

ALSTERWORTHIA INTERNATIONAL

Aloe (Aloidendron, Kumara, Aloiampelos, Aristaloe, Gonialoe),
Gasteria, Haworthia (Haworthiopsis, Tulista), Astroloba,
Chortolirion & cultivars.

I watered the flowers...



at
Barton Grange
GARDEN CENTRE

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Astroworthia 'Towering Inferno' Trager ISI 2008-13.

Parentage. The precise parentage is unknown but appears to include one of the smooth-leaved *Astroloba* species with similar stacking leaves. *Haworthia coarctata* may have contributed its colourful foliage and a hint of tubercles on the leaf-surfaces.

Description. C. & S. J. 2008 No. 2.

Comments. Garden hybrids of *Astroloba* and *Haworthia* are not uncommon, but most are rather muddy-looking mongrels without the distinctive attractions of either parent. 'Towering Inferno' is an exception with its stacked rosettes of stiff, narrow-triangular, pointed leaves that blush a fiery reddish colour.



Propagation. Rooted offsets of HBG 97487, a plant that came to ISI in Jan., 2001, with the collection of Los Angeles resident Stan Green. ISI price was \$7.



Haworthia magnifica var. splendens Venter & Hammer ISI 2004-25.

Parentage. Wild plants.

Description. Cactus and Succulent Journal, 70 (4): 180-182 (1998) and C. & S. J. 2004 No. 2.

Comments. The doubly superlative epithet of this variety give a hint of the subtle beauty of this taxon. Within a highly variable species, this variety alone is enough to keep aficionados of the genus engaged for generations, selecting from a seemingly vast potential of degrees of glossiness and translucence, lineate patterns and papillae: hence, the difficulty of separating some forms from related species such as *H. magnifica* and even *H. pygmaea*.

Propagation. The ISI offered HBG 90224, from controlled pollination of plants from the "ambiguous" population (showing characteristics of *H. magnifica* var. *major* and *H. emelyae*) referred to by S. Hammer in the original description Nov 3, 1994, by Ed Dunne and Mary Parisi (# 94-01), E of Albertinia, W Cape, S. Africa. The ISI price was \$12.50.



Introducing - the rise & expansion of Haworthia mirabilis, the subordination of other species & a problem.

Please see the opposite page. As a result of Bayer's and Manning's joint revision of *Haworthia*, sensu lato, 16 species have been moved as varieties to *Haworthia mirabilis* making *mirabilis* a highly variable super-species with a great range: *magnifica* has become a variety of *mirabilis* and *splendens* another variety of *mirabilis*. Thus *Haworthia magnifica* var. *splendens* is now an invalid name under this classification but not in the preceding. You cannot have *splendens* as a variety of *magnifica* when both are now classified as varieties of *mirabilis*. This is where the I.C.N.C.P. comes in. The ISI 2004 plants were produced by the controlled pollination of selected plants in cultivation from a populations of variable plants. When brought into cultivation individuals, groups and crosses between clones can be named as cultivars. For the time being keep on using *Haworthia magnifica* var. *splendens* Venter & Hammer ISI 2004-25 until the creators give it another name.

Editor's note. *Haworthia magnifica* var. *splendens* Venter & Hammer ISI 2004-25 was created from selected wild plant from wild seeds and written up in 2004. Since then a number of important events have occurred which have changed/intensified views on what constitutes a species. The extensive field work carried out primarily by Bruce Bayer, supported by evidence also from other enthusiasts, has increased knowledge of the extensive variability of clones within a population and some shared variability between neighbouring populations. This has enhanced the intensity of conflict as to what constitutes a species. In simple terms, on the one hand species should be defined in broad terms to recognise the evolutionary, close relationships of species and populations, which results in fewer species. On the other, the not unreasonable cry for plants to be given names which reliably identified each one was and is of paramount importance, but this results in many species. Thus the views of the two opposing parties strengthened. However, at least both followed the International Code for Nomenclature (I.C.N.) when they named/amalgamated/split plants. However, Bruce Bayer tried to encourage a reconciliation. Simplified, he proposed that the name of a species being absorbed should follow in brackets the name of the species which was absorbing it. Examples of this can be found in several of his (otherwise very informative) eleven Updates. This proposal did not comply with the I.C.N., consequently support for the suggestion was not established, even Bruce had to abandon it. It went into oblivion with explosive force when Bayer and J.C. Manning, South African National Biodiversity Institute, Claremont, S.A. produced a revised list of haworthia species. They reduced the number of species by amalgamating many as varieties with other species. (see "A rationalization of names in Haworthia. A list of species with new combinations and new synonyms, Alsterworthia International, Vol. 12 Issue 1. July 2001")

The expectation (hope) was that everyone will now abide by the I.C.N. and in so doing classify species into rational, evolutionary groups (genera and species). So far so good, but what about naming clones which, although bearing the characteristic of the species, nevertheless displayed some random differences? They too need names to identify them, so what is to be done? Actually, the answer has been available for some time in the form of the International Code of Nomenclature for Cultivated Plants, I.C.N.C.P., but regrettably little used.

The I.C.N.C.P. provides for naming individual cultivars and groups of cultivars, created by man or by nature, and it is possible to retain Latin name as cultivar names. The former commonly results in the creation of cultivars but

those created by nature are more likely to be treated as species, though there are a few exceptions e.g. Ernst Van Jarsveld - some *Gasteria* populations have been given cultivar names attached to the species name. The use of the I.C.N.C.P., when appropriate, to give wild plants cultivar names or even to make use of their discarded Latin names could do a lot to make the identification of wild plants by name clearer and would avoid having to expand the number of names created under the I.C.N. The following quotations from the I.C.N.C.P. illustrate what is possible.

"20.2. Plants of a species or lower taxon brought into cultivation may not demonstrate the range of variation associated with that taxon in the wild. If an assemblage of those plants has one or more character that make it worth distinguishing, it may be given a cultivar or Group name."

"21.5. The final epithet in Latin form of the correct name under the ICN of a taxon at the rank of species or below is to be retained as the cultivar epithet if that taxon is subsequently reclassified as a cultivar."

"In situations in which Art.21.5 does not apply, the epithet of any name in Latin form published before 1 January 1959, even if it is not validly published under the ICN, that meets the requirements for establishment as a cultivar name under this Code (Art. 27.1), may be used as the cultivar epithet, if the plants to which it is was applied are now considered to represent a cultivar."

These opportunities to use the I.C.N.C.P. to name habitat derived plants, as appropriate, as cultivars would do a lot not only to keep the proliferation of species names under control but at the same time to create a naming system of advantage to all.

Reality forces me to admit that such changes are not likely to be rapid and for good reasons. The discerning buying public want plants with names that clearly identify species and sub-divisions so the creation of many species is somewhat inevitable. On the other hand, there is a clear tendency for quite a large volume of "window sill" purchasers not to bother with species names at all. It is by no means uncommon to see displays of cacti and other succulents for sale in Garden Centres all classified as Succulent Collection with or without genus names. Heaven help us! We need it.

A Brief Comparison.

Following the DNA studies carried out by Daru et al., Bayer and Manning jointly revised *Haworthia sensu lato* in accordance with the scientific concept i.e. their evolutionary relationships, which is a continuing event, relying heavily on Bayer's extensive field work for assessment of the present situation. As evolution is still taking place, it was not surprising that much variation was found not only within populations but also between populations. This was followed by Bayer & Manning publishing "A Rationalisation of names in *Haworthia*. A list of species with new combinations and some new synonyms." *Alsterworthia International* Vol. 12, Issue 1 (March 2012). This rationalisation resulted in only 42 *Haworthia* species, 4 *Tulista* and 18 *Haworthiopsis* being recognised. A large number of species were absorbed into these three genera as varieties of their accepted species. You may recall that Bayer had spent much time recording his excellent field work, recommending that many populations should be absorbed into one species or another. There are many excellent pictures of this variation in habitat plants in his Updates 1-11. This variation renders the identification of individuals impossible because of the great variation of the revised species consisting of many variable clones under one name.

Bayer had suggested that, to avoid the confusion, various additions should be added after the species name into which they had been absorbed. In brief, he suggested that the names of species absorbed should be added in brackets after the name into which they were absorbed and other slight variants. Please see Updates 1-11 for examples. As this was unacceptable under the ICN, it found little support. Because of the urgent need to have an up-to-date classification of *Haworthia*, Bayer and Manning devised the updated classification referred to above. This left all who wished to have a classification, which allowed names to identify plants, without one. However, all was not lost.

Ingo Breuer also accepts the division of *Haworthia* into the three genera *Haworthia*, *Haworthiopsis* and *Tulista*, but he has more species with smaller groupings which allows the name to be associated with plants. To make this identification easier, he listed all the names, each with a photograph. The full details can be found in *Alsterworthia International* Volume 16, Issue 2 (July, 2016). Copies of "Some new combinations in *Haworthia*, *Haworthiopsis* and *Tulista* may be purchased from Ingo Breuer, Graf-von-Galen-Str. 105, 52525 Heinsberg, Germany. The price is €15.00. Payment by PayPal to < IBreuer@t-online.de >. Exceptionally you may also purchase a copy by PayPal from *Alsterworthia International* if you are having difficulties, < alsterworthia@freenetname.co.uk >. Price £13.00.

The following is a small example of the differences you can expect from these two classifications. Bayer & Manning included 16 species as varieties of *Haworthia mirabilis*, one of which was *Haworthia magnifica* with no sub divisions. Breuer retains *magnifica* as a species and recognises four varieties of it, which are illustrated below. This splitting of a species into varieties enables plants to be considered separately with advantages of name identification. The alternative of amalgamating many species with one species with no sub-divisions into one mega species leaves little room for the identification of the component plants. Clearly the two classification are diametrically opposed, one being based on large groupings on scientific lines (evolution & fewer species) with reduced opportunities for plant identification by name and the other the "commercial - customer need" classification for names which can readily be associated with plants, which results in many more species and subspecies. These two will only find common ground when evolution stops and all populations are discrete - peace at last between scientists, nurserymen and collectors. In the mean time, if scientists take advantage of the I.C.N.C.P. **as well as** the ICN some relief may be achieved.



Haworthia magnifica
var. *magnifica* IB7127



Haworthia magnifica
var. *asperula* JDV94-6



Haworthia magnifica
var. *obserata* GM718



Haworthia magnifica
var. *splendens* JDV93-59

Haworthia reticulata var. hurlingii (Poelln.) Bayer ISI 2004-27.

© 2004 John Trager

Parentage. Collected wild plant.

Description. C. & S. J 2004 No. 2.

Comments. This is a small, vigorously offsetting variety forming delightful, mounding, emerald green colonies. The plump leaves are speckled with pale spots that, in this clone, tend to line up along the length of the leaves.

Propagation. HBG 69236, collected Aug 8, 1990, by J. Berdach (11285), 15 km SE of Robertson, W Cape, S Africa where it grew well-shaded under bushes. I.S.I. price was \$4.

Note. This name remains correct under Bayer's & Manning's revised classification.



Haworthia truncata Schoen ISI 2004-28.

Parentage. Wild plants.

Description. C. & S.J. 2004 No 2.

Comments. This species is a favourite example of the window-leaf strategy found in many haworthias, mesembes and peperomias, whereby the translucent leaf tips allow light into the interior chlorophyll-bearing layers where it may be captured for photosynthesis while avoiding water loss. Though common in cultivation, *H. truncata* still inspires awe and admiration with its unnatural-looking, truncate leaf tips.

Propagation. HBG 90225, from controlled pollination of plants collected Oct 8, 1998, by Dunne & Parisi (# 98-09), at Dysseldorp, W Cape, S Africa. I.S.I. price was \$8.50.

Note. *Haworthia truncata* var. *truncata* is the name under Bayer's & Manning's revised classification.



Haworthia cooperi var. viridis (Bayer) Bayer ISI 2009-22.

Parentage. Wild plants.

Description. C. & S.J. 2004 No 2

Comments. The nomenclatural history of this taxon is rather confused, to say the least. Nevertheless, while the name has changed, our plants have slowly and innocently offset to form diminutive, mounding, and blemish-free specimens without any special protection.

Propagation. Divisions of HBG 98584, plants received as JDV 94/30. This number is that of haworthia authority Kobus Venter whose list includes this as *H. gracilis*. In *Haworthia Revisited* (1999), Bayer and Venter recognized several varieties of this species, including var. *viridis*. Bayer later recombined the variety under *H. cooperi*. This collection is reported to have been from a south slope east of the wall of Kouga Dam in the Eastern Cape of South Africa. ISI price was \$8.

Additional Comment. *Haworthia cooperi* var. *viridis* is still the valid name under Bayer and Manning's classification. See *Alsterworthia International* 12.1 March, 2012.



Haworthia vlokii M. B. Bayer ISI 2007-22.

Parentage. Wild plants. Rooted offsets of HBG 82976, several clones grown from seed of Kobus Venter's collection (JDV 91-2) from Meiringspoort, near De Rust, W. Cape, S. Africa.

Description. C. & S. J. 2007, No 2.

Comments. Published in Bruce Bayer's seminal *Haworthia Revisited* (1999), this new species closely resembles a form of *H. herbacea* (a species that grows some two hundred kms to the west); it has similar clean growth, clumping habit and toothy-margined leaves but is generally darker in colour. It is named in honour of noted naturalist Jan Vlok.

Propagation. Cuttings. The I.S.I. price was \$5.

Note. The *Haworthia vlokii* photograph at the lower right is of a plant in Ingo Breuer's collection which came from the same collection as that of the I.S.I., JDV91-2.

One, the I.S.I., was grown in the U.S.A. The other in Germany.

Additional Note. *H. vlokii* remains valid under Bayer's & Manning's revision.



Haworthia mucronata Haw. Var. mucronata ISI 2009-23.

Parentage. Divisions of HBG 73902, a plant from Bob Kent who received it from Catherine Mangold.

Description. C. & S. J. 2009, No 2.

Comments. Variable in degree of toothiness and translucence, there is much potential in this variety for selection of worthy clones for cultivation. The one offered here is especially prolific, creating impressive clumps without any hint of the root loss and die-back that hinders growing larger specimens of most other clones. The leaves are lined with teeth along the leaf keel and margins and bear prominent lineate windows in the upper third. The tips are drawn out into an awn that often bends one way or another, giving the plants a windswept look as if they have been cruising the veld in a convertible. To add to the effect they tan nicely, taking on a pinkish blush in bright light. The variety is native to the West Cape of South Africa, from Montagu to Oudtshoorn. The I.S.I. price was \$6.



Propagation. Cuttings. **Additional comments.** *Haworthia mucronata* Haw. var. *mucronata* is still the valid name under Bayer's and Manning's classification. See *Alsterworthia International* 12.1 March, 2012.

**Haworthia arachnoidea var. setata
(Haworth) M. B. Bayer. ISI 2012-19.**

Parentage. Wild plant.

Description C. & S. J. 2012, No 2.

Comments. *H. arachnoidea* is distributed primarily throughout the winter-rainfall regions of the W. Cape and N. Cape provinces of South Africa. It varies in overall appearance from green, rather



untidy plants with soft, hair-like teeth to globular symmetrical gems with stiffer spines. The ISI supplied one of the latter - a form known by the synonym *H. setata* var. *gigas* - from the Little Karoo in the interior of the southeastern portion of the W. Cape. On close inspection the three ranks of spines lining the leaves may remind one of *Aloe erinacea* in miniature, while the spiral leaf arrangement evokes *Aloe polyphylla*! The ISI price was \$10.

Propagation. I.S.I. plants were tissue-cultured of two clones of HBG 65840.

Additional comments. *Haworthia arachnoidea* var. *setata* is still the valid name under Bayer's and Manning's classification. See *Alsterworthia International* 12.1 March, 2012.

**Haworthia pygmaea var. argenteo-maculosa
(G. G. Sm.) M. B. Bayer. ISI 2012-21.**

Parentage. Rooted offsets of HBG 108061, one of several plants from Steven Hammer grown from seed produced by controlled pollination of G. Marx 326, collected at Humor, about 24 km W of Mossel Bay, W. Cape, South Africa, near the Gouritz River Bridge not far from *H. magnifica* var. *splendens*.

Description. C. & S. J 2012 No. 2.

Comments. "We received this offering as *H. magnifica* and it is certainly worthy of that epithet. However, current thinking places it as a variety of *H. pygmaea*. Bayer acknowledges a strong link between the two species and, in particular between our offering and *H. magnifica* var. *splendens*. The former differs mainly in its smooth, rather than tubercled, leaf surface found in the latter. We have attempted to initiate a number of clones in tissue culture with mixed success, but our clone # 2 has taken well and produced enough for this introduction. Its thick, retuse leaves take on a rich purplish-red cast in bright light. The undersides are slate grey with reddish infused bases while the flattened, upper surfaces bear a constellation of fine, white speckling on a field separated by reddish veins." *Haworthia pygmaea* var. *argenteo-maculosa* remains valid under Bayer's & Manning's classification.



Propagation. Leaf cuttings. The I.S.I. price was \$10.

Gasteria 'Bronze Knuckles' Trager
ISI 2008-20.

Parentage. Local hummingbirds' open pollination in California.

Description. C & S. J. Vol, 2008, No. 2.

Comments. This cultivar appears to be a hybrid of *Gasteria nitida* var. *armstrongii* with *Gasteria bicolor* var. *liliputana*. The latter species lends its glossiness and dwarf, offsetting habit to the dark foliage-colour of the former. This miniature clumper is deep green in shade but can blush a lovely bronze colour with more light, hence the cultivar name. The rosettes of recurved leaves are at first distichous but become rosulate.

Propagation. The I.S.I. plants were divisions of HBG 97466, one of a batch of mostly true seedlings from seed harvested by one of their more pugnacious volunteers whose wings beat nearly as fast as the pollinator. The I.S.I. was \$7.



Haworthia retusa fa. geraldii (Scott) Pilb ISI 2002-25.

Parentage. A selected wild plant.

Description. C. & S. J. 2002. No 2.

Comments. A strikingly bright green, caespitose form of the ever-popular *H. retusa*, with attractively lineate, windowed leaf-tips. I.S.I plants were priced at \$5.

Propagation. Rooted cuts of HBG 69264, a plant collected by J. Venter (87-5) in 1987 just E of Riversdale, W. Cape, S. Africa.

Additional comments. The form *geraldii* is not recognised under Bayer and Manning's classification. It is included in variety *retusa*. See Alsterworthia International 12.1 March, 2012.

However, it is a distinct form and the name *Haworthia retusa* fa. *geraldii* may still be used, but it is better to refer to it as *Haworthia retuse* 'Geraldii' under the International Code of Nomenclature for Cultivated Plants.

Haworthia reticulata var. hurlingii (Poelln.) Bayer ISI 2004-27.

Parentage. Wild plant.

Description. C & S. J. Vol, 2004, No. 2.

Comments. Small, vigorously-offsetting variety forming delightful, mounding, emerald green colonies. The plump leaves are speckled with pale spots that, in this clone, tend to line up along the length of the leaves.

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Propagation. HBG 69236, collected Aug 8, 1990, by J. Berdach (11285), 15 km SE of Robertson, W Cape, S Africa where it grew well-shaded under bushes. The I.S.I. \$4.

Additional comment. The photograph at the top right is by Ingo Breuer, Germany. This clone was collected in 1987, JDV 87-191. In form it is the same as the ISI plant but differs in markings and colour though the ISI plant is clearly strongly lit up from the top right to highlight the markings.

Haworthia erii M. Hayashi by Ingo Breuer.

Validation of the description of *Haworthia erii* M. Hayashi

Haworthia Study 14: 11. (2005)

The type specimen of this new, described species was stored in The Research Institute of Evolutionary Biology, Tokyo. Later it was moved to (TI) Herbarium, University Museum, University of Tokyo.

Haworthia rooibergensis var. erii (M. Hayashi) Breuer

Validation of the new combination of *Haworthia rooibergensis* var. *erii* (M. Hayashi) Breuer

Alsterworthia Int. 16(2): 6. 2016 [25 Jun 2016].

Basionym: *Haworthia erii* M. Hayashi in Haworthia Study 14: 11. (2005). Holo in (TI).

Some new combinations in Haworthia. Haworthiopsis. Tulista by Ingo Breuer

In this paper are two names listed as accepted names, *Haworthia meiringii* on page 9 and *Haworthia rooibergensis* on page 10, but it was forgotten to publish the new status of them.

Haworthia meiringii (M.B.Bayer) Breuer stat.nov.

Basionym: *Haworthia maraisii* var. *meiringii* M.B.Bayer -- Haworthia Handbook: 134. 1976.

Haworthia rooibergensis (Esterhuizen & Battista) Breuer stat.nov.

Basionym: *Haworthia mucronata* var. *rooibergensis* Esterhuizen & Battista -- Haworthiad 13(1): 5. 1999.

Nomina Nova recorded for the Asphodelaceae for 2014 in the Repertorium Plantarum Succulentarum LXV

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), of which IOS remains a member to this day. 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 issue 55 onwards. 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, accessible over the internet.

Conventions used in Repertorium Plantarum Succulentarum.

Repertorium Plantarum Succulentarum attempts to list, under separate headings, newly published names of succulent plants and relevant literature on the systematics of these plants, on an annual basis. New names noted after the issue for the relevant year has gone to press are included in later issues. Specialist periodical literature is scanned in full (as available at the libraries at ZSS and Z or received by the compilers). Also included is information supplied to the compilers direct. 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, the basionym 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) is used for newer names. The compilers would like to point out that they do not accept any names that might be inadvertently validated in this volume of

RPS. Bibliographic details of papers dealing only with the 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.

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ASPHODELACEAE

- Aloe aaata** T. A. McCoy & Lavranos, Cact. Succ. J. (Los Angeles) 86(6): 259-260, ill. (pp. 258- 260), 2014. Typus: McCoy 3861 (FT).
- Aloe andersonii** van Jaarsveld & P. Nel, Bradleya 32: 112-114, ill., 2014. Typus: van Jaarsveld & Nel 24278 (PRE).
- Aloe bergeriana** (Dinter) Boatwright & J. C. Manning, Syst. Bot. 39(1): 68, 2014. Basionym: *Chortolirion bergerianum*.
- Aloe calliantha** T. A. McCoy & Lavranos, Cact. Succ. J. (Los Angeles) 86(6): 262-263, ill. (pp. 261- 263), 2014. Typus: McCoy 523 (FT).
- Aloe gautieri** J.-P. Castillon & Nusbaumer, Candollea 69(1): 76-78, ill., 2014. Typus: Gautier & al. 4272 (G, MO, P, PRE, TAN, Herb. Daraina).
- Aloe haroniensis** T. A. McCoy & al., Cact. Succ. J. (Los Angeles) 86(4): 155-157, ill., 2014. Typus: McCoy 4012 (FT).
- Aloe horombensis* J.-P. Castillon, Adansonia, n.s. [ser. 3], 36(2): 228, ill. (p. 229), 2014. Based on Perrier 12740. *Nom. illeg.* (ICN Art. 52.1). [*Nom. nov. pro Aloe deltoideodonta* var. *brevifolia* H. Perrier 1926, but illegitimate since *A. deltoideodonta* var. *intermedia* H. Perrier 1926 is included in synonymy, and the replacement name *A. subacutissima* G. D. Rowley 1973 for this latter variety should have been taken up.]
- Aloe horombensis* ssp. *amboahangyensis* (Rebmann) J.-P. Castillon, Adansonia, n.s. [ser.3], 36(2): 232, 2014. Incorrect name (ICN Art. 11.4), based on *Aloe deltoideodonta* ssp. *amboahangyensis*.
- Aloe horombensis* ssp. *andavakana* J.-P. Castillon, Adansonia, n.s. [ser. 3], 36(2): 232, ill. (p. 233), 2014. Based on 57. Incorrect name (ICN Art. 11.4).
- Aloe horombensis* ssp. *candicans* (H. Perrier) J.-P. Castillon, Adansonia, n.s. [ser. 3], 36(2): 230, ill. (p. 231), 2014. Incorrect name (ICN Art. 11.4), based on *Aloe deltoideodonta* var. *candicans*.
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**A second population of *Aloiampelos juddii* (Van Jaarsv.) Klopper & Gideon.F.Sm.,
with some observations on soil and climate.**

Steven Molteno

Aloiampelos juddii (Van Jaarsv.) Klopper & Gideon.F.Sm. (perhaps still better known as *Aloe juddii*) is one of the so-called “Rambling Aloes”. This group of succulents were formerly nested in the genus *Aloe*, as series *Macrifoliae*, but recent phylogenetic studies have supported a lingering suspicion that had long been harboured by those who had taken a really close look at the plants. They are not typical Aloes – at least not in the really strict sense. While *Astrolobas*, *Gasterias* and many *Haworthias* might be relatively closely related to Aloes, these slender “rambling aloes” are something much stranger and older – an out-group. Nevertheless, I am sure that I am not the only one who will continue to call them “Aloes” informally for a while (even though I fully understand the need to give them their own genus). Even the new genus name is a nod to this widespread feeling; “*Aloiampelos*” simply means “*Aloe* Rambler” in Greek.

The genus *Aloiampelos* Klopper & Gideon F.Sm. was only recently named (Grace et.al. 2013). It is restricted to southern Africa, and comprises seven species of slender-stemmed succulent alooids. The stems of these elegant plants tend to spring from the base – which often thickens into a heavy woody rootstock. This feature is especially strong in those species which have needed to adapt to the regular fire regime of many parts of southern Africa, and usually enables the plants to re-sprout from their caudex after fires.

The genus includes what might be the fastest growing of all the alooids – *Aloiampelos ciliaris* (Haw.) Klopper & Gideon.F.Sm. This Eastern Cape species rapidly spreads though its natural thicket habitat. It often uses its distinctively recurved leaves as “hooks”, to anchor its long stems as they stretch up to reach the thicket canopy. It bears its small red flowers on lax racemes. The genus also includes what is probably the most profusely flowering of all the alooids – *Aloiampelos tenuior* (Haw.) Klopper & Gideon F.Sm. A clumping species with slender leaves, it is also very variable – with varieties bearing either red, orange or yellow flowers, and with leaves that can range from a silvery grey to bright green. The largest and most robust of the *Aloiampelos* species is *Aloiampelos striatula* (Haw.) Klopper & Gideon F.Sm. - an inhabitant of some of the coldest and highest parts of southern Africa. The centre of distribution of this genus seems to be the Eastern Cape Province of South Africa. The further one moves west, the smaller and

further apart the populations of *Aloiampelos* seem to become. In the area around Port Elizabeth and Uitenhage, *Aloiampelos gracilis* (Haw.) Klopper & Gideon.F.Sm. has become sufficiently rare to attain Vulnerable status. With its tall, straight, erect stems, its dark green foliage, and its red (often branched) inflorescences, it has become a popular landscaping subject. Then, sporadically along the Langeberg mountain range, heading westwards into the Western Cape Province, a species now named *Aloiampelos decumbens* (Reynolds) Klopper & Gideon.F.Sm. is found in the fynbos vegetation high on mountain slopes. Formerly considered a variety of *A. gracilis*, it differs most markedly in its decumbent habit, as it rambles along the ground. It is known from only a few spots, quite far apart from each other, and all in high and inaccessible locations. Furthest west of all, the yellow-flowered (A.Berger) Klopper & Gideon.F.Sm. occurs on the Cape Peninsula – Cape Town’s very own endemic species! Its broad succulent leaves cover its tangled stems which ramble among rocks and bushes in its mountain fynbos habitat.

Between the last two species, in the Koudeberg mountains to the south, can be found the subject of this article. *Aloiampelos juddii* is the most recently discovered of the rambling aloes, and possibly the rarest. It has compact triangular leaves along its stems, which tend to grow more upright and erect than those of its closest relatives such as *A. commixta* and *A. decumbens*. Its flowers are red and arranged in short, cylindrical racemes.

A. juddii is officially restricted to one locality, Farm 215 near Cape Agulhas (the southern-most tip of the African continent). (<http://pza.sanbi.org/aloiampelos-juddii>) It has yet to enter wide cultivation too. This is no doubt due in part to its recent discovery, but also perhaps because it is a rather more difficult species to grow successfully outside of its habitat. Even in nearby Cape Town, its well-being in a garden rockery cannot be taken for granted, and they need to be watched lest they lose their roots and shrivel up.

It has long been of interest, whether further populations of this species – or even of other *Aloiampelos* species – exist as yet undiscovered in the more remote mountains of the area.

The population on Farm 215 is quite well known. Intriguingly, the plant explorer Bruce Bayer – of

Haworthia fame – once mentioned to the author that he had spotted rambling aloes on a peak a few kilometres east of Farm 215. A quick look at a map of the conditions – such as geology and vegetation type – showed that habitat here should be almost identical to that at Farm 215.

On Farm 215, the plants grow high up on windy koppies. They can be seen among the sandstone boulders, tucked between the rocks and often with their bases under scrub vegetation. The soil is a nutrient poor, acidic, grey-to-white sand. They are protected here though. The land owners are aware of these special plants, and the habitat is anyway too rugged for development.

Bruce's tip off about the new locality languished for a while, until there was a chance to explore this area, several months later. It is a lower mountainside, punctuated by rock outcrops, and covered in degraded Overberg Sandstone Fynbos vegetation (FFs 12). Invasive Pine trees were moving in.

It is sometimes a strange sensation finding a searched-for plant in a new spot. A check on google earth and the area's vegetation map had helped to narrow down on possible spots, but it still took a bit of time before the first plant was seen, peeking out from the base of a boulder. Once you finally see the first plant, you often then immediately see a great many more (even some that you walked past previously without noticing).

In appearance, the plants were very similar to those at Farm 215. The same variation was noticed – some plants stood vertical and erect with short triangular leaves. Other plants were more decumbent with slightly more curved, lanceolate leaves. If any difference at all could be discerned, it was that there was a slightly higher proportion of plants of the latter form at the new locality. However such differences could be as much due to environmental conditions as to genes. Altogether the vegetation and position of the plants was very similar to that of the more famous Farm 215 locality. It was even reminiscent of the rocky mountain fynbos habitat of *A. commixta* to the west.

One shared habitat feature immediately stood out - air movement. The wind was constant and strong. Both localities were exposed, and the wind may have contributed to the cool temperature of the soil – even though it was a sunny, mid-summer afternoon. This may be an important factor for the plant's cultivation.

Ernst van Jaarsveld, formerly from Kirstenbosch, has had success in growing this species at Kirstenbosch Botanical Gardens in Cape Town (pers.com). They were

planted in rockeries which were either south-facing, or were higher up on the mountain slopes. This might have been the conditions which made the endeavour a success. The author can report that material originally received from EvJ was subdivided to be cultivated and propagated by himself, with help from several friends who had an interest in horticulture. There was almost complete failure to keep this plant alive. In light of what has been noted of the plant's habitat though, hot rockeries or greenhouses in stagnant suburban air, seem quite unnatural for this little mountaineer.

My field trip was during the natural flowering time of *A. juddii*; a good time to search for a plant which hides in bushes but has showy flowers. However, rather strangely, only a few fully-flowering plants were seen. Perhaps this was due to grazing by the small antelope of the area, or maybe the nutrient-poor sands simply cannot support the plants flowering too extravagantly. It was a very beautiful and rugged habitat. It was also guarded by a pair of raptors who did not like the look of me one bit and hung above me, motionless in the strong wind. Maybe they had a nest further up the slope. Eventually one of them descended to only a few meters above my head, so I decided to get the message. The clumsy human retreated down the mountain, leaving the juddiis and their air force in peace.

So here is a hypothesis about this plant's requirements – for all those who try to cultivate it.

They should be given as much air movement as possible – preferably a cool wind, even in mid-summer. While air movement may have other beneficial effects on the plant, one vital service it seems to provide is cooling. Even at midday, if you place your hand on the sand in which they grow, you will find it to be quite cool. The fact that they often grow at the base of large white boulders might assist further in this coolness. It tolerates cold and even some light frost in the winter, but dry stagnant heat is a sure way to kill this plant.

So plant this species in a cool spot, with air movement, and with good sunlight or some dappled shade. Coarse, nutrient poor, acidic sand, with a tiny bit of moss would probably most closely mimic the soils they grow in, which seem to derive mostly from mineral poor Table Mountain Sandstone (Cape Supergroup). Good drainage is obviously essential. It should be given water throughout the year, but less so during the summer.

It is possible that, like its relative *A. commixta*, *A. juddii* is also very much moulded by the prevailing conditions. The former malleable species seems to change its form depending on soil, water and sunlight. *A. commixta* is relatively small and compact in its normal mineral poor

sands; but if planted in clay-rich or composted soils, it expands in bulk, each leaf eventually becoming many times as large – both in length and in width. In dry conditions, *A. commixta* tends to lose the leaves lower down on its stems, retaining them only at the rosettes near the top of the stems. This is the form they usually assume in habitat, but in more gentle conditions the plants maintain their leaves along the length of their stems, giving them a very regular, ornamental appearance. Lastly, like many plants, *A. commixta* assumes a more compact form in full sun; but becomes more elongated in its leaf and stem growth when in shady conditions. Could the variation in the growth habit of *A. juddii* – between erect versus decumbent stems – also be due to some micro-habitat condition, or is it genetic?

The possibility of further undiscovered *Aloiampelos* populations also prompts thought on the distribution of this little genus. How widespread is *A. juddii*, and do other *Aloiampelos* await discovery in the remotest mountains of the Western Cape? What about *A. decumbens*; is it really so disjunct in its distribution, or has it simply not been fully mapped along the Langeberg Mountains? Could it even extend far enough eastwards so as to connect with the range of its relative, *A. gracilis*? Only more exploration will tell.

Finally, it is tempting to wonder how the disjunct distribution of the rare western *Aloiampelos* species came about in the first place. It seems far-fetched that a bird or a gust of wind carried the required two or more successfully germinating seeds over the 100 - 200 kilometre distance separating these species. So were these plants once more widespread than they are now?

Are they perhaps just relicts of what had once been a contiguous population of *Aloiampelos*, connecting these localities across the southern Cape? If so, what climatic or environmental changes could have brought about the retreat, and what is so special about these isolated spots which allows them to serve as refugia?

These are interesting questions to think about, and hopefully science will soon give us definite answers to them. In the meantime, my last little *A. juddii* – the only shoot surviving from the many failed experiments – is up on the windy roof of my garage getting the winter rains. It finally looks happy and healthy, so I'm holding thumbs.

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Detail of *A. juddii* at the new locality. This specimen has relatively elongated, red-tipped leaves and clearly shows its five-ranked leaf arrangement.



A juddii in flower at new locality.



In dry conditions, many *Aloiampelos* lose leaves on the lower portions of their stems, keeping them only at the tip around the rosette. Judging by *A. juddii* plants seen like this at the new locality, this species is no different.



A. juddii, like many of the *Aloiampelos* species, eventually develops a large woody rootstock, from which it can re-sprout after fires. The rootstock of this natural bonsai has been exposed by erosion on top of a rock at the better known locality on Farm 215.



Soil of *A. juddii* on Farm 215. A well-drained mix of moss and poor, acidic sands derived from Table Mountain Sandstone.



Small, compact growth of *A. juddii* on Farm 215. Could this be stunting from dryness or especially nutrient-poor soils?



Stems of *A. juddii* standing tall on Farm 215. Plants show not only an upright, erect habit, but sometimes the recognisable straight, triangular leaves of this species.





A view over the landscape and vegetation of the new locality.

Something Different

(Sneaked in by the editor who could not resist it!)

Yes, it does concern plants but not any normally covered by this journal. Perhaps the flowers of our plants just do not lend themselves to manipulation for the subject matter?

We are all familiar with sellers using displays to highlight their plant sales. Some just use plain tables or upturned boxes and thereby keep prices low. Others put on magnificent and colourful display and charge higher prices for their sales items to cover the costs.

One very progressive Garden Centre in my area is so well known that coaches travel far and wide to see their displays and magnificent they are. Many prizes have been won. Of course, to win prizes each year innovation is necessary.

Overleaf you will find examples of one of their more unusual creations.

Lovely isn't it? The urinal, that is!

It's a Jack-in-the-Pulpit
Or, to use its botanical name,
an *Arisaema Triphyllum*

A perennial wildflower, native to
North America, it's sometimes called a
bog onion – quite appropriate really,
under the circumstances!



**Bet you never thought
you'd be doing this...
peeing into a poppy!**

This is a California Poppy, created by a very talented Californian artist called Clark Sorensen, based in San Francisco.

Clark created all our flower urinals.
Perhaps over time, you'll have
opportunity to water them all.



There's a first time for everything, isn't there?

You've no doubt planted tulips in your garden, or bought a bunch for your loved one (*or your wife!*). But have you ever used one as a loo before?

Everyone loves tulips so we had to include one in our urinal collection. We hope you've enjoyed 'watering the flowers'.



**Well that's impressive...
Bet you've never seen a
urinal like this before!**

The hardy outdoor form of this plant is called Arum, whilst the tender indoor plant is a Calla Lily.

But we think you should impress your friends with its botanical name, *Zantedeschia* (pronounced *zan-te-dis-kee-a*, just in case you were wondering)



Haworthia Study

ハオルシア研究 No. 31



‘水晶オプト’ 江上陽子氏出展作品。育成・命名者：明賀英雄
日本ハオルシア大賞 2015 金賞。Gold Prize of Japan Haworthia Cup 2015
濃青緑色太葉に半透明の大きな三角窓。黒ではなく濃い青色の特異な葉色の優秀作品。
H. 'Suishō Obto' By Ms. EGAMI Yōko. Breeder/Author: Mr. MYŌGA Hideo
H. obtusa with dark bluish, thick leaves and triangular, semi-translucent windows.

オプト類新品種

New cultivars of Obto Gp.



① '天涯オプト' 'Tengai Obto' Ø=12 cm 内藤氏育成
非常に大型で、艶のある青窓美品種。中小苗時はあまり青くない。
Very large, bluish clone of Murasaki Obto. Ō Murasaki Gp.



② '玉小金' 'Tamakogane' Ø=12 cm 小金山氏育成
飛び抜けて大型の紫オプト。'天涯オプト'ほど青くない。
Very large clone. Only 3 clones in Ō Murasaki Gp. at moment.



③ 'ナポレオン' 'Napoleon' Ø=6.4 cm 川北氏育成・命名
特大ブルーレンズとして売られたが、おそらくその大型枝変わり。
Sold as "Tokudai Blue Lens", but its large form bud mutation.



④ '夏アカネ' 'Natsu Akane' Ø=8.5 cm 林育成・命名
夏前は紫オプトより濃色。黒味のない橙褐色~赤紫色。
With dark orange-red. Different color from Murasaki Obto.



⑤ '夕霧楼' 'Yūgirirō' Ø=12 cm 林育成・命名
大型黒紫肌で丈低く育ち、非常に透明な窓を持つ。夕方は凄美。
Large & flat clone with smoke-black leaf & transparent window.



⑥ 左 '黒玉雫' 'Kurotama Shizuku' Ø=8 cm 林命名
右 '黒杉雫' 'Kurosugi Shizuku' Ø=7 cm 林命名。
共に硬質葉で暗色。窓は不透明だが、光が当たると輝く(左写真)。

Haworthia Study

ハオルシア研究 No. 32



‘滯’（とろ）吉田雅浩氏育成・命名・出展作品。‘磯ガニ’交配
日本ハオルシア大賞 2016 金賞。Gold Prize of Japan Haworthia Cup 2016
濃輝緑色半透明窓。窓模様は単純だが眩しいくらいの素晴らしい輝き。

H. 'Toro' By Mr. YOSHIDA Masahiro. (Breeder/Author)

H. "Isogani" hybrid with glabrous, brilliant, rather refulgent windows.

海外産スプレンドENS(主に赤系) *H. splendens* bred overseas (mainly reddish clones)

⑦ 'アンバークイーン' 'Umber Queen' D=8 cm
暗黄褐色のダルマ葉に赤褐色の縦線。素晴らしい。
Short, roundish leaves with dark umber flecks and red lines.



⑧ 'アンバースター' 'Umber Star' D=8 cm
アンバークイーンより窓白く、縦線もより太く明瞭。
Leaf is basically dark umber with white flecks and brown lines.



⑨ 'アーニャ' 'Anya' D=7.5 cm
GM 452 x 'Lombard Star A' 密白点は濃桜色。
Very dense flecks are dark pink and can be fused.



⑩ 'アニーローリー' 'Annie Laurie' D=7 cm
GM 452 x '金斗雲'。赤褐色窓に太い赤線が入る。
Resembles to 'Anya', but with larger flecks and thicker lines.



⑪ 'ジルコンホワイト' 'Zircon White' D=10 cm GM 447
'v. masai' の type 個体。白肌の素晴らしい金属光沢。
type clone of 'v. masai'. Having strong metallic luster.



⑫ 'ジルコンレッド' 'Zircon Red' D=10 cm GM 447
'マルクスレッド'等と同じく赤肌の素晴らしい金属光沢
Close to 'Marx Red' with reddish, strong metallic luster.



① 麗草錦 Rexa Nishiki 高瀬氏出展 大久保氏実生
葉型、斑色、斑廻り、作とも一級品。麗草錦の中でも最上クラス。
Large retusa variegated with nice leaf form, color & cultivation.



② '大連錦' 'Tairen Nishiki' 袴田氏出展
艶透明窓で非常に鮮明な濃黄斑のコンプト錦。網目模様も鮮明。
Nicely variegated comptoniana with clear color and balance.



③ '伊豆の茜' 'Izu-no-akane' 伊藤氏育成・出展
ピクサ錦の鮮明斑は希少。株姿、葉型、斑廻り、作りとも一級品。
Very nice variegation of Pixa with good color, form & balance.



④ アドロ錦 Adoro Nishiki 野崎氏出展
堀川氏 AT-1 アトロフスカ(交配)の斑入りらしい。大株は希少。
Variegated large form atrofusca (AT-1). Large plant is rare



⑤ コレクサ錦 Corexa Nishiki (ジュノー系)徳田氏出展
地色、斑色、斑廻りとも一級品なので完成時が見事な予想



⑥ コレクサ錦 Corexa Nishiki 徐氏出展
ややコンプトの影響が現れるが、地色、斑色、斑廻りとも一級品。