The Fuchsia Breeders Initiative

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Contributions for the next issue, which is scheduled for the end of July 2023, should be in the editor's possession ultimately on 10 July 2023.

Please send your contribution in Word, with the photographs attached separately. Large contributions can be transferred by uploading the file with , for example, WeTransfer.

Any new Fuchsia cultivars being released? Please provide a photograph and some descriptive information, and it will be seen and get attention all over the world!

Photograph on front page:
***Fuchsia* ' Roman Emperor'**
(De Cooker, 2022)

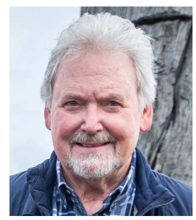
Many Thanks Edwin!

In July 2013, the first edition of The Fuchsia Breeders Initiative saw the light of day. How time flies: we are now already at the twentieth edition! A lot has changed in that period. Many new fuchsias have been introduced, and the knowledge about the genetic backgrounds of fuchsia breeding has increased significantly. You have been regularly updated on the state of affairs of many developments, and I hope to be able to continue to do so in the future.

And speaking of continuity: during this 2013-2023 period there was an important continuous factor that contributed greatly to the success of this online magazine. I am talking about the contributions of Fuchsia breeder and former Fuchsia Nursery owner Mr. Edwin Goulding.

Edwin has played an important role all this time in the last decade by enthusiastically transferring his broad knowledge of Fuchsia in many solid and well-thought-out articles. Due to personal reasons he has decided to stop now; his latest contribution is published in this issue. Of course I can only respect that decision, but I do so with a lot of pain in my heart.

Also Edwin's contribution to my Fuchsia breeding work should not be underestimated. Without his valuable suggestions and critical comments, my fuchsia world would look different now. Let's also not forget that many of my successes are based on Edwin's breeding activities in the past. These have led to the introduction, among many others, of two of his well-known fuchsias: 'Our Ted' and 'Daryn John Woods', which I have used successfully in my own breeding work.



Editor of The Fuchsia Breeders Initiative

Mario de Cooker

Edwin and Pauline (here together with my wife Sonja in our garden) visiting The Netherlands in 2016.

Edwin, we'll keep in touch. There is still a lot of work to be done and your input, as a continuous factor, is greatly appreciated.

To Edwin and Pauline, and to all of you, best wishes for a Merry Christmas and a Happy and Peaceful New Year.

Mario de Cooker

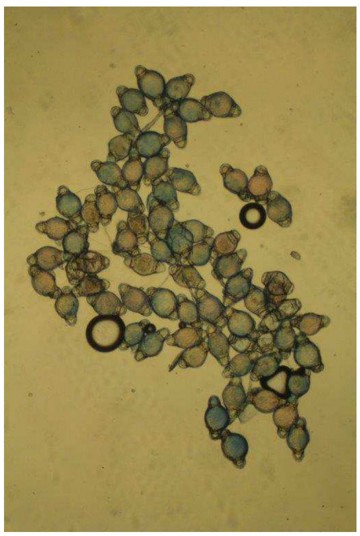
Pollen - A Special Case

By Edwin Goulding

Photographs in this article courtesy Mr. Edwin Goulding

Introduction

In *The Fuchsia Breeders Initiative*, issue 2, December 2013, we started a series of articles about hybridising by discussing *Fuchsia* pollen. Two more articles followed on the same subject.[1] Various aspects like significant morphology; mounting and staining; microscopic examination; micro-photography and the logging of information were considered. Pictorial examples were shown, among which were multi-pored examples of pollen that arose as the result of hybridising.

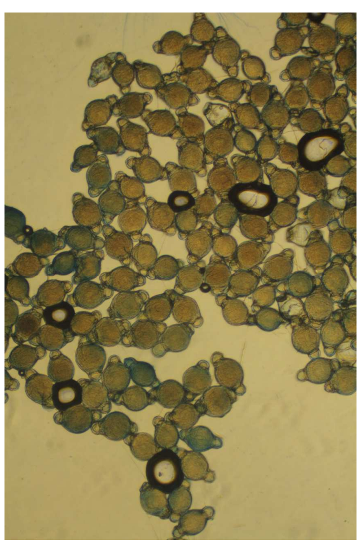


Section *procumbentes* - *F. procumbens*

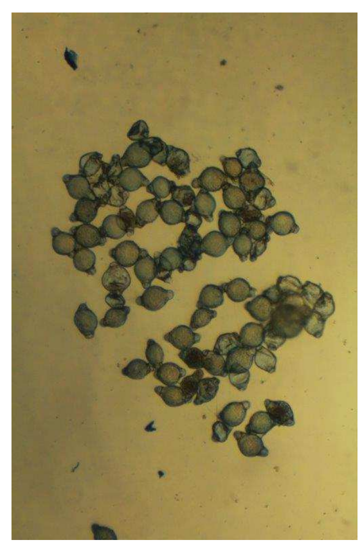
Now, as we close the first ten years of this publication it is time to review some of the progress that has been made over this time; record keeping is most valuable when it is maintained over such lengthy periods. Useful comparisons can be made as information accumulates. Selectivity and accuracy are the two essential aids additionally employed by all successful plant breeders. Photographic records also prove remarkably useful in assessing the results of ongoing work.

Pollen from *Fuchsia* sections - Having 11 haploid chromosomes

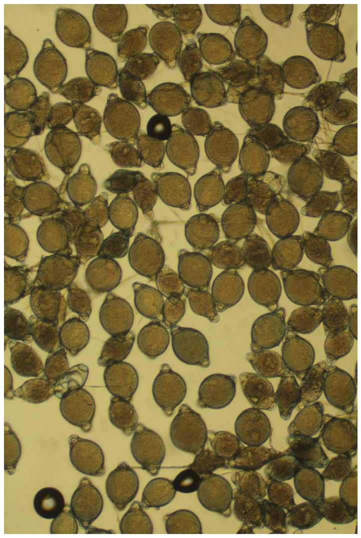
Paul Berry, the world's foremost authority on the evolution and phylogenic relationships of the genus *Fuchsia*, writes about these in *Handbook of Plant Breeding, volume 11, Ornamental Crops*.[2] He lists 108 species within 12 sections of *Fuchsia*, showing their geographical distribution. Almost all these species are characterised by 2-porate pollen and a haploid chromosome count of 11. Here, we illustrate almost half of these in paired examples[6].

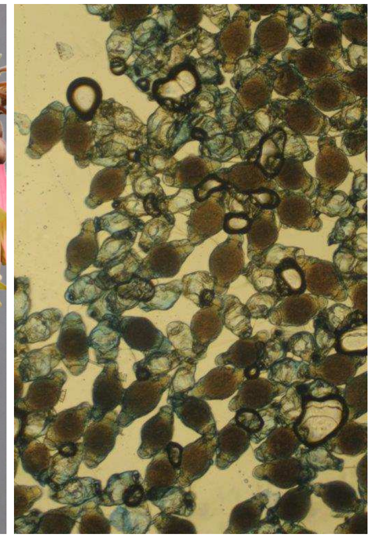


Section *Encliandra* - *F. cylindracea*



Section *Schufia* - *F. paniculata*



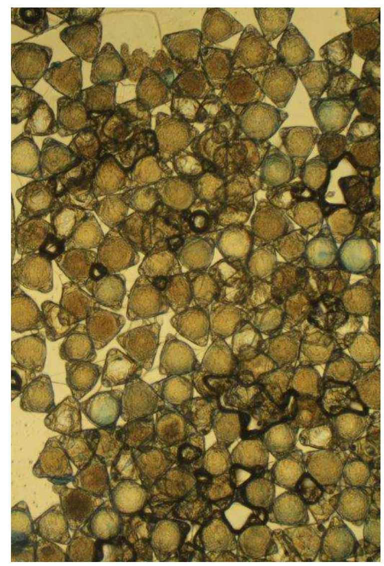
Section *Fuchsia - F. boliviana* var. *boliviana*

Section *Hemsleyella - F. cestroides*

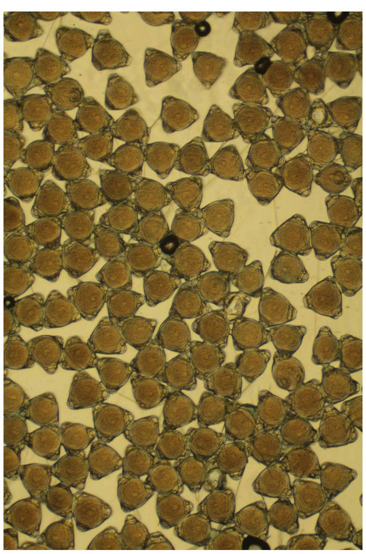
Pollen from *Fuchsia* sections - Having 22 haploid chromosomes

Examples of sections that have 22 haploid chromosomes (which is the exception in *Fuchsia*) are sections Quelusia and Kierslegeria.





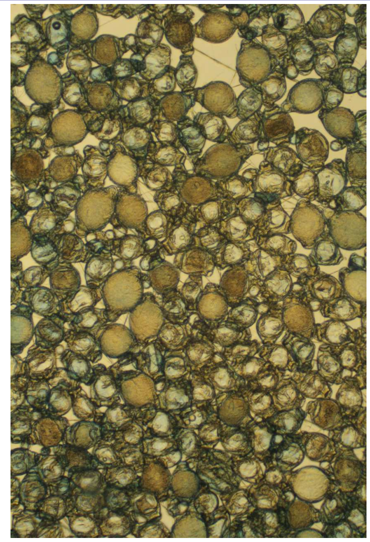
Section *Quelusia - F. magellanica* var. *macrostema*



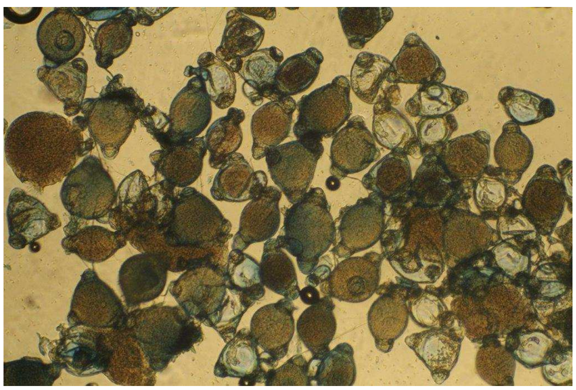
Section *Kierslegeria - F. lycioides*

Other pollen of great interest

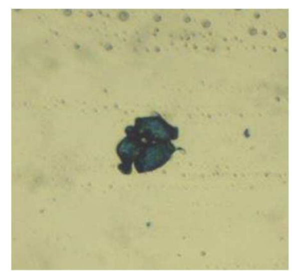
At this point it is worth considering a couple of exceptions to the general rule that haploid counts of 11 show only 2-porate pollen grains. The first is from section *Ellobium*, which has not been considered already. This shows that variation in pollen grain appearance is possible even though haploid chromosome numbers have been established as 11. The second gives an example of a species normally considered to have this count but here shown in an artificially conceived plant in which polyploidy was created with the aid of colchicine.



Section *Schufia - F. paniculata* (1056)



Section *Ellobium - F. splendens*



***F.* 'Arauco'**

Other Fuchsias proven not to be species.

It is possible to establish by other means than highly specialised chromosome counts whether some Fuchsias that are normally considered to be species are, in fact, genuine examples. Two of these are given here showing the rationale behind such decisions.

Fuchsia 'Arauco' has been described as a naturally occurring species within the section *Quelusia*. This is patently untrue because pollen is almost entirely absent and what vestigial amounts are ever found prove to be sterile. This makes self-fertilisation impossible and the whole genotypic/phenotypic line would rapidly disappear if left to its own devices in the wild. This is not the same situation as that of *F. boliviana* var. *luxurians* 'Alba', in which pollen appears but is functionally sterile and the plants produce seeds apomictically.[3]

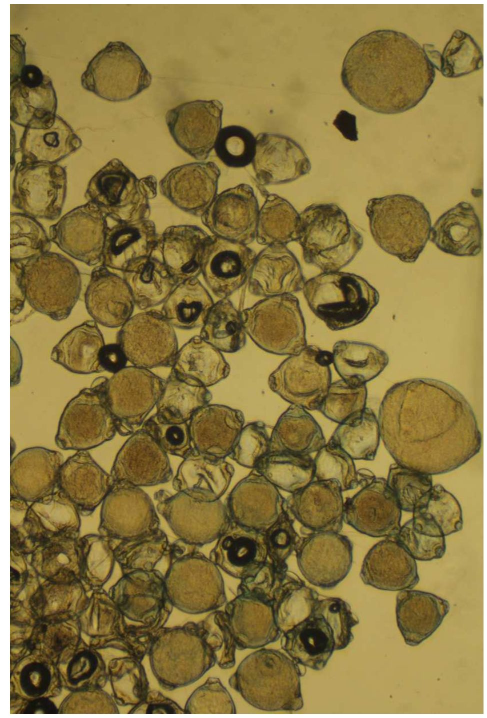
Fuchsia 'Globosa' (see p. 5) has been discussed in a previous issue of *The Fuchsia Breeders Initiative*.[4] Flowcytometry measurements have established that it cannot be a naturally occurring species from section *Quelusia*. The pollen grains are among those having the greatest variation in aperture numbers to be seen. Flowcytometry also shows that its parentage cannot even be established with any certainty.

Pollen from other genera

Here, we go on a slight diversion. It is easy to forget that the study of pollen has been going on for a very long time. Whole textbooks deal with the subject and it is used in such disciplines as Criminal Pathology. It has even been established from fossil records that the genus *Fuchsia* existed eons ago in Australia.

Nowadays, much information is available on the internet and pictorial detail can be especially valuable to most people. Personal communication is also of great assistance and I have Mario de Cooker to thank for telling me about a freely available article by Edlund et al entitled *Pollen and Stigma Structure and Function: The Role of Diversity in Pollination.*[5]

The visual appearance of each pollen grain is what tells us most about such things. At a research level much more information is available to those having the equipment and funding with which to explore the chemical and biological processes involved in fertilisation. Here, however, we will restrict ourselves to those features within our own grasp.



***F.* 'Globosa'**

The structure of each pollen grain, as we have already discussed, is clearly visible when magnified 100 times (10 x 10).[1] Two visible features are worthy of special notice. Fibrin threads are clearly present on many Fuchsia pollen grains. Although their purpose has not been conclusively established, Edlund suggests such threads are not there purely to hold onto an available stigma. It is thought they can also play a part in the chemical processes involved in fertilisation and may well help to absorb moisture in order to swell the male gamete prior to its further extracellular development. Stigmatic acceptance is of immense importance, too, but it is not the subject under discussion in this article.

Some apertures may be seen to be inset like portholes in a ship's side while others can protrude like multiple sensors on the surface of mines at sea. We have already noticed how Fuchsia pollen varies considerably in shape and size. This is most evident as hybridising progresses beyond the initial interspecific stage. One particularly interesting fact mentioned by Edlund refers to the release of intracellular pollen grain material to commence fertilisation; this does not necessarily involve one, or even several, apertures. Escape may also be achieved by bursting through the pollen grain's swollen surface membrane but why this should be so is far from clear.

A special case

My own hybridising programme is split into distinct parts. This avoids the risk of growing plants for the sake of it and reduces the chances of moving away from particular objectives. One of these small groups of Fuchsias is centred on the development of Triphyllas. Extending the colour range of more marketable plants would be of immense advantage. Bi-coloured blooms in varying hues would prove to be a spectacular step forward as long as the natural propensity towards heat and drought tolerance is preserved.

One speculative cross carried out in 2019 was between *F. paniculata* (1056; see p. 4) and *F.* 'Purcellian Elegancy'. In all, from a single seed pod, eighteen seedlings were raised. Of these exactly half flowered during the 2020 season and of this half only two produced pollen, one of these in small amounts and of dubious fertility. The remaining hybrid 'SR 661' (see p. 6) is the special case mentioned in our title, with pollen that is so unusual as to provoke a great deal of interest.

Further tests

Further experiments will be carried out in coming years to establish whether this seedling 'SR 661' can be used in further hybridising. Perhaps it can be used to self-pollinate its own blooms; in this way recessive characteristics could be revealed. It may be that it will accept pollen from other polyploid Fuchsias or have pollen of particular use in its own right when placed on prospective seed parents. It has already been found that a few other seedlings produced by other partnerships within this year's Triphylla programme carry pollen and may well develop seed if the right partners can be found, at this stage a process of trial and error. One of these is fully double.

***F.* 'Purcellian Elegancy'**

Conclusion

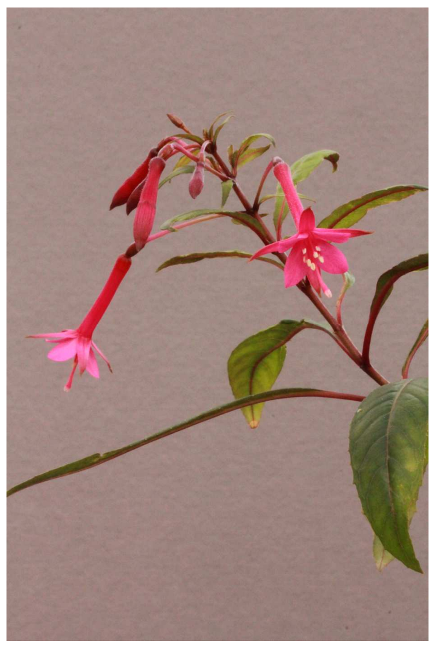
With this article we conclude the second five year period in which TFBI has been published on-line.

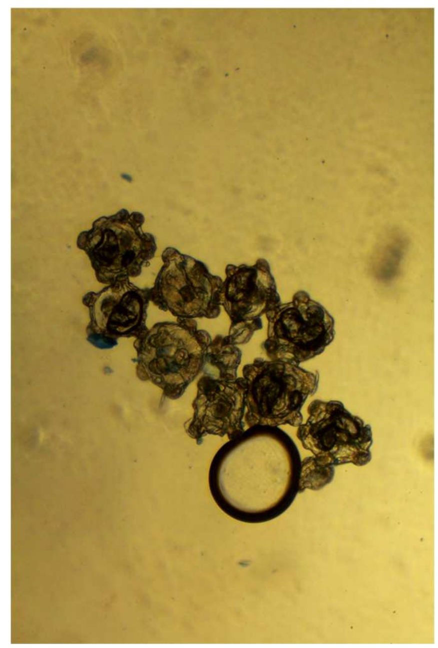
In so many other respects there are no conclusions to be drawn. Hybridising, after all, is an on-going process in which small steps can be undertaken when we have clear goals in mind; fascination and opportunity always remain. This is a journey of discovery rather than a destination. How brilliantly exciting and into the unknown.

I hope you have enjoyed this series of articles in which we have endeavoured to touch on subjects not normally discussed in the world of Fuchsias. It just goes to show, in the language of that old Chinese saying, "May you live in interesting times." Yes, we all do.

Acknowledgements

I wish to thank Mario for all the help he has so willingly provided across the years. May future TFBI publications be as thought provoking and wide ranging in their appeal as they have been during this last decade.





Seedling 'SR 661'

Notes

1 *On The Fertility of Fuchsia Pollen – Part One,* TFBI, Issue 2, December 2013, pp.3-6.
On The Fertility of Fuchsia Pollen – Part Two, TFBI, Issue 3, July 2014, pp.3 & 4.
On The Fertility of Fuchsia Pollen – Part Three, TFBI, Issue 4, December 2014, pp.4-6.

2 Berry.P.E., 2018, in *Handbook of Plant Breeding, volume 11*, *Ornamental Crops*, Ch. 16, Melle, Belgium: Springer International. ISBN 978-3-319-90697-3.

3 *Apomyxis – A Rare Case,* In TFBI, Issue 11, July 2018, pp.2-4.

4 *On The Fertility Of Pollen – Part Three,* TFBI, Issue 4, December 2014, p.4.

5 Edlund.A.F., et al, 2004, *Pollen and Stigma structure and Function: The Role of Diversity in Pollination*, in Plant Cell, 16; S84-S97. (on-line and current 2020.10.12)

6 Where photographs of pollen include dark-ringed shapes, as with that of *F. procumbens* (p.2, column 1) where there are two, these are of air bubbles. They are almost impossible to eliminate from prepared slides.

Update on project 'Developing a Yellow Fuchsia'

By Henk Waldenmaier and Mario de Cooker

Photographs in this article by Mario de Cooker

Introduction

The December-2019 issue of 'The Fuchsia Breeders initiative' contains the article 'Developing a Yellow Fuchsia'. This article describes the attempts to obtain a tetraploid *Fuchsia procumbens* by treatment with colchicine and oryzaline.

In recent years, several crossing experiments and additional flow cytometry measurements have been performed. This article describes the progress of work on the yellow fuchsia based on *F. procumbens.*

Two flower sizes on a B19-18 plant

Polyploidisation of *Fuchsia procumbens.*

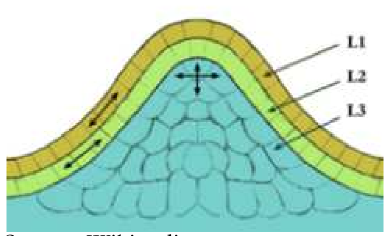
Of the seedlings treated with colchicine and oryzaline, four were eventually found to be tetraploid (confirmed by flow cytometry). After pollination of these seedlings (mainly as selfing), the fertilization and seed setting of three of them turned out to be poor, while one seedling (B19-18) produced a lot of seed pods.

B19-18 showed different flower sizes on a plant and/or a branch (see photo). In the meantime, crossing work with B19-18 as the male and *F. procumbens* and various other fuchsias as the female (see below) has shown that it is highly unlikely that B19-18 is a tetraploid seedling. This was confirmed by flow cytometry measurements on various seedlings from these crosses.

Until then, all flow cytometry measurements had been performed on leaves. Because of the difference in flower size, measurements of seedling B19-18 were also carried out on the flower itself. The small flower showed full diploidy, whereas the larger flower was diploid with a small percentage of tetraploid cells. Pollen analysis via light microscopy showed 100% pollen with 2 pores in B19-18, which also indicates haploid (11x) pollen. The fact that crossing was only successful with itself (thereby producing a lot of seed) reinforces the conclusion that B19-18 is diploid in the reproductive organs, and tetraploid in the leaves.

The cell structure in plants consists of three layers. These layers cannot mix mutually. The layers are referred to as L1 (leaf), L2 (reproductive organs) and L3 (includes the roots). Thus, at B19-18, the cells in L1 are tetraploid and the cells in L2 are diploid. This might be the result of the way of treatment with colchicine/oryzaline. In our case, the growing tips of the already somewhat larger seedlings have been treated. Apparently the penetrating power of the colchicine/oryzaline through the growing tips is insufficient. This is in contrast to completely submerging the seedlings.

Incidentally, one of the four leaf-tetraploid *F. procumbens* seedlings (B19-26) has approximately 50% pollen grains with 3 pores. Hopefully we can do something with that.



Source: Wikipedia

Tunica-Corpus model of the apical meristem (growing tip). The epidermal (L1) and subepidermal (L2) layers form the outer layers called the tunica. The inner L3 layer is called the corpus. Cells in the L1 and L2 layers divide in a sideways fashion which keeps these layers distinct, while the L3 layer divides in a more random fashion.

Crossings of 'Sparkling Whisper' and seedling N 97- 01 with seedling B19-18

Phenotypically, 'Sparkling Whisper' and N 97- 01 show quite some similarities to *F. splendens*. The 2C DNA values as determined by flow cytometry also differ only little from that of *F. splendens* (see table below). It is therefore to be expected that the 2C DNA value of the gametes is also roughly half that of the very likely diploid 'Sparkling Whisper' and N 97-01. This is confirmed by the flow cytometry measurements on these plants and the crossing products.

From crossings 'Sparkling Whisper' x B19-18 and N 97-01 x B19-18 some twenty seedlings were obtained. Phenotypically they all closely resemble the mother *F. procumbens* in terms of twigs, leaves and flowers. All parts of the plant are slightly larger than those of *F. procumbens*. The growth habit is more upright. The seedlings from N 97-01 (a spring blooming plant) have not yet flowered. A single seedling (N 21-10) of the crosses with 'Sparkling Whisper' (which flowers all year round) has produced a few flowers having an incomplete greenish/yellowish corolla. A few other seedlings (N 21-17 being an example) had a more purplish/reddish corolla.

The various seedlings have so far not provided any pollen. Seedling N 21-17 at least proves fertile as a mother. Crosses N 21-17 x 'Sparkling Whisper' produced small greenish/yellowish berries containing a few seeds. Unfortunately, the germinating seeds have been lost by a physical incident.

N 97- 01, female parent of 'Sparkling Whisper'

'Sparkling Whisper' (De Cooker, 2001)

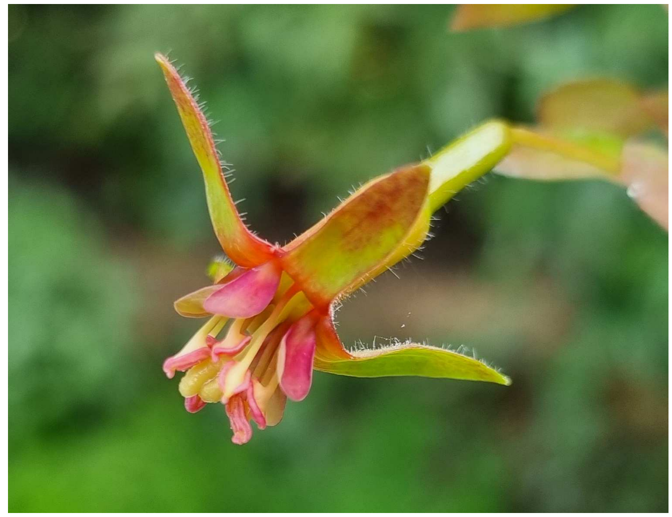
Seedling N 21-10 = 'Sparkling Whisper' x B19-18

Flow cytometry data*	**2C DNA value (pg)**
F. procumbens (22x, leaf)	1.34
F. procumbens (44x, leaf)	2.78
F. procumbens B19-18 (small flower)	1.31
F. procumbens B19-18 (mixoploid flower)	1.38**
F. splendens	3.13
Sparkling Whisper	3.18
N 97-01	3.10
N 21-17 = Sparkling Whisper x B19-18	2.37
Seedling N 97-01 x B19-18	2.40

* PI Flow cytometry measurements by ILVO **First peak in histogram

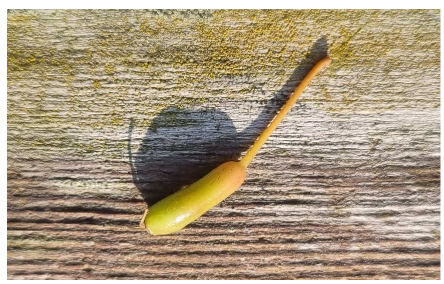
Conclusion and further actions

Progress has certainly been made in the 'Yellow Fuchsia' project, but there are still several major hurdles to overcome. Additional treatments with colchicine/oryzaline to *F. procumbens* seedlings will be performed. It seems useful to check leaf-polyploid plants for their ploidy via flow cytometry measurements on the flowers. With N 21-17 and any other fertile seedlings additional crosses will be carried out.



Seedling N 21-17 = 'Sparkling Whisper' x B19-18

Seedling N 21-10 showing three greenish/yellowish petals.



Seedling N 21-17, seed pod (12 x 3 mm) and seeds.

Please update your e-mail address!
It happens rather frequently that subscribers to The Fuchsia Breeders Initiative change their e-mail address. However, if this has not been communicated to the editor, it's not possible providing you with the most recent issue at the moment it is sent around. And you might be wondering why you are not on the subscribers list anymore.

So if you want to stay connected, please communicate any changes to **fuchsia@decooker.nl** and you will receive your copy at the appropriate moment.

In the spotlight: 'Jaspers Hardy King'

Photographs in this article courtesy Hans van Aspert

Fuchsia 'Jaspers Hardy King' (Van Aspert, 2011) was raised from seed in 2006, judged by the NKvF Judging Committee in 2011 and AFS registered (nr 8668) in 2016. It is a proliferous and strong fuchsia, originating from the crossing *F. regia reitzii* x 'Theo Jeukens'.

The breeder's original seedling is already for about 15 years situated in sandy soil against a south wall of the house in full sun. It is only very sparingly fertilized. In the autumn, a thin layer of fuchsia prunings is applied to the plant. In June, only a little cow dung is added to young Fuchsia seedlings that are planted nearby. No treatment with pesticides is carried out.

The plant has excellent winter hardiness properties. Its branches have easily survived temperatures as low as -8°C without being damaged.

All in all 'Jaspers Hardy King' will make an excellent addition to the assortment of hardy fuchsias in your garden!

'Jaspers Hardy King' (Van Aspert, 2016)

What's new in triphylla?

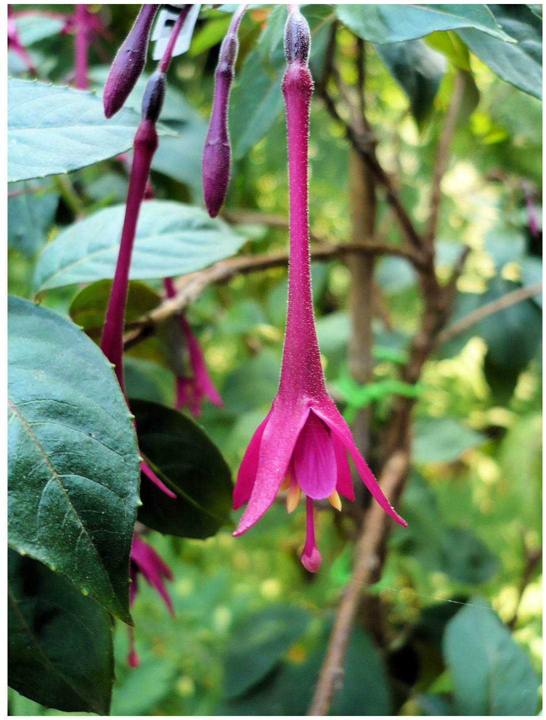
By Mario de Cooker

Photographs in this article by Mario de Cooker

In recent years, several new triphyllas have been created based on the hexaploid purple seedling N 16-20 (having the genome TTTTJJ) and its hexaploid, pentaploid and tetraploid progeny. Amongst these, pentaploid purple seedling P18-F8 with the genome TTTTJ (T = set of 11 *F. triphylla* chromosomes; J = set of 11 *F. juntasensis* chromosomes) takes a prominent position.

In this article, a number of these new triphylla seedlings are shown (p. 11-14) to provide an impression of the broad range of the new triphylla phenotypes, having all different kinds of shapes and colours. In a next article, which will be published in the July issue 2023 of The Fuchsia Breeders Initiative, the often excellent fertility of both pentaploid triphylla fuchsias and their highly aneuploid offspring, and the broad spectrum of colours and shapes is further explored.

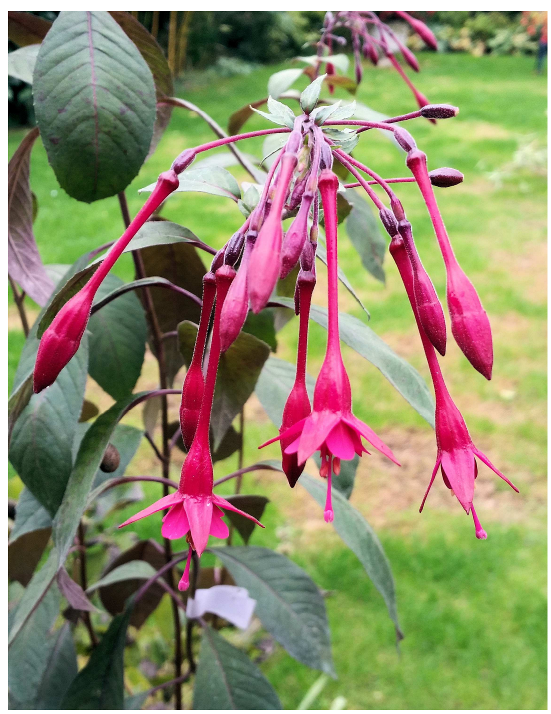
The fertility of pentaploid fuchsias can be well understood by assuming a presynaptic alignment of chromosomes at zygotene and early pachytene, thereby producing, in the case of seedling P18-F8, 11 pairs of synapsed *F. triphylla* chromosomes and 11 triplets of two synapsed *F. triphylla* chromosomes plus an aligned *F. juntasensis* chromosome. Such mechanism is described in the literature for a pentaploid *Achillea* hybrid[1]. A similar mechanism could also account for the fertility of highly aneuploid offspring with genomes such as TTTT + ij (j = *F. juntasensis* chromosome, i = 0-11 in the first generation progeny). Flow cytometry measurements divulge the broad range of such aneuploid progeny.



Seedling N 16-20

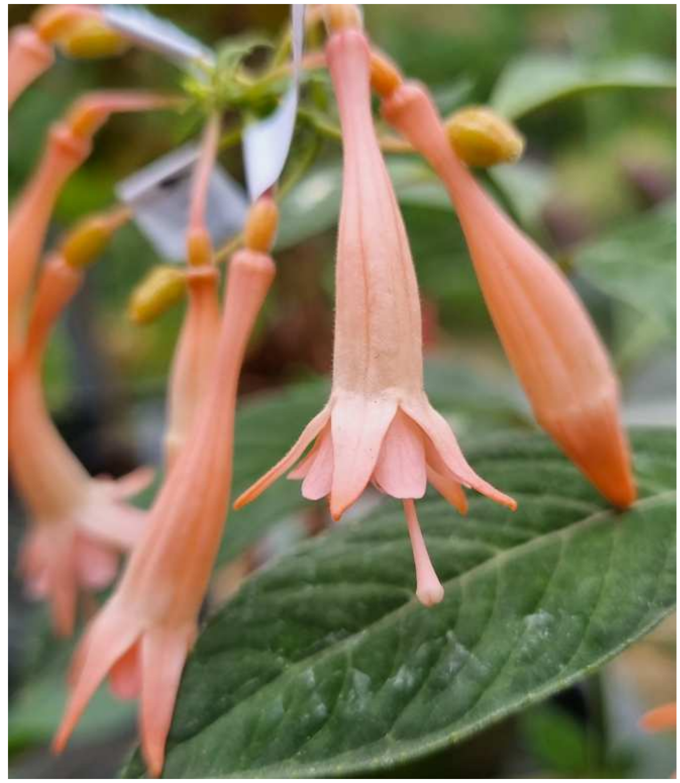
Seedling N 20-18

Seedling N 22-29



Seedling P18-F8

Seedling N 22-17



Seedling N 22-49

Seedling N 22-40

Seedling N 22-39

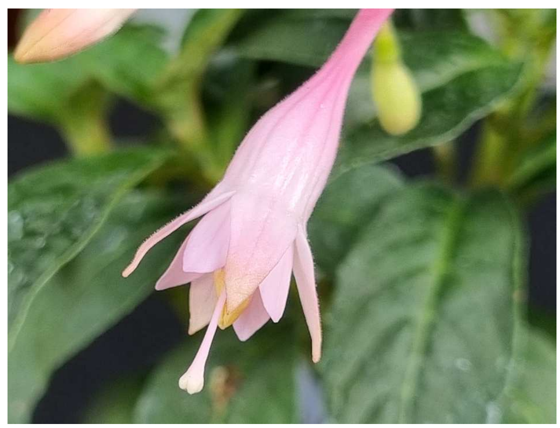
Seedling N 22-27

Seedling N 22-50

Seedling N 22-24

Seedling N 22-28

Seedling N 22-56



Seedling N 22-08

Seedling N 21-13

Seedling N 22-26

Seedling N 22-43

Seedling N 22-20

Seedling N 22-32

Seedling N 22-06

Reference

1 Loidl, J. et al, EM analysis of meiotic chromosome pairing in a pentaploid *Achillea* hybrid, *Heridity* **65** (1990), p.11-20.

New fuchsias from Mario de Cooker

Photographs by Mario de Cooker

Fuchsia 'Irish Ophelia'

Triphylla *Fuchsia* **'Irish Ophelia'** (De Cooker, 2022) originates from the crossing B 83-05 x N 16-20.

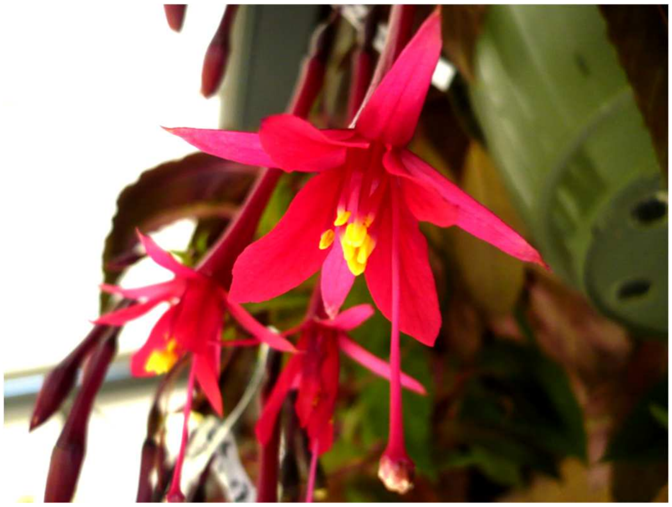
B 83-05 is a highly fertile orange pentaploid seedling, raised by Dutch Fuchsia breeder Henk Waldenmaier. It has the genome MMMMF (M = set of *F. magdalenae* chromosomes, F = set of *F. fulgens* chromosomes).

N 16-20 is a highly fertile purple hexaploid seedling, raised by Fuchsia breeder Mario de Cooker. It has the genome TTTTJJ (T = set of *F. triphylla* chromosomes, J = set of *F. juntasensis* chromosomes).

From the crossing parents it can be expected that the 'Iris Ophelia' genome looks like MMTTJ, possibly supplemented with some *F. fulgens* chromosomes. This is confirmed by flow cytometry.

The set of *F. juntasensis* chromosomes in the genome is responsible for the purple colour, which is still further accentuated by the orange of *F. magdalenae*. The bright yellow anthers are inherited from *F. juntasensis*.

F. 'Irish Ophelia'



Bright yellow anthers have been inherited from *F. juntasensis*

'Irish Ophelia' has an exceptionally long tube length of 80-90 mm. It's not really clear what causes this. With Fuchsia cultivars such as 'Leonhart von Fuchs' and 'Herps Bazuin', which both have a tube length of over 100 mm, this can only be caused by the combination of *F. magdalenae* and *F. fulgens* genes. This might also be the case with 'Irish Ophelia', but this needs further investigation.

'Irish Ophelia' is named after one of the four dogs of the family: the Irish Terrier 'Ophelia'. She is now 4 years old, she is very smart and always cheerful and ready to invite us and the other dogs for games. She's a real challenge!

Growing *F.* 'Irish Ophelia' is also a challenge. But because of the beautiful triphylla flowers it is definitely worth growing her. One of the biggest challenges is making cuttings. It inherited its rather difficult rooting properties from its ancestor *F. magdalenae*. Once the cuttings have started to grow, it is normally not a big problem to turn them into a well-growing plant.

The plant can best be grown as a trailing fuchsia, both as an older plant or from young cuttings, several cuttings in a basket. Because the plant is late flowering, it should be pinched very early in the season, or should not be pinched at all. Flowers will then be produced at the end of July. Non-pinched plants grown from late April cuttings start flowering at the end of August. Even in the cold greenhouse in winter, the plant continues to produce many flowers. No experience has been built with overwintering at higher temperatures.

Best time for pruning is in February/March. Pruning at the end of the season is not recommended because of the danger of relapse of the older plant. Without an early pruning, overwintering and regrowth at the end of the winter season does not cause any big problems.

Irish Terrier 'Ophelia'

***Fuchsia* 'Irish Ophelia' in the cold greenhouse around Christmas.**

***Fuchsia* 'Irish Ophelia' (mid September 2022)**

Fuchsia 'Roman Emperor'

Triphylla *Fuchsia* **'Roman Emperor'** (De Cooker, 2022) originates from the crossing of seedlings N 16-47 x N 14-10.

N 16-47 is a triphylla seedling with an excellent purple colour, originating from 'Strike The Viol' (= ('Göttingen' x 'Our Ted') x ('Göttingen' x 'Our Ted'); De Cooker, 2012) x *F. juntasensis.*

N 14-10 has, among others, *F. magdalenae, F.* x *colensoi* and 'Jaspers Indestructible' in its ancestors.

'Roman Emperor' is a floriferous Bordeaux-purple triphylla that is best grown as a semi-trailing plant. She does not need any special treatment and blooms all season long. Overwintering is without any problems.

The name of the cultivar refers to the use and significance of the colour purple in ancient times. Purple was the colour worn by Roman magistrates; it became the imperial colour worn by the rulers of the Byzantine Empire and the Holy Roman Empire, and later by Roman Catholic bishops. Similarly in Japan, the colour is traditionally associated with the emperor and aristocracy (source: Wikipedia).

***Fuchsia* 'Roman Emperor'**

***Fuchsia* 'Roman Emperor' (end of August, 2022)**
The plant was grown by Mrs. Petra Pinckaers, member of our local Fuchsia Society.

Open Fuchsia Archive

Letter from Eddy de Boever and John Palmer

Fuchsia catalogues, records, people and reminiscence.

We passionately believe that there is a need to preserve as much as possible of our fuchsia heritage. This can take many forms. One of these is through the preservation of old documents and associated material: old catalogues, breeding records, and information on those responsible for the many introductions that make our fuchsia knowledge what it is today.

We recognise that much is transient and that once lost cannot be reclaimed. So, we are looking to the wider fuchsia community worldwide to help us preserve and make available to others as much fuchsia information as possible, before father time wins the battle.

Can you help? Any information – catalogues, correspondence, personal recollections, pen portraits, relevant correspondence, or background information on introductions - will be welcomed. It may be that you have boxes of old catalogues etc sitting in the attic. Rather than throwing them out can we make use of them for the benefit of the wider fuchsia community? We do not need to have the originals; whilst any spare source material will be welcomed, we are happy to receive copies of documents via whatever means available: smartphones, for example, are perfect for copying nurseryman's catalogues and associated documents. They will serve the same purpose. Anything received will be made freely available to anyone to use either for research or for your own personal use, with appropriate acknowledgements to the provider of each document.

If you can help us we would be greatly appreciative. Please contact either of us initially so that we can discuss with you the best way to preserve our fuchsia heritage.

Many thanks,

Eddy De Boever [FuchsiaFinder]
fuchsiafinder@gmail.com

John Palmer [Fuchsiabase]
fuchsiabase@gmail.com

What will we do with the digitized content?

- An inventory of digitized fuchsia related content can be found online on the FuchsiaFinder website. Go to https://fuchsiafinder.com/catalogues/
- The combined documents will form an Open Fuchsia Archive. Non-copyrighted content will be made available on request to researchers and other interested parties.
- Acquired catalogues will be used to add provenance for each cultivar in the FuchsiaFinder and FuchsiaBase databases and to improve the databases in general.

How to proceed specifically to digitize publications?

- take a photo with your smartphone of each page of the relevant catalogue
- put the photos in a folder on your computer
- send the folder to fuchsiafinder@gmail.com and/or fuchsiabase@gmail.com using the free website WeTransfer.com

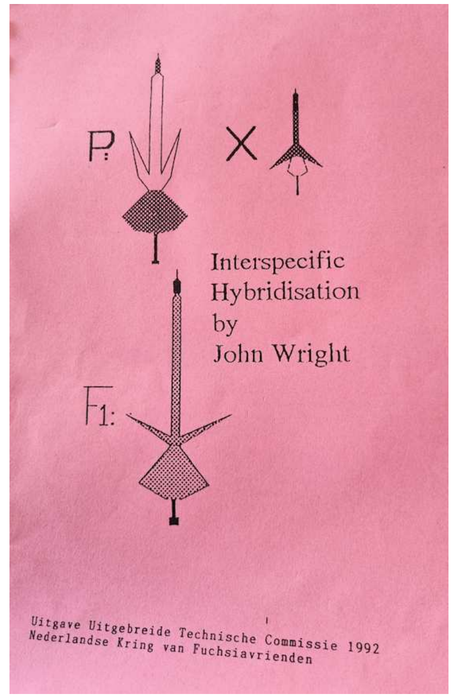
Digitizing a catalogue typically takes less than 15 minutes. If you are not handy with smartphones and the internet yourself, you may want to ask your children and grandchildren for help. An ideal opportunity to spend time with them and introduce them to your hobby.

If you have source material you want to share but cannot digitize yourself, or original material that you wish to pass on to us, then please contact either of us so we can find a solution. If you are in the UK, USA, Australia or New Zealand then contact John; for mainland Europe please contact Eddy.

Avoiding duplication

To help you help us we have created records all catalogues we have already digitized. If you go to https://fuchsiafinder.com/catalogues/ you can check if we already have a copy of a specific catalogue. If we have it then there is no need to copy. If we don't then we will be delighted to receive any catalogues or copies you may have.

Please distribute this letter to anyone that possibly has source material and might want to contribute to the Open Fuchsia Archive. In particular, we call on archivists of fuchsia societies and collectors of fuchsia lore to submit whatever they have lying around. The Open Fuchsia Archive will benefit the global fuchsia community.



We wish you a Very Merry Christmas and a Happy New Year

Fuchsia apetala: what's in a name?

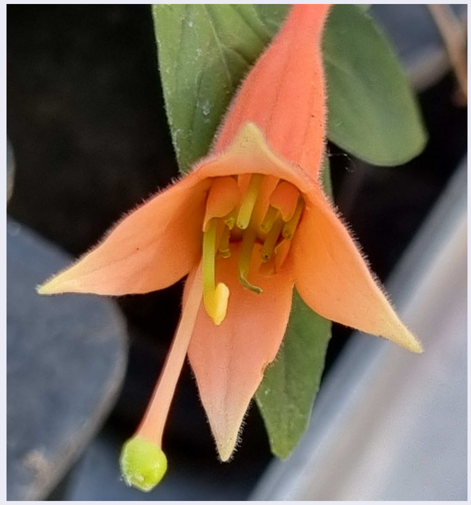
By Mario de Cooker

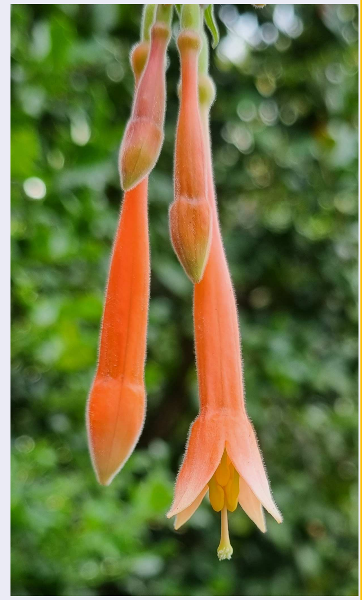
Fuchsia apetala is part of Section *Hemsleyella*.

As its name suggests *F. apetala* should, as also the other members of Section *Hemsleyella* do, not show any petals. Sometimes however a single petal in Section *Hemsleyella* shows up in vestigial form as with *F. juntasensis*.

Fuchsia apetala sometimes shows four vestigial petals, having a light pink/orange colour. So it clearly doesn't fully honour its name.

In the photograph, seven of the eight stamens have been removed from the flower for providing pollen to make crosses.





Fuchsia apetala

Contents of the next issue

The next issue is scheduled for the end of July 2023.

On the fertility of pentaploid triphylla fuchsias and the phenotypes of their offspring (by Mario de Cooker)

The often excellent fertility of both pentaploid triphylla fuchsias and their highly aneuploid offspring, and the broad spectrum of colours and shapes of their flowers will be explored. The broad range of aneuploid seedlings as found by flow cytometry can be well understood by assuming a presynaptic alignment in meiotic chromosome pairing.

An index to articles, subjects and pictures of The Fuchsia Breeders Initiative, issues 11-20 will be included in issue 21.

Want to learn more about all this? Then stay connected!

Your contribution to the The Fuchsia Breeders Initiative is highly appreciated.
Contributions for the next issue should be available no later than July 10, 2023.

The Fuchsia Breeders Initiative

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