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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

Lesser Butterfly Orchid, *Platanthera bifolia* with a pollinia-laden Flower Beetle, *Oedemera nobilis* photographed by Tony Hughes (see article on page 92).

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Editorial Note

The July Journal carries several articles by our well-established contributors. The AGM saw Tony Hughes stand down as our Chairman, and it is fitting to commemorate his invaluable contribution to the Society with a couple of articles and a “family tribute”. Also, the second half of our President’s entertaining and informative account of his recent trip to Tuscany is accompanied by a review of the English translation of the 3rd edition of “Delforge”. This is much more than a review of the book, and provides an excellent perspective on orchid taxonomy.

Members planning to make entries in the Photographic Competition at Wisley should note that there will be some clarification and possibly some alterations to the classes and rules. Details will be put on the website, and communicated in the next edition of the Journal.

I hope that you are all enjoying the “orchid season” and getting to see your favourites and targets. Recently, I have had to fit my orchid trips in and around work commitments, and had an unusual experience at the end of June. I found myself having to cancel orchid plans at the last minute in order to travel to Brussels for an urgent meeting. Somewhat disappointed, I drove to Stansted airport parked the car and made my way to the terminal. I could hardly believe my eyes as the grass banks right alongside the terminal supported large numbers of *Ophrys apifera*, with some quite spectacular specimens. On my return trip I was even more surprised to find that, although these banks had just been mown, all of the orchids had been marked and preserved. Really nice to see conservation at work, and a virtual nature reserve, within the confines of one of London’s major airports!

HOS AGM and Spring Meeting 2007

David Hughes

The AGM this year, held at Kidlington on April 5th, marked a changing of the guard Tony Hughes stood down having completed his three year term of office. We are grateful to Tony for his thorough control of the society whilst in the chair, the society has flourished in all departments during that time. Tony regaled us with a history of the Hardy Orchid Society since it's inception.

The AGM appointed a new chairman, David Hughes; as he is writing this article he can tell you with authority that he is a very amateur botanist. His interest in orchids is firstly in finding and photographing them. He obtains huge pleasure from the field trips, which give the chance to meet other enthusiasts while being shown localities and species all over the country. He has been trying to grow a few of the easiest orchids but so far gravestones in his garden indicate that he is not a grower. Indeed his only qualification for the post is that he is prepared to do it.

The other changing post was of show secretary, controlled for the past three years by Eric and Doreen Webster. They have brought a huge degree of efficiency to both the plant and the photograph shows, which are an important showpiece available to members to display their activities. This has been a difficult year for growers due to the early hot spring, despite this the quality of entries was excellent. We appreciate the efforts of the growers in producing an excellent display; the results of the competition are given elsewhere. The chairman gave thanks to Eric and Doreen for their efforts on our behalf. There were no candidates to take over as Show secretary and without this post being filled the future of the shows is in doubt. The society does rely on its members to give support and be prepared to take on committee and other posts.

The HOS has an important function in conservation and gives the opportunity to assist in data collection for our president, Richard Bateman's various projects. We are fortunate to have a journal second to none. We run three inside meetings a year, usually at Wisley and Kidlington, near Oxford for the Southerners and at Harlow Carr in Harrogate for the Northerners. These have excellent speakers from within and without the society, and give opportunity for the photographic and grown orchid competitions.

After the AGM the well attended meeting was regaled with four excellent talks and the entertaining 5 slides in 5 minute items. In all an enjoyable day with every opportunity for members to be instructed and meet other enthusiasts.

Northern Meeting at RHS Harlow Carr

The Northern Meeting of the HOS will be held on Saturday 15th September 2007. Once again the meeting is in the Study Centre of the RHS Gardens Harlow Carr. An application form is enclosed with this July Journal, and this also provides directions to the venue. Please note that applications must be made in advance, and as space in the Study Centre is limited to 60, please book early. Please remember to bring your HOS membership card in order to obtain entry to the gardens.

Provisional Programme

- 10.00 am Doors open, Tea/Coffee
- 10.45 am Chairman's introduction
- 10.50 am Brian Allen "Italy North to South."
- 11.50 am Another talk (to be announced)
- 01.00pm Lunch
- 02.00pm 5 minute presentations of 5 slides per person (please let Chairman know what you are bringing)
- 02.30pm Mike Bramley "Cypripedium and other plants of Yunnan."
- 03.30pm Alan Gendle "Coastal Orchids of the North."
- 04.30pm Tea/coffee
- 05.00pm Meeting closes

Plant Show Results

Class 1 Six pots hardy orchids, distinct varieties. (1 entry)

1st Peter & Kath Fairhurst: *Serapias lingua* × *bertolonii* (plate 6); *Pterostylis* Hoodwink; *Pleione* Ueli Wackernagel; *Pleione* Stromboli Fireball (plate 11); *Pleione* Askia (plate 8); *Pleione chunii* × *bulbocodoides*.

Class 3 Three pots native European (non British) orchids, distinct varieties. (1 entry)

1st Michael Powell: *Orchis tridendata* (plate 10); *Serapius olbia* × *cordigera*; *Orchis anthropophora*.

Class 4 Three pots non-European orchids, distinct varieties. (2 entries)

1st Malcolm Brownsword: *Pleione* Versailles (plate 3); *Pleione* Captain Hood; *Pleione* Gerry Munday (plate 12).

2nd A. R. Bowler Dave: *Pleione* Britannia Doreen; *Pleione* Orizaba; *Pleione* Stromboli Fireball.

Class 5 Three pots hardy orchids distinct, any country of origin. (1 entry)

1st Michael Powell: *Ophrys* × *emmae* (plate 5); *Ophrys lutea* × *speculum* (plate 4);
Ophrys sicula.

Class 6 One pot native British orchid. (1 entry)

1st Malcolm Brownsword: *Anacamptis laxiflora*.

Class 7 One pot native (non-British) European orchid. (1 entry)

1st Richard Manuel: ×*Serapicamptis triloba* (plate 13).

Class 8 One pot non-European hardy orchid. (3 entries)

1st J Godett: *Satyrium corrifolium* (plate 7).

2nd Malcolm Brownsword: *Pleione* Shantung 'Ducal'.

3rd Peter & Kath Fairhurst: *Bonatea speciosa*.

Class 10 One pot *Orchis*, *Anacamptis* or *Neotinia*. (1 entry)

1st Barry Tattersall: *Anacamptis papilionacea* var *rubra*.

Class 11 One pot *Ophrys*. (3 entries)

1st Alex Jeans: *Ophrys sicula*.

=2nd Richard Manuel: *Ophrys provincialis*.

=2nd Malcolm Brownsword: *Ophrys lutea*.

Class 12 One pot *Serapias*. (2 entries)

1st Richard Manuel: *Serapias* × *intermedia* (*S. lingua* × *neglecta*) (plate 9).

2nd Malcolm Brownsword: *Serapias olbia* × *neglecta*.

Class 14 One pot, any other genus of hardy orchid. (3 entries)

1st Malcolm Brownsword: *Calanthe discolor* BEST IN SHOW (plates 1 & 2)

2nd Peter & Kath Fairhurst: *Pleione chunii*

3rd Richard Manuel: *Satyrium erectum*

BANKSIAN MEDAL RESULTS:

Winner: Malcolm Brownsword - 15 points.

Richard Manuel - 9 points; Michael Powell - 6 points; Peter & Kath Fairhurst - 6 points.

Total number of exhibitors was 8 and total number of plants entered was 34.

A selection of winning plants are shown on the next three pages. Plates are identified by their number in the results list above. Photographs by Malcolm Brownsword (Plates 1 & 3) and Mike Gasson (Plates 2 & 4 -13).



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Orchids of Western Tuscany 2. Apuan and Orecchiellan Alps Richard Bateman & Paula Rudall

The first of this brace of articles (Bateman & Rudall, 2006) carried us from Pisa airport 100 km southward to the port of Piombino, and across the narrow straight of the Tyrrhenian Sea to explore Elba. Here, we pick up the saga on the return journey from the Elban capital of Portoferraio to the Tuscan mainland, on May 13th (Fig. 1). From this point onward we were operating without prior knowledge of the orchid flora, other than a basic list of orchids recorded from Tuscany that we abstracted from the formal account of Italian orchids by Grünanger (2001).

Rather than head directly northward, we immediately indulged in a modest diversion, heading west a short distance along the north coast of the Piombino peninsula. Our primary objective of this afternoon's diversion was to view two closely-spaced sets of Etruscan tombs in the newly-founded archaeological park. The first group, set in maritime grassland, resembled Neolithic chambered tombs, and restoration of their turf roofs provided our only Tuscan record of *Serapias vomeracea*, here growing alongside *S. parviflora*. The second group of tombs, cut into the walls of an Etruscan sandstone quarry, were set in mature woodland, and so were overlooked by a solitary *Limodorum abortivum* that possessed unusually widely open flowers. We

gained the impression that time spent in the Piombino area, which supports several modest-sized nature reserves, would have been productive. However, we were overdue to occupy our pre-booked apartment located in the extensive seaside resort of Viareggio.



Figure 1. Three-dimensional topographic map of western Tuscany.
Photo by Richard Bateman

We chose as a base Tuscany's Art Deco answer to Bournemouth because it occupies an excellent geographical location. Situated on the narrow plain that forms the southwest border of the Apuane Alps, it also gives ready access to the north-south oriented Garfagnano Valley. This valley, carved by the Sercio River, separates the Apuan Alps from the Orecchiellan Mountains: the western-most part of the main northwest-southeast oriented spine of the Apennines. Similarly, Viareggio is conveniently placed for, but more affordable than, the major tourist centres of Lucca, Pisa (including the airport) and Firenze. However, driving

through the Viareggian suburbs made each car journey feel seriously protracted, encouraging use of the extraordinarily cheap rail system. In practice, we gained more enjoyment from a single night spent at the attractive hill-town of Barga, halfway along the Garfagnana Valley. And it transpired that Carrara or perhaps Seravezza, both located to the north of Viareggio, would have provided more convenient bases for exploring the Apuan Alps by car.

The final reason for selecting Viareggio as our base was ready access to the series of nature reserves that extend along the coast southward to Livorno and beyond. Of these, the most extensive and least disturbed is Migliarino. Separating Pisa from the Tyrrhenian Sea, this coast is perhaps best known as the locale where Percy Bysshe Shelley drowned and was promptly (and illegally) cremated by Lord Byron. Unfortunately, this reserve, a promising collage of woodland, marshland and lagoons, was protected by a heterogeneous series of hurdles that ultimately defeated us. We eventually surmounted a broken level crossing (by no means its only traumatized victims) and some seriously ambiguous road signage. We even successfully transgressed the full length of the access road to the reserve at the snails pace that passes for the local speed limit, trailed by a police car clearly hoping to accrue an easy spot-fine for either speeding or illegal parking (regrettably, *all* parking is illegal in the area). We even, after repeated and protracted multi-lingual negotiations, passed through the barrier that protects the reserve from that most reprehensible category of visitor, the naturalist (everyone else seeking admittance was waved through on the nod). However, it transpired that naturalists are not permitted to explore the reserve without a paid native guide, and the reputedly guide-rich visitor centre, though open in theory, was closed in practice. This fruitless sacrifice of a valuable half-day left us more empathetic with Byron's decision to flout the local laws; certainly, it discouraged us from further pursuing the coast, however notionally interesting its botany. Thereafter we focused on the mountains, vowing that if we ever travelled to the area again we would prepare the (coastal) ground more carefully.

Fortunately, the mountains proved every bit as open as the coast was closed. We spent the bulk of our field time in the nearby Apuan Alps (two and a half days) rather than the more distant Orecchiellan Apennines (half a day). Although this decision was motivated by pragmatism, we suspect that it was also wise. Graphically described in *Wild Italy* as “jagged, marble-veined mountains that belie any notion of soft-centred pastoralism”, the Apuane are reminiscent of the more famous Dolomites: sheer rock faces abound, each palely reflective of the evening sun. These mountains are every bit as tectonically ravaged as the uplands of Elba, but their geology is considerably simpler, emphasizing limestones that show varying degrees of alteration to marble. Any doubts regarding the geology were dispelled by the 160 Carrara marble quarries (some once personally supervised by Michelangelo) that puncture the otherwise wild and sparsely inhabited landscape. Indeed, “puncture”

hardly does them justice: over the last three millennia entire mountain tops have been quarried away, leaving glistening debris slopes that, when viewed from a distance, are difficult to distinguish from the persistent snow patches that also adorn the higher peaks (Fig. 2).



Figure 2. The snow-capped Apuan Alps, viewed southwest from the Orecchiellan Hills across a dark-flowered population of *Anacamptis morio*.

Photo by Richard Bateman

Careful study of the local maps demonstrated that there was only one minor road that crossed the Apuane from northwest to southeast; this gives direct access to the undistinguished town of Castelnuovo, located midway along the Garfagnano Valley that separates the Apuane from the Orecchielli. Two roads from the southwest connected to this road through a tunnel at the high-point at 900 m, the more southerly originating from Seravezza and the more northerly from Massa. However, the rugged northerly peaks, centred on Monte Tambura (peak 1985 m), could only be accessed by a few dead-end roads, the most promising of which extended east from near Castelpoggio, north of Carrara, and terminated at a height of 1300 m on the western slopes of Monte Sagro (peak 1749 m). Although inevitably sinuous, these roads are well-metalled and frequently tunneled, primarily to facilitate passage of the fleet of near-unstoppable juggernauts that career down the mountain-sides propelled by immense piggy-backed blocks of marble. Despite these worrisome parking hazards, these three roads proved to be our stairways to heaven.

The lower slopes are clothed in woodland of varying degrees of maturity, many of them dominated by sweet chestnut. These woods featured abundant *Cephalanthera damasonium*, *Neottia nidus-avis* and *N. (Listera) ovata*, occasional *Limodorum abortivum* and *Neotinea maculata* and, in slightly lighter habitats, populations of *Dactylorhiza fuchsii* subsp. *gervasiana* similar to those studied by us on Elba (Bateman & Rudall, 2006). Moreover, all were seen at their best. Sunnier rocky outcrops and bluffs were more likely to exhibit fading spikes of *Ophrys sphegodes* and, less commonly, fading *Anacamptis morio* plus pristine *A. pyramidalis*, together with sporadic bright purple *Serapias lingua* and an impressive reptile fauna. As we gained altitude, roadsides moistened by mountain streams or flushes began to feature the impressive purple spikes of large individuals of *Orchis mascula* subsp. *signifera* (= *O. ovalis*). At still higher altitudes, as the woodland became more open and the trees (now dominantly pine and beech) became more compact, these orchids featured on limestone outcrops, where they were joined by contrasting lemon-yellow spikes of *Orchis pauciflora*. At yet higher altitudes these two *Orchis* species became a prominent feature of rocky bluffs and limestone/marble pavements. Both species exhibited considerable morphological diversity, but more startling was the high proportion (typically about 25%) of introgressed hybrids in these heterogeneous populations. Many of these plants were of striking appearance: some possessed bright purple flowers with yellow centres, others were a uniform but eye-catching translucent pink (Fig. 5).

Two localities proved especially memorable. The first, Passo Vestito (immediately north of Monte Altissimo), was reached by walking northward on a hiking trail from the east end of the unfortunately named Gobbie tunnel. Reaching 1040 m, this is the highest point attained by a metalled road in the southern half of the Apuane. Although only a mountain goat or a madman would follow the marked trail over the edge of the sheer and apparently bottom-less cliffs, both the views and the flora were spectacular. Pre-eminent among the orchids was a small population of *Orchis pallens*, far more vegetatively robust than the nearby *O. pauciflora* and further distinguished by its remarkable flowers, which simultaneously manage to appear both bright yellow and bright green (Fig. 3). Orchids yet to flower included putative *Dactylorhiza insularis* and *Epipactis*



Figure 3. *Orchis pallens* in open pinewoods at Passo Vestito, Apuane.
Photo by Richard Bateman



Figure 4. Monumental plants of *Cephalanthera longifolia* in mixed woodland below Monte Borla, Apuane.

Photo by Richard Bateman

atrorubens. Other notable elements of this alpine flora were various *Narcissus*, *Helleborus*, *Polygonatum*, *Anemone*, *Hepatica*, *Aristolochia* with *Aquilegia* in the woods, and *Gentiana* and *Polygala* in more open areas.

The second locality, further northwest, was an aggregate of sites distributed along the eastern (upper) half of the mountain road from Castelpoggio to Monte Borla. Heavily wooded north-facing slopes supported superb *Neottia nidus-avis*, large *Orchis militaris* bearing serried ranks of surprisingly anorexic soldiers (Fig. 6) and magnificent, open-mouthed *Cephalanthera longifolia* that would win gold at any HOS show (Fig. 4). South-facing rocky outcrops by a hairpin bend yielded the expected swarms of *Orchis pauciflora*, *O. mascula*, and relatively fresh plants of *Ophrys sphegodes s.l.* More impressively, they also supported substantial numbers of *Anacamptis morio* and *Orchis simia* (Fig. 7), growing alongside more modest populations of *O. anthropophora* (Fig. 8)

and *Neotinea tridentata*. At the end of the road, around Rifugio Belvedere (1300 m), were beechwoods with a generally interesting ground flora that was, however, surprisingly depauperate in orchids. Not so the adjacent west-facing alpine meadows, which yielded many of the species recorded on the lower slopes of the mountain. Also present in the moister hollows were spectacular populations of equal numbers of primrose yellow and brick-red *Dactylorhiza sambucina* (Fig. 9). Some of these plants were of monumental proportions, while other, lesser spikes featured in a posy deposited at a local shrine.

Figure 5. Representative of a hybrid swarm between *Orchis pauciflora* and *O. mascula* subsp. *signifera* found on limestone pavement at Passo Vestito, Apuane.

Figure 6. Anorexic *Orchis militaris* in mixed woodland below Monte Borla, Apuane.

Figure 7. *Orchis simia* on rocky outcrops below Monte Borla, Apuane.

Figure 8. *Orchis anthropophora*, found immediately adjacent to *O. simia*

Photos by Richard Bateman

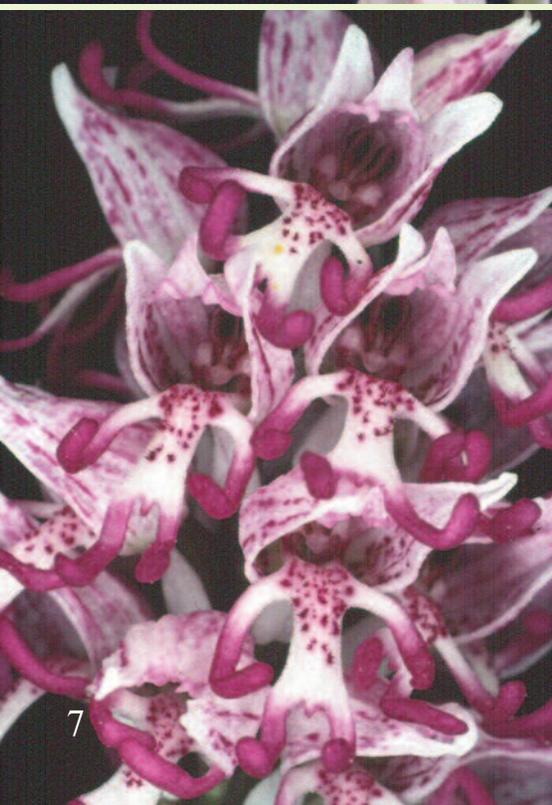




Figure 9. Brick-red *Dactylorhiza sambucina* in moist alpine meadows by Rifugio Belvedere, Monte Borla, Apuane.

Photo by Richard Bateman

The northeast slopes of the Apuane are shallower and less rugged, providing a gradual transition to the more pastoral landscapes of the Garfagnana Valley and the Orecchiellan mountains beyond. During our brief visit to the Orecchielli we explored the alpine pastures and open chestnut woods adjacent to Rifugio Isera (1100 m) at the foot of Pania di Corfino (1603 m), the rockiest of the limestone peaks encompassed by this smaller montane national park. Most visually striking were drifts of pristine wine-purple *Anacamptis morio*, though more interesting to the specialist were a large and precocious *Dactylorhiza viridis* in the meadows and a modest (but treasured) population of *D. sambucina* nearby in a small woodland reserve.

Overall, the Apuane and Orecchielli together yielded 19 orchid species and one hybrid (plus two further *Serapias* species recorded on the Piombino peninsula), all recorded during less than four days of productive fieldwork. Despite this satisfactory total, we felt that we had merely scratched the (mar-

ble) surface of these under-explored wildernesses. Given more time, more energy and/or better foreknowledge, our grand total would likely have become considerably grander. Accessible, affordable and offering great natural history and cultural interest, this region certainly merits greater attention from orchid lovers.

References

- Bateman, R & Rudall, P. (2006) Orchids of western Tuscany. 1. Elba. *JHOS* 3: 44–52.
- Grünanger, P. (2001) Orchidee d'Italia. *Quad. Bot. Amb. Appl.* 11: 3–80.

Beetlemania

Tony Hughes

There was I, crawling around in the bracken and brambles on a Gloucestershire hillside, trying to ignore the curious (pitying?) stares of the passers by. My six-inch ruler, pen and clip-board were all conveniently to hand. You've guessed - I was following up our President's recent request for measurements of the vital statistics of

Butterfly Orchids. Although I was surrounded by a goodly plantation of Lesser Butterfly Orchids (*Platanthera bifolia*), the task was not as simple as I had imagined. For example, when I found several flower spikes from a single cluster of leaves, should I measure all of them or only one? And if only one, should it be the biggest, the smallest, or a random choice? And having chosen a spike, how would our President select precisely which flower to measure? And how should the unopened buds feature in the calculations?

After much deliberation and tentative measurements, a further problem arose - curly spurs! I never did manage simultaneously to hold the ruler in the right place, straighten the spur against the scale, and avoid mortal damage to the plant. Three hands with much smaller fingers would have been useful. Frustrated, I began to wonder whether I was really cut out for the task, and whether the 40 mile journey and all those carbon emissions could be justified.

Then, as I crawled towards the next flower spike, I saw it. Sitting on an orchid flower, with its emerald iridescence glistening in the sun, was one of the most attractive beetles I had ever seen. Subsequent delvings in the insect book suggested it was a female Flower Beetle of the *Oedemera nobilis* brand. Had I been a male of that species (easy to tell which is which - the males have bulging thigh muscles!) I would have found her beauty irresistible. But there was more to it than that - her front end was plastered with orchid pollinia!



Flower Beetle, *Oedemera nobilis* with pollinia of *Platanthera bifolia*.
Photo by Tony Hughes

All thoughts of the whys and wherefores of spur measurement instantly evaporated - it was camera time. Fortunately, my beetle friend was most obliging, being very willing to crawl around and pose in all sorts of attractive positions, so I was in the seventh heaven.

Then it dawned on me that I had made a brilliant scientific discovery. I know that all the books talk about the way the spurs and pollinia of our Butterfly Orchids have evolved to match the dimensions of moths attracted by the flowers' perfume and nectar. Well, despite the five decades that I have been looking at Butterfly Orchids, I have never seen a single moth showing even the remotest interest. And now I had found a beetle that was clearly intent on pollinating these orchids. Obviously, the books have got

it wrong - for the rest of my life I shall devote myself to convincing the world that the principal pollinator of the Lesser Butterfly Orchid is a beetle. And that the measurement of spur length is therefore totally pointless! Now, how do I remove my tongue from my cheek?

Chloraea chrysantha
Robin Alabaster

In March 2001 I acquired a small seedling of *Chloraea chrysantha* from Richard Manuel at the Alpine Garden Society's Loughborough Show. Richard obtained his seed from Robert Ornouff of Berkeley University, California, and they had been collected from the plants' habitat, presumably in Chile.

In the first season the plant produced a couple more leaves, and then became summer dormant. I treated it very much like a *Dactylorhiza*, and decided to repot it. The old root had not died back, and the plant was coming back into growth. The compost used comprised sterilised loam, sands grit, plus sifted composted bark (I do not have a source of leaf mould or composted pine). In subsequent seasons I managed to prevent a recurrence of summer dormancy until flowering occurred in 2006. It seems clear that the plant continues in growth through both summer and winter months, needing regular watering without ever becoming too wet.

After a year or two the leaf rosette increased in stages, and the parsnip like roots increased in thickness and length, necessitating repotting into long tom pots. At first the plant was housed in the greenhouse and grown on the plunge bench. Summer heat seemed to restrict its growth, and when plunged in a raised Access frame shaded from the midday sun it grew much better, each leaf lasting for a longer period. After that first late summer repotting the plant was repotted whenever it appeared crowded, but avoiding extremely hot spells and the dullest winter months. The compost is rather heavier than that used for many orchids, and always contains a good proportion of sand.

By April 2006 the single rosette contained some fifteen leaves, and the centre seemed to thicken with the leaves no longer unfurling. This process continued during May, and it seemed that the growing point was no longer at soil level. In June the centre began to extend at a much faster rate, and in one 24 hour period it grew some 1½ inches. At this point two secondary rounded buds appeared at the base, and by June the first flower buds appeared between the protective leaf sheaves, the stem being about 20 inches high. The flowering peak was reached in July with the stem 30 inches high and nearly twenty flowers open at one time. Members will remember that July 2006 was an exceedingly hot month (until the start of the school holi-

days!), and this probably caused the flowers to go over quickly. I successfully self pollinated the last few flowers on the main stem, and large seed capsules quickly developed. Alas at 30 inches high the stem stood well clear of the open topped Access frame; during a cleaning exercise I overlooked this, sliding the glass across and completely beheading the seed head in the process.

The effort of flowering and production of seed had completely drained the basal leaf rosettes, which simply dried off and were easily removed. I began to suspect that the plant was monocarpic and feared the worst. The compost was kept moist, and in early autumn a small green bud appeared. Over the next few months more shoots appeared and there are now a total of five rosettes. The largest rosette has over ten leaves and is nearly as big as the plant was when it went into flowering mode. As I have not dared to disturb the pot, I do not know whether or not the rosettes have independent root stock (as *Dactylorhiza*) or remain conjoined.



Flowering spike of *Chloraea chrysantha*.

Photo by Robin Alabaster

When watering during the main growing season, humates are added approximately once a month, and either an orchid fertiliser or weak low nitrogen fertiliser. The plant also receives a *Vioresco* foliar feed when I spray fritillaries. On one occasion it also received a calcium foliar feed by mistake (the spray was intended for *Daphnes*), and this seemed to result in leaf scorch. Last spring for the first time it was also watered with *Jiresco* micorhizas along with the *Pleiones* and *Cypripediums*. I cannot be sure just how successful this was as I still suffered some losses, however on repotting *Cypripediums* the surviving plants did seem to have better root systems. This is just as likely to be the result of compost, as I now use a much lighter mix incorporating more perlite and baked clay granules with less heavy loam or grit.

Since drafting this report a further side shoot has appeared, however it is rounded at the growing tip much the same as the secondary flowering stems were last year. It is possible that it is going to flower again this year but if so it will be a much smaller flower spike than last season.

History of the HOS

Tony Hughes

(From the Chairman's Report to the HOS AGM at Kidlington.)

In the Beginning: Since this meeting marks the end of my term as Chairman, I thought it might be of interest to look back over the development of the Society from its inception, rather than just to report on the past year alone. It all began 14 years ago on the 26th of June, 1993, when the Hardy Orchid Society was inaugurated with a meeting and plant show at the Newbury Horticultural Show.

Meetings: Meetings have been held at regular intervals and in various places ever since, initially twice a year, and sometimes in collaboration with the Royal Botanic Gardens, Kew. Attendance at the early meetings was ~ 50, but now is regularly over 100. In 2003 an additional meeting, the so-called Northern Meeting at Harlow Carr, was added. Programmes have contained mixtures of lectures, demonstrations and "Ask the Experts" sessions, with the recent introduction of the popular "5 Slides in 5 Minutes" presentations. And alongside the talks we include plant sales and displays, and in 2006 introduced a raffle.

Plant Shows: From the very first meeting, an annual Plant Show has been held, usually at the Spring Meeting, with members competing for the "Best in Show" trophy. Recently an RHS Banksian Medal has been awarded to the most successful exhibitor. Although we always get an attractive and fascinating bench of plants, we really would like to inspire more members to bring exhibits.

Photo Shows: The first Photo Show was held during the Autumn Meeting in 1997, and its popularity has mushroomed ever since. Last autumn Maren Talbot presented the Society with a magnificent trophy for the best photograph, which I fear will encourage even more people to compete in future - we will have a major problem fitting everything in!

Field Trips: The first Field Trip was held on the Dorset Downs in 1995, and for the next 10 years the annual number of outings varied from none to three. Last season was different - thanks to your Vice-chairman and his keen supporters, no less than 6 trips were organised, and the current year will be better still. We are far from saturating the market, so your new Chairman will be pleased to hear from members prepared to escort a party to their local orchid sites. 1997 and 1998 were rather notable, when the Chairman, Paul Harcourt Davis, organised trips to Southern Cyprus.

Figure 1 Rescuing *Cephalanthera damasonium* in Oxfordshire, 2000.

Figure 2 Field trip to Kenfigg Dunes, S. Wales to see the Fen Orchid, 2003.

Figure 3: Searching for *N. ustulata* on the Fontmell Down field trip, 1997.

Figure 4 Maren Talbot's display at the Newbury Orchid Show, 2005.

Photos by Tony Hughes



Membership: By the end of February 1994, with the Society still less than 9 months old, over 100 members had already been attracted. Growth has continued ever since, although in some years there has been a significant turn-over of members. By 1998 the membership had topped 300, in 2002 we numbered over 400, and only 2 years later the 500 barrier was breached. currently our numbers stand at no less than 632! One particularly pleasing aspect is that some 10% of members are from overseas, so our message is heard around the globe.

Journal: For the first 3 years of the Society's existence, our members' "hardy orchid" articles were published in Peter Bradbury's annual "National Pleione Report", which was re-named the "National Pleione Report incorporating Hardy Orchids". However, it was soon realised that the HOS would be better served by a quarterly publication so, in July 1996, Issue 1 of the Hardy Orchid Society Newsletter appeared. This consisted of 16 duplicated A4 pages, with articles on many of the activities of the society and its members - a recipe that has continued ever since. A couple of years later the format was changed to an A5 booklet with an illustrated card cover. Then, in January 2001, Issue 19 included a full-colour centre-fold. In October 2003 we were able to exploit the advances in digital colour printing, launching a full-colour publication, and changing its name to "Journal of the Hardy Orchid Society". The first issue of the Journal was restricted on cost grounds to only 28 pages, but the subsequent printing developments have enabled us to improve the appearance and increase the page count, with 36 pages now being the norm.

Accounts: Sound finance is one of the foundations of a successful organisation, and the HOS has always been very well served by its Treasurers. The accounts for 1993 show income of £859 with subscriptions set at £5 (£8 Family), while expenditure was a mere £413. Nowadays all the figures are some ten times greater! I shan't bore you with lots of figures, but a few comments may be of interest. A few years ago the AGM recommended that we should aim to maintain reserves roughly equal to one year's expenditure, to avoid cash-flow problems during the year, and to provide a cushion for financial emergencies. While no figures are set in stone, this is a prudent aim, which we are now achieving. In addition, the Committee has recognised that, while all members receive the Journal, many are not able to participate in many other Society activities. Consequently, the majority of subscription income is spent on the Journal, while most other activities are more-or-less self-financing. Each major improvement to the Newsletter and Journal has been accompanied by increased annual subscriptions, though compared with many other organisations our members receive excellent value for money. A couple of years ago a dedicated "Equipment Fund" was set up, which has already accumulated an adequate sum for us to consider buying some of our own equipment.

Conservation: A principal concern of the Hardy Orchid Society has always been the conservation of hardy orchids, though we have no plans to own or maintain our own

nature reserves. However, by increasing the availability of orchid plants through controlled propagation, the risk of illegal exploitation of wild populations should be reduced. Although as a society we were not part of the Sainsbury Orchid Rescue project, several of our members were critically involved. Recently we have set up our own projects to develop propagation techniques for three endangered species - Young's Helleborine (*Epipactis youngeana*), the Military Orchid (*Orchis militaris*) and the Canary Island Giant Orchid (*Himantoglossum metlesicsiana*). Plant rescues are annual events, where members have transplanted many hundreds of plants from sites threatened by development, and we have also been involved in the re-introduction of orchids to various locations. And our Conservation Officer is frequently consulted, both by individuals and by various wildlife trusts.

Publicity: One of our most successful publicity activities has been our website, which has attracted over 73,000 "hits" since its launch in 1999. Not only does it provide a wealth of information, but it is showcase for the work and achievements of our members, and is our major means of recruiting new members. Displays at orchid shows around the country have also proved most effective at making our society known to the public at large.

The Future: Thanks to the hard work of the Officers and Committee over the last 14 years, we have a successful, thriving society, which in many ways may seem quite mature. But we shouldn't forget that we are still very young, and the opportunities are limited only by our lack of imagination. In the near term we can expect continual improvements to the Journal and the website, and an ever-expanding programme of field trips. The committee will shortly be issuing each member with a copy of "The Hardy Orchid Society Handbook", describing all the aspects of the Society's activities that change only occasionally. We hope that it will keep members better informed, and avoid the need for annual repetition of information in the Journal. Looking further ahead, there must be plenty of good ideas around for expanding our activities, and we should always be prepared to learn from the initiatives of other specialist societies. The over-riding consideration must be to find a good balance between what seems best for our members, and what seems best for our most precious asset - our wild orchids. In conclusion, our society has an excellent foundation - the future looks rosy!

Three Steps Behind an Orchid Anorak **Diana Hughes**

Looking back, I believe my problems started in 1988 on Corfu, our first-ever spring holiday to the Mediterranean. Before then He had always been keenly interested in natural history and flower photography, but otherwise had seemed fairly normal. Then, as He drove our diminutive hire car along the coast-road, hoping to see a few new orchids, we rounded a bend and saw a most curious sight. There at the bottom of a steep bank stood a short, squat, old lady holding the pointy end of a shooting



Ophrys reinholdii
Photo by Tony Hughes

stick. The other end of it was high above her, obscured by bushes. As we drew nearer we saw, on the top of the stick, a little old man perching precariously, obviously intent on a photograph. They had to be English! So we stopped, approached them somewhat diffidently, and soon became acquainted with John and Win. Sadly, they are no longer with us, but for many years they provided Him with reams of information on orchid sites all over Europe. He was seriously hooked!

A few days later, having parked our car in an out-of-the-way little village, we were shocked on our return to see an ominous document under the windscreen wiper. Surely they don't issue parking tickets in this wilderness? We needn't have worried - it was a note from John and Win who, while

passing, had recognised our car by the number of reference books on the back seat. Scrawled on an old Greek cigarette packet they'd found in the gutter were detailed directions to a site for *Ophrys reinholdii*, which they knew we had never seen.

During that same holiday we thought little of the time we spent showing the orchids growing around our hotel to other hotel guests. Several years later in Crete, while exploring the Gious Kambos "tumps" above Spili, we got chatting to an escorted group of Brits about some pretty pink forms of *Orchis boryi* (before it won promotion to "*Anacamptis*"). Imagine His surprise, when one lady in the party accosted Him with "I know you. You're the one who showed me all those orchids on Corfu. You've cost me a fortune on botanical holidays ever since - but I love it!" It must have been the same old orange kagoule that gave Him away.

During our Cretan holiday we had arranged to meet John and Win at Plakias Bay on the south coast. As we strolled together along the peninsula on one side of the bay, it was apparent that the best specimens of *Tulipa cretica* were growing on ledges some way up the sheer cliff. Undaunted, He started to scramble up the rocks, only to be stopped by John, who was struggling to get his camcorder going, with: "Hang on a moment - I want to film you falling off. "You've Been Framed" pays good money for this sort of thing!" Fortunately, the pictures of the tulips were safely secured, and John didn't seem too disappointed that his film was valueless.

It was in 2001 that we were exploring the Algarve region of southern Portugal during an April heatwave. The orchids rapidly frazzled, so we tried birdwatching around

the salt pans near the Spanish border. We kept bumping into a group of British bird-watchers, who were only too willing to share their knowledge and let us watch all the exotic waders through their telescopes. As we were leaving, one of their party rushed over to our car and said: “At last I’ve worked out who you are - you came to give a talk on orchids to our Naturalists’ Club in Birmingham a couple of years ago. It was your voice that I remembered.” Obviously the lecturer wearing a suit and tie with neatly combed hair in no way resembled the dishevelled, unshaven holidaymaker in grubby attire, but you can’t hide a Dorset accent anywhere!

But it is not just His grotty orchid-hunting clothes that cause embarrassment. I still quake at the memory of the disgusted looks we received one day from some passers-by. The wind was blustery and the flowers wouldn’t stop dancing long enough for a photograph, at which point He shouted at me “Would you take off your shirt and break wind for me”!

In 2002 we were in the Gargano region of south-east Italy. Driving through the hills He was smitten with an urgent need for a ‘comfort stop’, so screeched to a halt and darted through a gap in the wall. When comfortable again, He noticed a huge orange teddy-bear, at least four feet tall, lying by the wall. In addition, there was the most wonderful collection of typical Gargano orchids scattered over the neglected meadow, including some superb *Ophrys sipontensis*. Thinking that some poor child might have lost the teddy, He kindly leaned it up against the wall by the road. In no time at all, the “Orange Teddy site” was the talk of the Gargano!



Orchis boryi
Photo by Tony Hughes



Ophrys sipontensis
Photo by Tony Hughes



Chamorchis alpina
Photo by Tony Hughes

All this chasing after orchids can be very tiring, and frequently my energy fails long before His does. In Majorca in 2000, He was determined to see what grew at the top of a little mountain, while I needed a siesta at the half-way point. An hour or so later He came rushing down the path, absolutely delighted that He had been watching a Black Vulture circling over a clearing below him. The clearing in question was where I had been lying, so presumably the vulture had been checking whether I could be considered as carrion! The year before in the Pyrenees the situation had been potentially more serious, when I had been taking my usual nap while He went exploring. I can still recall the look of relief on the face of the stranger who shook me awake - having thought that he had found the dead body that had been reported to the local police! But some naps have their funnier side, as in the Val d'Isere a couple of

years ago. I took my customary rest beside the path, while He scoured the slopes on all sides. At last He returned, disconsolate, only to notice that the sole specimen of *Chamorchis alpina* in the valley was flowering within a foot of where I was lying. Pity I hadn't seen it first!

I know that I am not the only woman with "orchid man trouble". For many years we have been befriended by Hans and Inge, a generous German couple with similar interests who, thankfully, do not expect us to correspond in German. Much information has been exchanged and we have greatly enjoyed the occasional joint expedition around some Mediterranean location. They also taught us that fizzy wine at 10 a.m. is a great way to start the day! For years Hans had been troubled with a painful arthritic joint, but eventually got a new knee. Shortly after his operation I realised that Inge and I share a common problem when, as Hans started to scale a steep bank in pursuit of orchids, she scolded him in her best English with "Nein! Hans! If you go up there you will need another knee!"

But there are occasional compensations, as on my birthday this year in Greece. We had spent a long day flower hunting and then got lost driving through Athens. It was getting dark and we hadn't booked a room for the night. At last we spotted a modest hotel on our side of the busy dual carriageway, and found a spot to park. Disaster! It was closed! But there was another, rather exclusive-looking, (all dark glass and chrome), on the other side of the road. In desperation we went in, fully expecting to

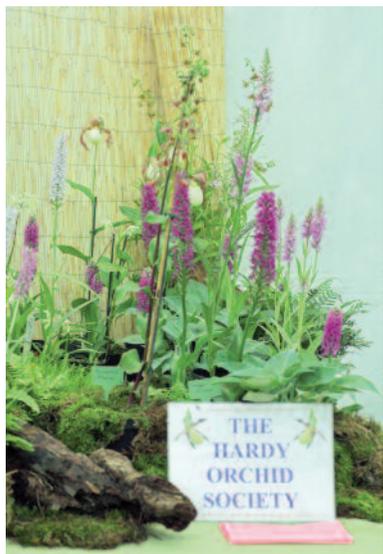
be barred by the doorman because of our tramp-like appearance. But at Reception they didn't turn a hair and were delighted to charge Him a vast number of Euros for what turned out to be the most luxurious night of the holiday. He claimed that we couldn't afford to celebrate my birthday in the hotel restaurant, so we made do with a cheap meal and a jug of water on the pavement outside a Chinese Takeaway. Next morning, the extensive buffet breakfast was a great compensation.

And the title of this note? I understand that in India the wife of a self-important gentleman is obliged to walk a respectful three paces behind him. I know my place.

Peterborough Show 2007

Maren Talbot

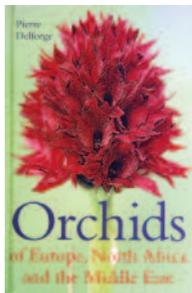
Do you remember going to Newbury International Orchid Show every summer? Sadly that show closed two years ago due to lack of interest. Peterborough, held this year on June 17th and 18th, is an attempt to revive it. The show was a glorious success with lots of orchid societies, individual displays, and a huge array of orchid traders. Too many some say, but the selection of plants on offer was enough to please even the most esoteric tastes. HOS was represented by a small display made up entirely of plants from Maren Talbot of Heritage Orchids, with two rather pretty yellow Bletillas lent by Geoff Hutchings. The timing could not have been better, plants



HOS at the Peterborough Show.
Photo by Maren Talbot

on display were: *Cypripedium reginae*, *C. kentuckiense*, *Dactylorhiza fuchsii*, *D. maculata*, *D. incarnata*, *D. foliosa*, *D. purpurella*, *Epipactis mairei*, *E. 'Lowland Legacy'*, and *Bletilla striata* in three colour variations, purple, white and yellow. Also the lizard orchid, *Himantoglossum hircinum*, which was amazing as it had already been much admired at the Chelsea Flower Show in May, and was still going strong. As usual, there was a lot of interest; people remember seeing them as children (and picking them for granny), and now asking how to grow them and where to buy them. HOS members kindly helped to man the stand and answer questions, a big thank you to Celia and Iain Wright, Phil Seaton and his wife, and Rosemary and Jim Hill. We also recruited a few new members.

Splitters versus lumpers: a KO? Book Review by Richard Bateman



Orchids of Europe, North Africa and the Middle East (3rd edition) by Pierre Delforge (translated by Simon Harrap) (2006), A & C Black, London. ISBN-10: 0-7136-7525-X, ISBN 13: 978-0-7136-7525-2. RRP £29.99.

Given that Pierre Delforge's work has long been the unchallenged bible for European orchid enthusiasts, it is impossible to review this book without briefly considering its 13-year history. I found my copy of the first French-language edition (1994) by accident, soon after its publication, while casually browsing a bookshop in Montpellier. I was immediately attracted to Delforge's book for several reasons: it contained a great deal of information in a pocket-sized 480 pages, used both words and photographs parsimoniously but effectively, was logically structured, and provided sufficient background on orchids *per se* to make it interesting to novice and experienced orchidologists alike. It was also clearly the product of a highly experienced and dedicated field botanist.

By 1995, notoriously linguistically challenged anglophones such as myself had been granted an English translation (albeit one that was not entirely to the taste of the author), published in substantial numbers and at an affordable cost by HarperCollins. This volume rapidly permeated the British orchidological community, though perhaps not entirely displacing the (in my view justifiable) deep affection still held in the UK for Victor Summerhayes' (1951) superlative *New Naturalist* monograph of the British and Irish orchid flora. As the second French edition (2001, 592 pages) of Delforge was not accompanied by an English version, I for one was thankful that the third French edition (2005) spawned an English-language version toward the close of 2006. The 640 dense, A5 pages of text were translated by Simon Harrap, still fresh from completing his own recent (2005) orchid flora of the British Isles.

Understandably, the successive versions of Delforge document evolution rather than revolution. This is both a strength and a weakness. Beginning with the strengths, there is something almost uncannily satisfying about this dynasty of compact volumes. Their size and production quality makes them useful in both the home and the field. As I have demonstrated experimentally, they withstand a good deal of maltreatment before finally succumbing to disaggregation. They also benefit from the fact that the structure of the text is conventional and thus seems inherently familiar. It begins with a relatively brief introduction to various aspects of orchid biology, conservation and classification, followed by formalised taxonomic descriptions, and finally an (extraordinarily brief) bibliography, glossary and indexes. The bulk of the

volume is effectively a taxonomic monograph. Genera are introduced via brief descriptions, discussions and dichotomous keys (often fragmented by the necessarily cramped layout); species treatments are grouped according to supposed evolutionary relationships. Presumably, each individual species treatment has benefited from being refined via extensive feedback from innumerable users through the last decade.

Most of the species are each covered in a single small, close-cropped page, half of which is devoted to two or three cigarette card-sized colour images (most of excellent quality but lacking any indication of magnifications) and the other half to technical descriptions that provide good content but are presented in a challengingly small font. Both the pictures and the text are capable of conveying the essence of the species, though inevitably neither is sufficiently detailed to adequately capture the full range of variation that can be exhibited by that species (or its hybrids). Consequently, I have generally found identification to species group relatively straightforward, but when presented with a member of say the *Ophrys fusca*, *Dactylorhiza majalis* or *Epipactis leptochila* groups, pinning the plant down to a particular “Delforgean” species can become a serious plant-by-plant challenge – a challenge that often results in the tentative conclusion that more than one morphologically similar species is somehow coexisting at the locality in question (I will return to the species question later).

We now move from strengths to weaknesses. Given that the text has in theory been refined over three editions it remains surprisingly error-prone. Just one page (p. 11) admixes three typos (mechaisms, mycorrhyzal, parasitissing) with three mutated genera (*Limidorum*, *Cypriedium*, *Cyprideum*), and I can only guess that a “radicular system” (p. 9) is nothing more sinister than a rootstock. Also, much of the background information given in the book is many years out of date. The origin of the orchid family is said to have recently been pushed back from 2 Ma to 20–30 Ma, when in fact 2 Ma was never even vaguely credible and the latest molecular clock estimates place the origin of the family at about 115-125 Ma (Bremer & Janssen *in* Columbus *et al.* 2006). This date is significant, as it suggests that orchids originated during the early radiation of monocots – a radiation that generated other major groups such as lilies, irises, palms and grasses (each presumably at risk from predation by co-evolving herbivorous dinosaurs). However, it is incorrect to state that the closest relatives of orchids are lilies; rather, orchids tentatively reside in the asparagus group and appear to be most closely related to Hypoxidaceae. This dominantly Southern Hemisphere family, which is increasingly grown in UK gardens, shares with lilies the possession of radially rather than bilaterally symmetrical flowers, suggesting that bilateralism was critical to the origin of the orchids. Also, Delforge follows a sexually obsessive and decidedly artificial higher classification that splits the world’s orchids into three families, and then relies on a series of orders and tribes,

many of which have claims to monophyly (evolutionary cohesion, or “naturalness”) that were long since disproved (most recently by Freudenstein *et al.* 2004).

In this context, the author repeatedly states that he uses a fundamentally phylogenetic classification – that is, one based on evolutionary relationships – but the glossary gives erroneous definitions of the kinds of fundamental group that are revealed by such studies. Monophyletic groups (the only groups acceptable to phylogeneticists who dominate modern classification) are correctly defined as consisting of a single hypothetical ancestral species and all of its known descendants, but paraphyletic groups and polyphyletic groups are defined identically as consisting of a single hypothetical ancestral species but not all of its known descendants. In fact, a polyphyletic group has two or more hypothetical ancestors and therefore lacks evolutionary cohesion. A good example of a polyphyletic group is the traditional concept of *Orchis* which, ironically, is used in the glossary as the one specific example of a paraphyletic group!

Indeed, moving on to actual examples, the broad (traditional) concept of *Orchis* has been retained by Delforge. Furthermore, *Neotinea* is also shoehorned into *Orchis*, whereas *Anacamptis* (represented only by *A. pyramidalis*) remains resolutely aloof. In addition, *Pseudorchis* is placed within *Gymnadenia* and *Hammarbya* within *Malaxis*, even though neither of these inferred relationships receives support from DNA-based studies. In contrast, the DNA-supported inclusions of *Listera* into *Neottia*, *Nigritella* into *Gymnadenia*, *Comperia* and *Barlia* into *Himantoglossum* and *Aceras* into *Orchis* are somehow deemed acceptable. Because no explicit and consistent method has been used to delimit genera, the net result appears neither traditional nor modern, but instead seems somewhat idiosyncratic (Bateman *in press*). Nonetheless, it is heading in the right direction.

So much for generic delimitation; what about species delimitation (a very different kettle of fish)? We now find ourselves face to face with that greatest conundrum in systematic biology: the question of how best to conceptually define, and to practically delimit, a species. Without such rigorous groundwork by monographers such as Delforge, subsequent identification by fieldworkers becomes seriously problematic. Delforge’s response to this conundrum is decidedly generous. Almost any European orchid that has ever been awarded a valid formal name is, by default, viewed as a species; subspecies have been eliminated from his taxonomic toolkit in favour of varieties, though in practice few of these are recognised. The resulting classification is egalitarian rather than hierarchical, reflecting a broader trend currently popular in plant systematics.

One can get some sense of general trends in species recognition by comparing the three editions of Delforge. The 1994 edition contained 142 species of *Ophrys* and

224 of other genera. Both figures increased substantially in the 2001 edition (215 and 275 species, respectively). In contrast, the 2005 edition shows another substantial increase in *Ophrys* (to 251 species), whereas the other genera have virtually stabilised, increasing by only three to reach 278 species. Evidently, species discovery is either currently exceptionally effective in *Ophrys* or these apparent novelties are actually “Emperor’s New Clothes” species, existing only in the eye of the beholder (Bateman 2006).

More broadly, how does one reconcile Delforge’s 529 species – the product of extreme “splitting” at species level – against the output of an arch-lumper such as Sundermann (1980), whose third-edition classification could muster a mere 102 species of European orchids? Of course, as Delforge rightly notes, much of the answer lies in choosing definitions of taxonomic rank. Delforge has explicitly abandoned the rank of subspecies whereas Sundermann actively promoted it; he preferred to recognise species that could be readily morphologically delimited (and hence easily identified). Messier taxa, reflecting overlapping boundaries and/or frequent hybridisation, can then be swept under the subspecific or varietal carpet. Both of these contrasting approaches can muster valid supporting arguments. Perhaps the key question is whether authors of the various competing orchid floras accumulate the necessary evidence from among the rapidly growing body of scientific information available to them, and whether they explain their reasoning in a sufficiently logical and intelligible way. From my own perspective, the main practical benefit of Delforge-style splitting is that lumpers can subsequently aggregate the contents of any splitter’s inventory lists, whereas when faced with a lumper’s inventory list, a splitter is not given the detail required to achieve the desired level of precision (be it real or bogus).

Rather, the real problems begin when a splitter actually believes that his or her inventory is wholly biologically meaningful. For example, when deciding conservation priorities, how does one balance a total of a few tens or hundreds of individuals of a supposed island endemic such as *Ophrys homeri* on Chios (apparently merely representing recently formed hybrid swarms) against a taxonomically unequivocal and charismatic species such as *Himantoglossum (Comperia) comperianum*? A more hierarchical classification makes such decisions easier, as by definition a species has more intrinsic worth than a subspecies which in turn has more intrinsic worth than a variety.

I for one mourn the passing of Hans Sundermann in 2002. In my view, it was healthy for the discipline to have both the splitting and lumping views represented among several European orchid floras published in the early 1980s, whereas Pierre Delforge’s particular splitter’s view has held a virtual monopoly in Europe in the 1990s and early 2000s. What of the late 2000s? Well, rumour has it that the pre-emi-

nence of Delforge's volumes will soon be challenged by an even more fecund author of orchid books, namely Karel Kreutz. No field guide this; rather, two coffee-table-sized volumes are in preparation, suggesting a photographic replacement for the watercolour-based monograph of Landwehr (1977). It should prove to be a fascinating contest between two undoubted heavyweights of European orchidology. But as Kreutz too has in the past leaned toward the splitters end of the spectrum, there may still exist an attractive vacancy for any philosophical heir to Sundermann who has the experience, patience and diligence to match Delforge's undoubted, and largely justifiable, success.

Setting aside my philosophical differences with Delforge, his books have undoubtedly played a vital role in popularising European orchidology, most notably in facilitating field identification. I prize my copies, and look forward to watching them evolve further.

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Orchid Observations: *Epipactis helleborine*

Stan Jordan

For more than fifty years, I have been visiting the Lickey Hills Country Park; first as a child with my parents, then as a parent with my own children, and now as an

“Old Git with a dog”. Over the last twenty years it has been to observe and photograph the *Epipactis helleborine* that grow there. Lickey Hills is situated about 2 km south west of the MG Rover Plant at Longbridge, Birmingham, and as its name implies it is on a steep hill divided in two by a road named Rose Hill. The northern part at the top of the hill is a large open grassland with a few trees and a couple of small woods. The Southern Part has a Visitors Centre, with a children’s play area at the bottom of another grassy slope. Most of the rest of the southern part of the Country Park is heavily wooded, with specimen trees from different parts of the world and various statues dotted throughout. The area where the *E. helleborine* grow is slightly to the west of the children’s playground on both sides of a water course which runs downhill under oak trees, and on an area to the east of the water course under birch trees. Here there is much less sunlight and very little vegetation grows. The hills themselves are known to be 400 million years old, and the entire site is on acid soil, although the acidity varies from top to bottom. It is unusual to have *E. helleborine* growing on acid soil, as like most *Epipactis* they prefer neutral or alkaline soils. I have been photographing the orchids here for about twenty years with the same camera and the same type of film (Fuji Velvia), and for most of the time they have been processed by the same company.

When I first started photographing these orchids, they were a fairly drab green/brown colour, but over the years some have developed a stunning vivid pink/purple colouration. About 10 years ago there was one growing out in the open on its own, and this was very pale, standing out from all of the others. Being fascinated by this one I returned later, and pushed a knitting needle into the soil alongside of the plant; that explains why some of my wife’s knitting, has been done on two different sized needles! The following year I returned to find the knitting needle and the pale plant, but this time with a GPS to take readings. I found the needle with no problem, but the plant had nothing like the colouration of the previous year. This led me to look closely at all of the other plants, and it seemed to me that they all had varied in colour from the previous year.



Contrasting colour forms of
Epipactis helleborine.
Photos by Stan Jordan

There were a couple of conspicuous plants which had two stems arising from the base, so after returning home I looked through the slides I had taken the previous year, and guess what - they had also changed in colour! So every year I return to study the plants, and every year they vary in colour, in wetter years the most. An unusual thing is that the ones under the birch trees in the darker areas are usually considerably darker in colour; a much darker, prettier pink/purple than those out in the lighter areas under the oak trees. Over the years I have found that the darker prettier flowers have normally grown on the more neutral/ alkaline soils, and it occurred to me that the soil conditions have a lot to do with the colouration of individual plants. Also, they may be affected the amount of rain or sun that they get in the year. On this particular site, I have a feeling that the rain also washes soil of a different pH down the slope, and this also influences the colouration of the plants.

When you think of all the *D. traunsteinerioides* plants that grow on acid soil, usually peaty but with a calcareous water supply feeding the area, there is far more to the soil conditions on which orchids grow than meets the eye. So when you are looking at your local orchid population take a photograph, a GPS reading or merely obtain a knitting needle to insert it in the soil next to the plant. Return the following year and take a photograph, and you may be surprised at what you find. Just one thing - can you please buy your own knitting needles as my wife's supply is getting very low!

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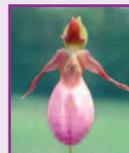
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