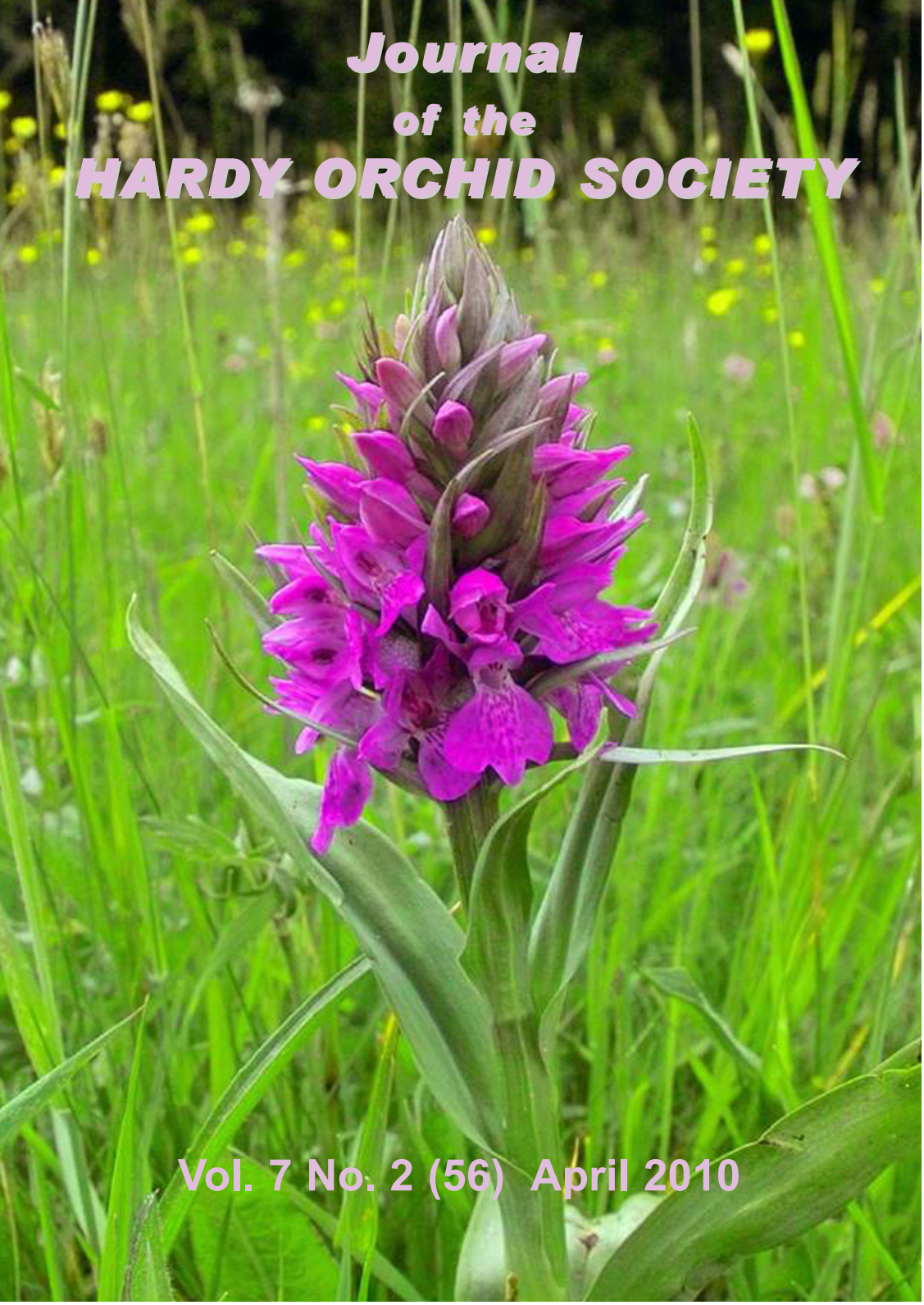

Journal of the HARDY ORCHID SOCIETY

Vol. 7 No. 2 (56) April 2010

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 **www.hardyorchidsociety.org.uk**, January 2004 Journal, Members' Handbook or contact the Editor). Views expressed in journal articles are those of their author(s) and may not reflect those of HOS.

The Hardy Orchid Society Committee

LOTTERY FUNDED

OPAL EXPLORE NATURE

Front Cover Photograph
Tony Heys 2nd placed photograph of *Dactylorhiza praetermissa*
from the 2009 Photographic Competition (Class 16)

Contents

Editorial Note

Apologies for the late production of this issue of JHOS which regrettably has become a May journal – I will do my best to ensure that future issues are produced to match their intended delivery month! Despite the lateness, I hope that you enjoy the three contrasting "travelogues" in this journal, including something different from China. Do send in material if you have interesting observations or reports as it is always good to include a variety of contributions.

I promised a little more information on the OPAL grant which HOS was fortunate to win last year. The funding is administered by the Natural History Museum and aims to help natural history societies and recording schemes grow and flourish. See http://www.opalexplorenature.org/?q=Societyfunding for more information about the OPAL scheme. The grant added the best part of £2K to the Society bank account and has allowed us to purchase a high quality PA system that was used to good effect at the Kidlington Meeting. We are already producing additional copies of JHOS to use when promoting the Society and a new, high quality, colour publicity leaflet is currently being printed. Another part of the grant will support the development of seed sowing workshops by allowing the purchase of media, petri dishes, plastic containers and tools. In that regard, a theory day led Phil Seaton and John Haggar is

planned for early July and will accommodate a reasonable number of interested members. Later, this will be followed by smaller group practical sessions. Further details will be posted on the HOS website as they become available. The workshops will be administered by Alan Leck (alanleck@plus.com) who should be contacted if you did not register your interest already.

Change of Venue for Autumn Southern Meeting

Celia Wright

It is with regret that the committee have decided that our meeting on October 31st this year cannot be held at Wisley. The RHS have recently attached a number of new restrictive conditions to our booking that would make it impossible for us to run the meeting as we have done so successfully in the past. We have therefore booked the Kidlington hall for this year's meeting. Full details will be published on the website as soon as they are available and in the July issue of this Journal. For next year, we will try to negotiate better terms with the RHS, as we know that many members enjoy their visit to Wisley, but are not hopeful. Information from members on possible alternative venues in the south east would be welcome. Please email (celia.wright@tiscali.co.uk) or phone me (01743 884576).

Report on 2010 Kidlington Meeting

David Hughes

The "orchid faithful" met at Kidlington on March 28th, a slightly earlier date than usual. The AGM started the proceedings, saying goodbye to the old chairman David Hughes and voting in Celia Wright as the new. Details of the proceedings can be found in the minutes on the website. The first speaker was Prof Mike Hutchings from Sussex University with "Conserving British Orchids; a Case Study of the Early Spider Orchid." Mike had accumulated successive highly detailed recordings of Spider Orchids from a carefully placed grid square over a 30 year period, probably the longest plant population study ever performed. He was able to record not only orchid numbers but their exact locations. As a result, he could demonstrate the appearance and disappearance of individual plants and relate this to the nature of the seasons. He also showed how damaging cattle grazing could be and the importance of controlled sheep grazing at the right time of year.

Geoff Brunt followed with a talk on "the Restoration of the East Polden's Grassland." In an area west of Glastonbury in Somerset, there is a network of independent reserves. Geoff has been involved in their management and development

using the labour of Millfield schoolboys. Starting with a conifer plantation on a west facing calcareous escarpment, they cleared the trees and allowed regeneration from residual islands of vegetation. After 20 years they have achieved a rich calcareous grassland with a good orchid flora, including large numbers of Greater Butterfly Orchids and among others, Bee Orchid in its yellow form, Bird's Nest Orchid and Southern Marsh Orchid hybrids. During lunch we were able to admire the plant competition entries, with some excellent plants of good variety, despite the late season. Then the judge Mike Pollock commented on the entries. Congratulations to Malcolm Brownsword for gaining the most points and to Kath and Peter Fairhurst for winning the Banksian medal and the best in show award for their three pots of Pleione.

We were entertained by Chris Bailes, curator of RHS Rosemoor, with "a Retrospective History of Orchid Growing Outdoors." He told us that we have now moved into a golden age of hardy orchid cultivation. We started with the Chinese first growing Cymbidium and Calanthe in the 3rd century AD and visited Joseph Paxton who developed the growing of hardy orchids in the rock garden. It was recognised at this time that orchids grow best amongst plants from a similar ecological environment. But then Reginald Farrer stated that, with the exception of Cypripedium, orchids are not worth growing. Only in the last 30 years has progress been made, starting with growing in the shady peat bed at Kew. Dactylorhiza would seed around any suitable area, as illustrated by the splendid hybrids growing in a ditch at Wisley. *Bletilla striata* and *Epipactis gigantea* could be established to grow vigorously and of the Cypripediums, *C. parviflora* and *C. regina* were the most reliable. Chris reminded us of Christopher Lloyd's success in establishing a meadow of *Anacamptis morio* at Great Dixter. He himself had achieved a good community of *Orchis mascula* in the turf at Rosemoor and had instructed his gardeners in the need to use minimal forking, little coarse mulching and to look out for natural germination. As a result there is now a Bird's Nest Orchid at Rosemoor and American Bog Orchids growing amongst the carnivorous plants.

At the end of the day, Phil Seaton kept us interested with his account of "Cypripedium from Seed to Flower." He has been seeking the Holy Grail of growing Cypripedium from seed. We began with a visit to Holger Perner's two nurseries. The first is high in the Chinese eastern Himalaya at Huanglong and here Holger grows in a mixture of Perlite, sand and soil. The plants need shading and protection from winter wet, but cold is not a problem. Down on the plain at Chengdu, Holger has another nursery and extensive laboratory facilities for micropropagation. Holger now has a licence to export Cypripedium from China, so we can hope for cheaper plants of known origin. We moved to the warmer Guanxi province where the favoured mix was Seramis, Perlite and soil. Huge populations of *Paphiopedilum hirsutissimum* together with Cypripedium grew in this. *C. macranthos* was being prop-

agated symbiotically but Holger says that fungus is not necessary and sprays his plants annually with fungicide. Finally, we visited a nursery outside Beijing, with no time to walk on the Great Wall. Here it is cold but dry in winter and the Chinese germinate Cypripedium seed without difficulty. Phil ended by outlining his plans to run a theoretical seed sowing workshop near Oxford and then to have small groups for practical courses in his laboratory in Kidderminster.

More 2009 Photographic Competition Winners

The following two pages have some of the second placed photographs from the 2009 competition. (Numbers relate to the relevant competition class).

1-2: *Orchis italica* by Alan Gendle
2-2: *Dactylorhiza purpurella* by Ron Harrison
3-2: *Dactylorhiza sambucina* by Sheila Hackett
5-2: *Dactylorhiza maculata* by Diana Hughes
6-2: *Cypripedium tibeticum* by David Hughes
8-2: *Platanthera bifolia* by Tom Turner
14-2: *Orchis italica* by John Temporal
15-2: *Cypripedium tibeticum* by David Hughes


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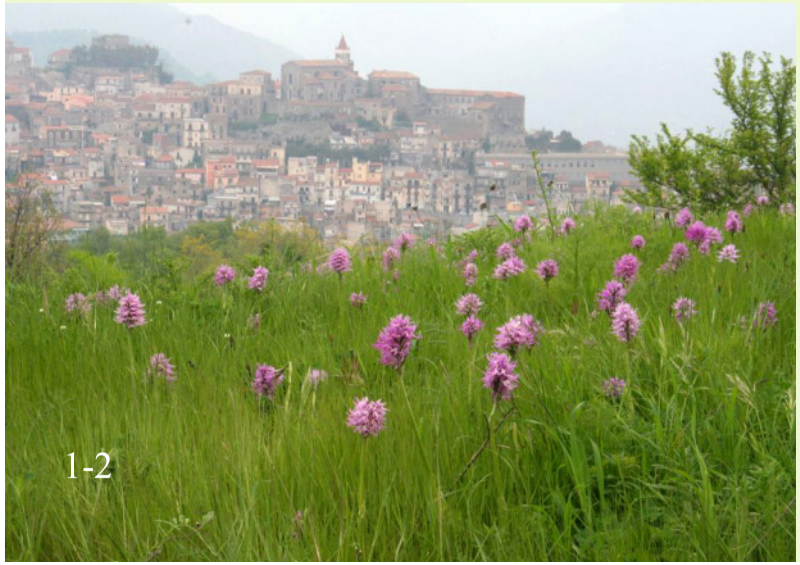
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Cypripediums in SW China: Part 1 Yunnan

Celia Wright

It was with considerable interest that I read in the autumn 2008 Alpine Garden Society newsletter that an expedition to Yunnan and Sichuan in SW China was planned, the aim of which caught my eye. It was "to see hardy plants, *particularly hardy orchids*," and along with Philip Cribb, formerly Deputy Keeper of the Kew Herbarium, Holger Perner was to accompany the trip. I had been reading Holger's very informative articles on cypripediums in the American Orchid Society Journal since they began in 2006, and we then heard him talk on this subject with a wealth of detail to the Paphiopedilum Society in November 2008, so it wasn't a difficult decision for Iain and myself to join the AGS trip in June 2009 along with David and Christine Hughes. Half the world's cypripediums originate from Western China, so there would be lots to see. By the end of our 3 week trip we had seen 15 species of Cypripediums and 2 named natural hybrids in the wild. These are listed below according to their sectional classification.

Cypripedium Species and Natural Hybrids Seen by Section

Section	Subsection	Species	Natural Hybrid
Subtropica		*C. wardii*	
Sinopedilum		*C. bardolphianum* (type) *C. micranthum*	
Trigonopedia		*C. margaritaceum* (type) *C. lichiangense* *C. sichuanense*	
Cypripedium Cypripedium	Cypripedium Macrantha	*C. farreri* *C. fasciolatum* *C. tibeticum* *C. yunnanense* *C. calcicola*	*C. xwenqingiae* *C. xfroschii* (status unclear)
Obtusipetala		*C. flavum*	
Enantiopedilum		*C. palangshanense*	
Bifolia		*C. guttatum*	
Arietinum		*C. plectrochilum*	

After flights from Europe to Chengdu (Sichuan) and then on to Kunming in Yunnan, our group of 16 met up with Holger and his Chinese wife Wengqing, who acted as a superb manager throughout our trip. We travelled in a small bus, initially west from Kunming towards the Mekong River and then north via Dali to Lijiang and Zhongdian, the latter now renamed as Shangri-la by the Chinese. Our first orchid of the trip wasn't a cypripedium at all, but *Paphiopedilum armeniacum*, growing 20 feet above a drainage channel on a hot sunny bank. It was impossible to get close,

even for Holger, who turned out to have the capabilities of a mountain goat when it came to clambering up slopes after orchids, but this was probably the reason why this rare colony still survives.

We had to wait for our first cypripediums until we got up to an altitude above 2500m. It was appropriate that this was *C. flavum* as, along with *C. tibeticum,* these were the *Cypripedium* species we saw most often. *C. flavum* was relatively easy to spot as it grows up to 60cm tall, usually in clumps. While travelling along the road, we often saw them in light shade on the edge of woodland at the top of a bank. They like an alkaline soil, and although they often seemed to be growing in pine needle litter, there is always some limestone in the layer beneath. In Huanglong valley in Sichuan, we were to see thousands growing in very wet conditions on the limestone tufa. The flowers are essentially pale yellow as their name suggests, usually with a maroon staminode and some red spots inside the pouch. As the photographs show, sometimes the red colouration can extend as red spots onto the surface of the lip; the sepals can also become quite markedly reddened with spots and stripes.

We saw *C. tibeticum* for the first time around Lijiang, but the flowers had already gone over. The following day we went up into the Gang Ho-Ba, a valley at 3200m. Undeterred by steady rain that continued until the afternoon, we found hundreds of *C. tibeticum*, both among junipers and other shrubs on the valley floor and up the wooded sides. Here they often grew singly, but sometimes in clumps, and were a dark form with a white rim around the pouch opening that could be very prominent (Figure 2). In contrast, the *C. tibeticum* found widely in Sichuan were shorter and a brighter, lighter red in colour. A specific colour variety is the golden form which we saw at 3500m above Napa Hai, the lake at Zhongdian. (Figure 3). Here the background colour in the flower is a golden yellow, rather than white.

Figure 1(above): A group of quite pale *C. flavum* at Huanglong with little red spotting. Figure 2: A group of *C. tibeticum* showing the white marking often present around the opening to the pouch. Figure 3: The golden form of *C. tibeticum*. Figure 4: *C. flavum* at Zhongdian, Yunnan with prominent red markings on the sepals, but the lip remains clear yellow on the outside. Figure 5: *C. flavum* with red spots outside the lip as well as quite heavily on the sepals.
Photos by Celia Wright


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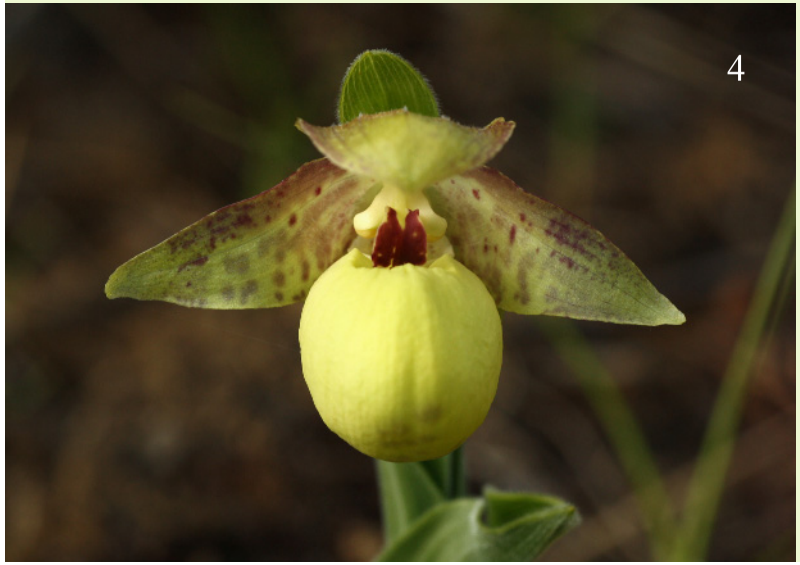
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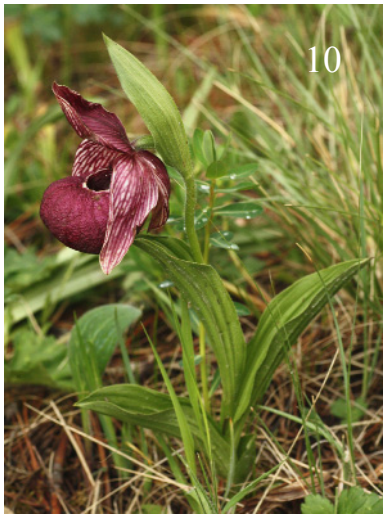
On the Dadu River in Sichuan at 3250m we were also shown a small flowered *C. tibeticum* with some yellow colouring in the sepals (Figure 6). These flowers are self-pollinating, unlike the more usual forms of *C. tibeticum* which are pollinated by Queen Bumble bees. Holger told us that flowers like this have not been described in the literature; they may represent a new species or variant.

These two species were familiar as they are widely grown in Europe; the rarities were still to come. The real excitement began when we drove out from Lijiang to the Bai Shui valley that forms part of the Jade Dragon National Park. The parking area was surrounded by sheets of *Roscoea humeana* in yellow, all shades of purple and occasionally white forms. We walked along paths and boardwalks through light mixed woodland down to a small river. Here we found *C. lichiangense* growing in very loose pine needle litter on a north facing slope in fairly constant shade, where few other plants were growing apart from a little moss. This member of the *Trigonopedia* section has what look like a pair of green leaves spotted with red, but one of these is actually a bract and only one a true leaf. The flower is also well spotted, this patterning on all parts of the plant being their means of attracting pollinators, small flies that normally feed on carrion and dung. The flower nestles at the base of the leaf, but after pollination, the flower stem elongates to aid dispersion of the seed.



Later in the day we found the similar *C. margaritaceum* (Figure 8), growing singly or in pairs in a similar habitat, though with a little more surrounding vegetation and in less deep shade on a south facing slope. This

Figure 6: The Dadu River variant of *C. tibeticum.* Figure 7: *C. tibeticum* growing on tufa in the middle of a stream at Huanglong. Figure 8: *C. margaritaceum*. Figure 9: *C. lichiangense*. Figure 10 (above): Dark form of *C. tibeticum* in Yunnan. Figure 11 (above): Sichuan form of *C. tibeticum*.
Photos by Celia Wright

species is quite widespread in northwest Yunnan, unlike *C. lichiangense*, which occurs only in a restricted area, centred round Lijiang. The two species were thought to be one until quite recently. A close–up view of the flower of *C. margaritaceum* (Figure 12) shows the many hairs that are part of the red-brown colouration of these flowers. Nearby were some gone over flowers of *C. plectrochilum*, a species we were to see in flower later in the trip.

These two species are all the more dramatic as they and their flowers are quite large. The leaf span of *C. lichiangense* can be nearly 40cm, with the flower measuring up to 10cm across. The third member of the section *Trigonopedia* we were to see in China was *C. sichuanense,* endemic to Sichuan.

Our final stop in Yunnan was at Zhongdian at an altitude of 3200m. Napa Hai, a partly seasonal lake, lies on its outskirts with hills rising up to the north and west. Our next excursions were to these slopes and the valleys between them. Our first stop looked a little unpromising as we climbed up steeply 50m or so from a quiet road, but here among the spiny broom bushes (*Caragana franchetiana*) and brilliant magenta *Incarvillea zhongdianensis* flowers there were fine stands of *C. yunnanense* (Figure 13) and patches of tiny *C. guttatum* (Figure 17), as well as *C. flavum*. The flower of *C. yunnanense* looks much like a smaller *C. tibeticum*, belonging as they both do to the section Cypripedium, subsection Macrantha, but *C. yunnanense* is pink rather than red, always with a prominent white edge to the pouch.

Figure 12 (above): *C. margaritaceuum* close up. Figure 13 (above): *C. yunnanense*. Figure 14: Jade Dragon Mountain. Figure 15: *C. plectrochilum*. Figure 16: *C. xfroschii* in the Gang Ho-Ba.
Photos by Celia Wright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Finding your first plant of *C. guttatum* before you tread on it can be something of a challenge, as this tiny member of section Bifolia is only 10-20cm tall. Its 2cm wide white flowers, heavily spotted with dark red, arise from a creeping rhizome, with two leaves enclosing the stem. The flowers never open fully. This species has the widest distribution of all slipper orchids, from Ukraine in Europe, across most of northern Asia to Japan and in North America. It is even found north of the Arctic Circle where it grows close to sea level. Further south, as in Yunnan, it is found at higher altitudes.

Figure 17: *C. guttatum*.
Photo by Celia Wright

A further stop and longer walk in the same area brought us to a small group of *C. plectrochilum* (Figure 15), the last of the species we saw in flower in Yunnan. This is another small species which, in harsh conditions, may be less than 5cm tall. The plants we saw were considerably larger at 15-20cm tall, but the flowers were no more than 2cm long, yellow and white in colour.

I cannot move on to Sichuan without discussing *C.* ×*froschii* (Figure 16). We saw this in the Gang Ho-Ba, growing on the mossy banks at the side of the valley. Another member of subsection *Macrantha*, it was originally described as a species by Holger, but is now thought more likely to be a variant of *C. tibeticum* or possibly a hybrid of *C. tibeticum* and *C. flavum*. Its lateral sepals are held out to the side, unlike the sepals of *C. tibeticum* that fold down round the lip.

Gargano – Europe's Finest Natural Rockery

Paul Harcourt Davies

Gargano, that spur on the heel of Italy's boot has long been a passion, ever since in the 1970s I noticed that so many of the pictures in Othmar Danesch's book on *Ophrys* had "Gargano" in the label. I have lost count of the number of articles I have written to feed a near obsession with this natural limestone rockery, a place that has drawn me back 27 times. Those visits have usually been involved with leading trips, both our own and for various companies. To my surprise, when I totted up the time spent wandering in Gargano there was a cumulative total of some forty weeks of prime-time orchid season spread over a period of nigh on 30 years.

Gargano is often cited as an orchid "hotspot" and it is easy to see why this has come about for, as to all extents and purposes Gargano is, in botanical terms, an island. In fact, it once was just that, separated from the mainland by the sea which silted up to create the enormous plain of Foggia. Geologically it owes much to the islands off the coast of what is now Croatia – its tectonic plate slipped a bit and moved it towards Italy. It is a lump of limestone with fertile plains near the coast and much high altitude ground cultivated at a basic level since it is impossible to work in any other way. Grazing is by cows that crop high and the wonderful central forest (Foresta Umbra) is well-maintained by the Corpo Forestale.

In Gargano we (Lois and I) have always wandered off the beaten tracks to where the best populations of orchids are to be found in the most photogenic sites. There are more than a few "mad" folk like us in the UK who will drive for endless hours to see orchids in the far north of Scotland, so the fact that we now live just a hurtle of 4.5 hours along autostradas from Gargano is nothing. An overnight trip might look to be a bit of an "orchidiot's" indulgence but if you know where to go then you can walk with the gods, high on the peninsula midst thousands upon thousands of orchids and encounter a few endemics, too.

Over the years I have had numerous requests for advice on when and where to go and, depending upon altitude, I usually suggest visiting from late March until the latter half of April. If you are going to spend time on the heights and the central part of the peninsula between Monte St Angelo and San Giovanni Rotondo (where most of the endemics can be found) the last two weeks in April might be the most productive in most years. Here, as elsewhere in the Mediterranean, an early spring can throw things out by a couple of weeks.

Figure 1: Orchid-strewn Gargano meadow
Figure 2: *Ophrys fuciflora* ssp. *apulica* (Apulian Ophrys)
Figure 3: *Ophrys fuciflora* ssp. *parvimaculata* (Small-patterned Ophrys)
Photos by Paul Harcourt-Davies

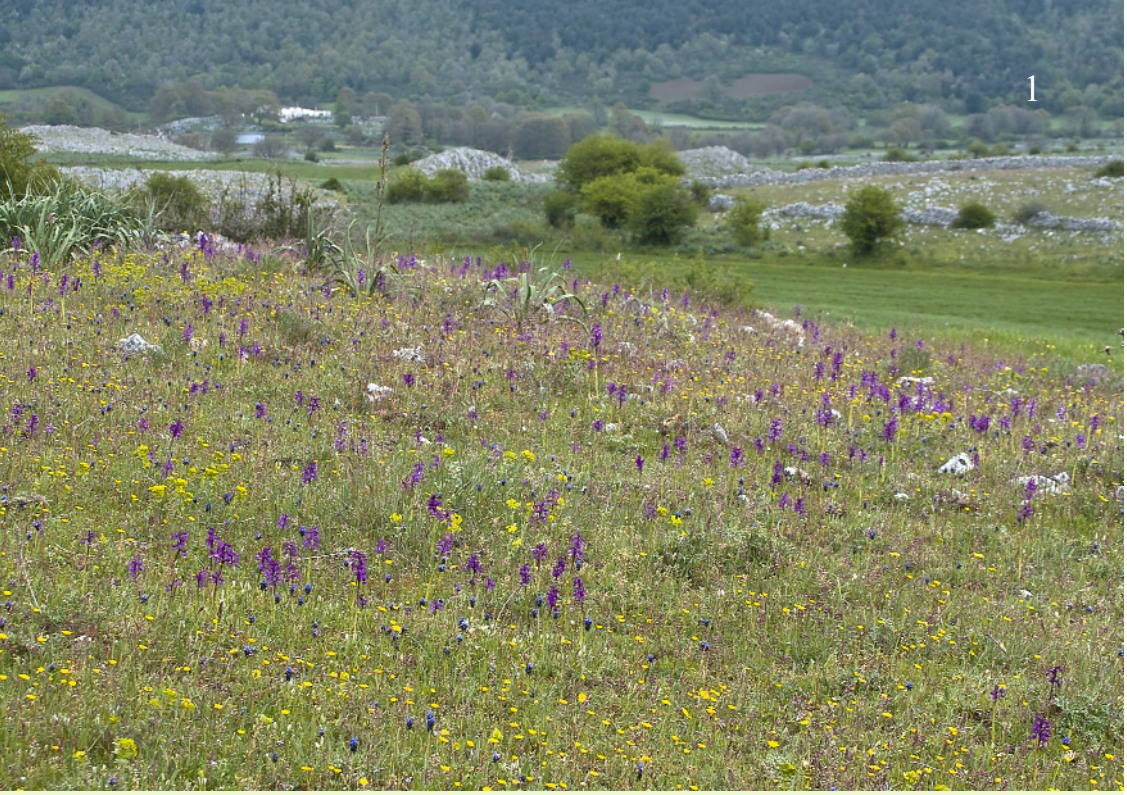
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Figure 4 : *Ophrys scolopax* ssp. *cornuta* (the horned Ophrys)
Photos by Paul Harcourt-Davies

We have a preference for staying in Peschici, in the Elisa, a small hotel near the sea and whereas it may not be perfectly placed for the whole peninsula they cook great fish! In fact, near Peschici (and towards Vieste) there is at least one local rarity – the Horned Ophrys (*Ophrys scolopax* ssp. *cornuta*), familiar in Greece but rare here. And there are particularly good populations of the Apulian Ophrys (*Ophrys fuciflora* ssp. *apulica*), the largest and most handsome of the *"fuciflora"* relations, ready to be discovered in the surrounding scrub. The lip is large, elongated and variably patterned with intensely coloured tepals – it is a beauty. If you travel along the northern coast, west from Peschici, you might find one of the few colonies of another member of the "*fuciflora*" clan *Ophrys fuciflora* ssp. *parvimaculata* in north-facing woods near the lagoons. This taxon has a reduced "apron" – the *parvi* (small) bit of the *maculata* (pattern) near the base of the speculum and, what a surprise, it has variable flowers. Some years, however, the cows that graze the woods will have been there before you: it all depends on the dynamic of the seasons, winter and how long it goes on.

A flying visit in April 2008 took us to Peschici with a bit of orchid exploration, first to locate some plants of *Ophrys fuciflora* ssp. *parvimaculata* for Italian friends who were due to visit the following week. Peschici would have been a detour for them and we found the season was early, plants were over and cows wandered and chomped. Next morning, having recovered from the drive, we set off early taking in *Ophrys cornuta* en-route to an area on the heights of the peninsula where my favourite *Ophrys – Ophrys sipontensis* grows in some numbers. In retrospect, I cannot believe the luck I had in April 1979 when, on first visiting the pensinsula early in April, I followed the old railway line down on the plain near Manfredonia and just happened upon (as I have often seemed to do) spikes of *Ophrys sipontensis* in several quarries. Those are now dumps but there are still some sites on the plain early in the season. In fact, last year in mid March we encountered thousands of spikes of *Ophrys sipontensis* in a site revealed to us by an Italian orchid enthusiast. This is one

Figure 5 : A typical orchid-strewn Gargano meadow on the peninsula heights
Figure 6: *O. sphegodes* ssp. *sipontensis* a Gargano/Puglia endemic
Figure 7: *O. sphegodes* ssp. *sipontensis* – abberrant colour form
Photos by Paul Harcourt-Davies


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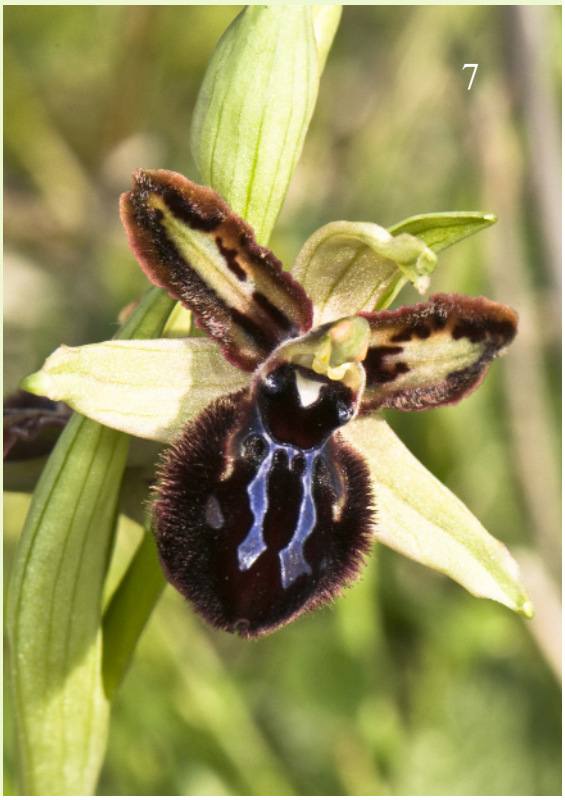
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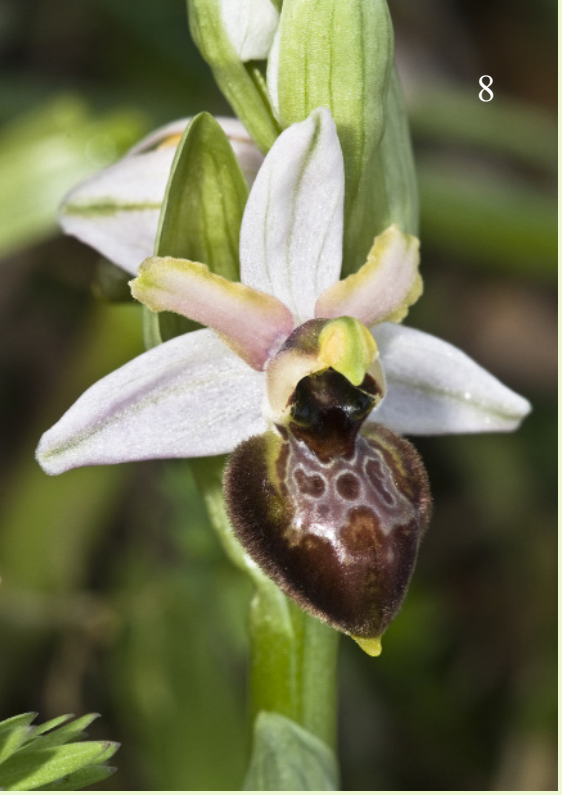
of the endemic or near-endemic orchids on the peninsula and it takes its name from the ancient Golfo di Siponto, the coast that extends from Manfredonia southwards.

To get to the best areas on Gargano you have to walk through countryside rich (an understatement) in wild Irises – the dwarf yellow *Iris lutescens* and the taller *Iris biflora,* now regarded as a separate species and a Gargano endemic – it is no hardship. In dozens of ancient, stone-walled and stone-strewn fields between Monte St Angelo and San Giovanni Rotondo you can find literally thousands of *Ophrys* and great drifts of *Anacamptis papilionacea* and *Anacamptis morio*. This is a wonderful area for hybrids given both the density of orchid plants and also the isolation which, in the case of *Ophrys,* I suspect might have encouraged the evolution of hymenopteran pollinators that are not quite as "fussy" as those in other places.

Gargano is somewhere where protection is essential but nature has set up several excellent systems. Where most orchids grow, the soil is what you might call "impoverished" – limestone strewn with little humus and few plant competitors. It is difficult to clear but, human endeavour being what is, that can be done – just look at the endless miles of stone walls that people have built over the centuries from doing just that. Fires create havoc in Gargano. In southern Italy and Greece they are often started deliberately to create areas where development is then permitted (with a few backhanders to local politicos naturally). The flowering of orchids the following year can be exceptional, for fires are often a summer hazard and those small tubers are well beneath a soil already baked hard by the sun. Not all is doom and gloom. The most common grazing animal in Gargano is the cow – lovely soft grey animals of ancient species with large horns. They crop at a greater height than sheep or goats and in the upper pastures you will often find orchid plants just a few centimetres tall flowering in late April after having been munched as rosettes when buds were safely concealed.

It is one thing to chase single plants of rarities as many of us have done and another to experience the absurd joy of walking in a natural rockery where you could not begin to count the orchid plants – *Orchis anthrophora, Anacamptis papilionacea, Anacamptis morio, Orchis pauciflora* and the occasional *Neotinea lactea* – a myriad spikes thrusting up between stones. In 2008, after a hard winter, we both felt jaded and escaped to Gargano. My prime intention on our whistle-stop trip was to take Lois on a walk she has "aided" but never done – hers was always the role of

Figure 8: *Ophrys ×arachnitiformis* (syn. *Ophrys archipelagi*) a complex of closely related species
Figure 9: *Ophrys argolica* ssp. *biscutella* (syn. *O. biscutella*)
Figure 10: *Ophrys lutea* – yellow Ophrys
Figure 11: *Ophrys ×flavicans* (the taxon *Ophrys promontorii*)
Photos by Paul Harcourt-Davies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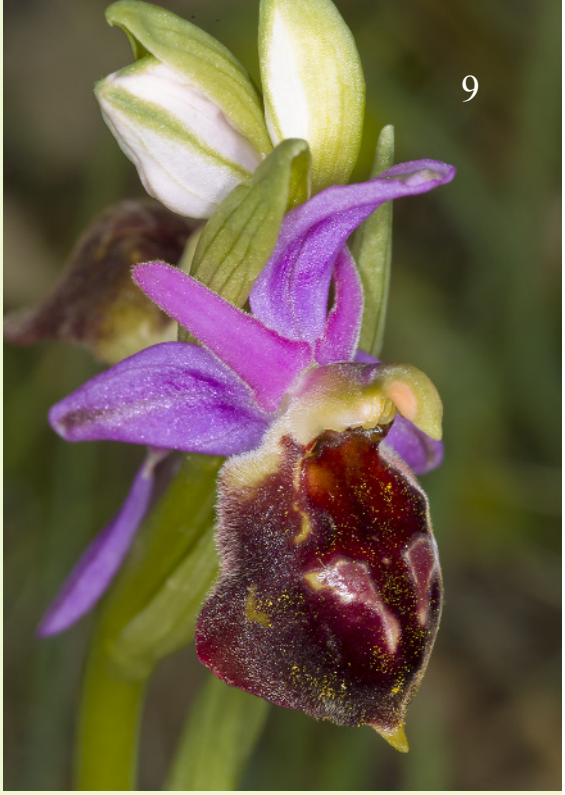
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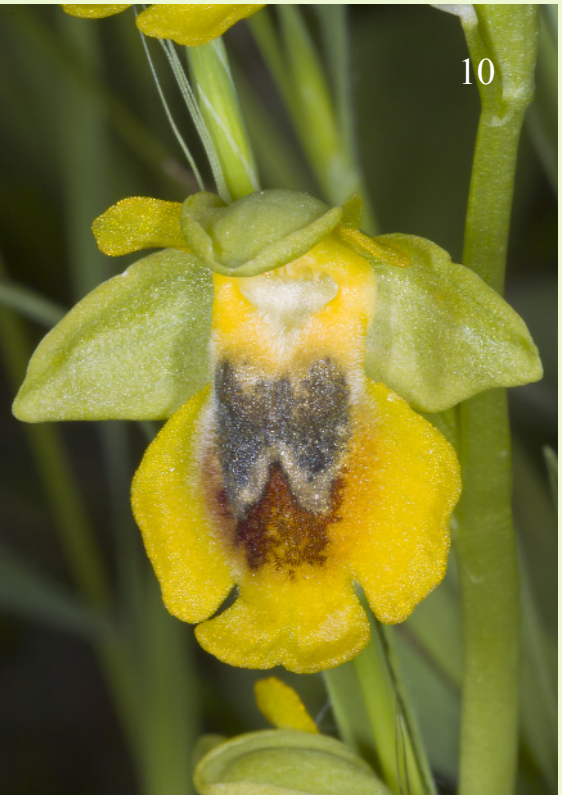
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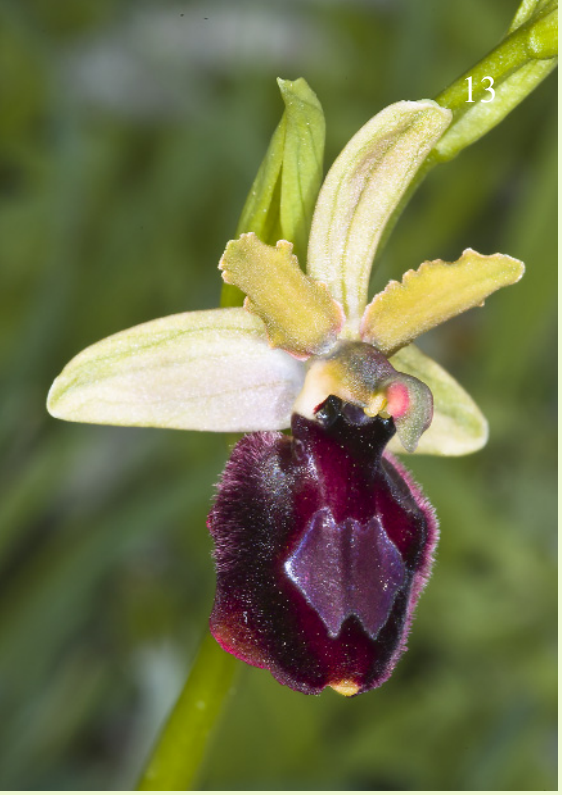
Figure 12: A probable hybrid between two Garago "endemics" - *Ophrys promontorii* × *O. sphegodes* ssp. *sipontensis*
Photos by Paul Harcourt-Davies

meeting us at the end, the smug group sated with orchids.

There is nothing quite like walking on top of the world – 700m altitude with views down to the sea, to the jetties at Manfredonia and the Golfo di Sipontensis beyond. The route takes one along ancient paths past stone-walled fields with orchids the constant companions. Some *Ophrys*, such as *Ophry tenthredinfera*, are everywhere. Others, such as *Ophrys promontori* and *Ophrys biscutella*, two Gargano specials, are more localised – presumably where colonies of their pollinators exist. Slight changes in soils and in aspect bring different groups of orchids together and you begin to get the impression you might one day understand how it all works – however delusional that maybe. In all our travels together Lois had never witnessed such a flowering of orchids. In fact, I don't know of anywhere else like this in Europe for sheer abundance and variety. It is a wonderful place to sit and enjoy for those prepared to walk just a bit from Monte St Angelo towards San Giovanni Rotondo and have their batteries charged.

Over the years we have explored most of the Gargano mountain tops in spring and if you love mountain flowers each few steps bring new joy with a riot of multi-coloured pansies, anemones and buttercups within a very loose woodland of shrub-like downy oaks stunted by the harshness of baking summers and bitter, often snow-covered winters. This is an ancient landscape with ruined stone farms "masseria" and the conical protoypes of the "trulli" found further south. These are set within a network of snaking stone walls built around depressions where animals have grazed

Figure 13: *Ophrys ×flavicans* this umbrella term embraces a number of former species such as *Ophrys bertoloniformis* shown here
Figure 14: *Ophrys passionis* ssp. *virescens* (*O.garganica* ssp. *virescens*) a yellow edge to the lip has made some feel this is another species *Ophrys virescens*
Figure 15: *Ophrys sphegodes* ssp. *passionis* (*Ophrys garganica*)
Figure 16: *Ophrys biscutella* × *O. tenthredinifera* (*O. ×montis-angeli*) a rare hybrid
Photos by Paul Harcourt-Davies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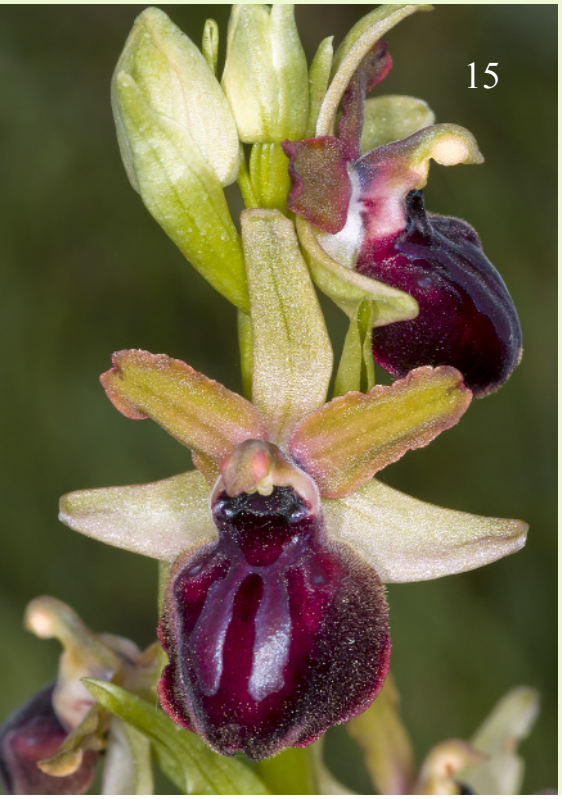
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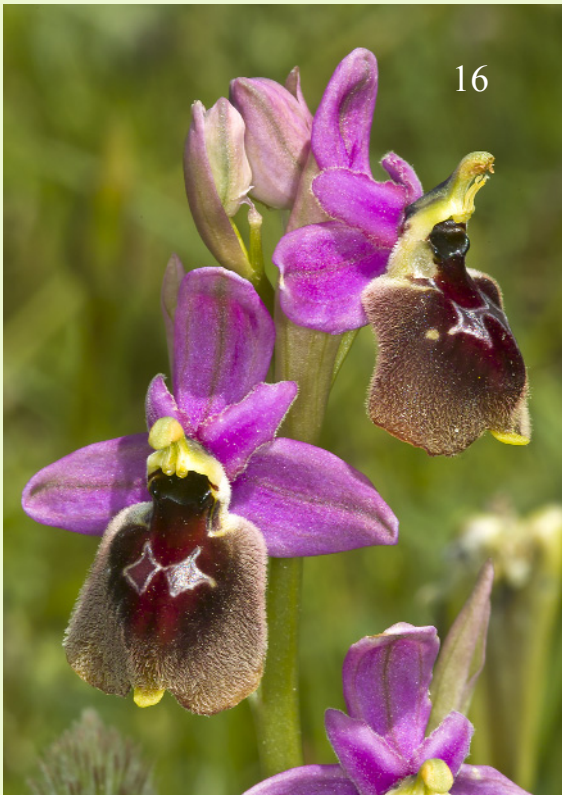
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over the millennia in natural pounds. The walls were built to rim "doline" – craters where erosion by water in the limestone slowly etched out caverns whose roofs ultimately collapsed.

San Giovanni Rotondo, once a picturesque village, is now a sprawling town that I would recommend to no-one. It is filled with huge hotels and is the centre of the crassly commercial cult surrounding Padre Piu. I mention this because it reinforces the irony I feel when standing on the heights of Monte Nero above San Giovanni in one of the most flower-filled places I have ever seen whilst dinky-toy coaches far below disgorge their endless streams of tiny ant-like pilgrims. It is another world but I prefer to be surrounded by the reality of nature – thousands of wild irises, blue and purple anemones, white narcissus, yellow spikes of *Dactylorhiza romana* and a myriad of cheekily-coloured faces of a local wild pansy. For me, communing with nature is the truly spiritual experience!

A word about books

If you stay in Gargano, particularly as a part of a group, you could well be sought in the field by the author of a book on Gargano orchids who will turn up and try to sell you a copy. The taxonomy is "shaky" being based upon Delforgian "principles" and the photographs are variable in quality and tend to concentrate on what can be found near Mattinata which is promoted as the "centre" for orchid flowering: there are much richer areas. There is another book by Claudio del Fuoco (2003 *Orchidee del Gargano* Edizione del Parco Monte S. Angelo) and this is the one I prefer. It has better photographs and the taxonomy is more reliable. Moreover, Claudio del Fuoco has also explored the whole of Gargano and much of the Italian mainland and has a better sense of the context of the orchids.

Each and every year "new" taxa are discovered for Gargano by the same people but having seen many of the pictures I feel it would be a good idea for some authors to get some experience outside Gargano in the rest of Italy – even in the world outside that. It could help prevent mis-identification and would mean the taxon count for Gargano orchids might not be quite as high.

Springtime in Corsica

Tony Hughes

Corsica, a mountainous island off the west coast of Italy, has suffered numerous invasions and internal squabbles over its long history, but for much of the last 250 years has reluctantly bowed to French rule. Diana and I spent a very happy couple of weeks there, from 30th March to 13th April 2008, and were relieved to see no signs of the antagonism towards foreigners so often reported a few decades ago.

We flew from London City airport via Nice to Bastia on the north-east coast. Touching down on the runway, we immediately realised that we had arrived in a really special place – on the rough grass surrounding the runway and taxiways was the most spectacular display of thousands of Pink Butterfly Orchids (*Anacamptis papilionacea*) – a wonderful welcoming "red carpet". The frustration was that there was no access to the orchids, so the images remain only in our minds, not in our cameras. However, the Pink Butterfly turned out to be an extremely common orchid on Corsica, and we enjoyed other great displays, particularly towards the south, but none to rival Bastia airport. We recall one such wonderful meadow of Pink Butterflies beside the main road from Porto Vecchio to Bonifacio, discovered one evening in failing light. I decided to defer any photography, but fortunately Diana was not so foolish – when we returned a couple of mornings later, the entire area of several acres had been shaved bare! And on the opposite side of the road, one of the locals was vigorously strimming numerous sturdy specimens in his vegetable plot. He explained that they grew like potatoes, but did not taste as good!

Corsica is a very mountainous island, with a spine of mainly igneous rock stretching from Cap Corse in the north all the way south down the central and western parts of the island. There is a small patch of limestone around Saint Florent on the north-west coast, and a rather larger area around Bonifacio in the extreme south. Down the eastern side of the island is a narrow, low-lying coastal region, much of which is intensively cultivated, though extensive stabilised sand dunes with huge lagoons remain in places. Since our holiday was quite early, we realised that the orchids in the mountains would be well short of flowering, so we chose to spend our first week near Bastia in the north, with our second week near Porto Vecchio in the south. In this way we could explore many of the best-known coastal sites, and benefit from the fast road that goes all the way from Bastia to Bonifacio. We didn't explore the west coast, so have a good excuse for a return visit!

From our base in a hotel perched on the "corniche" road to the north-west of Bastia, we had an annoying 20 minute crawl up and down narrow country lanes every time we wanted to go anywhere. The only consolation was that the wooded slopes were full of sweetly scented *Cyclamen repandum*, and the rocky bank opposite the local cemetery was home to the only colony of *Orchis provincialis* we encountered. Having reached the coast, a good picturesque road snaked northward around the cliffs and coves for some 40 km out to the tip of Cap Corse. Orchids were generally sparse along this road, though the roadside woods near Rogliano revealed the first few specimens of the local endemic *Ophrys morisii*, together with a few other common species. The great exception to the dearth of orchids occurred over a stretch of about 6km of roadside verges between Santa Severa and Marine de Meria, where a profusion of Serapias flourished. We spent a long and puzzling time examining lots of them, but failed totally to identify any! Most of them were growing in small circular patches, with all the specimens in each patch being of similar form, stature and


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colour – a characteristic particularly of *Serapias lingua*. However, the callus at the base of the lip was always divided, unlike the entire callus that distinguishes *S. lingua*. Furthermore, the different patches encompassed an enormous range of characteristics. Some patches were not more than a couple of inches tall, while others reached over 8 inches. Some had quite small lips, tending towards *S. parviflora*, while others went to the opposite extreme with long broad lips tending towards *S. cordigera* and *S. neglecta*. And the wealth of colours - pinks, reds and browns in all shades - was absolutely glorious. We concluded that we were in the midst of an extensive hybrid swarm, where probably the genes of all the species mentioned above were mixed together. A couple of searches away from the road revealed that, where gaps in the phrygana occurred, the same wealth of Serapias were thriving. So we put our books away and headed southward, hoping for more tractable specimens!

To the west of Bastia, the road twists over the Col de Teghime and descends towards St. Florent and its surrounding limestone hills. The valleys are intensively cultivated, for this is one of the notable wine-producing areas, and the higher hill-sides are wreathed in dense phrygana, so our orchid-hunting was restricted mainly to roadside verges. Just west of Patrimonia we found a bewildering array of *Ophrys fusca* types. Some had really large lips, with coloration approaching that of *O. iricolor*, but known here as the Corsican-Sardinian endemic *O. zonata*. Others had much smaller lips, with various degrees of curvature and markings. Some were another endemic species, *O. funerea*, while many of the intermediate forms were probably hybrids. Continuing west we stopped in a little road-side quarry by a stream, just on the outskirts of St. Florent, where we encountered small numbers of *O. bombyliflora*, *O. panormitana* var. *praecox* (endemic to Corsica and Sardinia), and *O. incubacea*, a species that cropped up all over the island. The return journey along the colourful country lanes past St. Florent's "Cathedral" and over the hills via Poggia took us past quite a few orchids, including a field of *Anacamptis papilionacea* and *Neotinea lactea*, but we didn't spot anything particularly remarkable.

Some 20km south of Bastia, an excellent main road heads inland up the valley of the River Golo. The roadside banks treated us to occasional modest displays of orchids, usually the ubiquitous *Anacamptis papilionacea* and *A. morio*, but there were also occasional specimens of *Orchis (Aceras) anthropophora* and *O. mascula*. We were aiming for Corte, a busy town in the foothills of the mountains, from where one can drive up the Gorges de la Restonica to about 1500m altitude. The valley with its tumbling stream and wooded slopes was spectacular, but the only orchids seen at this height were still merely tight rosettes of tiny leaves. We drove past fine examples of the endemic *Helleborus corsicus*, a good garden plant that grows prolifically all over

Figure 1: *Ophrys corsica* Figure 2: *Ophrys marmorata*
Figure 3: *Ophrys aprilia* Figure 4: *Ophrys panormitana* subsp. *praecox*
Photos by Tony Hughes and Diana Hughes (Figure 3)

the island, until we found the road blocked by snow-drifts. Here the great delight was the carpet of *Crocus corsicus*, bursting up from the gravelly soil wherever the snow had melted.

Our return journey from Corte took us past an extensive plain to the south of Ponte Leccia where the road goes parallel to the river on one side and a railway on the other. For several kilometres it appears that agriculture has been abandoned between river and railway, and the meadows have been left for the asphodels and orchids. Here the Pink Butterfly and Green-winged Orchids were prolific, as were their very attractive hybrids, and they were joined by good numbers of the Milky Orchid, *Neotinea (Orchis) lactea*. A detour over the hills from Ponte Nuovo took us past fine collections of *Ophrys incubacea*, probably the most widespread *Ophrys* species on Corsica. Higher in the hills occasional specimens of *Orchis olbiensis* appeared in the usual range of colours from near-white to rich purple.

The second week of our holiday was based in the Hotel San Giovanni, a couple of kilometres inland from Porto Vecchio in the south-east – and we thought we had arrived in Paradise! Not only was it quiet and comfortable with excellent food, but immediately outside our chalet was a rough lawn, covered in magnificent patches of *Serapias lingua*, and in the remoter corners of the grounds were fine displays of Pink Butterflies. A little to the north of Porto Vecchio, the N198 main road reaches the coast near a prominent defensive tower at Fautea. The track to the beach there passes between sandy fields and rocky slopes where the genus *Serapias* is king. As in so many other places, *S. lingua* was most abundant, followed closely by *S. cordigera*. A few plants would have passed as *S. olbia*, (though they may have been hybrids), but a solitary plant of *S. neglecta* was unmistakable. Frustratingly, its pale pinky-cream flowers were well past their best, and this was the only such plant we ever got close to. However, even greater frustration lay several miles further north, where the N198 passes an extensive military camp, protected by triple barbed fences which were continuously patrolled by men with big guns and even bigger dogs. Growing luxuriantly between the fences, not 10 metres from the road, was a great expanse of the most magnificent specimens of *S. neglecta* one could hope for. Needless to say, the barbed fences were festooned with notices in many languages forbidding parking and photography!

Our trips to the region around Bonifacio were much more productive. Bonifacio is an ancient walled town, perched precariously on a tall chalky promontory which the sea is steadily eating away from the base. There is not much green space within the town, but one small area near the cemetery had thriving populations of *Ophrys incubacea* and *Serapias parviflora*. Outside the town are vast scrubby areas extend-

Figures 5 & 6: *Ophrys morisii* Figures 7 & 8: *Orchis olbiensis*
Photos by Tony Hughes


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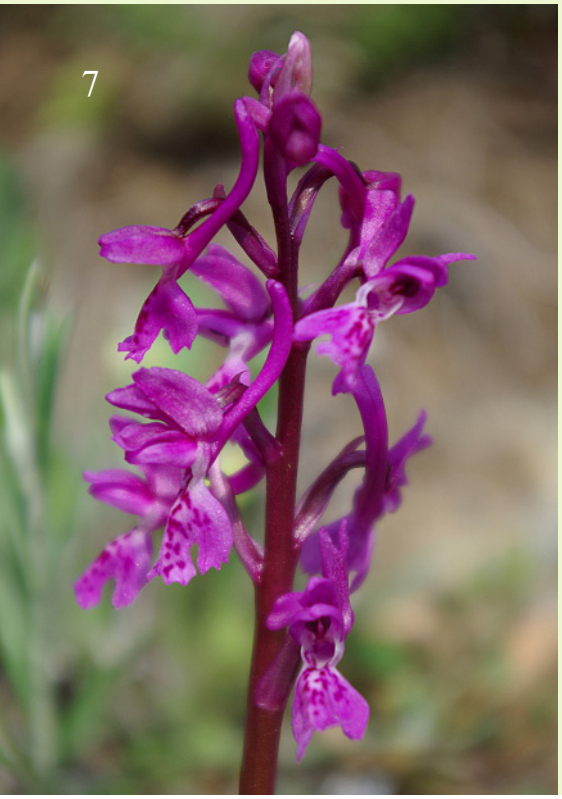
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ing for miles around the coast, a haven for many orchid species. We particularly enjoyed the coastal plateau east of Bonifacio alongside the road to the lighthouse at Capo Pertusato, where the scrub was short and fairly sparse. Wherever we went we were seldom far from most of the common species found elsewhere, including yet more fine specimens of *Anacamptis papilionacea*. Some had narrow, incurved lips with minimal markings, corresponding to subsp. *papilionacea*; others had larger and more strongly marked lips like subsp. *expansa*; and many lay somewhere in between. Here the early-flowering species such as *Anacamptis* (*Orchis*) *longicornu* and *Ophrys tenthredinifera* were well past their best, as were a few specimens of the Giant Orchid, *Himantoglossum (Barlia) robertianum*, on a nearby verge. Surprisingly, a few plants of *Gennaria diphylla* still looked quite presentable, but they were sheltered by some of the denser scrub. However, the great delight here was the number of very local species, some endemic to Corsica, others shared with nearby Sardinia. Where the turf was short, there were numerous tiny plants of *Ophrys corsica,* which to my eyes were practically indistinguishable from *O. sicula*! *O. morisii* seemed more plentiful here than at other sites, its petals and sepals showing a bewildering variation of colour from rich pink through white to green. *O. marmorata*, a small-flowered relative of *O. fusca*, had lips with a distinctly 'marbled' appearance, which is the meaning of its specific name '*marmorata*'. And then there was *O. panormitana* var. *praecox*, a robust and quite variable local speciality.

A roadside meadow a mile or two north of Bonifacio near the 9th century Chapel of Santa Reparata revealed a few specimens of yet another endemic, *Ophrys aprilia*. It is rather similar to *O. tenthredinifera*, but has smaller, darker flowers, the lip having no yellow border, being densely hairy right to the edge. And in the next field was a clump of *Scilla peruviana* - brilliant blue stars held in amazing hemispheres nearly six inches across.

Although the cliffs around Bonifacio introduced us to a number of Corsica's specialities, one other site proved even more enchanting, thanks to the vast numbers of plants on display. We had planned to explore Santa Giulia, a few miles south of Porto Vecchio, but a minor navigational error took us into the middle of a decidedly superior holiday complex. On the edge of this complex lay a huge field stretching down to the sea, surrounded by barbed wire fencing with a substantial set of padlocks on the gate – and it was full of orchids, as far as the eye could see. After wandering around the fencing for some time, wondering if we could get away with a little trespassing, we noticed a man doing some maintenance on the holiday bungalows. Fortunately, schoolboy French was just good enough to get his permission to scram-

Figures 9 & 10: *Anacamptis morio* × *papilionacea*
Figure 11: *Anacamptis papilionacea* subsp. *expansa*
Figure 12: *Anacamptis papilionacea* subsp. *papilionacea*
Photos by Tony Hughes


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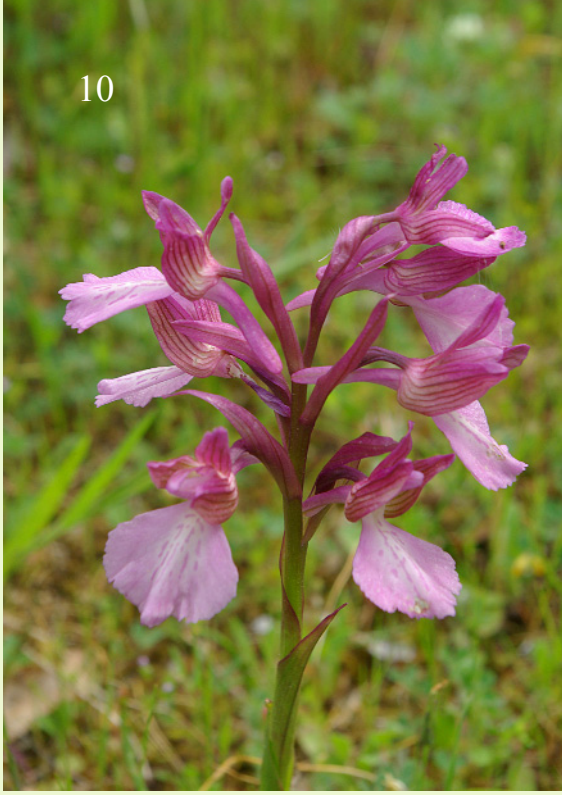
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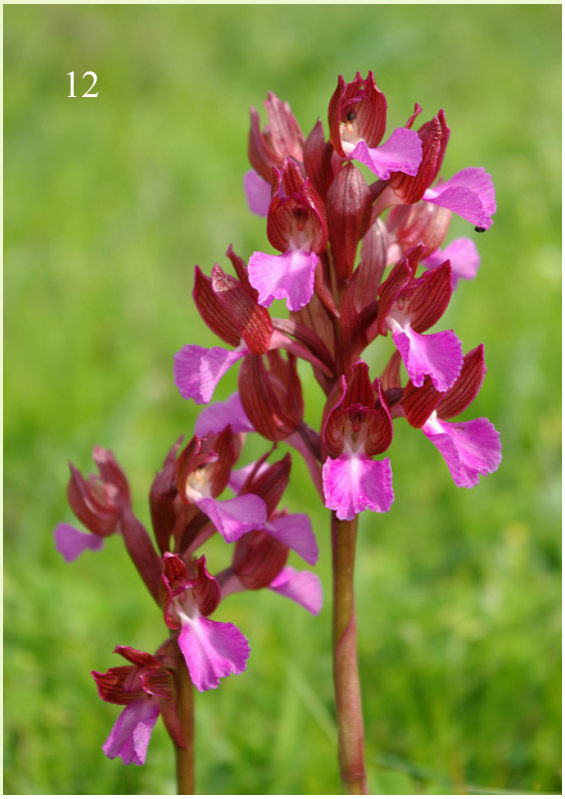
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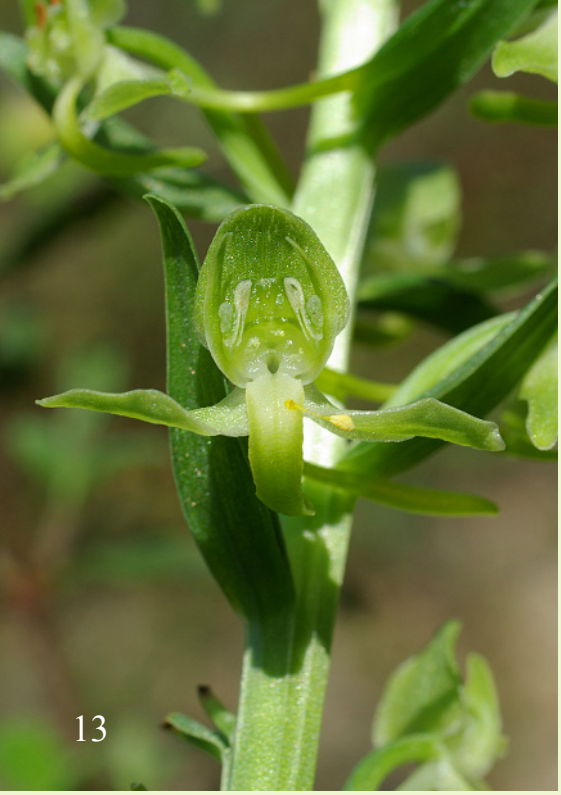
ble under the fence, and we were back in Paradise, surrounded once more by sheets of *Serapias lingua*. The range of colours was magnificent, and some of the clonal patches were several feet across, indicating that the plants had been spreading vegetatively for many years. The low-lying, level areas were covered in asphodels, but there was plenty of room for carpets of *Anacamptis papilionacea* and *A. morio*, plus the customary variety of amazing hybrids. Closer to the sea, the ground rose over a rocky knoll with a sparse covering of conifers and evergreen oaks. This provided ideal conditions for *Limodorum abortivum*, springing up like asparagus, and groups of *Neotinea intacta*. There were also strong clusters of *Serapias cordigera* and one fine plant of *S. olbia* (or was it a *cordigera* × *lingua* hybrid?). *Ophrys* were less numerous, but *O. morisii*, *O. aprilia*, *O. panormitana* subsp. *praecox* and *O. incubacea* were all represented, together with a number of enigmas that we hesitated to name. A good measure of the splendour of this field is that our picnic lunch was taken extremely late!

One location was deliberately left to the end of our stay, in the hope that two late-flowering species would oblige us. This took us some way north of Porto Vecchio to the Domaine de Pinia, an extensive coastal conifer forest on ancient stabilised sand-dunes. Sadly, this region is being steadily "reclaimed", mainly for agriculture, though a large area still remains untouched. However, the orchids were most rewarding where most of the trees and scrub had been cut down but the ground had not been ploughed. Our main quarry was *Platanthera algeriensis*, a predominantly North African species that has footholds on a few Mediterranean islands. We were fortunate to find a dozen or so plants within a hundred yards of our first stop – and we didn't find any more all day! Unlike our native *Platantheras*, its flowers are entirely green, though the size and habit of the plant, and the structure of its flowers, are unmistakeable. The long spurs were half full of nectar, though at mid-day the scent was slight. The other late-flowering species we had hoped to find was *Serapias nurrica*, with lips having a distinctive cream border, but our luck didn't hold. However, we did enjoy vast numbers of superb *S. cordigera*, carpets of *Brimeura fastigiata* (a dwarf, pink-flowered squill), and a couple of Hermann's Tortoises.

Then it was time to return to the airport, taxi through the red carpet, take to the air and leave behind all those remarkable orchids. Our sincere thanks go to all those who gave us background and site information. We also enjoyed several botanical articles in the Bulletin of the Alpine Garden Society. Orchid identification is based on: Bournérias, M. and Prat, D., 2005, "Les Orchidées de France, Belgique et Luxembourg", 2nd edition, Biotope, Mèze.

Figures 13 & 15: *Platanthera algeriensis*
Figures 15 & 16: *Serapias lingua*
Photos by Tony Hughes and Diana Hughes (Figure 15)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