

ALSTERWORTHIA INTERNATIONAL THE SUCCULENT ASPHODELACEAE JOURNAL

Haworthia maculata,
E end Die Neckties.
MBB 8020



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Tulista Raf. - Counsel for the Defence.

Gordon Rowley.

Every plant-lover likes genera that have distinctive looks to them. They should be immediately recognisable. This, after all, is as it should be: what value has a classification if one can't make use of it? Unfortunately, natural selection does not always give us the answers we would like. For example, when *Digitostigma* was named as a new cactus genus in 2002 it astonished everyone with its long, snake-like tubercles and geophytic habit, unlike anything else in the family. But on the strength of its flowers and fuzzy white surface scaling David Hunt referred it to the genus *Astrophytum*, arousing some strong opposition. However, time and DNA sequencing have proved him right, and Japanese breeders have even shown the route along which it could have evolved via trunk-like Elephant mutants liberated from recessive genes (Pavlica & Saeki p. 179 et seq.).

Tulista in my view is another composite genus of evolutionary dead ends where the only other logical option is a number of separate small genera. If we look to other accepted genera of succulents, we have for a start *Monsonia*, now joined by the quite dissimilar *Sarcocaulon*, and others equally contrasted in life forms: *Begonia*, *Chlorophytum*, *Cistanthe*, *Dorstenia*, *Oxalis*, *Pelargonium* and more (See Rowley 2014B).

And what about *Euphorbia*, which now embraces *Monadenium* and *Synadenium*, and the “succulent” butterworts, heaths and mistletoes? Yet DNA binds them all together as one macroclade of the family tree.

It could well be that the *Tulista* species have more in common than meets the eye, if we know where to look. We could take a lesson from A.J.A. Uitewaal who finally recognised the tripartite nature of *Haworthia* in 1947 when he scrutinised pedicels and flower profiles.

References.

- HUNT, D. 2006. The New Cactus Lexicon. Text p. 31.
PAVLICA, R. & SAEKI, S. 2013. Japanese Hybrid *Astrophytum*. Ehime, Japan.
ROWLEY, G.D. 2014A. In defence of *Tulista* - a genus of many faces. *Haworthiad* 18(2): 47-49.
ROWLEY, G.D. 2014B Life Forms in Succulent Plants. Cactus & Co. 18(2): 40-49.
UITEWAAL, A.J.A. 1947. A first attempt to subdivide the genus *Haworthia* based on floral characters. *Desert Plant Life* 19(9):132-136.

Apologia, Corrigendum

Gordon Rowley.

The motto hanging over my work-table reads: “I’ve learned so much from my mistakes I’m thinking of making a few more”. My efforts to sum up 40 years’ probing into aloe affiliations have certainly given rise to proofing and other errors. Hopefully what follow will rectify the nomenclatural aberrations. I apologise in advance that the gaffes are not as entertaining as, for example, that from the writer in *Southern Spine* 8: 12, June 1967 “Quite a lot of the cacti have grown six or eight feet....”

Haworthiopsis attenuata (Haw.) Rowl. n. comb.

Aloe attenuata Haw. In *Trans.Linn.Soc.* 7: 11, 1804.

Haworthiopsis attenuata var. *glabrata* (Salm-Dyck) Rowl. n. comb.

Aloe glabrata Salm-Dyck in *Hort. Dyck.* 325, 1834.

Haworthiopsis attenuata var. *radula* (Jacq.) Rowl. n. comb.

Aloe radula Jacq. *Plant.Rar.Horti Schoenbr.*4: 11, t.422, 1804. (I had cited the wrong Basionym reference here).

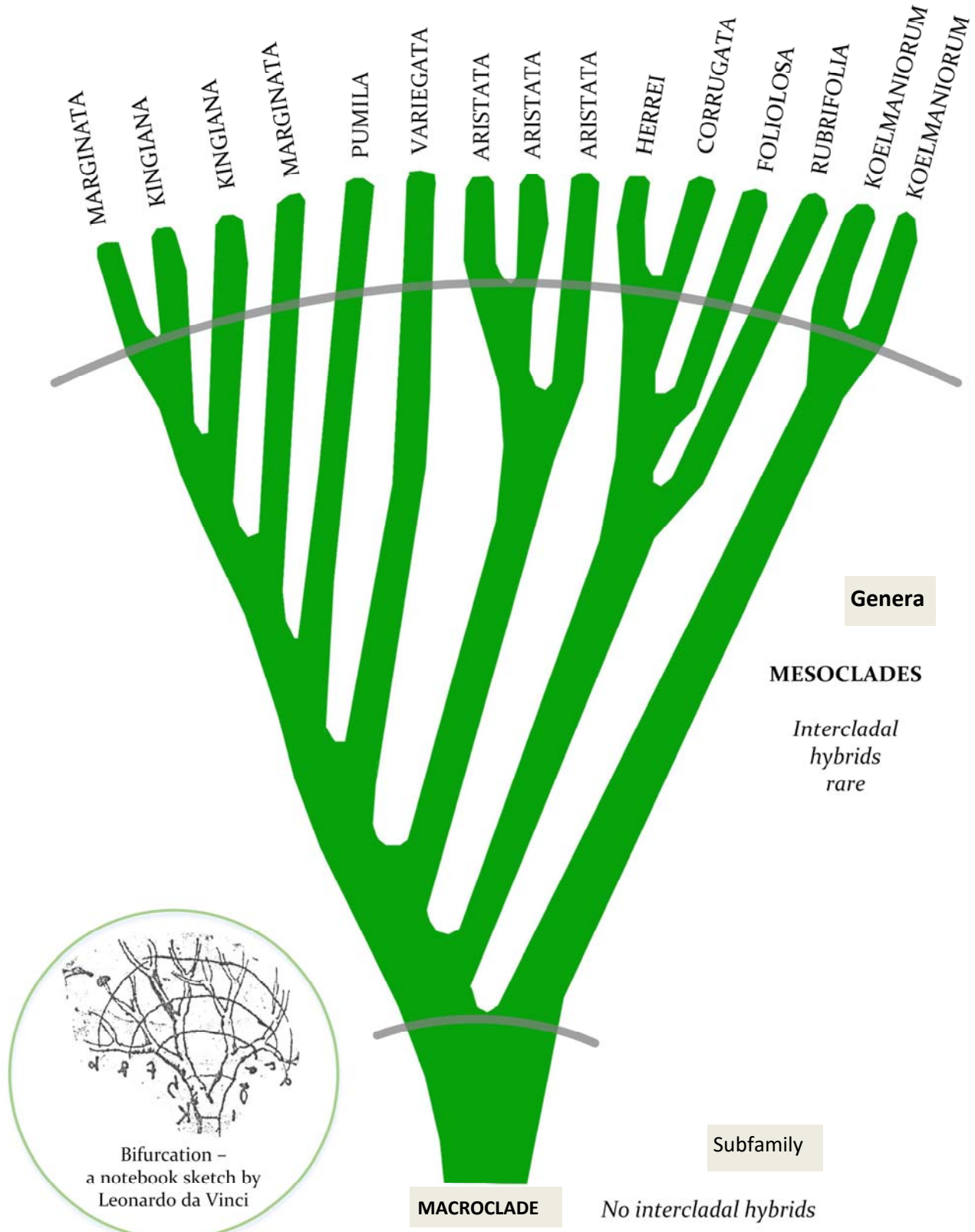
Tulista Subgenus *Astroloba* subg. nov.

Astroloba Uit. In *Succulenta* 1947 (5): 53, pro gen. (Omitted from the key in *Alsterworthia Int.* 14(3) 3, Nov. 2014)

See also l.c. 13(3): 7, Oct. 2013 for a validation of *Haworthiopsis viscosa*.

MICROCLADES *Interspecific hybrids occasional*

SPECIES



MACROCLADE *No intercladal hybrids*

MESOCLADES
Intercladal hybrids rare

Genera



Figure 1

Tree diagrams have long served to depict concepts of common ancestry and successive changes. This one, adapted from Manning's 2014 cladogram, covers *Tulista* in the broad sense. It remains a matter of opinion at what level one recognises genera and higher categories.

Aloe striatula - A plant to consider for many locations.

Harry Mays

Aloe striatula is found in the Eastern Cape growing among rocks at the tops of mountains. This suggests that it might be tolerant of some degrees of frost, a fact not overlooked by some enterprising nurserymen, who constantly need to present plants in a new light if sales are to continue to prosper. What better than to sell them as hardy to around H4 [-10 to -5 C. (14 -23 F)].

In addition they are quite tolerant of dry conditions, so you can grow them in a glasshouse, conservatory or on a patio in containers and forget to water them for some time, but expect the lower leaves to dry out if you leave them without water for too long.

You can also plant them out in the garden where the free root run will let them compete with other plants. It is best to plant them facing south (in the Northern hemisphere) and in a well drained (gritty) substrate, remembering that they will not withstand winter temperatures below -10C to -5C

Young plants usually have single stems. Eventually they will start to branch and form a shrub. For a photograph of a mature plant see *Alsterworthia International* Vol. 14 (3), 10 (November 2014). Leaves are lanceolate, acuminate, green with small, white, spaced marginal-teeth. The striped, leaf-base forms a sheaf round the main stem, which give rise to the name *striatula*. Fig. 1 is a young, single-stemmed plant, which shows the small, white, marginal teeth and striped leaf sheaves round the main stem.

Flowering is from May to July in the northern hemisphere (November - January southern) producing a number of single stemmed inflorescences which will reach above some competing vegetation. The cylindrical-conical racemes are densely covered with downward-pointing flowers; yellow, tipped greenish, in var. *caesia* and reddish-orange to orange in var. *striatula*.

The DNA studies of Daru et al resulted in a revision of old genera, which had become familiar to all of us, with new genera being introduced for various



1. A young plant of *Aloe striatula* showing the leaf marginal teeth and the striated leaf-sheaves surrounding the stem.

2. The racemes of *Aloe striatula* with downward pointing, densely-packed flowers.

divisions of old genera. *Aloe* series *Macrifoliae* was raised to generic status under the name *Aloiampelos* Klopper & Gideon F. Sm. Consequently *Aloe* series *Macrifoliae striatula* became *Aloiampelos striatula*. Any hybrids resulting from crosses between what is left of the genus *Aloe* with *Aloiampelos* have the new nothogenus name \times *Aloiampaloe*.

References.

The Garden (RHS journal) August 2014, page 23.

Photographs: Figure 1. Harry Mays. Figure 2 supplied by Gordon Rowley.

Illustrated Handbook of Succulent Plants - Monocotyledons, pages 176-177.

Alsterworthia International Volume 14(2) 7-15 and 16-23 and Volume 14(3) 10.

Repertorium Plantarum Succulentarum - Down Load.

In the November 2014 Alsterworthia International I said "You can download their annual Reps free of charge from rps64-final.pdf which, when I clicked on it, produced the actual site from which the Rep could be downloaded. However, Lawrence M. Loucka, U.S.A. tells me that rps64-final.pdf is actually a hyperlink, or link,

to the web address of the pdf file which can be found on the IOS web site.

If you have experienced difficulty downloading a copy of the Rep please use the link Lawrence has supplied:

<http://www.iospr.org/rps64-final.pdf>

Harry Mays

News and Views.

We are working to extend the range of material published for the benefit of Alsterworthia International members in pursuance of our policy of publishing without discrimination and all in an acceptable manner.

In a democratic society, everyone is entitled to have access to published material, including alternative views. Success depends on the willingness of people to publish in acceptable form, hence our policy of non-discrimination with friendly presentation.

Members often have interesting material in their possession, ranging from notes and colour photographs of plants in habitat to those in the glasshouse. Many of you experiment in different climates with methods of cultivation and propagation and also experiment in creating new cultivars, both species and hybrids.

Most of this material, failures as well as successes, is of interest to other members who would appreciate articles, short or long, illustrated with good colour photographs. There is no restriction on the number of good photographs you can submit with an articles and no restriction on the size of articles. Short articles consisting of a few colour photographs supported by a few brief comments and longer articles with many photographs are all welcome.

Articles with photographs may be submitted to the editor by file attached to e-mail. If large numbers of photographs are being sent it is probably best to send them attached to several e-mail.

We hope that the range of material published to date has been of interest to you and, with your cooperation, we hope to extend it further in the future.

Editor: Harry Mays, hmays@freenetname.co.uk

The International Cultivar Registration Authority for *Haworthia* (including *Haworthiopsis* & *Tulista*), *Astroloba* and *Chortolirion* is the *Haworthia Society of Japan*.

Registrar: Dr. M. Hayashi, info@haworthia.net

Representative for western countries: Harry Mays, alsterworthia@freenetname.co.uk

Both the Japanese *Haworthia* Society and Alsterworthia International are willing to publish new cultivars in *Haworthia Study* (Japanese) and *Alsterworthia International* (English) provided they comply with the International Code of Nomenclature for Cultivated Plants. Please send descriptions and colour photos to Dr. Hayashi or Harry Mays as appropriate. Electronic copies are acceptable.

Aloe lateritia v. *graminicola* a



Figure 1. The habitat of *Aloe lateritia* v. *gram*

and *Equus burchelli*, Plains Zebra



Alsterworthia provides grazing for the Plains Zebra.

Aloe lateritia was described by Engler in Pflansenswelt Ostafrikas in 1895. In The Aloes of Tropical Africa and Madagascar, Reynolds commented that “At the type locality, Rombo, about 24 miles N of Himo at the SE end of Kilimanjaro, there is considerable variation in leaf size and markings, kind and length of racemes and length and colour of flowers....” and he gave a broadly based description based on the forms most commonly met with in a much larger area of distribution, Tanzania, Kenya, Uganda and the eastern borders of the Congo. *Aloe campylosiphon*, *amanensis*, *angiensis*, *bequaerti*, *lanuriensis* and *solaiana* were recorded as synonyms.

Reynolds described *Aloe graminicola* in the Journal of South African Botany in 1953. In The Aloes of Tropical Africa... he stated it “is nearest allied to *A. lateritia*.....but it differs from it, inter alia, in having smaller, denser, capitate racemes of much narrower, more curved flowers. In *A. graminicola* the basal swelling of the perianth is also much smaller and the two species could hardly be confused.” In view of the “nearest allied to” and “different from”, it probably

came as no surprise that *Aloe graminicola* was made a variety of *A. lateritia* in the Flora of Tropical East Africa, Aloaceae 1994 by Susan Carter. This preserves individual identities whilst recording their close relationship.

In the Illustrated Handbook of Succulent Plants - Monocotyledons, *Aloe lateritia* var. *graminicola* is recorded as differing from var. *lateritia* by being acaulescent or very shortly caulescent with stems to 50 cm (v. *lateritia* acaulescent), by usually suckering to form dense clumps (v. *lateritia* sometimes suckering to form small groups), by more pungent (pungent = sharp point) marginal teeth (v. *lateritia* pungent) and with inflorescences with racemes always capitate (v. *lateritia* capitate to subcapitate). Variety *graminicola* grows in grassland and open bushland, variety *lateritia* in grassland and open bushland, often on rocky slopes. Discerning readers will observe that these differences are hardly mutually exclusive. In this connection it is pertinent to point out that Reynolds commented with his description of *A. graminicola* that "Between Njoro and Elburgon, some 20 miles W of Nakuru, on the road to



Figure 2.

Three compact, capitate, flower heads, on branches from a main stem below, not shown in the photograph. The lowest, oldest flowers open and die first; the youngest at the apical, indeterminate growing point last. These are young flower heads with the oldest flowers just beginning to open.

All the flowers seen were orange-red, but yellow is also known.

Mau Summit, it seems that *A. graminicola* grades through intermediates into *A. lateritia*".

In early October, 1996 we visited the Nakuru - Naivasha area of the Rift Valley (where *A. solaiana*, now a synonym of *A. lateritia* var. *graminicola*, was recorded) and saw many *A. lateritia* var. *graminicola* growing in grassland and open bushland, fig. 1. Most were in flower. The inflorescences all bore capitate racemes at various stages of maturity. Fig. 2 show three young, compact, capitate, flower heads, produced by three branches from a main stem (off picture below). The flowers have distinctly swollen bases. All the flowers seen were orange-red, but yellow is also known.

The leaves usually exhibited large white spots, sometimes in bands (fig. 4 overleaf), sometimes more

random (fig. 3 right). Occasional spotless leaved forms are found (fig. 3 left). The leaves have a tendency to die back at the tips, which is certainly unsightly in the glasshouse. Prolonging the growing period by careful watering and maintenance of a growing temperature seems to help to limit tip die back. However, note the differences in die back on the adjacent spotted and non-spotted plants in fig. 3. The smallish teeth on the leaf edges are a lighter brown on the younger leaves, darker on the older. They are most easily seen on the spotless form.

Clumps with varying number of rosettes are the norm though small, young plants are single. A particularly fine specimen is shown in fig. 4 demonstrating lines of white spots, distorted lines and



Figure 3.

Two different clones? (different because this seemed to be revealed when soil was scraped within limits from the base of each - then put back) of *A. lateritia* var. *graminicola*, the left without white spots, the right with mostly random white spots. Note the flowers are older than in fig. 2. Many of the lower have already died leaving the untidy younger flowers at the top with vestiges of individual dead flower stalks underneath.



more random spotting, all on the same lower left rosette.

At the time we were there *Equus burchelli*, Plains Zebra, were grazing round the aloes. They sometimes browse, but not normally on aloe leaves, which have a bitter taste. However, quite a few of the inflorescences showed signs of damage either by breakage of stems (fig. 3 left) by passing animals such as Zebra or by the flowers being damaged by birds and insects.

The Plains Zebra, like *Aloe lateritia* var. *graminifolia*, is variable. Normally it has black and white stripes with faint shadow stripes on the white, particularly on the

hind quarters, but the black may be brownish black, the shadow stripes may be suppressed and striping may or may not extend to the hooves.

Photos: Harry Mays.

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Figure 5. *Equus burchelli*. Plains Zebra.

Flowering *Aloe lateritia* v. *graminicola* in the distant background

Variability and Similarity in *Haworthia* in Different Locations with Supporting Photographs of Plants in Habitat.

An extract from Bruce Bayer's Update 11.

Addendum:

To demonstrate the problem of similar looking plants that appear in different populations, I take 3 plants from the original Kruisrivier population (JDV92/65) see figs. 56-58. Fig. 56 is obviously a mirabiloid plant and if this population flowered in late summer it would probably be identified as *H. mirabilis*. The figs. 57 and 58 are more retusoid. I leave out plants from the newer Kruisrivier population (MBB7999) because none of the plants have the rougher mirabiloid leaf surfaces. I add a Wegwysersrivier (fig. 59, MBB8000) plant that is again mirabiloid and like Fig. 56, except that it appears to be a spring flowering population with a significant number of plants in flower in early July.

From there I take a plant from Komserante (MBB7779, Fig. 60) that flowers in late summer, but is apparently generally hybrid with *H. retusa*. Moving eastwards from Riversdale and impinging on *H. mirabilis* splendens, I show a plant MBB7762 from Platkop (fig. 61) where both *H. mirabilis* and *H. retusa* occur with occasional hybrids. Fig. 62 is MBB7818 *H. mirabilis* Windsor SE Riversdale, where the plants frequently have a frosted appearance because of minute surface spines.

There is a significant geographic jump with fig. 63, MBB7850, *H. emelyae* north of the

Langeberg at Aasvoelvallei. This is a population that I have noted elsewhere that highlights the probable relationship of *H. emelyae* with the *H. retusa turgida* and pygmaeoid elements from Herbertsdale eastwards. Fig. 64 is a plant of MBB6666 Tradouw Pass that I recognize as a hybrid population *H. mirabilis* x *retusa*. Inland from there are several populations; MBB7899 is *H. mirabilis*, Heuningklip (fig. 65) and MBB7896 *H. retusa nigra* also Heuningklip (fig. 66). East of that are three populations of *H. mirabilis*, MBB7912 and MBB7913 Rietkuil and MBB7919 Van Reenens Crest (figs. 67-69).

As only single plant comparisons, it seems fairly safe to say that, bar flowering time and figs 2 and 3, they are all similar. However, the variability in each of these populations is great and this has been reported elsewhere in the Update volumes. If now one had to take figs. 2 and 3 and look for similarities in other populations, it would be very easy to demonstrate a complete gradation from what could be construed as typical *H. mirabilis* through to typical *H. retusa* through a large array of populations.







**Die nekkies - a selection of *Haworthia maculata* plants (a),
each with a leaf back (b) and face (c).**

An extract from Bruce Bayer's Update 11.

The following photographs show a random selection of plants and their leaf faces and backs from Die Neckties, They record the variability of plants and leaves over this wide area which I classify as *Haworthia maculata*. For these plants I have recorded my collection numbers which are indicated on the map, page 16. Photograph numbers are as in Update 11.

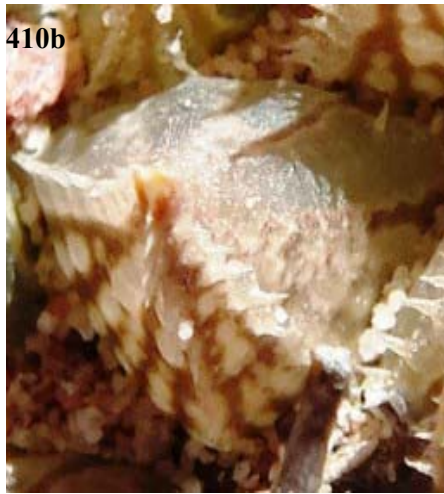
8019. *Haworthia maculata*, Die Neckties Figs. 408- 412.



Die Neckties.

Map to show the locations of the various populations.



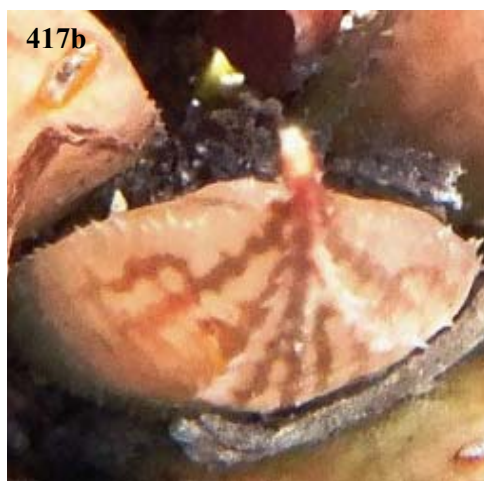
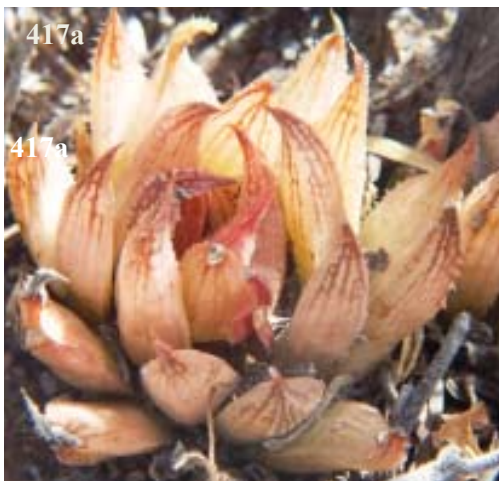


8020. *Haworthia maculata*, Die Neckties. Figs. 413- 416.





8021. *Haworthia maculata*, Die Neckties. Figs. 417-418.





8022. *Haworthia maculata*, Die Neckties. Figs. 419-423.



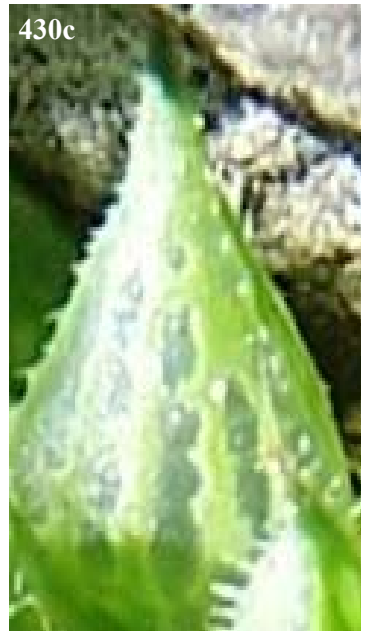


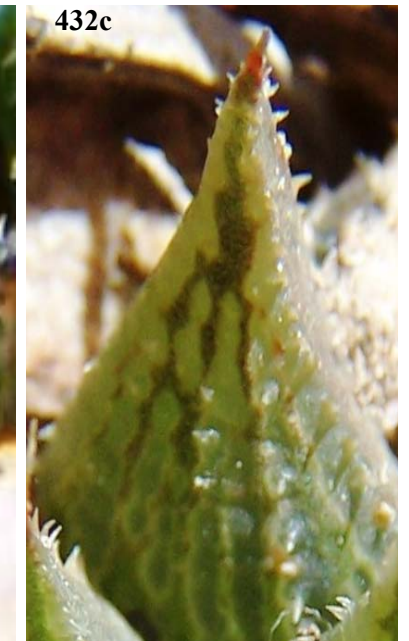
7426. *Haworthia maculata*, Die Neckties, Brandvlei Dam, Fig. 424.



7426. *Haworthia maculata*, Die Neckties). Fig. 425-439.











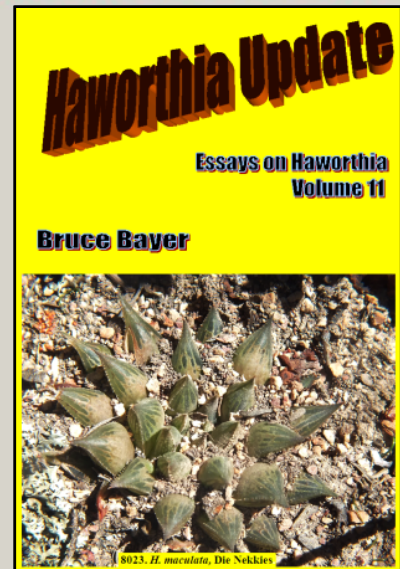
Haworthia Update

Essays on Haworthia

Volume 11

Bruce Bayer.

Publication date: 8th December, 2014



Update 11 is printed on A3 gloss art paper, machine stapled, folded and guillotined.

There are 56 A4 pages including the cover.

Bruce Bayer reports on more field research he has carried out on many haworthia populations. The species covered embrace *Haworthia maculata*, *retusa*, *mirabilis*, *floribunda*, *turgida* etc. in their many forms and locations.

As usual, they are illustrated with habitat colour photographs of plants and their parts, including flowers, all in colour.

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or, in case of difficulty, from Harry Mays.**



Haworthia Study No. 30.

The Japanese Haworthia Society is now about back on track with the publication of Haworthia Study. Following quite quickly on the publication of issue No. 29, issue No. 30 is at present with the Japanese printer. The bulk supply for all countries outside Japan will be sent to Harry Mays by surface mail, to keep the cost down, for distribution with the July Alsterworthia International journal.

So readers may gain an insight into the content of Haworthia Study, the complete front cover page is reproduced in miniature at the left, part of page 2 below and the whole of page 5 overleaf.

In addition to these and other cultivar articles there is an article on *Haworthia obtusa*-like plants by Dr. Hayashi.

Please also see Alsterworthia International 14(3) 21-22 for further information.



‘老川黒” Oikawa Kuro’

日本ハオルシア大賞2014 銅賞

押尾武氏 出展作品

Bronze Prize of Japan Haworthia Cup 2014.

Cultivator : Mr. Oshio

中型のコンプトで、窓に非常に艶があり、黒い地色に鮮明白線のコントラストが良い。交配親に良い。

Middle-size Compto with high-contrast marking of white lines on the dark leaf.



‘インカローズ”Incarose’

日本ハオルシア大賞2014 総合第4位

徳田喜代士氏 出展作品

The 4th place of Japan Haworthia Cup 2014.

Cultivator : Mr. Tokuda

赤と白のツートンカラーのしゃれた色彩のスペンデンス系(御津姫)交配。‘御津姫’交配にはこのパターンの模様が良く出る。

Splendens hyb. with two-tone color marking of red



① '流星群' 'Ryūsei-gun' 高瀬氏作。
'流星雨'に似るが白線はより太くい。
Close to 'Ryūsei-u'. Lines thicker, fewer.



② '太平洋' 'Taiheiyō' 荻野氏作
大平窓で'ミレニアム'に似るがより多線。



③ 'スノーマンモス' 'Snow Mammoth'
佐藤勉氏作。やや小型だが真っ白窓。



④ '薩摩切子' 'Satsuma Kiriko' 大桑氏
作。'特網コンプト'似だが、より鮮明目。



⑤ '丸葉ブルーヘイズ' 'Maruba Blue Haze' 土
屋氏作。より丸葉の培養変異株。



⑥ '林麗草' 'A. 'Hayashi Rexa' 'A. 栽培：西島
氏。葉幅6cmに達する超広葉品種。



⑦ '良子' 'Ryōko' 袴田氏作。
'ピンキー'の幅広葉培養変異株。



⑧ '大明鏡錦' 'Dai Meikyō Nishiki'. 栽培
西島氏。'ミルクィ - ウエイ'似の超大型。
Looks like 'Milky Way', but far large.



⑨ 'オールドフォークス' 'Old Folks'
押尾氏作。窓に微毛のあるコエル交配。



⑩ '短姿城錦' 'Tanshijō Nishiki'.
吉田氏作。雄姿城錦の短葉改良型。



⑪ '雪冠殿' 'Sekkanden'. 栽培：古谷
氏。'ルリ殿白斑'は異名。Known as
'Ruriden Shirofu', but is a synonym.



⑫ '天使の涙' '実生錦' 'Tenshi-no-namida'
seedling variegated. 萩原氏作。鮮明総柄。
Clear and all leaves variegation.