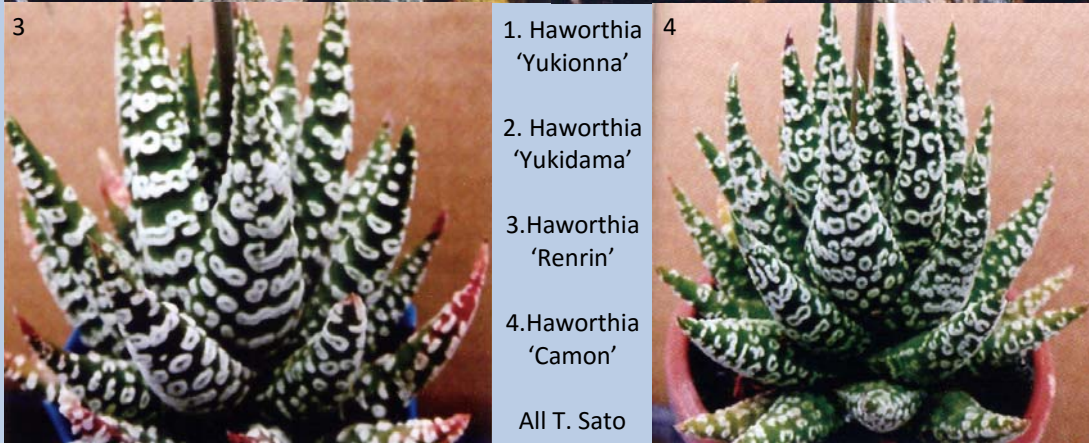


# ALSTERWORTHIA INTERNATIONAL

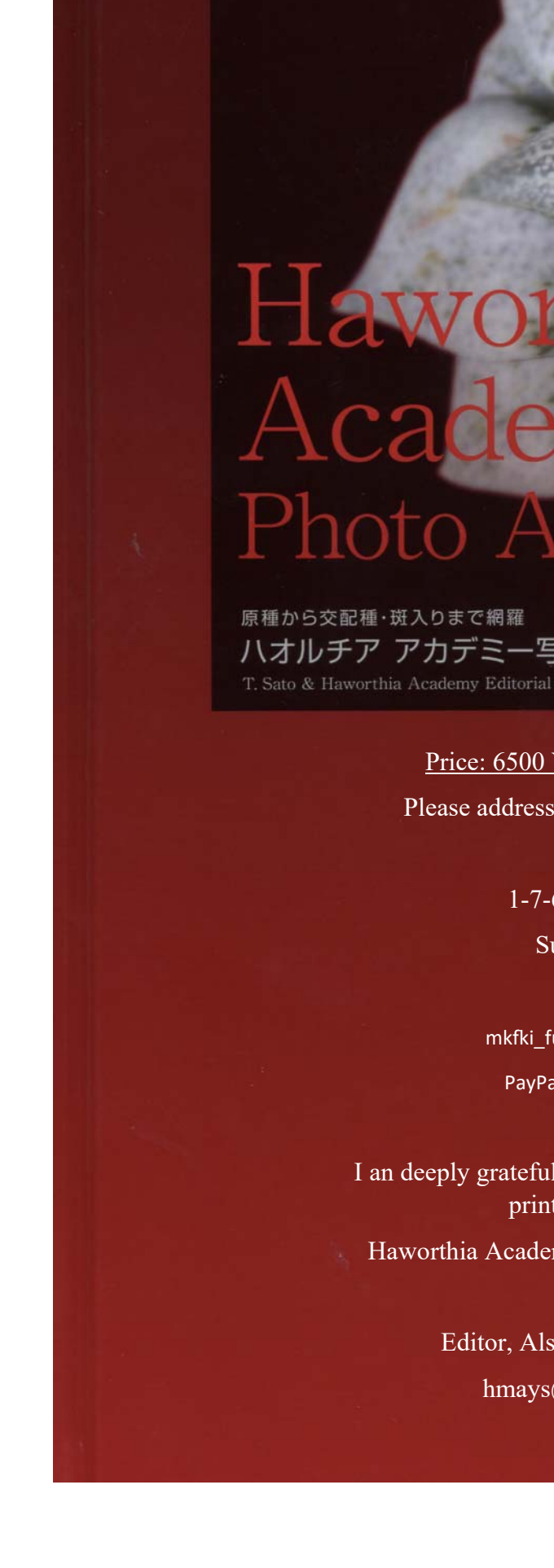
## THE SUCCULENT ASPHODELACEAE JOURNAL



1. Haworthia 'Yukionna'  
2. Haworthia 'Yukidama'  
3. Haworthia 'Renrin'  
4. Haworthia 'Camon'  
All T. Sato

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# Haworthia Academy Photo Album

原種から交配種・斑入りまで網羅

ハオルチア アカデミー写真集

T. Sato & Haworthia Academy Editorial Committee

vol.1

Price: 6500 Yen + postage & packing.

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PayPal payments accepted.

I am deeply grateful to Mr. T. Sato for permission to  
print extracts from the

Haworthia Academy Photo Album in this journal

Harry Mays,

Editor, Alsterworthia International.

[hmays@freenetname.co.uk](mailto:hmays@freenetname.co.uk)



This well presented hard cover book has 14 pages of Japanese text and 128 pages of photographs, all A4 gloss paper. It is a pictorial presentation of Japanese cultivars for *Haworthia* species and hybrids. There are 1152 colour photographs, each with the Japanese and corresponding English name and one or two lines of Japanese text, which presumably comment on the plant in the photograph. Many of the photographs also have a combination of letters and numbers or numbers only, which appear to be either habitat collection numbers or accession numbers.

Pages 1-4 with ringed numbers are introductory pages in Japanese.

Pages 5-14, also with ringed numbers, are lists in eight categories of *Haworthia* species and hybrids with cultivar names side by side in Japanese and English, English being the alphabetical order within each category. It is a page number index for *Haworthia* cultivars in defined categories. The categories are numbered 1-8 with headings in Japanese.

The following pages, 1-128 not ringed, contain the photographs of all the plants in the lists. They are also in categories numbered 1-8, each with a heading in Japanese and English. These headings, therefore, apply also to the lists in the eight categories on pages 5-14. A copy of the first row of pages 1 and 20, Categories 1 & 2, a little reduced in size, are below and of the full page 106, Category 5 overleaf. The various categories are:

Category 1, pages 1-19. Species & cv. Subgenus *Haworthia*.

Category 2, pages 20-42. *Haworthia maughanii* & cv. Subgenus *Haworthia*.

Category 3, pages 43-59. *Haworthia truncata* & cv. Subgenus *Haworthia*.

Category 4, pages 60-105. *Haworthia* hybrids. Subgenus *Haworthia*.

Category 5, pages 106-117. *Haworthia* variegated plants. Subgenus *Haworthia*.

Category 6, pages 118-122. Species & cv. Subgenus *Hexangularis*.

Category 7, pages 123-127. *Haworthia* hybrids. Subgenus *Hexangularis*.

Category 8, Page 128. *Haworthia* variegated plants. Subgenus *Hexangularis*.

Photographs are excellent but it is a disappointment that not all the names in the book comply with the International Code of Nomenclature for Cultivated Plants. For further information please see the Japanese *Haworthia* Society's new book "Total list of *Haworthia* cultivars" pages 6-14 and "Comments on *Haworthia* Academy Photo Album & *Haworthia* Study No. 28 - Total List of *Haworthia* Cultivars" pages 23-25.

**1** 原種とその園芸種 Species & cv. Subgenus *Haworthia* 軟葉種及園芸種

		
1 アグニス <i>H. agnus</i>	1(T) 2 アメヂェスタ <i>H. amethysta</i>	3 パウシフォリア <i>H. angustifolia</i> v. <i>paucifolia</i>
Klipdrift North of Vanrhynsdorp産 中央の葉の変色はタマタマ	Tralaskuilen産 姿はサファイアとよく似ている	Shaw Park産 細い葉を重ね群生する
	MBB7025	RIBO 755

**2** 万象とその園芸種 *Haworthia maughanii* & cv. Subgenus *Haworthia* 万象与其園芸種

		
172 雨音 アマオト <i>H. maughanii</i> 'Amaoto' T. Sato	173 嵐山 アラシヤマ <i>H. maughanii</i> 'Arashiyama' T. Sato	174 アスラン <i>H. maughanii</i> 'Asuran' Tsukahara Nagaoka
中央から白条理が走る	窓周辺から白線が多数入る 窓全体が白くなる	窓の中央部から白島となる
13-471		NO





946 赤富士錦 アカフジニシキ I  
*H. 'Akafujinishiki'*  
 Nakajima Nakajima  
 丸窓でコンプト模様



947 明日香錦 NG  
*H. 'Asukanishiki'*  
 Nakajima Nakajima  
 斜めの透明窓



948 アトロフスカ錦  
*H. atrofusca*

ISIタイプの斑入り  
 茶肌にきれいな良質の斑が入る



949 バディア錦 O  
*H. badia*

やや緑肌タイプ



950 紅銀山 ベニギンザン (T)  
*H. 'Beniginzan'*

短い窓にきれいな斑



951 ブラックレディ錦 O  
*H. 'Black lady'*

黒肌の大型種に斑が映える



952 ブラックレイン錦  
*H. 'Black rain'*

黒肌で大型 複雑に斑が入る



953 ボルシーオブツサ錦 T(T)  
*H. bolusii* × *obutusa*  
 Hagiwara

ノギが残る斑は素晴らしく美しい



954 キャッツアイ錦  
*H. 'Cat's eye'*

小型種の斑入り鮮明斑

11-808



## Aloe Pictorial Gallery. Kotie Retief, Gariep Plants, South Africa.



### 1. *Aloe shelae*

This *Aloe* is very nearly extinct in the wild, it occurs only at the top of one mountain in Saudi Arabia.

### 2. *Aloe molederana*

*Aloe molederana* from the type locality near Molede

3. *Aloe erensii* growing at Gariep Plants. In habitat it grows on rocky slopes and cliffs.





Haworthia Study No. 28 (特別号) 日本ハオルシア協会

# ハオルシア品種名総覧

## Total List of *Haworthia* Cultivars

林 雅彦 編著 By Hayashi M.



### ‘玄武’

長径 8.5 cm、葉幅 3.3 cm、葉厚 1.2 cm。育成者：海野吉正 / 中島勝芳 命名者：林雅彦  
日本ハオルシア大賞 2013 金賞作品

黒線模様が特徴の葵玉扇系に近い。窓が白いので黒線が非常に目立ち、黒線模様も太く複雑で見事。  
玉扇・万象は地味で素人受けしないものが多いが、本品種は一般愛好家からも高い評価を受けた。

### H. ‘Genbu’

Length: 8.5 cm, Width 3.3 cm. Breeder : Mr. Unno/Nakajima Author: Hayashi  
Gold Prize of Japan Haworthia Cup 2013 In Tokyo

Close to Aoi Gyokusen Gp with very thick, black & complicated markings.  
Black markings are very good contrast against white window.



# Haworthia Study No. 28

## Total list of *Haworthia* cultivars.

In the annals of cultivar publications this one is of excellent Japanese cultivars. Together with different and it must be the most important to date for consolidated, comprehensive information about original publications of Japanese cultivar names, check Japanese cultivars for the period 1905-2012. their authenticity and eliminate duplicate, non-established, names. This work has progressed over many years - the result is The Total List of *Haworthia* Cultivars published in Japan.

Cultivar publications generally have a photograph and name for selected cultivars with little else and little, if any, attempt is made to check that the names have been established (i.e. validly published) and duplicate cultivar names expunged. To do this is time consuming and very difficult to almost impossible, as there are no central records of registered *Haworthia* cultivars.

In the past the Japanese have been as guilty as other nationals in not complying with the International Code of Nomenclature for Cultivated Plants, but Dr Hayashi has changed all this. He, himself, is a renowned creator

of excellent Japanese cultivars. Together with colleagues he set out to systematically search for the original publications of Japanese cultivar names, check their authenticity and eliminate duplicate, non-established, names. This work has progressed over many years - the result is The Total List of *Haworthia* Cultivars published in Japan.

The book is printed on high quality non-gloss A4 paper with soft cover and dust jacket. Number of pages is 271. The text is in Japanese but most of the book is devoted to tables. There are a few short articles of introduction or explanation with no English translations.

The Contents are given in both Japanese and English. Chapter 1, in Japanese, pages 15-22, is divided into an Abstract of *Haworthia* horticulture, About

表1-C. 日本で発表されたハオルシア品種名等(和名を含む)の数の年代別集計。

Chronological total of *Haworthia* cultivar names published in Japan.

品種名等の出版者 Publisher	1905~ 1959	1960' 年代	1970' 年代	1980' 年代	1990' 年代	2000' 年代	2010' 年代	明治~2012年* (1905~2012*)	
日本カクタス企画社			49	57	339	520	268	1233	23.5 %
カクタスニシ				11	97	29	940	1077	20.5 %
日本ハオルシア協会					23	440	367	830	15.8 %
山城愛仙園							515	515	9.8 %
日本多肉(サキュレント、 原色 多肉植物写真集)				120	69	40	22	251	4.8 %
ISIJ、多肉植物写真集 I, II						70	181	251	4.8 %
堀川カクタス				20	96	66	4	186	3.5 %
福屋 崇(魅惑の玉扇)							152	152	2.9 %
紅波園	11	93	18					122	2.3 %
金子カクタス				26	37	30		93	1.8 %
趣味の多肉植物(瀬川)		78						78	1.5 %
芳明園		67						67	1.3 %
龍膽寺 雄		61						61	1.2 %
その他	54	32	26	194	1	27	0	334	6.4 %
品種名等の合計 Total	65	331	93	428	662	1222	2449	5250	100.0 %

表1-D-1. 最近5年間に発表されたハオルシア品種の無効名と疑問名の数

Haworthia cultivae names and invalid/doubtful names published in the last 5 years

品種名等の出版者(社) Publisher	(A) 最近5年間計 2008~2012* Cultivar names published in the last 5 years	(B) X 無効名 (重複/類似名等) Invalid names (homonym/ parahomonym)	(C) 同一出版者内 の重複/類似名 Homonyms published by the same publisher	(D) ? 疑問名 ("品種"でない等) Doubtful names (no distinction as a cultivar)				
日本カクタス企画社	424	15%	65	15% **	10	2%	41	10%
カクタスニシ	940	34%	158	17%	45	5%	27	3%
日本ハオルシア協会	505	18%	11	2%	11	2%	0	0%
山城愛仙園	515	18%	77	15%	4	1%	?	?
日本多肉植物の会	54	2%	12	22%	0	0%	1	2%
ISIJ 国際多肉植物協会	195	7%	46	24%	0	0%	1	1%
福屋 崇	152	5%	24	16%	0	0%	?	?
上記7者の品種名の合計	2785	100%	393	平均 14%	70	平均 3%	70	平均 3%

\*: カクタスニシHPの2013年3月までの発表を含む。

\*\* : 日本カクタス企画社が出版した名前数(424)に対する割合。以下同じ。



Haworthia, Haworthia horticulture in Japan, Chronological total of Haworthia cultivar names published in Japan (see table 1-C page 7) and Total of invalid and doubtful names (see table 1-D1 page 7).

Chapter 2, pages 25-36, deals with naming cultivars and groups. There are a series of short articles in Japanese with no English translations and 9 tables which do have a limited amount of English. One point worth making, particularly as one author has been cited

for committing the sin of renaming some Japanese cultivars already correctly name in Japan, is that this contravenes the International Code of Nomenclature for Cultivated Plants: a new name cannot be given to a cultivar already named and a name in Japanese cannot be translated into English to provide an English cultivar name. The ICNCP, however, does provide for a Japanese name in non-alphabetic script to be transcribed into English under the provisions of “the

2-F) 修正ヘボン式ローマ字表 Modified Hepburn system of Romanization (Romaji)

表2-Fは国際栽培植物命名規約 Art. 34D.1.で使用を指定されている修正ヘボン式ローマ字表です。赤字は訓令式(日本式)と異なっていて間違いやすい音です。品種名を発表する場合にはこれらの音に特に注意してください。

表2-F. 修正ヘボン式ローマ字表 (赤字は間違いやすいもの)

		直音					拗音			その他
清音	あ行	あ	い	う	え	お				
		a	i	u	e	o				
	か行	か	き	く	け	こ	きゃ	きゅ	きょ	
		ka	ki	ku	ke	ko	kya	kyu	kyo	
	さ行	さ	し	す	せ	そ	しゃ	しゅ	しょ	
		sa	shi	su	se	so	sha	shu	sho	
	た行	た	ち	つ	て	と	ちゃ	ちゅ	ちよ	つあ
		ta	chi	tsu	te	to	cha	chu	cho	tsa
	な行	な	に	ぬ	ね	の	にゃ	にゅ	にょ	
		na	ni	nu	ne	no	nya	nyu	nyo	
は行	は	ひ	ふ	へ	ほ	ひゃ	ひゅ	ひょ		
	ha	hi	fu	he	ho	hya	hyu	hyo		
ま行	ま	み	む	め	も	みゃ	みゅ	みょ		
	ma	mi	mu	me	mo	mya	myu	myo		
や行	や		ゆ		よ					
	ya		yu		yo					
ら行	ら	り	る	れ	ろ	りゃ	りゅ	りょ		
	ra	ri	ru	re	ro	rya	ryu	ryo		
わ行	わ				(を)					
	wa				(wo)					
ん									ん	
									n	
濁音、半濁音	が行	が	ぎ	ぐ	げ	ご	ぎゃ	ぎゅ	ぎょ	
		ga	gi	gu	ge	go	gya	gyu	gyo	
	ざ行	ざ	じ	ず	ぜ	ぞ	じゃ	じゅ	じょ	
		za	ji	zu	ze	zo	ja	ju	jo	
	だ行	だ	ぢ	づ	で	ど	ぢゃ	ぢゅ	ぢょ	
	da	ji	zu	de	do	ja	ju	jo		
ば行	ば	び	ぶ	べ	ぼ	びゃ	びゅ	びょ		
	ba	bi	bu	be	bo	bya	byu	byo		
ぱ行	ぱ	ぴ	ぷ	ぺ	ぽ	ぴゃ	ぴゅ	ぴょ		
	pa	pi	pu	pe	po	pya	pyu	pyo		

注1) 長音は母音の上に長音記号(macron)を付けて表す。例: 東京 = Tôkyô

注2) 撥音(ん)はすべて「n」で表す。「b」「m」「p」の前でも「m」を使わない。

注3) 促音は子音を重ねる。ただし「ち(chi)の場合は「tchi」とする。例: 出張 = shutcho

注4) 発音上、音節を区切る必要がある場合はアポストロフィ「'」ではなく、ハイフン「-」で区切る。(ハオルシアの独自基準)

(ヘボン式ではアポストロフィを使うとされているが、一般的ではなく、音節の区切りはハイフンの方が直感的で分かりやすい。)



modified Hepburn system". This system is outlined in a table 2-F in Chapter 2, a copy of which is on the opposite page.

Chapter 3, pages 39-222, forms the bulk of the book. It is devoted to The Total List of Haworthia Cultivars Published in Japan in tabular form. The tables are in columns with each column devoted to one aspect of each cultivar or Group. Names are in Japanese with a column of English equivalent cultivar names and another for species names. The year of the publication cited as the authority for the name and also some of the page numbers are given in English, but virtually all the publication names are in Japanese as they are Japanese publications. So that readers may have a better conception of the published work, the facing pages 43-44 are reproduced on the following two pages.

In this chapter there is also a two page listing of new cultivars published in the book and a five page listing of rejected names made up of invalid names, synonyms, etc.

Chapter 4, pages 225-240, deals with Major Japanese Groups of Haworthia Cultivars. Cultivar Groups are quite important in Japan, far more than in other countries. A Group of cultivars has one or more characteristics common to all the cultivars in that Group, which distinguish the Group from all other Groups. Each species of a Group has additional characteristic(s) which distinguishes it from other cultivars in that Group. The Groups dealt with are: truncata, maughanii, picta, obtusa, other soft leaf Groups, hard leaf Groups and garden hybrids. The detail is presented in tabular form with short Japanese introductions. Six of the tables have some English translation, 3 are in Japanese only. So that the reader may have a better understanding of these tables, table 4-B-1 is reproduced on page 12.

Pages 241-246 contain the Postscript, Acknowledgement and list of Reference books all in Japanese except for publications in English.

Pages 249-270 have the complete listing of English names with page numbers.

Entirely separate from the main subject of this book (Total List of Haworthia Cultivars published in Japan),

pages 5-13 present photographs of some exhibits at the Japanese Haworthia Festival 2012. There are 44 photographs with names and captions in both Japanese and English. Pages 9 and 10 are reproduced on pages 13 and 14 of this journal. Please also see the back cover.

Summary.

This book is unique. It is the first to provide for one country a comprehensive list of published cultivars with brief explanatory notes. Much time has been spent on researching the original publication details for each cultivar, on sorting out valid names and invalid names, of ensuring that the provisions of the ICNCP have been complied with etc. The work is, of course, on-going in order to keep the list and the details up-to-date.

From the point of non-Japanese speaking people the lack of an English translation may be a problem. I say this as a fact, not as a criticism. It is after all a Japanese publication. How many succulent books produced in English have Japanese translations - None? It does provide an index of Japanese cultivars in English and there are some brief English equivalents for some parts of some table. With a little enthusiasm it is possible to make use of the book. As it provides an alphabetical list of Japanese cultivars in English it is an essential reference work for anyone publishing new cultivar names - remember the general rule that cultivar names cannot be duplicated and that names in Japanese must not be translated into English as cultivar names. They may only be transcribed in accordance with "the modified Hepburn system". For the avid collector of Haworthia publications this, too, must be a must!

Harry Mays

## **Financial and Ordering Arrangements.**

**The price of Haworthia Study No. 28, Total List of Haworthia Cultivars is 6000 yen + p&p.**

**Discounts** are available as follows with a limit of **one copy per person**:

**Alsterworthia International** subscribers.....5000 yen + p&p.

**Haworthia Study** subscribers for 2012 (the scheduled year for No. 28) .....4000 yen + p&p.

**The procedure for ordering for both members and non-members is as follows:**

1. send all orders to [hmays@freenetname.co.uk](mailto:hmays@freenetname.co.uk)
2. signify if you subscribed to Alsterworthia International for 2014 or Haworthia Study for 2012
3. state your full name, postal address including country and e-mail address.

You will receive an e-mail from Japan for the full price including postage, which is country dependent, with the e-mail address to which payment by PayPal (+ 3% to quoted price) should be sent. As soon as the full payment is received in Japan the book will be sent from Japan direct to you.



### 3-C) 日本で発表されたハオルシアの品種名等の一覧表

判定欄凡例 Legend for Judge column

- P :  中の品種は同一品種の可能性が高い。Names in a red box are possibly same cultivar
- X : 異名、重複名、無効名、旧名など、今後使用すべきでない名前 Synonym, Homonym, Invalid name, Old name.
- △ : 仮名、暫定名、整理番号/記号など、品種名としては暫定的な名前 Temporal/Tentative name, Reference No. etc.
- ? : 品種としての特異性や同定に疑問のある名前 Name with doubtful (insufficient) distinction/identification as a cultivar  
特徴の不明瞭な中間型雑種や類似形態の実生がたくさんあって同定困難な個体など、独立した品種として疑問のあるもの。
- N : 新品種名(この本が初出の品種名) New cultivar name published in this book
- G : グループ名 Group name
- J : 和名(種名の日本語名。品種名ではない。) Japanese name (Species name in Japanese)

※: 旧名や無効名も含め、このリストに掲載された名前を新品種等に再使用することは一切できません。

判定	品種名/グループ名	日本語読み方	ローマ字/英文表記	種名	交配/育成者	命名/出版
Judge	Cultivar/Group name	Japanese Reading	Roman/English	Species name	Breeder	Author
△	R-2	あーるつー	R-2	truncata	西 雅基	西 雅基
△	R42-4B	あーるよんじゅうによんぴー	R42-4B	multilineata	J. Dodson	J. Dodson
△	R-1	あーるわん	R-1	spring x compto.		
X	ISI	あいえずあい	ISI	crassa n.n.	今井	金子 公信
△	ISI万象 グリーン紋	あいえずあいまんぞうぐりーんもん	ISI Manzō Green Mon	maughanii		
△	IS-1	あいえずわん	IS-1	truncata	今井	金子 公信
	I. S. 1	あいえずわん	IS-1	truncata	今井	金子 公信
	アイオライト	あいおらいと	Aio Light	pygmaea hyb.		山城 勝一
	アイオライト錦	あいおらいと	Aio Light Nishiki	wimii hyb.		山城 勝一
	アイガー	あいがー	Eiger	maughanii	金子 公信	金子 公信
N	愛新覚羅	あいしんかくら	Aishin Kakura	maughanii		林 雅彦
	会津	あいず	Aizu	maughanii		佐藤 勉
	アイスオーロラ	あいすおーろら	Ice Aurora	maughanii	佐藤 勉	佐藤 勉
	アイスキャンディー	あいすきゃんでいー	Ice Candy	wimii hyb.		吉田 久雄
?	アイスシャドー	あいすしやどー	Ice Shadow	Pixa hyb.		佐藤 勉
	アイスバーグ	あいすばーぐ	Iceberg	Pixa hyb.		佐藤 勉
	アイボリー	あいぼりー	Ivory	argenta hyb. (Pixa)	塚原 鉄栄	林 雅彦
X	アイリス	あいりす	Iris	compt. hyb.	金子 公信	金子 公信
	アイルミ	あいるみ	Airumi	wimii hyb.	大久保 秀夫	大久保 秀夫
	葵	あおい	Aoi	splendens v. hansii		
	葵一条	あおいいちじょう	Aoi Ichijō	crassa (Ukiyo Gp)	佐野 寛	佐野 寛
N	蒼い狼	あおいおおかみ	Aoi Ōkami	truncata	大久保 正作	林 雅彦
	青い影	あおいかげ	Aoi Kage	truncata	実方 一雄	林 雅彦
G	青影系	あおかげけい	Aokage Gp	truncata Gp		林 雅彦
	葵烏丸	あおいからすまる	Aoi Karasumaru	crassa (Ukiyo Gp)	佐野 寛	佐野 寛
G	葵玉扇系	あおいぎよくせんけい	Aoi Gyokusen Gp	crassa hyb.		佐野 寛
	葵御前	あおいごぜん	Aoi Gozen	crassa (Ukiyo Gp)	佐野 寛	佐野 寛
J	青い鳥	あおいとり	Aoi Tori	nitidula		渡辺 草波
	青い鳥錦	あおいとりにしき	Aoi Tori Nishiki	nitidula varieg.	渡辺 草波	渡辺 草波
?	青い夢	あおいゆめ	Aoi Yume	globosi.-maughanii?		西 雅基
	青い妖精	あおいようせい	Aoi Yōsei	bella	林 雅彦	林 雅彦
	青鬼コレクサ	あおおにこれくさ	Ao-oni Corexa	bayeri	林 雅彦	林 雅彦



## Total list of Haworthia cultivars published in Japan

### 品種名欄凡例 Legend for Cultivar/Group name

  で囲まれた名前は同一品種。Names enclosed in a red box are same cultivar.

太字名 Bold name : 正名 Accepted name 記述名(正式名)でかつ有効に出版された名前。

細字名 : 適格名だが有効出版でない名前(主に類似他品種や類似他個体と識別可能な特徴記載文がない等)。

Slim name : Admissible name without valid publication (mainly without sufficient description/diagnosis/reference).

品種名欄の赤字は重複名回避のための加字、またはラテン語型回避のための訂正。

Red letter in Cultivar/Group column is addition to avoid homonym or correction to avoid Latin form.

括弧内赤字は品種名を国際栽培植物命名規約に合わせるための削除文字。

Red letter in parentheses is rejected one to make the name in accordance with ICNCP.

### 備考欄凡例 Legend for Note

C: カクタスの略。= Cactus

©: カタログの略。= catalogue

品種名/グループ名	出版物(©はカタログ)	出版年	ページ	備考(異名、他文献等)
Cultivar/Group	Publication (©=Catalogu)	Year	Page	Note (Synonym, Other publications, etc.)
R-2	魅惑の多肉植物 玉扇	2011	34	'スーパーグリーン玉扇' 実生。
R42-4B	カクタス企画 © 82-11	1982	5	金子カクタス © 1987:6。
R-1	カクタスガイド 238	2006	15	'日光'と同じ?
ISI	多肉植物写真集 II	2011	69	錯誤名。正しくはISI実生(仮名)。
ISI万象 グリーン紋	ISIJ Newsletter 13	2000	8	
IS-1	金子カクタス ©	1990	裏表紙	カクタスニシ © 12号(1993) 14頁。
L.S. 1	ハオルシア研究 1	1998	20 (3)	今井実生一。ISIではない。仮名
アイオライト	愛仙園冬型多肉 ©	2011	23	
アイオライト錦	愛仙園冬型多肉 ©	2011	57	
アイガー	ハオルシア研究 27	2012	6	
愛新覚羅	ハオルシア品種名総覧	2013	この表	'ラストエンペラー' (山城)に対する代替選定名。
会津	カクタスガイド 309	2012	4	
アイスオーロラ	カクタスガイド 302	2011	8	
アイスクャンディー	ハオルシア研究 18	2007	2 (2)	
アイシャドー	カクタスガイド 259	2008	12	特徴の不明瞭な中間型。品種として疑問。
アイスパーク	カクタスガイド 314	2012	5	読み方は"あいすべるぐ"が妥当では?
アイポリー	ハオルシア研究 9	2003	裏表紙	銀河系ピクタ2次品種 Galaxy Gp
アイリス	多肉植物写真集 II	2011	41 正誤表	旧'マリリンA(仮名)'. 'アイリス'(Iris)と英文表記が同じ。
アイルミ	玉仙園 © ノア 1号	1980	5	魔女ガニ系
葵	サキュレント 462	2010	裏表紙	ハオルシア研究 27:10。火炎系。
葵一条	ISIJ Newsletter 162	2012	裏表紙	
青い狼	ハオルシア品種名総覧	2013	新名表	'大久保No.1玉扇'への新命名。
青い影	ハオルシア研究 5	2001	5 (1)	(Blue shadow)
青影系	ハオルシア品種名総覧	2013	玉扇Gp表	'青い影'などの艶滑窓緑島玉扇のグループ。
葵烏丸	ISIJ Newsletter 162	2012	裏表紙	本書品評会写真頁。
葵玉扇系	カクタスガイド 306	2012	8	'葵御前'、'玄武'などのグループ名。
葵御前	ISIJ Newsletter 162	2012	裏表紙	本書品評会写真頁。
青い鳥	紅波園 © 121号	1967	18	和名。シャボテン多肉大図鑑3:39, 81
青い鳥錦	紅波園 © 128号	1974	15	多肉植物写真集 II 51頁正誤表('青い鳥錦')
青い夢	カクタスガイド 259	2008	11	中間形態の育種素材。品種として疑問。
青い妖精	ハオルシア研究 16	2006	14 (5)	(Blue fairy)
青鬼コレクサ	堀川カクタス ©	1996	32	シャボテン100: 61。H. ao-oni との混同防止用加字。



表4-B-1. 万象類のグループ Cultivar Groups of Manzō Rui (Maughanii Gps)

群 Gun	系 (太字は基準品種) Group (Bold example = Type)		
射紋群 (放射紋窓の仲間) Shamon Gun (Radial marking Gps)	菊紋系 Kikumon Gp	中小型で比較的大い白線を菊の花状に展開する。野生株に近い形態。 Middle-small size. White lines are rather thick, markings look like chrysanthemum. Close to wild form. Examples 菊万象 (Kikumanzō)、菊一 (Kikuichi)	
	雅紋系 Miyabimon Gp	窓面がやや凹む。互いに連結した太い短白線が華やかに入る。菊紋系の発展型。 Window is slightly concave with many, thick, short white lines connecting each others. Examples 雅 (Miyabi)、雪姫万象 (Yukihime Manzō)、 comet (Commet)、サターン (Saturn)	
	細紋系 Hosomon Gp	大型大窓で窓は不透明。白線はやや緑がる。白線は細いが長いものが多く、鮮明なものから不鮮明まで。 Large plants with large opaque window. White lines are greenish. Lines are thin, but clear and long. Examples 大白菊 (Ō Shiragiku)、大ツボ万象 (Ōtsubo Manzō)、雪晃 (Sekkō)、白糸 (Shiraito)	
	太紋系 Futomon Gp	比較的少数の太く鮮明な白線を帯青色窓全面に放射する。 Rather a few, thick and clear white lines radiate on the bluish window. Examples 白馬 (Hakuba、M9)、ミレニアム (Millennium)、大宝万象 (Taihō Manzō)、飛雄馬 (Hiyūma)	
	雷紋系 Raimon Gp	多数の太く鮮明な、稲妻状(希に太網状)多分岐白線を窓全面に放射する。 Many, thick, clear, lightning-like white lines with branches spread on a whole window. Examples 丸窓型 雪国 (Yukiguni)、桃源郷 (Tōgenkyō)、獅子神 (Shishigami)、白蓮万象 (Byakuren Manzō) 巴窓型 ドラゴン (Dragon)、稲妻 (Inazuma)、ドリーム万象 (Dream Manzō) 角窓型 天雷 (Tenrai)、童夢 (Dōmu)	
	羽紋系 Umon Gp	白線は鮮明で非常に多く、かつ互いに連結して細い網目状や羽毛状に展開するもの。 Numerous, rather thin, fine reticular and feather-like white lines spread all over the window. Examples 白妙 (Shirotae)、羽衣 (Hagoromo)、飛鳥万象 (Asuka Manzō)、花菱 (Hanabishi)、火の鳥 (Hinotori)、雪葵 (Yukiaoi)	
	日輪系 Nichirin Gp	白線は中央部に集中し、窓中央部は白雲状になる。 White lines concentrate on the center of a window forming white cloud. Examples コロナ (Corona)、鳳凰万象 (Houō Manzō)、蜃気楼 (Shinkirō)、氷雪 (Hyōsetsu)、匠 (Takumi)、スワンレーク (Swan Lake)、アイガー (Eiger)、MS万象 (MS Manzō)、クリスタル万象 (Crystal Manzō)	
	無紋群 (無紋窓) Mumon Gun (No marking Gps)	おぼろ系 Oboro Gp	窓全面～窓の縁がやや白いパピラ(小乳頭突起)に覆われ、おぼろ月のようになる。斑紋はほとんどない。 Window is covered with semi-white papillae, looks like a hazy moon. No/few markings. Examples 朧月 (Oboro-zuki)、おぼろ万象 (Oboro Manzō)、アメーバII (Amoeba II)
		曇白系 Donpaku Gp	窓全体が白く濁り、紋様は全く/ほとんどない。窓は艶があり平滑。 Window is white and dull cloudy with no/few markings. Examples 白磁レンズ (Hakuji Lenz)、ソルトレーク (Salt Lake)、天照 (Amaterasu)
		芒日系 Bōjitsu Gp	ぼんやりとした白雲が窓中央部に幻日のように入る。 Thin white cloud appears only in the center of the window, like a parhelion. No other particular markings. Examples 幻日 (Genjitsu)、大鏡 (Ō Kagami)
レンズ系 Lenz Gp		無紋で白線も白雲も全く/ほとんどなく、窓はおおむね透明で盛り上がる。 Window is convex and translucent with no marking or cloud. Examples 無紋レンズ (Mumon Lenz)、紫レンズ (Murasaki Lenz)、ギヤマン (Giyaman)	
異紋群 (変わり紋窓) Imon Gun (Strange marking Gps)	冠雪系 Kansetsu Gp	白線極めて多く、または濃い白雲が窓全体を覆う。白すぎて紋様が見えない。 Very numerous white lines or thick white cloud cover whole window. No marking, just white. Examples 丸窓型 銀河万象 (Ginga Manzō)、雪小町 (Yukikomachi)、エベレスト (Everest) 角窓型 武蔵万象 (Musashi Manzō)、嵐山 (Arashiyama)	
	紫紋系 Shimon Gp	白線や白雲の他に太い紫褐色の線や島紋が入る。 Characterized by thick, brown-purple lines or islands as well as white lines or cloud. Examples 紫万象 (Murasaki Manzō)、大紫 (Ō Murasaki)、紫電 (Shiden)、菊花石 (Kikkaseki)、丹頂 (Tanchō)、紫皇帝 (Shikōtei)、かに星雲 (Kani Seiun) トリコロール万象 (Tricolor Manzō)、紫稲妻 (Murasaki Inazuma)	
	蒼窓系 Aomado Gp	透明感のある青白い窓が特徴。紋様はやや少ない。 Characterized by somewhat translucent, glaucous window. Marking is rather a few. Examples オーロラ (Aurora)、春雷 (Shunrai)、網笠 (Amigasa)	
	変目系 Henmoku Gp	太い白線が直線状や放射状でなく、曲線模様になる。 Characterized by thick, curved (not straight/radiate) white lines on the window. Examples 妖天変目 (Yōten Henmoku)、実方変目 (Sanekata Henmoku)	

表4-B-2. 窓型による万象の区分 Window forms of *H. maughanii*

丸窓型 Round window (R型)	丸い窓(やや三角形型やや角ばるものも含む。)
巴窓型 Comma window (C型)	丸い窓の一部が尾状に飛び出したり、丸みを帯びた横長型になるもの。
角窓型 Angular window (A型)	角が出て角ばった四角形やアレイ型(鼓型)になるもの。



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① タイガーモザイク系 Tiger Mosaic Gp 優秀賞  
五十嵐昌司氏栽培。タイガーモザイク系（白地に黒線）の優品。  
Good balance of nice leaf form & markings. By Mr. Igarashi



② ‘オルフェ’ ‘Orfeu’ 小沢直樹氏栽培。(育成/命名：林)  
最も黒線の太い黒ピクサだ作りにくく、これほどの大株は稀。  
Thickest line clone in Black Pixa Gun. Difficult to cultivate.



③ ‘白雪姫’ ‘Shirayuki-hime’ 小沢氏栽培。(育成：塚原)。  
銀河系ピクサの代表。中苗だが、白点の白さと大きさは際立つ。  
Representative of Ginga Gp. Flecks are very large and white.



④ パンドラ系 Pandora Gp 磯崎弘氏栽培(育成：大久保)  
パンドラ系優品。パンドラ系は金属光沢の鈍く光る密白点が特徴。  
Nice clone of Pandora Gp with thick, metallic & glossy flecks.



⑤ ‘青天の光’ ‘Seiten-no-hikari’ 小沢氏栽培 (大桑実生)  
萌黄(もえぎ)系。大型黄緑肌ダルマ葉で‘縞緑’より線少ない。  
Typical form of Moegi Gp with large size, yellow & fat leaves.



⑥ ‘早春賦’ ‘Sōshunfu’ 小沢直樹氏育成/命名/栽培。  
青木ダルマ系の中では緑地が非常に太く、白点との対比が良い。  
A nice clone of Aoki Daruma Gp with very thick green lines.



ハオルシア フェスティバル(2013) 品評会 スプレ他 Haworthia Festival (2013)



① 'マルクスレッド' 'Marx Red' ピクサ・スプレ賞。  
池田氏栽培品。身割れし易いが、非常にうまく作っている。  
Large flat window is filled with many reddish, metallic flecks.



② 'メロウ' 'Mellow' ('天使'や'スーパーホワイト'は異名)  
花井氏栽培。オードリー系の元親。非常に白くツルツとした艶窓。  
A Parent of Audrey Gp. Very white, shiny & smooth window.



③ 'シルバーキング' 'Silver King' 押尾氏栽培品。  
中小苗だが、中心部には特徴である釉葉状の溶融白点が出始め。  
Fused white flecks are coming in the center area leaves.



④ 'トトロ' 'Totoro' Marx氏実生。大桑氏育成/命名。  
径13m、葉幅4cmの極大型 H. sple. v. ingoi。'紫式部'に近い。  
Very large form of H. sple. v. ingoi, reaches D=13cm, LW=4cm.



⑤ '昇竜帝' 'Shōryūtei' その他軟葉系賞 萩原氏育成/栽培。  
'昇竜' x ビグマ。'昇竜'より短葉で外反する。斑紋はより鮮明。  
Leaves shorter than 'Shōryū' & recurve. Markings clearer.



⑥ '昇竜殿' 'Shōryūden' 萩原氏育成/栽培。  
'昇竜帝'兄弟。草姿、葉型は同じだが、葉色はより淡褐色。  
'Shōryūtei' brother. Similar plant & leaf form but lighter color.



## Succulents at the Maharaja Agrasen Model School, Pitampura, Delhi, India.

In *Alsterworthia International* Volume 10, Issue 3 an article was published about haworthias at the above school with a selection of photographs. A further selection of photographs of related genera taken by Mr. Soumen Aditya, Calcutta is published below. The collection is being look after by Mr. Shanker Lal Gupta

The genus *Astroloba* is numerically small containing, according to the *Illustrated Handbook of Succulent Plants - Monocotyledons*, only 6 species: *bullulata*, *congesta*, *corrugata*, *foliolosa*, *herrei* and *spiralis*. Many more names may be encountered, but they are all synonyms.

The species photographed at the School is *Astroloba herrei* (Fig. 1). In addition a photograph of unknown origin (Fig. 2) showing *A. herrei* growing outdoors, but not in India, has been included for comparison.

The genus *Astroloba* was erected in 1947 by Uitewaal. It has persisted to this day, but are its days now numbered? Following on from the DNA studies of Daru et al. 2013, *Astroloba* has been included in the genus *Tulista* along with *Poellnitzia*, haworthias of Sect. *Robustipedunculares* and *Aloe aristata* (*Generic Concepts in the Aloaceae Part 4. Haworthiopsis & Tulista - Old Wine in New Bottles* by Gordon Rowley. *Alsterworthia International* 13(3)6-15, November 2013.). Visually these are quite dissimilar plants. What will nursery men and collectors make of all this?

The DNA studies of Daru et al. confirm *Gasteria* as a genus in its own right. *Gasteria pillansii* var. *pillansii* (Fig. 3.) with its broad, strap-shaped, distichous leaves, is a popular representative of the genus. There are two other varieties, var. *ernesti-ruschii*, which is distinguished by its much shorter leaf length (less than half that of var. *pillansii*), and var. *hallii*, with ascending, spreading, somewhat smaller leaves than var. *ernesti-ruschii*.

In *Gasteria nitida* the leaves are short triangular, distinctly keeled and erect to erectly spreading with faint white spots (Fig. 4).

1. *Astroloba herrei*



2. *Astroloba herrei*



3. *Gasteria pillansii*  
var. *pillansii*



4. *Gasteria nitida*



At one time *Gasteria armstrongii* was included as a variety of *G. nitida*, but, following a study of nuclear DNA content, it was returned to species status (see *Taxonomic implication of genome size for all species of the genus Gasteria Duval (Aloaceae)* by Zonneveld and Jaarsveld, *Alsterworthia International* 8(3)4-12, November, 2008). The leaves of *Gasteria armstrongii* are distichous, as are those of *G. pillansii*, but tuberculate to rarely smooth with the leaf apices often retuse to occasionally more pointed. A range of variegated *armstrongii* cultivars have arisen or have been produced with varying amounts of yellow variegation and variable numbers of tubercles. They have been widely distributed. A selection photographed by Soumen Aditya, which demonstrate the varying amounts of yellow variegation, are



shown at figures 5-10. Fig. 11 is a photograph taken from P.A.S.C. Volume 3 of a Japanese cultivar named *Gasteria armstrongii* 'Yellow Cow'. Photographs 5-11 all show yellow variegation in varying amounts in *G. armstrongii* (the possibility of hybrid genes in one or two cannot be ruled out). The consistent feature is the yellow variegation, which could distinguish them all as 'Yellow Cow', which would not allow for different amounts of



yellow to be distinguished by cultivar name. This is one of the problems of naming cultivars. A broad definition of a character does not permit individual distinction of a variable character by name, but, if each variation of the feature is given a separate name,

many names are created with only small difference: inconsequential some may say. Fig. 12, is clearly a different cultivar, the distinguishing feature being the colour.



# *Haworthia obserata* sp. nov. J. G. Marx

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Publication date: 25th January, 2014.



1. The fynbos habitat on top of a low hill on Brandrivier farm, habitat of *H. opalina* and *H. obserata* sp. nov.

## Abstract:

A new species of *Haworthia* (Asphodelaceae, Aloaceae) subgenus *Haworthia* is described. It is known only from a small area (Fig. 1) on the farm Brandrivier, east of Barrydale, in the Little Karoo. Although its habitat is north of the Langeberg Mountains and it shares a few superficial similarities with the geographically nearby *Haworthia breueri* Hayashi, it is closer related to the summer-flowering elements like *Haworthia magnifica*, *H. mirabilis* and *H. groenewaldii*, which are found south of the mountain range.

## Type:

South Africa, Western Cape Province, Brandrivier,



2. The typical appearance of *H. obserata* in habitat, small and rarely with more than seven leaves.



3. Despite being fully mature, these two plants of *H. obserata* have only four leaves each.

between Barrydale and Garcia's Pass. Martin Scott - WMS 102 (holotype, GRA, ex cult).

## Geography and general appearance:

*Haworthia obserata* (Figs. 2-7) is close to *Haworthia breueri* Hayashi, but plants have fewer leaves, smaller teeth on leaf margins, fewer flowers per raceme, smaller and narrower perianth lobes and flowering occurs five months later. Closest affiliation is with *H. magnifica* and *H. mirabilis* from which it is geographically separated.

## Description:

**Plant** strictly a solitary rosette, flattened bell-shaped from side view, up to 7 cm in diameter and to 2.5 cm





4. The largest *Haworthia obserata* seen in habitat, showing longer and sharply pointed leaves with sparse and small rough tubercles on the upper surfaces.

5. A plant of *H. obserata* hiding amongst thatch-reed.

6. *Haworthia obserata* in cultivation. Compare the slim peduncle buds with the robust peduncle (typical of the *H. emelyae* group) in the photo of *H. multifolia*, page 21.

7. *H. obserata*, a close-up view of the leaf surface texture and colour in cultivation.



deep; leaves thick and fleshy, to 20 mm wide and 32 mm in length, average 6 per plant in habitat, but up to 14 in cultivation; windowed upper surface area triangular from above, surface subtly scabrid with numerous minute sharp papillae, flattened but slightly convex, up to 18 mm wide and 22 mm long ending in sharply acuminate and slightly sideways twisted tip; dark grey-green in colour with few off-white parallel facial lines, occasionally some white, soft-edged dots in-between towards the narrowing end area. Facial lines consist of densely grouped white longitudinal flecks, occasionally with few broken opaque dark green to brown islands in the centre, a few stretching almost to the leaf tip, others about a third as long. Lower leaf keeled only near the tip for about 4 mm, keel always with slight sideways twist; margins smooth from the base for half the leaf length, thereafter bearing numerous minute teeth up to the leaf-tip, lower leaf surface smooth, dark brown-grey gradually blending into light green towards the base.

**Roots** numerous, up to 18, thick and fleshy, up to 9 mm thick near the base and



narrowing towards the tips, up to 10 cm long (root measurements apply to plants in cultivation).

**Inflorescence** a solitary slender raceme up to 42 cm long including peduncle, 3 mm wide at base with up to 15 sterile bracts, 3mm wide and 5 mm in length with dark brown median line; raceme to 130 mm long bearing 12 to 15 spirally arranged flowers. Pedicels to 1.5 mm long. Fertile bracts 3mm wide and to 6 mm long, deltoid, acute, with dark brown to maroon dusky central line with subtle pink cloudy patches near the recurved lobe tips. Floret to 16 mm long, white with each lobe having a dark green to brown soft-edged median line on both sides, wider stained on the inside; perianth to 4 mm thick, free portions of upper lobes strongly recurved at the tips, lower lobes curving downward for a third to half their length.

Ovary 3 to 3,5 mm long, 1.5 mm in diameter, dark green. Style 1 mm long, curving upward. Stamens up to 6 mm long.

Fruit to 16 mm long, 4 mm in diameter, smooth, bluish green. Seeds to 2.5 mm in length, 1 mm wide, with flattened lip along angles, dark grey-brown, tuberculate.

The area immediately north of the Langeberg and Outeniqua mountains appears to be a transitional zone where some *Haworthia* elements that are mostly confined to the area between the coast and the mountains seem to have ‘bounced’ across the mountains to blend with the elements that are limited to the Little Karoo areas. These ‘intermediate’ populations are difficult to place as they may contain features of both the coastal as well as the Little Karoo residents. Examples of such cases are *H. indigoa* and *H. truteriorum* occurring immediately north of the Outeniqua mountains and both showing some shared leaf features with the Little Karoo-confined *H. bayeri*, while both are much closer linked to the coastal *H. mirabilis*-*H. magnifica* groups in terms of flower characters and flowering time. The intimidating presence of the dividing mountain range would cause a geographically-based species concept to force these elements into close association with the Little Karoo species while a biological species perception would emphasize the close relationship suggested by the flower features and flowering time to the coastal elements to the south-west. As a result of the latter conflict it may be best to regard these transitional elements currently as separate species in their own right as the differences from both their northern and southern relatives are significant and any attempts at lumping are dependent upon forceful artificiality. The new species described here is another case of such an intermediate element occurring on the farm Brandrivier on the northern foothills of the Langeberg mountain range.

The chosen name for this distinct component within the genus *Haworthia* refers to the fact that its existence has been concealed by both artificial incarceration and various other obscuring factors. It grows extremely well hidden in the close company of the large and



8. The flower peduncle of *H. obserata*. Compare with the flower peduncle of *H. breueri* (Fig. 10) to see that the flowers are less densely arranged and slightly smaller in size.

9. A closer view of the flowers of *H. obserata* with scale indication.

10. The flower peduncle of *H. breueri* (GM 449) with flowers more densely arranged and tips of perianth lobes spreading more widely open.



remarkably unique and equally rare *Haworthia opalina*. The attention and attraction generated by the well-known *H. opalina* amongst succulent enthusiasts have not been welcomed by the landowners and for the past decade or more succulent tourists as well as botanical researchers, regardless of how impressive their credentials, have all strictly and unapologetically been denied access to visit the locality.

In addition, the Brandrivier area falls within a rather peculiarly puzzling and somewhat illogical juxtaposition of *Haworthia* populations. At first glance the new *Haworthia obserata* can be easily mistaken to represent a form of *Haworthia breueri*, particularly if the observation is largely influenced by the fact that *H. breueri* occurs relatively nearby towards the east.

Another loosely similar retusoid *Haworthia*, *Haworthia multifolia* (*H. emelyae* var. *multifolia* Bayer), grows even closer at hardly more than one kilometre away. Both *H. breueri* and *H. multifolia* are linked to the *H. emelyae/picta* group in terms of shared flower features and early spring flowering habits.

The flower features and flowering time of *H. obserata* links it intimately to the summer-flowering *H. mirabilis*-*H. magnifica*-*H. maraisii* group. *H. obserata* flowers rather late in summer, mainly during March and early April.

On the neighbouring farm Klein Doornrivier and only three kilometres to the west of the Brandrivier locality of *H. obserata* grows a form of *H. maraisii* that also shares the same flower characters and flowering time as *H. obserata*. The Klein Doornrivier plants differ substantially in terms of leaf colour and shape as well as the number of leaves per rosette from *H. obserata*, but the flower features indicate a much closer relationship between these Klein Doornrivier plants and *H. obserata* than to the *H. emelyae/picta*-related elements to the east of Brandrivier.

As mentioned, if one's observations are influenced by the geographic situation of *H. obserata*, then one could easily be tempted upon first impression and brief superficial observation to link it to the nearby-occurring *H. breueri*. The fact that the flowers and different flowering season indicate that in reality there is not a close relationship with *H. breueri* is yet another example of the precariously deceptive nature of *Haworthia* elements. The challenge of studying this variable genus lies in the fact that frequently the features that may appear to the indiscriminating observer like similarities are in fact deceptive disguises concealing rather significant differences.

In general, however, the morphological features of *H. obserata* sp. nov. also compare quite correspondingly to *H. magnifica*-related elements occurring to the south of the Langeberg range. It can look rather similar to some forms of *H. magnifica* found to the east of Riversdale, but also comes surprisingly close in appearance to the variety of *H. groenewaldii* growing

along the eastern border of the Bontebok National Park. The latter *H. groenewaldii*-linked component differs to such an extent from the typical form of the species growing further east near Mullersrus that it probably deserves full varietal status at least.

#### History:

It was mentioned above that the chosen name of the new species partially refers to the artificial isolation measures applied by the current landowners. In view of the latter, the habitat photos published herein as well as the origin of the Type specimen need some explanation.

On 11 August 2008 I was fortunate enough to visit the locality of *H. opalina* accompanied by Ernst van Jaarsveld and Bruce and Daphne Bayer. The visit was the result of months of diplomatic negotiations and arrangements done by Ernst van Jaarsveld. In addition to Ernst's unique diplomatic skills and kind personality, as well as being such a well-known succulent celebrity from numerous TV appearances, it also helped significantly that Ernst was well-known and trusted by the original owner of Brandrivier farm who is the father of the two brothers who are the current owners.

The main aim of the visit was to see and photograph *H. opalina* in habitat. On a mild sunny day in August we all met at the Brandrivier homestead and were then accompanied by Mr George Nel to the *H. opalina* locality on top of a low hill not very far from the house. It was quite a thrill to see *H. opalina* in the flesh and we all made sure to appreciate every moment of the extremely rare opportunity. After having taken more than enough habitat pictures of *H. opalina*, I started searching a little distance away from the *H. opalina* spot to see if I could find *H. multifolia* (= *H. emelyae* var. *multifolia* sensu Bayer), which was reported to be growing not far from *H. opalina* by Kobus Venter. Kobus visited the locality during 1994 when the more hospitable Mr Nel senior was still in command on the farm and Kobus reported having found *H. multifolia* nearby *H. opalina*.

I searched thoroughly, literally, under every bush and finally encountered a very well-camouflaged dull grey coloured retusoid *Haworthia* growing there. It did not look like *H. multifolia* at all, but I vaguely remembered Kobus Venter's comments that in the Brandrivier population the plants are more robust. So, at the time, I assumed that it must be how drastically different *H. multifolia* looks at this locality and so too did Bruce Bayer when he saw the plants I had just found. Afterwards, in his *Haworthia Update* Vol. 6 he published photos of these plants under the caption "MBB 7846. *Haworthia emelyae* 'multifolia' Brandrivier" (p.30, 31). Back home I immediately looked up the published habitat photo taken by Kobus Venter of 'JDV 94/32, *H. emelyae* var. *multifolia*, Brandrivier' (see photo on p. 71 of *Haworthia Revisited* by M.B. Bayer). The green erect-leaved rosettes of the plants on the latter photo really look nothing at all like the flattened dull grey-green plants I



found near the *H. opalina* population on Brandrivier. In fact, the plants I observed there have mostly only 5 to 7 leaves per rosette while the *multifolia* plants on Kobus' photos showed plants with over 20 leaves per rosette. In addition to the differences in leaf shape, size and colour, I became convinced that what I saw on Brandrivier was not *H. emelyae* var. *multifolia* at all. Even more important, the time of our Brandrivier visit (mid-August) is the start of the flowering season for *H. breueri*, *H. multifolia*, *H. emelyae* and relatives while these Brandrivier plants showed no sign of developing buds (as can be seen on the habitat pictures figs. 2-5). A few months later I discussed the Brandrivier visit with Martin Scott since he too, like Kobus Venter, had been allowed to visit the *H. opalina* population way back during the early 1990's and I wanted to know whether Martin had perhaps also seen the strange dull-grey retusoid *Haworthia* there. Yes, indeed, he said, but not as close to the *H. opalina* population as I had found the plants; Martin found a population of them on the adjacent low hill immediately to the east. Martin was allowed to collect some leaves of a few clones (WMS 102) and these produced plants which he still has in cultivation. Despite regular successful propagation from leaves, Martin has not been able to propagate it in such good quantities from seed as one can easily do with *H. emelyae* relatives like *H. multifolia* and *H. breueri*. Most summer-flowering haworthias (for example *H. splendens*, *H. maraisii*, *H. marxii*, *H. archeri*, *H. dimorpha*, *H. wittebergensis*, etc.) are considerably more difficult to propagate from seed than spring-flowering species. Martin was kind enough to give some of his original material to me to study under cultivation and to see if they would be more willing to produce seed for me in my cooler and well ventilated

greenhouse situated high on a hill slope outside Oudtshoorn. One of these WMS 102 samples also became the Type Specimen, sent to GRA.

During the past four years I have now also consistently observed the late summer flowering time of this species (March) as well as its reluctance to produce abundant fruits despite careful hand-pollination and the resulting seedlings are very slow in development, much slower than any *H. emelyae/picta* relatives.



11. *Haworthia multifolia* Brandrivier. Less than 2 km to the east of the habitat of *H. obserata* grows this rather typical form of *H. multifolia*. Note the robust flower peduncle.



12. *Haworthia breueri* in habitat on the farm Waterval, 30 km east of Brandrivier. Note the more roughly toothed, longer and narrower leaves and rosette consisting of well over 20 leaves





13. *Haworthia groenewaldii* var. nov. Rotterdam. Some plants of the variety of *H. groenewaldii* on Rotterdam farm along the eastern border of the Bontebok National Park also show a few superficial similarities to *H. obserata* in terms of leaf colour, but a more important affinity is in the shared flowering time.



14. *H. magnifica* TL Werner Frehse Reserve, the type form of *H. magnifica* in the Werner Frehse Reserve, south-east of Riversdale.



# Comments on Haworthia Academy Photo Album, Haworthia Study No. 28 - Total List of Haworthia Cultivars and Other Related Matters.

Crucial to any understanding of printed material is a comprehension of background and motivation for printing.

Mr T. Sato is a well-known Japanese nurseryman who creates and sells *Haworthia* cultivars. He is also the editor and publisher of the Photo Album. In the compilation of the book he has been assisted by a group of people who have supplied photographs. I understand they are collectively the Haworthia Academy.

The Japanese Haworthia Society, Alsterworthia International and many nurseries all have an interest in an increasing production of different cultivars, the two former because this is what interested members want and the latter because it helps to increase sales and profits. Both societies, formed about the same time, set out to promote compliance with the International Code of Nomenclature for Cultivated Plants (ICNCP), as compliance with it helps to avoid confusion e.g. the same cultivar name being used for very similar, but inferior, plants and duplicate names being given to existing cultivars, both of which may help to promote sales.

Under the provisions of the ICNCP International Cultivar Registration Authorities (ICRA) have been appointed for some genera, but not for *Haworthia* nor for *Gasteria*, *Aloe* (as the *Aloe* ICRA was disbanded some years ago), related small genera and their nothogenera. ICRA vet new cultivars to ensure they comply with the Code and register them with a reference to the publication which established each name. However, when there is no appointed ICRA for a genus there is no central organisation to do the work and no central records are available for the public to consult. Whatever records are kept by individuals and societies etc. are fragmented throughout the world in a wide range of publications in many languages. Occasionally an individual or a society may voluntarily check compliance with the Code and maintain lists of established and invalid cultivar names, but there is still no central record available for consultation. Whatever records there are may or may not survive their compilers, but, in the case of the Japanese Haworthia Society and Alsterworthia International, steps have been taken to ensure that their records are passed on, if this becomes necessary, either for record purposes of to assist a new ICRA.

Alsterworthia International is attempting to rationalise names in accordance with the ICNCP and maintain list of cultivar names established and not established for the genera *Aloe*, *Gasteria*, *Haworthia*, related small genera and nothogenera. It has already published Volume 1 of Cultivars and Hybrids of the Succulent Asphodelaceae which includes aloes, gasterias, small related genera and nothogenera and

Volume 2 for haworthias. A third is in preparation. It will include all these genera, but no others except new genera and nothogenera created as a result of any new field work and DNA work done subsequently.

The Japanese Society is concentrating on Japanese *Haworthia* Cultivars. There are many of them, as far back as 1905. Dr Hayashi, the editor of *Haworthia Study*, is a prime initiator of the Japanese Society project to rationalise Japanese cultivar names. He is also a creator of cultivars and takes the view that the ICNCP should be complied with because it protects the interests of legitimate nurserymen and collectors who wish to maintain standards by enforcing the Code to avoid the less scrupulous exploiting the markets by using misleading names.

The Japanese Society has spent many years tracing cultivar names and their original publication details or, where this has proved impossible, confirming the correct name and eliminating incorrect names. The result is *Haworthia Study No. 28 - Total List of Haworthia Cultivars*. I have been assured that the published names are correct as are the synonyms etc.

Table 1-C reproduced on page 7 shows the number of cultivars published in Japan from 1905 to 2012, a total of 5250. Those published in the last 5 year 2008-2012 are further analysed in table 1-D-1 also reproduced on page 7. Of 2785 names published in this period 393 (14%) were homonyms with 70 (3%) being published by the same publisher and in addition 70 (3%) were doubtful names with no distinction as a cultivar. The problem of incorrect names is clear from these details.

As mentioned in the information provided for *Haworthia Study No. 28 - Total List of Haworthia Cultivars*, the only photographs provided are for prize winning and other outstanding plants at the Japanese *Haworthia Festival 2013*. Perhaps the 1152 photographs in the *Haworthia Academy Photo Album* (the Album) published about the same time might provide illustrations for some of the cultivars in No 28? I selected Category 8 from the Album, as it contains only 9 cultivars, one of which has no cultivar name, and looked up the cultivar names in the No. 28 English Index. The results are shown in the table overleaf. A number of points need to be made. In order to comply with Articles 14.1 and 21 ICNCP, the cultivar epithets (names) in the Album should **not** be in italics and each word in a non-hyphenated name should commence with a capital letter, as is done in No. 28. One of the values of No. 28 is that it provides a list of valid names for Japanese cultivars. If everyone uses this list duplicate names should be avoided and confusion about what is being bought when a cultivar is ordered should also be avoided. Time will tell whether all the names are accepted, but,



Album Bilingual Cultivar Name Index	No. 28 English Cultivar Name Index
<i>Benisetsukouden</i>	Not listed
<i>Ruriden shorofu</i>	Ruriden Shironorifu
<i>Zuikakunisiki</i>	Zuikaku Nishiki
<i>Matsunoyukinishiki</i>	Not listed
<i>Donut fuyunoseizanishiki</i>	Donut Fuyu-no-seiza Nishiki
<i>Someinishiki</i>	Not listed
<i>Viscosanohikari</i>	Not listed
<i>Yushi no hikari</i>	Yushijo-no-hikari

duplicated material,...”. Then follows a list of unacceptable methods of publication including “(d) publication by electronic media (but see Rec. 25B.2 and Art. 26, Note 1)”. 25B.2 states “Where a trade catalogue is published in electronic media, its formal publication may be effected by the printing and deposit of two copies in a designated library.....”. Art. 26 Note 1 “Where a dated trade

in the meantime, using No. 28 for Japanese *Haworthia* Cultivars should now be standard practice. If any problems have crept in they will soon be detected and corrected. I drew the discrepancies shown in the above table to Dr Hayashi. He explained that, unfortunately, many large nurseries in Japan, which published *Haworthia* cultivar names, did not follow the ICNCP and that some names in the Photo Album are invalid under the ICNCP. If nurseries did comply with the Code sales might suffer. So, some still publish invalid names. One reason given for this is that there are no prescribed penalties for non-compliance with the ICNCP so, in the perceived best interests of business, some nurseries ignore the Code. This does seem to work for them, because *Haworthia* markets are not perfect and not fully informed. Other nurseries, however, do comply with the Code in order to keep up the quality of their cultivars for the benefit of customers. All nursery sales interests are not identical and are in conflict to the confusion of plant purchasers, the benefit of the some sellers and to the disadvantage of other sellers.

The ICNCP does not have the force of law, but Dr Hayashi tells me that in Japan the law itself does provide protection for plant purchasers because it is an offence under Japanese law to use duplicate names (homonyms, synonyms etc.) for plant sales. There are big fines and imprisonment for violation of these laws. Dr Hayashi has advised nurseryman of the existence of these laws and their penalties. Most claimed not to know of them. Perhaps the interests of these nurseries would be better served if they did comply with Japanese law and as a result comply with the ICNCP. **Watch this space!**

The non-legal, but still quite legal, “penalties” available to support the Code are that responsible journals may refuse to publish invalid name if they can determine which they are (but who controls the web) and publish only the established names. Customers can also exert pressure by asking nurseries “Who created the cultivars you are selling?” and also ask them to state where the name of the plant they are selling was validly published under the provisions of the ICNCP. Criticising those nurseries which mislead and praising those which do not should help. Public opinion can be quite persuasive. If this is done often enough nurseries will soon make sure that they have this information available.

Regarding web publication, Article 25.1 of the ICNCP states “Publication is effected under this Code by distribution of printed or similarly

catalogue is printed from an electronic medium, the date of publication is taken to be the date recorded by the designated library of when the two copies were receive”.

Using the internet to publish and establish cultivar names is not as simple as some people seem to believe. It is **not** just a case of sending a photograph to Facebook or any similar site with a few comments. Wherever it is published it must record the parentage as fully as possible and **must** have a description which distinguishes it from other cultivars; all the provisions of Article 21 have to be complied with. One or more good photographs should also be supplied because they provide visual proof of the description in the printed form and can also act as the nomenclatural standard instead of an herbarium specimen. Cultivars are registered by ICRA but **not** when one does not exist! Other possibilities for registration exist and normally take the form of the deposition of the appropriate journal with that authority.

I understand that Dr Hayashi is willing to print new cultivars in Japanese in *Haworthia* Study and ensure that they comply with the ICNCP. I do the same in English in *Alsterworthia* International. Both will ensure that the journal containing the description will be sent to the appropriate authority for registering as the Nomenclatural Standard. If you allow either the *Haworthia* Society of Japan or *Alsterworthia* International to publish your new cultivars you can be certain all the necessary requirements will be satisfied

Back to the two books! It is clear that they serve different purposes. The Photo Album is primarily a visual delight with some names not in accordance with the ICNCP, whereas the unique Total List of *Haworthia* Cultivars provides comprehensive, factual information about established Japanese *Haworthia* cultivars over the period 1905-2012. Details of names published subsequently will be the subject of future publications. They are likely, therefore, to appeal to two categories of people with different interests, assuming any lack of knowledge of the Japanese language can be overcome.



## Contacts for publishing new cultivars in *Alsterworthia International* or *Haworthia Study*

### Publication in English

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### ***Haworthia* 'Indira Priodarshini' Soumen Aditya**

This cultivar was published in *Hybrids & Cultivars of the Succulent Asphodelaceae Volume 2 - Haworthia*, page 28.

As Soumen has very kindly sent me another photograph I am including it in this journal for your enjoyment. The plant is older and larger than that in Volume 2. It has been grown and photographed in much stronger light, which has intensified the greyish windows and somewhat reduced the intense mid-green of the leaves. These differences are no doubt due to fluctuating environmental conditions. Otherwise the plants are identical and the same cultivar. The parents are



(*Haworthia springbokvlakensis* x *Haworthia mirabilis* v. *mundula*) ♂ x *Haworthia retusa* v. *longebracteata* ♀.

### **Hybrids & Cultivars of the Succulent Asphodelaceae Volume 2. *Haworthia*.**

Harry Mak has pointed out that his P.A.S.C.Vol.3. is not the correct citation reference for his *Haworthia* 'Wonder Park' (page 63). The correct reference is *Haworthiad* 16:2(55-57) 2002



# Leaf sequence in a *Haworthia emelyi*

**Bruce**

Here is an interesting series of pictures showing *Haworthia* leaf replacement over only 20 months.

The plant is in an outdoor rockery.

Leaves are numbered from the oldest to the youngest. Leaf loss has not been quite sequential.



**Fig. 1** shows 10 all healthy leaves in summer.

**Fig. 2**, autumn, shows that leaves 1 & 4 have died and that 2, 5 & 8 have some die back from the leaf tips.

Leaf 3 is showing typical signs of forthcoming death.

Two new leaves 11 & 12 have been produced. 10 leaves in total.

**Fig. 3**, spring, shows that leaf 3 has died and 2, 5 & 8 have the arrested leaf tip die back. The start of a new leaf 13 has just begun. 10 leaves in total.

Editor.

In the growth condition of September 2012 the leaves show three tiers viz. 7,10,13 / 2,5,8,11 / 6,9,12.

Figure 4 for December 2012



# ae 'comptoniana'

## over a 20 month period.

### Bayer

illustrates the “5-tiered” artifact of the spiral sequence with leaves 15/10, 14/9, 13/8, 12/7 and 11/6 in each tier.

These pictures demonstrate that the

**Fig 4** shows that leaves 2, 5 and 6 have died. This photograph clearly shows the decrease in size of the clone from 10 leaves in December 2011 to 8 leaves in December 2012. The dead remains of 6 can just be seen and the tip of emergent leaf 15 is about to push the gravel aside.

**Fig. 5** reveals that leaf 8 has died but 7 is still very much alive. The new leaf 16 is just visible. Total 9 leaves.

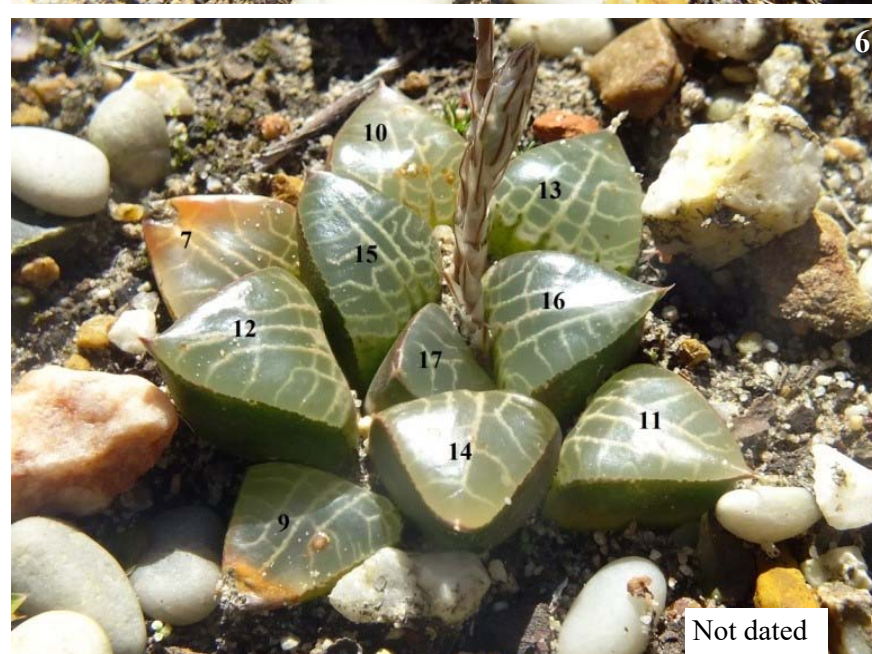
**Fig. 6**, which is undated, shows a burst of growth which has resulted in new leaves 16 and 17 pushing out between 13 and 11 with no leaf losses. In fact the clone has increased to 10 leaves the same number as in figure 1, December 2011 and leaf number 7 still persists!

**Note** that the leaf colour changes with the seasons; reddish brown in the summer, December, to green in the winter with a light tinge of reddish brown in-between seasons.

**Thought for the day!** Long lived leaves are better for leaf propagation than short lived leaves.

Editor.

plants grow quite fast. They may not be very long-lived in nature. I estimate a life span of 15-20 years?







**‘水晶コンプト’**

直径 8 cm

育成者 萩原 文男

命名者 萩原 文男

中型コンプトだが、窓が非常に透明で、網目模様も太くて鮮明。兄弟株あり。

**‘Suishō Compto’**

Breeder/Author:

Mr. Fumio Hagiwara

**Gold Prize of Japan  
Haworthia Cup (2013)**

A medium size Compto with translucent window and clear, reticular, thick markings.

**Two winners of the  
Gold Prize of Japan Haworthia Cup  
Haworthia Festival 2013**



**‘極楽殿’**

直径 11 cm

育成者 小沢 直樹

命名者 小沢 直樹

“小沢ピクタ”の代表作の一つ。白点が非常に多く、厚く、地の緑線はブロック状になる。

**‘Gokuraku-den’**

Breeder/Author:

Mr. Naoki Ozawa

**Gold Prize of Japan  
Haworthia Cup (2013)**

White flecks are very dense & thick, resulting somewhat reticular, green ground markings.