The Hardy Orchid Society Newsletter

No 28 April 2003

Your Membership Renewal is now due !

The Hardy Orchid Society Committee is...

President: Prof Richard Bateman, Dept of Botany, Natural History Museum, Cromwell Road, London SW7 5BD.
Chairman: Richard Manuel, Wye View Cottage, Leys Hill, Ross-on-Wye, Herefordshire HR9 5QU. richard @orchis. co.uk
Vice-Chairman: Tony Hughes, 8 Birchwood Road, Malvern, Worcs WR14 1LD. tonyhughes3@btinternet.com
Hon Secretary: Norman Heywood, Newgate Farm, Scotchey Lane, Stour Provost, Gillingham, Dorset SP8 5LT. hardyorchids@supanet.com
Hon Treasurer: Tony Beresford, Pound Farm, Wearne, Langport, Somerset TA10 0QJ. beresford@poundfarm.freeserve.co.uk
Membership Secretary: Nick Storer, 17 Orchard Close, Lymm, Cheshire WA13 9HH. nick.storer@enviros.com
Show Secretary: Doreen Webster, 25 Highfields Drive, Loughborough LE11 3JS dozzer@lobro24.freeserve.co.uk
Newsletter Editor: Patrick Marks, 40 Lawmill Gardens, St.Andrews, Fife KY16 8QS. pmarks@unisonfree.net
Conservation Officer: Bill Temple, Primrose Cottage, Hanney Road, Steventon, Oxon OX13 6AP. bill@wtemple.f9.co.uk
Publicity Officer: Simon Tarrant, Bumby's, Fox Road, Mashbury, Chelmsford, Essex CM1 4TJ. s.tarrant@virgin.net
Ordinary Member(Newsletter Dist): Barry Tattersall, 262 Staines Road, Twickenham, Middlesex TW2 5AR. orchis@tatty.screaming.net
Ordinary Member(Seed & Fungus Bank): Ted Weeks, 74 Over Lane, Almondsbury, Bristol BS32 4BT. Wecw3941@netscapeonline.co.uk
Ordinary Member: Eric Webster. Details as Show Secretary.

Contents

Cover illustration :Anacamptis pyramidalis by Sarah Marks

With This Newsletter.....

Your subscription for 2003 will be due shortly. This will be the last Newsletter that you receive unless you make arrangements to renew. (See centre pages for renewal details).

Spring Meeting 2003. An application form and map are included with this Newsletter.

Editorial Comment

The new season for hardy orchid enthusiasts will be in full swing by the time this Newsletter drops through members letter boxes. Hopefully the trips of some of our members will result in interesting articles for future issues of this Newsletter. The editor would like to thank members who have sent in contributions in the past weeks and months. Those contributions will be much appreciated by members who are unable to attend our meetings, and who like myself live at a distance from the hub of Hardy Orchid Society activity in Southern England.

If your article doesn't appear in this issue, I will include as appropriate in the next couple of issues. You can send articles by e-mail as a word attachment, send me a hard copy, typed or hand written. Apple Mac users can send articles on Appleworks. If you have scanned photos they should be at 300 dpi for publication purposes if they are to be reproduced in colour. I may be able to scan slides now with a new scanner, but will confirm this possibility in the next issue. I will put together more detailed guidelines on the technical aspect of articles for any potential contributor if required.

Please keep up the contributions, as there are plans afoot to try and improve the appearance of the Newsletter. The Newsletter is of major importance in the development of the Society, being a conduit for exchanging information on orchids, promoting the conservation of orchids and encouraging research on orchids in ways which will be beneficial to their survival, from Richard Bateman's research on the genetic aspects of speciation, to research on how to successfully re-introduce species to areas where they are becoming rare or have died out.

The 2nd Annual Conference of the new North American orchid group as detailed in the Newsletter looks like a super event, with the opportunity to visit one of North America's premier orchid sites in the peak of the flowering season. If any lucky members attend, I'd appreciate their report for the Newsletter ! Has any thought been given to having one of our own Society meetings at a time when more orchids are in bloom? I'd love to incorporate a chance to see some nice English sites with attendance at a Hardy Orchid Society meeting .

Congratulations to Richard Manuel and Barry Tattersall for winning a Gold Award at the Alpine Garden Society, Loughborough Show for the Hardy Orchid Society.

Spring Meeting - Wellesbourne 27th April 2003

Roger Gelder, Meetings Secretary

The next meeting will be on Sunday 27th April at the Horticulture Research International, Wellesbourne, near Warwick and incorporates the eleventh Annual General Meeting (AGM) and the Spring Show.

A sketch map plus Application Form is enclosed with this Newsletter. Use of the application form is essential to give us information on attendance and for catering requirements. Costs for all wishing to attend are detailed on the application form.

Members are asked to bring their Membership cards with them and are reminded that the Annual Society Subscription is due on 1st May.

Please bring your competitive entries for the Plant Show (see next article in this Newsletter for Plant Show schedule) ; also there should be room to display any other orchid-related material that you would like to exhibit (please forewarn us of large amounts of posters, etc). All proceedings are on the ground floor and cars may pull-up adjacent to the Conference Facility for easy unloading / loading of plants.

"Trade" Plant Sales will be subject to a charge of £25 per table, payable in advance and booked with Roger Gelder. A Sales Table for Member's plants will be present and people are encouraged to bring their spare plants. Plant Sales will not be restricted to orchids; please bring any plants that may appeal to hardy orchid enthusiasts. Double labelling, to indicate plant name and selling price should be adopted if possible. Sellers will be expected to donate 10% of monies to the Society. The Plant Sales room will be locked when not attended.

Nominations are invited for officers and committee posts. The following positions will become vacant at this meeting - **Hon. Secretary, Membership Secretary** and **Publicity Officer.** All nominations for the committee should be received by the Hon.Secretary 14 days prior to the AGM, with the names of a proposer, a seconder and the consent of the nominee. Nominations have already been received for some of these posts but please **do** apply if you are interested. In the event of no nominations being received for an office, nominations will be accepted from the floor.

If accommodation is required, contact Richard Manuel or Roger Gelder who may be able to supply a small and very local B&B list, although lots of accommodation should be available in Stratford on Avon with details available from the local tourist board.

Programme for the Spring Meeting/AGM at Wellesbourne 27th April 2003

09.00 Meeting opens: Coffee/Tea, informal chat. Plant Sales Tables open. Staging of entries for the Plant Show and non-competitive materials before 09.45.

10.30 Chairman's introduction and welcome to Wellesbourne, followed by AGM

11.30 Colin Clay "Digital Photography" followed by discussion.

13.00 Lunch

14.15 Bill Temple "North West Greece"

15.00 Chris Bailes "Orchids - the far side"

15.45 General discussion on any HOS issues.

16.00 Closing comments and announcements.

Next meeting (i) Harlow Carr
Next meeting (ii) Wisley again

16.00 Tea and informal chat, plus final opportunity to browse stalls and view show exhibits

17.15 Meeting closes. Vacate by 17.30

HOS Plant Show, 27th April 2003

Doreen Webster, Show Secretary

As usual, the Annual Plant Show will take place during the HOS Spring Meeting at Wellesbourne. The Show Rules and the Schedule of Classes are printed below. All you have to do is turn up **before 9.45 a.m.** with your plants, and we will try to find a class to fit them in. Pot size doesn't matter – provided you can carry it ! Photos of winning plants will appear on the HOS Website, as well as a selection in the July issue of the Newsletter. The owner of the best entry will be allowed to borrow our **"Best in Show"** trophy for a year.

If you have any other orchidy odds and ends that you think might interest others, please bring them along to go in our usual non-competitive exhibition.

The Hardy Orchid Society – Show Rules

1. ELIGIBILITY All classes are open to all members of the Hardy Orchid Society.
2. ENTRY FEES No entry fees will be payable.
3. SHOW DETAILS Advance entry is not required. Members will be informed in a Newsletter preceding the Show of the time by which exhibits must be staged, and the earliest time at which exhibits may be removed.
4. OWNERSHIP OF EXHIBITS All exhibits must have been owned by the exhibitor for at least six months.

5. NUMBER OF PLANTS PER POT Unless otherwise stated, each pan may contain more than one plant, provided all plants are of the same variety. However, when more than one flower spike is present, 'uniformity' will be one of the judging criteria.

6. LABELLING All plants should be correctly and clearly named. However, incorrect or unclear labelling will only be considered only in a close competition.

7. JUDGING The judge is empowered to withhold awards where entries are not of adequate standard.

8. PROTESTS Any protest must be made to a member of the Committee within one hour of the opening of the hall after judging. The decision of the Committee will be final.

9. LIABILITY While the Hardy Orchid Society will endeavour to take good care of all exhibits, it will not be liable for compensation for any damage or loss, however caused.

SCHEDULE OF CLASSES

1. Six pots hardy orchids, distinct varieties.
2. Three pots native British orchids, distinct varieties.
3. Three pots native European (non-British) orchids, distinct varieties.
4. Three pots non – European orchids, distinct varieties.
5. Three pots hardy orchids distinct, any country of origin.
6. One pot native British orchid.
7. One pot native European (non-British) orchid.
8. One pot non-European hardy orchid.
9. One pot *Dactylorhiza.*
10. One pot *Orchis.*
11. One pot *Ophrys.*
12. One pot *Serapias.*
13. One pot *Cypripedium.*
14. One pot, any other genus of hardy orchid.

Native Orchid Conference
Bruce Peninsula, Ontario, Canada
June 14 – 18, 2003

Last year, the first North American Native Orchid Conference was held in North Carolina. This was a great success. The second conference is to be held in another exciting venue, the orchid rich Bruce Peninsula. During the first two days there will be presentations at McMaster University located in Hamilton, Ontario. Hamilton is only 40 minutes from Toronto on a fast highway connection and is well placed to access the Bruce Peninsula to the north. According to information received, registration will be limited to the first 100 people from whom the organisers receive mailed responses. Conference registration will be $100 per person or $175 for a couple. So anyone who is interested should be enquiring about registration as soon as possible.

Speakers at the conference include Fred Case, author of *Orchids of the Great Lakes Region*; Paul Catling, Canadian Department of Agriculture, co- author of *Orchids of Ontario*; Ronald Coleman, Visiting Scholar, University of Arizona at Tuscon and author of *The Wild Orchids of California*; Hal Horowitz, nature photographer, member of the VA Flora Project; Susan Meades, Adjunct Professor, Algoma University College, botanical illustrator and Charles Sheviak, Senior Scientist and Curator and Curator of Botany, NY State Museum.

The last three days will be field trips on the Bruce Peninsula with an opportunity to see stunning displays of Cypripediums (possibly four species – acaule, arietinum, parviflorum & reginae). Around 31 species of orchids could be flowering, as well as a rich display of other wild flowers and ferns for which the Bruce is also famous.

Accomodation details will be provided after registration, though from recent experience depending upon your budget, a wide range of accommodation/camping sites is available. Further details can be obtained from David McAdoo, Conference Chairman on dmcadoo@triad.rr.com.

The conference website address is:
http://groups.yahoo.com/group/nativeorchidconference/.

A Plantsman's Day - Hardy Orchids.

Extract from RHS Garden Rosemoor, Program of Events for 2003.

To book tickets:Telephone Hotline on 020 7821 3408 or Rosemary on 01805 624067. Address;— The Royal Horticultural Society Garden Rosemoor, Great Torrington, Devon, EX38 8PH.

Tuesday 10 June 2003.	Plantsman's Day – Hardy Orchids.
11.00am – 4.00pm	£15.00 includes tea/coffee/biscuit on arrival
Special Event	£22.00 as above, plus Gardener's Lunch and Drink

Few plants have a greater fascination to the plantsman than orchids, whether hardy or tropical. Hardy orchids have been the 'poor relation' of the orchid world for too long, with the undeserved reputation of being either difficult to obtain or tricky to grow. Today, however, there is an ever-increasing range of these desirable plants available to the ga rdener, and the techniques of growing them are better understood and quite straightforward. Orchids for the garden and frost-free greenhouse will be featured in this Plantsman's Day, to which we are pleased to welcome the Hardy Orchid Society as co-hosts, bringing their specialist knowledge and expertise to the event.

There will be three selling stands, Orchids by Post, Johns Orchids, and Hardy Orchids. I hope all the trade will supply a dozen really good plants in flower so that a composite display can be put up, and I will also put up a HOS Poster display. There will be talks and a walk around the gardens to see the orchids.

The Vercors, an Orchid Wonderland

Part II - Richard Manuel

The first time we went to the Vercors was in 1997, at the end of June. This visit was confined to the eastern side of the massif, and in those days the weather was much better.... Having crossed the north side of the main ridge on the D531, as described in part 1, we moved south through considerable roadworks outside Grenoble (there is a nice fast motorway by-passing the city now). As recommended by a former chairman of this Society, we made for the small village of Chichilianne, which is dominated by an imposing rock pinnacle called Mt Aiguille, and ended up booking into an hotel at Richardiere, a tiny hamlet just up the road. Even before we arrived at Chichilianne orchids were in great evidence.

On a shaded road bank before the village we found Red helleborine *Cephalanthera rubra*, Dark red helleborine *Epipactis atrorubens*, (my favourite helleborine) and in more open places *Epipactis muelleri*, a clump-forming plant with pale flowers standing out against darker foliage or shade. These more open road banks were populated by loads of the more common orchids that one would expect: *Dactylorhiza fuchsii,* Fragrant orchid *Gymnadenia 'conopsaea'*, Man orchid gone over but easily recognisable, Lizard orchids, still in full flower, and other 'orchises', more or less recognisable despite being largely gone over, such as Lady and Military, Burnt orchid *N. ustulata,* plus Fly orchid. These plants were present in great numbers and, in some cases, variety. The Fragrant orchids constituted a puzzle. All were tall and stately plants, which might easily be classified as var. *densiflora*, but there were at least two 'vagues' of flowering; some plants were well over and bearing ripe seed capsules,

some were in full flower, and yet others were still in tight bud and obviously wouldn't flower for some time. Surpisingly I have yet to see *Gymnadenia odoratissima* in the Vercors, despite it being fairly common in the alpine foothills not very far to the east.

The flattish valley around Chichilianne is largely agriculturalised, but in any direction but east the road soon rises into increasingly steep hills, which we explored in the next couple of days. One particular road that we followed runs north, bordered by high banks and steeper slopes. Along here we found our first plant of *Orchis spitzelii*, a rare subalpine/alpine species which from a distance is easily confused with *Orchis mascula*. We were lucky to find a plant still with a few recognisable flowers at the top of the spike. These have rather 'horsey' faces - long nosed, deep pink with lots of small spots, and the insides of their sepals,which form a hood, greenish. Behind the lip is a fat pink spur. The biggest plants of this unusual orchis were larger than I expected, approaching 60cm tall, with the flowers hugging the stem over 2/3 of its length. The leaves are of the usual leathery shiny green orchis type. Further up this valley were great numbers of all the species I have mentioned so far, but in a low-lying and distinctly wet corner of a field was small colony of Marsh helleborine, *Epipactis palustris*; not spectacular but nice to see a familiar face. Another more wooded area produced a great number of Red helleborine *C. rubra* and a colony of *Limodorum*, rather the worse for wear.

Another track, which we had to explore on foot, held even greater riches. Not far along we came upon a splendid patch of crested cow-wheat *Melampyrum cristatum*, which, despite its uninspiring name, made a blaze of colour with its purple bracts and yellow florets. But only just along the bank was a small forest of stems of a plant that I have only too often seen in its dejected just-gone-over state, and this was no exception. The flowers of Ladies slipper *Cypripedium calceolus* always seem to go over just before I arrive to photograph it. There were about 25 dried brown slippers on this one. As it was perched in a most photogenic site on top of a low bank I vowed that one day I would return in May, and if necessary, wait for it to open!

Another foray, this time south to the Col du Menee (around 1500m) found us in a low alpine pasture but high enough to discover a few *Nigritella* and *Coeloglossum* waiting unwittingly for their names to be changed by the DNA mafia. Somewhere in this area was the fabled yellow flowered *Orchis pallens* but we were much too late in the season for it, and would have to wait another five years to see it....

So five years later we travelled up the N75 from the Var, starting as usual in steady rain which gradually increased in intensity as we got to the Col de la Croix Haute, where it forced us to stop and wait for a lull. Just down the road we found a brand new 'motel' type hotel/restaurant which turned out to be an excellent base. Fairly soon the rain cleared and we set off to see what we could find. The Chichilianne valley was full of orchises, magnificent Lady orchids, surely the finest European orchid?, Militaries, Burnt, Man, as well as Fly, all jostling for space on the road

banks, and all in full flower. But a short walk up the previous mentioned path confirmed my worst fears though, the large clump of Lady's slipper had gone, always a likely fate for such an unmistakable plant growing in such a prominent place.

The next day we started up through St Michel les Portes towards Gresse en Vercors. This is a very promising road passing close to the foot of Mt Aiguille, whose upper regions can be approached by a well maintained footpath from this road. There is a long road bank where this track starts and here we were able to find a nice patch of burnt orchid, *N. ustulata*, which is of particular interest because on our previous visit, about a month later in another year, we had found a small colony of the late flowering form of this plant (ssp. *aestivalis*) which does not seem to have been recorded for the dept of Isere, together with the gone-over remains of this 'normal' early flowering form.

Higher up this road, where mature pine woods take over, was a particularly gorgeous Lady orchid on a bank. While I waited for the light to improve a wander down a side path produced a nice little group of *O. spitzelii* side by side with a cluster of *O. mascula*, a nice comparison. On our earlier trip this same site had several nice stems of Red helleborine and *Dactylorhiza sambucina* which made a pretty picture framed against the imposing bulk of Mt Aguille. This time we found buds of the dactylorhiza but no sign of the helleborine. At this altitude, about 1300m, the trumpet gentians were again a feature of the local colour, and the commonest orchids were Sword leafed helleborine, an attractive plant but with rather short lived flowers, and Lesser butterfly (why is this *Platanthera,* allegedly calciphobe, the dominant species in the southern half of France, despite this being limestone country?).

Returning to Chichilianne valley we drove up another road explored five years earlier. On that trip one large patch of woodland was just recovering from fire; now it was a steep scrubby hillside with regenerating trees and new saplings. We searched this slope on several occasions, finding almost all species typical of the Vercors, including *Ophrys araneola, O. spitzelii,* some lovely patches of gentians and, eventually, a small area with a few large seedlings of *Cyp. calceolus.* The latter were in that perfect state with some flowers just opened, and others with gleaming voluptuous buds: the brown sepals seductively opening just enough to reveal a glimpse of their yellow pouches without actually exposing them. Remarkably, the weather now was the best we had had, and I used up quite a lot of film, though the results, in bright almost harsh sunlight, were inevitably not as good as I imagined at the time.

Although this may seem to be a fairly comprehensive summary of the orchid riches of the Vercors, I have only scratched the surface. I have only explored two small areas out of many possibles, and then only fairly superficially. There is a huge area I have never visited in the northwest and north of the massif; a very substantial chunk alongside the central ridge, especially to the east of it, which cannot be reached by road, and therefore promises much for those prepared to hike over pretty rough terrain; and various smaller patches here and there which I hope to be able to visit in the not too distant future. Watch this space!

Feldführer Deutsche Orchideen (Field Guide to German Orchids)

by C A J Kreutz published by the author, 2002 reviewed by Simon Tarrant

By way of a contrast to his large format works on the orchids of Turkey and Rhodes, Karel Kreutz has published a pocket-sized field guide to German orchids. The book is in German throughout, but the photographs and dates can be appreciated by all.

The book opens with a chapter on orchid biotopes to be found throughout Germany, well illustrated with photographs of orchidaceous landscapes. For each biotope the likely orchid species are listed by scientific name as well as common name, so the non-German speaker can pick useful information out of this section.

This being a field guide, the bulk of the book is given over to descriptions of the individual species to be found in Germany, with generally a two-page spread per species. This provides two photographs (whole plant and close-up), and description, with details of habitat, flowering times and distribution. Kreutz arranges species in alphabetical order of pre-Bateman scientific name. Several hybrids are depicted at the end of the sequence. The photographs are all of outstanding quality and the excellent printing process does them full justice. A handy feature is the indices, firstly by scientific name followed by German name inside the front cover, and secondly by German name inside the back cover.

While nowhere near as rich in orchid species as France, Germany is a large country with a wide range of habitats, from alpine pastures to coastal sand dunes, and perhaps does not receive the attention it deserves from British orchid enthusiasts. It is to be hoped that study of books such as this will encourage more exploration of this interesting country.

Feldführer Deutsche Orchideen (Field Guide to German Orchids)
Published by C A J Kreutz, Landgraaf, The Netherlands, 2002. ISBN 90 806626 2 3
Price 23 Euros, or approx. £23.50 from Summerfield Books

Contributions to the Orchids of Cyprus

C.A.J. Kreutz and P. Scraton

Introduction

In late February 2002 the first author visited Cyprus with Jana Jersakova. We stayed until mid-March to study the orchids found there, and their distribution. During our stay we were accompanied on various occasions by Ron and Pamela Scraton (Limassol), Joan Hubbard (Choulou) and Yiannis Christofides (Platres). It appeared

to be a very good year for orchids, following the heavy rainfall of the previous winter. Because of the excellent conditions the orchids were very well represented and in many areas really abundant. Among them were two hybrids which we have described elsewhere, and *Anacamptis (Orchis) papilionacea* subsp. *schirwanica*, a reconfirmed subspecies for Cyprus. During the February/March visit and my later stay with Pierre Delforge at the end of June many interesting sites and species were found and they will be presented in my forthcoming book on the orchids of Cyprus. In this article we shall concentrate on the two hybrids and the reconfirmation of *Anacamptis papilionacea* subsp. *schirwanica*.

Anacamptis (Orchis) papilionacea* subsp. *schirwanica

The distribution area of this subspecies is the eastern Mediterranean. It is found from the south of Turkey (Kreutz, 1998), Rhodes (Kreutz, 2002), western Syria, Lebanon, Israel (Kreutz, 1993) to the Caucasus (Azerbaidjan) and northern Iran. Cyprus is therefore within the range of the distribution area, and it could only be a matter of time before *Anacamptis papilionacea* subsp. *schirwanica* was found in Cyprus.

The first record was described in Meikle (1985), where Wood lists *Anacamptis papilionacea* as having been reported only once in Cyprus, from the Akrotiri peninsula at the north side of the salt lake, southwest of Limassol. It was found there in 1960 by C.E.H. Sparrow. Wood further wrote that small-flowered individuals predominate in the eastern Mediterranean but surmised that *Anacamptis papilionacea* might no longer grow in Cyprus.

In 2001 the second author reported a new record of *Anacamptis papilionacea* from Cyprus (Scraton 2001). Between Limassol and Larnaca, near Choirokitia she found a large population of *Anacamptis (Orchis) syriaca* interspersed with about fifty plants of *Anacamptis papilionacea* of similar height and superficial appearance. The flowers were all small, but showed great variety of colour and shape of labellum, from plain pale pink to violet with fan-shaped veining and from concave through flat to quite convex. Scraton conjectured at that time that the plants might be exhibiting a degree of hybridisation with *Anacamptis syriaca*.

By our first visit to the site in early March 2002, among other orchid species we found only hybrids between *Anacamptis papilionacea* s.l. and *Anacamptis syriaca*, the latter species having almost finished flowering. In spite of a careful search of the area we were unable to find any examples of typical *Anacamptis papilionacea* s.l. At the time this seemed really curious but in retrospect, it was only to be expected since *Anacamptis papilionacea* s.l. flowers about 1 to 2 weeks later than *Anacamptis syriaca*. And sure enough, on a subsequent visit in the second week of March, we found three typical plants of *Anacamptis papilionacea*, of subsp. *schirwanica*, as expected, thereby confirming the status of *Anacamptis papilionacea* subsp. *schirwanica* for Cyprus.

The site at which *Anacamptis papilionacea* subsp. *schirwanica* is found is in the chalk and marl area of the Lefkara formation. It is close to a river valley where a dam has been constructed to form a large reservoir used mainly for agricultural purposes. The whole area was at one time used for a variety of farming purposes, many of which have now fallen into disuse. A nearby goat-farm is no longer in operation, and the area is no longer consistently grazed. A large field adjacent to the orchids has been cultivated for a cereal crop, and expanding this use could be a serious threat to the survival of the subspecies, as could the growth of more aggressive vegetation following the discontinuation of grazing. At present the immediate area in which the subspecies is found is typical phrygana, with *Thymus capitatus*, *Sarcopoterium spinosum*, *Asphodelus aestivus* and others on arid to moderately moist calcareous soil, and is rich in orchids. We found 18 other species, *Neotinea maculata*, *Ophrys bornmuelleri*, *O. cinereophila*, *O. elegans*, *O.herae*, *O. flavomarginata*, *O. iricolor*, *O. israelitica*, *O. kotschyi*, *O. lapethica*, *O. levantina*, *O. umbilicata*, *O. sicula*, *O.transhyrcana*, *Anacamptis (Orchis) collina*, *Orchis punctulata*, *Anacamptis syriaca* and *Serapias bergonii*. *Orchis italica* was, surprisingly, not present.

***Anacamptis papilionacea* subsp. *schirwanica* x *Anacamptis syriaca* (*Anacamptis x choirokitiana* C.A.J. Kreutz & P. Scraton)**

Anacamptis syriaca

Anacamptis syriaca is one of the commonest orchids in Cyprus and in many places really abundant. It prefers light coniferous woodland or phrygana on calcareous soils, and is often associated with asphodel. The flowering period is from the beginning of February until the beginning of March. At higher altitudes the flowering period is usually one or two weeks later. It is an oriental species; its small habitat stretches from southwestern and southern Turkey through Cyprus and western Syria to Lebanon, and is also found on Rhodes (Kreutz, 2002).

As already reported above we found north of Choirokitia about fifty plants of the hybrid between *Anacamptis papilionacea* subsp. *schirwanica* and *Anacamptis syriaca* (*Anacamptis x choirokitiana*). This hybrid is a small to medium-sized plant with unspotted, lanceolate leaves forming a rosette at the base. The upper stem was tinged purple, carrying a few-flowered, ovate to cylindrical inflorescense. Bracts were wide and pointed, about half as long as ovary. The flowers were rather loosely arranged, medium-sized, reddish to reddish-violet, sepals and petals forming a loose hood, darker-coloured veins standing out distinctly. Sepals were oblong-lanceolate, the dorsal sepal slightly shorter. Petals were shorter than sepals and pointed. The labellum was fairly broad, undivided and flat, margins toothed, purple to reddish-purple and pink in centre, with dark reddish to purple streaks or dots, the spur about as long as the ovary and directed slightly downwards. It flowers in early March.

***Orchis italica* x *Orchis punctulata* (*Orchis* x *tochniana* C.A.J. Kreutz & P. Scraton)**

Orchis italica is very widespread and abundant in Cyprus. In the southern part of Cyprus particularly, for instance in the neighbourhood of Larnaca and the salt lake, and near Kato Dhrys in the east, and in the area surrounding Choulou in the west, the species forms large populations. Such biotopes are fantastic and from a distance it seems as if a red blanket has been spread over the landscape. In the northern, Turkish occupied, part of Cyprus *Orchis italica* is not so common, sometimes even rare. Its varied habitats in Cyprus may be wasteland, light pine woods, dry grasslands, phrygana, rocky slopes, abandoned terraces and scrub margins on basic to calcareous soils. It flowers from late February to the end of March. It has a large mediterranean distribution, from Portugal to the Levant, and is also in North Africa.

Orchis punctulata undoubtedly belongs to the most beautiful and most stately of orchid species in Europe. Particularly stately specimens occur mainly in Israel and in Cyprus; they are very many-flowered and have an extremely elongated spike (at times equalling two-thirds of the entire plant). *Orchis punctulata* grows in very light coniferous woods, in phrygana, in meadows and in wasteland; on arid but also moist, calcareous soils. The species flowers early, from mid-February to early April; in Cyprus from mid-february until mid-march. It is distributed throughout the Near East (Thrace, Turkey, Rhodes, Cyprus, western Syria, Lebanon, Israel, Caucasus, Azerbaidjan and the Crimea). In Cyprus there are still many places where *Orchis punctulata* grows, but the populations are shrinking seriously, mainly because of the expansion of urban areas and the cultivation of former wasteland.

At the present time, only a few hybrids with *O. punctulata* are known, such as *Orchis* x *calliantha* Renz & Taubenheim (*Orchis punctulata* x *Orchis simia*) and *Orchis* x *wulffiana* Soó (*Orchis caucasica* x *Orchis punctulata*), both described from Turkey (Kreutz, 1998). We were therefore very surprised to find in a large population of *O. punctulata* and *O. italica* (*Orchis* x *tochniana*) one plant intermediate between these two species.

The hybrid was medium-sized; the leaves forming a rosette at the base, and the upper leaves sheathing the stem were elliptic to lanceolate, green, shining, unspotted, and slightly wavy at the margins. The inflorescence was semi-spherical to cylindrical, and relatively loose-flowered. Bracts were very small, only about one third of ovary; and the flowers fairly large, pale-yellow to pink-yellow. The sepals were ovate to ovate-lanceolate, and the petals lanceolate, much shorter than sepals. Perianth segments were connivent, forming a hood, pale-yellow to pink-yellow on the outside, greenish-yellow on the inside with dark purple-red veins. The labellum was deeply three-lobed, with the middle lobe two-pointed, fairly wide, and having a small tooth in the indentation; tips of the lateral lobes and both tips of the middle lobe bent slightly upwards; it was pale yellow (greenish-yellow at the spur entrance and pink-yellow at the lower parts), with purple spots. The cylindrical spur was bent downwards. It was in flower from early to mid-March.

The site had been found in 2001 by Judy Dawes & David Whaley of Armou (Cyprus), who noticed the unusual individual which we later identified as a hybrid between the two species. Like the previous site described, which is just a few kilometres away, it is in the area of the Lefkara formation of chalk and chalky marl. It is also an area of former cultivation, shown by the terrace walls which still exist, but the discontinuation of this use occurred earlier, and the land has had longer to revert to a typical maquis with patchy dense vegetation, among which can be found *Pistacia terebinthus, Calycotome villosa, Ceratonia siliqua*, and a few *Pinus brutia*, undergrown with *Thymus capitatus, Sarcopoterium spinosum, Stachys cretica* and *Eryngium creticum*; a thorny and uninviting terrain, but fairly rich in orchids. Besides the abundant *Orchis punctulata* (probably the largest population in Cyprus) and *O. italica*, we found also *Barlia robertiana, Ophrys iricolor, O. cinereophila, O. sicula, O. levantina, O. flavomarginata, O. kotschyi, O. mammosa, O. herae, O. sintenisii, O. transhyrcana, Anacamptis (Orchis) fragrans, A. syriaca* and *A. collina.*

Literature

Christofides, Y. (2001): The Orchids of Cyprus. Published by the author.
Hubbard, J. & Scraton, P. (2001): The Orchids of Cyprus and where to find them. Published by the authors.
Kreutz, C.A.J. (1993): Orchideeën in Israel. Eurorchis 5: 7-36.
Kreutz, C.A.J. (1998). Die Orchideen der Türkei. Selbstverlag B.J. Seckel & C.A.J. Kreutz
Kreutz, C.A.J. (2002): Die Orchideen von Rhodos und Karpathos/The Orchids of Rhodes and Karpathos. Selbstverlag B.J. Seckel & C.A.J. Kreutz
Kreutz, C.A.J. (2003): The Orchids of Cyprus/Die Orchideen von Zypern, in prep.
Kreutz, C.A.J. & Scraton, P. : Contributions to the Orchids of Cyprus. Journal Europäische Orchideen xx: xx-xx.
Scraton, P. (2001): Re-discovery of *Orchis papilionacea* in The Republic of Cyprus. Journ. Eur. Orchid. 33(3): 926.
Scraton, P. (2002) : Re-discovery of *Anacamptis papilionacea* in the Republic of Cyprus 2001. The Hardy Orchid Society Newsletter 24: 14
Wood, J.J. in: Meikle, R.D. (1985): Flora of Cyprus, vol. 2: 1546-1547. Kew.

Dune Forms of Epipactis helleborine at Kenfig

Leslie Lewis

My interest in *Epipactis helleborine* at Kenfig Dunes started, by chance, some distance away at the Dover Ferry terminal where I picked up a free map of walks in the coastal dunes spanning the France – Belgium border. These included Bray-Dunes which is where one of the photographs was taken of the dune variety of the broad-leaved helleborine, *Epipactis helleborine, ssp neerlandica* shown in "*les Orchidées de France, Belgique et Luxembourg*" by Marcel Bournérias. On my way home, with some time to spare before catching the ferry from Dunkerque and the map to guide me, I took the opportunity to see if I could find it. This proved more difficult than I

had expected, but an hour's searching did reveal a single specimen growing, characteristically, alongside silver creeping willow *Salix repens ssp.argenta* on the bank of a dune hollow. Rather surprisingly, I found no sign of any other orchids. Back in S. Wales, I decided that it was time to follow up recent reports that *Epipactis neerlandica* was also to be found there. Pierre Delforge in the 2nd edition of his "*Guide des Orchidées d'Europe, d'Afrique du Nord et du Proche-Orient*" states that it grows in Wales and the picture on the HOS website is taken in S. Wales. The site I chose was Kenfig Dunes, an 810 hectare nature reserve near Porthcawl, which it justifiably renowned for the variety and numbers of dune orchids that grow there. Unfortunately, the Reserve warden was unable, or perhaps just unwilling, to say where any helleborines grew, so that I was faced with the far-from-easy task of finding a few green orchids in a very large area, some of which is extremely boggy and overgrown. After much searching in early August 2002, I eventually discovered *E. helleborine* at different two sites, about a half a kilometre apart, again growing with *Salix repens* on the banks of dune hollows. It came as a surprise to find that, at both sites, the orchid was present in two noticeably different forms.

The first form closely resembled the *ssp. neerlandica* that I had found growing at Bray-Dunes in France. It grew in single stems, the leaves were darkish green and concentrated around the base; the flowers were also darkish and arranged in a neat inflorescence mainly facing in the same direction.

The second form was stockier and generally grew in clumps of 2 or 3 stems. The leaves were a lighter yellowish-green with the upper ones being larger than those of the first form. The inflorescence had a somewhat untidy appearance with large bell-shaped flowers that were lighter in colour with a clear pinkish hue, although the uppermost ones did not appear to open at all. In fact, it looked very much like *Epipactis youngiana.*

Identifying the second form as *Epipactis youngiana* based on morphological similarities is clearly somewhat problematic. *Epipactis youngiana* is a controversial orchid which has generally been considered as species in its own right or possibly a *Epipactis helleborine x phyllanthes* hybrid. However, Prof. Richard Bateman has recently concluded that it is only a form of *Epipactis helleborine* (see HOS Newsletter, 25 July 2002, page 4), although it is unclear whether it should now be considered as a subspecies or as a variety. Also, *Epipactis youngiana* has generally been thought to grow only at a few sites polluted with metal waste in Northumberland and Lanarkshire, although the 2nd edition of Delforge does now refer to the possibility that it may grow in the dunes in Wales.

It was only several months later, after purchasing the companion books "*Illustrations of British and Irish Orchids*" and "*Notes on British and Irish Orchids*" published privately by the late Derek M. Turner Ettlinger, that I discovered that these books show and describe the two forms of *Epipactis helleborine* that I had found at Kenfig.

Photographs of the first form, taken at a "dune system at Porthcawl" on 3 August 1987, are shown under the title *ssp. neerlandica* in Plate VI, 2 and 4 of the *Illustrations*. There would seem little doubt the dune system in question was that at Kenfig. Although some plants that I found were similar to that shown in these photographs, others were stockier with larger leaves and more closely resembled the form of *ssp. neerlandica* shown in Plate VI, 1 and 3, photographed the same day on the nearby Gower peninsular.

The second form, resembling *Epipactis youngiana,* is shown in Plate XIII, 2 under that title. However, the *Notes* make it clear that this identification is only tentative. The plant illustrated was also photographed at a "dune system at Porthcawl" on 3 August 1987 and the *Notes* state that it grows in conjunction with one or more other species of helleborine. As in the case of the first form, some of the plants of the second form that I found were stockier with larger leaves and more closely resembled the form of *Epipactis youngiana* shown in Plate XIII, 1 growing in the spoil heap of an old lead mine at Hexham, Northumbria.

Epipactis youngiana is strongly associated with sites polluted by metals. A conspicuous feature on the Kenfig skyline is the Margam steelworks lying just 3 miles to the north-west. For decades, these steelworks were a source of severe local pollution - the dead trees on the ridge of nearby Mynydd Margam that could be seen from the M4 motorway in the early seventies providing an all-too visible proof. It is inevitable that Kenfig Dunes, lying so close by in a windward direction, must have been polluted. It is therefore quite possible that the second form growing at Kenfig could either be *Epipactis youngiana* itself or an analgous form of *Epipactis helleborine* similarly adapted to metal pollution.

Given the importance that has been attached to the discovery and conservation of *Epipactis youngiana* in Northumberland and Lanarkshire, it would seem useful to get further expert opinion based on a detailed morphological comparison as to whether the second form growing at Kenfig could either be *Epipactis youngiana* or a distinct, at present unnamed form. It would also be interesting to establish whether the *Epipactis neerlandica* form growing at Kenfig is really the same as the continental form of that orchid or whether it is a different, albeit similar, sand-dune adaptation of E.helleborine.

Kenfig Dunes - Field Trip 2003

On 29th June, 2003 there will be an opportunity for some members of HOS to join a walk around this superb reserve. Tony Beresford will be party leader on behalf of HOS, with Senior Ranger David Carrington leading the walk. Wellingtons are essential! Members interested should contact Hon.Secretary, Norman Heywood as numbers attending will be limited !

Native Wild Foods:
Orchid Conservation Project - Experiment No.4

Assumption

Before you can consider growing orchids from seed outdoors it is important to understand the fungal element of the mycorrhizic association. The propagation of the fungi that germinate orchid seeds is, as far as I know, only done under sterile conditions.

The study of these "orchid fungi" cannot progress if this is the only method available for research.

The purpose of "Experiment No.4" is to demonstrate that "orchid fungi" will grow in a non sterile environment. It also demonstrates the aggressive, parasitic nature of these types of fungi. This is a simple experiment that can be carried out by anyone home.

Equipment

Propagator Box.
Half Trays
Seed & Cuttings Compost
Grass Seed Mix (lawn seed will do)
Fungicide (Cheshunt compound or Copper II Sulphate)
B1 Fungus Sample (available from HOS Fungus & Seed Bank)

Method

Fill the half trays with compost and level the surface. Sow the grass mix evenly, cover with compost and water-in with the fungicide solution. Put the trays in the propagator box, close the lid and place in a cool dark area.

The fungicide solution is not essential to the success of the experiment and can be omitted. It is only to protect the seedlings as they develop.

Five to ten days later most of the grass seeds will germinate and will be just sticking out of the surface of the compost. Open the propagator box and give the half trays a good watering. Close the lid and place in a cool shady area and allow the seedlings to grow on. From this point on, the lid of the propagator box should not be removed. This is to protect the developing seedlings and mycelium from physical damage.

When the seedlings are sticking straight up they are ready for inoculation with the B1 fungus sample. Inoculation is carried out through the vent on the lid of the propagator box. I use a cotton bud and wipe the fungus sample on to the grass seedlings at one point only. Put the propagator box back into the cool shade and observe the progression of the mycelium from the point of inoculation.

By recording the time it takes for the mycelium to completely engulf the seedlings over a range of fixed temperatures, gives an optimum range of 6 to 14 degrees Celsius at > 75% RH. It takes between 12 and 17 days respectively.

At this stage the seedlings are being consumed from the inside out and become covered in mycelium. Some seedlings will be leaning against the lid of the propagator box, so by using a magnifying glass you will be able to observe the whole process. By mounting a single blade of a seedling on a slide and inoculating one end, you can watch everything under a microscope.

Ten to fourteen days after inoculation the grass seedlings will be spent and everything will collapse. A few days after this, you will notice small (0.5 mm to 1.0 mm) spherical bodies growing along the length of some of the spent seedlings. These bodies quickly turn a greyish-white colour. Trials with these bodies show that they can produce their own mycelium network and when sown with orchid seeds (*Dactylorhiza* spp) they usually germinate.

It is easy for me to assume that these black bodies are most probably conidia (asexual reproductive organs). However samples taken could be contaminated with B1 fungus sample so there is a margin for error. What these black bodies are, still needs to be confirmed, so I most do more work on them.

Conclusion

I hope that "Experiment No.4" adequately demonstrates that the fungi that germinates orchid seeds can be grown in a non sterile environment. Also I hope you can appreciate the aggressive and parasitic nature of these types of fungi as this gives us a clue to their true classification.

Repeat this experiment sowing individual species of grasses, and after inoculating with B1 fungus sample observe which species of grass produce the black bodies. You can repeat this experiment further by sowing individual species of herbaceous plants, and observing which ones are killed and which ones are not. What this will reveal is that these "orchid fungi" are host specific over a range of plant species.

In the context of this experiment, "orchid fungi" act in every way like the class Oomycetes fungi (water moulds) Phythium>spp, or "damping off fungus". It is a large leap to this conclusion, but at the very least they occupy the same niche in the environment. This would go a long way to explaining the decline in orchid numbers in the wild due to fungicides used by farmers targetting Phythium. spp.

I would like to obtain more samples of fungi that germinate orchids, I have completed most of the work on B1, T&M, A15 and A17.

Practical Application

"Experiment No.4" has practical applications in the field for collecting samples of these types of fungi from the wild. Mark out an area just larger than the lid of a propagator box; weed out the area and dig over the top soil; sow grass seeds evenly, cover, and water-in with just water; cover with lid and secure it.

As the seedlings develop the "orchid fungus", if present, will begin to attack the seedlings. Infection will start at the base of the seedlings and samples should be taken

as soon as the mycelium shows. Other fungus species will be growing under the lid too, but most can be eliminated from sampling using this technique. Because of the specific host requirement of these "orchid fungi" it takes the chance out of sampling. I prefer to call this technique "substrate-selection"' and nothing works better than live bait. For the best results the area to be marked out should be near to a young orchid plant; or in a damp stack between mature orchid plants.

An even more direct method is to sow seeds in a propagator box and treat as normal; then take samples from orchid plants (part of the rhizome or tuber) and use them as the source of inoculation in the propagator box. This works most of the time. and it is much easier to clean up samples.

Native Wild Foods is committed to fighting countryside crime, and does not recommend you takes samples from the wild without proper authority.

WARNING

Because of their destructive nature you should never, under any circumstances attempt to inoculate "orchid fungi" into the wild.

Jim Peckham

Seed and Fungus List

The current Fungus and Seed list is now available. Please send a stamped addressed envelope for a list to: **Ted Weeks, 74 Over Lane, Almondsbury, Bristol BS32 4BT.** Thanks to members who donated seed. Once again fresh seed is very limited. Please mark envelopes **HOS seed.** This notice should have been in at the end of last year, but the editor overlooked Ted's notice so must apologise if this omission has caused any problems to members !

Another Meeting!

Richard Manuel

Due to the continued expansion of our membership, the committee has decided to hold another meeting of the Society, at Harlow Carr Gardens, near Harrogate, on Sunday 14th September 2003. We very much hope that this will be a success and warrants its inclusion as a regular meeting on our calender. This has so far been organised 'blind', so I would be delighted to hear from any volunteers (preferably more local than me, at Ross-on-Wye!) to help with the organisation or to give a talk or demonstration. A full notice will appear in the summer Newsletter.

Orchid Walk - 18th May 2003

Bill Temple, HOS Conservation Officer has offered to lead a walk. If anyone is interested they should contact Bill for details as to venue and numbers.

Who needs Agar - Part 2

Tony Hughes

Back in October 1999 (Newsletter No. 14) I wrote about my good fortune in establishing a small colony of common spotted orchids (*Dactylorhiza fuchsii*) on my back lawn, merely by scattering orchid seed in the grass. I am now pleased to report that the colony is flourishing, having produced over 50 flowering spikes this summer.

I also mentioned that in the autumn of 1997 I had introduced three plants of autumn lady's-tresses (*Spiranthes spiralis*), kindly donated by a Malvern friend whose lawn contained large numbers. Sadly, they did not find the situation to their liking - possibly a lack of sheep to graze their area? Although one flowered for a couple of years, another faded away and disappeared while the third became fatally engulfed in an ants' nest. I then took pity on the remaining one and transferred it out of the lawn into a nearby flower bed containing various other orchids where it seems to be recovering.

Much of the summer of 2002 was very hot and dry in Worcestershire; the grass stopped growing and the *Dactylorhizas* took ages to mature all their seeds, so I excused myself from lawn mowing all through July and most of August. Eventually I got the mower out, cleared the "hay" from the orchid patch and then set about the rest of the lawn, last mown at the end of June. I'd nearly finished when something caught my eye - there at my feet, only a couple of inches from the swirling blades, was a tiny spike of *Spiranthes* buds! The mower was instantly stopped and an excited search revealed a total of three groups of leaf rosettes with six incipient flower spikes. Sadly, I have no idea how many others had already fallen to the mower, or for how many years I have been chopping them off before their prime!

These plants had sprung up some five yards from where the "Malvern" *Spiranthes* had been planted, so I assume that they are seedlings from those ill-fated originals. The fact that each plant comprised several rosettes suggested that they had been there for some time. It is encouraging to realise that *Spiranthes* "in the wild" can get from seed to flowering size in five years or less.

Subsequently those six spikes flowered magnificently; sadly no others appeared, though I did find one other non-flowering rosette. Since new leaf rosettes are produced in early autumn and expand through the winter and early spring, I had (optimistic) hopes that more might reveal themselves later. However, despite diligent searching, no others have been detected - yet!

It would have been so easy for me to have mowed all the flower spikes off and never noticed their presence, which makes me wonder how many other lawns are similarly blessed. To find out whether your lawn is one of the lucky ones, why not ban mowing for three or four weeks from early August - while crossing your fingers and hoping for miracles.

Some Observations on Orchids in the Holme Valley

Geoff Rollinson

I live on the S.E facing side of the Holme Valley in the south of West Yorkshire. The Holme being a north flowing river which after joining the Colne, Calder and Humber, eventually empties into the North Sea.

Some 12 years ago, while out on dog walking duties immediately across the valley (N.W. facing), I spotted amongst scattered clover an extremely large flower head, which, on closer inspection transpired to be *Dactylorhiza fuchsii*. The following year two more stands were discovered, and over the years they have increased steadily.

The site is old pastureland, some 8 – 10 acres, at an altitude of 500 ft, with quite a considerable slope, bounded on its high side by an ancient oak wood and on its lower by the River Holme. The underlying rock is sandstone. Also growing in the site are bluebells and wood anemones, adjacent to the oak wood and marsh marigold in the wetter places. Very strangely a metre square patch of Gaultheria patagonica flourishes, probably on seed imported in the wool from Argentina, which has survived the processes of worsted manufacture, and was dumped in the field with woollen waste, and subsequently germinated.

My late mother remembers the site being used in the 1920s – 1930s as a dump for "night soil" this being human excrement cleared out by the Local Authority from earth closets, and no doubt interspersed with cut –up pieces of the Radio Times and the local newspaper. Oh, for the good old days !

Approximately 1 mile away, but at much greater elevation (1000 ft) grows *Dactylorhiza praetermissa,* in a disused sandstone quarry. In 2000, I recorded 166 flowering plants. Seven years ago I collected two ripe seed heads and released them on a suitably windy day at the *Dactylorhiza fuchsii* site. The first *Dactylorhiza praetermissa* flowered in 2000, 3 in 2001 & 5 in 2002. The rate of increase for *Dactylorhiza fuchsii* is slowing.

I started to record flower heads in 1999 –35, 2000 – 87, 2001 – 104 and 2002 – 115. The site has not been grazed for some years due to the difficulty of confining whatever animals are grazing. Drystone boundary walls have in places collapsed and have not been rebuilt.

I have spoken to the Environmental Officer of our local authority (Now Kirklees Metropolitan) and been informed that they are attempting to purchase the site with the intention of incorporating it in a new proposed river walk. They are aware of the orchids and if successful in the purchase would implement grazing after re-walling or fencing.

You may possibly know that the Huddersfield/Holmfirth area was world renowned

for the quality of worsted suiting material, but this has largely disappeared. In the hey-day of the textile industry, the River Holme varied in colour each day due to dyeing effluent being released, but in 1976 the textile mills remaining had to install settling and filtration plants for their discharge. Inside 18 months the river had purged itself and now supports brown trout and grayling along its length.

The bird life is itself flourishing with Heron, Mallard, Water Hen, Kingfisher, Dipper and the Wagtail family being regularly seen.

The prevailing wind received here over the years, came from the Manchester/Oldham industrial conurbation, itself a large textile producing area – mainly cotton. In consequence we received a heavy acidic fall-out. As with the local worsted production this is in recession and the industry that remains is powered electrically as against the coal fired of yesteryear.

I have no doubt that the re-appearance and proliferation of our local orchid populations is due to the increased cleanliness of the atmospheric conditions.

Printed by Parchment (Oxford) Ltd
Printworks, Crescent Road, Cowley, Oxford, England OX4 2PB
email:Print@parchmentuk.com www.printuk.com