

Crocus Group Bulletin No. 31

Summer 2003

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Editorial

Another growing season soon starts for (Northern Hemisphere) *Crocus* enthusiasts. I am hoping that for me it will be better than last year. Whilst on the trip that I described in the last bulletin to Northern Greece during April 2002 the UK had a mini heatwave. Whilst we were trudging through snow and slush in the Rhodopes and on Mt Falakro, my *Crocus* were drying out and going prematurely dormant. This has led to the plants not making decent sized new corms. So, this year is a catching up and reestablishing period. Luckily I have many seedling pots maturing each year, also I can get back some plants from friends whom I have been wise enough to share with over the years. It's a true old saying that if you have two, give one away. S

Professor Turhan Baytop

Since the last bulletin one of the great names in botany has died. Professor Turhan Baytop who was 82 was well known in Britain to botanists and plant enthusiasts for the many discoveries he made during his extensive travels, which amounted to more than 170 individual plant hunting trips over a period of 50 years. During the course of these trips, he collected more than 10,000 dried specimens that are housed in the Faculty of Pharmacy Herbarium at Istanbul University.

As Dean of the faculty he specialised in the uses of plants in Turkey, particularly those of medicinal value such as *Papaver*, *Digitalis* and *Colchicum*, and published many papers and books on the subject. He donated duplicates of many specimens to the herbaria at the Royal Botanic Gardens in Edinburgh and Kew.

In the 1960's the botanist Peter Hadland Davis, based at Edinburgh, began the monumental task of compiling the *Flora of Turkey*, a work which has now been completed in 11 volumes. Volume 8 (1984) of this work was dedicated to Turhan Baytop and his wife Asuman, an eminent botanist at the same university who accompanied him on many field trips. A further measure of the esteem in which their exploratory work was held is to be seen in the number of newly discovered plants (and a species of butterfly) that were named in his, her, or their joint honour: *Crocus baytopiorum*; *Crocus asumaniae*; *Allium baytopiorum*; *Astragalus baytopianus*; *Colchicum baytopiorum*; *Galium baytopiorum*; *Nepeta baytopii*; and *Stachys baytopiorum* are some of them.

In 2001 Turhan Baytop wrote an autobiographical account of his travels in Anatolia, *Anadolu Daglarinda 50 Yil* (50 years in the Anatolian Mountains) which included a general history of plant collecting in Anatolia and some historically interesting facts and photographs.

Turhan Baytop was born on June 20th 1920 at Uskudar, Istanbul. His father was a military officer and keen amateur botanist which no doubt sowed the seed of his son's future interests.

These were developed by studying at the University College of Pharmacy in Istanbul; he later served as a pharmacist in the medical corps during military service. In 1948 he returned to college and gained his doctorate with a chemical investigation of *Ephedra*, the group of plants that contain important drugs such as ephedrine. This was followed by a similar study of a Turkish species of liquorice, *Glycyrrhiza glabra*.

Apart from one year (1951 – 1952) spent carrying out research at the Faculty of Pharmacy in Paris, Baytop remained at Istanbul University for the rest of his career, becoming a professor in 1963. He served five years as Dean of the Faculty and retired in 1987.

Turhan Baytop's wife Professor Asuman Baytop, and their daughter Professor Feza (Baytop) Gunerg survive him. He died on June 25 2002.

Crocus Up-date

In the new series of 'The Plantsman' Volume 1 Parts 1 and 2, March and June 2002, Brian Mathew published an update to his 1982 monograph. Amongst the discussions of the various new taxa and novelties described since his monograph, Brian described *scharojanii* subsp. *lazicus*, to distinguish the Turkish and Caucasian forms of this species. **S**

Crocus biflorus aggregate in Anatolia

In the most recent edition of The Plantsman (Volume 2, Part 2, June 2003), Helmut Kerndorff and Erich Pasche have published an article on the complicated aggregate that comprises *Crocus biflorus* in Anatolian Turkey. Some fine field photographs of the plants and habitat accompany the article and it describes 14 taxa to be found in Anatolia. Two of these taxa are new and are described here for the first time; a further taxa is named but not yet described. Other than the 9 taxa included by Brian in his monograph (*artvinensis*, *biflorus*, *crewei*, *isauricus*, *nubigena*, *pseudonubigena*, *punctatus*, *pulchricolor*, *tauri*), Pasche and Kerndorf have named 5 others as *albocoronatus*, *atrospermus*, *fibroannulatus*, *leucostylus*, and the undescribed one, *munzurensis*. They also mention another undefined taxon that does not fit into any known taxa within the existing aggregate. **S**

Crocus banaticus 'Snowdrift'

If you have seen and maybe desired this amazing plant, here is your chance to acquire some corms. Lee Martin who has displayed his prize-winning potful at Horsham and other places has some plants to spare this year. He would welcome swapping for other bulbs or alpines. Give him a ring on 01323 461242

Seed exchange 2004

As the flowering season is about to begin, just a reminder to hand pollinate your *Crocus* so that you can participate in the 2004 seed exchange as a donor. **S**

Crocus Group @ the Fritillaria Group meeting

As we have done for the last few years, we are invited to attend the autumn meeting of the *Fritillaria* Group at Wisley on **Sunday, 19th October 2003** starting at 0930. We are invited to bring flowering *Crocus* for a display table and any *Crocus* material we have for sale or auction. See you there, and please bring plants for the table and any spares for sale or auction. **S**

Spring visit 2004

We will visit the garden of **Pattie Peck** on the **22nd February**. Pattie's garden is at **Maynell Cottage, 95 High Road East, Felixstowe in Suffolk**, arrive about 1100. Other than *Crocus*, Pattie also has many cyclamen and snowdrops and as she has a small nursery, plants will be available for sale. When you get to Felixstowe, follow the signs to Old Felixstowe/Sailing Centre. There are three roundabouts - the first one is very large where "Dock Gate No. 1" direction is marked up. Bear left and carry on a few hundred yards until another roundabout is reached. If you turn right here go straight down a couple of hundred yards to a crossroads with traffic lights, turn left. Carry straight on and you will come to a big brick hotel "The Elizabeth" opposite the roundabout. Go straight over in the direction of the Sailing Centre. 3/4 mile along that road, which is High Road East and nearly straight, just past the second crossroads, Rosemary Avenue will be on the left and Picketts Road on the right, you will see some bollards in the middle of the road. The Montessorri Nursery is on the right (big brick building) and my house is on the left of these bollards. It is a detached house painted cream with mock Tudor gable and a low brick wall round the front garden, with a double drive and garage on the left. If you get lost or want to let Pattie know you are coming, her phone number is **01394 670840**.

The *Crocus*

John Sanders has a mint copy of Brian Mathew's 'The *Crocus*' for sale. It is not cheap, because he paid quite a lot for it, but he will let it go for the price he paid. Send a SAE for details to:
John Sanders, Creacombemoor Cottage, Rackenford, Tiverton, Devon. EX16 8EW

Grow your own Saffron

Caroline Riden, one of our members, has a commercial venture growing *Crocus sativus* for saffron in North Wales. This year she has remade some of the *Crocus* beds and has very generously donated a large number of corms to the *Crocus* Group. Any member who would like some of these corms should contact me and I will send them to you. There will be a charge of 4 x 1st class stamps or 3 x IRC for postage. Before August 31st please. This offer is restricted to members resident in the EU, as sending corms outside the EU has become very difficult.

David Stephens 'Sherwood' Bunce Common Rd, Leigh, Surrey. RH2 8NS

Caroline writes; Saffron is a wonderful flower, fragrance, spice and dye - probably in that order. We grow it in North Wales in the rain shadow area of the Welsh Mountains. The long term average annual rainfall is 32 inches. The nondescript soil lies on unforgiving clay to which we add well-rotted straw and cow manure, wood ash from our Rayburn (mostly ash wood but also a fair amount of oak) coarse sand and regular handfuls of lime to keep a pH of about 7. Before we discovered the traditional ridging method for planting saffron we had devised a similar one to give the corms/plants maximum sunlight, drainage and depth in well-aerated soil. Our Massey Ferguson 135 tractor with a ridger with the central ridging piece removed was used to throw up beds about 4 feet wide. Corms under 1"/2.5 cm are probably immature and unlikely to flower (though it is possible) but usually after a year's development they enter into their flowering corm reproductive cycle. I plant 6"/15 cm deep and 6"/15 cm apart for a four year growing plan. In their fourth year I lift the corms when the leaves have died back - sometimes as late as June if it is a rainy spring. If left longer (as I had to the year I broke my right shoulder) the crowded corms become so stressed predominately immature corms result. Because our climate/weather has fluctuated so much in the nineties I can no longer confidently predict just when the main flowering fortnight will occur. Usually it begins at the start of the second week of October - especially if there is a sharp frost. Our mild and muggy autumns can delay flowering until November and twice I have picked a few flowers on 25 December.

***Crocus reticulatus* hybrids**

One of our overseas members, Leonid Bondarenko, runs a commercial bulb nursery in Lithuania. Several years ago he developed a wonderful strain of *Crocus reticulatus* x *angustifolius* hybrids. I have grown some of these and can vouch for the vigour and beauty of these plants. These plants are on sale through both his own nursery and that of his friend Janis Ruksans in neighbouring Latvia. Leonid's address is given as a footnote to this article and I know he would be happy to do business with other *Crocus* Group members. His catalogue lists many rare and wonderful bulbs. Here in his own words is the story of how the *Crocus reticulatus* hybrids were developed.S

Approximately ten years ago was flowered first seedlings of *C. reticulatus* ssp. *reticulatus*, born from the seeds of plants grown in my garden. Like all first time flowering *Crocus* seedlings, the young plants had small flowers therefore some yellowness of the flower of one plant has seemed to me by an optical illusion, the more so as the flowers of this species in the beginning of the flowering have cream back of outer petals. Each day more and more I was convinced of difference of coloring of this seedling from typical one. Except for yellow background, in all rest: the time of flowering, the look of leaves, the form of flower and even in a pattern of longitudinal purple lines, differences was not. In the same year I understood it is a hybrid seedling from a spontaneous crossing *C. reticulatus* with any other species. In the greatest degree of probability it could be *C. angustifolius*, grown beside. The quantity of chromosomes of both species can be equal 12. There are many features in the look of both species: narrow leaves, round bulbs with a net scale, early flowering. The yellow color of flowers of the seedling could be determined by a fatherly plant *C. angustifolius* having bright yellow flowers. The assumption required check. It began from selection

the unique seedling with yellow colours of flowers and growing it apart. Next year has shown that the plant is sterile, (*C. reticulatus*, in Lithuania always gives seeds). It was a first argument confirmed hybrid origin of seedling. That year, year of mass flowering of the seedling adds some more plants with yellow colours selected among blossoming *C. reticulatus* to the first unusual seedling. With each year the quantity of seedlings with yellow colour flowers was increased, and increased information about signs and merits of the *C. reticulatus* hybrids, which allow me now to speak about a group of hybrid *Crocus* with outstanding properties, very perspective for mass cultivation in the European gardens and nurseries. In total was selected about 20 kinds, but after several years of separate cultivation were allocated only 4 kinds with flowers of much distinguished coloring: **EARLY GOLD**, **EGO**, **JANIS RUKSANS**, **NIDA**. At an estimation of kinds it were taken into account also ability to vegetative propagation, stability to illnesses and adverse climatic conditions. All 4 kinds are sterile and have magnificent factor of duplication (5-8, except NIDA). I did not meet in my practice a *Crocus* capable to give up to 8 bulbs of the large size as I have seen it at a hybrid **EARLY GOLD**. Large size and equality of produced bulbs - one of appreciable qualities of all hybrids. The plants practically do not give small bulbs. The time of flowering corresponds to the earliest flowering kinds and forms *C. chrysanthus* or *C. reticulatus*. In Lithuania they flower in the beginning of March, at once after the snow thawing. Probable the time of flowering in Western Europe must be February. The record quantity of flowers is 14 (**EARLY GOLD**). Flowers have the typical form of *C. reticulatus* with long tube and petals 5-6 cm long not open widely on the sun. Coloring of flowers of all kinds is yellow with variations.

EARLY GOLD - have a drawing from purple lines like *C. reticulatus*, basic tone is bright yellow inside and outside.

EGO - lines on the back of outer petals are more intensive colored, than of **EARLY GOLD** on a cream background. Flowers inside yellow.

JANIS RUKSANS - lines on the back of outer petals are wide and almost merge in bright reddish brown band.

NIDA - flowers are more lightly yellow inside and outside.

All hybrids extremely healthy and in climatic conditions of Lithuania practically are not amazed with diseases. Especially it is necessary to note stability to virus diseases. Till now is not marked of any case of virus disease among thousand plants. I grow hybrids in outdoors only. The hybrids inherit high frost firmness of the parents and many years show an ability to tolerate strong spring frosts usual in Lithuania without any damages. The bulbs are dug out annually, but it is explained not so much by biological requirements of plants, but by their phenomenal propagation. I even have to take into account this feature planting bulbs. This plants need space for producing of numerous and large bulbs.

Having convinced in opportunities of crossing *C. reticulatus* and *C. angustifolius*, I tried to make an artificial crossing with different forms of these species, but I have got seeds one time only crossing *C. reticulatus* ssp. *reticulatus* and *C. angustifolius* **MINOR** (it needs testing). Was selected two hybrids with the flowers of smaller size among seedlings of this combination. It is kinds: **ALIONKA** and **LITTLE AMBER**. **ALIONKA** is the dwarf plant repeated in coloring of flowers **EARLY GOLD**, other has a pleasant mustard shade of coloring of petals distinguished from coloring of all other *C. reticulatus* hybrids. Both hybrids are easy in growing and healthy plants, sterile, but propagated not so well as kinds with large flowers.

Leonid Bondarenko, Gelvonu 7:25, 2010 Vilnius, Lithuania

Preliminary results from germination trials with *Crocus michelsonii* seed

Seeds of *Crocus michelsonii* is known to be difficult to germinate. Last year I got seeds (collected in 2001 and 2002) of this beautiful and interesting species from the dedicated plantsman Jan Jilek of the Czech republic. The seeds were sown in March, September and November 2002. Some of the seeds collected in 2002 I did treat as I do with both new (not "fresh") and old seeds of species in Iris sect. Scorpiris, rubbing them between two sheets of sandpaper and giving them a soaking in moderately hot water. 29 seeds of *C. michelsonii* treated in this way were sown in three pots on November the 22th. The germination results of

the three samples in April 2003 are:

I. 6 out of 10 seeds, II. 5 out of 9 seeds, III. 2 out of 10 seeds

All three pots were given a soaking, kept at approx. 10 C for a few weeks and then exposed to some frost from December to February. The first two samples (pot I and II) did only get a little frost (not below -2 C). Seeds in the third pot did have frost down to - 10C for repeated periods of a few days in December and January.

Seeds not treated in this "unnatural" way (with their seed coats removed) but given several different temperature regimes have not germinated. One exception is 10 seeds sown in March 2002 (collected in 2001) and exposed to considerable fluctuations of temperature. Two seeds of this lot germinated in May 2002 and one more in April 2003. Earlier I have had some thoughts about the germination of the Iris ("Juno") seeds. As the (central Asian) *Crocus michelsonii* must survive a similar harsh climate to some of these Iris species germination may be influenced by the same fluctuation in the spring between hot temperature in the day and cold and indeed frost at night? I also believe there is a supply of moisture even after snowmelting from condensation? I am curious to know if somebody do have any convergent or divergent experience with germination of *C. michelsonii*. From a horticultural point of view I can see no reason not to use the method of wearing down the seedcoats before sowing seeds of *C. michelsonii*. At least this is a way to get some precious seed to germinate until the (natural) mechanisms of germination is better understood. **Einar Steenersen Norway**

Crocus carpetanus in Portugal

Long winter evenings afford gardeners who, like myself, are members of many societies, a chance to re-read the various bulletins, journals and newsletters that accumulate during the year. While searching for references to *Crocus spp.* in northern Greece, I came across the note on *C. carpetanus* in Newsletter 27.

In early March 2001 my wife and I explored several areas of central Portugal, chiefly in pursuit of *Narcissus*. We found *C. carpetanus* on one occasion, at about 1300m in the Serra da Estrela 'Natural Park', a few miles west of Manteigas.

The soil here is acid, the substrate granite. The ground flora at this elevation mainly comprises ericaceous and leguminous shrubs. There are areas of pine and oak. We searched an open, south facing area of a few acres, from which the snow had not long gone. We found perhaps two dozen *Crocus* in flower. There was little variation, the flowers being pale lilac with sometimes a hint of pink. In some flowers the outside of the outer tepals was darker. One plant had flowers with a deep violet tube; usually the tube was white.

We were dismayed to find many shallow holes where the soil had been disturbed. Some contained remnants of *Crocus* leaves. At first I wondered if some human predator had been up to no good, but on closer inspection there was slight evidence of claw marks. Too big for mice, but the local fauna includes badgers and wild boar as well as small rodents. The holes were shallow, confirming the view that this is a shallow growing species, but this area is not likely to get as hot as the mountains in central Spain in summer, being subject to rather more rain and cooling westerlies. What's more, the surviving plants were usually sheltered by dwarf shrubs, so the degree of 'baking' which the corms receive is debatable. **Tony Rymer, December 2002**

Just a little bit 'Maw'

One or two further snippets of information in respect of the colour plates from 'The Genus *Crocus*' (see Bulletins 27 & 29) have come to light. Recently I learnt that Mike Park (Horticultural Bookseller) was offering a complete set of the coloured *Crocus* plates – separate from the text and in a maroon folder - similar to those I have previously recorded. Conversation with Mike Park confirms that only two sets of this description have passed through his hands. One of these is certainly my own – although I did not purchase it from Mike. So taking into account the previous sets that I have documented – I am now aware of the location of four sets (three complete and one partial). At the time of writing - Brent Elliott (RHS Librarian) was not aware of the existence of these illustrations and that they were obviously produced to be sold separately from the text. On a different tack - if one were lucky enough to be able to locate and afford a complete copy of 'The Genus *Crocus*' by Maw the current price would be several thousand

pounds. By comparison - the original purchase price for the book in the standard binding was £7.17. 6d. (£7.87p for the under 50s and non-UK's) Whilst a copy in a rich morocco leather binding was an enormous 8 guineas. I have also alluded to the missing Section 17 from the main body of the text together with Plate 17 from the illustrations. I wonder if the fact that two printers were employed for the text had anything to do with it? Although on a personal note I doubt it. For the record – Harrison ' Sons of St. Martins Lane, London did the main text whilst Fawcett of Driffield were responsible for five pages of errata and the index. Do any members have anything else to add? **John Sanders**

Some 'Maw'

The saga continues. I recently had a response to my enquiries in respect to the missing Plate 17 from Brent Elliott at the Lindley Library. He confirms that their copy of *The Genus Crocus* has no Plate 17; nor does any other copy as far as I can tell for Plate 17 is nowhere cited in *Index Londinensis*, the standard index of botanical illustrations. Stafleu and Cowan in *Taxonomic Literature*, 2nd edition, vol. 3, p. 380 (entry 5721) say bluntly that "Plate 17 was never published". As there is no gap in pagination, I would guess that some plant was originally chosen for Plate 17, and omitted at the last minute; the rest of the text having been set up in type, the printers adjusted the page numbers but no-one remembered to adjust the plate numbers. Stafleu cites a review of the book in *Botanisches Centralblatt*, vol.29 (1887), pp. 136-139. We do not have that volume in our Library, but it could no doubt be tracked down at Kew or the Natural History Museum; it must have some bibliographical information in it for Stafleu to have thought it worth mentioning. **John Sanders**

Any 'Maw'

It is surprising how far my inquiries into the missing Plate 17 have travelled; even to initiating a response in the form of two e-mails from New Zealand! I have retained the anonymity of the owner as he suggests that to his knowledge his is the only copy in NZ. His comments include 'my set of Maw's plates is just that – a set of plates and does not contain Plate 17, although whether they were once part of a book I cannot be sure, for there is also a piece of text (pp. 257 – 264) covering part of *C. balansae*, all of *C. suterianus* and part of *C. olivieri*. The inner edges of the plates are quite clean, with no signs of tears, stitchmarks or adhesive. I don't know how the book was actually bound, although for that era it is quite possible that it was with gutta percha and I would think that if so the remnants must have been still present. Therefore I would assume that my plates were never bound, despite the bit of text'

My typescript list of the plate numbers states at Plate 17 – 'this plate was never issued'. Where I obtained this information I cannot now recall, but I assume it came from Stafleu's 1967 *Taxonomic Literature*, which I used to possess. Sitwell and Blunt's *Great Flower Books* is quite incorrect in this matter, for it gives Maw's Plates as 1 - 67 A - D and ignores the eleven extra plates given 'a', 'b', 'c', or 'd', numbering.

All research to date confirms this common theme although we are no nearer to knowing why Plate 17 did not reach fruition. Maybe someone out there knows different. If you possess a copy of Maw or the separate plates and have not yet commented, I would be pleased to hear from you. **John Sanders**

If you've never been to Inkpen go and have a look next Spring

Out of season, the undulating field in the Berkshire village of Inkpen, west of Newbury, is nothing special. In March, however, it explodes into colour with the flowering of thousands of wild *Crocus*. It is Britain's largest display of this non-native plant and attracts botanists from across the country. From early March for about a month, the eight-acre field is a splendid sight, with purple and white *Crocus* heads - some plain; others striped - dotting the grassland. Inkpen parish documents have recorded the displays for at least 200 years. Nobody is sure how the *Crocus* arrived in the field, but one legend is that 12th-century Crusaders brought them back from Europe as a source of saffron.

However, Richard Elston, Berkshire reserves officer for the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust, which bought the site eight years ago, thinks this is unlikely. "The

Inkpen species* doesn't produce the spice" he says; "However, it is conceivable that the Crusaders returned with the plant for its herbal and medicinal properties."

A more prosaic explanation centres on holes dug for clay by local men, known as "yellow legs". The track leading to the field - Pottery Lane - shows evidence that potters used the clay and, indeed, kilns nearby were fired until 80 years ago. The clay holes left behind may have been used for village waste, including garden rubbish containing wild *Crocus*. The reserve's grassland is maintained through grazing. At first, the trust used sheep but a small herd of Dexter cows, owned by a local grazier, was then brought in to keep down coarse grasses from July to November. "The light grazing means the flowering stock and seed bank are not disturbed," says Richard Elston. Last year, grazing was impossible because of the foot and mouth outbreak. As a result, the grass is much longer this spring - the longest people can recall- and has protected the *Crocus* during winter. The Inkpen field is a Site of Special Scientific Interest - not for its *Crocus*, however, because they are non-native. Instead, the designation is for its species-rich meadowland. Later in the year, the common spotted *orchid*, heath spotted *orchid*, meadow *saxifrage*, cowslip, devil's bit *scabious*, lousewort and 25 species of grass can be seen. Apart from when the *Crocus* are flowering, the best time to see the reserve is in June.

Three volunteer wardens, living nearby, keep an eye on the reserve. One, Tom Doy, an animal health consultant, monitors the grazing and carries out detailed surveys of the various species. All the flowers are flourishing," he says I've lived here for 10 years and I've never been disappointed with the display of *Crocus*.

* ***Crocus vernus* varieties**