

ALSTERWORTHIA INTERNATIONAL

THE SUCCULENT ASPHODELACEAE JOURNAL

Aloe jawiyon, Jabul Buzairi



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Haworthia 'Ollason's Pride', a new name for an old cultivar

Paul I. Forster

Long before the current wave of newly named, sometimes beautiful, often ordinary, *Haworthia* cultivars, there was *H. ollasonii* G.R. Hayes. This cultivar is thought to be a hybrid of *H. cooperi* and persists in cultivation (at least in Australia) because a well grown individual is a joy to behold (Fig. 1-2). The plant concerned was a self sown seedling in the collection of L.O. Ollason in Sydney, Australia and after his death, G. Ren Hayes (1971) named it as *Haworthia* 'ollasonii'. At the time, there was a subgroup in the Cactus & Succulent Society of New South Wales, dedicated to *Haworthias*, namely the N.S.W. *Haworthia* Study Group. The plant was formally named, well illustrated and comprehensively described by Hayes as part of their series on *Haworthias* cultivated in Sydney at the time.

The use of a Latinised patronym for a cultivar is not permitted under the *International Code for the Nomenclature of Cultivated Plants*; hence *H. ollasonii* requires a new name. It is here renamed nearly 40 years on, still with the intention of honouring L.O. Ollason.

***Haworthia* 'Ollason's Pride'** P.I. Forst., **cultivar nova**

Standard: Illustration and description published as *H. ollasonii* G.R. Hayes, *Cact. Succ. J. (N.S.W.)* 8(2): 25-26 (1971).

The standard has been deposited with the Herbarium, RHS Garden, Wisley, Woking Surrey, GU23 6BQ, UK

Sept., 1971

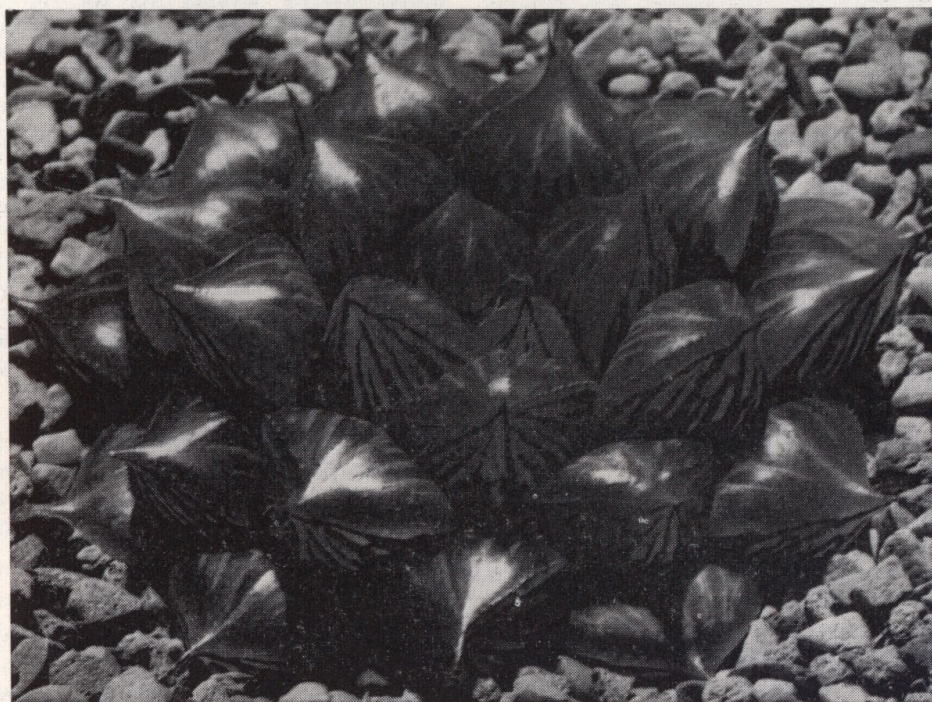
"CACTUS AND SUCCULENT JOURNAL"

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"N.S.W. *Haworthia* Study Group"

*The Legend of *Haworthia* 'ollasonii'*

A beautiful *Haworthia*, found in Australian collections, is one under the name of *Haworthia* 'ollasonii'.



H. ollasonii

Photo by A. E. SPEECHLEY.

Mr. L. O. Ollason, affectionately referred to as "Olly", spent the last 23 years of his life amongst his cacti and succulents at his home in Hurstville, a suburb of Sydney, N.S.W.

When Mr. Ollason passed on, his widow asked Mr. Ren Hayes to assist her tidy up the gardens, as in his last months, "Olly" had been incapacitated.

Among plants found in Mr. Ollason's gardens was an outstanding *Haworthia* which Mrs. Ollason assures the writer had "come up on its own accord".

As Mr. Ollason had, no doubt, distributed this plant to some of his

clients, it is not known what name he tagged it.

This *Haworthia* often stays as a single plant for many years, before dichotomously dividing, making it hard to divide the plant without spoiling its beauty. While again, it often produces offsets from above the lower leaves and forms a symmetrical mound. Successful reproduction can also be obtained from leaf cuttings.

Mr. Hayes, with Mrs. Ollason's permission, in 1956, called it *Haworthia* "ollasonii" in memory of "Olly".

This plant can be given pride of place in any *Haworthia* collection.

Continued next page

*N.S.W. Haworthia Study Group**Haworthia 'ollasonii'*

Rosette of about 40 leaves, 60-90 mm. in diameter, slowly proliferous by dichotomously dividing or slowly offsetting from the base of the lower leaves.

Leaves, obovate-spathulate, the young erect, the older spreading and retused at an angle of about 50°, firm, 35 to 40 mm. long and ending in a 5 mm. bristle, 10 mm. wide towards the base, 17 to 20 mm. wide just below the end area, 4 mm. thick at the base, 15 mm. thick at base of end area.

Face of leaf, towards the base, flat to slightly concave, light green, towards the base of the retused surface darker green, concave, with distinct ridges. Retused end area 15-17 mm. long by 20 mm. broad with a distinct hump at the base of retused area, translucent, with 6-7 green lines, none reaching the tip.

Back of leaf, lower third light green, upper two-thirds dark green and distinctly rounded, with a sharp keel in the last third. The last portion of the leaf translucent, with up to 12 longer and shorter lines, several of which are a darker colour and run into the bristle.

Margins with 1 mm. translucent teeth, keel, in upper half with similar teeth. Peduncle to 375 mm. or more long, simple, 2 mm. in diameter sterile bracts 10 to 15, 10 mm. long, the lowest 15 mm. long, deltoid-acuminate, white with a reddish-brown nerve. Pedicel, short, only 1 mm. long, 1 mm. in diam. Perianth, white, with a green throat, 14 mm. long, with the cylindrical base swollen to 3 mm. in diameter, constricting above the ovary to 2 mm. Upper segments recurved at their tips, middle segment with bright green nerve, two outer segments nerve brown-green. Lower segments recurved downwards, middle lower segment brown-green nerve, two outer segments nerve green.

One of the distinguishing features of this *Haworthia* is the transparent and turgid appearance of the leaf which can be seen to advantage by back-lighting.

I have much pleasure in naming this *Haworthia* in honour of my late friend Mr. Ollason.

—G. REN HAYES



Haworthia Update Volume 6

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Haworthia Update

Essays on *Haworthia*
Volume 6.

Bruce Bayer



Chameleon - Gouritz

Haworthias under North Indian Climate.

Shanker Lal Gupta

Manager, Maharaja Agrasen Model School, CD-Block, Pitampura, Delhi, 110034, India

My hobby of growing plants started in March, 2000. I was ever fascinated by various varieties of plants in India and abroad. My hobby turned into passion after I became a member of The Indian Society of Cacti & Other Succulents (ISCOS) on 31.03.2002. While growing Cacti and Succulents I came across haworthias in the year 2004 and my journey began when I purchased around 10 plants from ISCOS annual show. Due to lack of knowledge about growing them, I lost six plants during a hot and high humidity summer (40°-45° Celsius).

At the 2005 ISCOS Annual Show, I met Mr. Soumen Aditya, (Soumen is an expert grower of Cacti & Succulents in India; he belongs to the Village Maju, Howrah Calcutta). I purchased some plants from him. Soumen advised me to buy some rare species of haworthias from Sheilam Nursery, South Africa. I purchased about 25 species (2 of each) from Sheilam, out of which I gave 15 haworthias to Soumen, since he happens to be an expert grower. I could hardly save 10% of my haworthias by 2006 due to extremely hot summers in Delhi from May to August (37°-44° Celsius).

By the end of 2006 I again purchased a lot of haworthias (about 50) from Sheilam Nursery and Ingo Breuer. I started taking advice from Soumen on a regular basis over the telephone. As per his advice I began watering carefully, as required during the hot and rainy summer seasons i.e. from May to September. With his expert guidance, I was able to save about 50% of the haworthias this time. Their beauty fascinated me and I fell in love with them and determined to grow them successfully.

With developed confidence and passion for haworthias, I once again purchased a lot (100 species) from Sheilam, Ingo Breuer, Ernest Specks and Francois Hose, Belgium.

Until 2006 I used to include Yamuna River sand in my potting mixture, but the result was unsatisfactory. During my visit to Soumen's village (Maju), I came across gritty Golden river sand, which is full of rich minerals such as Iron, Boron, Magnesium, Manganese etc. I found that this sand was being used by almost all the nurseries in and around Calcutta to propagate annuals, especially Dahlias, Chrysanthemum etc. We experimented with gritty golden river sand to grow haworthias and to our surprise it worked a miracle. The root formation was extremely fast and healthier. I immediately ordered 150 cubic feet of this miraculous sand (Price of sand GBP100 - Transportation GBP350 from Calcutta to New Delhi).

The soil mixture prepared by Soumen when re-potting haworthias at my school garden in October 2007 had Golden River sand (50%), Vermi-compost (45%) and the balance of 5% comprised Bone Meal, Furadon (insecticide) and Bavastin (fungicide).

As per his advice, I watered once a week during winters and every 20-25 days in summer. Water was not required when the temperature exceeded 40°

Celsius. I added fungicide to alternative waterings. His expert advice over the telephone cost me around GBP400 during October 2007 to September 2008.

By middle of 2008 my ever growing confidence towards haworthias made me buy 80 new species from Sheilam, Ingo Breuer, and Ernest Specks. In October, 2008, while re-potting, we found healthier root formation in almost every *Haworthia*. We had great results (less than 1% causality), it was the result of the miraculous golden, gritty, river sand and our passion.

The haworthias were in excellent growth from November 2008 to April 2009. By mid May 2009 the temperature had risen to 35°-40° Celsius resulting in dormancy. Mr. Soumen came to Delhi during the summer (May 2009) and found many plants were dehydrated. He watered for three days continuously with some liquid nutrient solution. On the fifth day, 90% of the haworthias started showing growth. He advised me to water them every 15 days till the temperature exceeded 42°-43° Celsius, relative humidity about 40-60%. During the rainy season we stopped watering. To our surprise, the haworthias showed very good growth in odd conditions/temperature (May-September), which is supposed to be a dormant period for haworthias in Northern India. Soumen and I enjoyed admiring the plants and discussing them for hours.

In October 2009, as Soumen was busy with his field tours, I myself re-potting and found no casualties. No root loss was noticed in any of the haworthias, instead I found healthier roots in all of them. Unfortunately I could not grow *Haworthia koelmaniorum* well.

While writing this article, my dear friend Soumen is sitting besides me and we are enjoying and admiring our Haworthias. We have further ordered some of the new species from Sheilam and Ingo Breuer.

The pictures which follow, pages 6-10, exhibit the growth of haworthias in our school garden potted in the golden, river sand of Calcutta.

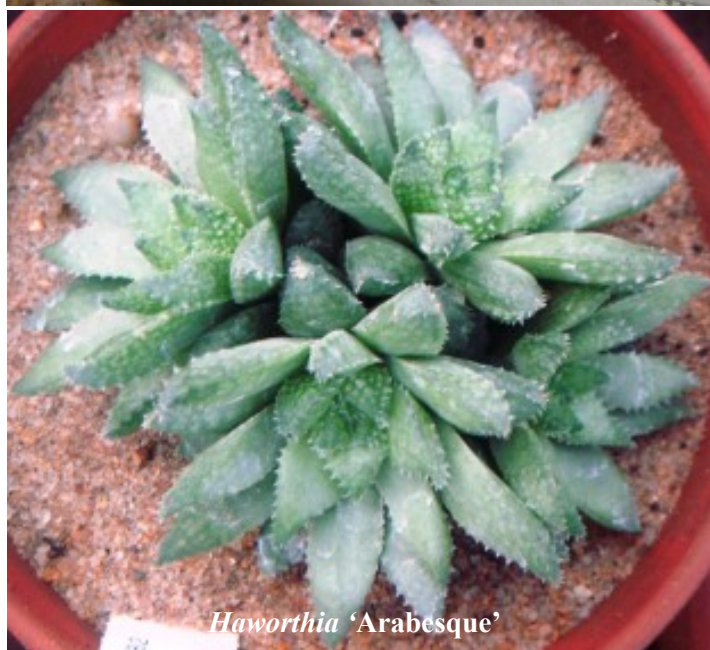
Acknowledgements:

I am grateful to my school members for extending their full support to me in all aspects. My special thanks to Mr. S.C. Mangla, my mentor in this respect.

I am also grateful to Soumen Aditya for giving me unconditional support and guidance without which I would not have become fascinated with, and successful in, growing haworthias.

The following photographs show haworthias in cultivation at MAMS (Maharaja Agrasen Model School, Pitam Pura, New Delhi, India) under the guidance of Mr. Soumen Aditya of Calcutta, India. The collection is being look after by Mr. Shanker Lal Gupta.

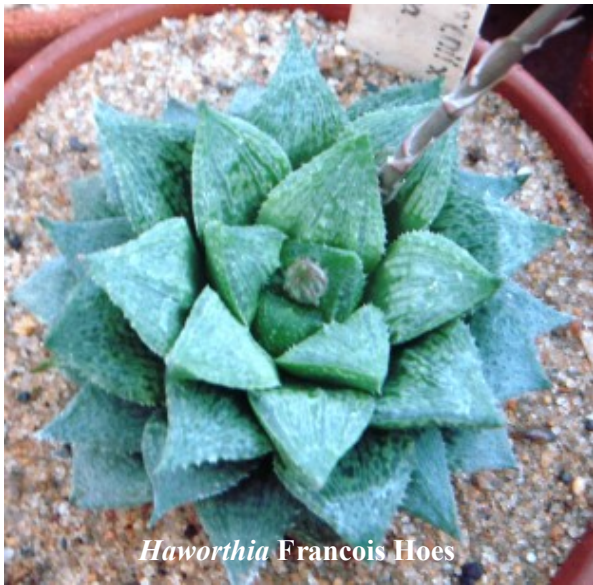
Copyright for photographs: Mr. Soumen Aditya



Haworthia 'Arabesque'



Haworthia Francois Hoes



Haworthia Francois Hoes



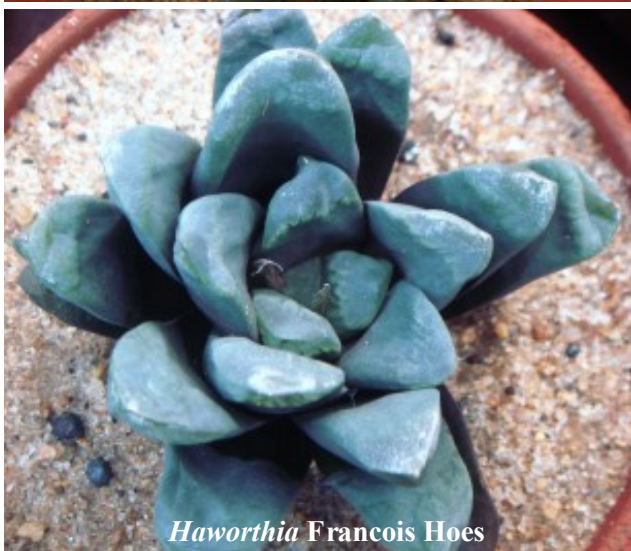
Haworthia Francois Hoes



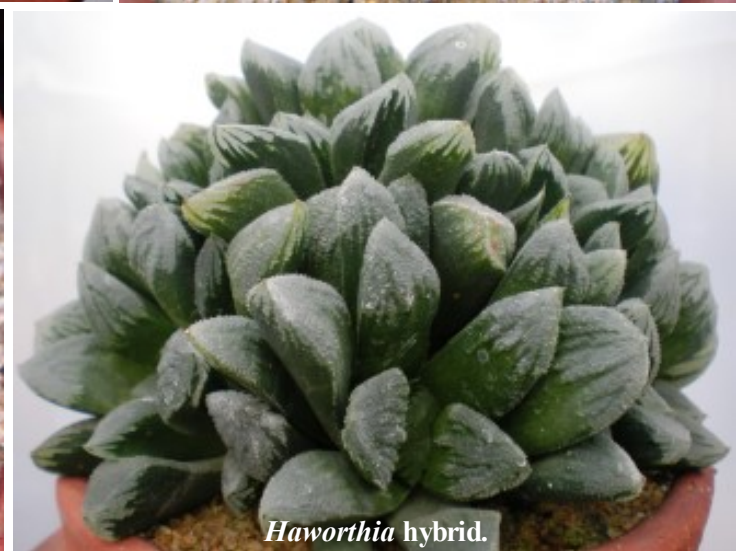
Haworthia Japanese



Haworthia Francois Hoes



Haworthia Francois Hoes



Haworthia hybrid.

**The parentage and names of some cultivars are not known.
For some, the name of the person who is believed to have supplied the original plant has been indicated.
Any help with correct cultivar names and parentage would be greatly appreciated.**



Haworthia Francois Hoes



Haworthia 'Kentaiku'



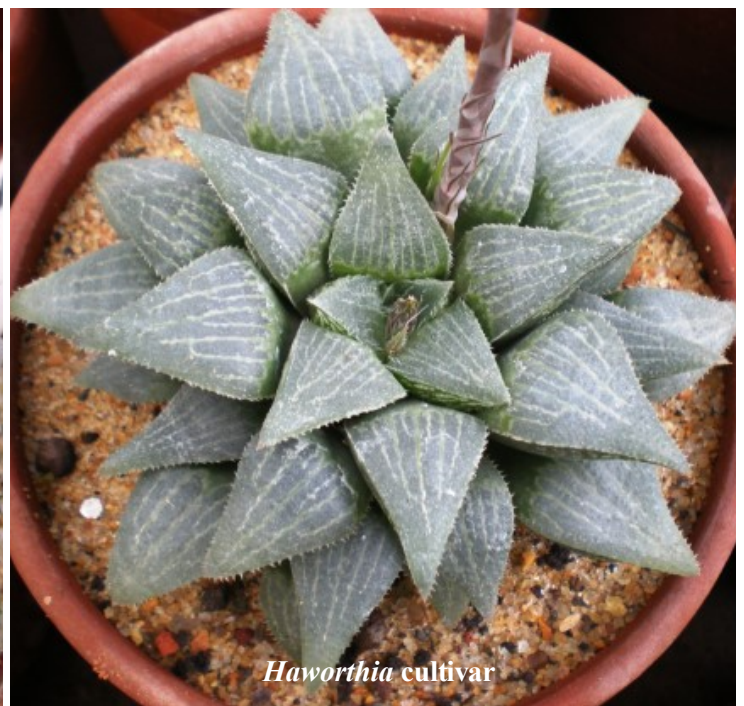
Haworthia cultivar



Haworthia 'Snehanuv'



Haworthia cooperi variegated



Haworthia cultivar



Haworthia 'Isomorpha'



Haworthia lockwoodii



Haworthia limifolia variegated



Haworthia limifolia variegated



Haworthia mutica variegated



Haworthia mutica variegated



Haworthia retusa variegated



Haworthia cultivar



Haworthia tortuosa variegated



Haworthia tortuosa white

This issue brings our 10th Anniversary to a close.

Our success is the result of the support we receive from

- a) Our Honorary Representatives, who represent Alsterworthia International effectively in many countries**
- b) Our authors, both members and non-members, who provide the essential articles, and**
- c) our members whose support is absolutely necessary.**

I extend my sincere appreciation for everything you have, and are doing, to make Alsterworthia International a success. Long may it continue.

Harry Mays

Four New Hybrid Cultivars.

Jean-André Audissou
36 Avenue du Stade, 17450 Fouras, France.



×Gasterhaworthia 'Herr Bat'

Parentage. *Gasteria batesiana* (Barberton form) x *Haworthia glauca* v. *herrei*.

Description. Rosulate, leaves erect to spreading, linear to lanceolate, terminating in a small, brown spine; dark green; scattered, dense, white tubercles on both leaf surfaces; margins many, small white teeth.

Propagation. Offsets and leaf cuttings.



×Astroworthia 'Nain Jaune'

Parentage. *Astroloba bullulata* x *Haworthia minima*.

Description. Rosette caulescent; leaves erect to spreading with age, dark green, all surfaces covered in small, scattered, white spots, prominent tubercles in recognisable vertical and horizontal rows mainly on the under sides, occasionally on the upper, tip mucronate, brown.

Propagation. Offsets.



×Gasterhaworthia 'Figaro'

Parentage. *Gasteria batesiana* (Barberton form) x *Haworthia scabra* fa. *tuberculata*.

Description. Rosulate; leaves elongated lanceolate, spreading, reclinate, dark green, both surfaces many scattered, prominent, green tubercles, margins with distinct rows of tubercles.

Propagation. Offsets and leaf cuttings.



The standards for these four cultivars have been deposited with the Herbarium, RHS Garden, Wisley, Woking Surrey, GU23 6BQ, UK

×Gasterhaworthia 'Coated Tongue'

Parentage. *Gasteria 'Isomatsu'* x *Haworthia 'Little Warty'*.

Description. Rosulate, acaulescent; leaves mucronate, tongue shaped, to



short lanceolate, somewhat asymmetrical producing a slightly twisted tip with mucron; dark green showing as occasional, longitudinal lines between dense, small, greyish-white tubercles

Propagation. Offsets and leaf cuttings.

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<i>coarctata</i>	10(1)19	v. <i>pulchella</i>	10(1)18
<i>cooperi</i>	10(2)24	'Pulin-Supravha'	10(12)23
spec. 1	10(1)18	<i>pumila</i>	10(1)19
spec. 2	10(1)18	<i>pungens</i>	10(1)19
spec. 3	10(1)18	<i>pygmaea</i>	10(2)18,20,21,22
spec. 4	10(1)18	<i>reinwardtii</i>	10(1)19
variegated	10(3)8	<i>reticulata</i>	10(1)17
v. <i>dielsiana</i>	10(2)19	<i>retusa</i>	10(1)7,25, 10(2)18
v. <i>gracilis</i>	10(1)18	variegated	10(3)10
v. <i>picturata</i>	10(1)18	v. <i>acuminata</i>	10(2)24
v. <i>pilifera</i>	10(1)18	v. <i>longibracteata</i>	10(2)23
v. 'puberula'	10(1)18	v. <i>nigra</i>	10(1)24
v. <i>venusta</i>	10(2)18,19,23	<i>rossouwii</i>	
v. <i>viridis</i>	10(1)18	<i>calcarea</i>	10(1)17,??,???
cultivar	10(3)10	v. <i>rossouwii</i>	10(1)18
<i>cymbiformis</i>	10(1)5	<i>scabra</i> v. <i>morrisiae</i>	10(1)9
<i>cymbiformis</i> 'Frog Mouth'	10(1)4	<i>schoemanii</i>	10(1)7
<i>cymbiformis</i> v. <i>incurvula</i>	10(1)18	'Snehaneer'	10(2)18
<i>cymbiformis</i> v. <i>obtusata</i>	10(1)18	'Snehanuv'	10(2)19,21,22,10(3)8
<i>cymbiformis</i> v. <i>setulifera</i>	10(1)18	<i>sordida</i>	10(1)19
<i>decipens</i> v. <i>xiphophylla</i>	10(1)18	'Soumyajit'	10(2)21,22,24
<i>emelyae</i> v. <i>major</i>	18	<i>springbokvlakensis</i>	23,24
<i>enigma</i>	10(1)7	× <i>subattenuata</i> 'Kinjoh'	10(1)1,6
<i>fasciata</i>	10(1)19	'Three Sisters'	10(2)18
<i>floribunda</i>	10(1)7	<i>tortuosa</i> variegated	10(3)10
Francois Hoes	10(3)6,7,8	<i>tortuosa</i> white	10(3)10
'Funny Guys'	10(2)23,24	<i>translucens</i> ssp. <i>tenera</i> 'Anemone'	10(1)3
<i>glauca</i>	10(1)19	<i>truncata</i>	10(1)8,9
hybrid	10(3)7	<i>truncata</i> 'maughanii'	10(1)17
'Isomorpha'	10(3)9	<i>turgida</i>	10(1)25
<i>jakubii</i>	10(1)7,24,25,27	variegata	10(1)25
Japanese	10(3)7	<i>venosa</i>	
'Joy'	10(2)21,22	'granulata'	10(1)7
'Kentaiku'	10(3)8	v. <i>tessellata</i>	10(1)19
<i>kingiana</i>	10(1)7,19	v. <i>venosa</i>	10(1)19
<i>koelmaniorum</i>	10(2)25	v. <i>woolleyi</i>	10(1)19
<i>limifolia</i> v. <i>glaucophylla</i>	10(1)19	<i>viscosa</i>	10(1)19
<i>limifolia</i> variegated	10(3)9	<i>zantneriana</i>	10(1)17
'Linda-Steve'	10(2)22	Markhamia obtusifolia	10(2)10
<i>lockwoodii</i>	10(3)9	Poellnitzia rubiflora	10(1)18
'Lussi'	10(2)20	Scadoxus multiflorus	10(2)10
<i>magnifica</i>	10(1)27	Socotrella dolichonecma	10(3)29
<i>maraisii</i>	10(1)17	Staphodea campanulata	10(2)9
<i>marginata</i>	10(1)19	The Goukou Valley north of Windsor	10(1)24
<i>marumiana</i> 'dimorpha'	10(1)17	Jabal Buzairi	10(3)27
<i>marumiana</i> v. <i>reddii</i>	10(1)17		
<i>maughanii</i>	10(1)8,18, 10(2)23		
<i>marxii</i>	10(1)18		
'Meera Ajoy'	10(2)24		
<i>minima</i>	10(1)7		
<i>mirabilis</i>	10(1)5,25,26,27, 10(2)24		

*As all the names listed under "Haworthia Species/cultivars published subsequent to the publication of the Illustrated handbook of Succulent plants" are in alphabetical order per year they are not repeated in this index.

Haworthia species/cultivars published subsequent to the publication of the *Illustrated handbook of Succulent plants - Monocotyledons.*

2001 List

Haworthia bronkhorstii M. Hayashi, *Haworthiad* 15 (1): 16, fig. 3 (p. 9), 2001. Typus: Hayashi 96/4 (Res. Inst. Evol. Biol. Tokyo). [Name first used without Latin diagnosis or typification in *Haworthia* Study No. 4: 8-9, ill., 2000.]

Haworthia chromutica M. Hayashi, *Haworthia* Study No. 4: 8-9, 2000. Nom. inval. (Art. 36.1, 37.1). [Name again used without typification etc. in *Haworthiad* 15(1): 17, 2001.]

Haworthia crausii M. Hayashi, *Haworthiad* 15(1): 16, figs. 1-2 (p. 9), 2001. Typus: Hayashi 97/1 (Res. Inst. Evol. Biol. Tokyo). [Name first used without Latin diagnosis or typification in *Haworthia* Study No. 4: 8, ill., 2000. Named for "S. J. Crous" and taken as intentional Latinization.]

Haworthia grandis M. Hayashi, *Haworthia* Study No. 4: 9, 2000. Nom. inval. (Art. 36.1, 37.1).

Haworthia limifolia var. **arcana** G. F. Smith & N. Crouch, *Bradleya* 19: 118-119, ill., 2001. Typus: Crouch et al. Smith 7 (PRE).

Haworthia meiringii M. Hayashi, *Haworthia* Study No. 4: 10, 2000. Nom. inval. (Art. 36.1, 37.1). [Perhaps cryptically based on *H. maraisii* var. *meiringii* M. B. Bayer, but this is not apparent from the entirely Japanese text.]

Haworthia 'Moori Nosono' hort. ex Mays, *Alsterworthia* Internat. 1(1): 4-5, fig. 27 (p. 9), 2001. [A variegated *H. cymbiformis* form of unknown origin. Also published in Russian in *Kaktus Klub* 2001(4-5):28.]

Haworthia opalina M. Hayashi, *Haworthiad* 15(1): 17, fig. 8 (p. 19), 2001. Typus: Hayashi 93/1 (Res. Inst. Evol. Biol. Tokyo). [Name first used without Latin diagnosis or typification in *Haworthia* Study No. 4: 8, ill., 2000.]

Haworthia retusa var. **quimutica** M. Hayashi, *Haworthiad* 15(1): 17, figs. 6-7 (p. 19), 2001. Typus: Hayashi 96/3 (Res. Inst. Evol. Biol. Tokyo). [Name first used without Latin diagnosis or typification in *Haworthia* Study No. 4: 9, 2000.]

Haworthia rooibergensis (J. Esterhuizen & Battista) M. Hayashi, *Haworthia* Study No. 4: 9, 2000. Nom. inval. (Art. 33.3), based on *Haworthia mucronata* var. *rooibergensis*. [Status as combination deduced from the epithet and a cryptic but incomplete literature reference in

the entirely Japanese text.]

Haworthia rossouwii var. **calcareo** (M. B. Bayer) M. B. Bayer, *Aloe* 38(1-2): 36, 2001. Basionym: *Haworthia mirabilis* var. *calcareo*.

Haworthia rossouwii var. **petrophila** (M. B. Bayer) M. B. Bayer, *Aloe* 38(1-2): 36, 2001. Basionym: *Haworthia variegata* var. *petrophila*.

Haworthia scabra var. **johanii** M. Hayashi, *Haworthiad* 15(1): 16-17, figs. 4-5 (pp. 9, 19), 2001. Typus: Hayashi 97/11 (Res. Inst. Evol. Biol. Tokyo). [Name first used without Latin diagnosis or typification in *Haworthia* Study No. 4: 8, ill. (p. 10), 2000.]

Haworthia striata M. Hayashi, *Haworthia* Study No. 4: 10, 2000. Nom. inval. (Art. 36.1, 37.1). [Probably cryptically based on another taxon, but this is not apparent from the entirely Japanese text.]

Haworthia toonensis M. Hayashi, *Haworthia* Study No. 4: 10, 2000. Nom. inval. (Art. 36.1, 37.1). [Perhaps cryptically based on *H. heidelbergensis* var. *toonensis* M. B. Bayer, but this is not apparent from the entirely Japanese text.]

Haworthia zenigata M. Hayashi, *Haworthiad* 15(1): 20, figs. 9-10 (p.18), 2001. Typus: Res. Inst. Evol. Biol. Tokyo. [Name first used without Latin diagnosis or typification in *Haworthia* Study No. 4: 8 2000.]

2002 List

Haworthia agnis Battista. *Alsterworthia* Internat. 2 (2): 8-9, ill., 2002. Typus: Battista et Archer 01-01 (PAD (HG 1029)).

Haworthia albertinensis Breuer. *Alsterworthia* Internat. 2(3): 3, ill., 2002. Nom. inval. (Art. 36.1.37.1). [Published as provisional name.]

Haworthia albispina M. Hayashi. *Haworthia* Study No. 8: 1-2, ill., 2002. Typus: Hayashi 02-48 (Res. Inst. Evol. Biol., Tokyo).

Haworthia bayeri var. *scabrifolia* Breuer. *Alsterworthia* Internat. 2(3): 3, ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia bolusii var. **pringlei** (C. L. Scott) M. B. Bayer. *Haworthiad* 16(2): 62, 2002. Basionym: *Haworthia pringlei*.

Haworthia breueri M. Hayashi. *Haworthia* Study No. 7: 14, ill., 2002. Typus: Hayashi 84-25 (Res. Inst. Evol. Biol. Tokyo).

Haworthia cooperi var. **doldii** M. B. Bayer.

Haworthiad 16(2): 65-66. ills. (p. 71). 2002. Typus: Dolci 3961 (GRA).

Haworthia cooperi var. gracilis (von Poellnitz) M. B. Bayer. Haworthiad 16(2): 64. 2002. Basionym: *Haworthia gracilis*.

Haworthia cooperi var. isabellae (von Poellnitz) M. B. Bayer. Haworthiad 16(2): 65. 2002. Basionym: *Haworthia isabellae*.

Haworthia cooperi var. picturata (M. B. Bayer) M. B. Bayer. Haworthiad 16(2): 65. 2002. Basionym: *Haworthia gracilis* var. *picturata*.

Haworthia cooperi var. tenera (von Poellnitz) M. B. Bayer. Haworthiad 16(2): 65. 2002. Basionym: *Haworthia tenera*.

Haworthia cooperi var. viridis (M. B. Bayer) M. B. Bayer. Haworthiad 16(2): 65, 2002. Basionym: *Haworthia gracilis* var. *viridis*.

Haworthia correcta var. lucida M. Hayashi, Haworthia Study No. 7: 14. ill., 2002. Typus: Hayashi 86-33 (Res. Inst. Evol. Biol. Tokyo).

Haworthia 'Crocodile Skin' Audissou Alsterworthia Internat. 2(1): 4, ill., 2002 (= *Haworthia koelmaniorum* x *H. limifolia* v. *ubomboensis*.)

Haworthia cymbiformis var. obtusa 'Chik-chun Mak' Mak. Alsterworthia Internat. 2(2): 3, ill., 2002. [A yellow variegated sport obtained in cultivation.]

Haworthia decipiens var. virella M. B. Bayer. Haworthiad 16(2): 63-64, ills. (p. 66-70), 2002. Typus: Bayer 2070 (NBG).

Haworthia decipiens var. xiphiophylla (Baker) M. B. Bayer. Haworthiad 16(2): 63. 2002. Basionym: *Haworthia xiphiophylla*.

Haworthia devriesii Breuer. Alsterworthia Internat. 2(3): 3, ill., 2002. Nom. inval. (Art. 36.1.37.1). [Published as provisional name.]

Haworthia enigma M. Hayashi, Haworthia Study No. 7: 14. ill., 2002. Typus: Hayashi 96-5 (Res. Inst. Evol. Biol. Tokyo).

Haworthia esterhuizenii M. Hayashi, Haworthia Study No. 7: 14. ill., 2002. Typus: Hayashi 96-6 (Res. Inst. Evol. Biol. Tokyo). [Non *H. esterhuizenii* Breuer 2002 (nom. nud.).]

Haworthia esterhuizenii Breuer. Alsterworthia Internat. 2(3): 3-4, ill., 2002. Nom. inval. (Art. 36.1, 37.1). [Published as provisional name. Non *Haworthia esterhuizenii* M. Hayashi 2002.]

Haworthia 'Green Sword' Mak. Alsterworthia Internat. 2(2): 4, ill., 2002. [= *Haworthia blackburniae* x *H. emelyae* var. *major* hybrid.]

Haworthia hayashii M. Hayashi. Haworthia Study No. 7: 14, ill., 2002. Typus: Hayashi 81-122 (Res. Inst. Evol. Biol. Tokyo).

Haworthia jansenvillensis Breuer, Alsterworthia Internat. 2(3): 4, ill., 2002. Nom. inval. (Art. 36.1,37.1). [Published as provisional name.]

Haworthia 'Lady Lai Kuen. Mak. Alsterworthia Internat. 2(3): 14, ill., 2002. [= *Haworthia bayeri* x *H. emelyae* var. *comptoniana*.]

Haworthia leightonii var. *davidii* Breuer. Alsterworthia Internat. 2(3): 4-5. ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia leightonii var. *doklii* Breuer. Alsterworthia Internat. 2(3): 4-5. ill., 2002. Nom. inval. (Art. 36.1, 37.1). [Published as provisional name.]

Haworthia magnifica var. *pseudomutica* Breuer. Alsterworthia Internat. 2(3): 4-5. ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia mucronata var. *calitzdorpensis* Breuer, Alsterworthia Internat. 2(3): 4-5, ill., 2002. Nom. inval. (Art.

36.1. 37.1). [Published as provisional name.]

Haworthia multifolia var. *sandkraalensis* Breuer. Alsterworthia Internat. 2(3): 5, ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia odetteae Breuer. Alsterworthia Internat. 2(3): 5-6, ill., 2002. Nom. inval. (Art. 36.1.37.1). [Published as provisional name.]

Haworthia picta var. *janvlokii* Breuer, Alsterworthia Internat. 2(3): 5-6, ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia picta var. *tricolor* Breuer, Alsterworthia Internat. 2(3): 5-6. ill., 2002. Nom. inval. (Art. 36.1, 37.1). [Published as provisional name.]

Haworthia pygmaea var. pygmaea 'Frosty Cream' Mak, Alsterworthia Internat. 2(2): 3, ill., 2002. [A variegated form encountered in cultivation.]

Haworthia pygmaea var. pygmaea 'Silver Thunder' Mak. Alsterworthia Internat. 2(2): 3, ill., 2002. [From material cultivated in Japan, probably selected from a wild population.]

Haworthia scottii Breuer, Alsterworthia Internat. 2(3): 5-6, ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia Subgen. *Globosifloru* M. Hayashi, Alsterworthia Internat. 2(3): 9. 2002. Nom. inval. (Art. 36.1. 37.1). [Mentioned in passing in the form of a "false example".]

Haworthia Subgen. *Trigonoflora* M. Hayashi. Alsterworthia Internat. 2(3): 9. 2002. Nom. inval. (Art. 36.1. 37.1). [Mentioned in passing in the form of a "false example".]

Haworthia tradouwensis Breuer, Alsterworthia Internat. 2(3): 6-7, ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia tetryensis Breuer, Alsterworthia Internat. 2(3): 6-7, ill., 2002. Nom. inval. (Art. 36.1,37.1). [Published as provisional name.]

Haworthia truncata var. *minor* Breuer. Alsterworthia Internat. 2(3): 6-7, ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia viscosa var. *variabilis* Breuer. Alsterworthia Internat. 2(3): 6-7. ill., 2002. Nom. inval. (Art. 36.1. 37.1). [Published as provisional name.]

Haworthia 'Zenigata' Mak, Alsterworthia Internat. 3(1): 4. ills. (p. 3), 2003. [Based on *Haworthia zenigata* M. Hayashi 2001.]

2003 List

Haworthia azurea M. Hayashi, Haworthia Study No. 9: 11-12, ill., 2003. Typus: Hayashi 03-257 (Res. Inst. Evol. Biol., Tokyo).

Haworthia 'Brian Fearn' Mak, Haworthiad 17(3): 103, fig. 20 (p. 105), 2003. [= *H. truncata* var. *maughanii* x *H. cooperi* var. *pilifera*?]

Haworthia 'Crystal Tips' Mak, Haworthiad 17(3): 103, fig. 21 (p. 106), 2003. [An *H. truncata* hybrid.]

Haworthia calaensis Breuer, Alsterworthia Internat. Spec. Issue No. 7: 5, ills., 2004. Typus: Breuer 12513 (GRA).

Haworthia decipiens var. *scottiana* M. Hayashi, Haworthia Study No. 9: 13, ill., 2003. Nom. inval. (Art. 36.1,37.1).

Haworthia devriesii Breuer, Avonia 21(3): 47, ills., 2003. Typus: de Vries 643 in Breuer 6930 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in Alsterworthia Internat. 2(3): 3, ill., 2002 (cf. RPS 53).]

Haworthia elizeae Breuer, Avonia 21(3): 48-49, ills., 2003. Typus: de Vries 563 in Breuer 6936 (Res. Inst. Evol. Biol. Tokyo). [= *H. esterhuizenii* Breuer 2002 (nom. inval.), cf. l.c. p. 46.]

- Haworthia fusca** Breuer, *Alsterworthia* Internat. Spec. Issue No. 7: 9, ills., 2004. Typus: Breuer 8971 (GRA).
- Haworthia gracilis** var. *minor* (M. B. Bayer) M. Hayashi, *Haworthia* Study No. 9: 12, 2003. Nom. inval. (Art. 33.3), based on *Haworthia decipiens* var. *minor*.
- Haworthia gracilis** var. *minor* (M. B. Bayer) M. Hayashi, *Haworthia* Study No. 9: 12, 2003. Nom. inval. (Art. 33.3), based on *Haworthia decipiens* var. *minor*.
- Haworthia 'Gray Salt'** J. Bleck ex Trager, *Cact. Succ. J. (US)* 75(2): 77, ill., 2003. [= *H. truncata* x *H. angustifolia*.]
- Haworthia 'Green Gem'** T. Ohkuwa ex Mak, *Haworthiad* 17(3): 103-104, fig. 22 (p. 106), 2003. [= *H. truncata* var. *maughanii* x *H. bolusii* var. *blackbeardiana*.]
- Haworthia 'Green Hairy Crab'** Mak, *Haworthiad* 17(3): 104, fig. 23 (p. 106), 2003. [An *H. truncata* hybrid.]
- Haworthia intermedia** var. *maculata* (von Poellnitz) J. Esterhuizen, *Alsterworthia* Internat. 3(1): 12, ills., 2003. Basionym: *Haworthia schuldtiana* var. *maculata*. [Sphalm. 'maculate']
- Haworthia intermedia** var. *notabilis* (von Poellnitz) J. Esterhuizen, *Alsterworthia* Internat. 3(1): 12, ills., 2003. Basionym: *Haworthia notabilis*.
- Haworthia jakubii** Breuer, *Alsterworthia* Internat. Spec. Issue No. 7: 10, ills., 2004. Typus: Cumming 11238 in Breuer 12762 (GRA).
- Haworthia kemari** M. Hayashi, *Haworthia* Study No. 9: 11, ill., 2003. Typus: Hayashi 03-283 (Res. Inst. Evol. Biol. Tokyo).
- Haworthia lapis** Breuer & M. Hayashi, *Alsterworthia* Internat. Spec. Issue No. 7: 6, ills., as provisional name in *Alsterworthia* Internat. 2(3): 3, ill., 2002 (cf. RPS 53).]
- Haworthia leightonii** van *dauidii* Breuer, *Avonia* 21(3): 49-50, ills., 2003. Typus: Cumming 4711 in Breuer 6970 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in *Alsterworthia* Internat. 2(3): 4-5, ill., 2002 (cf. RPS 53).]
- Haworthia limifolia** van *glaucophylla* M. B. Bayer, *Aloe* 40(2): 50, ills. (pp. 44, 49), 2003. Typus: Venter 13700 (NBG).
- Haworthia minima** 'Opalina' Mak, *Alsterworthia* Internat. 3(1): 4, 2003. Nom. inval. (Art. 43.1). [Based on *Haworthia opalina* M. Hayashi 2001.]
- Haworthia mucronata** van *calitzdorpensis* Breuer, *Avonia* 21(3): 50-51, ills., 2003. Typus: Gumming 4712 in Breuer 6595 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in *Alsterworthia* Internat. 2(3): 4-5, ill., 2002 (cf. RPS 53).]
- Haworthia odetteae** Breuer, *Avonia* 21(3): 51-52, ills., 2003. Typus: Gumming 8604 in Breuer 5998 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in *Alsterworthia* Internat. 2(3): 5-6, ill., 2002 (cf. RPS 53).]
- Haworthia pallens** Breuer & M. Hayashi, *Alsterworthia* Internat. Spec. Issue No. 7: 7, ills., 2004. Typus: Bayer 6603 in Breuer 5956 (GRA).
- Haworthia picta** 'Mosaic' M. Hayashi, *Haworthia* Study No. 9: 3, ills., 2003.
- Haworthia picta** var. *janvlokii* Breuer, *Avonia* 21(3): 52-53, ills., 2003. Typus: de Vries 055 in Breuer 5334 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in *Alsterworthia* Internat. 2(3): 5-6, ill., 2002 (cf. RPS 53).]
- Haworthia picta** var. *tricolor* Breuer, *Avonia* 21(3): 53-54, ills., 2003. Typus: Marx 256 in Breuer 5338 (Res. Inst. Evol. Biol. Tokyo). First published as provisional name in *Alsterworthia* Internat. 2(3): 5-6, ill., 2002 (cf. RPS 53).]
- Haworthia 'Rose Green'** Mak, *Alsterworthia* Internat. 3(2): 7, ill., 2003. [= *Haworthia truncata* x "*H. asperula*".]
- Haworthia 'Ruby Star'** Mak, *Alsterworthia* Internat. 3(2): 7, ill., 2003. (= *Haworthia mirabilis* var. *badia* x *H. retusa*).
- Haworthia schoemanii** M. Hayashi, *Haworthia* Study No. 9: 14, ills., 2003. Typus: Hayashi 03-309 (Res. Inst. Evol. Biol., Tokyo).
- Haworthia scottii** Breuer, *Avonia* 21(3): 55-56, ills., 2003. Typus: Venter 92-57 in Breuer 6510 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in *Alsterworthia* Internat. 2(3): 5-6, ill., 2002 (cf. RPS 53).]
- Haworthia specksii** Breuer, *Alsterworthia* Internat. Spec. Issue No. 7: 8, ills., 2004. Typus: de Vries 42 in Breuer 5325 (GRA).
- Haworthia tradouwensis** Breuer, *Avonia* 21(3): 57-58, ills., 2003. Typus: Venter 93-59 in Breuer 7170 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in *Alsterworthia* Internat. 2(3): 6-7, ill., 2002 (cf. RPS 53).]
- Haworthia tretiensis** Breuer, *Avonia* 21(3): 58-59, ills., 2003. Typus: de Vries 219 in Breuer 5372 (Res. Inst. Evol. Biol. Tokyo). [Type number first given incorrectly and corrected l.c. 22(1): 20, 2004. First published as provisional name in *Alsterworthia* Internat. 2(3): 6-7, ill., 2002 (cf. RPS 53).]
- Haworthia truncata** var. *minor* Breuer, *Avonia* 21(3): 59-60, ills., 2003. Typus: de Vries 124 in Breuer 5379 (Res. Inst. Evol. Biol. Tokyo). [First published as provisional name in *Alsterworthia* Internat. 2(3): 6-7, ill., 2002 (cf. RPS 53).]
- Haworthia vincentii** Breuer, *Alsterworthia* Internat. Spec. Issue No. 7: 11-12, ills., 2004. Typus: de Vries 71 in Breuer 5424 (GRA).
- Haworthia virella** (M. B. Bayer) M. Hayashi, *Haworthia* Study No. 9: 12, 2003. Basionym: *Haworthia decipiens* var. *virella*.
- Haworthia viscosa** var. *variabilis* Breuer, *Avonia* 21(3): 61-62, ills., 2003. Typus: Cumming 8979 in Breuer 7193 (Res. Inst. Evol. Biol. Tokyo). [Erratum: l.c. 22(1): 20, 2004. First published as provisional name in *Alsterworthia* Internat. 2(3): 6-7, ill., 2002 (cf. RPS 53).]

2004 List

- Haworthia 'Atlantis'** Anonymous, *Haworthia* Study No. 11: 5, ill., 2004. [Presumably *H. cooperi* x *H. wimii*.]
- Haworthia amethiysta** M. Hayashi, *Haworthia* Study No. 10: 1, 14, cover ill., figs. 26-28, 2003. Typus: Hayashi 03-456 (Res. Inst. Evol. Biol., Tokyo).
- Haworthia aquamarina** M. Hayashi, *Haworthia* Study No. 10: 13, fig. 6 (p. 9), 2003. Typus: Hayashi 03-427 (Res. Inst. Evol. Biol., Tokyo).
- Haworthia 'Bacchus'** Anonymous, *Haworthia* Study No. 11: 5, ill., 2004. [Presumably *H. atrofusca* x *H. splendens*]
- Haworthia 'Bristle Tip'** F. Hoes, *Alsterworthia* Internat. 4(1): 22-23, ills., 2004. [= (*H. truncata* x *H. maughanii*) x *H. emelyae* var. *major*.]
- Haworthia caesia** M. Hayashi, *Haworthia* Study No. 10: 14, figs. 24-25 (p. 13), 2003. Typus: Hayashi 03-266 (Res. Inst. Evol. Biol., Tokyo).
- Haworthia crinita** M. Hayashi, *Haworthia* Study No. 10: 13, fig. 10 (p. 10), 2003. Typus: Hayashi 03-272 (Res. Inst. Evol. Biol., Tokyo).
- Haworthia cummingii** Breuer & M. Hayashi, *Haworthia* Study No. 10: 4-5, ills., 2003. Typus: Camming 11214 (GRA).
- Haworthia eminens** M. Hayashi, *Haworthia* Study No. 10: 13, fig. 12 (p. 10), 2003. Typus: Hayashi 03-287 (Res. Inst. Evol. Biol., Tokyo).
- Haworthia exilis** M. Hayashi, *Haworthia* Study No. 10: 12, fig. 3 (p. 8), 2003. Typus: Hayashi 03-378 (Res. Inst. Evol. Biol., Tokyo).
- Haworthia flavida** M. Hayashi, *Haworthia* Study No.

10: 13, fig. 11 (p. 10), 2003. Typus: Hayashi 03-410 (Res. Inst. Evol. Biol., Tokyo).

Haworthia floccosa M. Hayashi, Haworthia Study No. 10: 13, fig. 8 (p. 9), 2003. Typus: Hayashi 03-271 (Res. Inst. Evol. Biol., Tokyo).

Haworthia 'Gremlin' Anonymous, Haworthia Study No. 11: 5, ill., 2004. [Presumably *H. pygmaea* x *H. wimii*.]

Haworthia hamata M. Hayashi, Haworthia Study No. 10: 12, fig. 2 (p. 8), 2003. Typus: Hayashi 03-424 (Res. Inst. Evol. Biol., Tokyo).

Haworthia 'Imagine' Anonymous, Haworthia Study No. 11: 1, ill., 2004. [Presumably *H. wimii* x *H. splendens*.]

Haworthia intermedia var. livida (M. B. Bayer) J. Esterhuizen, *Alsterworthia Internat.* 3(1): 12, ills., 2003. Basionym: *Haworthia pubescens* var. *livida*. [Erroneously omitted from RPS 54.]

Haworthia jansenvillensis Breuer, *Alsterworthia Internat.* 4(2): 16-17, ills., 2004. Typus: Breuer 6996 (GRA). [First used as provisional name in l.c. 2(3): 4, ill., 2002.]

Haworthia lateritia M. Hayashi, Haworthia Study No. 11: 14-15, ills., 2004. Typus: Hayashi 03-315 (Res. Inst. Evol. Biol. Tokyo). [Sphalm. 'latericia'.]

Haworthia 'Macubilis' Anonymous, Haworthia Study No. 11: 5, ill., 2004. [Presumably *H. maculata* x *H. mirabilis*.]

Haworthia mollis M. Hayashi, Haworthia Study No. 10: 14, fig. 15 (p. 11), 2003. Typus: Hayashi 03-426 (Res. Inst. Evol. Biol., Tokyo).

Haworthia pectinis M. Hayashi, Haworthia Study No. 10: 13, fig. 9 (p. 9), 2003. Typus: Hayashi 03-273 (Res. Inst. Evol. Biol., Tokyo).

Haworthia 'Pictidens' Anonymous, Haworthia Study No. 11: 4, ill., 2004. [Presumably *H. picta* x *H. splendens*.] **Haworthia regalis** M. Hayashi, Haworthia Study No. 10: 13, fig. 13 (p. 10), 2003. Typus: Hayashi 03-280 (Res. Inst. Evol. Biol., Tokyo).

Haworthia regina M. Hayashi, Haworthia Study No. 10: 14, fig. 14 (p. 11), 2003. Typus: Hayashi 03-274 (Res. Inst. Evol. Biol., Tokyo).

Haworthia 'Silver Bug' F. Hoes, *Alsterworthia Internat.* 4(1): 23, ill. (back cover), 2004. [= *H. pygmaea* fa. *crystallina* x *H. emelyae* var. *major*.]

Haworthia 'Silvidens' Anonymous, Haworthia Study No. 11: 3, ill., 2004. [Presumably *H. silviae* x *H. splendens*.]

Haworthia subularis M. Hayashi, Haworthia Study No. 10: 12, fig. 4 (p. 8), 2003. Typus: Hayashi 03-39 (Res. Inst. Evol. Biol., Tokyo).

Haworthia succinea M. Hayashi, Haworthia Study No. 10: 14, figs. 20-21 (p. 12), 2003. Typus: Hayashi 03-267 (Res. Inst. Evol. Biol., Tokyo). [Sphalm. 'sucinea'.]

Haworthia 'Wimdens' Anonymous, Haworthia Study No. 11: 2, ill., 2004. [Presumably *H. wimii* x *H. splendens*.]

Haworthia 'White Star' Mak, *Alsterworthia Internat.* 4(1): 10, ill., 2004. [A garden hybrid of unknown origin or parentage.]

2005 List

Haworthia arabesqua M. Hayashi, Haworthia Study No. 12: 7, ill., 2005. Typus: Hayashi 03-439 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia bella M. Hayashi, Haworthia Study No. 12: 8, ill., 2005. Typus: Hayashi 02-26 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia caerulea M. Hayashi & Breuer, Haworthia Study No. 12: 7, ill., 2005. Typus: Hayashi 04-27 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked

16.1.2005.]

Haworthia calva M. Hayashi, Haworthia Study No. 12: 8, ill., 2005. Typus: Hayashi 04-28 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia emeralda M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 11, ill., 2005. Typus: Hayashi 03-36 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia florens M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 11, ill., 2005. Typus: Hayashi 03-27 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia fluffa M. Hayashi, Haworthia Study No. 12: 9, ill., 2005. Typus: Hayashi 04-82 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia harryi M. Hayashi, Haworthia Study No. 12: 9, ill., 2005. Typus: Hayashi 03-294 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia hastata M. Hayashi, Haworthia Study No. 12: 9, ill., 2005. Typus: Hayashi 03-189 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia hisui M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 10, ill., 2005. Typus: Hayashi 03-288 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia indigoa M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 13, ills. (pp. 13, [16]), 2005. Typus: Hayashi 03-298 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia jadea M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 13, ills. (pp. 13, [16]), 2005. Typus: Hayashi 03-299 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia jeffreis M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 10, ill., 2005. Typus: Hayashi 03-83 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005. Epithet probably correctable and alluding to the type locality "Jeffrey's Bay".]

Haworthia laeta M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 13, ills. (p. 12), 2005. Typus: Hayashi 03-295 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia ligulata M. Hayashi, Haworthia Study No. 12: 6, ill., 2005. Typus: Hayashi 03-438 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia mutica 'Robert Rodin' Trager, *Cact. Succ. J. (US)* 77(2): 99, ill., 2005. [A horticultural selection traced back to a garden in Springbok, RSA.]

Haworthia oculata M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 10, ill., 2005. Typus: Hayashi 03-432 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia pilosa M. Hayashi, Haworthia Study No. 12: 7, ill., 2005. Typus: Hayashi 04-31 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia pusilla M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 10, ill., 2005. Typus: Hayashi 03-28 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia subhamata M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 11, ill., 2005. Typus: Res. Inst. Evol. Biol. Tokyo. [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia teres M. Hayashi, Haworthia Study No. 12: 7, ill., 2005. Typus: Hayashi 03-41 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia veltina M. Hayashi, Haworthia Study (NOT *Alsterworthia Internat.*) No. 12: 11, ill., 2005. Typus:

Hayashi 03-386 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005. Sphalm. 'veltina'.]

Haworthia veneta M. Hayashi, *Haworthia* Study No. 12: 6, ill., 2005. Typus: Hayashi 03-436 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005. Sphalm. 'venetia'.]

Haworthia villosa M. Hayashi, *Haworthia* Study No. 12: 8, ill., 2005. Typus: Hayashi 03-382 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

Haworthia violacea M. Hayashi, *Haworthia* Study No. 12: 9, ill., 2005. Typus: Hayashi 03-191 (Res. Inst. Evol. Biol. Tokyo). [Dated Dec. 2004, post-marked 16. 1. 2005.]

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Haworthia akaonii M. Hayashi, *Haworthia* Study No. 16: 13, fig. 3, 2006. Typus: Hayashi 02-16 (Res. Inst. Evol. Biol. Tokyo).

Haworthia angiras M. Hayashi, *Haworthia* Study No. 14: 13, fig. 3 (p. 14), 2005. Based on Hayashi 03-250. Nom. inval. (Art. 37.7).

Haworthia ao-onii M. Hayashi, *Haworthia* Study No. 16: 13, fig. 2, 2006. Typus: Hayashi 02-45 (Res. Inst. Evol. Biol. Tokyo).

Haworthia bathylis M. Hayashi, *Haworthia* Study No. 15: 16, ill., 2006. Typus: Hayashi 06-81 (Res. Inst. Evol. Biol., Tokyo).

Haworthia bayeri 'Zaramado Variegated' M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 23-24, ill., 2006. [A selection obtained in cultivation.]

Haworthia borealis M. Hayashi, *Haworthia* Study No. 15: 14, fig. 5 (p. 13), 2006. Typus: Hayashi 97-73 (Res. Inst. Evol. Biol., Tokyo).

Haworthia candida M. Hayashi, *Haworthia* Study No. 16: 16, ill., 2006. Typus: Hayashi 06-196 (Res. Inst. Evol. Biol. Tokyo).

Haworthia cangoensis M. Hayashi, *Haworthia* Study No. 14: 13, fig. 2 (p. 14), 2005. Based on Hayashi 05-37. Nom. inval. (Art. 37.7).

Haworthia capillaris M. Hayashi, *Haworthia* Study No. 16: 16, ill., 2006. Typus: Hayashi 03-371 (Res. Inst. Evol. Biol. Tokyo).

Haworthia ciliata M. Hayashi, *Haworthia* Study No. 14: 11, fig. 4 (p. 9), 2005. Based on Hayashi 03-387. Nom. inval. (Art. 37.7).

Haworthia 'Cynara' Audissou, *Alsterworthia* Internat. 6(3): 23, ill., 2006. [= *Haworthia arachnoidea* var. *nigricans* x *H. pubescens*.]

Haworthia crystalina M. Hayashi, *Haworthia* Study No. 15: 16, ill., 2006. Typus: Hayashi 05-175 (Res. Inst. Evol. Biol., Tokyo).

Haworthia cymbiformis 'Harry Mak' G. D. Rowley, *Teratopia*, 23, 263, 280, ill., 2006. [A variegated form.]

Haworthia davidii (Breuer) M. Hayashi & Breuer ex M. Hayashi, *Haworthia* Study No. 14: 11, 2005. Basionym: *Haworthia leightonii* var. *davidii*.

Haworthia dekenahii 'Sanekata's Variegated' M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 23, ill., 2006. [A selection from a habitat-collected clone of *H. dekenahii*.]

Haworthia diaphana M. Hayashi, *Haworthia* Study No. 15: 16, ill., 2006. Typus: Hayashi 06-065 (Res. Inst. Evol. Biol., Tokyo).

Haworthia doldii (M. B. Bayer) M. Hayashi, *Haworthia* Study No. 14: 11, 2005. Basionym: *Haworthia cooperi* var. *doldii*.

Haworthia dura M. Hayashi, *Haworthia* Study No. 14: 11, fig. 2 (p. 9), 2005. Based on Hayashi 04-20. Nom. inval. (Art. 37.7).

Haworthia emelyae 'Royal White' M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 22, ill., 2006. [A selected

clone of *H. emelyae*.]

Haworthia erii M. Hayashi, *Haworthia* Study No. 14: 11, fig. 5 (p. 9), 2005. Based on Hayashi 03-219. Nom. inval. (Art. 37.7).

Haworthia ernstii M. Hayashi, *Haworthia* Study No. 14: 11, fig. 6 (p. 10), 2005. Based on Hayashi 04-060. Nom. inval. (Art. 37.7).

Haworthia 'Fouras' Audissou, *Alsterworthia* Internat. 6(3): 22, ill., 2006. [= *Haworthia pubescens* x *H. pulchella* var. *pulchella*.]

Haworthia 'Garasu' M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 21, ill., 2006. [A selected clone of a hybrid *H. comptoniana* x *H. sp.*]

Haworthia ianthina M. Hayashi, *Haworthia* Study No. 14: 12, fig. 12, 2005. Based on Hayashi 03-199. Nom. inval. (Art. 37.7).

Haworthia incrassa M. Hayashi, *Haworthia* Study No. 14: 12, fig. 11, 2005. Based on Hayashi 04-102. Nom. inval. (Art. 37.7).

Haworthia 'Javva' Coccozza, *Haworthiad* 20(2): 63-69, ill., 2006. [An F1 hybrid *H. mirabilis* x *H. magnified* var. *splendens*.]

Haworthia joubertii M. Hayashi, *Haworthia* Study No. 14: 16, ill., 2005. Based on Hayashi 03-300. Nom. inval. (Art. 37.7).

Haworthia kogmanensis M. Hayashi, *Haworthia* Study No. 14: 14, fig. 5 (p. 15), 2005. Based on Hayashi 05-217. Nom. inval. (Art. 37.7).

Haworthia lachnosa M. Hayashi, *Haworthia* Study No. 16: 16, ill., 2006. Typus: Hayashi 03-26 (Res. Inst. Evol. Biol. Tokyo).

Haworthia laxa M. Hayashi, *Haworthia* Study No. 14: 14, fig. 6 (p. 15), 2005. Based on Hayashi 03-005. Nom. inval. (Art. 37.7).

Haworthia lazulis M. Hayashi, *Haworthia* Study No. 14: 11, fig. 8 (p. 10), 2005. Based on Hayashi 02-24. Nom. inval. (Art. 37.7).

Haworthia limbata M. Hayashi, *Haworthia* Study No. 14: 16, ill., 2005. Based on Hayashi 04-108. Nom. inval. (Art. 37.7).

Haworthia luri M. Hayashi, *Haworthia* Study No. 14: 11-12, fig. 9 (p. 10), 2005. Based on Hayashi 03-44S. Nom. inval. (Art. 37.7).

Haworthia 'Marilyn' M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 21, ill., 2006. [Obtained in cultivation from seed obtained from *Haworthia* 'Garasu', with unrecorded pollen donor.]

Haworthia marmorata M. Hayashi, *Haworthia* Study No. 15: 14, fig. 2 (p. 13), 2006. Typus: Hayashi 03-205 (Res. Inst. Evol. Biol., Tokyo).

Haworthia montana M. Hayashi, *Haworthia* Study No. 14: 14, fig. 7 (p. 15), 2005. Based on Hayashi 03-004. Nom. inval. (Art. 37.7).

Haworthia nigrata M. Hayashi, *Haworthia* Study No. 15: 14, fig. 4 (p. 13), 2006. Typus: Hayashi 03-006 (Res. Inst. Evol. Biol., Tokyo).

Haworthia odyssei M. Hayashi, *Haworthia* Study No. 14: 13-14, fig. 4, 2005. Based on Hayashi 05-1. Nom. inval. (Art. 37.7).

Haworthia ohkuwae M. Hayashi, *Haworthia* Study No. 16: 13, fig. 4, 2006. Typus: Hayashi 06-321 (Res. Inst. Evol. Biol. Tokyo). [Sphalm. 'ohkuwai'.]

Haworthia 'Pearl of Dew' Audissou, *Alsterworthia* Internat. 6(3): 22, ill., 2006. [= *Haworthia retusa* f. *geraldii* x *H. cymbiformis* var. *reddii*.]

Haworthia pellicida M. Hayashi, *Haworthia* Study No. 14: 12, fig. 10, 2005. Based on Hayashi 03-279. Nom. inval. (Art. 37.7).

Haworthia picta 'Mr. K. Ohkuwa's Silver Green' M.

Hayashi & Mays, *Alsterworthia* Internat. 6(2): 23, ill., 2006. [A seed-raised clone of the Moegi group of *Haworthia picta* var. *janvlokii*.]

***Haworthia pygmaea* 'Seiji'** M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 22, ill., 2006. [A selected clone of *H. pygmaea*.]

***Haworthia pygmaea* 'Tsyu-Simo'** M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 22, ill., 2006. [A selected clone of *H. pygmaea*.]

Haworthia rava M. Hayashi, *Haworthia* Study No. 14: 11, fig. 3 (p. 9), 2005. Based on Hayashi 03-156. Nom. inval. (Art. 37.7).

Haworthia royalis M. Hayashi, *Haworthia* Study No. 14: 13, fig. 1 (p. 14), 2005. Based on Hayashi 03-256. Nom. inval. (Art. 37.7).

Haworthia sparsa M. Hayashi, *Haworthia* Study No. 16: 13, fig. 1, 2006. Typus: Hayashi 95-36 (Res. Inst. Evol. Biol. Tokyo).

***Haworthia splendens* 'Silver King'** M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 21, ill., 2006. [A selection of *H. splendens* obtained in cultivation in Japan.]

Haworthia tarkasia M. Hayashi, *Haworthia* Study No. 15: 14, fig. 6 (p. 13), 2006. Typus: Hayashi 95-28 (Res. Inst. Evol. Biol., Tokyo).

Haworthia vitris M. Hayashi, *Haworthia* Study No. 14: 16, ill., 2005. Based on Hayashi 02-011. Nom. inval. (Art. 37.7).

***Haworthia* 'Whirlpool'** Trager, *Cact. Succ. J. (US)* 78 (2): 80, ill., 2006. [= *H. truncata* x *H. retusa*.]

***Haworthia* 'Yayoi-Nishiki'** M. Hayashi & Mays, *Alsterworthia* Internat. 6(2): 22, ill., 2006. [= *Haworthia emelyae* (picta form) x *H. sp.* (probably *H. pygmaea*).]

2007 List

Haworthia atroviridis (Medikus) M. Hayashi, *Haworthia* Study No. 18: 14, 2007. Basionym: *Catevala atroviridis*.

Haworthia fukuyae M. Hayashi, *Haworthia* Study No. 17: 16, ill., 2007. Typus: Hayashi 06-256 (Res. Inst. Evol. Biol., Setagaya, Tokyo). [Sphalm. 'fukuyai'.]

Haworthia giftbergensis (G. G. Smith) M. Hayashi, *Haworthia* Study No. 17: 10, ill., 2007. Basionym; *Haworthia nortieri* var. *giftbergensis*.

Haworthia marxii Gildenhuys, *Aloe* 44(1): 4-5, ill., 2007. Typus: Marx 605 (GRA).

Haworthia mertonii Breuer, *Alsterworthia* Internat. 7 (1): 22, ill., 2007. Typus: Camming 10485 (GRA).

***Haworthia* 'Sandra'** Grootsholten, *Alsterworthia* Internat. 7(1): 10, ill., 2007. [A selected clone from a second-generation complex hybrid.]

Haworthia sapphaia M. Hayashi, *Haworthia* Study No. 17: 16, ill., 2007. Typus: Hayashi 06-265 (Res. hist. Evol. Biol., Setagaya, Tokyo). [Specific epithet probably derived from Gr. 'sappheiros' but treated as intentional spelling.]

Articles are the life blood of our journals and our other publications.

The editor invites you to submit articles, long or short, on any subject relative to the genera we embrace - Aloe, Gasteria, Haworthia, related small genera, nothogenera and cultivars. Good photographs are welcome.

If you visit habitats, botanical gardens etc; maintain a collection; propagate your plants; show them; experiment with them; create cultivars etc you will have much to write about. Developments in the scientific world are most important. If English is not your first language we can compile the article for you from brief notes in English and photographs you send in, possibly supplemented with a little French, Spanish or German.

Please send you contributions to: The Editor, Harry Mays, Woodsleigh, Moss Lane, St Michaels on Wyre, Preston, PR3 OTY, UK. E-mail: hmays@freenetname.co.uk

Natures Curiosity Shop - Gasterias.

Richard Stamper
1904 Whitney, Houston, Texas, 77006, USA



The author with many NCS plants.

Until I received Volume 10, Issue 1 of *Alsterworthia International* I did not know that Rick Nowakowski had passed away. Although I had recently won a variegated *Haworthia cuspidata* on eBay, I hadn't been corresponding with Rick as I had in years past. Now, looking through all those e-mails brings to mind a man who had lots of medical problems, but through it all had immense enthusiasm for his plants and business.

I guess I started buying *Gasteria* and other plants from Natures Curiosity Shop (NCS) in 2005. Most I still have and here are those of interest. In Houston we had some weather in the low twenties (Fahrenheit) for a few days. The *Gasteria* reacted by turning these shades of red and orange.

Gasteria decipiens

One of the few Rick called a species. E.J. van Jaarsveld calls this *G. nitida* var. *nitida*. I think it is neither.



Gasteria decipiens

Gasteria (Hybrid) "Amur"

This is a strange combination of variegation and color. Rick called this one of his favorites.



Gasteria 'Amur'

Gasteria (Hybrid) "Black Beauty"

In the summer this one gets really dark. In winter it quickly forms clumps.



Gasteria 'Black Beauty'

Gasteria (Hybrid) "Black Panther"

The only *Gasteria* I have that has a mirror image of itself. Slow growing.

Gasteria (Hybrid)



Gasteria 'Black Panther'



Gasteria 'Hiyashi's Limeaid'



Gasteria 'Blue Ox'



Gasteria 'Moe'



Gasteria 'Gyuaden'

"Blue Ox"

You see this plant offered on eBay from more than one source. Doesn't seem to pup, but leaves will produce several plants per leaf and will repeat from the same leaf at least once.

***Gasteria* (Hybrid) "Gyuaden"**

Rick listed many Asian names. I'm not sure this means that he grew these on as he collected them or developed hybrids and named them.

***Gasteria* (Hybrid) "Hiyashi's Gold Mine"**

Much larger growing than Rick indicated. It started out variegated, but went green as it grew.

***Gasteria* (Hybrid) "Hiyashi's Limeaid"**

My favorite of all the plants I bought from Rick. Not as slow growing as one might think.

***Gasteria* (Hybrid) 'Moe'**

The largest *Gasteria* in my collection by leaps and bounds, I put this one in the middle of my sales tables as a display. Will propagate from pups and especially from leaves.

***Gasteria* Hybrid "Oh Mama"**

When Rick didn't have the exact plants I ordered we would write back and forth arriving at substitutions. This is one.

***Gasteria* (Hybrid) 'Persia'**

One of Rick's better creations, this one looks like it has lots of *G. nitida* var. *armstrongii*.

***Gasteria* (Hybrid) 'Ruby'**

"Ruby" could become my favorite in time. Rick was very excited with "Ruby". He sold this one to me prior to listing



Gasteria 'Hiyashi's Gold Mine'



Gasteria 'Oh Mama'



Gasteria 'Ruby'



Gasteria 'Persia'



Gasteria 'Sakura Fuji'



Gasteria 'Silver Q'

it. The texture and color are outstanding.

***Gasteria* (Hybrid) 'Sakura Fuji'**

Again, I don't know if this is an NCS creation or one Rick acquired and propagated. It's very pretty, clumps prodigiously but is very prone to spotting. Each clump will produce various leaf combinations from nearly green to nearly white.

***Gasteria* (Hybrid) "Silver Q"**

A larger growing plant that stacks, it propagates from leaves and will pup on occasion.

***Gasteria* (Hybrid) "Ultima"**

One of the slowest growing *Gasteria* I've seen. "Ultima" is one of Rick's best hybrids. Along with deep striations, this plant will show various colors including yellow and pink.

G. (Hybrid) "Wild Thing"

Another slow grower, this plant takes on this nice shape and color.

***Gasteria* (Hybrid) "Zera"**

Rick sent this one when I quizzed him about what he had new and different. I never saw it listed.

Gasteria maculata

G. bicolor by any other name or a hundred. This was another "new and different" *Gasteria* I pestered Rick to share. I am curious to see what this might grow up to look like. It is slow and each leaf is different.



Gasteria 'Ultima'



Gasteria 'Wild Thing'



Gasteria 'Zera'

×**Gasteraloe "NCS"**

I have always treasured this plant because of its sculptural quality. During cold weather the leaves will propagate several plants each. However, during hot weather one doesn't try propagation or transplanting.

Rick lives on worldwide through his plants.



Gasteria maculata variegated



×*Gasteraloe NCS*

Rick Nowakowski Natures Curiosity Shop, USA.

In *Alsterworthia International* Volume 10, Issue 1, pages 10-11 (March 2010) I said that "As a memorial to Rick I will publish as many of his cultivars as possible in a form which will meet the requirements of the ICNCP using his cultivar names and quoting him as the authority for the names" and I made an appeal for appropriate information.

The initial response was very encouraging. I received a good number of photographs of Rick's plants which will certainly be very useful. In fact many, if not all, will be featured when I am able to publish his cultivars.

Unfortunately it seems that more people have Rick's plants and photos of them than details about them. Only a few indicated that they had any of his printed lists and only one to having a copy of the cultivars lists he published on his web site. So far the only copy of a list I have received is printed list No. 2, 2005. I have not received any of his web site lists.

Having access to Rick's printed lists and to his web page lists is important, as I should like to ensure that the information he published is incorporated into the descriptions and, prior to doing this, check which names are correctly published and which are not under the ICNCP. The only amendments I hope to have to make are those necessary to comply with the ICNCP.

I do need further help. If you could direct me to any reliable sources for copies of Rick's printed lists and/or web page list that would be very useful. If you happen to have any of his printed lists and/or copies of his web pages I should be most grateful for copies of them. They could be sent as files attached to e-mail, photocopies as appropriate or on disk. I appreciate that doing this can take time and time may be in short supply, but if you can help in any way you will be contributing to a worth while project.

As previously indicated, I will send a copy of any printed publication, in which information you have supplied is used, to you and if you are involved in any expense in sending material to me I will gladly meet that cost. Many thanks in advance for any help you can give.

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The Cultivar Project - Updated/Corrected Names

Harry Mays, photographs by Harry Mak



Haworthia attenuata 'Junimo-Hikari'

Description. Not traced to date, but Dr Hayashi states this is a Japanese cultivar named 'Junimo-Hikari'. *Haworthia attenuata* 'Little Lemon' P.A.S.C. Vol. 3, a later published name, is invalid - Art. 28.4 ICNCP.

Parentage. Variegation in the species.

Comments. Clear, longitudinal, yellow variegation, which may turn pink in strong light. Band-like tubercles on the undersides of the leaves. Leaves ca. 6cm long and 1cm wide.

Propagation. Offsets.

Haworthia attenuata 'Wide-Band-Nishiki'

Description. Not traced to date, but Dr Hayashi states this is a Japanese cultivar named 'Wide-Band-Nishiki'. In the UK it is known as *H. attenuata* variegated.

Parentage. A variegated clone of the species.

Comments. Rosette large. Leaves dark green with bright yellow to greenish yellow longitudinal stripes in varying widths; conspicuous, thick, raised, interrupted, white bands on the backs, upper leaf surfaces slightly concave with scattered, raised white spots. Leaf colour depends on season and growing conditions. Slow-growing, unwilling to offset.

Propagation. Beheading to promote offset production.



Haworthia attenuata 'Hakucho'

Description. Not traced to date, but Dr Hayashi states this is a Japanese cultivar named 'Hakucho'. *Haworthia attenuata* 'White Butterfly', P.A.S.C. Vol. 3, a later published name, is invalid - Art. 28.4 ICNCP.

Parentage. A selected form of the species.

Comments. Form as for the species. Variegation is cream, but it turns reddish in good light. Leaves c. 6 cm long and 1 cm wide.

Propagation. Offsets.



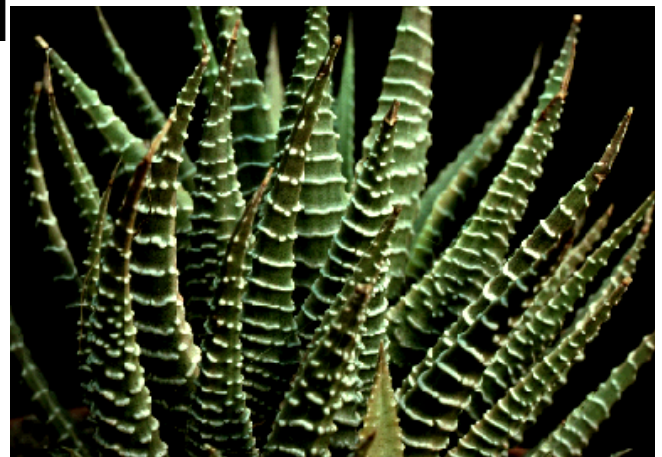
Haworthia attenuata 'Shiricho'

Description. Not traced. Dr Hayashi states this is the Japanese cultivar 'Shiricho' *H. attenuata* 'Ground Yellow' P.A.S.C. Vol. 3, a later published name, is invalid - Art. 28.4 ICNCP.

Parentage. Variegation in a large growing form of the species.

Comments. Leaves dark green with blurred yellowish-grey variegation enhanced by strong light, ca. 8 cm long and 1.5 cm wide, continuous, horizontal bands of tubercles on the underside. Rosettes up to 12 cm in diameter.

Propagation. Offsets.





Haworthia attenuata v. radula
'Matsunoshimo-Nishiki'

Description. Not traced to date, but Dr Hayashi states this is a Japanese cultivar named 'Matsunoshimo-Nishiki'. *Haworthia attenuata* 'Golden Arrow' P.A.S.C. Vol. 3, a later published name, is invalid - Art. 28.4 ICNCP.

Parentage. Variegation in the variety.

Comments. Overall form as for the variety. Leaves ca. 10cm long and 1.5 cm wide at the base. Colour is green with some yellow to yellow with some green. The green ranges from dark-green, longitudinal bands of varying thickness to diffused (lighter) green towards the lower part of the leaf. The proportion of yellow to green varies from leaf to leaf. The photographs show the variability. Yellow tubercles on both surfaces, small marginal teeth yellow. Offsets are freely produced, but are variable, all green or all yellow or variegated.

Propagation. Selected offsets.



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Jabal Buzairi, Aloe Paradise in Socotra

Text and photographs Joël Lodé



Situated in the horn of Africa, the Socotra archipelago is approximately 90 km off Somalia and 360 km off the Yemen to which it belongs. Socotra is a myth. By the 6th century B.C, it had already been visited by Phoenicians, Greeks and Romans and was known under the name of Dioscorides. It had also been visited by the Arabic and Indian traders for frankincense, Aloe sap and the so mysterious dragon's blood. In middle of the 1st century A.D. and for more than 1500 years, Socotra was Christian. Indeed, the boat of one of Jesus' apostles, Thomas, was wrecked near the coast. In the 9th century, the island was colonized by the Mahri, a tribe from the South of Yemen.

The archipelago has 4 main islands: the largest, Socotra, is 3625km² and is 135 km long by 33 km wide. Abd-el Kuri is 133 km² and is 33 km long by 2.5 km wide. The "Brothers Islands" are the smallest, Samha is 41 km², Darsa is only 16 km². The archipelago is isolated from June till September by violent monsoon winds. The arrival by plane is spectacular, with a panoramic vision of the island down to the landing runway.

As soon as we leave the airport, we pass back in time. The capital, Hadibo, is quite close, but we do not wish to go there. The reality exceeds the myth. The landscape takes your breath, nature has been preserved until today, we drive into the past, into our previous history. In this arid island, where water is scarce, everybody preserves it, including plants. Curiously, the lack of water creates obesity and gigantic size. This is the territory of *Adenium obesum* ssp. *socotranum*, *Dendrosicyos socotranum*, *Dracaena cinnabari*,

Dorstenia gigas and other miracles of the nature.

At present there are 3 species of aloes known in Socotra and a recognized hybrid. *Aloe perryi*, Baker, is the most common, present on all the island, *Aloe jawiyon* Christie, Hannon & Oakham, recently described, is more localized, *Aloe squarrosa* Baker ex Balfour, rarer and also very localized, and finally *Aloe ×buzairiensis* J. Lodé, described this year. Also, I heard about *Aloe haggeherensis* (but without any description) - it may be merely a mountainous form of *Aloe perryi*. Additionally, I found a possibly new, completely different, *Aloe* on my last trip, but this needs more investigation.

During one of three botanical missions with the University of Murcia and in connection with my book "Succulents of Socotra", I had the occasion to visit many locations. One of these, Jabal Buzairi, is interesting in many respects, because we discovered that the three Aloe species known until now on the island grow there.

Jabal Buzairi is situated on the west of the island. On the road, we take a socotran man who was waiting for transport and who agreed to help us as a guide. He explains that all the native plants have importance in socotran society because they all have utility.

The road towards Jabal Buzairi is very interesting because it reveals different species: *Euphorbia socotrana*, a treelike species which regrettably shows no regeneration, and the small *Commelina albescens* in flowers. It was believed that *Edithcolea grandis* grew only on the east side of the island, but we can observe it also in the west and fully healthy, when it is protected from goats! Similarly for the very cryptic



Aloe perryi Jabal Buzairi



Aloe perryi Jabal Buzairi

Euphorbia

hadramautica, which we never found in numbers.

On returning to the car, Wahid, my driver struck up a discussion with three noisy and aggressive people, a thing which is extremely rare on Socotra. One of them forbid us passage and threatened us. He said that strangers come to poison them! The insect hunters are apparently not welcome, and all the foreigners who come here do not inspire confidence. When I showed them a proof of my future book on succulents of Socotra, and told them that I was here to finish the work they allow us to pass.

Finally we arrived at Jabal Buzairi. The

advantage was that we had climbed in the 4x4 to the plateau at more than 500 m in alt., so there were only 250 m more to climb to arrive at the summit. Here is an *Echidnopsis* species we find almost everywhere, the common *Echidnopsis socotrana*. There are 5 species of *Echidnopsis* in Socotra, but without flowers it is difficult to be sure. Also, we find *Socotrella dolichonecma* under thorny bushes, as well as *Aloe*

Aloe perryi left and *Aloe jawiyon* right. Jabal Buzairi



jawiyon in isolated groups and at the beginning of flowering, showing well the non-branched inflorescence. It grows together with *Aloe perryi* without any trace of hybridization, although flowering of both may coincide at some point.

We found *Aloe perryi* in all the visited locations, including Jabal Buzairi, up to approximately 500-600m in alt. They present extreme variability; They are



Aloe x buzairiensis Jabal Buzairi



Aloe x buzairiensis Jabal Buzairi

normally bluish, pruinose, but according to habitats, season and place, can have short or very long, curved or erect grey, greenish-brown or yellowish-green

leaves. The inflorescence is branched (2-3) and flowers are generally light red to orange at the beginning of anthesis and yellow at the end. It is possible to find



Aloe x buzairiensis left and *Aloe squarrosa* right
Jabal Buzairi

Aloe perryi in many places on the island, along the road from the airport to Hadiboh, on Dixam Plateau, in Laskah, on Hamaderoh-Homhil etc.

Aloe jawiyon is more localized, generally at higher altitude, from 600 and up to 780m or more, with typically curved and strongly canaliculate leaves, with a brown to greenish-yellow epidermis, looking sometimes velvety orange. The inflorescence is unbranched, horizontal at the beginning and is shorter than *A. perryi*.



Flowers are orange-coloured with a greenish to intense green tip. *Aloe jawiyon* is also found on Jabal Mtoloh.

Aloe squarrosa is very localized, and is more or less at the same altitude as *A. jawiyon*, up to 850m, but generally on inaccessible cliffs (to the goats!), at the edge of the precipice, in cavities of coral limestone. It has a long stem approximately the thickness of a finger. Leaves are smaller than both previous species, are flattened and recurved, fresh green to yellowish-green. On Jabal Buzairi, leaves can be narrower, greenish-brown to reddish-brown. The inflorescence is

simple, short, flowers are light orange with a greenish tip. *Aloe squarrosa* is also found on Jabal Ma'ali.

A possible hybrid between *A. perryi* and *A. jawiyon* had been suggested by botanists*, but I had not observe it at the location stated although I had been there, so I did not expect to find a natural hybrid between *A. perryi* and *A. squarrosa*. This hybrid was confirmed by the discovery of several plants of different ages with identical characteristics.

While *Aloe squarrosa* is situated on the high parts of the mountain, at the edge of cliffs, here towards 800-



850m in altitude, *Aloe* × *buzairiensis* is at the base and the beginning of the hillside, up to 760m in alt. The oldest plants, settled in bushes of *Buxus hildebrandtii*, are typically branched out from the base and are less spotted than *A. squarrosa*, but are very sturdy and almost one metre high, with a trunk 20-25mm diam. The young plants are at first stemless and produce rather bluish leaves at the beginning, at first weakly spotted, with a very widened base. The inflorescence is much like this of *A. squarrosa*, but is red with green tips. The population seems limited to a few plants and is rather variable. In the crevices of cliffs, we also found small *Dorstenias* (*Dorstenia gigas*) extremely grazed and mimetic to limit the damages caused by goats. Regrettably, plants betray themselves when the leaves appear!

A delight for eyes on this mountain where we find the four Socotran *Aloe* species (maybe five if the presence of *A. perryi* × *A. jawiyon* is confirmed). We can take the road back with satisfaction. This last journey was fructiferous one!

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Aloe squarrosa Jabal Buzairi.



Aloe squarrosa Jabal Buzairi.



Joel Lodé photographing *Aloe jawiyon*, Jabal Buzairi