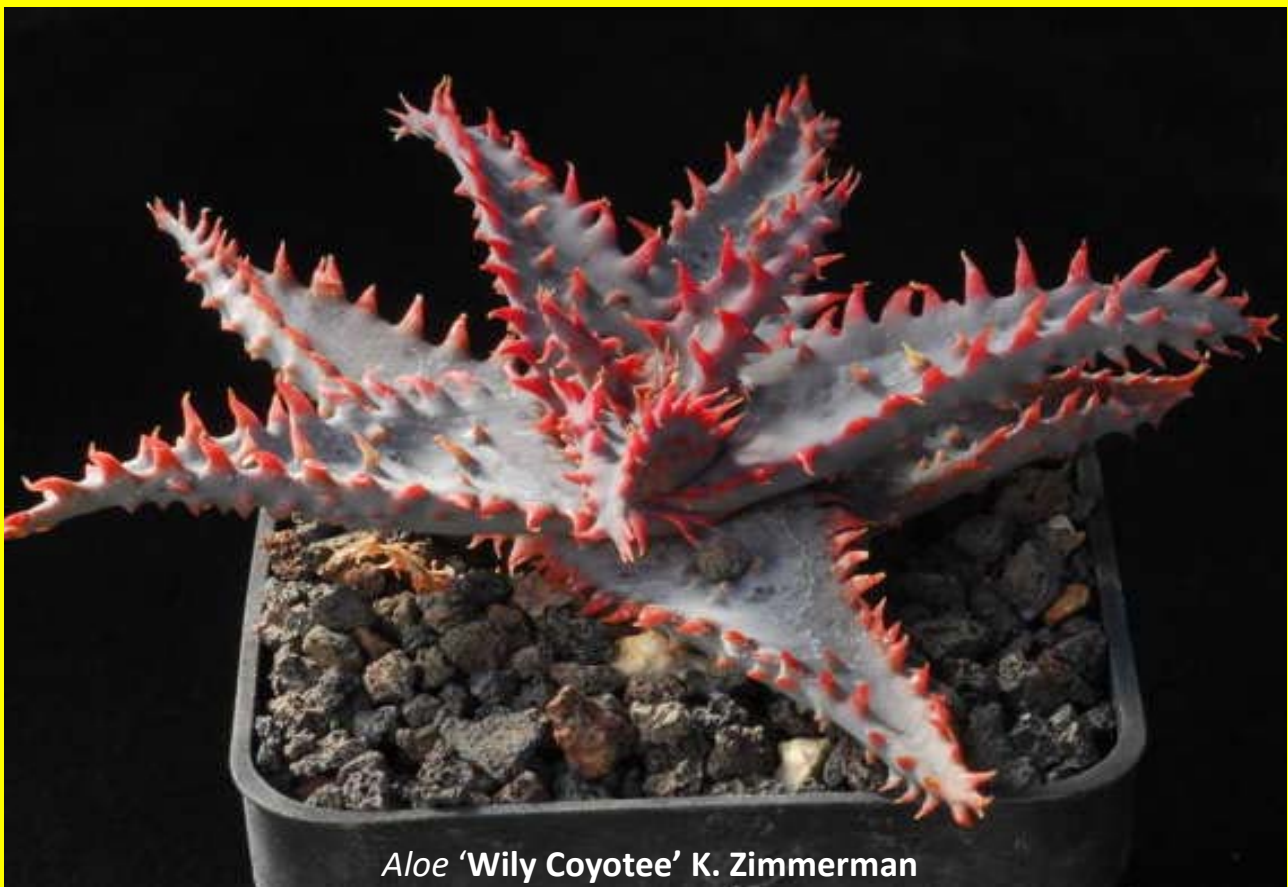


ALSTERWORTHIA INTERNATIONAL

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



Aloe 'Wily Coyotee' K. Zimmerman

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Alsterworthia International

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Printed journal are published to meet specific demands. Libraries, Botanical Gardens and individuals, both professional and private, require printed journals. They represent a more permanent form of publication, an easy form for reference and are the best means of publishing new cultivars, ensuring that they comply with the provision of the International Code of Nomenclature for Cultivated Plants (ICNCP).

Back issue of Alsterworthia International are also on the Web and are free to download by everyone. To access, go to <https://alsterworthia.wordpress.com/> and click on “Journals” at the head of the page.

Current year journals will become back issues the year following publication, with an occasional exceptions e.g. July, 2016 which can be purchased only from Ingo Breuer and Alsterworthia International until further notice.

Please note that the International Cultivar Registration Authority for Haworthia (including Haworthiopsis & Tulista), Astroloba and Chortolirion is the Haworthia Society of Japan. Registrar: Dr. M. Hayashi). Harry Mays is their representative for the Western World.

Haworthia Study, journal of the Japanese Haworthia Society.

The cost of this journal outside Japan is the equivalent in yen of £20.00 plus postage, which is destination dependent. Please send your order with your name and address to Harry Mays < hmays@freenetname.co.uk >. He will advise you of the sum due in Yen. Payments in Japanese Yen only should then be made by PayPal direct to < m-hayashi@nausica.jp >. Haworthia Study (Japanese) will be sent to you direct from Japan when payment is received or when the journal is published if later.

The translator of Haworthia Study, the journal of the Japanese Haworthia Society, has not been able to complete the translation of Haworthia Study Number 28 because he undertook a new and difficult job - organisation of a display in Turkey for 2017. He hopes to resume translation as soon as possible.

Aloe and Haworthia made available under the annual International Succulent Introduction programme operated by the Huntington Botanical Gardens, California.

The I.S.I. has had a longstanding association with the Huntington Botanical Gardens since shortly after its inception in 1958. The programme was accepted in its entirety by the Huntington in 1989 which furthered the Huntington's dedication to aesthetics, education, conservation and scientific study.

The annual presentations of I.S.I plants have continued but, regrettably, the last to appear in this journal was for 2013 (Alsterworthia International 13 (2) 2-6). The reason for this was that new and very important information e.g. the DNA analysis and the accompanying discussions were published, which had to take priority. However we are now able to publish the *Aloe* and *Haworthia* offered by the ISI from 1913 to 1916.

Once upon a time....the Huntington used to make its ISI plants available to overseas countries, but this eventually came to an end because of the amount of work required to satisfy legal plant health requirements. Just one example - if inspectors found that all the plants for export were free from disease, bugs etc. they would still not release the plants for export if they found just one trace of one disease etc. in the domestic stock even if they had been sprayed. The Huntington had to prove to them that at later date that all were now free from disease etc! As a result they discontinued exporting I.S.I. plants.

Of course, if you go to the U.S.A. you can purchase I.S.I. plants there, obtain your own export certificate and health certificate (you must also have a UK import permit to do this) and then you can legally bring your plants back to the UK. You may occasionally find I.S.I. plants offered for sale in the U.K., as a few nursery men (and a few private individuals) visit the U.S.A. from time to time. Once the plants have been legally imported into the U.K. they may move freely between any of the E.U. countries without further documentation.

It is, of course, open to residents in all countries to purchase I.S.I. plants when in the U.S.A., provided they comply with their domestic and U.S.A. legislation.

Details of the I.S.I. plants distributed by the I.S.I. for the years 2014, 2015 and 2016 follow on pages 4-23.

Harry Mays

The editor welcomes articles from members and non-members. Articles long or short, with or without colour photographs, on any relevant subject, on any genera covered by this journal (Please see the heading at the top of the front cover adding "and their cultivars") are always welcome. If English is not your first language please do not let this put you off submitting articles. Just send your colour photographs and articles with brief notes in English as best you can (plus a little simple French, Spanish or German if you wish) and we will draft out an article for you and let you see it before it is printed. Many people put photographs on the web with sparse notes. Many are suitable for printed publication with just a little more information. Please send your articles and photographs to < hmays@freenetname.co.uk >. If you have a large number of photographs, it is best to send them by several e-mail. Please consider what you could send in and encourage your friends to do the same. Dark nights approach in the Northern hemisphere and in the South it is a lot cooler indoors. Please make use of these opportunities to write.

Aloe 'Jeff Karsner'



Name. *Aloe* 'Jeff Karsner' Karen Zimmerman. ISI 2014.

Named in honour of the late Jeff Karsner who served as the Huntington's Children's Gardener, creating whimsical plantings to delight visitors young and old with enough botanical interest to intrigue serious gardeners as well.

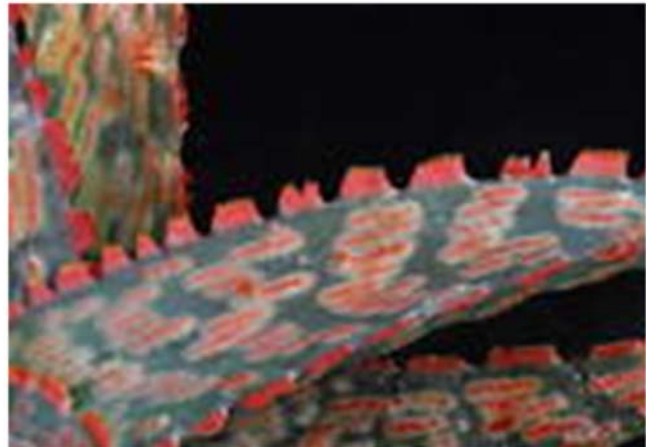
Parentage. *Aloe* 'Confetti' × (*Aloe* Kelly Griffin # 5 × *Aloe* 'Paul Hutchison' [or similar Dick Wright hybrid]).

Description. Rosettes to 10 cm. (4") of broadly lanceolate leaves with a bluish field studded with bands of longitudinally, elongated tubercles with pale green to white bases surmounted by reddish-tipped teeth. The leaf margins bear red, trapezoidal teeth with lacerate tips.

Propagation. The hybrid was made August 3, 2006. Plants for the 2014 ISI distribution were tissue cultured.

Additional comments. Karen Zimmerman has proved to be a highly competent hybridiser of aloes. Karen has bred them to achieve colourful and toothy foliage. They have been distributed by the International Succulent Introductions operated by the Huntington Botanical Gardens in California. The price for *Aloe* 'Jeff Karsner' was \$15 plus postage.

Karen Zimmerman's photographs eloquently reveal the details of this colourful cultivar and the leaf adornments. They smile at you just as does the photograph of Jeff Karsner after whom it was named.





Name. *Aloe* 'Marsha Layhew' Karen Zimmerman. ISI 2014

Named for a dear friend of Karen's

Parentage. *Aloe* 'Dragon' × (*Aloe* Kelly Griffin # 5 × *Aloe* 'Paul Hutchison').

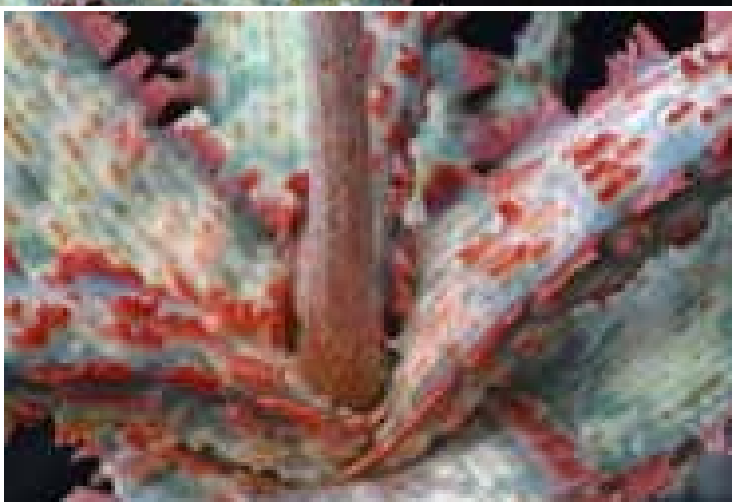
Description. Leaves slender, lanceolate showing the influence of *Aloe* 'Dragon' but they are shorter and more evenly tapered. They are bluish and ornamented with bands of pale green, elongate tubercles topped with one or more conical, fine, maroon teeth either in a line or merged into a ridge. The leaf margins bear prominent trapezoidal teeth with very lacerate tips.

Propagation. Tissue culture.

Additional comments. Photographs by Karen Zimmerman.

The price for *Aloe* 'Marsha Layhew' was \$15.

The photographs of a whole plant, leaf bases and the underside of a leaf clearly display the colours and the tubercles and teeth.



Name. *Aloe* 'Spiney' David Verity. ISI 2014 .

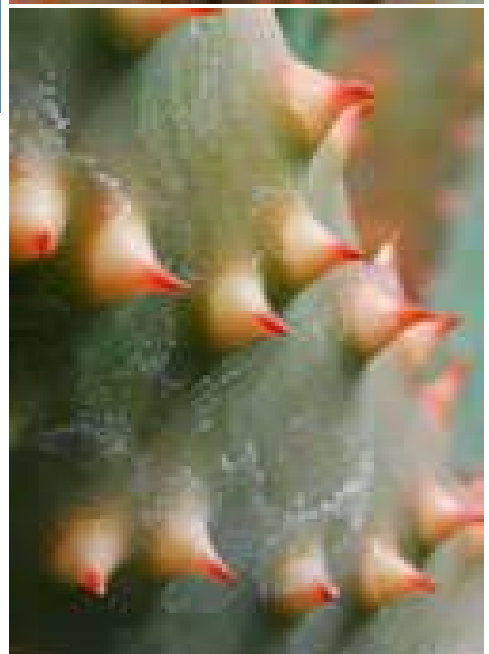
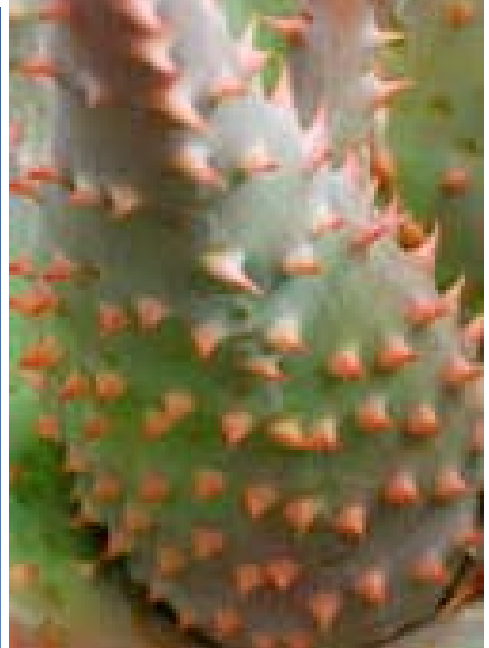
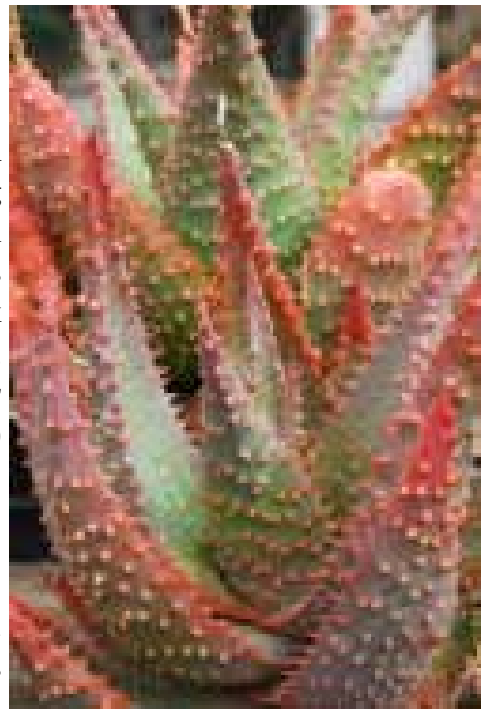
Parentage. *Aloe* × *spinosissima* × *Aloe* *marlothii*.

Description. *Aloe* 'Spiney' has stout, pale-green leaves covered with darker teeth. The red colouration is mainly the result of strong sunlight. *Aloe marlothii* imparts the light-green foliage colour to both *Aloe* × *spinosissima* and *Aloe* 'Spiney'. *Aloe marlothii*, perhaps enhanced by the *Aloe humilis* in its lineage, makes *Aloe* 'Spiney' look like one of the spinier forms of *Aloe marlothii* and imparts its broad, channelled leaves, though these are “miniaturized” by *Aloe humilis* such that the rosettes of *Aloe* 'Spiney' mature at only about 35 cm. (1') across. The flowers are bright red in a quite compact raceme.

Propagation. Plants from tissue culture of HBG 73679 received in October, 1992.

Additional comments. David Verity is a noted horticulturist and plant breeder of various groups, including aloes. During his time as curator of the Mildred E. Mathias Botanical Garden at UCLA from the 1960s to the 1990s he created a number of aloe hybrids, primarily of larger landscape species. One bears his name: *Aloe* 'David Verity'. Another is *Aloe* 'Spiney', named for its stout, pale-green leaves covered with darker teeth. The ISI price for this cultivar was \$8.

The photographs by Karen Zimmerman reveal the nature of the plants, their bright colours and formidable spines.



Name. *Aloe fievetii* Reynolds. ISI 2015.

Parentage. In 2006 the ISI offered another collection of this species without specific locality data. However, the species is only known from the type locality and here we offer the original collection made by Gerard Fievet himself in the early 1960s.

Description.

This species is closely related to *Aloe capitata* with which it shares a capitate, bicolored inflorescence with orange buds opening yellow. It differs in its narrower, channelled leaves and in the normal progression of flowers opening from the bottom of the raceme up (Because the growth takes place at the top of the raceme the oldest flowers at the base open first.) - the reverse is a peculiarity of some members of the *Aloe capitata* complex (Because the growth takes place at the base the oldest flowers at the top open first.).

Propagation. The species grew for many years in the Huntington's upper Desert Garden until it began to decline and was taken to the nursery to recuperate. It was initiated into tissue culture to propagate for this distribution and to ensure its survival in cultivation.

Rooted plants of HBG 20168, a plant collected by G. Fievet at the type locality: Madagascar; ca. 30 km NW of Fianarantsoa, near the village of Andomaranomaitso, on granite rocks at 2100 m elevation. The ISI price for this plant \$8.

Additional comments. The photographs by John N. Trager clearly show lower flowers are the oldest as they open first. The remainder open progressively upwards with the top opening last, as they are the youngest.

The colour of the buds is red tipped pale green which changes as the buds open to yellowish with diffused pale red and pale green tips.



Name. *Aloe montis-nabro*
Orlando & El Azzouni. ISI
2015.

Parentage. The original collection of seed in November, 2002, which was distributed to a few aloe enthusiasts who seemed to be in a race to propagate this desirable species. Anthon Ellert wins the prize for producing sufficient quantity for an ISI introduction.

Description. Described in 2014 (Cactus World 32(3): 2014), this member of the *Aloe somaliensis* complex shares its glossy, attractively-marked leaves which, in this case, bluish a chocolate-brown with elongate silver-white dashes accentuating their slenderness. The leaves recurve in grappling-hook fashion, resulting in rosettes that reach well beyond the confines of a pot. It stands out among its allies in its eventually dense rosettes of up to 40 leaves and inflorescences to nearly 2 m (6') tall, though our potted specimens top out at about 65 cm (2').

Propagation. HBG 123339, second generation plants from controlled pollination of a few plants from the original seed collection, Orlando & El Azzouni 222603, Nov, 2002, at 725m elevation on the pumice plain below the eastern foothills of the Nabro volcano, Southern Red Sea, Eritrea. The I.S.I price was \$17.

Additional comments.

Apparently Anthon Ellert's Arizona heat made his plants feel at home - the pumice-strewn Mabra plain in the shadow of Mt. Nabro is equally sweltering. However, a

plant has also grown and flowered well in the Huntington's greenhouse where it has produced much

seed. Its ease of culture, free-flowering nature, and attractive foliage and flowers make this a new species destined to persist in collections. Its status in the wild is uncertain as no botanists have visited the habitat since the eruption of Mt. Nabro in June, 2011.

The photographs by Caren Zimmerman vividly illustrate the colours and makings, particularly on the tube.



Name. *Aloe* ‘Tingtinkie’ ISI 2015.

Parentage. This Cynthia Giddy selection was received from Umlaas Aloe Nursery in 1973. Said to be an *Aloe bakeri* hybrid. The pollen parent is unknown but, given the robust, bicolored inflorescence, may be *Aloe cryptopoda*.

The name looks Afrikaans but appears not to be composed of common word roots. The implication though is that it is a term of endearment for a “dinky thing” in reference to its dwarf stature in comparison to its relatively large flowers.

Description. The small 15 cm (6") rosettes of this distinctive cultivar have slender, light-green leaves and form a mounding colony. The inflorescences are stout from such diminutive plants and bear relatively large reddish buds opening creamy yellow.



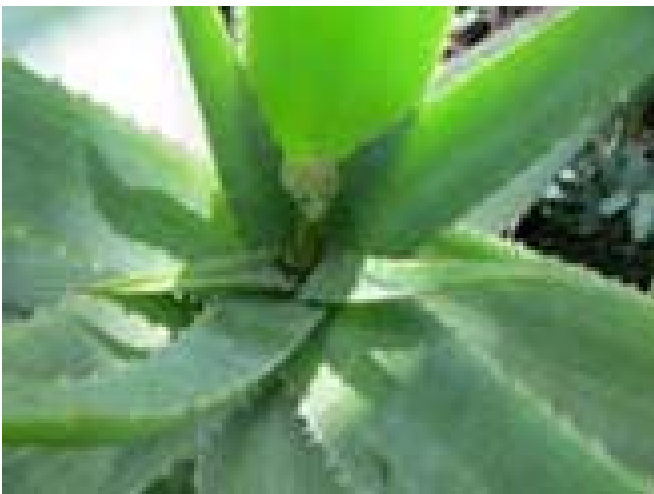
The original description was published in the Cactus and Succulent Journal, Vol. 87 (3), May - June, 2015

Propagation. Division of clumps, but the plants for 2015 ISI offering were from tissue culture of HBG 32505. The price was \$7.

Photographs by John N. Trager



Aloe ikiorum I.S.I. 2016



Name. *Aloe ikiorum* Eieli & G. Powys. I.S.I. 2016.

Parentage. Wild plants, Uganda.

Description. Like many of the more tropical aloes, this plant is simple in appearance, forming usually solitary rosettes of unspotted green leaves, though in bright, xeric conditions these can take on a brownish cast. The leaves of mature plants lack the white spots of “maculate” aloes (like the closely related *Aloe lateritia*), making it, paradoxically, an immaculate maculate.

Propagation. The I.S.I. plants were grown from seed collected at the type locality in the Karamoja region, Kaabong District, northeast Uganda.



Additional comments. At this altitude on the escarpment, ca. 1900 m, there is considerably more precipitation than on the dry plains below and, thus, the aloes often grow in dense *Hyparrhenia* grass in *Combretum*/*Acacia* woodland, photograph above. This species was described in the Cactus and Succulent Journal 83 (6):270-274, Nov-Dec, 2011. Uganda, a country not usually associated with succulents, is home to a number of species including this endemic. The specific epithet was conceived by Dioli to honour the Ik people indigenous to this area of north-eastern Uganda on the escarpment overlooking the Kenyan plain to the east, south of Kidepo National Park. Photographs by John N. Trager.

Aloe 'Sophie' ISI 2016



Name. *Aloe* 'Sophie' ISI 2016.

Parentage. The switched-at-birth saga of this aloe was described three years ago when a sibling hybrid *Aloe* 'Evil Twin' was offered as ISI 2013-13 (see *Alsterworthia International* Vol. 13, Issue 2, page 4. As promised then, *Aloe* 'Sophie' would be released at a later date and, at last, she is ready to make her debut.

Description. While the differences between the two are subtle, they are nevertheless sufficient to allow them to be distinguished and to proclaim 'Sophie' to be superior on the following basis. The inflorescences of *Aloe* 'Sophie' are slightly shorter and the racemes are more distinctly capitate than those of 'Evil Twin' which bears a few stray flowers along the peduncle below the capitate portion of the raceme that make for a less tidy display. The flowers of 'Sophie' are a brilliant lemon-yellow and can be produced several times a year. Once a plant is established it will start to bloom and, as basal offsets form around the parent rosette, it seems that there is almost always an inflorescence, coming or going, year-round.



Propagation. Offsets.

Additional comments. The ISI plants were rooted from tissue culture of HBG 77994. ISI price was \$10.

Photographs by John N. Trager.

Continued overleaf



Magnified *Aloe Sophie'* flowers.

Aloe 'Wily Coyotee' in summer.



Name. *Aloe* 'Wily Coyotee' K. Zimmerman I.S.I. 2016.

Parentage. ?

Description. Rosettes to 25 cm (10") diameter of recurved, lanceolate leaves. These vary in colour with the season; in winter being blue-grey to purplish and more grey-green during the growth of summer. They are armed with prominent red teeth that line the jagged leaf margins and sometimes the upper surface, scattered or in a midline. The teeth start as protuberances of the same colour as the leaf, are yellowish in the middle and are tipped bright red.

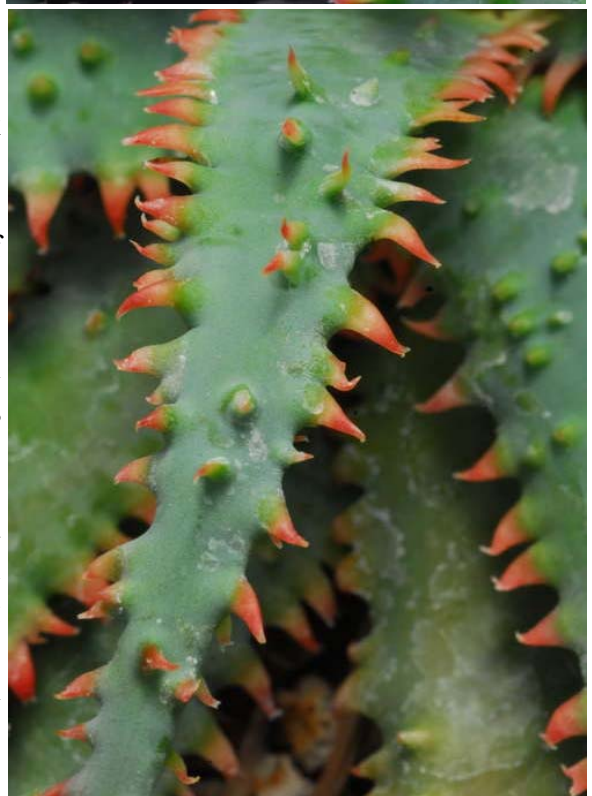
Propagation. Plants from tissue culture of plants with HBG number 126027. The I.S.I. price was \$15.

Additional comments. This is the latest of the Karen Zimmerman hybrids to be offered through the ISI. This new cultivar is named in honour of Cody Coyotee Howard, who left the Huntington to pursue his doctoral studies of *Ledebouria*. Clever lad, that! (See his article about that genus in *Namibia in the Cactus and Succulent Journal*, May-June, 2014.)

The photographs by Karen Zimmerman vividly demonstrate



the upper leaf adornments, marginal and central spines, the lack of spines on the under leaf and the striking colours of the flowers. The basic leaf colour is darkish green with a myriad of tiny, white, dense, scattered spots during summer and winter, but in summer appearing brighter giving the leaf a grey-green appearance.



Name. *Haworthia koelmaniorum* var. *mcmurtryi* (C. L. Scott) M. B. Bayer. ISI 2014.

Parentage. This offering has required a number of propagation efforts to produce enough to distribute. Initially, two batches of seed were received with the same locality information, but collected respectively from a plant with larger, retuse leaves and another that was smaller and darker like *Haworthia atrofusca*. The seedlings of both batches exhibited a nearly identical range of variation. Even combined, these two batches were too limited in number for an offering so they have been supplemented with leaf propagation and tissue culture of numbered clones. Therefore, the 2014 offering was of plants from seed and successive vegetative propagation. The original seed collection was made over a four-week period in the autumn of 1995 by Charles Craib in the hill country near Verena, about 30 km W of the type locality of Loskop Dam.

This is the most northerly species of *Haworthia*, coming from Limpopo Prov., S. Africa

Description. Initially described as *Haworthia mcmurtryi*, its clear affinity led Bayer to reduce it to a variety of the larger, usually more coppery-coloured *Haworthia koelmaniorum*. The smaller variety differs in its shorter, deltoid leaves, more prominent surface tubercles and



higher degree of translucence. The colours are spectacular as shown by the photographs

Photographs. Karen Zimmerman.

Propagation. Leaf cuttings, seed plus occasional offsets, all very slow and tissue culture.

Name. *Haworthia mucronata* Haw. ISI 2014.

Parentage. We offer HBG 65368 and HBG 65369 corresponding to MV 4230 and MV 4231 respectively. MV refers to the late Michael Vassar who received the plants as *Haworthia unicolor* v. *helmbiae*, a synonym, in January, 1990, with the following data: S. Africa: W. Cape, Schoemans Poort, N of Oudtshoorn. This is a mountainous area where the plants were reported to grow among scrub & rocks on steep south-facing slopes.

Description. *Haworthia mucronata* is such a variable entity that one wonders how to make sense of them taxonomically. Bruce Bayer still wrestles with that after a lifetime's study. Nevertheless, he has distinguished a number of varieties that are scattered through the interior of the W. Cape. Those who like clear pigeonholes will find a confounding degree of geographical overlap. Likewise each variety displays a range of variation, often from completely glabrous with translucent windows to opaque and densely covered with teeth and every combination of those features. Clearly there is room for further research. Nevertheless, if one is willing to revel in this wonderful array of natural variation, there are numerous horticultural gems to appreciate. Here we offer two nearly identical clones that fall into the type var. *mucronata*. These are glabrous and without translucent windows on the awn-tipped leaves. Past efforts at pollination have yielded a few seedlings, miniature



copies of their parents. However, the quantity needed for this offering was made possible via tissue culture which tends to produce more clumping plants.

Propagation. Offsets, seeds, tissue culture.

Additional Comments. The photographs of plants from the side, the top, and a magnification of part of the top by Karen Zimmerman clearly show the leaves to be glabrous. The I.S.I. price was \$7.

Name. *Haworthia mucronata* var. *inconfluens* (von. Poelln.) M. B. Bayer.
I.S.I. 2014.

Parentage. Wild plants.

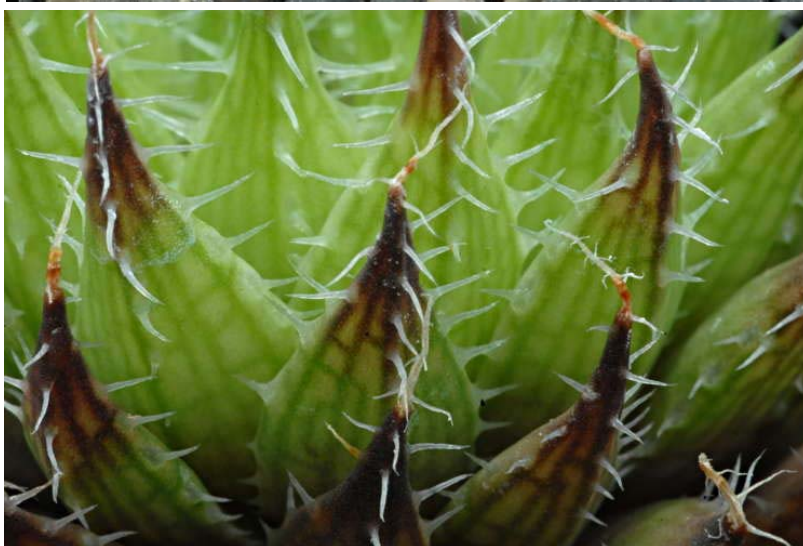
Description. As with the type variety, this displays a full range of variation from glabrous to densely toothed, windowed to opaque. The form offered here has a distinctive opaque, light-green coloration with purplish tips and prominent marginal teeth.

Propagation. Offsets and seed plus tissue culture if you can afford it.

Additional comments. The plants distributed by the I.S.I. under I.S.I. 2014 are from tissue culture of HBG 119466, plants which were from seed of plants originally collected at Barrydale, W. Cape, S. Africa. The I.S.I. price was \$10.

The photographs by Karen Zimmerman clearly show the features in the above description. The first is of a whole plant and the second of an enlargement of a few leaves. The latter clearly shows features not clear in the first photograph. The leaf is a medium green with longitudinal lines of oblong to square, light, greenish-white blocks, separated and by the medium green longitudinal and cross lines. The appearance of the prominent teeth along the leaf edges and keel appear greenish-white or solid white depending on the angle of the light.

The third appears to be a second clone showing unity with the first clone in all respects.



Name. *Haworthia retusa* 'Solitaria'. ISI 2014.

Parentage. Wild plant.

Description. One might think that this species is so well-represented in cultivation that yet another distribution is hardly merited. However, it is such a popular subject in collections and is so variable, occurring in a multitude of attractive forms, that it continues to be in demand. The form described as var. *solitaria*, as the name implies, forms usually solitary rosettes and is, therefore, not as readily propagated as offsetting forms. Typical of the species is the flattened, windowed and lineate, retuse leaf apex but rough with concolorous tubercles and with a terminal bristle.

Propagation.

Plants from tissue culture of HBG 73876, received from Myron Kimmach (55263) who got it from UCBG 54.042. This is the clonotype of the plant J. R. Brown (01082) wrote about in the Cactus and Succulent journal in 1953, that G. G. Smith described as var. *solitaria* (Journal of S. Afr. Bot. XII (1946) 5). The type material came from Smith (5373) who received it from J. Dekenah (his # 5). Dekenah collected it in October, 1942, about 6 miles N of Riversdale on the Corrente River, W. Cape, South Africa. While this litany of collectors and numbers may seem excessive, it is exactly the sort of record keeping that leads back to habitat information. This in turn adds greatly to this plant's historical and scientific value. So, keep those labels! As the variety is now considered to be merely a synonym of *Haworthia retusa*, we recognize it here as a cultivar.

The ISI price was \$6.

Additional Comments. Photographs by Karen Zimmerman.

The upper and central photographs depict the features of the plant and the enlarged third photograph the detail more clearly, particularly the terminal spine and teeth along the edges of the leaves.



Name. *Haworthia gracilis*
var. *tenera* (Poelln.)
M.B.Bayer ISI 2015.

Parentage. Wild plant.

Description. *Haworthia gracilis* is a complex, variable entity that can be smooth or toothy, but var. *tenera* is characterized by Bayer as a usually more rounded and neater plant than the type.

We grow a handful of clones that encompass much of the variation of the variety but Clone 4, offered here, is a particularly compact and delicately toothed form.

Propagation.

We offer divisions of HBG 73599, collected by Michael Vassar (6413), 10 km E of Committees on the Fish River near Gr ahamstown, E. Cape, S. Africa. \$6

Additional Comments.

Photographs by Karen Zimmerman.

The top photograph is a side view of the plant and the central a top view. Greater detail of the leaves is shown in the enlarged bottom photographs with dark green interrupted by longitudinal stripes of light green but showing a yellowish light green in magnification.





Name. *Haworthia semiviva*
(Poelln.) M.B.Bayer. ISI 2015.

Parentage. Wild plant.

Description. *Haworthia semiviva* is a strictly winter-growing species, like some of its relatives, but its broad, translucent leaves with prominent lineate veins, stand out. As dormancy sets in, the apical quarter or more of each leaf dries and folds in to protect the growing point during the long dry summer. This habit is the source of the specific epithet, which means “half alive”. As Frank Horwood used to joke, this also means that the plants are “half dead”, on their way to finally succumbing to over-watering. A mostly dry summer dormant period must be observed if one expects to maintain this plant in one’s collection for long.

Propagation of this offering. We offer plants from tissue culture of a clone that has survived in cultivation for many years. HBG 101181 was obtained from Seymour Linden in 2003. Seymour



received his plant from the late British Haworthia specialist Joyce Coccoza, who was known for her superior selections. The species is strictly solitary, recommending it as a candidate for tissue culture. Its range is surprisingly broad, spanning the dry interior of the northern W. Cape and southern N. Cape provinces of South Africa. While the more easterly parts of this range may receive some summer rain, it is best given summer water sparingly, if at all, in cultivation. The I.S.I. plants cost \$10.



Additional Comments.

As haworthias go, this one has experienced relatively few nomenclatural shufflings. It is so distinctive that only a couple of authors have suggested treating it as a variety of some other species: *Haworthia bolusii* var. *semiviva* Poelln., and *Haworthia arachnoidea* var. *semiviva* (Poelln.) Halda. While affinity with those widespread and variable species is obvious, the uniqueness of *Haworthia semiviva* justifies its retention at specific level without much argument from those who spend their time rationalizing their taxonomic tap-dancing.

John Trager's comments on the seasonal growth of *Haworthia semiviva* (also classified as a variety of *Haworthia bolusii* by recent authors) are particularly relevant. Many people decline to cultivate the plant quoting difficulties and losses. If cultivated the correct way, it is *relatively* easy. The problem is that difficulties are associated with different climatic conditions.

South Africa's climatic conditions generally range from Mediterranean in the southwestern corner to temperate in the interior plateau, and subtropical in the northeast. A small area in the northwest has a desert climate. Most of the country has warm, sunny days and cool nights and is located to the south of the Tropic of Cancer. Contrast this with countries north of the Tropic of Cancer, particularly those North of the Mediterranean. In the north, the seasons are reversed with their summer when South Africa has "winter" and **winter** when South Africa has summer and the differences between the two seasons in the North can be considerable and much more variable in themselves. *Haworthia semiviva* does not like the variable, damp, cold winters of the North with often changeable weather and may



(does) not welcome watering under these conditions in the winter, the plants growing season. The result is that people tend to water in small amounts in the summer but after time the plant generally die as a result. Contrast this with California, also to the North of the Tropic of Cancer, with a Mediterranean climate much more to the liking of *Haworthia semiviva*. Huntington Botanical Gardens, the home of the ISI, is in California. Although *Haworthia semiviva* is frequently described as solitary, occasionally a multiple headed specimen is produced - a photograph of a double headed plant, supplied by Ken Uy, is above. Thus European growers can claim that they at a disadvantage when compared with Californian. European growers will have comparable success only if they apply appropriate quantities of water in the winter, in a temperature suitable for growing and ensure that the air is not too humid. Only experience can provide the correct parameters. The editor would welcome details of success or failure.

Photographs by Karen Zimmerman.

Name. *Haworthia truncata*
'Milky Way'. Myron Kimnach,
ISI 2015.

Parentage. Created and named by Myron Kimnach, who crossed two thick-leaved clones of *Haworthia truncata* he obtained from Dr. Meredith Morgan in the 1950s.

Description. As for the species which is minutely warty at the truncate ends except that this cultivar has innumerable, minute, whitish, scattered tubercles which give the plant a milky appearance, the feature which gives rise to the cultivar name.

Propagation. The cultivar offered are rooted offsets from tissue culture of HBG 123343.

Additional comments.

There have been intensive efforts in the breeding of *Haworthia truncata*, especially in Japan, to create new patterns and colours in the distinctive, truncate, windowed leaves. The I.S.I distribution is the

result of Myron Kimach's cultivation skills and tissue culture. The high density of the white spots in the truncate leaf ends are clearly discernible, but the milky appearance is clearer in the above rosette, which is only a little in excess of normal size compared with the much higher magnification below, where the spots are not as close together.

The ISI price was \$10 each

Photographs by Karen Zimmerman.



**Name. *Haworthia* 'Hakuja' R.
Wong. ISI 2016.**

Parentage. It is a complex hybrid in George Wong's words: (*Haworthia splendens* (pretty face) × *Haworthia emelyae* (south of Oudtshoorn)) × (*Haworthia splendens* (west of Albertinia) × *Japanese hybrid*) × (*Haworthia splendens* (west of Albertinia) × *Japanese hybrid*). In other words, it has a splendid pedigree. It was selected from a batch of seedlings by Renny Wong, another noted haworthia hybridizer, who, according to George has "a keen eye for selection". Propagating by the somewhat laborious leaf cutting method, Renny has been able to offer on her website, a few specimens of this clone under the name 'Hakuja' ("white snake" in Japanese). That, then, is the name used here for this offering of tissue-cultured plants of HBG 126028, GT 43. \$15.

Description. Compact rosette of prominently-retuse, turgid leaves. Windows whitish with prominent longitudinal dark reddish lines in varying lengths and a smaller number of transverse lines. The lower half of the upper leaf and the under side of the leaf are both reddish with many small white spots.

Additional comments.

Among the US hybridizers is George Theodoris of northern California, whose article about his work appeared in the September-October, 2011 issue of the Cactus and Succulent Journal. The plant offered here is the first of George's hybrids to be offered by the ISI.

Japan has been home to some of the most intensive collecting, hybridization and selection of various groups of succulents, including haworthias. The

results have gradually trickled into the US, slowed by the glacial growth rate of some of these, their difficulty of propagation and the corresponding prices they demand.

Hybridization and selection efforts in the US, and the advent of tissue culture protocols for *Haworthia* have begun to remedy this situation.

Photographs by Karen Zimmerman.



Acknowledgments for Preceding Article.

John Trager for permission use the text he prepared for each item for 2014 - 2016
I.S.I. distributions, for permission to use his photographs and for obtaining approval for the
use other photographers' photographs.

The names of each photographer are shown for each species.

Please note that the layout is somewhat different from that of John Trager and that

Additional Comments have been added by the editor.

Corrigendum by Ingo Breuer.

In Special Issue No. 11 "Some new combinations in Haworthia. Haworthiopsis. Tulista." page 7 and in the journal Alsterworthia International July 2016 page 7, Ingo Breuer gave the reference for the Basionym of the new combination *Tulista kingiana* as
"*Haworthia kingiana* V. Poelln. in Cact. J. 5:31 (1036)".

This is now amended to:

***Tulista kingiana* (V.Poelln.) Breuer comb. nov.**

Basionym: *Haworthia kingiana* Poelln. Repert. Spec. Nov. Regni Veg. 41: 203. 1937.

Corrigendum by Dr M. Hayashi.

In the Japanese Journal Haworthiad 15: 16, 2001 *Haworthia crousii* spec. nov. Hayashi, the species' name was misspelt. The species is named after Mr. S. J. Crous of Pretoria, who indicated the locality of this species to the author.

The correct entry is *Haworthia crousii* Spec. Nova. Hayashi.

Just a reminder!

**Renewal subscriptions for the printed journal for 2017
are now due.**

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A brief look at some plants in my collection

Jozef Verhoeven

Leonard Meesstraat 21, 3970 Leopoldsburg, Belgium.

My collection of plants consists mainly of *Gasteria*, *Haworthia* and *Aloe* and their hybrids. Most of them are cultivated in bimsbies, but also in a mixture of soil and bimsbies.

In the winter period they are not regularly watered, but beginning with March I water the plants using also a bit of manure substance. My plants are getting full sun. Only in the summer period, when it becomes too hot, I use a net to protect the plants from getting burned. Both in winter and in summer, in short all the year round, the greenhouse gets good ventilation. In July and August the plants have a rest period and therefore get almost no water.

Cross-pollination is sometimes made, and I have already succeeded in producing some seeds, but sowing is not always a success.

I try, however, to make hybrids with haworthias - sometimes they are successful.

I try also to propagate my plants from leaves, but I'm not always successful. It depends a little on the type.

Plants from the genera *Aloe*, *Gasteria* and *Haworthia* are easy in cultivation if one keeps to some rules. In winter when the plants take a rest give them no water, sprinkling is possible. Beginning with March, give them regular watering using a fertilizer. Remember that in July and August the plants have a summer rest. Very good ventilation is especially important. Winter temperature around 5 or 6C is sufficient for the plants.

Below you can see a few plants from my collection.



Haworthia truncata

'Ivory Tips'

This is the plant I received from Tarrington under the name *H. truncata* x *setata*. When the plant has some full sun, it lets you see why it has been named 'Ivory Tips', because the tips of the plant turn golden.

My apologies to Jozef for the late publication of this article. Harry Mays.



Aloe 'Jade Temple'

This cultivar is a selection from a cross between (*Aloe somaliensis* x *Aloe rauhii*) x *Aloe dinteri*.

It is a beautiful, clean compact plant, which will probably appeal to anyone who want to cultivate small aloe hybrids.

Aloe 'Little Three'

This is another compact plant which offsets. The green leaves have creamy-white spots and teeth. It is similar to *Aloe descoingsii*, which is one of its parents. The other parent is not known but it is speculated that it may be *Aloe humilis*.

It is easy to keep but growth is slow. I keep these plants in full sunlight, fertilise and water regularly. I obtained my plants from Max Holmes. Australia.



Aloe 'Snowflake' x Aloe 'Doran Black'

A well-marked, beautiful, compact hybrid produced from two hybrids, though *Aloe rauhii* might be suspected to be one parent. The leaves are striking with a prominently white wart-like pattern and teeth on the reddish-brown edges.

I keep these aloes in light shade and give them regular watering with only a small quantity of fertilizer so as to keep them compact.



Haworthia decipiens. Campherpoort.

Some photographs of habitat plants in cultivation.

A limited number of plants that have been in cultivation for many years may have been used to produce seed. These plants will represent a much more limited gene pool than in habitat. Their use to produce seed is a form of selection that would not normally exist in habitat. It follows that the progeny may have slight or more significant differences than plants in the wild, consequently one can lose sight of what a true habitat plants may look like. If this system of home production of seed is continued over time cultivars may be produced. This process is enhanced if the plant owner deliberately selects individual plants for seed production. Each habitat plants in cultivation represents only a single clone. Other clones in habitat may have (slight) differences, the result of genetic variability, and produce a more varied crop of progeny. Therefore, for each clone in cultivation pictured you are left to imagine what the other clones in habitat look like!



Haworthia emelyae v. *comptoniana*. Georgida.



Haworthia. magnifica v. *atrofusca*. NW of Riversdale.



Haworthia pygmaea f. *crystallina*.



Haworthia scabra v. *starkiana*. Schemanspoort.



Haworthia decipiens. W of Klipplat



Haworthia variegata v. *petrophila*



Haworthia scabra v. *scabra*. Kleynshoogte



Haworthia truncata v. *maughanii*. S of Calitzdorp



Haworthia vlokii. E of Meiringspoort.



Haworthia truncata v. *truncata*. Vanwykskraal.



Haworthia minima (now classified in the genera *Tulista*). Rooiberg, Calitzdorp. Note the spaced, elongated, oblong, uniform, tubercles, which differ in other habitat clones.