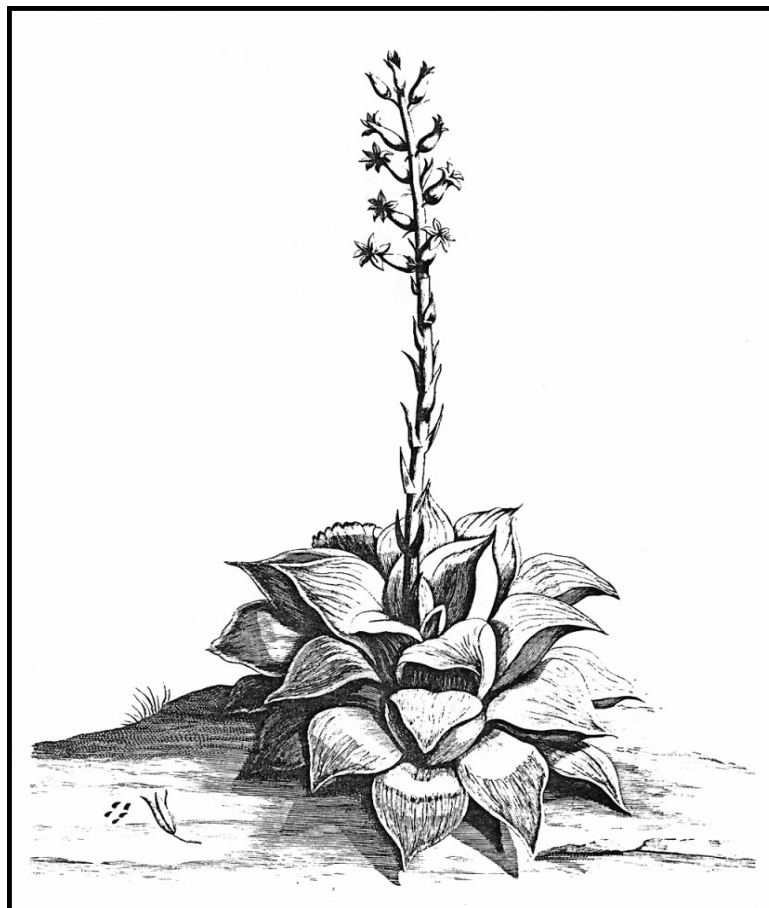


ALSTERWORTHIA INTERNATIONAL

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SUCCULENT ASPHODELACEAE
journal



Aloe africana brevissimo crassissimoque folio flore subviridi

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Editor: Harry Mays

Woodsleigh, Moss Lane, St Michaels on Wyre, Preston, PR3 0TY, UK

Tel/Fax: National 01995 679295. International: +44 1995 679295

E-mail: HMays@freenetname.co.uk

Aloe africana brevissimo crassissimoque folio flore subviridi

The front cover illustration was published in 1701 by Commellin as t 6 in Horti medici Amstelodamensis with a pre-Linnaean descriptive name (Small African Aloe, thick leaves somewhat green).

Aloe retusa was published by Linné in 1753 in Species Plantarum, Part 1, transferred to *Catevala* in 1786 by Medikus and then to *Apicra* by Willdenow in 1811. Duval recognised the taxon as *Haworthia retusa* in 1809

Scott designated t 6 as the lectotype of *Aloe retusa*, which is the basionym of *H. retusa*.

H. retusa is a variable plant. The subdivisions of the species

are still not universally agreed and may not be for the foreseeable future.

For further information please see "Views on *Haworthia retusa* (L.)Duv. - The oldest described retused *Haworthia*, but still the grand old lady of *Haworthia* in the Southern Cape." by J.M. Esterhuizen on pages 5-8.

Reference:

World of *Haworthias* Volume 1. ISBN 3-926573-08-2
by Ingo Breuer

A letter from Yuri Matjunin.

I am an engineer. I work at an automobile factory. My wife is an art-designer. She makes decorative compositions of live flowers. Our hobby is the cultivation of cacti and other succulents. I give preference to cultivating succulents of the Mesembrianthemum (*Lithops*, *Conophytum*) family and the Asphodelaceae family (*Haworthia*, *Gasteria*) and such cacti as *Astrophytum*, *Ariocarpus* and *Lophophora*. These kinds I love the most.

I have a small hothouse for the cultivation of plants. Now I am engaged in the construction of my new house where there will be a greenhouse for the cultivation of plants.

I live in Togliattii City on the banks of the river Volga in the Samara Region. We have a sharply continental climate. The winter is cold and snowy, the summer hot and dry. Periodically there is rain. In such a climate succulents need a warmed greenhouse. In winter, we do not have enough sunlight for the growth of plants, therefore we keep them in a cool place so they have a rest in the winter. In the summer, we have enough sunlight for normal growth and flowering.

In Russia, it is very difficult to obtain seed and I wondered if anyone could help me please to obtain any, particularly for the genera of the Asphodelaceae and Asclepiadaceae families?

My son is a schoolboy. He is 14 years old. He studies English language and would like to correspond by mail with comrades in your country. He collects postage stamps with images of plants and animals.

My postal address is: Yuri Matjunin, 445004, Ogorodniy pr. 12, Togliatti, Samarskaya obl, Russia.

Editor's note. If you would like to exchange letters with Yuri and/or his son please write direct. I am sure Yuri will be delighted to receive seed if you have any to spare and I guess his son will be happy to receive stamps with pictures of plants and/or animals.

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PUBLICATION OF NEW HAWORTHIA CULTIVARS

Harry C.K. Mak

20 Walsingham Ave., Evesham Gardens, Middleton, Manchester, M24 1SR, UK



Fig. 1. *Haworthia pygmaea* var. *pygmaea* 'Frosty Cream'
Ham 2339

***Haworthia pygmaea* var. *pygmaea* 'Frosty Cream'**
H.C.K. Mak. [New cultivar, Ham 2339]

Variation in this species is uncommon in the U.K. This crusty form with cream-tinged-pink variegation is rather small with rosette up to 4 cm across. A plant with 6 heads can nicely fit a 2" (5 cm) square pot. This gem is again of Japanese origin. I received a small head of about 1.5 cm diameter from Mrs. H. Omori (ex Mrs. Aoki) in November 1999. It now has 3 offsets with good variegation. Based on the pattern of variegation in the offsets, it is concluded that a parent of evenly distributed variegation will produce offsets with good variegation.

All photographs, pages 5-6, by the author.

***Haworthia pygmaea* var. *pygmaea* 'Silver Thunder'**
H.C.K. Mak [New cultivar, Ham 1163]

In the Western Cape, *Haworthia pygmaea* var. *pygmaea* is confined to the Great Brak and Mossel Bay areas. This is a very big, wide-leafed and crystalline form which has long been in cultivation in Japan, at least since 70s. Most probably it is a selected form from the field. The name 'Silver Thunder' is a direct translation from its Japanese name. The outstanding feature of this cultivar is the presence of dense, white papilla on the leaf windows. The leaves are particularly wide and trunky. There are 4-5 green lines running longitudinally along the leaf windows. With good light conditions the whole plant turns a bit pinkish. It is a slow grower but will eventually overgrow a 4" (5 cm) pot with numerous offsets. Each rosette is up to 7 cm across. Propagation is again either by offset or leaf-cutting. [



Fig. 2. *Haworthia pygmaea* var. *pygmaea* 'Silver Thunder'
Ham 1163

***Haworthia cymbiformis* var. *obtusa* 'Chik-chun Mak'**
H.C.K. Mak [New cultivar, Ham 1184]

This creamy yellow variegated is an exceptional beauty. It was a sport from its non-variegated parent, which originated in my friend's collection in Hong Kong. This cultivar is named after my friend Mr. Chik-chun Mak who is keen on promoting succulent growing in Hong Kong. Though the variegation varies a little, it deserves a cultivar name. The plant illustrated here is the best of all. The variegation is very even. This variety of *cymbiformis* is featured with obese leaves (ca. 2.5 cm long, 2 cm wide and 1 cm thick) which have translucent tips and a terminal bristle about 1 cm long. Leaf margins are surrounded by minute teeth. All heads are joined together by common stem tissue and roots. To propagate it, the heads have to be cut apart with a sharp knife. With good conditions, 3-4 heads can easily be obtained from a single head within 2 years.



Fig. 3. *Haworthia cymbiformis* var. *obtusa*
'Chik-chun Mak' Ham 1184

PUBLICATION OF NEW HAWORTHIA CULTIVARS (continued)

***Haworthia* 'Green Sword'** H.C.K. Mak
[New cultivar, Ham 2191, seed sown 1999]
(*Haworthia blackburniae* [Ham 1096] x *Haworthia emelyae* var. *major* hybrid [Ham 1583])

This is a rather odd marriage as the parents are very different morphologically. Like *blackburniae*, its leaves are quite long (up to 7 cm long, 1 cm wide and 3 mm thick). However they are very much shorter than *blackburniae*. A distinct keel can be found on the lower side of the leaves. White spots are present throughout the leaf surfaces, particularly the upper parts. Leaf margins are toothed. All leaves terminate with a short bristle. At first sight, it resembles a dwarf *Aloe* with spotted leaves. One head can easily grow to a large clump of over 30. The cultivar name 'Green Sword' derives from the general shape of the leaves. Propagation is very easy from off-sets.

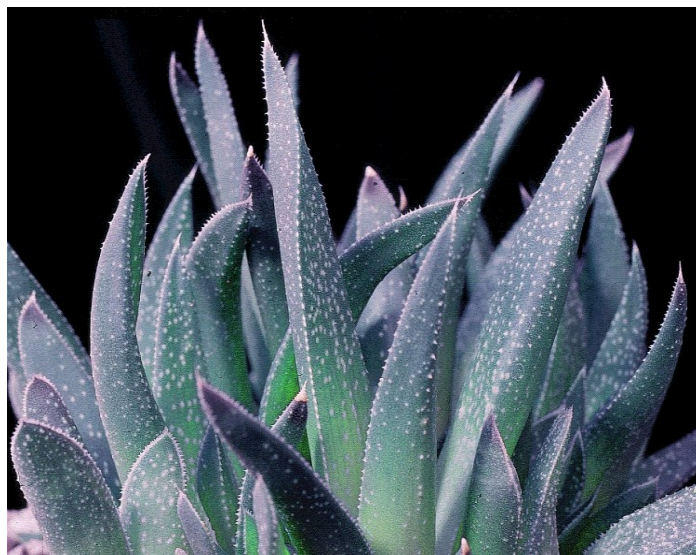


Fig. 4. *Haworthia* 'Green Sword' Ham 2191

AN HAWORTHIA HYBRID



Fig. 5. *H. cooperi* x *H. pubescens* var. *pubescens*
Ham 2202

Haworthia cooperi (Ham 477 ex John Pilbeam, from Port Elizabeth) x ***Haworthia pubescens*** var. *pubescens* (Ham 1139) [Ham 2202, seed sown 1999]

This is my first *pubescens* hybrid and may be the first in the world! It is a cross between an *arachnoidea*-like *cooperi* and *pubescens*. Its appearance is intermediate between its parents. Like its mother, there are numerous fine teeth on keel and leaf margins. The general shape is closer to *pubescens* with small translucent dots on the leaf surface. Unlike *pubescens*, it is far easier to grow. Apparently, it seems to remain solitary. Further observation is needed to understand more about its growth habit. A cultivar name is not being allocated for the time being.

A WELL-MARKED HAWORTHIA VARIETY

Haworthia emelyae* var. *major (G.G.SM.) M.B. BAYER
[Ham 994](Syn. *Haworthia magnifica* var. *major*
(G.G.SM.)M.B. BAYER)

More commonly known as *Haworthia magnifica* var. *major*, it was transferred by M.B. Bayer to *Haworthia emelyae* var. *major* due to discoveries of intermediate populations. It occurs in the Ladismith/Muiskraal areas in Cape. This is a choice form ex John Pilbeam. Though not particularly with a rough leaf surface, it is noted for the sharp white lines(2-3) running along the window area of the leaves. Its colour is a little greener than others and with plenty white flecks on the windows. Teeth occur along the leaf margins and occasionally on window regions. It is very reluctant to offset even after growing for 4 years. Leaf-cutting seems to be the easiest way to propagate this clone.



Fig. 6. *Haworthia emelyae* var. *major* Ham 994

Views on *Haworthia retusa* (L) Duv. - The oldest described retused *Haworthia*, but still the grand old lady of *Haworthia* in the Southern Cape

J.M. Esterhuizen :
P.O. Box 1454, Secunda, 2302 R.S.A.
E-mail: jmest@mweb.co.za

Objective of the article

Although much has been written about *Haworthia retusa* in the Riversdale area, the same cannot be said of *H. retusa* in the Heidelberg area. The purpose of this article is to provide information on the plants in the Heidelberg district in relation to that found in the Riversdale district in order arrive at a better understanding of the species and its distribution.

Discussion - Riversdale

In *Haworthia Revisited* (1999), Bayer wrote "However, the key issue is that *H. retusa*, as perceived here, is the robust, generally solitary form which occurs only in the Riversdale area". Although Riversdale is really the home of *H. retusa*, it is also found in the Heidelberg district where it share its habitat with other haworthias such as *H. heidelbergensis*, *H. asperula*, *H. marginata* and *H. minima*.

H. retusa is found from about 15 km east of Riversdale where it grows socially with *H. asperula* as a light green/yellow plant (fig.12, page 8). From there it extends westwards to about 15 km west of Heidelberg. Dekenah recorded *H. retusa* from numerous localities around Riversdale. The areas south and south west of Riversdale are known for the bigger plant forms (fig.13, page 8), often given informal names like Jolly Green Giant. As a rule the plants are growing as single heads level with the ground, but plants with two or three heads growing above the ground are also found at a locality just south of Riversdale. In open sun the plants become a much attractive goldish-brown colour.

A number of species and varieties have been described from this area which are now regarded as *H. retusa*. The most important are mentioned here under the minor differences with regard to *H. retusa* (as mentioned when the specific plant was described).

H. retusa var. *multilineata* G.G. Sm

Compared with the species this plant is larger, has longer, broader and darker green leaves which are more retused, there are many more face lines on the end-area, and the margins and keel are entire except for very minute teeth on the margins on the lower half of the leaf.

H. retusa var. *solitaria* G.G. Sm.

Compared with the species, this variety has a long persistent end-awn, the end-area is rough with small concolorous tubercles, has more face lines, the margins and keel have many small teeth and the peduncle is much thicker and with a short dense raceme.

H. retusa var. *densiflora* G.G. Sm.

It is nearest to *H. retusa* var. *solitaria* G.G. Sm., but is a larger and taller growing plant, the leaves are somewhat less retused, and the end-awn is longer.

H. fouchei Poelln.

"The new species is close to *H. retusa* (L.) Haw. but the

leaves are actually less flattened, not totally smooth and more pointed."

H geraldii C.L. Scott

It has a much longer end awn, and is the most prolific of all the described plants in the § Retusae. It is readily and easily identified by the large clusters it soon forms.

This large plant forms large clusters and grows on the same hill as *H. fouchei*, *H. asperula* and *H. minima*. *H. geraldii* is really such a distinct form that it should at least earn variety status. As Scott wrote "It is readily and easily identified by the large clusters it soon forms". Also Bayer summarised it when he said "...the well known fa. *geraldii*, which is not recognised in this treatment, although the name could be retained for practical and historical reasons". Pilbeam recognises it as *H. retusa* var. *retusa* fa. *geraldii*

Discussion - Heidelberg

In *The New Haworthia Handbook* Bayer wrote "The species is not well-known in the area between Heidelberg and the Breede River and hence it is not known whether or not *H. mutica* and *H. retusa* intergrade. *H. mutica* may simply be a blunt-leaved form of *H. retusa*" and in *Haworthia Revisited* "The problem plants around Heidelberg are associated with *H. mutica*." At Melkboom between Heidelberg and Riversdale, *H. retusa* grows with *H. minima* and *H. heidelbergensis*. A natural hybrid is also found between the species and *H. heidelbergensis*, a somewhat strange situation because *H. heidelbergensis* flowers during January while *H. retusa* flowers during August. Here *H. heidelbergensis* shows a strong relationship with *H. asperula*.

H. retusa is transforming from a few km east of Heidelberg south-westwards into darker plants with more rounded leaf tips. Just east of Heidelberg and east of the Duivenhoks River the plants are darker green with more rounded leaf tips (fig.9, page 7). To be honest, if one is selective, plants identical to *H. mutica* can be found in this locality. Bayer regards it as *H. mutica* v. *nigra*. Dr Hayashi described a variety of *H. retusa* from this locality as *H. retusa* var. *quimutica*. Kransrivier produces plants looking much like *H. mutica*, however, *H. mutica* is not known between the Duivenhoks River and the Breede River. The author has spent lots of time in the lower Duivenhoks River area trying to locate other populations of *H. retusa* or *H. mutica* in this area without success. The plants at Kransrivier grow singly under low bushes in very dry rocky outcrops. They show no sign of influence of *H. turgida*, which is also found nearby. Just south of Heidelberg are two populations producing plants inbetween the Kransrivier plants and those found about two kilometres east of Heidelberg (fig 7, page 7). Both these localities are very

small with only a few plants. In the author's opinion the plants at Kransrivier must be seen in context with the darker plants which are found at a number of localities around Heidelberg and the *H. retusa* continuum eastwards. The author supports Bayer's view that the plants from Kransrivier must be a variety on its own, but of *H. retusa* and not *H. mutica* var. *nigra*.

Three plants are described from this area south and southeast of Heidelberg, namely

***H. retusa* var. *quimutica* Hayashi**

Leaves light green with muticous leaf tips. "Quimutica" means "yellow mutica" in Japanese

H. mutica* var. *nigra

Differs from the type in its very dark colouration and its occurrence South and East of Heidelberg. Hayashi names the same plant:

***H. chromutica* Hayashi**

Leaves very dark green with muticous leave tips. "Chromutica" means, "black mutica" in Japanese. Dr Hayashi wrote further "There are several demes of *H. mutica*-like *retusa* around Heidelberg. Bayer (1999) associated these demes with his *H. mutica* v. *nigra*, but the type plant of the latter (Kransrivier) is a dark variant of *H. silviae* (*H. dekenahii* v. *argenteomaculosa*), and the former clearly belongs to the *H. retusa* complex".

Just north of the town a population, which one can describe as the "*H. geraldii*" of Heidelberg, is found. Although there is a fine line between *H. retusa* and *H. turgida*, this plant would fall just inside the range of *H. turgida*, while *H. geraldii* falls just inside the range of *H. retusa*. See also my article named "Variety within *Haworthia turgida* along the Duivenhoks River" in *Haworthiad*. From here the distribution extends northwest of Heidelberg to Klipdrif where a smaller *H. retusa* with pointed leaves is found at a number of localities (fig.8, page 7). The Klipdrif plants are not only smaller but also more compact than the plants east of Heidelberg and those growing in and around Riversdale. About 15 Km west of Heidelberg a same situation occurs as about 15 km east of Riversdale where a slightly proliferous, light green *H. retusa* is found sharing the same hill with *H. asperula*. Here the plants grow on a rocky outcrop facing east. The plants from Klipdrif and 15 km west of Heidelberg are purely *H.*

retusa and cannot be mistaken for *H. mutica*.

Photographs by the author.

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Outline map depicting main geographical features and plant locations.

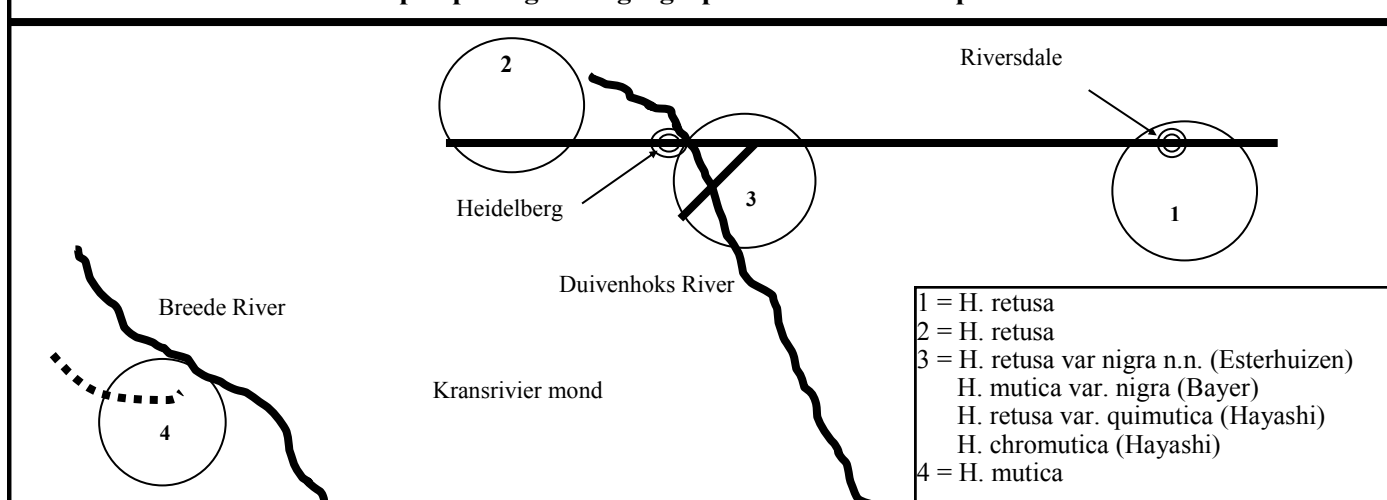




Fig. 7.
*Haworthia
retusa*
just South of
Heidelberg



Fig. 8.
*Haworthia
retusa.*
Klipdrif



Fig. 9.
*Haworthia
retusa*
2 km East of
Heidelberg

AN ATTRACTIVE, NEW, HAWORTHIA SPECIES FROM THE KNERSVLAKTE: HAWORTHIA AGNIS

Luigi Battista

Via Ronchi n. 17, 33048 San Giovanni al Natisone (UD) , Italy. E-mail: karoo@triangolo.it

Haworthia agnis L.
Battista
(Asphodelaceae/
Aloaceae)

Rosette acaulescent, diam. 70 mm, rarely proliferous from the base. *Leaves* about 44, the young erect and \pm incurved, the old ascending/spreading, incurved at the tip, \pm soft-textured, \pm swollen above the middle, about 30 mm long, about 13-15 mm broad above the middle and about 10 mm broad at the base, about 5-7 mm thick towards the tip, obovate acute; face flat-convex, smooth on the lower



Fig. 10 left flower. *H. agnis* Battista. Fig.11 above rosette.



half/third, with a number of prominent and large pellucid white teeth and raised pellucid round spots up to 1 mm diam. on the upper half/third arranged randomly, with 7-8 dark-brownish grey reticulate lines visible from the base to the tip becoming lighter on the lower half/third, somewhat olive green on the upper half/third becoming lighter in the lower half/third, when exposed to

direct sunlight becoming brownish, dull; back triangular-convex, smooth on the lower part, with a number of prominent pellucid white teeth and raised pellucid round and oblong spots up to 1 mm diam. on the upper half/third arranged randomly, with 9-10 dark-brownish grey reticulate lines visible from the base to the tip becoming lighter on the lower half/third, somewhat olive green on the upper half/third becoming lighter in the lower half/third and becoming brownish when exposed to direct sunlight, dull; margins acute, from the base to the tip beset with pellucid white teeth which are about 0.5-1 mm long from the base to the upper half/third becoming 1.5-2 mm long, stronger and larger from there towards



Fig. 12. *H. retusa* 15 km East of Riversdale



Fig. 13. *H. retusa* 5 km South of Riversdale

the tip; keel(s) (1-2), the one central, the other towards the margin, with pellucid white teeth in the upper half/third similar to those on the margins and on the face of the leaves; terminal-awn 6-7 mm long, white, minutely denticulate below, persistent.

Peduncle simple, about 4 mm diam. near the base, including the raceme, 220 mm long and 2.5 mm diam., light brown; *raceme* about 105 mm long, about 22 spirally arranged flowers and buds, 4-5 open simultaneously; *pedicels* 3 mm long, 1 mm diam., greyish brown; *sterile bracts* about 8, 6 mm long and 32 mm from base of peduncle; *fertile bracts* about 4 mm long, deltoid, lanceolate, with a fine brown nerve; *perianth* dull brownish with dark nerves on the segments, 15 mm long, the cylindrical-triangular base 3,5 mm across, gradually constricted to 2,5 mm above, not stipitate, ascending-spreading, curved; *three inner perianth segments* obtuse, channelled, recurved, the lower ones about 90 degrees, face colour whitish laterally and at the tip with a broad nerve brownish/green when the flower is just open becoming brown later; *three outer perianth segments*, obtuse, recurved, the lower one almost revolute, face colour whitish laterally and at the tip with a broad brownish nerve; *stamens* 6, 4-6 mm long; *ovary* 3.5 mm long, 1.8 mm diam., green; *style* 1 mm long, 0.5 mm diam., white, bent, capitate; *fruits* 7-10-13 mm long, 3-4 mm diam. in the middle, smooth, sulcate, dark greyish when ripe; *seeds* about 1-1.3 mm long and 0.8-1 mm wide, many of them almost like a polyhedron, round at base, dark grey with a rough surface.

H. agnis critically differs from *H. nortieri* var. *nortieri* and *H. globosiflora* by the presence of the prominent and large pellucid white teeth on the upper half/third of the face of the leaves, the colour of the inner segments of the flower, the shape of the flower, the shape of the leaves and the size and shape of seed.

Latin diagnosis: foliorum rosula acaulescens, fere 60 mm diametro et basi raro prolifera; folia circa 44, fere 30 mm longa et in dimidio inferiore 15 mm lata, obovata acuta; supra plano concava, levia usque ad primam tertiam/dimidiam partem et magnis firmis pellucidis albis dentibus in apice verso, maculis prominentibus pellucidis, orbiculatis, apicem versus induta; infra convexa, levia usque ad primam partem et magnis firmis pellucidis albis dentibus in apice verso, maculis prominentibus pellucidis, orbiculatis, apicem versus induta; arista terminalis 4 mm longa, denticulata, persistens; pedunculus simplex, 4 mm diametro ad basem, racemo inclusio 220 mm longus; racemus fere 105 mm longus, 10 floribus in modum spirae tortus, 3-4 simul apertis; pedicelli 3 mm longi et 1 mm diametro; bracteis sterilibus circa 8; perianthium 15 mm longum. Inter Haworthiam nortieri et Haworthiam globosiflora hoc maxime interest, quod adsunt fortes, magni, albi dentes in dimidia/tertia superiore foliorum parte, praeterea, sunt dissimiles infimae partis floris color, forma foliorum et amplitudo formaque seminum.

Type: Western Cape Province; Van Rhynsdorp District.

(Battista & Archer 01-01; HG 1029 in PAD).

Distribution: Knersvlakte, NE Van Rhynsdorp; growing under bushes or in between rocks in a dry area and in close association with *H. venosa* ssp. *tessellata*, *Adromischus marianae*, *Anacampseros* aff. *filamentosa*, *Conophytum* sp., *Crassula* sp., various bulbs and mesembs.

Etymology: This new plant is named after Agnese, the author's daughter, who died 4 weeks before her birth.

This new species is described from plants collected by the author and R.H. Archer (Nat. Bot. Institute, Pretoria) in the eastern Knersvlakte. Similar plants were collected by Mr. H. Hall in 1974 at Klipdrift, a locality close to that of the type plant, and were deposited at the Compton Herbarium as *H. nortieri* var. *nortieri*.

A further locality with similar plants to *H. agnis* was found by the author and R. H. Archer west of the type locality growing in similar conditions. Similar plants were also bought in Buys Wiese's nursery at Van Rhynsdorp and he gave the locality as his farm in the Knersvlakte (possibly Quaggaskop).

The decision to describe *H. agnis* as a new species is based on the hypothesis that two species complexes may have originated from this plant on both sides of the Bokkeveld escarpment as it seems as it has some features in common with *H. nortieri* var. *nortieri* and *H. globosiflora* although it fits neither of these plants.

The more evident morphological characteristic of the plant is the prominent and large pellucid white teeth on the upper half/third of the face of the leaves which are absent in *H. nortieri* var. *nortieri* according to the original description, while in *H. globosiflora* the original description mentions "a number of raised pellucid round and oblong spots up to 1 mm diam. near the tip.....some with teeth". The same prominent and large pellucid white teeth are present also on the upper half/third of the back of the leaves while in the other two species the dots are absent according to the original descriptions. The teeth are big and prominent above all on the face of the new leaves while in the older ones they tend to become softer or sometimes to disappear.

Plants of *H. nortieri* var. *nortieri* at the foot of Van Rhynspas showed above all specimens with smooth faces of the leaves. A few specimens with some reminiscence of pellucid spots with fine teeth and also specimens with few pellucid spots give to this population a large amount of variability; this variability in shape and surface of the leaves and the white-light green flowers (occasionally and only in some specimens becoming brownish one day after opening) makes it difficult to name this plant as *H. nortieri* var. *nortieri*. In this population were observed some specimens very close in appearance to *H. nortieri* var. *nortieri* from the Bulshoek Dam, but with completely different flowers and the plants were similar to *H. agnis* but without big, pellucid spots and without the prominent and large pellucid white teeth in addition to the different flowers

of course.

Plants of *H. nortieri* var. *nortieri* from the Maskam (the old var. *giftbergensis*) and from Groenriver showed in some specimens some feint reminiscence of pellucid spots with fine teeth.

H. nortieri var. *nortieri* plants examined just south of Clanwilliam did not show teeth on the face of the leaves. However, in *H. nortieri* var. *nortieri* and *H. globosiflora* the teeth present on the face, the back and the margins of the leaves are always fine and not large and prominent.

An interesting link between *H. agnis* and its allies in the Knersvlakte and *H. globosiflora* in the Ouberg Pass was found by the author and R.H. Archer SE of Nieuwoudtville (a locality not so far from Doorn Bosch area, the type locality for *H. globosiflora*) where plants are growing on flats, in between rocks and under shrubs. Plants from this locality have widely obovate-acute leaves (wider than in *H. agnis*), the young erect and \pm incurved, the old ascending, incurved, \pm soft-textured, swollen above the middle. The peduncle (including the raceme) is considerably longer than the one of *H. agnis* and *H. nortieri* var. *nortieri*. The flowers are globose but bigger than flowers of *H. globosiflora* from the Ouberg Pass, the colour is always dark bronzy brown. It seems that the plants further to the south-east have flowers progressively more globose at the base of the perianth and shorter. One logical explanation could be the adaptation to the available natural pollinators in those areas, in fact plants are very similar to each other both from the Knersvlakte and from south south-east of Nieuwoudtville, two areas with different habitat and climate conditions.

The general shape of *H. agnis*, with the old leaves ascending/spreading, is closer to *H. globosiflora* than to *H. nortieri* var. *nortieri*, also in the form of the leaves, obovate acute versus ovate lanceolate. A white terminal awn is always present.

Another important characteristic of *H. agnis* is the different type of flower from those of both *H. nortieri* var. *nortieri* and *H. globosiflora*. The colour of the inner segments of the flower of the type plant of *H. agnis* is whitish laterally with a broad nerve brownish/green at the tip when the flower is just open, becoming brown later, while in *H. nortieri* var. *nortieri* it is reported as golden yellow and white tipped although the general shape of the flower is (almost identical) similar even though in all *H. nortieri* var. *nortieri* and the old varieties, the perianth of the flowers is shorter than in *H. agnis* and also the colour is different (white v. brownish). All the *H. nortieri* varieties described (var. *nortieri* and the old var. *montana* and var. *giftbergensis*) have in common the yellowish inner segments of the flower (golden yellow, yellowish/brown and canary yellow). Strangely, plants from the foot of Van Rhynspas have the inner segments of the flower light-green becoming brownish 1 day after opening only in few specimens. Flowers in *H. globosiflora* are completely different in shape (globose) and in colour

(dark bronzy brown) as they are the peculiar characteristic of the plant. For this reason I prefer to retain the species status of *H. globosiflora*, used in the discussion, contrary to Bayer. Flowering time of *H. agnis* is August/September, more or less the same as *H. nortieri* var. *nortieri* and *H. globosiflora*.

Plants bought at Mr. Wiese's nursery, have been sold as *H. globosiflora*, however the flowers are not so globose, the perianths are not short and are not dark bronzy brown in colour in the inner/outer segments while the colour is almost identical to *H. agnis* flowers. Plants from Groenriver and Komkans (*H. nortieri* var. *nortieri* for Bayer 1999) most probably are the *continuum* of the plants from Buys Wiese farm in the Knersvlakte as the flowers seem to be quite similar and also the plant (from Bayer 1999 "the plants from Komkans tend to have globose florets, and this is also true of plants at Groenriver where the florets are short and squat", unfortunately he does not mention the colour of the flower nor fruits and seeds).

The peduncle diameter of the new plant is about 2.5 mm (4 mm at base) while in *H. nortieri* var. *nortieri* is 1.25 mm and in *H. globosiflora* is 4 mm at base too; in the *H. nortieri* var. *nortieri* original description the author did not mention if 1.25 mm is the diameter at base or at mid peduncle but, in spite of this, it is anyway obviously smaller than in *H. agnis* and this was confirmed after the examination of flowering plants from around Clanwilliam and from the Maskam. The peduncle length of *H. agnis* at the moment of the description was 220mm (including the flowering raceme) but at the end of blooming it reached about 350mm. In the original descriptions of *H. nortieri* var. *nortieri* and *H. globosiflora* it is not specified at which period of the blooming the peduncle was measured.

In *H. agnis* there are frequently two inflorescences. Both may be at about the same stage of development or one may be at a later stage. The number of flowers/buds on the raceme is about 22 against 17 and 40 respectively. The pedicel is on average 3 mm versus 2.5 mm and 4 mm. The perianth is also a little different as can be seen in the comparison table. The ovary is on average 3.5-4 mm versus 3 mm in both of the other two species, also the style is a little longer (1 mm versus 3/4 mm).

Seeds of *H. agnis* were also examined and compared with seeds of *H. nortieri* var. *nortieri* from the Maskam (the old var. *giftbergensis*), seeds of *H. nortieri* var. *nortieri* from the foot of the Van Rhynspas and with seeds of *H. globosiflora* from SE of Nieuwoudtville. Seeds of *H. agnis* are smaller and thinner than the other three (1-1.3 mm long and 0.8-1 mm wide, many of them almost like a solid polygon round at the base, about one-third the size of the others). Seeds of the plants from the Maskam are 2 mm long and 1 mm wide/thick and narrowly oblong, seeds of the plants from the Van Rhynspas are 1.5-2 mm long and 1 mm wide/thick and narrowly oblong. (In this case also seeds showed variability. Both small seeds and big seeds like the ones from Maskam plants were found.) Seeds of the plants

from SE of Nieuwoudtville are 2-2.5 mm long and 1-1.5 mm wide/thick and narrowly oblong. The dramatic difference in shape and size of seeds, added to the other differences, strengthens the idea that we are discussing a different species; in fact, while general morphological characters of a plant (including flowers) can vary with different habitat conditions, soil, type of cultivation and feeding (above all if in a pot) or whatever, shape of seed is less likely to be influenced.

Six month old seedlings of *H. agnis* were studied. Many of them (the biggest) already showed the beginning of the white, prominent teeth on the surface of the leaves, while same-age seedlings of *H. nortieri* var. *nortieri* from the Maskam (the old var. *giftbergensis*) and of *H. nortieri* var. *nortieri* from the Van Rhynspas did not show teeth at all.

Other morphological characters of *H. agnis* were examined and compared with the same ones extracted from original descriptions of *H. nortieri* var. *nortieri* and of *H. globosiflora*; the result is transcribed in the comparison table.

The comparison shows that *H. agnis* has characteristics in common with both *H. nortieri* var. *nortieri* and *H. globosiflora*. It would appear as if two branches developed from the new plant in the Knersvlakte: one going south west (West of Bokkeveld Escarpment) giving rise to the *H. nortieri* complex (yellowish flowered plants, including the var. *nortieri* from around Clanwilliam and the old var. *montana* from the Pakhuis Pas and var. *giftbergensis* from the Giftberg), the other one going to south east giving rise to the *H. globosiflora* complex (globose flowers).

Photographs by the author.

Acknowledgements

I have to say thanks to the Compton Herbarium in Cape Town for their kind permission to make copies of all the previous records of *H. nortieri* & varieties and *H. globosiflora*. I want also to thank my wife Claudia for her support and help organizing the trips and for coming with me during some of them, my good friend R.H. Archer for correcting the

manuscript and for his help and patience coming with me during the trip and my good friend J.M. Esterhuizen, a real gentleman, for his continuous support and for his precious advices. I want also to say thanks to Mr. Hugh Glen (NBI) for his advices on the correct name to apply to the new species and to the curator of Padova Herbarium, Dr. R. Marcucci, for her availability depositing the type specimen of *H. agnis*.

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"Haworthia beaukmannii" An editorial enquiry and an informative response.

The name "beaukmannii" is encountered from time to time as a species or variety, but it does not appear in either Vol. 1 or Vol. 2 of Ingo Breuer's World of Haworthias. There is a very good reason for this. As there was a suspicion that the name originated in the USA, the editor contacted Steven Hammer; he in turn consulted Bob Kent, who knew the story from Jay Dodson.

Dodson used the name (as *H. beaukmannii* n.n., n.n. indicating that the name was not being validly published at that time) for a beautiful flat-tubercled *Haworthia*. Its exact origin is unknown, but according to Dodson it was a field-collected plant. Presumably Mr. C. Beukman -- the same fellow associated with the unrelated *H. emelyae* var. *beaukmannii* von Poellnitz* -- was its collector and intended dedicatee.

Dodson's clone is still in cultivation in the US. Kent has given it to a few friends, including Hammer, who propagated it from leaf, selfed it, and also crossed it with *H. pumila/margaritifera* x *H. marginata*. The resultant hybrid is almost indistinguishable from a pure "*H. beaukmannii*". There have been suggestions that "*H. beaukmannii*" is itself a hybrid, but both Kent and Hammer do not think it is. If it were

a wild one, it could be *H. pumila/margaritifera* x *H. marginata*, or *H. kingiana* x *H. minima* in any case "*H. beaukmannii*" is not a validly published name and should not be used. The name "*H. margaritifera* var. *beaukmannii*" may also be encountered. This formula seems to be a transmogrification made in Japan. If "*beaukmannii*" is indeed closer to *H. kingiana* than to *H. margaritifera/pumila*, as Kent and Hammer would argue, then the combination is not sensible. In any case there is now a validly published equivalent: *H. zenigata* Hayashi, a name applied to the same sort of flat-tubercled element in *Robustipedunculares*.

* Von Poellnitz doubled the n in Beukman when he published *H. emelyae* var. *beaukmannii*.

(The Afrikans man = Mann in German = man auf English.) The extra "a" in beaukmannii is a mystery, but it enriches this uniquely macaronic compound of German, Afrikaans, French, and Latin.

Comparison of the characters of *Haworthia nortieri* var. *nortieri*, *H. globosiflora* and *H. agnis*

| | <i>H. nortieri</i> var. <i>nortieri</i> G.G. Smith | <i>H. globosiflora</i> G.G. Smith | <i>H. agnis</i> L. Battista |
|----------------------------------|--|---|--|
| Rosette diameter | 65 mm | 80 mm | 70 mm |
| N° of leaves | 43 | 40 | 44 |
| Leaf length | 37 mm | 45 mm | 30 mm (25-35 mm depending on leaf age) |
| Leaf width above middle | 12 mm | 15 mm | 13-15 mm (7 mm thick) |
| Leaf shape | ovate/lanceolate | obovate/acute | obovate/acute |
| Leaf tip shape | acute | acute | acute |
| Terminal-awn length | 13 mm | 4 mm | 6-7 mm |
| Terminal-awn dentition | denticulate | minutely denticulate | minutely denticulate |
| Terminal-awn persistence | persistent | persistent | persistent |
| Face | convex, swollen above the middle, smooth | flat convex, smooth | flat convex, swollen above the middle, not smooth |
| Face markings | irregularly pellucid in the upper half with oblong pellucid markings | raised pellucid round and oblong spots near the tip | irregularly pellucid in the upper half/third, rounded pellucid markings many of them with whitish prominent pellucid teeth |
| Face lines | 7 | 5-6 ± reticulate | 8 ± reticulate |
| Face lines to tip | 2-3 | 5-6 | 6-7 |
| Face lines colour | mauvis brown or grey | dark brownish green | dark brownish grey |
| Face colour | reddish grey below, mauvis brown above | brownish green/green | olive green |
| Back | convex, smooth | triangular-convex, smooth | convex, not smooth |
| Back markings | Oblong pellucid markings in the upper half | oblong pellucid spots | rounded and oblong pellucid spots many of them with whitish prominent pellucid teeth |
| Back lines | 11 indistinct | 12 | 9-10 |
| Back lines colour | reddish | dark brownish green | dark brownish grey |
| Marginal teeth length & colour | 1.5 mm pellucid white | 1 mm pellucid white | 1.5-2 mm pellucid white |
| Keel | 2 in the upper third, teeth pellucid white | (1)-2 the one central the other toward the margin, teeth pellucid white | (1)-2 the one central the other toward the margin, teeth pellucid white |
| Peduncle length & diameter | 270 mm 1.25 mm (??) | 250 mm 4 mm at base | 220 mm 2.5 mm (4mm at base) |
| Peduncle colour | grey-brown | light brown | light brown |
| Raceme Length | 100 mm | 60 mm | 105 mm |
| Flowers & buds | 17 | 40 | 22 |
| N° flowers open | 3 simultaneously | 4-6 simultaneously | 4-5 simultaneously |
| Pedicel length & diameter | 2.5 mm <1 mm | 4 mm 1 mm | 3 mm <1 mm |
| Pedicel colour | brown | dark green | greyish brown |
| Sterile bracts N° & length | 9. 8 mm | 13-17 10 mm | 8 6 mm |
| Sterile bracts from base | 15 mm | 35 mm | 32 mm |
| Perianth length & diameter | 15 mm white | 9-10 mm white | 15-16 mm brownish with dark nerves on the segments. 2.5 -3.5mm |
| Perianth ? curved | 4-3.5 mm ± curved | 6-4 mm ± curved | curved |
| Inner segments colour | golden yellow, white tip | dark bronzy brown | whitish laterally and at the tip with a broad nerve brownish/green when the flower is just open becoming brown later. |
| Outer segments colour | white | reddish brown | whitish laterally and at the tip with a broad brownish nerve |
| Stamen N° & length | 6 5 mm | 3.5? 4 mm | 6 4-6 mm |
| Ovary length & diameter & colour | 3 mm 1¼ mm light green | 3 mm 1¾ mm green | 3.5-4 mm 1¾ mm green |
| Style length & colour | ¾ mm dull white | ¾ mm whitish | 1 mm white (½ mm diam.) |
| Style ? bent & capitate | bent and capitate | bent and capitate | bent and capitate |

Aloe brevifolia Mill. in habitat

Doreen Court

Gilbert Reynolds placed the dwarf *Aloe brevifolia* in Subsection *Humiles of Eualoe*. This Subsection contained at least nine South African groups, some of which were natural Series like the spotty-leaved *Saponariae*, others not so natural. In the main, *Humiles* catered for the small to medium, stemless aloes, although several like *A. lineata* and *A. glauca* can be large and stemmed.

A. brevifolia was further classified as monotypic of Series *Proliferae* Salm-Dyck, and two variants, var. *depressa* (Haw.) Baker and var. *postgenita* (Schult. & Schult. f.) Baker were recognised. The latter variety lay intermediate between the small typical plants and the much larger var. *depressa*. In their revision of *Aloe* in Flora of Southern Africa (2000) the authors, Glen & Hardy, make little change: the genus remains monotypic in *Proliferae* (now elevated to Section) and the intermediate var. *postgenita* is placed in synonymy.



Fig. 14. *Aloe brevifolia* var. *depressa* near Caledon.

No comments as to relationships with other aloe species are made.

There are several features which identify typical *A. brevifolia* - the densely clustering habit, the rosulate, glaucous, incurving leaves which have firm (but not fierce) spaced creamy to reddish marginal teeth, with about four median teeth on the lower (abaxial) surface; sometimes a double row of deflected teeth appear here,

along with a few white spots. The whole rosette has a diameter of 6-8 cm. The sturdy, simple peduncle of the inflorescence has many spiralled, white, scarios bracts along its entire length, the congested buds hidden under the bracts form a blunt upper end of the young raceme, the tip becoming slimmer as the buds open, resulting in a fairly lax raceme of orange to scarlet flowers. The much larger form, var. *depressa* (Haw.) Baker has open leaf rosettes up to 30 cm across. In the locality



Fig 15. *Aloe brevifolia* var. *depressa* near Napier.

near Caledon var. *depressa* (fig. 14) grows on a rocky hillside; the plants were solitary or in clusters of two. They were not in flower and no var. *brevifolia* or any other aloe species were seen. The second site near Napier was investigated on the same day (15th September). Here var. *depressa* tended to cluster (fig.15), was in an advanced flowering stage, and the peduncle bifurcated to form a second, lesser raceme; the early congested bud area was not apparent. Large clusters of var. *brevifolia* were present (fig. 16), not flowering but with one inflorescence just emerging. There were no intermediates and no other aloe species were seen at the second locality. The lens cover which has a diameter of 6 cm indicates the size difference between the two varieties in figs. 19 and 21.



Fig. 16. About 14 rosettes of *Aloe brevifolia* var. *brevifolia* in one cluster near Napier. Diameter of lens cover 6 cm.

A. brevifolia has a coastal distribution in the L'Agulhas-Bredasdorp-Napier and Caledon region of the south-western Cape, South Africa, and extends to Riversdale. Its nearest relative is the dwarf *A. humilis* which is coastal at Mossel Bay, inland at Oudtshoorn, and proceeds towards Somerset East in the Eastern Cape. *A. humilis* has the same densely clustered habit, a similar simple inflorescence, with early congested tip, bracteate peduncle; the same long orange flowers and somewhat lax inflorescence. Its longer, narrower leaves are softly toothed, tuberculate on the lower surface, with a few soft teeth, you can hold the plant comfortably in your hand. Also related is the larger, fiercer *A. pratensis* (rosette up to 25 cm across) which selects rocky slopes in the eastern Cape, coastal and up to 6000ft on the Drakensberg escarpment of Kwazulu-Natal. A fairly rare aloe, I was privileged to share its habitat on my farm in the Eastern Cape for 14 years, during which time it survived serious droughts and one veld fire. It is solitary or forms small clusters, and has a simple, thickened peduncle, entirely covered by bracts, the flowers rose to orange. In the western Cape another clustering aloe with a simple, bracteate inflorescence is the fiercely spined *A. melanacantha* of Namaqualand; the leaf margins armed with isolated spines which are white at first, becoming black, and a median line of teeth on the abaxial surface. Genetically suited to "filling up a space", var. *brevifolia* is a most engaging species for the collector or gardener. The best example I saw in cultivation was its exuberant occupation of a plough disc, mounted on a short column of stones, where it made a neat mound of about 80 rosettes. It should not be given any soft treatment, it

likes heat, sun and good drainage. If it is grown under cover in northern climates it should have a regular sprinkle of rain (or other) water, to make up for the coastal mist and dew which it gets along the Indian ocean coastline.

Photographs by the author.

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Jozef Verhoeven is searching for *Haworthia* 'Korizato' and *H.* 'Bev Wonder'.

If you can help him, please contact him direct at:
 Leonard Meesstraat 21, Leopoldsburg 3970, Belgium
 E-mail: fa030340@skynet.be

Kaktusy Special 1, 2002

is devoted to the genus *Haworthia*. The text and 41 colour photographs are by Ingo Breuer. There are 21 black ink drawings by J. Cocozza of 21 of the plants in the photographs.

Text is in Czech with short German and English summaries. The English summary deals mainly with cultivation.
<http://www.cs-kaktusy.cz>

Only slightly mad

Richard Harrison

It was a bright morning in autumn and after opening the greenhouse doors and ventilators, I decided it was time to inspect some of my plants more closely. I specialise in growing *Aloes* and their hybrids and grow a selected few of the larger species directly in the ground in the greenhouse. To make my inspection, I had to get down to plant level and lie flat out on the greenhouse floor. While lying there I had a little laugh to myself, wondering what would my neighbours make of my behaviour if they spotted me lying down with my plants, "nutty as a fruit cake" I'm sure. They already doubt my sanity because to them the plants are not beautiful, not edible and not valuable, so why grow them?

To help in the checking for weeds, pests and diseases I wear a pair of x 3 magnification spectacles. These are great for spotting mealy bugs, scale insects etc, but should be taken off prior to getting up again or else one can experience something like sea sickness. I found and removed some of the ever-present *Oxalis* species seedlings. Such a charming plant, tiny clover like leaves and pretty yellow flowers, but what a nuisance. If tolerated it can become totally integrated with the specimen plant and ruin its aesthetic appeal. I did not find any bugs or disease on the plants, but I did find a small snail. No damage done as yet but, as we know, small ones grow into big ones. Snails do terrible damage to seedlings and can seriously scar leaves, leaving a plant unsightly for a number of years. Unless they are rare specimens, these scarred plants are unsuitable for the show bench. Occasionally I have been very surprised to find mealy bugs on plants on a show bench. Perhaps more people should invest in a pair of x 3 spectacles?

One of the plants that I was inspecting was *Aloe camperi*. This species is uncommon in collections, not because it is not a handsome plant, but because it does

need a lot of room and attains architectural dimensions in time. This species, in the past known as *Aloe eru* and *Aloe abyssinica*, has a relatively limited distribution in East Africa centred on Ethiopia. My plant is just over three years old and, for the past year, has been growing directly in the ground, where it has done really well. It is now some 50 cm. tall and 100 cm wide. The plant is very robustly built, a fresh green colour, heavily blotched in creamy white, with red leaf edges and blunt spines when grown in strong sunlight. Part of its appeal is the way the fleshy leaves reach out as though trying to grab you. It might even be a little scary to an imaginative child. Reynolds describes the flowers as bright orange/yellow and says, "it is a most handsome species when in full flower". I will have to accept his words on the flowers and wait a year or two more before enjoying the reality of flowers on my own plant.

As with many things in life, I find that the waiting and anticipation can be more enjoyable than the eventual realisation. All too frequently I have been tempted by an over enthusiastic catalogue description and ordered plants only to wonder what all the fuss was about when the plants arrived. However, I am never let down by the satisfaction obtained by growing a plant from seed, especially if that seed had been produced by my assisting with the pollination. The eventual flowering gives a lasting joy that is hard to beat.

Reference: Reynolds *The Aloes of Tropical Africa and Madagascar*.

Brief notes on the genus *Bulbine*

The literature for *Bulbine* is sparse compared with that for *Aloe* and *Haworthia* and even *Gasteria*, which has far fewer species than *Bulbine*. No comprehensive book has been published on *Bulbine*, but there are several for *Aloe* and *Haworthia* and one for *Gasteria*. Even articles for *Bulbine* are scattered in a variety of publications.

Out of a total of around 80 species of *Bulbine*, the Illustrated Handbook of Succulent Plants - Monocotyledons lists the 70 regarded as succulent with five illustrated in colour, but excludes details of the few cultivars which are available. .

Bulbines have a wide range of distribution including Australia and South Africa and adjacent areas and they have a wide range of forms, from succulent rosettes similar to *haworthias*, through caudiciforms to small shrubs. The majority are perennial, a few are annual.

The compact rosette types may appeal to *Haworthia* enthusiasts and those with tubers or rhizomatous bases to caudiciform adherents. Small shrubs can make attractive pot plants and be very useful for the front of beds in glasshouses. In areas with more favourable winter climates, outdoor gardeners use

bulbines on rockeries and the small shrubs at the front of borders or, in some cases, as ground cover. The use of annuals as border plants in summer in areas with less favourable winters has probably not been exploited.

In habitat some *bulbines* are certainly subjected to occasional frost. It is possible that there is scope for some experimentation with these species in gardens or in unheated frames or glasshouses in areas which experience only brief, slight frost.

The list of *bulbines* published in *Monocotyledons* has been updated and can be found on page 3. From time to time articles will be published on individual species in *Alsterworthia International*. The editor would be delighted to hear from anyone who can provide information and/or photographs.

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Int. Code Bot. Nomencl. 1952, 91.**

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| alooides | (Linné) Willdenow | Enum. Pl. Hort. Reg. Berol., 372, 1809 |
| angustifolia | von Poellnitz | Feddes Repert. Spec. Nov. Regni Veg. 54:45, 1944 |
| annua | (Linné) Willdenow | Enum. Pl. Hort. Reg. Berol., 372, 1809 |
| asphodeloides | (Linné) Willdenow | Enum. Pl. Hort. Reg. Berol., 311, 1809 |
| brunsvigiifolia | Baker | FC 6:366, 1896 |
| bruynsii | S.A. Hammer | Cactus & Co. 2(4)6-7, 1998 |
| bulbosa | (R. Brown) Haworth | Revis. Pl. Succ., 33, 1821 |
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Initiation of offset production in reluctant rosettes

Harry Mays

Propagating plants from offsets is an aspect of succulent plant cultivation which many practice. It is simply done. You just cut the offset from the parent plant, dry the cut surface then pot it up for rooting. Even rooting is not always necessary, as the offsets of some species root while attached to the parent. This certainly results in species, which have a tendency to offset, becoming quite numerous and popular, but those which are reluctant to offset remain much less numerous. As many of these are desirable clones, the features of which can be retained with a good degree of certainty only if they are propagated vegetatively, offset production in these

reluctant rosettes has to be initiated artificially by the destruction or removal of the apical growing point. Apical growing points dominate rosettes which do not offset or which produce offsets only when the plant has reached a given size. Remove the growing point and the



Fig 17. *Aloe polyphylla*. Adult plant.

plant should respond by producing offsets.

Following its juvenile stage, *Aloe polyphylla* has its leaves closely packed in a spiralled rosette, which is the reason it is a sought after plant, fig. 17. Unfortunately it does not cluster, so propagation by spontaneously produced offsets is a very rare event. If offsets are wanted they have to be encouraged by the removal of the growing point.

A well grown 4 to 6 year old plant is a manageable size for vegetative propagation. The leaves of the juvenile form are not in a spiral, fig. 18, consequently they are not so closely packed as in the adult form. This makes it just a little easier to insert a

knife to excise the top but, as juveniles are a lot smaller than adult plants, the length of the stem to which the leaves are attached is quite short, a few centimetres at the most in a 4-6 year old plant. Ideally the removal of the growing point should be done as a complete portion

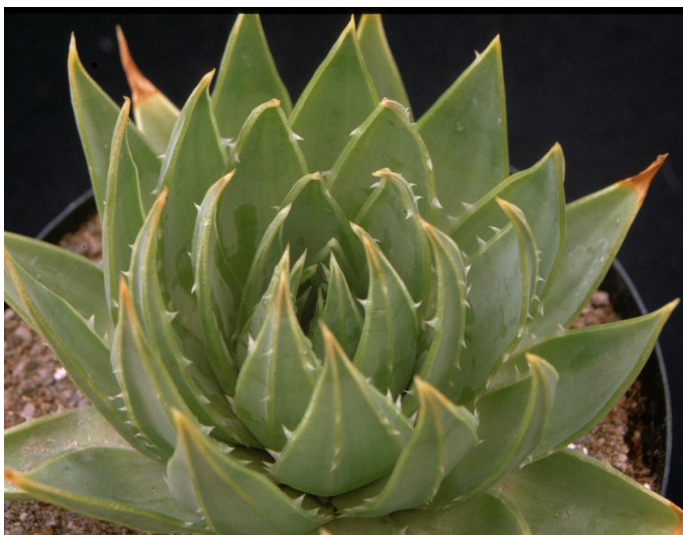


Fig 18. *Aloe polyphylla* 4 year old cutting grown in full sun.



Fig 19. *Aloe polyphylla* Offset initiation by basal portion grown in shade.

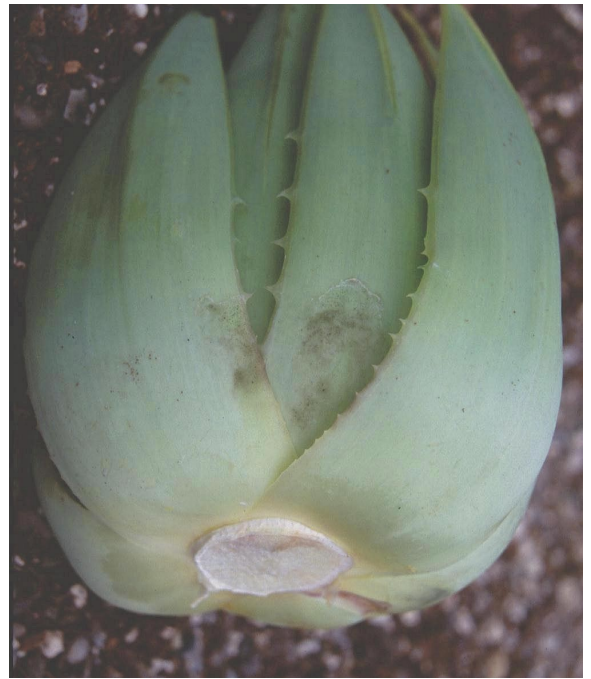


Fig. 20. *Aloe polyphylla*
Complete top cut from a 5 year old cutting



of the top of the plant so that a top cutting is available for rooting. If the horizontal cut is made too close to the growing point, the portion which is cut away will disintegrate into a number of leaves, which are of no use for propagation purposes.* The cut must be made so that the leaves of the excised portion are held together permanently by a short piece of stem, fig. 20. When the cut surface has dried (about a week or two depending on the weather) the top cut can be gently pressed onto a gritty compost for rooting. If it is placed in a warm situation and sprayed regularly in warm weather it should root without difficulty. The time taken for roots to appear is variable, but 2-3 months is a reasonable guide in the spring and summer.

For the best results, the lower rooted portion should have at least two to three layers of leaves. The more layers the better, because the greater area of photosynthetic tissue aids offset development. If the compost is kept moist and a half strength 20:20:20 feed is given about every four weeks, offsets should begin to emerge (fig. 19) and eventually develop into a clump of heads (fig. 21).



Fig. 21. (left top) *Aloe polyphylla*
Offsets produced by basal portion, fig 19, in 1½years.

Fig. 22. (left centre) *Aloe polyphylla*
Offsets separated from the main stem, fig. 21, by outward pressure from the centre.

Fig. 23. (left bottom) *Aloe polyphylla*
Base of offset showing broken stem surface and roots.

Fig. 17 by John N. Trager
Remainder by H. Mays

As *A. polyphylla* offsets produce roots readily whilst attached to the main stem, it is advisable to let the offsets root there, rather than take small offsets off for rooting separately in the hope that, by so doing, the parent plant will be encouraged to produce more offset. It might be, but offsets taken with roots soon respond with growth from inputs from their own roots, whereas rootless offsets have to spend time forming roots.

Offsets are attached to the main stem with only a millimetre or two of offset stem between the lower leaves and the main stem. Thick roots develop at the base of the lower leaves and also between leaves. Although offset stems are quite thick, circa 2cm, they can, nevertheless, be broken easily from the main stem with roots attached by sideways pressure applied at the base of the offsets. The quickest way is to unpot the plant, shake off as much compost as possible, insert the fingers of both hands, back to back, into the centre of the plant (the portion from which the top was cut out) and then drag the hands apart. This normally results in the offsets separating at the junctions with the main stem, fig. 22. It does leave an irregular broken surface, but this has never proved to be a problem for me, fig. 23. If you prefer a smooth surface, you have the option of severing each offset with a sharp knife. If the traditional way of leaving cuttings un-potted to allow the cut surfaces to dry and form a callus is adopted, the roots will also dry out and the plant will suffer a set back. The better way is to pot up the offsets immediately in damp compost, but leave the level of the compost just below the cut surface of the stem so that air can circulate around it. As the rosette will not be supported completely by compost, it can lean against the side of the pot. When the cut surface has dried after say a couple of weeks, more compost can be added up to the base of the lowest leaves.

Retaining the parent main stem for further offset production is not normally worth bothering with. Most if not all of the leaves will have died or be in the process of dying. If you do wish to retain it for further offset production, you may decide to leave one offset attached so that it can provide the synthetic tissue for future development. I have tried this and it resulted in the offset taking over and developing at the expense of the main stem, which eventually died back.

The procedure outlined for *Aloe polyphylla* can be applied to all reluctant-to-offset rosette succulents, but the smaller the rosette the more difficult it becomes to excise a complete top cutting suitable for rooting. As with all horticultural matters, skill will develop with experience and patience is an asset. If your initial attempts result in a number separate leaves and/or parts of leaves, rather than a complete top cutting, look upon this as an opportunity to gain experience with leaf cuttings. In this connection Harry Mak's article *The pleasure of propagation by leaf-cutting* on pages 8-9 of the March 2002 issue of *Alsterworthia International* may be of help. Please note however that not all genera can be propagated from leaves. Haworthias and gasterias yes, aloes no.

Green goods branding

Branding to sell plants, at least in the Asphodelaceae as far as is known, is not practised. An *Aloe xyz* is an *Aloe xyz* wherever you buy it, though it may become a differentiated cultivar 'abc' and for a time be associated with a particular supplier. Nevertheless, it will become widely available in due course as *Aloe xyz* 'abc'. Is there scope for branding some cultivars?

According to a report sponsored by American Nursery & Landscape Association in conjunction with P.K. Data Inc, about half the respondents to a survey saw plants as commodities, like flour and sugar, which are sold on price. They did not see branding as an effective strategy to increase profit margins. However, it was clear that the reputation of the retailer did drive sales.

Naturally, branding experts considered profit margins could be increased by branding and argued that some customers would pay more for a plant which met specific expectations.

New *Aloe* species described in 2001 in K.u.a.S.

Aloe ankaranensis Rauh & Mangelsdorff. K.u.a.S. 51(10)273-275.

Small *Aloe* from Ankarana, Madagascar. Distinguished from *Aloe zombitsienis* by its larger leaf blades and larger inflorescences.

Aloe fleuretteana Rauh & Gold. K.u.a.S. 51(5)121-123.

Small *Aloe* from Northern Ambovombe, Madagascar. Similar but not related to *Aloe fleuretteana*. Related to *Aloe bakeri*, but the leaf margins have stronger teeth and the inflorescence is longer.

Aloe prostrata subs. *pallida* Rauh & Mangelsdorff. Section *Lomatophyllum*. K.u.a.S. 51(6)157-159.

Small subspecies from Analavelona, Prov. Tuliary. Subsp. *pallida* is distinguished from subsp. *prostrata* by its brown

leaf blades and pale reddish to yellow flowers.

Aloe steffaniana Rauh. K.u.a.S. 51 (3) 71-74.

Medium *Aloe* from Ramanofana-Sud, Prov Tolonaro, Madagascar. Related to *Aloe versicolor*. Distinguished from it by a larger inflorescence with longer stem to 1.2 m high.

Aloe zombitsiensis Rauh & Teissier. Section *Lomatophyllum*. K.u.a.S. 51(8) 201-203.

Small *Aloe* from Northern Sakaraha, Prov. Toliary, Madagascar. Similar to *Aloe (Lomatophyllum) prostrata* but distinguished from it by shorter, white-spotted leaves and smaller flowers and fruits.

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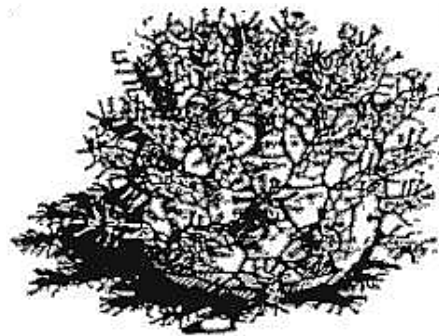
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