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of the
HARDY ORCHID SOCIETY

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The Hardy Orchid Society

Our aim is to promote interest in the study of Native European Orchids and those from similar temperate climates throughout the world. We cover such varied aspects as field study, cultivation and propagation, photography, taxonomy and systematics, and practical conservation. We welcome articles relating to any of these subjects, which will be considered for publication by the editorial committee. Please send your submissions to the Editor, and please structure your text according to the "Advice to Authors" (see website, January 2004 Journal or contact the Editor).

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Front Cover Photograph

Steveniella satyrioides, Abant, Turkey, by Paul Harcourt Davies (see article on page 91).

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Editorial Note

The July journal includes an interesting variety of articles and it is good to see yet more first time contributions from members. Also we have articles from two acknowledged “heavyweights” from the orchid world. Svante Malmgren has followed up his fascinating Kidlington lecture with a report of his extensive experience of inter-crossing *Ophrys* species and the informative results include some spectacular “stacked hybrids”. Then we have the re-emergence of Paul Harcourt Davies who is a past HOS President, now living in Italy. I suspect that, like myself, some of you will have been enthused and influenced by Paul’s 1980s book “*Wild Orchids of Britain and Europe*” and also by his excellent orchid photography. I especially like Paul’s writing which seems to capture the spirit of orchids and their impact on those of us who enjoy them. Hence, I am really pleased to have material in hand for a series of articles to which you can look forward in future issues of the Journal. One small negative relates to a recently published book “*British Orchids - a Site Guide*” by Roger Bowmer. Robert Kempster and Sean Cole both wrote in with some rather negative comments and independently I declined a review copy from the publishers having already bought the book myself. I decided against a formal book review, but given the comments received, I thought that it should be mentioned for members’ information.

Report on Kidlington Meeting and AGM, April 20th 2008

David Hughes

Kidlington was packed for the spring meeting and a good programme of speakers ensured that the AGM was also well attended. At the AGM the Chairman was able to report that all meetings both lecture and field were successful and well supported, but that he would be pleased for volunteers to lead field meetings to new areas. The Journal continues to be of high quality thanks to the hard work of Mike Gasson, the Editor. The Treasurer presented the accounts which despite the purchase this year of new slide and digital projectors are comfortably in funds. He thanked Tony

Beresford for inspecting the accounts. The Membership Secretary's report was similarly satisfactory with a 5.5% rise in total number of members over the year. Richard Manuel as secretary and Barry Tattersall as Journal Distributor were retiring this year. The chairman thanked them on behalf of the Society for their work. The new Committee was voted in and welcomed new members, Giles Reed, Malcolm Brownsword and Ursula Smith; in addition Celia Wright accepted the post of Vice-Chairman. Full details of the AGM will be found on the website.

The meeting proper started with a fascinating talk by Svante Malmgren who had kindly come over from Sweden. Svante challenged modern ideas of *Ophrys* taxonomy with demonstration of the results of cross fertilization. The complex hybrids he created often had startling resemblance to so many of the strange specimens we find in the wild. This was a thought inducing presentation. Svante was followed by Richard Bateman, also talking on hybridisation but this time in the field. He led us through a comparison of *Orchis purpurea*, *O. simia*, *O. militaris* and their hybrids, highlighting the difficulties caused by the differing characteristics of populations in Kent and Oxford.

After lunch, the Plant Show results were announced. Malcolm Brownsword had worked hard to encourage members to bring their plants and the end result was a fine display and a worthwhile competition. We are grateful to all competitors who brought their plants to achieve this. Congratulations to Richard Manuel for winning the trophy for best plant with his fine *Anacamptis papilionacea* and Mike Powell for winning the Banksian Medal for the best overall total of points. We would particularly like to congratulate new entrants Deborah Parsons and Ian Gill for their joint second place and Ron Bowler for his *Disa Unilangley*. The Society is grateful to John Grimshaw for judging and his comments afterwards.

Ian Butterfield, who had also brought a fine display of *Calanthe*, continued the lecture programme. He gave us a fine 3-D slide presentation of his travels in China, showing many interesting plants and whetting our appetites with the many cypripediums he found there. Finally, Phil Seaton gave us a stimulating talk on the challenges of conservation for orchids, hardy and tropical and for ecological systems in general. Phil challenged our definition of what constitutes a Hardy Orchid. He took us round the world showing many interesting and beautiful sights including a picture of two lovely creatures looking strangely like Miss World competitors closely entwined around our speaker.

The audience will have noticed the excellent quality of the visual presentation, thanks to the new Society digital projector purchased under the guidance of Iain Wright and Bill Temple. It is notable that most presentations at the HOS have moved to digital. The visitors went home laden with orchid purchases from the many excel-

lent plant stands. We would like to thank Maren Talbot for her thorough organisation which made this such a good meeting.

Plant Show Results

Class 2 Three pots native European (not native to Britain) orchids, distinct varieties.

1st Richard Manuel: *Serapicamptis triloba* (Photo 2a); *Serapias godferyi* (Photo 2b); *Anacamptis papilionacea* (Photo 2c).

Class 3 Three pots non-European orchids, distinct varieties.

1st Kath & Peter Fairhurst: *Pleione yunnanensis* (Photo 3a); *Pleione chunii* (Photo 2b); *Pleione grandiflora* colour form cross (Photo 3c).

2nd Malcolm Brownsword: *Pleione Kublai Khan*; *Pleione Rakata* “Locking Stumps”; *Pleione Rakata* “Shot Silk”.

3rd Ron Bowler: *Pleione El Pico* “Kestrel”; *Pleione Versailles* “Bucklebury”; *Disa Unilangley*.

Class 4 Three pots hardy orchids, distinct varieties, any country of origin.

1st Michael Powell: *Pterostylis curta* (Photo 4a); *Serapias olbia* x *cordigera* (Photo 4b); *Anacamptis morio* (Photo 4c).

2nd Ron Bowler: *Pleione Tongariro*; *Pleione Marco Polo*; *Pleione formosana* “Oriental Splendour”.

Class 5 One pot native British orchid.

2nd Malcolm Brownsword: *Anacamptis laxiflora*. (1st not awarded).

Class 7 One pot non-European hardy orchid.

1st Ron Bowler: *Disa Unilangley* (Photo 7).

Class 9 . One pot *Orchis*, *Anacamptis* or *Neotinea*.

1st Richard Manuel: *Anacamptis papilionacea* (winner of “Best in Show” Trophy; Photo 9).

2nd Deborah Parsons & Ian Gill: *Anacamptis morio* x *longicornu*.

3rd Tony Bennett: *Orchis mascula*.

Class 10 One pot *Ophrys*.

1st Deborah Parsons & Ian Gill: *Ophrys gargarica* (Photo 10).

2nd Richard Manuel: *Ophrys vernixia*.

3rd Malcolm Brownsword: *Ophrys lutea*.

Photographs of the 1st place winning plants are on the next two pages. Numbers relate to the Class entered. Where three plants are involved they are differentiated by a letter. Photos by Mike Gasson





Class 11 One pot *Serapias*.

1st Michael Powell: *Serapias olbia x neglecta* (Photo 11).

Class 12 One pot *Cypripedium*.

1st Michael Powell: *Cypripedium formosanum* (Photo 12).

Class 14 One pot *Pleione*.

1st Maren Talbot: *Pleione Berapi* “Purple Sandpiper” (Photo 14).

2nd Malcolm Brownsword: *Pleione Captain Hook*.

3rd Kath & Peter Fairhurst: *Pleione Ueli Wackernagel*

Class 15 One pot of any hardy orchid (Beginners' Class open to members who have never won a first prize).

1st Deborah Parsons & Ian Gill: *Anacamptis morio x longicornu* (Photo 15).

2nd Andrew Bannister: *Orchis anthropophora x simia*.

3rd Tony Bennett: *Pleione Paricutin*.

Winner of Banksian Medal.

Michael Powell (9 points).

2nd equal Richard Manuel and joint entry from Deborah Parsons & Ian Gill (8 points).

(3 points for 1st, 2 for 2nd, 1 for 3rd)

Winner of “Best in Show” Trophy.

Richard Manuel for *Anacamptis papilionacea*.

There were no entries in Classes 1, 6, 8 and 13.

**Programme for HOS Meeting, Harlow Carr, Harrogate
Saturday August 30th 2008**

09.30 Doors open

10.00 Tea or coffee

10.30 Chairman’s Introduction

10.40 Mike Lowe “Orchids of Spain”

11.30 Tea or coffee

11.45 Pete Murray “Photography, Orchids of Gargano”

12.20 David Nelson “Sardinian Spring”

13.00 Lunch

14.00 5 Slides in 5 Minutes (Martin Jackson & Chris Barker)

14.30 Jeff Hutchings “Conservation Issues”

15.20 Tea or coffee

15.35 Malcolm Brownsword “Some Orchids of Wessex”

17.00 Vacate hall

Application details will be found on the enclosed sheet. Please contact David Hughes if you would like to give a 5 minute illustrated talk.

Drakensberg 2007, Part 1

Graham Goodfellow

South Africa is a botanical paradise, the source of many familiar and popular cultivated plants among which are gladiolus, kniphofia (red hot poker), pelargonium, agapanthus and streptocarpus. The Cape is one of the world's six botanical kingdoms and by far the smallest covering 0.6% of the earth's surface - the northern boreal represents around 40% - yet contains some 14,000 species of which a very large proportion are endemic. It is in the winter rainfall area and the prime flowering period falls in the spring during the months of September to November. However, later in the season the less celebrated Drakensberg mountain range in the summer rainfall area, straddling the border between Lesotho and Kwa Zulu Natal province, is at its peak in January and February.

Averaging 3,000 m at its summit and rising to 3,482 m, the Drakensberg is the highest mountain range in Southern Africa. Difficult of access, with sheer cliffs and dramatic escarpments, it was proclaimed a world heritage site in 2000 for its plant diversity, natural landscape and bushman rock art. Of volcanic origin, the rocks are basalt over sandstone, rainfall is high, snow is common and temperatures vary from -20°C to +40°C. Weather conditions are extremely unpredictable and can change rapidly during the course of a day. During the spring, watsonias and irises are abundant, but for the orchid hunter January and February are the best flowering months. This is the hottest period of the year and consequently an ideal opportunity to escape the depressing gloom and cold of a British winter, despite the ferocious thunderstorms, which occur frequently, often with little warning.

My wife Ann (who took the photographs) and I flew to Jo'burg in early February 2007 to spend two weeks hiking and botanising with no planned itinerary but with a copy of "*Mountain Flowers a Field Guide to the Flora of the Drakensberg and Lesotho*" by Elsa Pooley, the most comprehensive available book on the local flora. We collected our hire car with air conditioning, an essential requirement given the high temperatures at this time of year. A 4 x 4 would be worth considering as some of the routes to the interior can only be managed this way. After leaving the sprawling conurbation of Jo'burg it is an easy, yet tedious three hour drive south on the N3 toll motorway through flat arable grassland. Many hundreds of eastern red footed kestrels added some interest to the journey. Having migrated in, they were perched on roadside telegraph wires, swooping down to prey on insects in the acres of maize. Accommodation is abundant throughout the region, varying from backpackers' hostels through B&B to five star hotels and is easily obtained on an *ad hoc* basis as the high season ends at New Year. Our main consideration in selecting accommodation was proximity to hiking trails as each route into the various parks is a cul de sac running for 30 or 40 kilometres from the R74 & R103 spine roads. We tried to stay close

to the mountains in order to set off early before the heat became intense or storms began.

Much of the Drakensberg is under the control of the KZN National Parks, although not contiguous. We stopped first at Royal Natal National Park, a discrete section at the very north of the range, and stayed at the Mont aux Sources hotel on the park boundary. Indian mynah and noisy Hadedda ibis were numerous in the hotel grounds. Arriving late, we took a brief stroll before dark and found orchids in the nearby grassland. The first was *Satyrium longicauda* (Figure 1) although most plants were well past peak flowering. Satyriums are easy to identify to generic level as they almost all carry two spurs lying either side of the ovary with the lip uppermost. *S. longicauda* has, in addition, the leaf on a separate shoot from the flowering stem facilitating identification even in seed. Along the road verges of Rugged Glen we encountered two *Habenaria* species *H. dregeana* (Figure 2) and *H. chlorotica*, which latter Ann described as a “long thin green nothing” although I think it has a certain charm.

Finding orchids and the other plants of the Drakensberg demands a degree of effort. From the car park it is a case of slogging from a starting altitude of around 1,200 m up, ever up, trails of varying length and degree of difficulty. The most striking and well known feature of Royal Natal National Park is the amphitheatre, a five kilometre wall of basalt rising vertically one kilometre and the site of the world’s second highest waterfall, the headwaters of the Thukela river. Our first hike took us up the Thukela gorge with varied habitat, scenery and topography and, for those with the stamina, a view of the waterfall at its end. The walk begins pleasantly in wooded shade and orchids are soon encountered. *Disperis fanniniae* (Figure 3) or granny’s bonnet, primarily white with the flower shape similar to an impatiens was the first. It was the most widespread and common member of the genus and we found it frequently wherever similar shady, moist habitat occurred, even under single trees or bushes alongside streams at different altitudes. Its companion here was *Liparis bowkeri*, the only *Liparis* species found in the area, and always favoured lower altitudes. It is recognisable from its leaves and was mainly in seed although a couple of plants still bore their strange yellowish translucent flowers.

Emerging into open grassland, the path gradually winds upwards and new species are encountered. *Galtonia candicans*, not an orchid but a stately plant with white hanging bell shaped flowers, was common here and nowhere else, growing with deep blue agapanthus. *Pterygodium hastatum* was frequent along the path in ones and twos along with *Corycium nigrescens* (Figure 4), the black-faced orchid. We

Figure 1 *Satyrium longicauda*. Figure 2 *Habenaria dregeana*. Figure 3 *Disperis fanniniae*. Figure 4 *Corycium nigrescens*.

Photos by Ann Skinner



have all seen unprepossessing orchids I'm sure but this one is in a class of its own. The spike reaches around 50 cm with numerous tiny non-descript flowers which turn black and wither almost as they open. It has an unpleasant pungent aroma and is pretty well ubiquitous. Wherever we found orchids in the open it was always present.

Ann, an ophiophobe, was alarmed to see a snake on our first day out, a rinkhals or spitting cobra asleep beside the path; quite attractive with a thin gold diamond pattern over black. There are about half a dozen venomous snakes found in the mountains but, as in England, they are rarely encountered. We left each other in peace. The path rounds crests and crosses small streams, where shady forested gulleys provide welcome cool respite and once again different species are discovered. In one we saw the only epiphyte, alas out of flower, but presumed to be *Polystachya ottoniana*. Most strikingly in flower were some of the five species of *Huttonaea* endemic to the area and some extremely uncommon. Easiest to identify is *H. fimbriata* due to its stalked lower leaf, but more beautiful as its name implies is *H. pulchra* (Figure 6) with deeply fringed white floral parts spotted with purple. Moving out into the open again, always ascending, through the grasslands alive with gaudily coloured butterflies, we reach the gorge itself ending with a chain ladder which takes you up to the waterfall viewpoint. The rocky walls are dotted with *Gladiolus flanaganii*, the suicide gladiolus, named for its inaccessibility.

The following day we travelled south about 100 kilometres in a huge loop to the next access point of the northern berg at Cathedral Peak. There is a justifiably popular hotel nestled here at the foot of the mountains, which draws visitors from afar and is especially busy at weekends so pre-booking is recommended. A number of trails start here and as with all locations we visited, many more days could have been spent without exhausting all the options. The most popular, Rainbow Gorge at 11 kilometres, is described as easy. Starting a little late in the afternoon, rumblings of thunder caused some apprehension as we traversed the grassland, passing through a small protea grove with iridescent malachite sunbirds. Botanically this section was dull with only the odd kniphofia and gladiolus. Turning towards the gorge we found a handful of *Disa patula*, one of surprisingly few Disas we were to see in flower. As the rumbling thunder got closer and more insistent, we were glad to reach the shelter of thick woodland. Here in deep shade streptocarpus plants clung to boulders with their common companion *Stenoglottis fimbriata* (Figure 7). This diminutive orchid is often seen at shows in the UK, grown in pots which bear scarce resemblance to its true habitat. We were to see it many times in varying numbers but always in thin moss on rocks or low tree trunks. It is attractive but difficult to pho-

Figure 5 Drakensberg dawn. Figure 6 *Huttonaea pulchra* .Figure 7 *Stenoglottis fimbriata*.

Photos by Ann Skinner



tograph. Also here we found a colony of *Habenaria malacophylla* in deep shade on the forest floor. This plant puzzled us initially as it is not described in Ms Pooley's book and, although green on green, the flowers when closely examined are subtly distinctive. Meanwhile the storm raged and the ground was littered with hailstones the size of marbles. We waited its passing before returning to the hotel whose gardens provided some of the best bird watching opportunities of the trip.

Reference

Pooley, E. (2003) *Mountain Flowers A Field Guide to the Flora of the Drakensberg and Lesotho* The Flora Publications Trust (ISBN 0-620-30221-6)

Naming New Orchid Taxa; What are the Rules?

Sean Cole

The recent JHOS article by C.A. Kreutz (2008), updating some of the British species, subspecies and varieties, raised some interesting questions. He presented new opinions on some of our most challenging taxa based on his extensive field experience and reference to the expressed views of other European experts.

In one instance there was no surprise; the "Tyne" Helleborine has long required recognition as something different from the closely related *E. leptochila* and *E. dunensis*, due to its distinctive and consistent morphology. Subspecies status seems a noble option. The recognition of a variant of *Gymnadenia* new to the British Isles and the subspecific relegation to subspecies of *Epipactis sancta* were somewhat more surprising. In his recent European orchid guide, Delforge (2006, p.103) stated that, for *E. sancta*, - "From recent molecular analysis, this species does not appear to be closely related to *E. muelleri*, *E. leptochila* or *E. dunensis*". Curious, then how it now becomes a subspecies of the latter only on the basis that it "differs only slightly from the coastal form of *E. dunensis*" (presumably morphologically). Of course, Delforge offers no supporting references; presumably his comment is based on the work of Squirrel *et al.* (2002).

Most curious of all for me was the latest definition of the mystery *Epipactis* at Princes Risborough in Buckinghamshire. This particular population seems to have caused headaches for many years now. The proclamation that it is assignable to *E. leptochila* var. *cordata* seemed most contentious. These plants grow on a shady roadside bank under beech and are depauperate in appearance. Further up the bank are several plants of *E. purpurata* and lower down the hill occur a few specimens of *E. helleborine*. Superficially the flowers of the mystery plants closely resemble *E. leptochila*, and the leaves are small and ovate, climbing up the stem in opposite rows. However, as noted by Kreutz, they clearly have functional viscidia that remain on the column well after the flowers have opened. Indeed, the photo in the article

shows one flower with its viscidium intact immediately above a flower from which it has been removed.

For me this observation presents a fundamental problem with the identification of the controversial plants as *E. leptochila*. Kreutz stated that, despite this anomalous biological feature, the colour of the base of the pedicel indicates that the plants belong to the *leptochila* group. I have conducted an extensive check of literature available to me and it seems clear that although *E. leptochila* can sometimes have functional viscidia while the flowers are closed, these have always disappeared by the time they have opened. This important biological feature of the Risborough plants, the clear evidence that they are allogamous, would seem far more significant than the colour of the pedicel base. After all, the presence or absence of viscidia is one of the starting points for keying out members of the *Epipactis* group across Europe.

However, the story may be even more complicated. Again, referring to Delforge (2006), there are several taxa within otherwise autogamous groups that have functional viscidia, efficient or otherwise. Closest in appearance to the Risborough plants is the relatively well-known *E. leptochila* var. *neglecta*. Kreutz mentioned this variety but dismissed it purely on the basis of its flowering period. Delforge described

the latter as flowering 1-2 weeks earlier than nominate *E. leptochila*. In support of his point Kreutz shows a photograph of nominate *E. leptochila* in fresh, full flower taken in South Wales just two days later than the Risborough plant in the next picture. But *E. leptochila* has a variable flowering period in England; near Marlow in Buckinghamshire, plants were in full flower on 10th July 2007, and almost completely over nine days later. In Gloucestershire, also last year, plants were still in relatively fresh flower on 19th August. So for now I will put flowering period to one side and consider the appearance of the plants in more detail.



Risborough *Epipactis* 25th July 2007, showing viscidia, curled-back epichile, the walls of the epichile nearly touching, green pedicel base.

Photo by Sean Cole

Reading Delforge's description of *E. leptochila* var. *neglecta* makes one wonder about the nature of the Risborough plants: "upper margins of hypochile's walls almost touching each other" and "tip of epichile frequently twisted down asymmetrically to one

side". Both of these features describe accurately the Risborough plants. In addition, the photo on page 91 of Delforge clearly shows that the (open) top flower still possesses a viscidium. The lower flower in this picture shows no viscidium or pollinia, much like the photo of the Risborough plant included in Kreutz's article. I have seen the Risborough plants three times and on each occasion every plant had viscidia in at least some of the flowers. On those where viscidia had been removed, pollen was lying on the stigmatic surfaces of some flowers, as one would expect in allogamous plants with flowers that had been pollinated by visiting insects.



Risborough *Epipactis* 25th July 2007. Note the presence and apparent shape of the rostellum, with the pollinia rested on the clinandria. The rostellum would prevent pollen from falling directly onto the stigmatic surface.

Photos by Sean Cole

So, morphologically, the Risborough *Epipactis* are something of an anomaly, and I believe much more detailed study is required to establish their true identity. This should include prolonged study of the plants to see if they are visited by any pollinating insects, and examination of the reproductive parts to establish the exact form of the rostellum. Prof. Richard Bateman is now in possession of some samples of the plants for molecular analysis, but it is likely to be some time before any firm results are forthcoming. In the meantime, it is vitally important to protect these plants, as they may even prove to constitute a completely new taxon.

The taxonomy of the *E. leptochila* group is fraught with difficulty (see Squirrell *et al* 2002). His conclusion is that the autogamous species within the *leptochila* group evolved from the allogamous *E. helleborine*. It may be therefore that the Risborough plants represent a crossover taxon. Whatever the reality, in my opinion we are a some way off assigning the Risborough plants to a specific taxon on salient morphological features alone.

All this confusion between these various subtly different taxa prompted me to question what evidence is required to name a new species, subspecies or variety. Looking through recent literature it would appear there is no simple answer to this question. Depending on which book you read there are anything from 10 to 252 species of *Ophrys*, for example. At the higher end, the person who named the species often appears to be the author of the book in which it is named. Often, there also seems to be little data supporting or clarifying how or why these taxa were named at all.

My guess is that simply looking at plants is not enough, and neither is DNA study alone. Witness the difficulties of clarifying our two *Platanthera* species! (Bateman 2008). The most comprehensive way to clarify the taxonomy would seem to be a combination of detailed morphometric study across many populations, combined with objective backup genetic data gathered over a large sample of individual plants. How many of the plants we see in the field have this combination of evidence to justify the name we give them?

Finally, as an example of the challenge we all face, I would like to offer my recent observations on a population of *Himantoglossum hircinum* in Avon. When I looked at photographs I had taken of this small population last year, I noticed the lip was deeply cleft at the tip of the elongate central lobe. All the books in my library indicate this should not be the case. I therefore wondered if this was ascribable to some kind of regional or individual variation. On checking photographs I had taken in previous years at sites in Kent, Suffolk and Somerset, I realised that the Avon plants are in my expe-



H. hircinum, Cambridgeshire, with a narrow, almost non-existent cleft in the tip of the central lobe of the labellum.

Photo by Sean Cole



H. hircinum, Bristol, Avon, with a more lax spike and deeply cleft tip to the labellum.

Photo by Sean Cole


rience unique in this feature. All the other plants I have seen had the standard shallow “v” at the apex of the lip. Somewhat facetiously I might ask - does this mean we have a new variety of *H. hircinum* on our hands? Perhaps other, more experienced HOS members could comment on my observations, and my other observations in this opinion piece.

References:

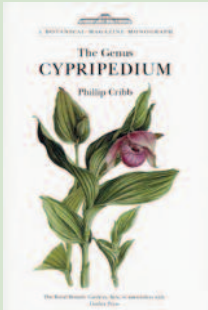
- Bateman, R.M. & Sexton, R. (2008) Ongoing HOS *Platanthera* spur-length survey, a great success. *JHOS* 5:1, p20-23.
- Buttler, K.P. (1991) *Field Guide to Orchids of Britain and Europe* Crowood Press.
- Delforge, P (2006) *Orchids of Europe, North Africa and the Middle East A. & C.* Black London.
- Harrap, A & S. (2005) *Orchids of Britain and Ireland – A Field and Site Guide A. & C.* Black London.
- Kreutz, K.A.J. (2008) *Update on British Orchids JHOS* 5:1, p11-16.
- Squirrell, J., Hollingsworth, P. M., Bateman, R.M., Tebbitt, M.C., & Hollingsworth, M.L. (2002) Taxonomic complexity and breeding system transitions: conservation genetics of the *Epipactis leptochila* complex (Orchidaceae). *Molecular Ecology* 11: 1957-1964.

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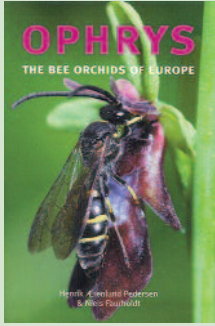
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Steven's Orchids Paul Harcourt Davies

Before starting a new life in Italy my last lengthy sojourn abroad was between 1978 and 1981 when, ostensibly, I taught Mathematics and Physics in Cyprus but spent every available moment walking and searching for orchids, chasing up old floral records and putting together material for a book that was eventually published in 1983 as "*Wild Orchids of Britain and Europe*" (Harcourt Davies 1983). This year it will be THIRTY years since I set foot on the island, a thought that terrifies me since, in my mind, it was yesterday, or was it the day before?

I was heavily influenced in the choice of venue by a small book by Hans Sundermann (Sundermann 1970) that arrived in Wendover one day in 1976. I have always been in accord with his view of orchids - something I discussed long ago with Dr Philip Cribb when we were both callow youths (I had hair but he still looked like Piers Brosnan). Phil summed it up thus, saying there was a difference in philosophical outlook: continental taxonomists looked for differences (splitters) whilst we Brits (and some Germans) looked for similarities (lumpers).

In retrospect, the book fell open portentously to reveal orchids I had not dreamed could exist - such as *Orchis punctulata*, *Ophrys kotschyi* and then *Epipactis veratrifolia*. Coincidence then that all three grow in Cyprus and within two years I was living there. But two particular orchids set together on the same page set my heart racing for they were unlike anything I had seen before: *Steveniella saytrioides* and *Comperia comperiana*. Naively, I thought that the "troubles" in Cyprus, at that time already partitioned for four years since 1974, would soon be over and I could hop across to Turkey and get some pictures: I thought the same about *Ophrys schulzei* in Lebanon, but that is another story.

Russian botanists have long regarded *Comperia comperiana* as their own and gave "her" the delightful name of "Tsarina". This taxon was first recorded from the Crimea along with that other remarkable orchid *Steveniella satyrioides* though otherwise their distributions seem almost mutually exclusive, as Richard Bateman has remarked. There is another link though in that both species were first described by Christian Steven, a Swede by birth, who founded a botanical garden in 1812 near the village of Nikita, six kilometers from Yalta in the Crimea (Ukraine), and now known as the Nikitsky Botanical Gardens. *Orchis stevenii* - much like *Orchis militaris* with an elongated body to the figure formed by the labellum - is another monument to the name Steven.

Kind German friends sent me details of sites for the "Tsarina" in Turkey and Dr Tom Norman sent a flower in an envelope that never quite made it in time - four weeks in an envelope is a long time and I have never really been a herbarium necrophiliac.

I can still recall the sheer pain as I unraveled its four “filiform processes” and dreamed long of what might have been. Family responsibilities and a teaching role meant I never had holidays at the right flowering time, so friends, to whom I confided the whereabouts, came back glassy-eyed and raving. Part of me felt glad for them but part not, at least until I visited its well-known site in Lesbos. However, it was not until the spring of 1987 that I stayed on after a botanical trip in western Turkey and went exploring further south and east, having quit the chalk-face and taken to free-lancing.

First-time visitors to Turkey are often horrified at the level of grazing by sheep and goats to such an extent that places once legendary for bulbs and orchids become devoid of all but grass. The other problem is the collecting of tubers by locals for the disgusting Salep trade and after visiting sites pock-marked by collectors or grazed flat by armies of ovine and caprine vandals, I realized that cemeteries were the best bet.

It always seems to be at the day’s end when, tired and beginning to despair, the real prizes are found. True to form, as light was falling, I found myself on a road to Akeski where, in an overgrown cemetery, I spied the first spike of this stately orchid and, barely discernible in the gloom, another gem - *Ophrys cilicica*. I could not believe my luck and the “Tsarina” did not disappoint with those long “tresses” at the apex of the divided labellum and, as that unbelievable bonus, *Ophrys cilicica* with its lip almost rolled into a cylinder - one of the prizes of the genus.

Unfortunately, though many of our European orchids have succumbed to the ingenuity of skilled growers who can propagate them, I do not know anyone who has kept *Comperia* going for more than a few years. I would be interested to know if anyone has cracked it, for it is getting increasingly rare and that would be a real service. Fortunately, what passed for a hotel was only a few kilometers away and next morning fortified by a breakfast of Turkish yoghurt and honey I set off with photographic impedimenta for a morning of complete self-indulgence - ten films’ worth I seem to remember! Digital has so many advantages and I love it for its immediacy.

Serendipity is so important to any orchid enthusiast for, after all, we are dealing with the most capricious of flowers. Even when a visit is planned meticulously in advance you never know just how early a spring has been and I have had quite a few “misses” as a result. Fortunately orchids often grow in mountainous limestone regions where, if you find things are going over lower down, you travel a hundred metres

Figures 1 & 2: *Himantoglossum (Comperia) comperianum*, Lesbos, 18th May 1993. Figure 3: *Ophrys cilicica*, Turkey, May 1993. Figure 4: *Steveniella satyrioides*, Abant, Turkey, 21st May 1993.

Photos by Paul Harcourt Davies



higher up and they are in bud - perhaps. Whereas I had spent time and emotion in my search for *Comperia*, I just “happened” upon spikes of *Steveniella satyrioides* on the road up to Lake Abant. The trip was a commercial one where I was whizzed around parts of Turkey providing stock material for the magazine “Cornucopia”. In



fact, I only found the plants of *Steveniella* when a call of nature screamed to be answered and I headed for cover to the woods. Returning to the car I saw some intriguing-looking slim greenish spikes under open tree cover and could hardly believe my luck, for I had not thought of orchids at all (not when I had been woken at 4 a.m. to catch the light on the lake).



Steveniella satyrioides is, at first sight, a slender insignificant greenish orchid - the botanical equivalent of an ornithologist’s LBJ (little brown job) but not to the same extent as *Malaxis monophyllos* or *Chamorchis alpina*. Like those two mentioned, it is the kind of orchid that draws gasps of disappointment when friends, infected by my enthusiasm, have asked to accompany me on orchid hunts. In fairness to them I have probably made such a fuss that they think the bloom is 20cm across with a heady, intoxicating perfume. But then so many terrestrial orchids only reveal their beauty in close-up, the main reason that the techniques of close-up and macro photography have been so much a part of my work. In fact, there is much of the plant world that lies just that short step from our normal vision and digital cameras make it far easier to record.

Steveniella satyrioides
Abant, Turkey, June 1991
Photo by Paul Harcourt Davies

Both these orchids have a varied taxonomic history that reflects the confusion that these two outlying taxa have created. They have been in and out of the genera *Orchis* and *Himantoglossum* at various stages, with a fair sprinkling of illegitimate names along the

way. For instance; Steven records an *Orchis satyrioides* in 1809 (albeit illegitimately) whilst Sprengel classifies it as *Himantoglossum satyrioides* in 1826 with Schlechter giving it its own monospecific genus as *Steveniella satyrioides* in 1918.

Steven records *Orchis comperiana* in 1826, with Ascherson & Graebner naming it *Comperia comperiana* in 1907. The name stuck until 1999 when Delforge suggested that *Comperia* belonged with *Barlia* under the umbrella of *Himantoglossum*: later phylogenetic work by Richard Bateman *et al.* tends to support this hypothesis. The Delforge placing of *Steveniella*, however, in an expanded genus *Himantoglossum* (in fact as Sprengel had done in 1826 as *H. satyrioides*) is not borne out by phylogenetic analysis. *Steveniella* is morphologically distinct and genetically isolated to a degree that merits a placement that retains its distinct generic status.

Interestingly, both taxa are restricted to Asia Minor - all sites are mainland except for the limited occurrence of *C. comperiana* in Lesbos and Samos. Their distributions are “opposite” in the compass sense that *Comperia* occurs in the south and west of mainland Turkey, Lebanon and the islands mentioned whereas *Steveniella* is north and east (inland from Black sea coast into Iran). Both are recorded from The Crimea but not together - other than in the Nikita botanic garden that is! Ever the optimist, when I lived in Cyprus and wandered the hidden valleys of the Troodos massif I hoped, but in vain, that there, in the dappled light of a glade, I would glimpse the “Tsarina”. For me “she” is, was and always will be (albeit with close contenders), my favourite terrestrial orchid.

References

- Davies, P., Davies, J. & Huxley, A. (1983) *Wild Orchids of Britain and Europe*. Chatto & Windus, London.
- Sundermann, H. (1970) *Europäische und Mediterrane Orchideen - Eine Bestimmungsflorea*. Brücke-Verlag Kurt Schmiersow, Hildesheim.

Are There 25 or 250 *Ophrys* Species? Svante Malmgren

Nobody with an interest in European orchids could be unaware of the ongoing and intense debate regarding the true number of different *Ophrys* species. On the one hand we have the “lumpers” team, which includes many academics, and on the other hand the “splitters”, a group consisting mainly of enthusiastic field botanists who return home after each spring-time vacation in the Mediterranean with more and more photographs of “new” *Ophrys* species. Describing and defining entities in the physical and natural world falls within the remit of science and this includes “species” and how to differentiate between them. A major challenge is how the characterisation of those genetically determined differences that are actually significant

for species delineation. In botany, the traditionally preferred parameter for species separation and identification has been morphology. This relatively simple system has produced great advances. To what extent, though, can we rely on an assumption that small differences in morphology truly reflect inter-specific variation?

Other methods have also been developed, notably the modern techniques of DNA analysis, but for most interested laymen this technology within its reliability and its limitations is imperfectly understood, although we are inclined, probably with justification, to trust the conclusions. However, there are other more pragmatic, albeit still empirical, methods that can be used to verify or refute the definitions of some species. Controlled breeding experiments are a good example of such a technique. Firstly, such experiments enable us to demonstrate the variability that may be encountered within a single species. It seems quite possible, for instance, that the descriptions of some newly described “species” are based on characteristics that lie within the normal range of variation of more traditional taxa. The chosen characteristics might prove to be unstable from one generation to another and thus demonstrably be of little genetic significance.

Secondly, breeding experiments enable us to see what specific hybrids actually look like and to test their fertility in order to help define the boundaries between the different species. Some F1 hybrids prove to be infertile “dead-end streets”, which may be mistakenly identified as novel species in the field.

Nowadays, most, if not all, *Ophrys* species are easy to propagate in the laboratory using asymbiotic techniques. Growing media can be very simple, a high germination rate can be achieved and subsequent development *in vitro* presents few problems. Plants on medium produce small but mature tubers that can be potted into soil eight to twelve months after sowing and usually flower two years later, which is their second year on soil. For the passionate orchid grower and lover three years is just the blink of an eye.

I have been propagating *Ophrys* from seed for approximately two decades and improving my methods year on year. My main interest has been to devise easily reproducible methods for large-scale propagation. My interest in hybridisation followed on from this and from my observations that single species propagated from seed, even from self-pollinated plants, demonstrated a huge variation in morpholo-

Variation in *Ophrys* flowers raised from single, self-pollinated seed capsules -
 Figure 1 Second generation of *Ophrys holoserica* Figure 2 Second generation of
Ophrys argolica Figure 3 Second generation of *Ophrys scolopax* Figure 4
 Distinct flowers of *Ophrys spruneri* Figure 5 Distinct flowers of *Ophrys cornuta*
 Photos by Svante Malmgren



1



2



3



4



5

gy. I have amassed many photographs from many different species to illustrate this point. Lack of time has prevented me from undertaking statistical analysis of this variability, but the evident range and diversity are quite enough to support and strengthen the arguments of the “lumpers” team. Between fifteen and several hundred plants have been raised from the seed of self-pollinated flowers of many different species. In most cases, both the parent plant and a representative number of the offspring have been documented photographically. Petal and sepal colour show no tendency to follow the normal inheritance pattern that we might expect from Gregor Mendel’s experiments with sweet peas. Quite unexpected variation from white through pink and purple to green is seen in the petal colour of the progeny of self-pollinated plants, indicating that these colours are not genetically stable traits. Plants with similar morphology, but differently coloured petals and sepals, should clearly not be interpreted as being different species.

Similarly, labellum size, shape and markings in *Ophrys* exhibit great variability both from one generation to the next and between individuals grown from the same seed capsule. Controlled breeding experiments also demonstrate that some species such as *Op. scolopax*, *Op. cornuta*, *Op. lutea*, *Op. spruneri*, *Op. cretica* and some subtypes of *Op. holoserica* show a much greater amount of variation in these characters when compared with other species such as *Op. speculum*, *Op. straussii* and *Op. bertolonii* in which variations are apparently more minor. Unfortunately, it has not been possible for me to propagate plants within the *Op. fusca* complex because of a lack of suitable seed. Of course, larger statistical series of results would give even more information - but so far so good.

The evolutionary implications of these results can be interpreted in a common sense manner. In different environments and geographical locations, certain variations will be slightly more successful than others and these will sooner or later become more dominant in some populations. When, though, can it be said that two “variations” finally diverge enough to be described as two different species? This moment is hard to define but there does come a point when two “variations” become so genetically dissimilar that they can no longer produce fertile hybrids. Many different F1 inter-specific hybrids have been raised from seed but only in two cases, *Op. cretica* x *holoserica* and *Op. cornuta* x *argolica*, have these produced viable F2 generation

Some *Ophrys* hybrids - Figures 1 *Ophrys cretica* x *holoserica* Figure 2 Multiple hybrid *Ophrys insectifera* x *tenthredinifera* x *speculum* x *cretica* x *holoserica* Figure 3 *Ophrys lutea* x *tenthredinifera* Figures 4 Multiple hybrid *Ophrys lutea* x *tenthredinifera* x *cretica* x *holoserica* Figure 5 Multiple hybrid *Ophrys lutea* x *tenthredinifera* x *argolica* Figure 6 *Ophrys cretica* x *holoserica* Figure 7 Multiple hybrids *Ophrys lutea* x *tenthredinifera* x *cretica* x *holoserica*

Photos by Svante Malmgren



seed when selfed. The seedlings grown from this seed are extremely weak, however, and would not be likely to survive for long in a natural setting. On the other hand, many F1 hybrid plants themselves appear to be very strong and vital and most probably **do** occur in the wild, surviving for many years and greatly complicating matters for the poor field botanists!

This situation is made even more problematic by the fact that many of these F1 hybrids are not infertile and do produce viable seed **if and only if** their flowers are fertilised with the pollen of a **true** species. It is the **pollen** of the hybrid that is useless. Thus new generations of hybrids may arise and many of these will give rise to further hybrid generations if pollinated from a true species. These hybrids can be vigorous even after the sequential addition of pollen from several different species over many different generations. I have hybrids in my collection that “contain” 4, 5, 6 or even 7 different species and they grow very well.

Hybrids that contain three or more different species exhibit a massive variation from one individual to another and in many cases no two plants resemble one another! From a genetic point of view this is not unexpected, but hybrids that incorporate two or more different *Ophrys* species can probably cause great confusion amongst botanists in the field. The main argument against the “pure” morphologists and the “splitters” team is their inability to prove that the characteristic morphology of a supposed “new” species is genetically stable within their own described limits. This must surely be a basic condition for the definition of a species.

If hybrids between well-defined species are not self-fertile, albeit viable, then possibly this could help us to define the morphological boundaries between one species and another. Similarly, by demonstrating the production of fertile hybrids from crossing more closely related taxa, such as supposed subspecies, this would lend support to the thesis that the two are indeed representatives of the same species albeit from different geographical areas. For example, are different types of *Op. scolopax* from Greece really so different from French specimens? Do they really deserve species names of their own? Unfortunately, I have only crossed different subspecies on a very small scale to investigate the potential fertility of their progeny but further studies are underway.

“Lumpers” and “splitters” will continue to argue for some time to come. A major reason is that they are attempting to systematise nature using different methodological standards which are not fully compatible. Controlled breeding experiments can help to uncover ways in which genetic and morphological variations interact, thus negating some arguments, strengthening others and hopefully enabling the protagonists to reach some kind of middle ground.

Florida Orchid Safari Mike Parsons

The sixth annual North American Native Orchid Conference was held in Miami, Florida from 10th to 25th April 2007. This state has over 120 species and varieties of orchid, which is half of the total for the whole of USA and Canada. In addition there are hybrids and various colour forms, plus the interest of both epiphytic and terrestrial plants. Flowers can be found in almost any season and this makes any visit an exciting prospect.

My trip started with a flight to North Carolina and to break the long journey to Florida, I decided to try to visit some sites on the way. I made my way to a cemetery near Boone, just inside Georgia where I found *Spiranthes eatonii*. The next day I called into a site near Fort McCoy to see if I could find *Spiranthes sylvatica* and managed to locate one fine plant in good condition. This *Spiranthes* was much larger than the ones I had seen before and looked like a large *Spiranthes praecox*. When I reached Goethe Forest I met other orchid friends looking at the collection of orchids along the roadside. Here were *Spiranthes brevilabris*, a dainty orchid but just going over, some very nice specimens of *Spiranthes sylvatica* and *Spiranthes praecox* hiding amongst the grassy banks. Inside the woods and below the undergrowth there were a couple of diminutive *Spiranthes eatonii*.

After we all had taken our pictures, the main party went on to Alexander Springs to find *Cyclopogon cranichoides* and *Platanthera flava*. I had been there several times in the past and so I was pleased that I was offered the chance to go to Crystal River to see if we could locate *Hexalectris spicata* which, we were told, had flowered early this year. Bob Sprague and I set off south and arranged to meet the rest of the party later in the day. It did not take long before we located the plants on the roadside near a small lake. There were many more in bloom than we had anticipated and we were very pleased that there was a good choice of plants to photograph. I had only seen these in fruit before and was delighted to see the range of colours that these orchids display. Later on we set off to Orlando and met the rest of the group who had found *Cyclopogon* still in flower. They did not find the *Platanthera* but had the wonderful experience of bumping into the rare Florida black bear.

The next day we all set off on the Florida turnpike road with a quick stop near the airport to see *Spiranthes vernalis* in a grassy field. There were some fine examples in bloom but I fear that this field has been set aside for housing in the near future. Continuing on our journey we were hoping to see some *Sacoila lanceolata*, which are known to occur on the roadsides of the turnpike but we may have been too early for them. The next destination was a cemetery near Jupiter to see *Tolumnia bahamensis*. This is a wonderful orchid also known as “Florida’s dancing ladies”



Tolumnia bahamensis
Photo by Graham Giles



Cyrtopodium polyphyllum
Photo by Graham Giles

and we found a few in one of the shrubbier parts. It seemed that the orchid is always found in association with rosemary bushes. Their long stems seem to dance in the air showing off their pretty white, pink and yellow coloured flowers. After this wonderful afternoon's experience we arrived in Miami for the evening reception and registration at the university. The next two days were spent at the conference. It was well attended and there were presentations on a variety of subjects made by eminent speakers. Before the organized field trips started, a few of us took time off to see if we could find *Cyrtopodium polyphyllum* - the yellow cow-horn orchid. This has been introduced to Florida and is established at Boystown, near the conference centre. It is a terrestrial plant, unlike Florida's native species, an epiphyte called *C. punctatum*. We managed to locate them and, although many had buds, a few were found in flower. This is a wonderfully bright yellow orchid, which has long stems flowing up towards the sky.

The field trips kicked off in earnest the following day. For the first we drove to the Fakahatchee Strand. I had been there several times before but never in April so I was keen to find new species that I had not seen before. It looked good when we discovered *Vanilla phaeantha*, but unfortunately the one plant that had flowered early now had a faded appearance. We found some nice plants of *Bletia purpurea* which rarely opens fully. The surprise was finding two white (forma *alba*) plants that are extremely rare in the wild. We saw *Ionopsis utricularioides* in bloom, a delicate purple orchid that likes

to sit high up on a tree. Also we found some rosettes of *Pelexia adnata*, an orchid that has only recently been rediscovered. We saw *Epidendrum amphistomum* just above eye level in flower. This orchid is also known as the dingy flowered orchid

but it is far from dingy. Other orchids seen that were either in bud or had gone over were *Campylocentrum pachyrrhizum* (the ribbon orchid), *Prosthechea cochleata* (the clamshell orchid), *Dendrophylax lindenii* (the ghost orchid), *Habenaria odontopetala* (toothed rein orchid), *Sacoila paludicola* (the Fakahatchee beaked orchid), and *Liparis elata* (the tall twayblade). Later some of us tried to find the elusive *Calopogon multiflorus* at Bear Island. We had no luck but did find some very nice fresh *Calopogon tuberosus* in the outlying grasslands.

The following day we set off to the Everglades National Park. First we stopped to see some *Calopogon tuberosus* var. *simpsonii*, which is noticeably different when compared to the nominate species. It certainly blooms earlier and is much taller, with a more slender leaf. The variation of color was also quite distinctive. Further into the park we saw *Beloglottis costaricensis*, a small white flowered orchid that was going over rapidly, *Eltroplectris calcarata* and *Platythelys sagreana*, which had already gone to seed, and the 1m. tall stems of *Oncidium floridanum*. These would have been quite a sight had they been in bloom. At Rowdy Bend we had to cross over water using a small plank and climb through mangroves to get into the prairie. This operation was tricky for those carrying tripods and cameras. At this spot, thousands of orchids had been taken away by the truckload in the 1920's. Now it is a National Park and has some protection. We had to watch out not to step on an alligator, snake, or touch the cactus, poison wood or machineel, which is very poisonous too. Towards the end of the prairie we found several stunted trees bearing the rare *Trichocentrum undulatum* (the mule-eared orchid) and *Cyrtopodium punctatum* (the cow-horn orchid). These showy epiphytes defy description with their hundreds of large and colorful flowers



Bletia purpurea (forma *alba*)
Photo by Graham Giles



Beloglottis costaricensis
Photo by Graham Giles

showy epiphytes defy description with their hundreds of large and colorful flowers



Trichocentrum (Oncidium) undulatum

Photo by Graham Giles



Vanilla inodora

Photo by Graham Giles

hanging from the trees. There were many other orchids not in bloom like *Encyclia tampensis* (the butterfly orchid), *Polystachya concreta* (the yellow helmet orchid), and *Prosthechea boothiana* (the Florida dollar orchid), whose interesting seed pods have been described as looking like the old silver dollar. Later in another area of the park known as Pahay-okee we were treated to more *Cyrtopodium punctatum* in a forest area where wading through deep water was necessary. Here one had to be careful of the local Cottonmouth moccasin snake, which seemed very territorial.

The next day was Corkscrew Swamp, an Audubon reserve on the south west of Florida near Naples. Here I was asked to lead a trip around the area and hopefully show off some of the orchids of southern Florida. About ten members arrived and we searched the boardwalks until late afternoon. It did not seem the best time to visit as most of the orchids were either in seed or in bud but we did find the last fading red flowers of *Sacoila lanceolata* var. *paludicola* and the numbers of this orchid seemed to have increased. We saw *Epidendrum nocturnum* (the night flowering epidendrum), with large seedpods, and the small root system of *Harrisella porrecta* on some trees overhanging the boardwalk. Unfortunately the rangers had cut off the best branch previously. On a few trees we saw *Prosthechea cochleata* (the famous clamshell orchid). There were some *Epidendrum amphistomum*, *Epidendrum*

Figure 1 *Trichocentrum (Oncidium) undulatum*

Figure 2 *Cyrtopodium polyphyllum*

Figure 3 *Bletia purpurea* forma *alba* (pine pink *alba* version)

Figure 4 *Tolumnia bahamensis*

Photos by Graham Giles



rigidum (the rigid epidendrum), *Polystachya concreta*, *Cyrtopodium punctatum* and high in the canopy *Encyclia tampensis*. The terrestrials *Habenaria odontopetala*, *Eulophia alta* and *Malaxis spicata* were well over.

After this, Graham Giles and I headed to the east side of Florida to Stuart. This enabled us to go to the Jonathan Dickson State Park the following morning. We left early and our first stop was to see if we could find *Vanilla inodora (mexicana)* at a new site south of the town. In a small park nearby we found a boardwalk and from that were pleasantly surprised to see two plants climbing up trees in full view. There were two flowers showing, one on each plant. To see this rare white and light green orchid was very satisfying. We then went into the Jonathan Dickson State Park and managed to find the only other good site for *Tolumnia bahamensis*. These large white and yellow orchids were growing amongst rosemary and oak shrub. Returning north alone I had a final stop near Gainesville where one plant of *Sacoila squamulosa* was in tight bud. Then I headed back to North Carolina for the flight back to Britain.

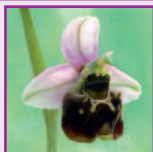
Conservation News

Bill Temple

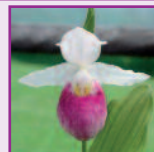
A person was caught digging up six *Orchis militaris* plants in May. Although he dropped the orchids, which were replanted, I fear that their chances of survival are slim. The chances of a successful prosecution are, I hope greater; the maximum fine for that particular crime is £30,000. Would members please be careful whom they give orchid site information to and be vigilant at orchid sites. The internet has dramatically increased the availability of orchid site location information, so please also be careful about putting information on bulletin boards etc. Saying that the Early Spider Orchids are in flower in Dorset is enough; please do not name the actual site. Many rare and Schedule 8 orchids have been dug up in recent years.

Please be careful not to damage orchid sites and any orchids while photographing another orchid. There have been problems at a number of sites caused by the erection of "photographic tents", the use of which can result in photographers becoming persona non-grata at national nature reserves.

In the USA, there is a scheme under which orchids that are growing in a threatened habitat may be dug up and sold or given to people; there is no equivalent system in this country. When we carry out relocations of threatened orchids, with the landowner's permission, they are always moved to an agreed suitable site as close to the original as possible. Some land owners permit volunteers to retain one orchid each. I do not expect any relocated orchids ever to be made available to non-volunteers in this country.



Hardy Orchids



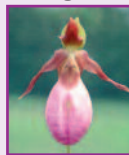
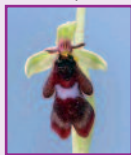
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