# The Review



The Group for Beardless Irises
Issue no 13 Autumn 2016

#### New Plants for 2017



Siberian 'Moonstone Marvel' © Terry Aitken



Sdlg 511-52-2015

Seedling showing lovely contrasting styles.

© Jan Sacks

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Front Cover Siberian 'Swans In Flight'  ${{\mathbb C} Bob\ Hollingworth}$  (see page 3)

#### **Editor's Notes**

Brita Carson

40 years. This year is the ruby anniversary of the Group for Beardless Irises. Jennifer remembers clearly the day it all started and she has written a few lines about that day and those immediately following.

#### Earliest Days - Jennifer Hewitt

Looking back, through my mind's eye, to an upstairs room in the RHS New Hall in June 1976, I wonder whether I'm the only one left of the 16 or so people who met at Alex Back's request to discuss the formation of the Siberian, Spuria and Japanese Iris Group? Do let me know if I'm wrong; there were certainly more who were interested. In fact we didn't discuss the idea, we all agreed and the S.S.&J. was born. Alex was clearly the kingpin as secretary; I became chairman as everyone else had a good reason not to be and anyway the role seemed likely to be a purely decorative one. Doris Hansford was treasurer. The forecast was clearly bright and we tootled off knowing the new group was in safe hands.

Much less happily, the outlook a little over two months later was very different. Alex was killed in a road accident near his home and the responsibility for the group fell squarely on Doris's and my shoulders, and frankly we had very little idea of what to do next. Somehow we managed to limp along for the next year or two and then Joan Trevithick volunteered to become secretary and newsletter editor, and the rest of the story can be read in the newsletters since.

And after 40 years Jennifer is still writing about irises and her particular love, the Siberians, but the Group has expanded to now encompass all types of beardless irises. They haven't been the most popular herbaceous perennial which is a pity when they are very tolerant of so many different soil types, conditions and the extremes of the weather. We need to spread the word.

In this edition we have some great articles and another story about the 40s from Patrick Spence; a family of 5 generations of 'Banish Misfortune', my first favourite Siberian, by Marty Schafer; more cousins and other relations from Alan McMurtrie and his new Reticulatas and Philip expands on the problems of being the mother or the father of a PCI. A new pseudacorus from Brian Hersey decorates the back page. A bit more down to earth work to do when the weather permits for this time of year by Alun. Then there are good plant profiles of *I. lazica* by Charles Nelson and Brian Mathew's *I. milesii*. And see the fortunes of the beautiful pure white Siberian 'Swans In Flight'.

#### 'Swans In Flight'



Photo © Bauer/Coble

This pure white iris is a diploid that has worked its way up over many years to earn the very top American Award of Honour - The Dykes Medal. How did 'Swans In Flight' achieve this award. Before an iris can be entered for the top award it must first of all receive several others and 'Swans in Flight' started with an Honorable Mention in 2009; an Award of Merit 2011; the Morgan-Wood Medal in 2013; the Franklin Cook Cup in 2015 and the highest possible honour from the American Iris Society, the American Dykes Medal in 2016. Until now all Dykes Medals had only been given to bearded irises and this is the first time in the history of the American Dykes Medal it has been awarded to a beardless iris. It is not too tall at 33 inches with large flowers, produced from the crosses ((('Pink Haze' x 'Fairy Dawn') x 'Ueber Den Wolken') x 'Silver Illusion') X 'Springs Brook'. It is a late to very late bloomer.

Congratulations to Bob Hollingworth who has so successfully bred this iris.

#### **Chairman's Report**

Anne Blanco White

In some respects 2016 is a year I could have done without. The BIS itself had major problems in the administrative fields and I am thankful to say now that we have every expectation of doing better next year. We'd better. There is a new committee with a wide ranging field of work.

Plant behaviour was most peculiar. Certainly in the south it was a very wet winter and fairly warm. A great many trees came into flower early and continued flowering as if summer didn't exist. Irises didn't do so well. In general they prefer a drier winter with the extra rain coming as the snows melt from the hills. So flowering was spread out over time instead of allowing us nice bunches of spikes to bring to shows and the shows as a result were poorly furnished. It wasn't really any consolation that hunting through other Year Books for information there were regular plaints from show secretaries that the weather had let us down yet again.

None the less, it is arguable that we neglect all too many of the beardless irises we could well grow. Or could we? In this day and age, the operative word is *conservation*. And as members of the BIS we should conserve species forms in particular and the resulting cultivars in general. Granted that some species forms are difficult to obtain – the Syriacae for instance which leave most members looking a little puzzled – yet, if seeds did turn up in the Seed Lists would you try them? If people like Sir Michael Foster hadn't taken the trouble to try and grow plants from the middle east which everyone agreed couldn't be grown in England and then go on to hybridise them with plants from Europe which could be grown here, the iris cultivars of the world would be a miserable collection compared with their glories today. Somehow we prefer to stick with the plants which were produced 30 to 50 years ago. Worse still, we prefer to stick with the plants we installed in our gardens as long ago as that and we keep them because they are still doing well and we can recognise them and they remind us of the days when we were young.

It's not good enough either for us or the plants. If we want to try and dodge Dr. Alzheimer, we must use our brains and one way to do that is to introduce new plants to our gardens and see if they aren't actually as good as the ones we've been growing which, like ourselves, are getting on. And, with the way the climate is going it is important that we find out what really can be done to keep plants, from very different climates, going in this country. The original plants may deteriorate fairly fast, but if there are seeds — and you can hand pollinate — then there can be seedlings and they will not be identical. Some seedlings will die off quickly, others will survive to provide more seeds and so on. Kew made the shattering discovery that plants which

were believed to have flowers in only one colour could produce quite a range of colours when the seedlings were grown on. We need to be adventurous; try a little excitement instead.

Mind you, it is well known that cats have views on other families washing lines and will peacefully bring home examples of rather embarrassing underwear. I read in the paper recently of a cat which certainly did that, but had a preference for things like dogs toys, a football (don't ask me as it's not my cat) and the latest? A lily in a flower pot! Make a resolve today to buy an unusual set of iris seeds and germinate them and keep them safe from cats, birds and squirrels so that you can write to the Editor and say that you grew a really splendid iris which you had never seen before.

*Iris cycloglossa* taken in May and just a little late for perfection, but the decayed heads do show how many flowers there are to the acre. It's a crop, of course, but the original has a large Keep Off the Rocks notice which results in red splodges and they are astonishingly conspicuous. A Juno

which is very much a one-off for that family in that it prefers damper ground and is as hardy as I. bucharica Mine have suffered in the past from being dug up and thrown around by a squirrel. I hope to get one back to flowering but I dealt with the first batch of squirrels and now I think I'm being invaded from two other dreys.

Iris cycloglossa



#### **How Do You Cut Your Siberian Leaves?**

Alun Whitehead

The season's over - winter is approaching or upon us - how do you treat your Siberian irises? As we grow more than most, it is a question to which we often returned over the years.

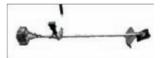
Well firstly, if it is a mild winter just like the last and the leaves are still green, they are still growing and worth leaving. However, there comes a time when a tidy is needed and it is better for us to do so before the voles take up residence and make in-roads along the sides of the plants.

The first time this matter was raised in connection with Siberians, it was an aside from a previous collection holder. Rather than risk leaving the seed pods and contaminating the cultivars, he put a ride on mower over the collection, removing all the foliage after flowering. He assured that new leaves sprang up quite quickly, but it does suggest an efficient if not



drastic solution. On our raised bed system this is thankfully impractical.

For many years, we relied on a brush cutter. This is a strimmer with a metal blade. Where some grasses/plants will bend over with a plastic strimline, the blade will go through them. It can



also send stones flying, so best not used with others present. This has been reasonably effective while the leaves still have some uprightness and before the winter wet flattens them. The drawbacks are that the timing is important. Often our ground can become so saturated that working on it can puddle the clay and so we keep off. Even when working well, there will be some leaves missed and the raking seems to get our backs as the years progress.

Our fall back was the trusty sheep shears. These we use in the normal border. They work similarly to secateurs, but the longer blades make quicker work. It is worth spending time to find a size which works for you. Jill and I have different sizes

it is a question of comfort if you are working with them over a period.
 However, the old hardened stems of the irises will jar the arms if you have many to cut through.

My current favourite is the humble vegetable knife; a bit like a miniature

sickle with a curved serrated blade which can be pulled through a tussock of leaves. If there is resistance, then working the serrated edge across the leaves does the trick. A large clump can be cleaned with about three or four passes. Funnily enough, an *iris knife* was suggested to us years ago but they were not available to



purchase and having one made seemed too expensive. Luckily now they can be obtained relatively easily and I find them useful for quickly reducing other weeds around plants/hedges/trees. The treatment on the plants is rougher than the sheep shears. Usually the roots are so well anchored that the plant can handle it. However, we do pull up a few 'loose' rhizomes each year with poor/eaten roots and these we put in a 9cm pot in the polytunnel most are growing away again by June.

If you grow several cultivars, you will find two distinct shades in the dead leaves. Either a rusty brown tone or thinner more silvery leaves. I assume the former reflect the *I. sanguinea* parentage and the latter *I. sibirica*. In any case, if there are any odd leaves left when tidying/top dressing in the spring, the former will often pull off easily whilst the latter are much more tenacious and need cutting, or just hiding under the mulch!

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#### In Memoriam

#### Berney Baughen 1927 - 2016

Since he first joined, Berney was a very active member of the BIS and the Kent Group. He held every possible post in that Group and supported all the Shows by "growing for showing" irises in as many categories as he could. He gave talks on gardens and irises. He was BIS President. He had been on every committee and a representative of the Joint Iris Committee. He was an Award and Show Judge, supporting every facet of the BIS. He wrote in the *Year Book* and took the most wonderful photographs which he used to illustrate the "Iris Plant" and displayed them at Shows and anywhere else he could to advertise the variety of the species, and their uses, and the BIS. It would be impossible to count the hours of work that Berney dedicated to the BIS in his quiet efficient way. He received the Warburton Medal from the AIS in 2003 for spuria 'Philippa Baughen' and TB 'Cliff Baughen'.

I didn't know of all his wonderful attributes when I first met Berney but just found his enthusiasm exciting and infectious which encouraged me to grow irises and in particular Siberians. He was a fantastic grower of irises himself and his garden must have had an iris flowering in almost every month of the year.

Printing was his profession so he knew all the ins and outs of the printing trade and designed the layout of the *Year Book* in 1988 which is still the basic format today. And as if all that wasn't enough he was the editor of the *Year Book* for nine years just before the millennium.

A lovely man, nothing was ever too much trouble, a sad loss for the BIS.

Brita Carson



*Iris* 'Philippa Baughen'

#### Peter Maynard 1923-2016

Peter and Jean, both of whom joined the Species Group in 1977, were a remarkable combination when it came to growing irises and this was widely recognised by their colleagues. In fact, Peter became a Vice-President in 1978, of the Group. His preferences lay well away from the tall bearded cultivars, but he did grow the smaller beardeds and did a lot of work with PCIs. He was a meticulous researcher and provided much useful information about both irises proper and the wider reaches of the *Iridaceae* which were obtainable in Britain

He gave a brilliantly illustrated talk about Growing Species in a Small Suburban Garden. Indeed, one of his main claims to fame was in encouraging people to grow the suitable Junos out of doors instead of under glass. Slugs and snails were the main trouble and he experimented with suitable deterrents — not always chemicals. He continued along these lines after the move to Sussex and worked on a much wider range of iris including the Ixias like *Ii.* x dubia and lutea at the 2004 BIS show. Clive Innes' valuable book on the *World of Iridaceae* was reviewed with approval for the Species Group NL when it was published, but regret was expressed that the layout chosen made it very difficult to shelve. Peter was noted for a quietly subversive sense of humour!

Additionally, Peter did an immense amount of work for the BIS in general and lectured widely within the Society as well as to unrelated horticultural groups.

Anne Blanco White

#### Lawrence Ransom

Lawrence was a quiet, generous BIS member based in Lafox, near Agen, France where he started an iris nursery. He had a great love of genetics and produced many, many new TBs, MTBs, SDBs, IBs, Arilbreds and Arils, Spurias and the two lovely species below of *I. unguicularis*. Left 'Trescols Sylph', from *I. lactea* x *I. lactea* and right 'Fée d'Hiver' came from BIS seed x 'Mary Barnard'.





## **The Distinctive** *Iris milesii*Brian Mathew

This year the Lophiris (Evansia) Iris milesii has performed better than ever before, I assume due to the extremely wet June which must have simulated a Himalayan monsoon at times. The warmth that followed in July suited it perfectly resulting in robust growth and a long succession of its purple, darkblotched flowers. In September there were several promising fat capsules and a good supply of seed ensued.

Botanically, there is an outstanding question that needs



addressing: *Iris milesii* is known to be a native of North-West India but is also cited as occurring far to the east in China, in Sichuan and Yunnan provinces. Such a disjunct distribution pattern is unlikely although of course not impossible and a significant number of species do have such a distribution pattern. However, in Vol. 24 of *Flora of China* Mathew and Noltie stated that they had seen no Chinese specimens and that "it is possible that the Chinese plants represent an as yet undescribed taxon". An interesting thought!

I always like to know the stories behind plant names: who described the species, what the specific epithet means, where and when it was first collected, its natural distribution, etc. So, who was Miles? Often plants named after people commemorate the plant hunters who first discovered them but not in this case. As related by the late Peter Maynard in the BIS Year Book for 1993 George Frederick Miles — known as Frank - was an artist and gardener, a combination that might lead one to assume that his artwork involved plants. However, he was renowned for his portraits of beautiful females of the late 19th century. The reasons for *Iris milesii* being named after him are several. Sir Michael Foster, who first named and described *I. milesii* in the *Gardener's Chronicle* of 1883, was a botanist and keen

gardener and in contact with many of the influential horticulturists, nurserymen and botanists of the day. He often commemorated these acquaintances when naming new species and so we have, for example, *Iris willmottiana* (after the famous gardener Ellen Willmott) and *I. warleyensis* (after her garden, Warley, in Essex), *I. bakeriana* (J.G. Baker, botanist of Kew Gardens), *I. tubergeniana* (C.G. van Tubergen, nurseryman), *I. ewbankiana* (after Rev. Henry Ewbank, enthusiastic gardener and botanist on the Isle of Wight), etc.

Another reason for the epithet *milesii* (as indicated by Peter Maynard) concerns its discovery and introduction. The first collection of the then unnamed species was made in the Himachal Pradesh in 1876 by Sir David Brandis who sent seeds to his cousin Frank Miles. Some of the resulting plants went to the German nurseryman Max Leichtlin where they flowered. Michael Foster subsequently used specimens from these plants for the basis of his description and formal naming of *I. milesii*. It is also worth repeating that Sir Arthur Hort (a founder member of the BIS) in *The Unconventional Garden* (1928) records that the species "is called after its introducer Mr Frank Miles whose fancy pictures of dreamily pretty young ladies adorned the walls of undergraduates' rooms (at Oxford)".

One can simply enjoy the appearance of the plants in one's garden, but start to explore the background to them and the whole experience becomes so much more interesting!

Seed capsule and seed



## *Iris lazica* 'Turkish Blue' and a seedling Charles Nelson

I have grown Iris lazica in our west Norfolk garden for the past 20 years (Nelson 1999). Related to *L. unguicularis* and like it winter-flowering. *L.* lazica has much broader, bright green, evergreen foliage and its flowers are generally described as having longer stalks than that more familiar species. My original plant, brought from Ireland, was I. lazica 'Turkish Blue', a clone derived from seeds (EMR 1020) collected in north-eastern Turkey in July 1968 by Martyn Rix during a University of Cambridge expedition (Phillips & Rix 1993: 186). My late friend, the botanical artist Wendy Walsh (1914-2014) had grown this clone, then without any cultivar name, in her garden in County Dublin since soon after its introduction (see Service 1990: Nelson 2000: 119), and she painted it for Curtis's Botanical Magazine in 1999 (Nelson 1999). Hers was planted on a soil-covered pile of rubble and also flourished in a raised bed. In Norfolk, we planted clumps variously: in ordinary garden loam, on a low mound of sandy rubble by the pond, and in the rough builder's sand-cum-rubble hardcore that originally formed the parking space for cars in front of the house. As reported before (Nelson 1999), the plant in garden loam was the one that performed least well, while that in the builder's rubble was best.

Over the years all three of these clumps grew but eventually dwindled away, probably due to overcrowding and shade. About five years ago, I obtained new material of 'Turkish Blue' from my Irish contacts, and the clump has flourished. In 2015 'Turkish Blue' started flowering at the beginning of November — at the time of writing in autumn 2016 it is not showing buds.







The seedling

Before acquiring a plant of 'Turkish Blue' again, I noticed that there was an iris seedling growing beside an old shallow ceramic sink in which we have some autumn-flowering crocuses and formerly also *Gentiana verna*. The

seedling was close to the sink but not in it, so was rooted into the builder's rubble and very probably some of the roots extend under the sink where they will be cool and moist all year round. This seedling has flourished too, expanding into a dense clump, and started to produce flowers three years ago. It is undoubtedly *Iris lazica* — we have never had any other winterflowering species or cultivar in the garden — and so must be a seedling from self-pollinated 'Turkish Blue'. Compared with 'Turkish Blue', the seedling's flowers are noticeably paler, lavender-blue (RHSCC 87B—88B), with broader "falls" with rounded tips. The falls in 'Turkish Blue' are pointed and have a densely pigmented blade on which the veins are just discernible as slightly darker lines, while the central yellow and white flash ends in a sharply defined lance-shaped point. In the seedling, the blade is not densely pigmented and the darker veins are all clearly visible. The central patch of yellow merges into white and there is no sharp demarcation.

In the 1990s, there were no named cultivars of *Iris lazica*. 'Turkish Blue' was perhaps the first, while two others are listed in the 2016 *RHS Plant Finder*: 'Joy Bishop' described as having "darker ... than normal ... rich purple" flowers and 'Richard Nutt' with "deep violet-purple" flowers (URL http://www.junker.co.uk/iris44d.htm accessed 14 December 2015; see also Hewitt 2008). I have not seen these so have not compared them with either of our plants.

A watercolour of 'Turkish Blue' by Holly Somerville is included in *Heritage Irish Plants* (Sayers and Tobin 2016, p. 49).

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## **2011 Morgan-Wood Medal: 'BANISH MISFORTUNE'** Marty Schafer

This iris was selected for its exuberant bloom and stature. It came from a cross made back in 1992 just at the time I became smitten with 'Snow Prince' (Tiffney 1990), a white *Iris sibirica*. I crossed 'Snow Prince' onto a yellow seedling (which is in the background of many of our later yellow introductions) which opened a rich, warm yellow and then faded in the second and third day. I was hoping that somewhere down the line I would







'Banish Misfortune'

get that warm yellow and the yellowish buds of Snow Prince to produce little yellow "butterflies". However, because the pollen parent was an *I. sibirica* and the pod parent predominantly *I. sanguinea*, the children were all shades of blue. The plant had all the expected hybrid vigour. The clump habit was distinctly *I. sibirica* with its tall stalks held well above the foliage, multiple branches, and many buds. Its flower was small and simple similar to the species, though stronger and wider, and its blue-violet colouring was set off by a glowing cream-yellow signal. It is quite gratifying to be a part of society, Society for Siberian Irises (SSI), that includes all types, sizes and

forms of Siberians and is not limited by rules as to width and shape of petals.

'Banish Misfortune' was named for a fiddle tune (a jig) and the phrase comes from a line in the *Traveler's Prayer*. I did not use it often in breeding; however I did put its pollen on 'Sarah Tiffney' (Schafer/Sacks 1999), which is also a child of 'Snow Prince'. The result was 'So Van Gogh' (Schafer/Sacks '05). Though still not a little yellow flower, this is a tiny but unique iris with purple standards and yellow falls. As a



'So Van Gogh'

grandparent, through 'So Van Gogh', 'Banish Misfortune' continues to produce delightful irises.

Named grandchildren of Banish include 'Jerry Murphy' (Schafer/Sacks '08), 'Berries and Cream' (Schafer/Sacks '08), and 'Tipped in Blue' (Schafer/Sacks '10). 'Jerry Murphy' came from crossing a sibling of 'On Her Toes' (Schafer/Sacks '04) by 'So Van Gogh'. Its speckled brown and lavender flowers give way to sturdy, long-lasting foliage that persists well into the fall.







'Jerry Murphy'

'Berries and Cream'

'Tipped in Blue'

The flower is small but the clump display is strong. 'Berries and Cream' came from 'Raindrop Melody' (Schafer/Sacks '03 ) by 'So Van Gogh' and looks a little like a creamy white and blue-violet 'So Van Gogh', a reverse amoena. One of my goals in breeding Siberians has always been to produce a blue amoena, so this tells me it might be possible.

Of the named children of 'So Van Gogh', 'Tipped in Blue' has been the standout as a breeder and has extended the legacy of 'Banish Misfortune' wonderfully. 'Tipped In Blue' is from a cross of 'Tree Of Songs' (Schafer/ Sacks '06) by 'So Van Gogh', 'Tree Of Songs' is a small flowered child of 'Creme Caramel' (which again goes back to 'Snow Prince') and a small intense golden yellow seedling. 'Tipped In Blue' is lighter than 'So Van Gogh', and is a very cheery bright, and still quite small flower. In setting out to use it as a parent. I thought that making this creative blue and vellow pattern into a larger flower with a bit fancier shape would be a good goal, so I crossed it with 'Mission Bay' (Schafer/Sacks '09) and other large, ruffled flowers. The results have been delightful with many beautiful seedlings and three named plants, 'Theme And Variation' (Schafer/Sacks '05), 'Lime Street Blues' (Schafer/Sacks '14), and 'Art In Bloom' (Schafer/Sacks '16). All three of these are actually "variations on a theme" of the interplay of blue and vellow in the Siberian flower, each with distinct characteristics. 'Lime Street Blues' is a "dreaming green" flower with the overlay of blue on yellow falls mimicking green in some lights, on some days. 'Art In Bloom' is an abstraction of blue on yellow with distinctly blue standards, soft pale yellow styles and yellow falls covered in brush strokes of blue-violet. 'Theme And







'Theme and Variation'

'Lime Street Blues'

'Art in Bloom'

Variation' is both bright and soft. Strong yellow falls have a wash of blue veins collecting at the edge while the light blue standards and styles are washed in light yellow (or are they light yellow washed in blue?). 'There is another generation that has already bloomed from these three. Depending on the other parent, we are seeing a wide range of patterns in various colours, many with extreme signals and veining. The S11-16s are the most extreme in colour and pattern and some of them look a little like 'Banish Misfortune' expanded and modernised. These S11 seedlings are just a taste of things to come.







One final thread of progeny from 'Banish Misfortune' comes through 'Uncorked' (Schafer/Sacks '02) crossed to 'So Van Gogh' and has me very excited. While this cross produced no named children, one lovely seedling very reminiscent of 'Theme and Variation' in colour, but with very simple form, was considered for a long time for introduction. I crossed it to a light pink seedling with exceptional form. It produced a seedling, S08-46-1, which stunned me. It had blue-violet petals and large bright yellow signals that had very few veins and speckles. It reminded us of pictures we had seen of *Iris cycloglossa*. Signals are such an important part of siberian flowers, and all the various patterns of white and yellow crossed with different degrees of veining and speckling are great. Nevertheless this was something new. Unfortunately this seedling had only two buds, so I crossed it with another seedling with the fewest veins and speckles I could find. The results were the S12-41s, faster progress than I had expected. Many of the seedlings in this cross were variants of blue-violet with large, dramatic, clean yellow signals. There was one with pinkish flowers and the same kind of signal. The flower shapes are simple and tailored. I now call this my Clean Signals

project and my next goals are to see if I can make these wonderful signals in flowers with a bit more shape, and clean white signals as well as yellow ones, and add more colours to the background - clean signals with red, pink or purple flowers. Where are we now? Four generations from 'Banish Misfortune' and awaiting the fifth! Dramatic changes are coming to Siberian irises with each new generation, and I think we have reached a point where the changes are coming faster. I look forward to the next few years' seedlings with as much anticipation as I did when I first started hybridising thirty-one years ago. As well as going forward with the current seedlings, I would like to go back and pick up the thread of 'Berries and Cream' that I dropped. Maybe crossing it with the breeding workhorse 'Mission Bay' will give us some of these wild patterns on a white background. The hybridiser's mind is always going. It doesn't matter where inspiration comes from, everything applies.



S11-16-11 Theme and Variation X S08-16-2

#### Gorgeous sibling of Theme and Variation

Oh dear have I lost my allegiance to 'Banish Misfortune'? This is an article I have always hoped to see in the Review because I'm so fond of 'Banish Misfortune' but now the seedling above is so beautiful with the delicately blended colours that I can't see beyond it. Thank you Marty.

## **Turning 40 – Wait, I Already Did That!** Patrick Spence

Those of you who have met me know that it is difficult for me to be serious. But, turning 40 is a serious topic, so I will attempt to tackle it in a serious manner. There are many items that must be taken into consideration prior to turning 40. You will spread. Do you have enough room? You may have to lose some of what you have. Are you willing? A new obsession. Is there time? Are you able? But we are not talking about you. We're not even talking about me. We are preparing to discuss the "Sino-Siberian" irises. If you are reading this magazine, you know the modern Garden Siberian iris (subseries Sibericae): 'Blueberry Fair' (Hollingworth, 1996), 'Miss Apple' (Schafer/Sacks, 2009), 'My First Kiss' (Cole, 2004), etc. They are great garden plants with beautiful flowers and, most important to this article, have 28 chromosomes (56 for converted tetraploids). The Sino-Siberian irises have 40 chromosomes, giving them their nickname, "40s." Though foliage and flower form are similar to the Garden Siberian, cultural requirements for 40s are very different. The 40s have colours and patterns not seen in the 28s, are frequently heavily scented, and have the added benefit of attracting humming birds. The bloom season for the 40s is 1 to 2 weeks behind the 28s.

#### Boring technical information

Disclaimer: The terms Sino-Siberian and Garden Siberian are NOT official botanical terms. They are only terms lovingly used by the people who taught me about the 40s. Though not officially correct, I like the terms, it's my article, I am choosing to use them. My apologies to those I am offending. Moving on...

The Sino-Siberian subseries (subseries Chrysographes), also known as "40s", includes the following eight species; *I. wilsonii*, *I. forrestii*, *I.* chrysographes, I. delavayi, I. clarkei, I. bulleyana, I. phragmitetorum, and I. dykesii. There are people who will argue that I. bulleyana, I. phragmitetorum, and I. dvkesii are natural hybrids and not true species. but I leave those arguments to others. All have 40 chromosomes and cross readily with each other. All come from the Himalayan area of western China and Tibet. These species cover a broad range of colours: blue, purple, yellow (I. forrestii and I. wilsonii), near black (I. chrysographes), and reddish (I. chrysographes var. Rubella). Most of these species have no branching and 2 buds, but I. delavayi and I. clarkei tend to have 1 to 3 branches and higher bud count. *I. chrysographes* stands about 14" tall, while *I delavayi* can grow up to 48". All species have the same cultural needs. They prefer a consistently moist, rich soil that tends toward the acidic side. Alkaline soil will not do. They need plenty of sunshine, and don't be shy with the highnitrogen fertiliser. They also need a cold winter to bloom. 40s are relatively pest- and disease-free. The one notable exception is that they are susceptible to phytopthera, a soil-inhabiting water mould that causes crown rot. A good fungicide may be necessary.

I currently only grow the black form of *I. chrysographes*. It blooms



gloriously for me every year. I have 10 different clones and find each to have its own unique character due to its signal pattern. The word <u>chyrsographes</u> breaks down to mean "gold" (chryso) "writing" (graphes), referring to the signal present on most flowers.

#### My adventure begins

One of the first irises I grew was Sino-Siberian 'Dotted Line' (Reid, 1991). I had no idea that it was different in any way from the other Siberians I purchased, except for the unique colouring. Later, I visited Carla Lankow's garden, where I was able to see hundreds of different 40s. Carla has been hybridising the 40s as a hobby for many years. She immediately became my mentor and I learned all that I am sharing with you here. Carla had many pots of new seedlings (2006 crosses) with nowhere to plant them. I took them home, lined them out, and immediately had a collection. I also began to collect other registered varieties from anywhere I could find them. Unfortunately, they are not widely distributed, and many have become extinct; I did manage to find a few, however. In 2009, I received many more seedlings (2008 crosses) from Carla, and all have bloomed now. I have

selected many for future hybridising and a few for introduction. I now have about 100 different clones. In 2011, I made my first crosses. Every cross took, and now I have several hundred of my own seedlings. They are impatiently waiting for a hint of rain to be lined out in my garden.



'Dotted Line' (Reid,1991)

#### A bit about hybridising 40s

I mentioned that the species cross readily, and the same is all too true with the hybrids. In fact, you need to be on your toes to make the crosses you want before the bees get to them. The 40s have nectar that is beloved to the bumblebee and the hummingbird. I have witnessed bumblebees "drilling" into a bud just before it opens. I also frequently see them use their legs to pry a bud open. To solve this, I gently tease a bud open, strip off all the petals and stamens and wait until the following morning for the style arms to relax and the stigmatic lip to open. Hummingbirds cause a different problem. They love the nectar too. While sipping at a nearby flower, the wings will blow pollen onto the flower you just pollinated, contaminating your cross. To solve this, I gently place a nylon stocking or a bag over the pollinated flower. It only needs to stay there a day or two until the stigmatic lips have dried up and will no longer accept pollen. Or you could register any seedlings as a "Hummingbird Cross," though the registrar might question you about that. I also tend to use a very small paint brush to dab the pollen

(thank you, Carla). The stigmatic lip can be fragile, and my clumsy fingers break them too often. It is simple to do, but be sure to dip the brush in alcohol and allow it to dry between crosses to ensure you don't mix the pollen on the brush. Each pod will give you 50 to 100+ seeds, so plan accordingly. The seeds germinate easily with few that are not viable.

Hybridising has come a long way for the Garden Siberians. The difference between the species and today's modern hybrid is dramatic, but I am certain that the hybridisers will tell you there is much yet to do. Hybridising with the 40s is comparatively untouched. Some very good work has already been accomplished, but there is an endless amount of work to be done and plenty of room for people to try.

#### Where will this go?

I have seedlings in a broad range of colours: blues, purples, yellows, and "reds," along with a few blends. There is a lot of work to do here. The individual colours are good but could be brightened up a bit. I think the colours need to be blended together to get more variety. Most have a species-like form, but many are showing wider falls and hafts. I believe the genetics of the 40s allow for a more modern form similar to some of the 28s. The flowers are generally pretty small in relation to the height of the stalk. I would like to see how large we can make them. The foliage of the 40s is generally very good. There is both upright and gracefully arching foliage in shades of yellow-green and blue-green. There are the occasional plants with floppy foliage or curvy stalks that are ruthlessly removed from my breeding stock. The stalks range in height from 24" to 60" and have 0 to 3 branches.











It is uncommon for the flowers to be in the foliage, even on the 3-branch stalks. Keeping the stalks in proportion to the height of the foliage is the larger problem. As with the 28s, 3 to 5 buds per stalk should be a minimum. It would be good to find out where these will grow. They grow well in western Oregon and Washington. I have seen them bloom in Victoria, BC. Bob and Judy Hollingworth have one that grows for them in Michigan. I suspect, with a little extra care, they will grow anywhere with acidic soil and a cold winter.

#### How to grow them

Three words: compost, water, and fertiliser. Oh, and sun. 40s love a rich soil. If you work some compost into your planting area, they will be pleased. I also like to mulch them with 1" to 2" of compost. This helps fortify the soil, retains moisture, and retards weed growth. I do not think they will tolerate an alkaline soil — neutral to acidic is best. The one thing I do that may be difficult for others is move them to new soil every 3 years. I do this to avoid a build-up of phytopthera. I do not know that it is necessary, but it works for me. I have not yet had to use a fungicide. They like at least 1" of water each week. 40s will live with less frequent watering, but they need consistently moist soil to really show off. I apply an early spring dose of a balance fertilizer, followed by a high-nitrogen fertiliser right after bloom season. This mix seems to work well for me. 40s are not a shade plant. They need at least 4 to 6 hours of sun, but will take as much as you can give them.

#### Cal-Sibs

I feel the need to briefly mention the Species Cross called a Cal-Sib. It is a cross between the subseries Californicae (Pacific Coast Iris) and the Sino-Siberian iris. All species of the Pacific Coast Iris have 40 chromosomes. The theory behind this cross is to take the unique flowers of the PCIs and put them onto plants that will grow east of the Cascade Mountains. The cross works, though not as easily as each type crosses with itself. Cal-Sibs transplant well, have unique and beautiful flowers, have hybrid vigour, and will grow in areas the PCIs will not. If you would like to give one of these a try, there are many to recommend. 'Lyric Laughter' (Witt, 1988), 'Chapter Two' (Rigby, 1999), and 'Pacific Smoothie' (Reid, 1993) are three I will never be without.

Turning 40 was not a bad thing. In fact, I rather enjoyed it. Perhaps you will too.

Patrick Spence has very kindly given me permission to reprint this fascinating article on 40 chromosome Sino-Siberians. It was first printed in the American publication IRISES in July/August 2013. I have seriously neglected this group of irises, probably because I find them tricky to grow successfully but they have a special beauty of their own. I think I had better give them a go.

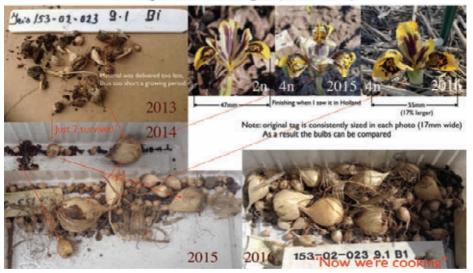
### **Polyploid Reticulata Iris – Preliminary Results**Alan McMurtrie

[This is a preliminary report about my work with polyploidy Reticulata Iris. A more comprehensive write-up is planned for the 2017 BIS *Year Book*.]

I have wanted to have a lab create polyploid Reticulata Iris since the early 2000s, however it is very expensive. On top of that, you really need to convert at least 3 or 4 to bring a range of genetic material up to the tetraploid (or higher) level. As you will see in the 2016 *Year Book*, I have in particular created some amazing hybrids by working with the currently known 2n=18 species: *Iris danfordiae*, *sophenensis*, and the Çat Retic ANM2175. A Catch-22 is, two of the species are small, so their children tend to be medium in size. Since 70% of the market is for forcing, I really need larger hybrids in order to be successful, and not just be limited to the dry bulb market. My main goal though, is actually to cross *Iris reticulata* clones with my *danfordiae* based hybrids, and most importantly, maintain fertility (which means even more than just 3 or 4 clones will need to be converted)

My original plan was to use profits from the sale of my hybrids to fund the polyploidy conversions. Time is marching on. In 2011 I

#### Tetraploid It's Magic (05-HW-1)





**Orange Glow** (98-00-1)

Eye Catcher (98-NP-4)

couldn't wait any longer and started 6, followed by another 6 in 2012. It was 2 years later, 2013, that the first plantlets were delivered. Problem is, they were delivered in early March when my hybrids were already blooming in the field. The material was handled in a greenhouse, but the bottom line is, it didn't have enough time for

root development and bulb regeneration. It would have been better if it had gone dormant, and then gone through a proper growing cycle the following year. As shown below, only 2 of the 40 plantlets of **It's Magic** (05-HW-1) survived – one just barely. The larger bulb then bloomed in 2015. However it was past its best when I saw it.

Fortunately **Orange Glow** (98-OO-1) flowers were in perfect condition, and diploid and tetraploid bulbs were close to one and another as you can see in the photo. The diploid flowers on the left are 40mm tip-to-tip. The tetraploids on the right are 50mm – a 25% increase – exactly what I had been hoping for! 50mm is not huge, but it is a nice size.



**Orange Glow** (98-00-1) Left – Diploid Right - Tetraploid



Tetraploid versions of **Eyecatcher** (98-NP-4) and 05-GQ-1 also bloomed but I can't say for sure how much bigger they were since they too were past their best. One other thing to keep in mind: I think it is important to be measuring flowers from similar sized bulbs. The key point though is, the tetraploid flowers were definitely larger.

A question you might be asking is, would octoploid flowers be even larger?

At the moment the answer is up in the air. I have been warned octoploids could be slower growing, and consequently their flowers could in actual fact be smaller. Will that be the case with Reticulatas? We'll see!

I now have tetraploid bulbs here in Canada, and have taken measurements of the various bulbs for later comparison to flower size. I was pleasantly surprised to see Jan Ligthart included two bulbs of **Lilac Beauty** (03-AN-3). One of its "claims to fame," beside the unique colour, is large bulbs give 3 flowers, which are excellent for forcing.

In the photo of **Lilac Beauty** bulbs, the 2n bulb pair resulted from a bloom this past spring. The bulbs on either side (both 11mm in diameter) are material that had been grown outside the lab for at least a year. The bulb on the left appears, from its coarse tunic, to be at least 8n, if not 16n.





Keep in mind that although tissue culture is being used to increase the polyploid stock, doing so is 1) expensive, and 2) not that effective (meaning you don't shave that many years off getting to market). It might be different if you had a variety that was going to be in high demand at good prices, and

all the kinks were worked out of the delivery process such that 100 plantlets meant 100 bulbs at the end of the growing season. Or more logically, 10,000 plantlets meant you'd have 10,000 bulbs at the end of the growing season.

Something like this doesn't happen instantly. You first have to build interest (currently the Reticulata market is depressed). It then takes two or three years for the polyploid conversion. Followed by at least 2 years building up material in the lab, followed by another two, possibly 3 years in the field.

At the moment there are still significant kinks in plantlet delivery.

In an ideal world I would want to convert the original 6 clones, see the results including tetraploid, octoploid, and possibly hexadeciploid versions, then move forward with a concerted program. As with most things, the practical reality is trying a few, getting an idea that things are going at least reasonably. Then trying a few more, and "correcting problems as we go."

The 12 additional clones I started this year bring the total to 41. (I'm not getting any younger).

At the moment the aim is to have tetraploids of each. As many octoploids as possible and perhaps a couple of hexadeciploids. Because an octoploid version of **It's Magic** was not originally created, I paid for an extra conversion to explicitly get an octoploid of it. At this point I have no idea of whether that's money well spent or not (certainly the tetraploid looks very nice). Assuming the Lilac Beauty bulbs bloom, I may have an initial answer next spring.



92-FB-1 Cantab x winogradowii

**89-A-3** hyrcana x danfordiae

I'm certainly not doing this "for the money" (hopefully in the long run I'll recover my investment costs). I'm doing this because I'm passionate, and

because I'm amazed at what I've achieved. What drives me is my accomplishments e.g. this year's **Tequila Sunrise** (09-LE-2), and the wonder of nature's beauty.



**Teguila Sunrise** (09-LE2)

Wow (03-EK-1)

92-FB-1 and 89-A-3 no longer exist, but were sterile diploid dead-ends. I did think 92-FB-1 was quite nice, and would have loved to have seen what hybrids could have been created using it at the tetraploid level.

We love pure species, but sometimes those species are very difficult to keep in our gardens. This is where a little hybridising can help to make plants that are more robust. A few people are not happy. They want only plants that are found in nature. Everything else is an abomination! It may be that those people thrive on the challenge of growing things that are difficult. If the average person tries something and it does poorly, they're simply going to give up: case in point *Iris danfordiae* "shatters" after 2 years.

In a sense all I'm doing is giving Mother Nature a helping hand. If *Iris danfordiae* and *I. sophenensis* were to come together in the same valley in Turkey, then many of my hybrids would be the result. ...and especially so if the Cat Retic drifted over as well.

It is fascinating to wonder how the various species and forms came into existence in the first place.

P.S. It would be nice to do some polyploidy work with Junos, for example to convert *magnifica* x *warleyensis* hybrids, and then see what further breeding the tetraploids would bring. My funds and time are tied up with Reticulatas, but an underlying stumbling block is the fact there was no interest by the Dutch in any of my Juno hybrids. A few have been sold by Janis Ruksans.

#### A Father and a Mother of a PCI

#### Philip Jones

I am having problems with my special white iris. It is meant to be the start of something new, a bit different from the rest. It is not so informal or untidy as most PCIs, the leaf formation is neat, the flower stems are well spaced, not crowded, and stand above the foliage. The flowers are simple white, and the possibility of other simple flower formations and colours is a promising path for the would-be hybridiser to follow.

The problem is that it comes up short as a father. In other words, the pollen is hard to find. You need a magnifying glass to see it, and what you end up seeing is little more than a trace of dust. A ray of light shone down upon the scene when Brita visited me in October and left me with copies of the Iris *Year Book* for the 1960s and 1980s, and I discovered that some irises recoil from fatherhood and even motherhood. The standard literature takes it for granted that irises are up for parenthood but now I have discovered — to borrow a famous Americanism from *Porgy and Bess* — "it ain't necessarily so."

Writing in the 1966 Iris *Year Book* "Iris Breeding for Near–Beginners" p71 H. Senior Fothergill explains that there are some irises that avoid maternity but "are generally assertive fathers" while others "may be useless as fathers, having ineffective pollen or even no pollen at all." And this "condition is recognised readily: one sees a narrow spike anther shaped like an arrow head, and it has not a grain of pollen on it."

However, the author adds that this can be misleading. In some cases the anther may be plump but reluctant to open. It may require very hot weather to open or it may need our intervention; "and here the dodge is to remove the anther and to split each bulging side longitudinally down its middle, when it will open and reveal the pollen grains that are enclosed."

The author is referring mainly to TBs but it reflects a common problem I meet with in PCIs and this is that although there may be some pollen present it may nevertheless be hard to find. With my white iris I am fortunate that it flowers later than the others and therefore I am able to gather pollen from the other irises so that it can become a mother of an iris or, rather, many irises.

Reading various articles in the Iris *Year Books* gave rise to further reflections on hybridising, germinating and growing.

Moving on to the next step, the hybridisation itself, I was pleased to see in the *Year Book* for 1987 a reference to Mrs Marjorie Brummit who was a distinguished PCI expert. Her approach was similar to mine. As the flower

bud approaches maturity she opens it and removes the standards and the falls and the anthers. The stigmas are not immediately receptive. We have to wait for a few hours. The anthers are placed on a shallow dish to dry until they open. Again my personal experience intervenes or interrupts at this point and reminds me that in some cases the pollen may already be visible – you can see it on the back of your fingers! Perhaps it may be the case that in some instances when the weather turns cool and damp so that the bud delays opening but inside the bud the botanical process has continued to develop.

In the third step the seed is sown in March and put outside to experience periods of warmth and cold until it awakens from sleep in the months of May and June. But even as I write this article I have been informed today that 2016 is going to be the hottest year on record. And I agree because much of my seed is still dormant. And my attempt to help things along by putting one seed box in the fridge for a few days, then outside, and then back in the fridge made no impression. However, I have now remembered reading some time ago in the RHS Wisley Handbook on irises that the thing to do before sowing the seed is to soak it in tap water each day for a week. At the time this seemed to me a bit odd – as if vesterday's water had gone stale. But then as I picked up my mug of tea and tasted it and found that it was luke-warm and yet the mug itself was still quite hot the thought passed in front of me suggesting here was the reason for the change of water. Water transfers heat or cold immediately. There is an immediate change of temperature. The seed has been getting a cold shower each morning and perhaps it is this that awakens it from a deep sleep.

How to go about growing our PCIs is the final step. Here I am pleased to say that a lot of *I. innominata* seed I had sown directly into a border in March germinated for me — in October. *I. innominata* is generally regarded to be the most beautiful of the PCI species and has been used a great deal in hybridisation. In his *Hybridization and Speciation in the Pacific Coast Irises*, Lee W. Lenz points out that these plants are to be found in different areas "in open places in fir and pine forests, in sunny meadows and on lightly shaded slopes. They can become quite large and often produce several dozen flowers at a time on a single plant." However, in other more shady places "they remain relatively small and produce few flowers." Chop down a few trees and they quickly start to thrive. All this raises the question not whether we are growing PCIs but whether we are growing them well.

In the 1965 Iris *Year Book* in an article entitled *Gardening with all kinds of Irises* p155 Ernest G. B. Luscombe writes of the hybrids between *I. douglasiana* and *I. innominata* and declares that "these possess very dainty flowers with fascinating colour patterns and are delightful when used as cut flower". He suggests plenty of leaf-mould or peat and good drainage and he

adds: "Once established these irises are virtually trouble-free, being rarely ever attacked by pests or disease."

The general consensus seems to be that they need light, they need good drainage and - to do well - they need humus. The last ingredient I feel I have, in recent years, neglected. Twenty years ago I was a compost king, having plenty of energy, the use of a truck, and was on good terms with a family that owned stables. I am now casting a somewhat critical eye on my trial bed and I seem to hear an end of term report declaring "could do better".

I think of an *I. innominata* iris in Oregon that might be putting on an amazing display with "several dozen flowers at a time" or putting in something that resembles more an apologetic appearance: "small" with a "few flowers." I feel that my irises could do with a good layer of compost spread over the surface. I have been using wood chippings to keep the ground moist with occasional handfuls of pellets of organic plant food. I am not convinced that is enough for a big display.

Finally, in the *Year Book* for 1963 E.G. Osborn in his article *Iris Species for the Beginner*, P59 expresses well the attraction for growing PCIs:

"Perhaps the best way to grow the Californians is from seed. They germinate freely and are quite exciting as one has no idea what colour or form one will obtain. The seedlings should be planted out where they are to grow as soon as they can be easily handled in rich well drained soil with plenty of humus. ...Plant in full sun, or in dappled shade, in light woodland, the mixed border or in any odd corner, and you will truly be able to say that you have 'fairies in the bottom of your garden'".

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Back cover: 'Wetland Wayfarer' (Brian Hersey) Sdlg. BH 61-17-05. SPEC-X,  $31\frac{1}{2}$  in (80cm), E/M. S. yellow, veined light brown/maroon; style arms yellow, veined light maroon; F. yellow, heavily veined brown/maroon, gold in throat; signals deep yellow, maroon/brown veins ('eyelash' type markings). (a) 3, (b) 9, (c)  $2\frac{1}{2}$  in (6.5cm) x 5in (13cm). 'Holden Clough' x 'Roy Davidson'.

Two of Alan McMurtrie's new seedlings for 2016



Dream Catcher (10-AX-2) ©A.McMurtrie



11-GN-3 (94-AT-2 x 98-oo-1) ©A.McMurtrie

