Crocus Group Bulletin No. 33
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Hon. Sec. notes
The *Crocus* Group issues two publications a year. The main Bulletin, which has a sequential issue number, is sent out in the late summer/early autumn each year. The winter/spring newsletter, which does not have an issue number, is sent out in January to UK members only, as a reminder for the spring visits and seed exchange.

Membership cull
A very successful cull, Primrose would be proud. There's enough money to keep us in postage stamps for another five years or so. What really pleased me were the notes of good wishes. I often wondered how members view our quirky little group and I am now assured that it is with a large degree of tolerant affection.

***Crocus* from seed**
Every year in August I sow the annual batch of *Crocus* seed. This can be from a variety of sources, i.e. from my seedbank, from collections that year by friends, my own collections and from cultivated plants. I normally sow somewhere between 80 – 150 pots of seed each year, and after about the third year have had a succession of flowerings each year thereafter. Normally I would expect to wait 3 – 4 years to see the first flowers from these sowings. The quickest I have had previously was *Crocus gilanicus* that produced one flower in a pot of 20 seedlings in the autumn of two years after sowing, i.e. 27 months. This January 2005 I was surprised to find a flower in a pot of seedlings of *Crocus gargaricus* that I sowed in August 2003, that is 18 months after sowing.**S**

***Crocus* herbarium specimens by Brian Mathew**
During a recent conversation with David Stephens I recalled that in the preparatory work for the monograph of *Crocus* (published 1982), I had borrowed herbarium specimens from various herbaria, mainly European and Turkish. This is established practice when undertaking botanical research, and from institutions such as Kew there is a constant flow of incoming and outgoing loans. Herbarium specimens can provide an enormous amount of data, not only morphological details but locations (which help in compiling distribution patterns) and information about the habitats, flowering times, etc. Occasionally there may be the buzz of finding something previously unknown (but more likely to be a new distribution record of a known species), lurking undetected in some foreign herbarium! Many of the *Crocus* specimens were misidentified so part of the exercise was a service to the various herbaria, tidying up the curation of their collections. Some of the more important ones were Paris, Berlin, Copenhagen, Vienna, Geneva, Gothenburg and Jena. Clearly the more specimens you see the better the picture that can be built up about each species. The specimens also serve as long-standing record that can be referred back to at any time, for example if there is a question of identity to be checked. One may say that living plants are much better than dried specimens for studying the characteristics of a species, and that is undeniably true. However, to have hundreds, even dozens, of different collections of each species readily to hand would be cumbersome in the case of *Crocus* alone.

Imagine this multiplied by all the world's plant species and you can see why a herbarium is essential. A herbarium such as Kew's is in effect a giant card index of the world's flora, with specimens of most of the third-of-a-million species available for study at any time of the year. Live specimens are available for study in flower for perhaps only a week or two of the year (if you can grow them!) but dried specimens are always on hand for reference purposes. The ideal answer of course is to have both living and dried specimens available. That, by and large, is the happy situation we are in with regard to *Crocus*, thanks to the enthusiasm of members of the *Crocus* Group, National Collection Holders and some of our leading public and botanic gardens.

With this as the background, loan requests were sent out to all the major herbaria where there were likely to be good collections of *Crocus* specimens, and particularly those where the all-important 'type specimens' were housed. A type is the original specimen on which the name of a particular species was based (these are usually placed in red folders in herbaria to indicate their importance). In short, when a species is described and named for the first time a type must be designated, and it is usually this specimen which forms the basis for the Latin description or diagnosis. The type specimen establishes the name of that species and acts as the marker against which another unnamed collection can be assessed in future: the question is does it belong to the same species as the type specimen or is it something else? It is sometimes thought that a 'type' has to be 'typical' (an average example) of the species but this is often not the case; it is merely a representative of the species (but, obviously, one which has all the essential diagnostic characteristics). Take, for example, Martyn Rix's collection number 1318 from Antalya province in Turkey. When this flowered I realised that it represented an undescribed species so it duly received its formal description and publication as *Crocus antalyensis*. The flowers were a fairly rich mid-violet with a fawn exterior, striped violet; subsequent collections show that it is much more widespread than just Antalya province and is often quite a pale colour; some of the populations are predominantly white-flowered, not infrequently with a bluish exterior. So, the original specimen was not really 'typical' of the species but it is still - and will always be - the type specimen.

Going back to the original theme of this note, having acquired all these specimens on loan they were studied, identified, and the information listed by hand (pre-computers at Kew!). In the case of some institutions in Europe loans were not a possibility, or the collection was just too large to send, so I had to travel to the herbaria to work on the specimens *in situ*. Geneva, for instance, has the large and very precious Boissier herbarium collection (which incidentally includes the type of *Crocus boissieri*) and this stays firmly underground in its atom-bomb proof shelter. A lot of the information extracted was put into *The Crocus* but the lists of specimens were never published and have resided to this day in my collection of *Crocus* memorabilia papers. On hearing this, David enthusiastically volunteered to put all the information on to a database, and I am happy to report that the project is under way and one day all will be available in a much more accessible form for reference. I did warn him about the handwriting...!
Yeah, but he didn't warn me about the medieval botanic Latin or the taxonomists own special form of shorthand! S

***Crocus* in Australia by Trevor Nottle**
Months have gone by since you asked me to send some notes to the *Crocus* Group about my progress with the seeds I received a few years back.

Autumn is here and already I have been beaten to the task by *Crocus speciosus, C. laevigatus, C.kotschyanus, C. korolkowii* and if I'm not quick *Crocus oreocreticus* will appear through the dry grass under the walnut trees too. When I wrote to you I said I was particularly interested in experimenting with *Crocus* from the Mediterranean region to see which would accommodate our local version of that climate type. My ambition has been to plant my *Crocus* in the open garden and see how they perform.
I'd have to say that all of the above have done very well and are now more or less well established and multiplying well by droppers and seeds. I am finding that a good many of the

Cyclamen species are doing likewise and assort well with the *Crocus* under trees and in very thin, rough grass.
This year we have had an extended Indian Summer. Normally we would expect the first good rains around April 25th – ANZAC Day here. Here it is May 9th and still nothing; a few foggy mornings, a little dew but no rain at all. The ground is bone dry but the *Crocus* and *Cyclamen* haven't been deterred from flowering so far. Among those yet to appear are batches of *Crocus biflorus* and *C. sieberi* in many forms, *Crocus malyi, C. cartwrightianus* and *C.flavus.* All these from *Crocus* Groups seed distributions over the last 10 years or so.

I must confess that I have had no success with any of the high altitude snowmelt species; it's just too hot and the dry period is too long for them to make it through our extended summers. They might if I were retired and had time for daily ministrations of a potted collection but that must remain an experiment for the future.

This weekend I have been enjoying a lovely and very variable batch of *Crocus laevigatus* 'selected forms' that you sent. For safety these grow in a large terra-cotta baby's bath sized tub that also houses *Fritillaries*, species *Narcissus* and fancy selections of *Cyclamen coum.* These particular *C. laevigatus* show moderate variations in petal width and internal colouring in the usual lavender to pale, almost white shades but the external marking and colours are really striking. These range from almost white to deep bluish purple with more or less feathering merging into broad, solid central stripes. The stripes and feathering also show very pleasing variations from grey to almost black and in some cases mahogany with reddish lights. Maybe I am being too effusive but these really are a select group to my untutored eyes.

All of my bulbs are grown in plain ordinary garden soil, slightly acidic loam with small ironstone nodules and shattered quartz stones mixed in. They grown in very thin, rough grass and mosses under century old walnut trees. I am very casual about fertilising my bulbs but they do get something to encourage them in these relatively hard conditions with heavy competition from tree roots. Generally I scatter some pelletised poultry manure around the trees and on the grass in late summer or autumn and leave it at that.

We have no pests that I have noticed apart from blackbirds; beautiful night -time songbirds introduced 150 years ago by acclimatisers anxious for some reminders of Home in the Old Country. The scratching and digging habits of the birds are a real nuisance, though they don't seem to eat the bulbs but pull them apart from their skins looking for small insects and grubs. In the open garden this is not really a problem as the bulbs are well protected deep under the surface of the soil, but pot grown seedlings and their labels are very vulnerable to their pestiferous habits. I try to protect my seed pans and pots by covering them with a motley collection of wire cake stands; the kind that is used for cooling cakes fresh from the oven. It is hardly attractive but it does seem to work. **Trevor Nottle**

Cretan Crocuses exposed
A new book, *Flowers of Crete*, published in May 2005 contains a lot of superb images of the six species of Crocus occurring naturally in Crete, photographed by John Fielding. These are:
C. sieberi (10 images) illustrating a wide range of differently marked forms with purple and white zones; some are almost wholly purple on the outside, some with just a central stripe, others white with no purple zone at all. One of the photos shows 12 flowers with varying markings laid out on the snow. There is a particularly attractive white form with just a narrow deep purple margin to the outer perianth segments.
C. laevigatus(4 images). Apart from the familiar 'standard' variations of white with purple stripes or staining, John has photographed a rare lilac -purple form; another is white with a yellow flush on the outside. The style is usually well branched in this species but one form found by John has a very conspicuous mass of stigma branches.
C. boryi (1 image), a fine form with a splendid bright orange stigma.
C. tournefortii (2 images), showing the very fine style branching which is such an attractive feature of the species.

C. oreocreticus (2 images), a large format close up of the flowers and a habitat shot on the Katharo plain.
C. cartwrightianus (2 images) from Falasarna, western Crete. One photo shows clearly the three red club-shaped branches of the *C. sativus* group, the other a close-up of the fruiting stage. The captions provide useful information, including the location and date when the photo was taken.
Flowers of Crete is by John Fielding and Nicholas Turland, published by The Royal Botanic Gardens, Kew at £47 plus postage.
Details: "A celebration of the extraordinarily rich and unique flora of Crete. The extraordinary geological and climatic history of this rugged island has resulted in a great range of different plant habitats and remarkable plant diversity, with a high degree of endemism - nearly 10% of the total flora. The authors have visited the island many times, and this book encapsulates their outstanding knowledge of the Cretan flora. **Brian Mathew**
288 x 238mm. 650pp. 1,900+ colour photographs. Hardback; with dust-jacket.
ISBN 1 84246 079 X Available from the Kew bookshop or online from: www.kewbooks.com

Dr L. Walter Macior
Another rather strange project I have taken on involves archive material sent to the Lindley Library at Wisley from the Department of Biology at the University of Akron OH US. A few months ago Brian was contacted by the university to say that they were in possession of 30 volumes of reproduced articles relating to *Crocus* and would he like them. At first sight not much to get excited about, big deal, some photocopied articles!! However, when Brian looked through the indexes to these volumes, the contents started to look quite extraordinary. After an exchange of e-mails with myself to try to work out what to do with the material, Brian contacted Brent Elliott at Lindley Library who agreed to take them. I had rather enthusiastically suggested that I could transfer the indexes to a database so that the contents could be indexed by author, title, date etc. The existing indexes with the volumes merely state what is in each volume and there is no perceivable order to the contents, they were compiled as the material was acquired. So far I have indexed 10 of the volumes and the material ranges in date from 1641 to the 1950's. What is represented is photocopies of the original editions of works and articles by the likes of Theophrastus, Tournefort, Linnaeus, Lamark, Reichenbach, Lindley, Ledebour, Tchihatcheff, Willkomm, Regel, Janka, Hooker, Sprenger, Velenovsky, Halacsy, Vilmorin-Andrieux, Wedenskny, Schultz-Korth, Kosanin, Karasawa, Zohary, not to mention a copy of Maw and a copy of Mathew. Those authors mentioned above are merely a few of the better-known names. I can only assume that Dr Macior was attempting to put together a totally comprehensive bibliography of everything to do with *Crocus,* not just the reference, but the whole article or book section. He must have travelled extensively to be able to visit places where these books were available to be copied. What I find most extraordinary is the fact that no one appears to have ever heard of Dr Macior and to the best of our knowledge he didn't grow *Crocus*!! Only another 20 volumes to go.**S**

Crocus Group @ the *Fritillaria* Group meeting
We have a standing invitation to attend the autumn meeting of the *Fritillaria* Group. This year it is at the **Hillside Centre Wisley** on **Sunday, 16th October 2005** starting at 0930. We are invited to bring flowering *Crocus* for a display table. See you there, and please bring plants for the table and any spares for sale or auction. **S**

Articles required
Would members please put pen to paper and let me have some articles for future bulletins. Just a few paragraphs will suffice if you don't think you can manage a page length. Any type of article will do, as long as it has *Crocus* as a theme. Would particularly welcome articles from overseas members. Post to my new address David B Stephens, Green Hollow, South Terrace, Dorking, Surrey, RH4 2AQ or e-mail to thecrocusgroup@hotmail.com. **S**