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Haworthia 'Pale Peace'

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Notes on some Haworthias & Aloes propagated by the Huntington Botanical Gardens, USA.

Harry Mays with photographs by John N. Trager.

***Haworthia mutica* 'Robert Rodin'**

Haworthia mutica Haw. is divided into two varieties by Bayer, v. *mutica* and v. *nigra*. Variety *nigra*, as the name implies, is darkly coloured - blackish green in strong light. Variety *mutica* is mostly grey-green. The elegant clone selected as a cultivar is glossy dark green and has been given the cultivar name 'Robert Rodin', ISI 2005-25, for ease of reference in the ISI plant list for 2005.

It offsets slowly so vegetative propagation is a slow process. The ISI has propagated this clone by rooting cuttings of a plant received originally from Robert Rodin (2034) in 1949, originally from van Heerde's garden in Springbok, S. Africa. The fat leaves should also lend themselves well to leaf propagation.

Haworthia mutica is one of the choicer retuse-leaved haworthias, with compact flattened rosettes of prominently windowed leaves. The species is native to the south in the area W. of the Breede River and S. of Swellendam in the southwestern portion of what is now the W Cape.

***Haworthia reticulata* var *subregularis* (Baker) Pilbeam.**

Often found in collections without any habitat data, *Haworthia reticulata* is a well-known clumping species, generally with small heads. There are several varieties, one of which, variety *subregularis*, was a new combination published by Bayer in *Haworthia Revisited*.

Variety *subregularis* has larger rosettes, often with



Fig. 2

Fig. 3.



spreading leaves. It is also distinctive by virtue of its milky green leaf surface, largely opaque except for a few translucent spots on margins and undersides.

One advantage of botanical gardens is that they often have and preserve plants collected in habitat many decades ago and, as an added bonus, propagate these plants. A plant collected by D. Koutnik (s.n.), 25 Nov 1982, along a dirt road to an orange grove in the Hex River Valley, near De Wet, E of Worcester, W Cape, S. Africa. has provided offsets for ISI 2005-26.

***Aloe barberae* Dyer.**

Some ten years ago it seems that considerable excitement was generated among aloe collectors by the alleged availability of *A. eminens*, because this arborescent, red-flowered, Somali species had never been accessible to most aloe enthusiasts. That remains the situation to date, because the plants were not *A. eminens*. Nevertheless, the impostor proved to be an *Aloe* equally worthy to horticulture.

The Huntington received two six-foot specimens from Chula Vista nurseryman, Kevin Coniff, in 1994. He had acquired his parent stock from Manny Singer who said his original seeds came from John Lavranos. When Lavranos visited the Huntington in Sep 1994, he identified the plants from Coniff as the Mozambique form of *A. bainesii*, now considered a synonym of *A. barberae*.

Fig. 2. *Haworthia mutica* 'Robert Rodin'.

Fig. 3. *Haworthia reticulata* v. *subregularis*.

Paul Hutchison of Tropic World Nursery had been sufficiently impressed by Coniff's plants that he had apparently drafted a formal description under the name "*Aloe medusa*" (a nomen nudum.). That manuscript has yet to be catalogued among the Hutchison papers donated to the Huntington prior to his death. In addition to this form's more human scale (under 3 m), it also has more compact inflorescences of pastel orange buds (yellow in shade) that open pale pink, rather than the more uniform pink, of larger tree forms widely grown in cultivation. It also tends to flower about a month earlier, in December.

According to Lavranos, the seed he originally sent to Singer was collected NNE of Maputo, along the coast E of Vila Luisa, Mozambique.



Fig. 4.

The Huntington has produced plants (ISI 2005-8) by the controlled pollination of two of the Coniff plants (HBG 77301 and HBG 77302).

Aloe betsileensis Perrier.
This little

known Madagascan species is a close ally of the more familiar *A. conifera*. The two are nearly indistinguishable vegetatively, but the inflorescence bracts of the latter are prominent, concealing the flower buds. *A. betsileensis* can be somewhat larger in leaf length and, therefore, size of rosette. Its inflorescences are at first simple as in *A. conifera*, but three- to four-branched in older plants. The racemes are longer and showier, with orange buds opening yellow. The Huntington has produced plants (ISI 2005-9) from the controlled pollination of HBG 84598, collected 25 Oct 1995 by Lavranos (30045) et al from atop a 1340m granite dome, 82 km along the sand road to Betroka, Madagascar.

***Aloe sinkatana* Reynolds.**

The two commonly cultivated forms of this species and the *A. sinkatana* hybrid named *A. 'Rooikappie'* (see *Alsterworthia International* 4(2)21-22) share some of the species' best qualities: small stature with rosettes to about 30 cm across, clean, attractively spotted foliage resistant to blemishes, and repeat blooming with capitate inflorescences. However, the limited gene pool in cultivation gives an incomplete picture of the species' variability. An expedition (members included S Linden, G Barad, S Carter and D Plowes) to the Sudan in Nov 1997 sampled a population at the base of Jebel Awliyi in the Red Sea Hills, three specimens of which are grown at the Huntington. This collection revealed intriguing variations. HBG 82338 (caespitose with erect maculate foliage and orange flowers, fig. 8), HBG 82341 (larger solitary rosette, glaucous with reddish teeth and margins and red buds opening mottled orange figs. 7 & 10) and HBG 82380 (larger solitary, glaucous rosette with reddish teeth and margins and yellow flowers, fig. 9). All have proven to be repeat-bloomers, but with a range of vegetative and floral characteristics. The Huntington has produced seedlings (ISI 2005-10) from the controlled pollination in various combinations of these three clones.



Fig. 5.

Fig. 4. *Aloe barberae* HBG 77302 inflorescence.
Fig. 5. *Aloe barberae* HBG 77302. Huntington Bot. Gdns.
Fig. 6. *Aloe betsileensis* ISI 2005-9.



Fig. 6.

Members living outside the European Union who are interested in the ISI plants for 2005 should consult the Huntington web site: <http://www.huntington.org>

E.U. members may download the list for 2005 from www.cactusmall.com/isi/index.html or obtain a copy as a file attached to e-mail from me. For a printed list send an addressed envelope and 2 International Reply Coupons (U.K. an SAE.) to me. Orders for the EU can be accepted to the end of February 2006, but early ordering is advised.

Note please that as aloes are CITES listed only the haworthias are available from the ISI outside the USA. Nurseries outside the USA may (eventually) have these aloes for sale.

Reference.

2005 ISI notes by John N. Trager, which form the basis of this article.



Fig. 7.



Fig. 10.

Fig. 7. *Aloe sinkatana* HBG 82341
 Fig. 8. *Aloe sinkatana* HBG 82338
 Fig. 9. *Aloe sinkatana* HBG 82380
 Fig. 10 *Aloe sinkatana* HBG 82341 inflorescence.



Fig. 8.



Fig. 9.

Aloe marlothii in Botswana and Beyond

Bruce J. Hargreaves,
Principal Curator, National Museum of Botswana

Immediately after the battle at Dimawe in August 1852, a Boer detachment searching for the Bakwena is said to have ridden through the area of modern Molepolole heading for Dithejwane. In the moonlight, they suddenly saw a forest of Marloth (*Aloe marlothii*) aloes outlined against the skyline and mistook these for the Kwena army, armed and waiting for them. The detachment, deciding that preservation might be the better part of valour, about-turned and rejoined Scholtz's commando, after which they retired to the South African Republic. Campbell & Main, 2003 [They add that the reliability of this report from Smith, 1957, is unknown.]

About 140 years later, the Natural History Division of the National Museum negotiated with the Land Board in Molepolole (headquarters of Kweneng District which is named for the Bakwena or people of the crocodile [kwena], a clan found from Lesotho across to Botswana) for a National Monument to protect some of these aloes known locally as "Mokgopa". We were allocated a plot, but did not have funds for fencing nor sign posting. In 2001 it was brought to my attention that land on all sides of the plot was being allocated for houses, contrary to the Monuments and Relics Act which requires consultation with the museum before any development be allowed within a kilometre of a monument. We met with the Land Board and found that none of the present members remembered the aloe monument. The plot is still preserved, but the surrounding houses rather detract from its aesthetic value. The plot has scientific as well as aesthetic and historic value as this is near the western limit of a variable species which extends eastward as far as Mozambique. In Botswana the leaves are blue-green and thickly covered with spines on both surfaces. The flowers range from yellow to



Fig. 11



Fig. 12

- Fig. 11. Deeper orange flowers of *Aloe marlothii* ex Swaziland with glossy starling. 18 June 2001
Fig. 12. Mainly buds of the yellow flowered *Aloe marlothii*. Botswana Botanical Gardens. 16 Aug. 1990
Fig. 13. Yellow flowers of *Aloe marlothii* with wattled starling. 8 Sept. 1994.
Fig. 14. Yellow flowers of *Aloe marlothii* with wattled Red-billed wood hoopoes. 8 Sept. 1994



Fig. 13



Fig. 14

yellow-orange. This is *Aloe marlothii* subsp. *marlothii* which was first described from plants found at Lobatse. From Lobatse it extends south to Pitsane, northwest to Kanye, north to Molepolole and then east to Gaborone.

In Swaziland the plants are shorter and the leaves are more of a yellow green with fewer spines. The flowers are a deeper orange. This is probably *Aloe marlothii* subsp. *orientalis* which is listed for neighbouring Mozambique (Carter, 2001).

One might expect a continuous cline with gradual change from west to east, but the situation is not that simple. Inbetween there are very tall plants which sometimes have red-orange flowers. These occur in the northern part of South Africa where Reynolds, 1974, reports *Aloe marlothii* subsp. *bicolor* which has red buds and greenish-white flowers.

Another variation which I have noticed is multiple heads. This is quite rare. There was a two-headed tree at Molepolole, a three-headed aloe is at the herbarium in Gaborone and a four-headed tree is planted at Ramatea in Kanye. Otherwise, all of the *Aloe marlothii* which I have seen are single-headed.

The variation in this species makes it imperative to record locality when recording uses as unseen factors such as chemistry may also vary. Thus when Watt and Breyer-Brandwijk, 1962, report that the leaves are used for tapeworm, it is worth noting that this is done by the Kgatla, a group which lives in Kgatleng District (just north of Gaborone) and neighbouring South Africa. Likewise, they report that the use of the leaf and root of an aloe (probably this one) for roundworm is done by the Zulu who are in Kwazulu, South Africa and refer to the plant as "umHlaba" or "iKhala".

Some uses such as shoot decoctions for stomach troubles and a leaf decoction for horse sickness are listed for southern Africa in general. Also there is the suggestion that this species may be one of the plants used for commercial "Natal Aloes". Watt & Breyer-Brandwijk also say that South African snuff usually contains powdered aloe leaf or its ash. Reynolds, 1974, quotes W.G. Barnard as saying the Bakone of Sekukuniland, South Africa, who refer to this plant as "Ngopa Nara" or "Buffalo", as well as the Bapedi (or northern Sotho) mix ash from dried leaves in snuff. They also use the spiny leaves for scraping and thinning hides.

One reason for the variation in *Aloe marlothii* may be its frequent hybridization. Reynolds said, "More crosses are



Fig. 15

Fig. 15. James Hargreaves and Hawkeye with *A. marlothii* (left) and putative hybrid of *A. marlothii* and *A. greatheadii*, Boatle.



Fig. 16

Fig. 16. Torbin Larsen with putative hybrid of *A. marlothii* and *A. leutescens*, Moshupa Village, 13 Jan.

known with *A. marlothii* one parent, than with any other species." I first noted this in Kanye in 1969 when I came across a lopping hybrid with *Aloe leutescens* (Hargreaves, 1979). I have since found other hybrids with *Aloe leutescens* as well as hybrids with *Aloe greatheadii* in the area just north of Kanye.

Reynolds lists these and twenty other crosses including one with *Aloe littoralis* (referred to as *A. rubrolutea*) near Molepolole. Reynolds further states that the closest relative of *Aloe marlothii* is *Aloe spectabilis* of South Africa, which has an almost identical non-flowering appearance. *Aloe spectabilis* has an upright flower stalk and *Aloe marlothii* a horizontal one with flowers on the upper side which face upward. They are thus distinguishable, although there are intermediates.

It is the horizontal flower stalk which makes *Aloe marlothii* one of the most attractive species for birds. Oatley, 1964, reported the following birds on this aloe: doves, parrot, scimitar-billed hoopoe, barbets and tinker-barbets, babblers, flycatchers, scrub robin, boubou shrike, black tit, pendulous tit, white-necked raven, glossy starlings, yellow-throated sparrow, various canaries and seed-eaters and warblers of the apis, eremolmela, cisticola, prinia and krombek groups.

I have recorded birds observed feeding on aloes in the Botanic Garden. In 1990 I recorded the cape sparrow, quelea, glossy starling, red-eyed bulbul, black-headed oriole and yellow-fronted tinker barbet on *Aloe marlothii*. In 1991 I noted the marico sunbird, crested barbet, glossy starling, redwing starling, white-bellied sunbird, black sunbird, red-eyed bulbul and masked weaver.

The record for 1992 shows red-eyed bulbuls, masked weavers, marico sunbird, black-headed oriole, crested barbet, red-faced mousebird, white-backed mousebirds, and glossy starlings on this *Aloe*. 1993 shows the same except the sunbird and white-backed mouse birds. 1994 had the same as 1992 with the exception of the white-backed mousebirds, white-bellied instead of marico sunbirds and with the addition of such remarkable birds



Fig. 17

Fig. 17. *Aloe marlothii* 5.9 km south of Wyliespoort, South Africa. 17 July 1985.

as grey lowries, wattled starlings, red-billed wood hoopoes and a red-faced tinker-barbet. 1995 was more usual with glossy starlings, white-backed mousebirds, black-headed orioles, red-eyed bulbuls, crested barbets, masked weavers (one of which picked off flowers) plus the less usual wattled starlings. I was away from 1996 to 2001 and no records were kept.

In 2001 the *Aloe marlothii* from Swaziland came into bloom and I saw a white-bellied sunbird and glossy starling on it. Later the same year the local *Aloe marlothii* had white-bellied sunbirds, glossy starlings, and mousebirds. In 2002 I noted laughing doves and glossy starlings on the local aloe, but none on the Swazi one. In 2003 I noted only bees on the Swazi one but a red-eyed bulbul on the local one.

It is difficult to tell whether these birds are actually feeding on the flowers or the insects which are also attracted. One exception is the black-headed oriole which picks up so much pollen in its feeding it becomes yellow-headed! A red-faced mousebird was also seen to become yellow-faced. Palmer and Pitman, 1972, noted the "crows eat the anthers of *A. marlothii*".

Finally, there have even been attacks on these aloes by mammals! On 27 June 2002 during a severe drought I saw two hyraxes jumping up and trying to nibble the leaves. Another time I saw a vervet monkey nibble the flowers and leaves of a hybrid with *Aloe greatheadii*. Fortunately this is unusual.

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(Continued on page 15)



Fig. 18

Fig. 18. Vervet monkey eating *A. marlothii* x *A. greatheadii* 20 Aug. 90.

Fig. 19. *Aloe marlothii*
Botswana Botanic Garden
August 23rd 1990



Fig. 20. *Aloe marlothii* x *Aloe greatheadii*
Botswana Botanic Garden
August 16th 1990



The NCCPG National Plant Collection Scheme & the National Haworthia Collection of
Mr Harry Chi-king Mak, 20 Walsingham Avenue, Evesham Garden, Alkington,
Middleton, Manchester M24 1SR, UK.

Harry Mays.

Many people collect a variety of plants for their own enjoyment and they are well supported in this by the nursery trade. Others have a deeper interest in a particular group, but are selective in what they maintain. They tend to specialise and by so doing accumulate detailed knowledge about those plants. This specialisation is carried to its ultimate by people who make a point of collecting all the plants in the group they are interested in, studying and propagating them and maintaining complete records. Such people provide an invaluable service in helping to preserve both species and cultivars in changing times, not only for the general public, but also for the professional botanist.

In 1978 The National Council for the Conservation of Plants and Gardens (NCCPG) was formed with the avowed mission of promoting the conservation of plants in the United Kingdom through a system of approved National Collections, which would be well documented. The title "National Plant Collection" is a Registered Trade Mark of the NCCPG. Every collection is independently inspected. A comprehensive report is then submitted to the council for consideration. The collection will be awarded National Collection Status only if the council considers that its conditions have been met. Last year Harry Mak's collection of haworthias was awarded National Collection Status. There are now more than 650 National Plant Collections

listed in the 2005 National Plant Directory.

To be accepted as a National Collection a number of stringent conditions have to be satisfied. The collection must be representative, including different clones to represent variability, be correctly identified and each clone must be documented. Such a collection will be of great value for reference purposes, but conservation requires that it should be used for propagation and that plant material should be distributed or otherwise made available. Clearly, rare plant material will initially find its way into the hands of the well qualified, until it becomes more widely propagated for general distribution. Propagation, figures 21 - 26*, and distribution helps to guard against the extinction of a species or cultivar and the maintenance of comprehensive documentation ensures that availability is recorded for interested parties. Importantly, the collection must be made available *by appointment* for interested persons to consult.

The ownership of collections is not itself important. They may be owned by universities, nurseries, local authorities, agricultural colleges, allotment associations, private individuals etc. At present nearly half of the National Collections are in private ownership, including allotments and estates. About a third are owned by nurseries ranging
(Continued on page 17)

Fig. 21





Fig. 21. 3-4 year old seedlings. Seed from Harry Mak's National Collection plants.
Fig. 22. Seedlings of Harry Mak's hybrids (*H. mutica* x *springbokvlakensis* and *H. 'Ruby Star'* x *'Anna Coccozza'*).
Fig. 23. Two year old seedlings. Seed from Harry Mak's National Collection plants.



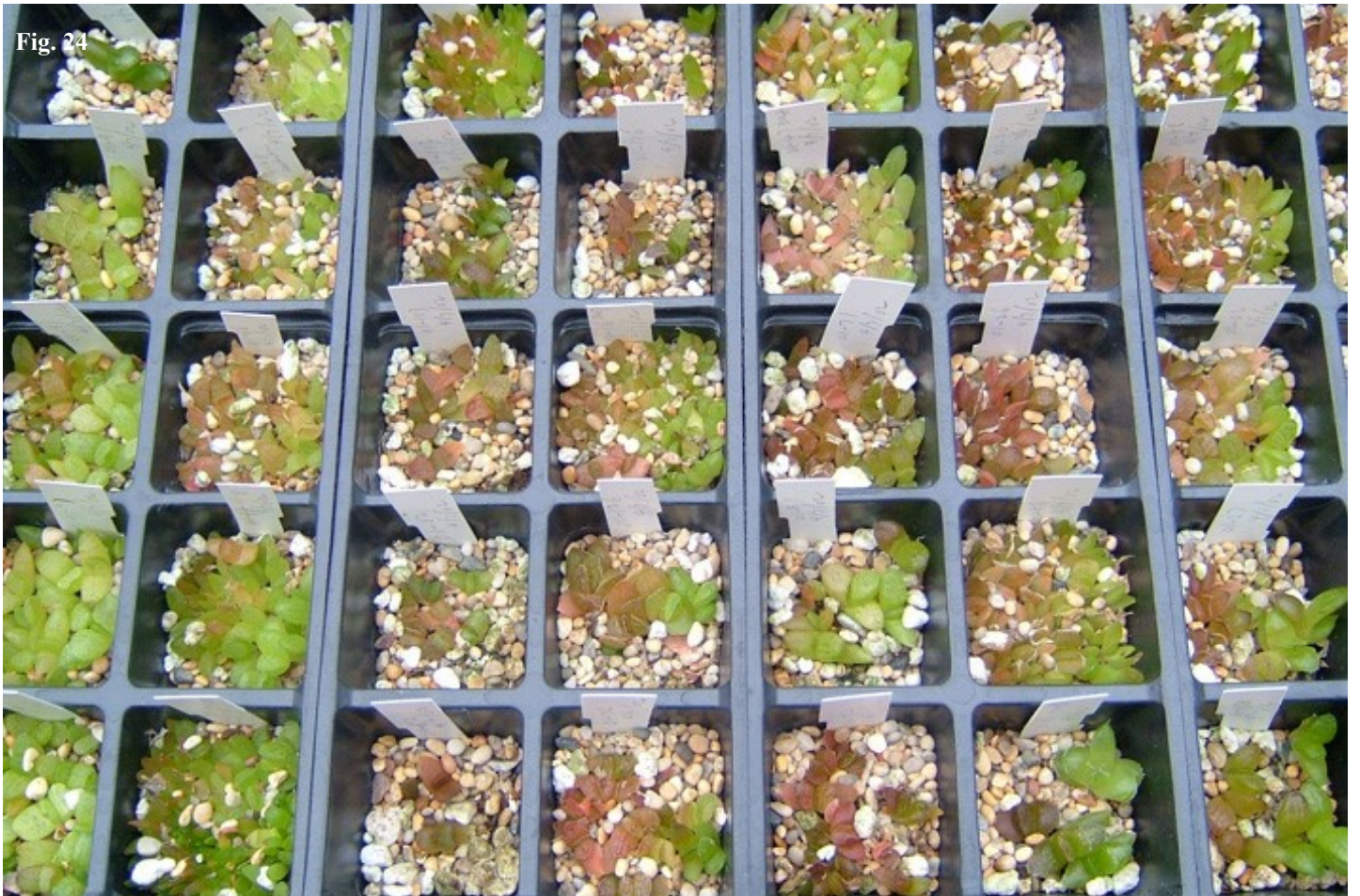


Fig. 24

Fig. 24. Two year old seedlings. Seed from Harry Mak's National Collection plants.
Fig. 25. Part of Harry Mak's leaf propagation area.



Fig. 25.

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Alsterworthia International Special Issue No. 8.

Colour-illustrated experiences of two expeditions for succulents in central, south and southwestern Madagascar

A two part article by Jean-André Audissou titled *Aloes of Madagascar* was published in the November 2004 and March 2005 issues of this journal. The article was based on an expedition to Madagascar in August 2003 when many other plants were also seen. As the article was well received, it was decided to produce a special issue of Alsterworthia International to cover all the plants seen, not only on that expedition, but also on an expedition organised by The South African Succulent Society in 1993. These two expeditions were quite different in a number of ways and there was little overlap in the plants encountered.

The relevant statistics are: Paper A4 gloss art. 95 pages excluding cover. Cover card. Photographs 250 colour plus one map. Text by Jean André Audissou and Harry Mays.

Price: £12.00 (member's price £6.50 including p & p surface mail, uninsured). This special issue may be ordered on the membership renewal form for 2006.

Succulents.

H. Kobayashi. International Succulent Institute, Japan.

In the Forward John Lavranos comments "While several books on cacti have been published in the language of Nippon, there has been only one on the other succulents ...and it has long been out of print. Publication of the present superb work is consequently a significant event..... Treating, as it does, about 13000 horticulturally valuable species, selected cultivars and hybrids, accompanied by excellent photographs, it constitutes a record of encyclopaedic magnitude on which the editors and contributors should be congratulated. The quality of printing and presentation are other factors that contribute to the beauty of this book."

The book was published at the end of 2003. 254 pages, 19 x 23.5cm. Card cover with dust jacket. As the Forward indicates, cacti are not included. The other succulent plant families are adequately covered. 38 pages are devoted to haworthias, gasterias, aloes and related small genera. The book weighs nearly 800g. It is primarily a photographic reference. The limited text is in Japanese. Photograph captions and the index are standard Latin/cultivar names.

The book, price £31.00 including postage and packing, may be ordered on the renewal form for 2006, but as the stock is limited we suggest you order by PayPal, the prompt on line money transmission service. First come first served!

A Field Guide to The Aloes of Malawi

Stewart S. Lane

Stewart Lane has been in Malawi since 1965 during which time he has developed a passion for aloes. This guide deals with the species (21) and forms (33) found in Malawi.

64 pages, 19 x 25.5cm, plus card cover. 80 colour photographs. Maps and drawings. Publisher Umdaus Press.

The book may be ordered from Umdaus Press and good book shops. Alsterworthia International members may obtain the book for £22.00 inclusive of uninsured, surface mail postage from Alsterworthia International. Please order on the membership renewal form for 2006.

A note about Umdaus Press books.

Umdaus Press have a number of honorary agents in different parts of the world through whom they distribute books ordered direct from them. At the beginning of 2005 their agent for the EU, the daughter of one of the partners, had to relinquish her post and Harry Mays was appointed in her place. Since then books for individual orders made direct with Umdaus Press have been distributed in the EU via Harry Mays.

Since its inception, Alsterworthia International has stocked a few of Umdaus Press books for sale to members. This service will continue.

Please note that any enquires about orders for books made direct to Umdaus Press should continue to be sent direct to Umdaus Press. Any enquires about orders made with Alsterworthia International should continue to be sent direct to Harry Mays.

from small to large and the remainder are in the hands of universities, schools, local authorities etc.

The nature of collections is variable. Many are centred around a related group of plants and may be either species or cultivars or both. The size of a genus is no bar to National Status. For example *Astroloba* has one National Plant Collection. National Collections may also be centred on plants introduced by a nursery or a plant hunter or a propagator etc. For example, it would be possible to have an International Succulent Introductions National Plant Collection and a Schick Echinopsis hybrid National Plant Collection in the UK, but unfortunately no one has a collection comprehensive enough for National Plant Collection status to be even consider!

Many holders of National Plant Collections go way beyond the stringent conditions of what is required to qualify for National status. They seek out the rarer plants and propagate them. They create cultivars. They research the best ways of propagation etc and share their knowledge. Harry Mak has published a number of articles on *Haworthia* propagation and three books on cultivars in general.

A number of the main genera of interest to readers of this journal have been awarded National Plant Collection status:

1. *Astroloba* (incl. *Poellnitzia*) - 1.
Robert Scott Cacti, Surrey.
2. *Haworthia* - 3.
Abbey Brook Cactus Nursery, Derbyshire.
Mr. H.C.K. Mak, Manchester.
Robert Scott Cacti, Surrey.
3. *Haworthia* (incl. The Bates Collection) -1.
Mr. A. Gill, Manchester.
4. *Gasteria* - 1.
Robert Scott Cacti, Surrey.
5. *Kniphofia* - 1.
Barton Manor, Isle of Wight.

There is no National Collection for the genus *Aloe*. This is probably not because there is a lack of interest in the genus,

but rather because it is such a large genus with many large plants. However, this should not be a bar to National Plant Collection status, because it would be possible to limit the scope of a collection to say, small aloes or just cultivars or aloes of a certain country or group of countries. UK members who have significant collections of one group of aloes might like to consider adapting them for National Plant status.

The British National Council for the Conservation of Plants and Gardens is the world's leading cultivated plant conservation charity. It has certainly succeeded in establishing UK National Plants Collections under a wide range of ownership with quite strict minimum conditions. Only France is said to have a similar scheme, but details are not at present known. It is known that attempts have been made in the USA to establish a National Plant Collection Scheme, but without success to date. The editor would be delighted to receive details of any official schemes in operation in any countries.

There is much more to National Plant Collections than can be dealt with in this introductory article. For full information please consult the NCCPG's web site < www.nccpg.com >. The National Plant Directory, £6.50 including postage, may be order by phoning 01483 211465 or, overseas, +44 1483 211465.

*Photographs of a selection of plants in Harry Mak's National Collection will be shown in the March 2006 journal.

Fig. 26.
Part
of
Harry Mak's
leaf
propagation
area.



Gasteria 'Ilibarty' & *Gasteria* 'Perfell'

Russell Scott
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Fig. 27

Fig. 27. *Gasteria* 'Ilibarty'

Description - *Gasteria* 'Ilibarty'

Gasteria 'Ilibarty' [RUS96277] is a cross made in 1996 between an unnamed hybrid (*Gasteria bicolor* v. *liliputana* x *Gasteria batesiana* v. *batesiana*) and *Gasteria* 'Little Warty', the pollen donor (a David Cumming cultivar between *Gasteria batesiana* and *Gasteria* 'Old Man Silver').

Gasteria 'Ilibarty' keeps the small growing nature of *Gasteria bicolor* v. *liliputana* and the typical green variegation patterns of *Gasteria* 'Little Warty'. Growth is distichous, but leaves can curl in various directions. They typically curve sideways, inwards and outwards. Leaves are 8-10cm long and around 1cm wide. The upper surface of the leaf is covered in pale green spots (slightly raised tubercles) against a dark green background. More often than not these join up to form prominent lines running the length of the leaf. The edges of the leaf are typically pale green. The underside of the leaf has a similar pattern and colouration near the leaf tips, but the rest of the leaf has pale spots (not tubercles) against a dark green to brown background.



Fig. 28

Fig. 28. *Gasteria* 'Perfell'

Description - *Gasteria* 'Perfell'

Gasteria 'Perfell' [RUS96236] is a cross made in 1996 between *Gasteria* 'Perfectus' (a David Cumming cultivar with silver leaves up to 20cm long that have a dark green edge) and the pollen donor, *Gasteria ellaphieae*. The *Gasteria ellaphieae*, has long tapering leaves, turns an exquisite red pink colour during winter and is now over 15 years old and has not offset.

Gasteria 'Perfell' is a slow growing plant that offsets

slowly. It remains distichous in its juvenile stage with flat leaves to 15 cm long. Once it starts growing into its mature rosette form, the leaves reduce to around 8cm long and become triangular shaped. The top surface of the leaf is a pale green with dark green edges. The lower surface can turn a pink-red colour. Both surfaces can be covered in white spots, which are hard to distinguish on the upper surface, but contrast highly with the pink/red colouration of the lower surface. They can form prominent bands on the lower leaf surfaces. There are no obvious tubercles although they can be felt along leaf edges and near the leaf tips.

Photos by the author.

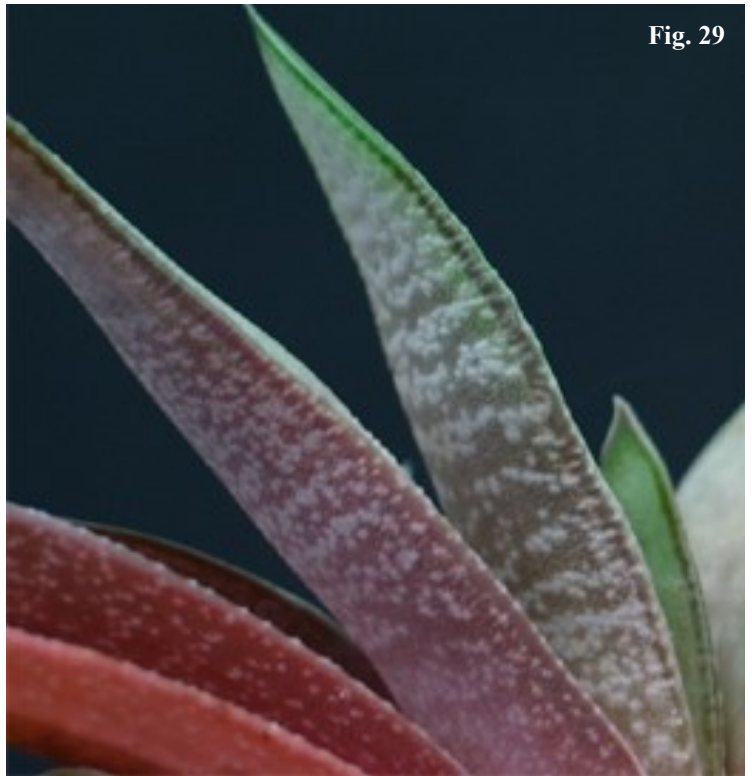


Fig. 29

Fig. 29. *Gasteria* 'Perfell'
Close up of the leaf underside and edge.

Aloe ferox & The Red Wattle Bird.

Russell Scott

Those of us who live in climates where plants can be grown outside are fortunate for a number of reasons. Not only can we maintain our plants without the cost of protection from the elements, but we can also admire interaction between foreign plants and our wildlife. I live in Melbourne, the southernmost state of the east coast of mainland Australia. This is a temperate climate where I can grow my plants outdoors. In front of my lounge window a number of aloes are growing. Although these plants are not native to Australia they do provide food, which some native birds relish. The Red Wattle bird (*Anthochaera carunculata*) frequents open forest and woodland in southern Australia and, of course, man made habitation. They dine on fruit, nectar and insects and

are frequent visitors to my aloes for a drop or two of nectar and a taste of pollen in the winter when many other flowers are not in bloom. The main photographs on the back cover, which was taken from inside my lounge through the window, shows a Red Wattle Bird perched on an inflorescence of the yellow flowered *Aloe ferox*. It has pollen all over its face. The other shows a bird taking nectar from a flower. Aloes and Australian Wattle Birds have not evolved together, but they are well adapted to assisting each other by exchanging food for pollination!!! The Red Wattle Bird nests in trees with a clutch of 2-3 eggs. So far they are not known to have taken to nesting in aloes!

(Continued from page 8)

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Photographs and drawings by the author.

Aloe ibitiensis H. Perrier – Morphology and cultivation

Lucio Russo

Botaniké Nursery, via Ribolzi 19, 28831 Baveno (VB), Italy

Aloe ibitiensis H. Perrier is a small species endemic to Madagascar. It grows in the Tananarivo province, on the quartzite outcrops of Mount Ibity at various altitudes up to 2000 metre, in rocky places of the western slopes of the upper Mania at 1600 metres, south of Andriba on steep gneiss rocks, and at Anjanabonoina in the lower basin of the Andratsay at 1200 m. Descoings and Reynolds found this plant on north-eastern slopes of Mt. Ibity just above Ambolohiponana village at 1450 m.

The original description of this species was published in the Mémoires de la Société Linnéenne de Normandie, Paris, 1 (1): 30 in 1926. *A. ibitiensis* is an acaulescent species with fibrous roots, 12-16 leaves, densely rosulate, lanceolate-acute, 7 cm broad and up to 30 cm long, ascending and slightly curved at the apex. The upper surface is flat, the colour ranging from a beautiful yellowish green to olive green, with prominent stripes that give the plant a unique appearance, with 1-2 mm long teeth 3 to 5 mm apart on the margins. The lower leaf surface is similar to the upper one. The 2-4 branched inflorescence is slender, about 60-80 cm tall, with cylindrical-acuminate racemes and scarlet red flowers 26 mm long and 4-5 mm across.

Whatever the population considered, this species grows on slopes in rocky, well drained soils where it occurs single or in small groups. Other plants that grow in the same areas are *Pachypodium densiflorum*, *P. brevicaulis*, *Cynanchum perrieri*, *Kalanchoe tomentosa*, *Euphorbia quartzicola*, *E. milii*, *E. didiereoides*, *Xerophita* sp., *Cynorkis incarnata*, *Ischonolepis tuberosa*. W. Colotti reports (personal comment) that, in all the populations of this species he saw, he counted few plants.

The mountain habitat of this species suggests that *A. ibitiensis* can stand quite low temperatures without harm. In cultivation *A. ibitiensis* is fairly easy to grow. Last winter my plants were severely tested when temperature dropped down to freezing point for some days because of a breakdown of the heating system in my greenhouse. The subsequent spring none of my plants of *A. ibitiensis* showed visible damages nor other indication of suffering, except the desiccation of some leaf tips, which is not related to what happened, and probably would have occurred even under normal

conditions. The literature that I perused does not report anything about the minimum temperatures that *A. ibitiensis* can bear, but I suspect that a few Celsius degrees below zero can be tolerated with no harm if the plants are on the dry side.

I grow my plants in a peat based compost in order to give plenty of acidity to the soil, as it is likely to be found in most parts of Madagascar where this and other species grow. In my potting mix, peat is combined with quartzite, crushed granite or gneiss fine gravel, according to availability, in order to provide adequate drainage. Other components can be used of course; among those I have tested, the only one that makes Madagascan plants unhappy seems to be pumice.

In cultivation *A. ibitiensis* tends to produce numerous offsets, which lead to nice clumps in a few years, while in the wild this seems to happen only occasionally. This plant can, therefore, be easily propagated by division of the clumps – provided the offsets are a reasonable size and have already developed a good root system – or from seed, which germinates promptly. I have not tested the viability of the seed. The growth rate of seedlings is average, and nice plants 12-14 cm tall can be obtained in a couple of years if well fed. I use liquid fertilizers that are added to the water on a weekly basis during the growing season so that the plants are never allowed to dry completely and are supplied with a good balance of nutrients. N, P, K are given at the ratio of 1-2-2 per litre of water, the amount in accordance with the instructions, but every two waterings I give only 1 cc per litre of liquid microelements instead.

Overwintering this species should not pose any particular problem. Place it in a sunny spot so that it can receive plenty of light and as much direct sun as possible, water sparingly once a month or a bit more, depending on the temperature in the greenhouse. To be on the safe side it should not be below 5-8 C°. The more the sun directly received during the day by the plants, the lower the night temperature can be. In the growing season it can be watered liberally. Under my conditions I never observed any pest affecting this species.

In conclusion, *A. ibitiensis* is a beautiful and rewarding species that, even though not particularly rare, should

Aloe 'Coromandel Gold'

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I do not think much of most Aloe hybrids as they are often not an improvement on either parent plant. There are some exceptions of course, like *Aloe* 'Doran Black'. *Aloe* 'Coromandel Gold', however, seems to be another worthy exception. From an early age it grew fast and strong. It flowered for the first time at about 3 years old, producing a stunning 3-branched candelabra form inflorescence of dense racemes of pure yellow flowers, fig. 30. Apart from the pure yellow colour (unusual in dense-racemed Aloes) it was notable for the fact that the racemes commenced their opening at the midpoint (vertically speaking) of the racemes. This was in a partially shaded greenhouse. The following year it produced a 10-branched inflorescence, fig. 31. We then planted it in an outdoor garden fully exposed to the sun and elements where it grew well. Outdoors the flower buds develop a red tinge and, with the open flowers a vibrant yellow, an attractive two-tone effect was produced, fig. 32. The plant was by now producing multiple inflorescences with huge quantities of flowers. Last year would have been its most spectacular effort yet if it had not been for the worst winter in many years. After loads of rain, hail and numerous frosts

most of the inflorescences aborted and rotted leaving the plant somewhat sad and bedraggled. This summer several branches sprouted from the base, so we can now begin to propagate 'Coromandel Gold' vegetatively, but it will still be some years before it is available for sale. We are keeping the parentage under wraps in the meantime as we try to re-create the cross.

Fig. 30.
Aloe 'Coromandel Gold' First flowering.

Fig. 31.
Aloe 'Coromandel Gold' Second flowering.

Fig. 32, page 18.
Aloe 'Coromandel Gold' Outdoor flowering - two toned.

Fig. 33, page 18.
Aloe 'Coromandel Gold'. Buds.

Fig. 30



Fig. 31.





Fig. 32.



Fig. 33.

The Succulent Plants of East Africa

Le Piante Succulente dell'Africa Orientale

Proceedings of the International Symposium:

The Succulent Plants of East Africa

History, Botanical Exploration and Research

301 pages. 17cm x 24cm. Hard back.

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135 colour photographs.

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The International Symposium, held in Verbania, Italy in September 2002 was dedicated to the memory of the great Italian botanist Emilio Chiovenda (1871-1941). Naturally a large part of the symposium was devoted to the work of Chiovenda, the remainder to papers presented by eight well-know authorities. Accordingly the book is in two parts.

Part 1.

1. E. Chiovenda and his contribution to the knowledge of the flora of NE Tropical Africa. Guido Moggi.
2. Aizoaceae in East Africa. H.E.K. Hartman.
3. The cultivation and propagation of Somalian and Ethiopian Euphorbias. Philippe Bisseret.
4. Succulent plant utilisation and conservation in Eastern Tropical Africa. Leonard E. Newton.
5. A history of succulent exploration in East and North East Africa. Colin C. Walker.
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8. Growing Somali succulents. Carlo Zanovelloa.

Part 2.

1. E. Chiovenda in Modena. Federica Franchini, Carlo del Prete & Daniele dalai.
2. E. Chiovenda and the Study of Historical Herbaria. Chiara Nepi.
3. Crassulaceae of the Verbano-Cusio-Ossola (Piedmont, Italy).
4. The Botanical Collections of the Consolata Missionaries in Kenya Studied by E. Chiovenda. Laura Settesoldi & Marcello Tardelli.
5. E. Chiovenda and the Herbarium of the University of Turin. Laura Guglielmone.
6. An appendix of The Scientific Production of E. Chiovenda. Guido Moggi & Lucio Russo.

This book has comprehensive coverage of the work of E. Chiovenda in Part 2 and a number of interesting articles in Part 1 covering a wide range of plants. Readers of *Alsterworthia International* with a special interest in the plants covered by this journal may like to know the extent of coverage in *The Succulent Plants of East Africa*. 34 aloes, 1 Bulbine and 3 *Kniphofia* are mentioned or discussed. Readers who are used to the large photos and maps published in *Alsterworthia International* may find some in the book to be a little on the small side with a consequent lack of detail.

The book is well produced and should be of interest to those with a passion for East African plants and an interest in the work of Emilio Chiovenda.

Haworthia 'Pale Peace'

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The rosette of highly succulent, yellow leaves tipped dark-green and with finger-like projections pointing towards the base produce an attractive plant (front cover photograph). This cultivar does not seem to be very common, which is perhaps not surprising. In my glasshouse it occasionally produces offsets, but so far they have all been green! Apart from this, cultivation presents no problems for me, but Rudolf Schultz, from whom I obtained my plant, told me that he has experienced some problems cultivating it.

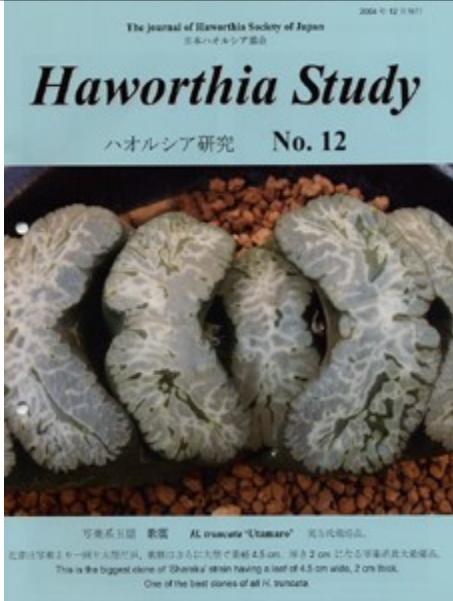
From the name one can deduce that it might not be of

Japanese origin and from the shape and succulence of the leaves that it is related to *Haworthia cymbiformis* v. *obesa* V. Poelln. Beyond this speculation nothing is known about its origin. If anyone knows its parentage (it may have alien genes to introduce the variegation) or, better still, where the original description can be consulted, both the editor and I would be delighted to receive whatever information you can supply.

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**Haworthia Study, Journal of the Haworthia Society of Japan
&
Cultivar Groups**

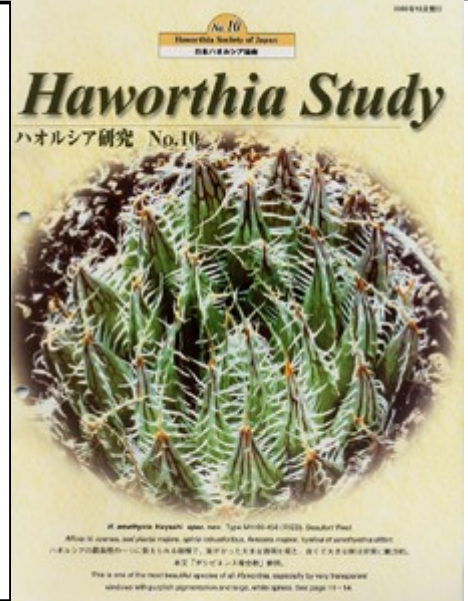


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Two issues per year, June &
December.



A wide range of subjects are covered in Haworthia Study. They range from species classification to cultivar development and naming, from plants in habitat to plants in cultivation and include notes on methods of cultivation, picture galleries etc. and, most important for many readers, there are lots of good colour photographs.

many beautiful, one might justifiably say out-of-this-world, cultivars are created and illustrated. The art of cultivar creation is at its pinnacle in Japan and is the result of patience and methodical work. This is not to say that such work is not carried out in other countries, but in Japan it is carried out to perfection.

The creation of cultivars is pre-eminent in Japan and

Traditionally Japanese horticulturists have pursued



Fig. 34.

Fig. 34. *Haworthia picta*. Galaxy Group.
Large white flecks on a dark green background produce an attractive mosaic pattern.

their appreciation of beauty by breeding and selecting clones. They have achieved outstanding results with chrysanthemum, morning glory, azalea, etc. This motivating sense of beauty is found in many areas such as Bonsai, Ikebana (flower arrangement), Japanese gardens, coloured carp, Ukiyoe-print and even Haiku. Haworthia breeding in Japan [as well as some cacti (*Astrophytum* etc.)] can be considered as a modern development of Japanese traditional horticulture with new material. This development may be particularly based on a traditional plant, Omoto (*Rohdea japonica*). Omoto is a considerably popular plant in Japan, China and Taiwan. Omoto collectors enjoy clonal leaf variation and

variegation pattern. A good clone is named and sold at a high price. But Omoto is a “very quiet” or non-showy plant and collector population is small.

However, the skill for, or art of, selecting leaf variation in Omoto may well be appropriate for *Haworthia* breeding. This may be the reason why *Haworthia* breeding in Japan has achieved results so quickly, and why it is well accepted in China and Taiwan more than in the Western world. Of course it is not right to define its popularity only in Eastern countries where there

was a fortunate tradition to breed and enjoy such leaf variations. The appreciation of beauty is common throughout the world in many fields such as music or drawing. If something is beautiful enough, it may be accepted worldwide, regardless of its origin or cultural background, and *Haworthia* cultivars are certainly beautiful!

It is probably only in Japan that cultivar-group names are used as a matter of course in the genus *Haworthia*. The International Code of Nomenclature for Cultivation Plants provides that “Assemblages of two or more similar, named cultivars within a genus, species, nothogenus (hybrid genus), nothospecies (hybrid species) of other denomination class may be designated as cultivar groups”. In the UK the cultivar-group is quite widely used for many plants produced for commercial purposes, but it is almost unknown in the succulent world. What constitutes “similarity” is far ranging. It may be flowering time e.g. all in spring, it may be cultivation conditions e.g. outdoor boarder plants, it may be parentage e.g. all derived from the same parent(s), it may be (a) characteristic(s) common to all the cultivars around which there are differences which give rise to the different cultivars.

In Japan different clones of the same cultivar may be separately identified by letter which is attached to the scientific



Fig. 35.

Fig. 35. *Haworthia picta* ‘Silver Fox’ Dali Group. Note the contrast of silvery fleck and brownish green stripes.



Fig. 36.

Fig. 36. *Haworthia picta* ‘Red Fox’. Dali Group. The plant looks reddish because of the numerous brown stripes.

name e.g. clone A, clone B. Although all plants of a cultivar will be the same in that they conform to a description, on close examination there may be some slight deviations which make the identification of the clones of importance. These deviations may, for example, be important for breeding if they give different, desirable results.

A brief look at *Haworthia picta* and some of its cultivars will help to illustrate some of these points. The three plants in figures 35 to 37, although different cultivars, have a similarity about them. They are all in the *Haworthia picta* Dali Group. *Haworthia picta* 'Silver Fox' is notable for silvery flecks and brownish green stripes; *Haworthia picta* 'Red Fox' for its reddish appearance because of the numerous brown stripes and *Haworthia picta* 'Blue Fox' for its bluish, smooth window. These three, the only members of the Dali Group, have in common large, dense flecks; dark, fat & blunt leaves and thick brown strips. Fig. 34 shows *Haworthia picta* Galaxy Group which is notable for white flecks on a dark-green background.

They are also all *Haworthia picta*, but that in itself does not define the group. There are other groups in *Haworthia picta*. The relationship of *Haworthia picta* groups is shown in fig. 38.

What does the future hold for more magnificent cultivars from *Haworthia picta*? Apparently quite a lot. In Japan *Haworthia picta* v. *janvlokii* is thought to have great potential for cultivar breeding. It is the largest form of *Haworthia picta* and some clones have blunt, very rounded, leaf ends. In Japan they do not consider that the breeding aim of large leaves with round ends has yet been satisfactorily achieved in their cultivars. They now have new material with which to achieve this end.

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There are also some clones of *Haworthia picta* which are very white and some with red lines which also provide new characteristics for use in cultivar breeding. Clones with blunt leaf ends, clones which are white and clones with reddish lines will all be exploited in *Haworthia picta* cultivar development and perhaps also in hybridisation and the creation of nothogenus cultivars.



Fig. 37.

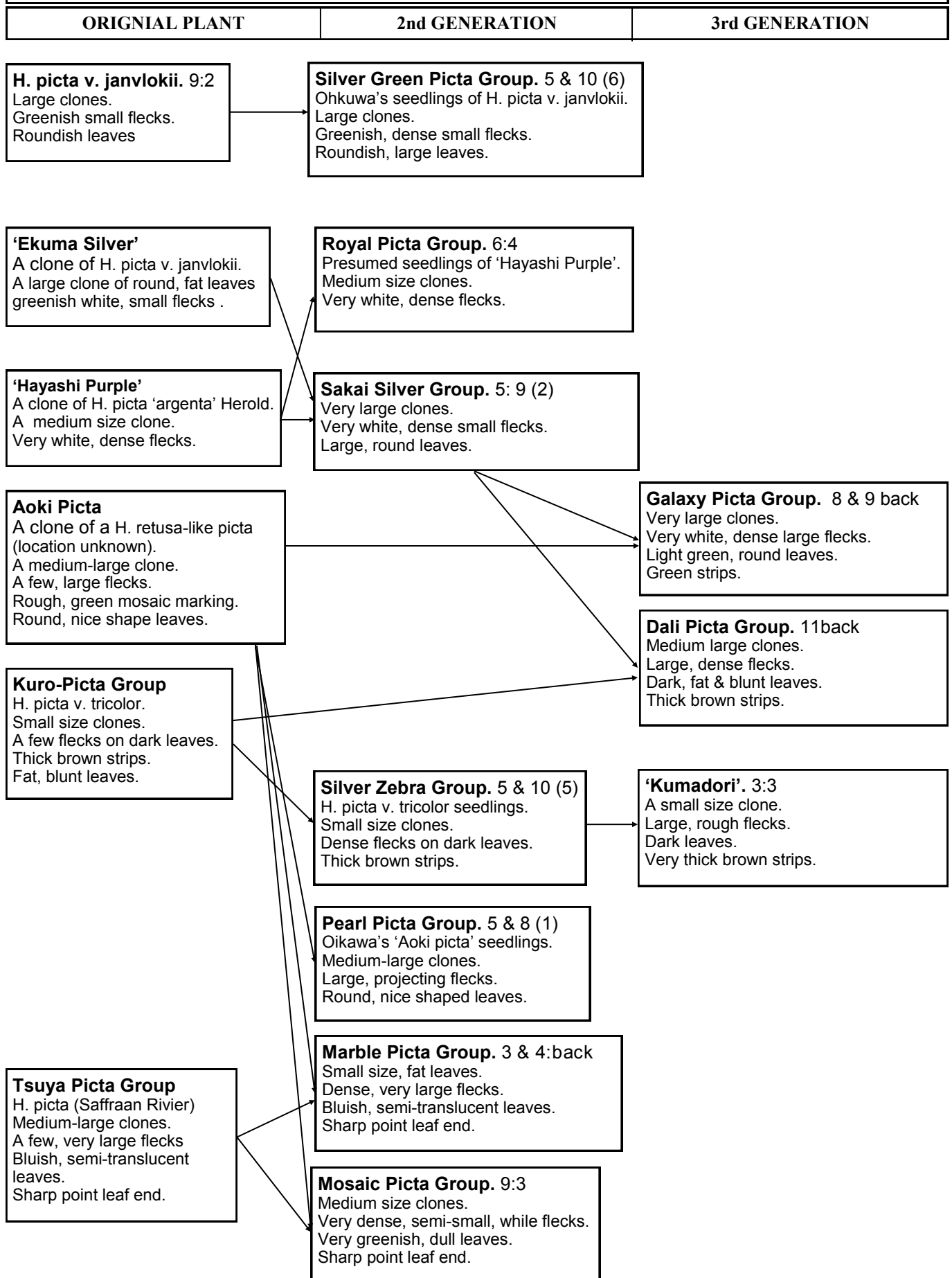
Fig. 37. *Haworthia picta* 'Blue Fox'. Dali Group.
The window is bluish and smooth.

References:

Haworthia Study. No. 10, 11 & 13.

Note. *Haworthia picta* is subsumed under *Haworthia emelyae* v. *emelyae* by some authorities.

Fig. 38. Relationships among *Haworthia picta* cultivar groups in Japan.



Note: Numbers after names refer to Haworthia Study issues and pages, where further information may be found.



Red Wattle Bird feeding on Aloe ferox.