t.5. (Oct) 2007.

*Etym*: A compound adjective formed from the Latin *glaber*, hairless, and *-folius*, -leaved.

*T*: Islas Canarias, La Palma, around Volcán Teneguía at the southernmost tip of the island; Apr 1996, Ángel BAÑARES.

*HT*: TFC 43.441.

***×pseudohawbicum***

*Par*: *Aeonium haworthii* Webb & Berthel. *× Aeonium pseudourbicum* Bañares [or *Aeonium haworthii* Webb & Berthel. *× Aeonium urbicum* if *pseudourbicum* is not considered to be distinct from *urbicum*]

*Aeonium ×pseudohawbicum* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III. *Vieraea* **25**: 190-181. 1996 (publ. 1997). [Based on *Aeonium haworthii* Webb & Berthel. *× Aeonium pseudourbicum* Bañares]

*Etym*: From the Greek prefix *pseudo-*, false, and a condensed formula.

*T*: Islas Canarias, Tenerife, nr. Las Portelas, 800m; May 1994, Ángel BAÑARES

*HT*: TFC 37.972.

*Obs*: When *Aeonium pseudourbicum* Bañares is treated as being the same as *Aeonium urbicum* (Hornem.) Webb & Berthel., this taxon becomes an illegitimate synonym of *Aeonium ×hawbicum* Bramwell & G.D.Rowley (1973).

**×riosjordanae**

*Par:* *Aeonium aureum* (Hornem.) Mes × *Aeonium simsii* (Sweet) Stearn

×*Greenonium riosjordanae* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. II, *Vieraea* **18**: 71-72, 85, t.22. 1990 ("riosjordanii")

*Aeonium* ×*riosjordanae* (Bañares) Tavorm. & S.Tavorm., *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 49-50. (Apr) 2006 ("riosjordanii") nom. inval. (Art. 41.5) [Lacking complete basionym reference].

*Aeonium* ×*riosjordanae* (Bañares) Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 16. (Oct) 2006 ("rios-jordanae").

*Etym:* Named for Carlos RIOS JORDANA, a connoisseur of Canary Islands *Crassulaceae*.

*T:* Islas Canarias, Gran Canaria, Barranco de los Peñones, Cueva Corcha, 1000m; May 1986, *Carlos RIOS JORDANA*.

*HT:* TFC 25.042.

*Obs:* The original spelling without a hyphen is to be retained, despite the author's attempt to introduce one in 2006.

**×robustum**

*Par:* *Aeonium davidbramwellii* H.-Y.Liu × *Aeonium nobile* (Praeger) Praeger [or *Aeonium ciliatum* Webb & Berthel. × *Aeonium nobile* (Praeger) Praeger if *A. davidbramwellii* is included in *A. ciliatum*]

*Aeonium* ×*robustum* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 16, 26, t.6. (Oct) 2007.

*Etym:* A Latin adjective, *robustus*, robust.

*T:* Islas Canarias, La Palma, near Tijarafe; May 2001, *Ángel BAÑARES & O. BERMÚDEZ*.

*HT:* TFC 43.436.

**×rowleyi**

*Par: Aeonium smithii (Sims) Webb & Berthel. × Aeonium spathulatum (Hornem.) Praeger*

*Sempervivum smithii* Sims × *Sempervivum strepsicladum* (Webb & Berthel.) Webb ex H.Christ, Bornmüller, Ergebnisse zweier botanischer Reisen nach Madeira und den Canarischen Inseln. In Engler, A., *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* **33**(3): 432. (8 Dec) 1903 (without description).

*Aeonium smithii* (Sims) Webb & Berthel. × *Aeonium spathulatum* (Hornem.) Praeger, Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 481, t.13. (24 Sep) 1929.

*Aeonium ×rowleyi* Bramwell, in Jacobsen & Rowley, Some name changes in succulent plants, Part V., *National Cactus and Succulent Journal* **28**: 5. (Mar) 1973.

*Etym:* Named for the English botanist Gordon Douglas ROWLEY (1921- ).

*T:* Islas Canarias, Tenerife, Vilaflor; 1924, R. Lloyd PRAEGER.

*HT:* Sketch of a branch & leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): t.13, fig.21. (24 Sep) 1929.

*Obs:* There were 2 original elements: Praeger's sketch & Murray's BM specimen, from which Praeger chose his sketch to represent the type: "The Vilaflor plant [fig. 21] is more intermediate between the parents, and I take it as type".

Praeger reported a quite different form in the barranco El Valle above Güimar. Bañares (1995) also found it in the Barranco de Tabaiba.

**×sanchezii**

*Par: Aeonium rubrolineatum Svent. × Aeonium spathulatum (Hornem.) Praeger [or Aeonium arboreum (L.) Webb & Berthel. × Aeonium spathulatum (Hornem.) Praeger if rubrolineatum is included in arboreum]*

*Aeonium ×sanchezii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 66, 67. (Jun) 1986. [This name applies when *rubrolineatum* & *holochrysum* are treated as independent species.]

*Aeonium ×holospathulatum* nothovar. *sanchezii* (Bañares) Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III., *Vieraea* **25**: 184. 1996 (publ. 1997). [This combination applies when *rubrolineatum* & *holochrysum* are treated as infraspecies of *arboreum*.]

*Etym:* Named for Isidoro SÁNCHEZ García, Director of Conservation, Parque Nacional de Garajonay, La Gomera.

*T*: Islas Canarias, La Gomera, Roque de Agando, c.5km WNW of San Sebastián de la Gomera, 1000m; Jul 1982, Ángel BAÑARES.

*HT*: TFC 19.945.

×*sanctisebastiani*

*Par*: *Aeonium saundersii* Bolle × *Aeonium subplanum* Praeger  
[or *Aeonium canariense* (L.) Webb & Berthel. when *A. subplanum* is considered to be included in *A. canariense*. (Art. H.5.2)]

*Sempervivum canariense* L. × *Sempervivum saundersii* (Bolle) H.Christ, Praeger, Notes on Canarian and Madeiran Semperviva, *Transactions of the Botanical Society of Edinburgh* **29**: 200. 1925 (without description).

*Aeonium saundersii* Bolle × *Aeonium subplanum* Praeger, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 480, t.12, fig. 20. (24 Sep) 1929.

*Sempervivum canariense* var. *latifolium* Burchard × *Sempervivum saundersii* (Bolle) H.Christ, in Burchard, Beiträge zur Ökologie und Biologie der Kanarenpflanzen, *Bibliotheca Botanica* **98**: 119, 138, t.34. 1929.

*Aeonium* ×*sanctisebastiani* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V., *National Cactus and Succulent Journal* **28**: 5. (Mar) 1973 ("×*sanctisebastianii*").

*Etym*: Named for San Sebastián de la Gomera, municipal capital of La Gomera. Having been latinised, the genitive has only one *i*. The authors chose not to hyphenate the separate elements of the name so that is to be maintained.

*T*: Islas Canarias, La Gomera, in the barranca below La Laja, c.8km WNW of San Sebastián de la Gomera; *R*. Lloyd PRAEGER.

*HT*: Sketch of a rosette, leaf & flower, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 480, t.12, fig. 20. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

×*santosianum*

*Par*: *Aeonium goochiae* Webb & Berthel. × *Aeonium palmense* Webb ex H.Christ.  
[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium goochiae* Webb & Berthel. when *A. palmense* is considered to be included in *A. canariense*. (Art. H.5.2)]

*Aeonium goochiae* Webb & Berthel. × *Aeonium palmense* Webb ex H.Christ, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 474, t.11. (24 Sep) 1929.

*Aeonium ×santosianum* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V., *National Cactus and Succulent Journal* **28**: 5. (Mar) 1973.

*Etym*: Named in honour of Arnaldo SANTOS-Guerra (1948- ).

*T*: Islas Canarias, La Palma, Barranco de las Quinteras, W of Santa Cruz de La Palma; 1924, R. Lloyd PRAEGER.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 474, t.11, fig. 13. (24 Sep) 1929. Autotype (Art. 9.1). The only included element.

### *×septentrionale*

*Par*: *Aeonium aureum* (Hornem.) Mes × *Aeonium undulatum* Webb & Berthel.

*Aeonium ×septentrionale* Bañares & C.Ríos, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 17, 27, t.7. (Oct) 2007.

*Etym*: A Latin adjective, *septentrionalis*, northern.

*T*: Islas Canarias, Gran Canaria, Caldera de Tentinguada; May 1986, Carlos Ríos.

*HT*: TFC 43.444.

### *×splendens*

*Par*: *Aeonium hierrense* (R.P.Murray) Pit. & Proust × *Aeonium nobile* (Praeger) Praeger

*Aeonium ciliatum* Webb & Berthel. × *Aeonium nobile* (Praeger) Praeger, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 470-471, t.11, fig.11. 1929.

*Aeonium ×splendens* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V., *National Cactus and Succulent Journal* **28**: 5. (Mar) 1973 nom. inval. (Art. 40.1) [Of the 2 cited illustrations, none was selected as the type.]

*Aeonium ×splendens* Bramwell & Rowley ex P.V.Heath, The type of *Aeonium* Webb & Berthelot, *Calyx* **2**(2): 58. (Oct) 1992.

*Etym*: A Latin adjective, *splendens*, gleaming.

*T*: Islas Canarias, La Palma, Barranco de los Gomereros; R. Lloyd PRAEGER.

*HT*: Sketch of leaf, in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 470, t.11, fig.11. 1929.

*Obs.* Originally thought to be *Aeonium ciliatum* Webb & Berthel. × *Aeonium nobile* (Praeger) Praeger, but according to Bañares (2007) it is correctly *Aeonium hierrense* (R.P.Murray) Pit. & Proust × *Aeonium nobile* (Praeger) Praeger. The re-evaluation of the parentage does not affect the name of this nothospecies (Art. H.10 Note 2).

### ×*sventenii*

*Par:* *Aeonium manriqueorum* Bolle × *Aeonium simsii* (Sweet) Stearn  
[or *Aeonium arboreum* (L.) Webb & Berthel. × *Aeonium simsii* (Sweet) Stearn when *A. manriqueorum* is considered to be included in *A. arboreum*. (Art. H.5.2)]

*Aeonium manriqueorum* Bolle × *Aeonium simsii* (Sweet) Stearn, Praeger, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 466, t.9, fig. 1. (24 Sep) 1929.

*Aeonium* ×*sventenii* G.Kunkel, Enumeración de las plantas vasculares de Gran Canaria, *Monographiae Biologicae Canariensis* **3**(1): 40, 41. 1972 nom. inval. (Art. 40.1) [Citation of two original included elements, the author's specimen and Praeger's illustration, without nomination of a type].

*Aeonium* ×*sventenii* G.Kunkel ex Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias, *Vieraea* **35**: 17. (Oct) 2007.

*Etym:* Named for Eric Ragnar SVENSSON (1910-1973), Director of the Jardín Canario "Viera y Clavijo", who preferred to be known by the latinised form of his surname, SVENTENIUS.

*T:* Islas Canarias, Gran Canaria, Barranco Umbrada (most eastern valley of Tenteniguada), 960m.; 1924, R. Lloyd PRAEGER.

*HT:* Sketch of a leaf in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): t.9, fig.1. 1929.

*Obs:* On p.41 of Kunkel's Enumeration he stated that material was preserved in his own private herbarium, *Herbarium kunkelianum*, but this has not been traced. *Sempervivum caespitosum* Otto nom. illeg. [= *Aeonium caespitosum* Webb & Berthel.] × *Sempervivum manriqueorum* (Bolle) H.Christ, Burchard, Beiträge zur Ökologie und Biologie der Kanarenpflanzen, *Bibliotheca Botanica* **98**: 140, t.37. 1929 also belongs here, although it is not an element of the protologue.

### ×*tabulicum*

*Par:* *Aeonium tabuliforme* (Haw.) Webb & Berthel. × *Aeonium urbicum* (Hornem.) Webb & Berthel.

*Aeonium tabuliforme* (Haw.) Webb & Berthel. × *Aeonium urbicum* (Hornem.) Webb & Berthel., in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 483, t.14, fig.23. 1929.

*Aeonium ×tabulicum* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V., *National Cactus and Succulent Journal* **28**: 5. (Mar) 1973.

*Etym*: Condensed formula.

*T*: Islas Canarias, Tenerife, above Los Silos; *R. Lloyd PRAEGER*.

*HT*: Sketch of a leaf in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 483, t.14, fig.23. 1929.

### *×tenense*

*Par*: *Aeonium ciliatum* Webb & Berthel. × *Aeonium haworthii* Webb & Berthel.

*Aeonium ciliatum* Webb & Berthel. × *Aeonium haworthii* Webb & Berthel., in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 470, t.10, fig.7. 1929.

*Aeonium tenense* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V., *National Cactus and Succulent Journal* **28**: 5. (Mar) 1973 ("tenensis").

*Etym*: Named for Teno, the municipality on the extreme W of Tenerife, in which the type locality lies.

*T*: Islas Canarias, Tenerife, on the Montaña de Taco, a low hill c.2km to the NW of Los Silos.

*HT*: Sketch of a leaf in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 470, t.10, fig.7. 1929. Autotype (Art. 9.1). The only included element.

### *×teneriffae*

*Par*: *Aeonium ciliatum* Webb & Berthel. × *Aeonium urbicum* (Hornem.) Webb & Berthel.

*Aeonium ciliatum* Webb & Berthel. × *Aeonium urbicum* (Hornem.) Webb & Berthel., in Praeger, Semperviva of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 471-472. 1929; Praeger, *An account of the Sempervivum group*: 186. (Aug) 1932.

*Aeonium ×teneriffae* Bramwell & G.D.Rowley, in Jacobsen & Rowley, Some name changes in succulent plants, Part V., *National Cactus and Succulent Journal* **28**: 5. (Mar) 1973 nom. inval. (Art. 39.1, 40.1). [Praeger did not provide a Latin description or any illustration.]



*Aeonium ×teneriffae* Bramwell & G.D.Rowley ex P.V.Heath, Miscellaneous amendments, *Calyx* **5**(2): 51. (Jan) 1995.

*Etym*: From the latinised form of Tenerife, *teneriffa*.

*T*: Islas Canarias; Jul 1994, Ángel BAÑARES.

*HT*: TFC 25.026.

### *×tjarafense*

*Par*: *Aeonium ciliatum* Webb & Berthel. × *Aeonium diplocyclum* (Webb ex Bolle)

Mes

[or *Aeonium davidbramwellii* H.-Y.Liu × *Aeonium diplocyclum* (Webb ex Bolle)

Mes if *davidbramwellii* is considered to be distinct from *ciliatum*]

*×Greenonium tjarafense* A.Santos, *Vegetacion y flora de La Palma*: 184, 187. 1983.

*Aeonium ×tjarafense* (A.Santos) Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos III, *Vieraea* **25**: 190. 1996 ("tjarafensis").

*Etym*: Named for Tijarafe, La Palma.

*T*: Islas Canarias, La Palma, rare in the vicinity of Tijarafe; A. SANTOS.

*HT*: Photo of a flowering plant in habitat, on p.187 of the protologue. Autotype (Art. 9.1). The only included element.

### *×timense*

*Par*: *Aeonium nobile* (Praeger) Praeger × *Aeonium palmense* Webb ex H.Christ

[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium nobile* (Praeger) Praeger when *A. palmense* is considered to be included in *A. canariense*. (Art. H.5.2)]

*Aeonium nobile* (Praeger) Praeger × *Aeonium palmense* Webb ex H.Christ, in A. Santos-Guerra, *Vegetacion y flora de La Palma*: 175, 177. 1983.

*Aeonium ×timense* Bañares & Macarrón, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos II, *Vieraea* **18**: 68. 1990 ("×timensis") nom. inval. (Art. 39.1).

*Aeonium ×timense* Bañares & Macarrón ex Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos IV, *Vieraea* **35**: 68. (Oct) 2007.

*Etym*: Named for El Time, near Tijarafe, La Palma.

*T*: Islas Canarias, La Palma, nr. Tijarafe; May 2003, Ángel BAÑARES

*HT*: TFC 43.420.

*×uhlii*

*Par*: *Aeonium aureum* (Hornem.) Mes × *Aeonium diplocyclum* (Bolle) Mes

*Greenovia aurea* (Hornem.) Webb & Berthel. × *Greenovia diplocycla* Bolle, in Uhl, The chromosomes of the *Sempervivoideae* (Crassulaceae), *American Journal of Botany* **48**(2): 117, 121. (Feb) 1961.

*Aeonium ×uhlii* Tavorm. & S.Tavorm., *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 49. (Apr) 2006 nom. inval. (Art. 40.7). [Place of conservation of type not specified]

*Aeonium ×uhlii* Tavorm. & S.Tavorm. ex Mottram **nothosp. nov.** 2015 Validated here by reference to the description of Tavormina, *Piante Grasse* **26**(2): 49. (Apr) 2006, and typified as shown below.

*Etym*: Named for Charles Harrison UHL (1918-2010), American botanist and specialist in *Crassulaceae*.

*T*: Islas Canarias, El Hierro, SSW of Valverde, c.2500ft; 30 Jul 1957, O. N. Gillie in Charles H. UHL U716. "Rare, growing on one side of a barranco. Locally frequent." Preserved by Uhl from cultivated material on 6 Feb 1960.

*HT*: BH.

*Obs*: The type is also in cultivation at Edinburgh Botanic Garden sub 2789 (as *Greenovia diplocycla*). A tetraploid intermediate between the parents, which might therefore be an allopolyploid. It is not essential to treat such plants as nothotaxa, and usage of the name without the multiplication sign is permitted. Indication of the holotype was given by Tavormina as a rather cryptic reference to Uhl's 1961 article in which Uhl's voucher, U716, is cited. This could be accepted as being a reference to the single herbarium specimen made by Uhl mentioned above, but unfortunately the name of the herbarium was not specified by either Uhl or Tavormina.



*Aeonium ×uhlii* Tavorm. & S.Tavorm. ex Mottram holotype. © Image supplied and reproduced with the kind permission of the L. H. Bailey Hortorium Herbarium, Cornell University, Ithaca, New York.

**×vanhoofstadtii**

*Par:* *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium tabuliforme* (Haw.) Webb & Berthel.

*Aeonium* ×*vanhoofstadtii* A.Leroy, *Cactussen en Vetplanten* (Wijnegem) **21**(5): 74-75. 2004 nom. inval. (Art. 39.1, 40.1).

**×vegamorae**

*Par:* *Aeonium subplanum* Praeger × *Aeonium viscatum* Bolle  
[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium viscatum* Bolle if *subplanum* is considered to be part of *canariense*;  
or *Aeonium subplanum* Praeger × *Aeonium lindleyi* Webb & Berthel. if *viscatum* is considered to be part of *lindleyi*;  
or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium lindleyi* Webb & Berthel. where both names are sunk.]

*Aeonium subplanum* Praeger × *Aeonium viscatum* Bolle, in Praeger, *Semperviva of the Canary Islands area*, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 482-483. 1929.

*Aeonium* × *vegamorae* Bramwell & G.D.Rowley, in Jacobsen & Rowley, *Some name changes in succulent plants, Part V., National Cactus and Succulent Journal* **28**: 5. (Mar) 1973 ("vegamorai").

*Etym:* Named for José Luis VEGA Mora.

*T:* Islas Canarias, La Gomera, Degollada de San Sebastián, 540m.; *R.* Lloyd PRAEGER.

*HT:* Sketch of a leaf in Praeger, *Semperviva of the Canary Islands area*, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 482, t.12, fig.18. 1929. Autotype (Art. 9.1). The only included element.

**×velutinum**

*Par:* *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium simsii* (Sweet) Stearn

*Sempervivum* ×*velutinum* N.E.Br., *Sempervivum velutinum*, N. E. Brown, *The Gardener's Chronicle* Ser.3 **30**: 318. (2 Nov) 1901 pro sp.

*Aeonium caespitosum* Webb & Berthel. × *Aeonium canariense* (L.) Webb & Berthel., Praeger, *On some doubtful species of the African section of the Sempervivum group*, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 22. (Feb) 1928.

*Aeonium* ×*velutinum* (N.E.Br.) Praeger, *An account of the Sempervivum group*: 194. (Aug) 1932.

*Etym*: A Latin adjective, *velutinus*, velvety.

*T*: Based on a plant of cultivated origin arising in the Jardin des Plantes, Muséum national d'histoire naturelle, Paris, in 1824.

*HT*: K.

**×voggenreiteri**

*Par*: *Aeonium aureum* Hornem. × *Aeonium spathulatum* (Hornem.) Praeger

*Aeonium spathulatum* (Hornem.) Praeger × *Greenovia aurea* (Hornem.) Webb & Berthel. in B.M.Lamb, Canary Island succulents, *Cactus and Succulent Journal* (US) **39**(3): 95-96. (May-Jun) 1967.

*Aeonio-greenovia × lambii* Voggenr., Geobotanische Untersuchungen an der natürlichen Vegetation der Kanareninsel Tenerife (Anhang: Vergleiche mit La Palma und Gran Canaria) als Grundlage für den Naturschutz, *Dissertationes Botanicae* **26**: 317-318, 324. 1974.

*Greenonium × lambii* (Voggenr.) Voggenr., *Cuadernos de Botánica Canaria* **25**: 15. 1975.

*Aeonium ×voggenreiteri* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III., *Vieraea* **25**: 192. 1997 ("voggenreiterii").

*Aeonium ×lambii* (Voggenr.) Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. IV., *Vieraea* **35**: 9. 2006 (publ. 1997). nom. illeg. (Art. 53.1).

*Etym*: Named for the horticulturist Brian M. LAMB, who first described and illustrated this taxon, then replaced with the name of its original author, Volker Voggenreiter.

*T*: Photo in Lamb, Canary Island succulents, *Cactus and Succulent Journal* (US) **39**(3): 95. (May-Jun) 1967. [cited in the protologue on p.317]. Autotype (Art. 9.1). The only included original element.

*Obs*: A specimen TFC 37.971 was gathered by Bañares in Apr 1993. It is labelled as holotype, but the replaced synonym already has a type that is automatically the type of the replacement *Aeonium ×voggenreiteri*, in accordance with Art. 7.4.

**×wildpretii**

*Par*: *Aeonium palmense* H. Christ × *Aeonium holochrysum* Webb & Berthel. 'Vestitum')

[or *Aeonium canariense* (L.) Webb & Berthel. × *Aeonium holochrysum* (Webb ex Bolle) Pit. & Proust. if *palmense* is considered to be part of *canariense*;

or *Aeonium arboreum* (L.) Webb & Berthel. × *Aeonium palmense* H. Christ if *holochrysum* is considered as included in *arboreum*;  
or *Aeonium arboreum* (L.) Webb & Berthel. × *Aeonium canariense* (L.) Webb & Berthel. when both are sunk]

*Aeonium* × *wildpretii* Bañares, Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 61, 63-64. (Jun) 1986. [Based on *Aeonium palmense* H. Christ × *Aeonium vestitum* Svent.]

*Etym*: Named for Wolfredo WILDPRET DE LA TORRE , Professor of Botany, Universidad de La Laguna.

*T*: Islas Canarias, La Palma, Barranco de La Herradura, 400m; Jun 1980, *Manuel NOGALES & Ángel BAÑARES*.

*HT*: TFC 19.941.

### Summary of hybrid formulae

This list is an overview that should help future authors to identify if they have something that is new to science.

Attention should be drawn particularly to Art. H.5 when parentage is of mixed rank. Authors sometimes fall foul of this rule and create names that are incorrect and cannot be applied.

- Aeonium aizoon* × *Aeonium aureum*: ×**aureozoon** (1973)  
*Aeonium arboreum* × *Aeonium canariense*: ×**wildpretii** (1986) [Based on *Aeonium palmense* × *Aeonium vestitum*]  
*Aeonium arboreum* × *Aeonium ciliatum*: ×**kunkelii** (1973)  
*Aeonium arboreum* × *Aeonium davidbramwellii*: ×**kunkelii** (1973)  
*Aeonium arboreum* × *Aeonium hierrense*: ×**isorense** (1997)  
*Aeonium arboreum* × *Aeonium palmense*: ×**wildpretii** (1986) [Based on *Aeonium palmense* × *Aeonium vestitum*]  
*Aeonium arboreum* × *Aeonium simsii*: ×**sventenii** (1972)  
*Aeonium arboreum* × *Aeonium spathulatum*: ×**holospathulatum** (1986)  
*Aeonium aureum* × *Aeonium diplocyclum*: ×**uhlii** (2006)  
*Aeonium aureum* × *Aeonium glutinosum*: ×**extinctum** (1992)  
*Aeonium aureum* × *Aeonium simsii*: ×**riosjordanae** (1990)  
*Aeonium aureum* × *Aeonium spathulatum*: ×**voggenreiteri** (1997)  
*Aeonium aureum* × *Aeonium undulatum*: ×**septentrionale** (2007)  
*Aeonium canariense* × *Aeonium ciliatum*: ×**junionae** (1973)  
*Aeonium canariense* × *Aeonium cuneatum*: ×**bramwellii** (1973)  
*Aeonium canariense* × *Aeonium davidbramwellii*: ×**junionae** (1973)  
*Aeonium canariense* × *Aeonium decorum*: ×**beltranii** (1986)  
*Aeonium canariense* × *Aeonium goochiae*: ×**santosianum** (1973)  
*Aeonium canariense* × *Aeonium haworthii*: ×**hernandezii** (2007)  
 [Based on *Aeonium canariense* var. *canariense* × *Aeonium volkeri* (= *A. haworthii*)]  
*Aeonium canariense* × *Aeonium hierrense*: ×**jacobsenii** (1973)  
*Aeonium canariense* × *Aeonium holochrysum*: ×**wildpretii** (1986) [Based on *Aeonium palmense* × *Aeonium vestitum*]  
*Aeonium canariense* × *Aeonium lindleyi*: ×**vegamora** (1973)  
*Aeonium canariense* × *Aeonium nobile*: ×**timense** (2007)  
*Aeonium canariense* × *Aeonium urbicum*: ×**orbelindanum** (1997)  
*Aeonium canariense* × *Aeonium urbicum*: ×**bornmuelleri** nom. illeg. (Art. 52.1).(2007) [= *Aeonium orbelindanum* (1997)]  
 [Based on *Aeonium canariense* var. *canariense* × *Aeonium urbicum* var. *urbicum*]  
*Aeonium canariense* × *Aeonium percarneum*: ×**lemsii** (1972)  
*Aeonium canariense* × *Aeonium pseudourbicum*: ×**orbelindanum** (1997)  
*Aeonium canariense* × *Aeonium sedifolium*: ×**nogalesii** (1986), ×**nogalesii** nothovar. **dasyphyllum** (1997)  
*Aeonium canariense* × *Aeonium simsii*: ×**velutinum** (1901)  
*Aeonium canariense* × *Aeonium tabuliforme*: ×**vanhoofstadtii** nom. inval. (2004)  
*Aeonium canariense* × *Aeonium valverdense*: ×**lambii** (1973)  
*Aeonium canariense* × *Aeonium viscatum*: ×**vegamora** (1973)  
*Aeonium castello-paivae* × *Aeonium canariense*: ×**castelloplanum** (1973)  
*Aeonium castello-paivae* × *Aeonium decorum*: ×**castellodecorum** (1986)  
*Aeonium castello-paivae* × *Aeonium gomerense*: ×**aguajilvense** (1997)

- Aeonium castello-paivae* × *Aeonium subplanum*: ×**castelloplanum** (1973)  
*Aeonium castello-paivae* × *Aeonium viscatum*: ×**bravoanum** (1973)  
*Aeonium ciliatum* × *Aeonium diplocyclum*: ×**tijarafense** (1996)  
*Aeonium ciliatum* × *Aeonium haworthii*: ×**tenense** (1973)  
*Aeonium ciliatum* × *Aeonium hierrense*: ×**proliferum** (2007)  
*Aeonium ciliatum* × *Aeonium holochrysum*: ×**kunkelii** (1973)  
*Aeonium ciliatum* × *Aeonium nobile*: ×**robustum** (2007)  
*Aeonium ciliatum* × *Aeonium sedifolium*: ×**cilifolium** (1986)  
*Aeonium ciliatum* × *Aeonium spathulatum*: ×**meridionale** (2007)  
*Aeonium ciliatum* × *Aeonium urbicum*: ×**teneriffae** (1995)  
*Aeonium davidbramwellii* × *Aeonium hierrense*: ×**proliferum** (2007)  
*Aeonium davidbramwellii* × *Aeonium holochrysum*: ×**kunkelii** (1973)  
*Aeonium davidbramwellii* × *Aeonium nobile*: ×**robustum** (2007)  
*Aeonium davidbramwellii* × *Aeonium sedifolium*: ×**cilifolium** (1986)  
*Aeonium davidbramwellii* × *Aeonium spathulatum*: ×**meridionale** (2007)  
*Aeonium davidbramwellii* × *Aeonium diplocyclum*: ×**tijarafense** (1996)  
*Aeonium decorum* × *Aeonium diplocycla*: ×**laxiflorum** (1997)  
*Aeonium decorum* × *Aeonium subplanum*: ×**beltranii** (1986)  
*Aeonium decorum* × *Aeonium urbicum*: ×**perezii** (1990)  
*Aeonium diplocyclum* × *Aeonium spathulatum*: ×**cabrerorum** (1983)  
*Aeonium dodrantale* × *Aeonium haworthii*: ×**gordonii** (1973)  
*Aeonium dodrantale* × *Aeonium spathulatum*: ×**davidii** (2007)  
*Aeonium glandulosum* × *Aeonium glutinosum*: ×**meyerheimii** (1859)  
*Aeonium goochiae* × *Aeonium palmense*: ×**santosianum** (1973)  
*Aeonium goochiae* × *Aeonium sedifolium*: ×**occidentale** (1997)  
*Aeonium haworthii* × *Aeonium pseudourbicum*: ×**pseudohawbicum** (1997)  
*Aeonium haworthii* × *Aeonium sedifolium*: ×**mascaense** (1984)  
*Aeonium haworthii* × *Aeonium urbicum*: ×**hawbicum** (1973)  
*Aeonium haworthii* × *Aeonium urbicum*: ×**pseudohawbicum** (1997) nom. illeg. (Art. 52.1). [= *Aeonium* ×**hawbicum** (1973)]  
*Aeonium hierrense* × *Aeonium holochrysum*: ×**isorense** (1997)  
*Aeonium hierrense* × *Aeonium nobile*: ×**splendens** (1992)  
*Aeonium hierrense* × *Aeonium valverdense*: ×**ombriosum** (1973)  
*Aeonium holochrysum* × *Aeonium spathulatum*: ×**holospathulatum** (1986)  
*Aeonium lindleyi* × *Aeonium tabuliforme*: ×**anagense** (1973)  
*Aeonium manriqueorum* × *Aeonium simsii*: ×**sventenii** (1972)  
*Aeonium nobile* × *Aeonium palmense*: ×**timense** (2007)  
*Aeonium palmense* × *Aeonium holochrysum*: ×**wildpretii** (1986)  
[Based on *Aeonium palmense* × *Aeonium vestitum*]  
*Aeonium palmense* × *Aeonium sedifolium*: ×**nogalesii** (1986)  
*Aeonium percarneum* × *Aeonium simsii*: ×**lidii** (1972)  
*Aeonium percarneum* × *Aeonium undulatum*: ×**bollei** (1972)  
*Aeonium percarneum* × *Aeonium virgineum*: ×**lemsii** (1972)  
*Aeonium pseudourbicum* × *Aeonium sedifolium*: ×**burchardii** (1925)  
*Aeonium rubrolineatum* × *Aeonium spathulatum*: ×**sanchezii** (1986);  
×**holospathulatum** nothovar. **sanchezii** (1996)  
*Aeonium sedifolium* × *Aeonium spathulatum*: ×**loartei** (2007), ×**casanovense** (2007)  
*Aeonium simsii* × *Aeonium spathulatum*: ×**hybridum** (1821)  
*Aeonium simsii* × *Aeonium undulatum*: ×**praegeri** (1969)  
*Aeonium smithii* × *Aeonium spathulatum*: ×**rowleyi** (1973)



- Aeonium subplanum* × *Aeonium lindleyi*: ×**vegamorae** (1973)  
*Aeonium subplanum* × *Aeonium viscatum*: ×**vegamorae** (1973)  
*Aeonium tabuliforme* × *Aeonium urbicum*: ×**tabulicum** (1973)  
*Aeonium urbicum* × *Aeonium sedifolium*: ×**burchardii** (1925)

### Principal references

- Bañares Baudet, Á. (1986) Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos, *Vieraea* **16**: 57-71. (Jun). Santa Cruz de Tenerife.
- (1990) Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. II, *Vieraea* **18**: 65-85. Santa Cruz de Tenerife.
- (1997) Híbridos de la familia *Crassulaceae* en las islas Canarias. Novedades y datos corológicos. III, *Vieraea* **25**: 181-195. 1996 (publ. 1997). Santa Cruz de Tenerife.
- (2007) Híbridos de la familia *Crassulaceae* en las islas Canarias. IV, *Vieraea* **35**: 9-32. (Oct). Santa Cruz de Tenerife.
- Bolle, C. (1859) Addenda Atlantidis, praecipue insularum Canariensium Gorgadumque, *Bonplandia* **7**: 238-246. Carl Rümpler, Hannover.
- Bornmüller, J. F. N. (1903) Ergebnisse zweier botanischer Reisen nach Madeira und den Canarischen Inseln. In Engler, A., *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* **33**(3): 432. (8 Dec). Schweizerbart, Stuttgart.
- (1913) *Sempervivum exsul* Bornm. (nov. spec.) . Sectio: *Aeonium*. In Fedde (ed.) *Repertorium specierum novarum regni vegetabilis* **13**(347): 2-4. (20 Jul) 1913. Privately published, Berlin-Dahlem.
- Burchard, O. (1929) Beiträge zur Ökologie und Biologie der Kanarenpflanzen, *Bibliotheca Botanica* **98**: *Crassulaceae* p.116-147, t.14-43. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart.
- Collins, T. (1985) Floreat Hibernia: A bio-bibliography of Robert Lloyd Praeger 1865-1953. The Royal Dublin Society, Dublin.
- Haworth, A. H. (1821) *Sempervivum*, in *Revisiones plantarum succulentarum*: 62-68. R. & A. Taylor, London.
- Heath, P. V. (1992) The type of *Aeonium* Webb & Berthelot, *Calyx* **2**(2): 56-59. (3 Oct) 1992. Privately published, Brighton.
- (1995) Miscellaneous amendments, *Calyx* **5**(2): 51. (14 Jan).
- Jacobsen, H. & Rowley, G. D. (1973) Some name changes in succulent plants, Part V, *National Cactus and Succulent Journal* **28**(1): 5. (Mar). National Cactus and Succulent Society, England.
- Kunkel, G. (1969) Notas misceláneas: Nombre nuevo para un híbrido: *Aeonium* ×*praegeri*, *Cuadernos de Botánica Canarias* **5**: 50-51. Günther Kunkel, Santa Lucía de Tirajana.
- (1972) Enumeración de las plantas vasculares de Gran Canaria, *Monographiae Biologicae Canariensis* **3**: 1-86. (Oct). Cabildo Insular de Gran Canaria, Las Palmas.
- Liu, H.-Y. (1959) Systematics of *Aeonium* (*Crassulaceae*), *Special Publications Number 3*. [vi], 102pp., 29 graphics. National Museum of Natural Science, Taichung.

Murray, R. P. (1899) Canarian and Madeiran *Crassulaceae*, *The Journal of Botany, British and Foreign* **37**: 201-204. West, Newman & Co., London.

Nelson, E. C. (1993) Robert Lloyd Praeger's *Crassulaceae*: a commentary on possible type specimens in the National Botanic Gardens, Dublin, and on illustrations in the Royal Irish Academy, Dublin, *Bradleya* **11**: 91-106. 1993 (publ. Feb 1994). British Cactus and Succulent Society, England.

Nyffeler, R. (2003) *Aeonium*, in Egli, U. (ed.) *Illustrated handbook of succulent plants: Crassulaceae*: 15-23. Springer-Verlag, Berlin, Heidelberg, New York.

Praeger, R. L. (1925) Notes on Canarian and Madeiran *Semperviva*, *Transactions of the Botanical Society of Edinburgh* **29**: 199-217.

- (1929) XV. *Semperviva* of the Canary Islands area, *Proceedings of the Royal Irish Academy* **38** Sect.B (1): 454-499, t.9-16. (24 Sep). Hodges, Figgis. & Co., Dublin; Williams & Norgate, London.

- (1932) *An account of the Sempervivum group*. iv, 265pp., 107 graphics. The Royal Horticultural Society, London.

Santos Guerra, A. (1983) *Vegetacion y flora de La Palma*: 348pp, 179 colour photos, 22 graphics, 78 distribution maps. Editorial Interinsular Canaria S. A., Santa Cruz de Tenerife.

Tavormina, G. & Tavormina, S. (2006) *Aeonium* sezione *Greenovia*, *Piante Grasse* **26**(2): 48. (Apr). Associazione Italiana Amatori delle piante Succulente, Rome.

Uhl, C. H. (1961) The chromosomes of the *Sempervivoideae* (*Crassulaceae*), *American Journal of Botany* **48**(2): 117, 121. (Feb). Botanical Society of America, Lancaster, Pennsylvania.

Voggenreiter, V. (1974) Geobotanische Untersuchungen an der natürlichen Vegetation der Kanareninsel Tenerife (Anhang: Vergleiche mit La Palma und Gran Canaria) als Grundlage für den Naturschutz, *Dissertationes Botanicae* **26**: [1]-718. Verlag von J. Cramer, Lehre.

Webb, P. B., & Berthelot, S. (1840-1841) Histoire naturelle des Iles Canaries, Tome troisième. Deuxième partie: *Phytographia canariensis* **I**: (51): Jul 1840. p.169-184; (52): Nov 1840. p.185-192; (53): Jan 1841. p.193-216. *Crassulaceae* p.173-204, t.26-36C. Béthune, Paris.