Journal of the MARDY ORCHID SOCIETY

Vol. 19 No. 1 (104) Winter 2022



The Hardy Orchid Society Committee

President: Prof. Richard Bateman, Jodrell Laboratory, Royal Botanic Gardens Kew, Richmond, Surrey, TW9 3DS

Chairman: Carol Armstrong, 18 Flaxfield Way, Kirkham, Preston, Lancashire, PR4 2AY <u>carol.armstrong75@yahoo.com</u>

Vice-Chairman: Andrew Parsons, 7 Bellevue Terrace, Portsmouth, PO5 3AT ap@portsmouthbar.com

Treasurer: Colin Rainbow, The Old Post Office, Somerton Road, North Aston, Bicester, Oxfordshire, OX25 6HX <u>car.northaston@btopenworld.com</u>

Secretary: Jules Macauley, School House, Whichford, Shipston on Stour, CV36 5PE jmacauley99@gmail.com

Membership Secretary: Moira Tarrant, Bumbys, Fox Road, Mashbury, Chelmsford, CM1 4TJ <u>moira.tarrant@outlook.com</u>

Plant Show Secretary: Neil Hubbard, 30 Thirlmere Road, Barrow upon Soar, Leicestershire, LE12 8QQ <u>neilhubbard@talktalk.net</u>

Photographic Competition Secretary: Neil Evans, 48 Friars Avenue, Peacehaven, Sussex, BN10 8SB <u>neilfevans@btinternet.com</u>

Journal Editor and Website: Mike Gasson, Moor End Cottage, Moor End, Stibbard, Norfolk, NR21 0EJ <u>moorend@globalnet.co.uk</u>

Speakers Secretary: Celia Wright, The Windmill, Vennington, Westbury, Shrewsbury, Shropshire, SY5 9RG <u>celia.wright@windmill.me.uk</u>

Southern Meetings Organiser: Simon Tarrant, Bumbys, Fox Road, Mashbury, Chelmsford, CM1 4TJ tarrant.simon@outlook.com

Northern Meeting Organiser: Phil Smith, Rantree Cottage, Birkwith Lane, Low Bentham, Lancaster, LA2 7DG Philandelismith@gmail.com

Publicity & Outreach Officer: Andrew Parsons, 7 Bellevue Terrace, Portsmouth, PO5 3AT ap@portsmouthbar.com

Seed Bank Manager: John Haggar, 16 Cross Street, Hove, East Sussex, BN3 1AJ johnsorchids57@gmail.com

Journal Distributor: Nigel Johnson, Cassandene, Station Road, Soberton, Hampshire, S032 3QU <u>cassandene@waitrose.com</u>

Conservation Officer: Bill Temple, Primrose Cottage, Hanney Road, Steventon, Oxon., OX13 6AP <u>bill@billtemple.f9.co.uk</u>

Field Meetings Co-ordinator: Richard Kulczycki, 206 Blythe Road, London, W14 0HH <u>richardkulczycki@gmail.com</u>

Front & Back Cover Photographs

Gillian Elsom's winning photographs from the 2021 Photographic Competition. Front cover has her Best Print of *Goodyera repens* and the back cover features her best digital image of *Anacamptis morio* which won the Maren Talbot Trophy.

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 Members' Handbook, website <u>www.hardyorchidsociety.org.uk</u>, or contact the Editor). Views expressed in journal articles are those of their author(s) and may not reflect those of HOS.

Password for Members' Area of HOS Website: ghost2021

A Members' area is available now with digital copies of recent *JHOS* issues and an archive of some online presentations from Leeds and Kidlington.

Contents

Editorial Note by Mike Gasson	3
Chairman's Note by Carol Armstrong	
Results of Photographic Competition 2021	
Cumbria Field Trip – July 2021 by Alan Gendle	12
The Tiptree Tongue Orchids by Jonathan Greenwood	
The Broader Benefits of a HOS Site Visit by Sue Parker	
Field Trips – Back to the Future by Richard Kulczycki	

Editorial Note Mike Gasson

This *JHOS* is rather dominated with reports of our Society activities from 2021. Results of the Photographic Competition, with some winners' images, are headed up by Gillian Elsom who came first in both the digital and print classes, winning the Maren Talbot Trophy. Fittingly, the front and rear covers feature Gillian's photographs of *Goodyera repens* and *Anacamptis morio*, respectively.

Also there are reports from the field trips with separate articles on Cumbria and Wales as well as an overview from Richard Kulczycki. Richard has done an exceptional job in revitalising the field trip programme and plans for 2022 are well advanced with details coming in the Spring *JHOS*. It is pleasing to also have an article from Jonathan Greenwood on the Tiptree *Serapias* colony with a first hand account of its discovery and protection.

JOURNAL of the HARDY ORCHID SOCIETY Vol. 19 No.1 (104) Winter 2022

Chairman's Note Carol Armstrong

New Year's Greetings to you all. I hope you have stayed well over the Christmas Period and enjoyed the bonus Christmas Edition of our Journal. I was certainly cheered by it. Getting out to see wild orchids with society members, having a seed sowing workshop and two indoor meetings was such a delight in the latter part of last year. However in this new year, the daily reminders of Covid's impact still suggest that we are likely to need to exercise a degree of caution with any of our social activities but we will continue to take advantage of the opportunities to conduct our yearly programme, safely and within guidelines that may be in place. I think this was achieved brilliantly last year through the extra efforts of the committee members who organised on-line alternatives and, when allowed, covid-safe meetings, walks and a workshop. I'm sure you'll join me in thanking them sincerely for their hard work.

In 2021 there appeared to be a greater appreciation of our "home-grown" native orchid species as most of us could not travel further than our own shores. Many of us visited UK orchid sites, sometimes for the first time ever and sometimes multiple times. This gave us a chance to share our local knowledge with each other. I am grateful to many people for information on sites and also to the HOS walks leaders and our walks co-ordinator for getting me and so many other members to interesting locations.

Our Society aims to promote the study (by a range of methods) of Native European Orchids, and as we may have to be careful with travelling to Europe again this year, then we can expect to concentrate on the "home-grown" species. We already use the experience of existing HOS members to further cultivation and conservation, but we should also look at working with other parties to increase awareness of UK wild native orchids among the wider public.

The Hardy Orchid Society Conservation Awards scheme was devised to assist with the above aim, but lockdown was imposed almost immediately after the chairman introduced the award on behalf of the Committee to the membership in April 2020. It was therefore not possible to proceed any further with inviting applications for an award during 2021 (as previously hoped) but will be featured this year.

The forum continued to grow in numbers, participation has increased and so therefore did the workload of the moderators. Please check the website for the joining and using instructions to make moderation a simpler process.

The details of our walks programme will be announced in the next Journal. We have a good selection of familiar and new locations plus guided access to generally closed sites. If anyone has either a suggestion of a location that they would love to visit or a wish to see a specific species, then please contact our Field Meetings Co-ordinator. This year our AGM and Plant Show will be in June which will allow our members who cultivate summer flowering orchids to exhibit. I hope that this will give an opportunity for members to admire and compliment each other on their skills.

The website continues to be regularly updated as the year's events for our membership are ready for publication. Our Treasurer, Colin Rainbow, was scheduled to step down from this post in 2021 but offered to stay on a further year. I am again grateful for the extra help given to the Society. Thank you Colin, you have been an excellent Treasurer and valued contributor to the running of the Society. I invite members to enquire about taking the role of Treasurer. Please contact me for further information.

Colin has also retired from the Committee support role of Plant Show Secretary having organised not just one but two on-line plant shows in 2021 and produced presentations on them for membership viewing in 2021. I am pleased to welcome Neil Hubbard as the Show Secretary for the 2022 plant show. Many thanks to Alan Gendle as he retires from the Committee. He has organised the Northern Meeting venue for several years, and made our first face-to-face, indoor Hardy Orchid Society meeting since November 2019 a safe and successful event. I welcome Phil Smith and Charlie Philpotts as the new Northern Meeting Organiser and the venue's sound/ projection co-ordinator, respectively.

The HOS is managed on your behalf by a Committee, a group of volunteers - who all love orchids of course – and are dedicated to maintaining the high standards in terms of activities that you all expect. Our Committee members are always happy to respond to queries from Members about their area of responsibility and it would be really wonderful to be able to welcome new members to the Committee to benefit the whole Society. Please consider joining us if you think you have skills to contribute. It doesn't matter if you are not sure what role might suit you best; you would be welcome to attend a Committee meeting, get to meet the team and consider what you might be able to do.

HOS Seed Sowing Workshop Sunday 21st August 2022 Hagbourne Village Hall, East Hagbourne, OX11 9LR

This one-day workshop will cover all aspects of seed sowing and aftercare of both summer and winter-green orchids. The tutor will be John Haggar, renowned for his skill at propagation of hardy orchids from seed. A booking form and more details are on the HOS website: www.hardyorchidsociety.org.uk

Any queries? Contact moira.tarrant@outlook.com

JOURNAL of the HARDY ORCHID SOCIETY Vol. 19 No.1 (104) Winter 2022



Results of Photographic Competition 2021

Class 1. A view of an area (landscape or habitat) showing orchids in their natural environment, print size up to A4. (9 entries)

1st	Ken Elsom – Anacamptis pyramidalis, Dactylorhiza fuchsii &
	Gymnadenia conopsea

- 2nd Patrick Marks Pyramidal orchids
- 3rd Denise Harper Dactylorhiza fuchsii, Dactylorhiza praetermissa & Dactylorhiza ×grandis

Class 2. A group of orchids containing at least three flower spikes. These can be all the same species/hybrid or a mixed group, print size up to A4. (9 entries)

- 1st Gillian Elsom Anacamptis morio
- 2nd Janet Hails Anacamptis morio
- 3rd Ken Elsom Anacamptis morio

Class 3. A single orchid spike, print size up to A4. (11 entries)

- 1st Phil Smith Hammarbya paludosa
- 2nd Janet Hails *Liparis loeselii*
- 3rd Hilary Pickersgill Orchis purpurea

Class 4. A close-up of an orchid, showing one or more entire inflorescence(s), print size up to A4. (10 entries)

- 1st Gillian Elsom Orchis militaris
- 2nd David Pearce Ophrys insectifera
- 3rd Hilary Pickersgill Dactylorhiza viridis

Class 5. A close-up of an orchid showing part of an inflorescence, print size up to A4. (9 entries)

- 1st Gillian Elsom Goodyera repens (Best Print)
- 2nd Hilary Pickersgill Ophrys apifera
- 3rd Ken Elsom Epipactis palustris var. ochroleuca

Class 9. A view of an area (landscape or habitat) showing orchids in their natural environment, in JPEG form. (24 entries)

- 1st Chris Cater Goodyera repens
- 2nd Elliot Hails Dactylorhiza praetermissa
- 3rd Patrick Marks Dactylorhiza maculata

Class 10. A group of orchids containing at least three flower spikes. These can be all the same species/hybrid or a mixed group, in JPEG form. (21 entries)

- 1st Gillian Elsom Anacamptis morio (Maren Talbot Trophy)
- 2nd Janet Hails Anacamptis morio
- 3rd Denise Harper Spiranthes spiralis

Class 11. A flower spike of a single orchid, in JPEG form. (22 entries)

- 1st Hilary Pickersgill Dactylorhiza fuchsii
- 2nd Gillian Elsom Dactylorhiza maculata
- 3rd Mark Dowie Epipactis purpurata

Class 12. A close-up of an orchid, showing one or more entire inflorescence(s), in JPEG form. (27 entries)

- 1st Ivar Edvinsen Cypripedium calceolus
- 2nd Ken Elsom Dactylorhiza fuchsii
- 3rd Gillian Elsom Dactylorhiza maculata

Class 13. A close-up of an orchid showing part of an inflorescence, in JPEG form. (26 entries)

- 1st Hilary Pickersgill Ophrys apifera f. trollii
- 2nd Ken Elsom Platanthera chlorantha
- 3rd Carol Armstrong Himantoglossum hircinum

Class 14. A group of orchids in cultivation containing at least three flower spikes. These can be all the same species/hybrid or a mixed group, in JPEG form. (2 entries)

- 1st Ivar Edvinsen Cypripedium formosanum
- 2nd Richard Laurence Dactylorhiza fuchsii

Class 15. A flower spike of a single orchid in cultivation, in JPEG form. (3 entries)

- 1st Neville Roberts Disa Kewensis
- 2nd Christopher Hoskin Goodyera repens
- 3rd Ivar Edvinsen Cypripedium hybrid

Class 16. A close-up of an orchid in cultivation, showing one or more entire inflorescence(s), in JPEG form. (2 entries)

- 1st Ivar Edvinsen Cypripedium formosanum
- 2nd Christopher Hoskin Goodyera repens

Class 17. Novice class, any hardy orchid print, size up to A4. (2 entries)

- 1st Adam Smith Dactylorhiza viridis
- 2nd Denise Harper Orchis × angusticruris

Class 18. Novice class, any hardy orchid in JPEG form. (8 entries)

- 1st Vincent Blood Himantoglossum hircinum
- 2nd Mark Dowie Ophrys apifera
- 3rd= Adam Smith Dactylorhiza incarnata
- 3rd= Elinor Smith Dactylorhiza fuchsii

Class 19. A hardy orchid subject that has been manipulated creatively using any advanced software technique to create an artistic image, print size up to A4. (2 entries)

- 1st Gillian Elsom Anacamptis morio
- 2nd David Pearce Ghosts by Moonlight

Class 20. A hardy orchid subject that has been manipulated creatively using any advanced software technique to create an artistic image, in JPEG form. (5 entries)

- 1st Gillian Elsom *Epipactis palustris*
- 2nd Ivar Edvinsen Cypripedium calceolus
- 3rd Jane Daw Himantoglossum hircinum

Best Digital & Maren Talbot Photographic Trophy:

Gillian Elsom for Anacamptis morio in Class 10 (back cover)

Best Print:

Gillian Elsom for Goodyera repens in Class 5 (front cover)

Our thanks to the Competition Judge:

Jon Evans

The following pages feature a selection of winning images. Figure numbers indicate the Class followed by the position (e.g. 11-2 is second place in Class 11). All winning images are presented on the HOS website.









12-3



Cumbria Field Trip – July 2021 Alan Gendle

The primary objective of the two days of field trips was to look at *Epipactis* species, varieties and hybrids. Saturday 10th July saw a party of 12 set off for Cumbria Wildlife Trust's Burton Fell Reserve, part of the Hutton Roof limestone pavement complex. Bryan Yorke, who writes a blog "*I love Arnside & Silverdale*" and spends a great deal of time on the site, accompanied us and guided us to some of the most interesting specimens. The reserve is basically an area of extensive limestone pavements.



Epipactis atrorubens grows in the thousands across Hutton Roof. We looked at normal *E. atrorubens*, variety *bicolour* and the yellow flowered *pallens*, as well as many intermediates. *Epipactis* ×*schmalhausenii*, the hybrid between *E. atrorubens* and *Epipactis helleborine*, was in flower. This was the highlight of the visit, Burton Fell being one of the few places where it flowers regularly in the UK.

E. helleborine grows on the pavements but was in bud everywhere. Bryan pointed out an unusual plant, an *E. helleborine* with variegated leaves. *Epipactis phyllanthes* var. *vectensis* also grows on the reserve in Hazel scrub but again the plants were still in bud. A collection was made for the Cumbria Wildlife Trust who own and manage the site. Thanks to all who generously donated.

Bryan Yorke's blogs can be found at: <u>https://epipactisatrorubens.blogspot.com</u> and <u>https://arnsidesilverdale.blogspot.com</u> as well as a FaceBook page at <u>https://www.facebook.com/groups/1779001015693804/#</u>.

- Fig. 1: Bryan Yorke on the limestone pavements.
- Fig. 2: Epipactis atrorubens var. pallens.
- Fig. 3: Epipactis atrorubens.
- Fig. 4: Epipactis atrorubens var. bicolour.
- Fig. 5: Epipactis ×schmalhausenii.

Photos by Alan Gendle





Sunday 11th July saw a bigger party assemble in the car park of the National Trust's Sandscale Haws National Nature Reserve. Walking down to the beach we passed *Anacamptis pyramidalis* growing in the sandy grassland. After a short walk along the beach, we arrived at a big gap in the dunes which is known as the Blowout. On the flat sandy floor of The Blowout *Epipactis palustris* was in flower with the gone-over remains of *Dactylorhiza incarnata* and *Dactylorhiza praetermissa*. At the back of this area the bankside had a population of *Epipactis phyllanthes* var. *pendula*; some plants had nice open flowers but most were tightly closed as is usual with the plants on this NNR.

Travelling further south at the foot of a slope a single *Epipactis dunensis* was in flower. The main *E. dunensis* population was over a mile away below the large sand hills which were our next destination. En route we passed through an area dominated by Creeping Willow and saw *Dactylorhiza fuchsii*, *Dactylorhiza purpurella* and their hybrid *Dactylorhiza ×venusta*, *Dactylorhiza praetermissa* and *Dactylorhiza incarnata* as well as more *A. pyramidalis*. Passing through several big slacks noted for Coralroots we found one seeded plant. More *E. palustris* were seen and a group of *Ophrys apifera* going-over. Using records from six years ago and a GPS unit the main population of *E. dunensis* was eventually located growing in the Creeping Willow. A count of 90 flowering spikes was recorded thanks to the efforts of the members.

Fig. 6: View of Sandscale. Green area to the right is the Dune Helleborine habitat.Fig. 7: *Epipactis dunensis*.Fig. 8: *Epipactis phyllanthes* var. *pendula*.

Photos by Alan Gendle

HOS Field Trips in 2022

We expect to run a programme of 12 to 15 trips in 2022, Covid permitting. We will make some announcements in January, but the full programme will be announced in March / April. We expect to run a number of trips again which were fully booked in 2022, including the trips to see the Irish Lady's-tresses at Borth and the Red Helleborine at Windsor Hill in the Chilterns.



Wildlife Holidays

A selection of tours with an orchid & botanical focus..

Cyprus in Spring Orchid Photography in Rhodes Italy: The Gargano Lesvos at Leisure Sierra Nevada in Spain Kent orchid day trips with Jon Dunn Greece: Slow Pace in The Pindos Bulgaria: Flowers & Butterflies Italy: The Dolomites Spring Flora in The Western Cape Greece: Bulbs of The Peloponnese Greece: Crete in Autumn Orchids of The Cape Floral Kingdom 1 - 9 Mar 19 - 26 Mar 9 - 16 Apr 25 Apr - 2 May 10 - 17 May 21 - 26 May 23 - 30 Jun 24 Jun - 2 Jul 30 Jun - 6 Jul 29 Aug - 10 Sep 16 - 23 Oct 23 - 30 Oct 1 - 13 Dec

Covid-19: Book with confidence as all our tours are free to change or cancel

Private and bespoke tours also available on request

Led by knowledgable & experienced guides, including Dr Yiannis Christofides, Jon Dunn & Dr Paul Harcourt Davies

01473 254658 🔶 www.greenwings.co.uk

The Tiptree Tongue Orchids Jonathan Greenwood

It was 21st June 2017. I had just received an email that would set the pulse of any orchidophile racing! The email came with two attached photographs of a colony of Greater Tongue-orchids (*Serapias lingua*), supposedly discovered in the Tiptree area. The email simply asked 'Are these on your patch?' The email had come via Ken Adams, the County Recorder and a quick glance at the species mix of the other plants in the photos certainly suggested it was indeed on 'my patch'.

'My patch' refers to a designated Local Wildlife Site (LWS) a short distance from my home where my wife, Sarah, and I walk our Border Collie almost every day of the year. It was only upon acquiring a dog in 2009 that we got to explore the site. At that time the designated LWS only consisted of former gravel pits now restored as a habitat for wildlife. It consisted of lakes, heathland and light woodland alongside a small meadow and remnants of more mature woodland comprising Oak, Hornbeam and Wild Service Tree. Adjoining this area is a second, much larger meadow known as Brook Meadow. In the 1930s this meadow was the source of Tiptree's water supply. There is an underground water tank, a disused well that once supported a wind pump, and a natural spring with a wet flush. The water table is not far below the surface and the meadow can become water logged in the winter, especially along the lower edge. More recently, until the mid-90s, Brook Meadow had been a strawberry field. It was then used to grow barley for a couple of years in the late 90s but since 1999 has been managed by a local farmer as permanent set aside. It is mown once a year - usually in early July. By 2009 it had developed a rich mix of grassland flowers and in 2010 I recorded two Green-winged Orchids (Anacamptis morio). Over subsequent years the number has steadily increased until this year, 2021, over 2500 spikes were recorded. This is undoubtedly an under-estimate and the true figure will be well over 3000. In addition, Bee Orchids and Common Spotted-orchids were found on the meadow in 2013, Southern Marsh Orchids in 2014 and, on the smaller meadow, Common Twayblade and Pyramidal Orchid appeared in 2015. It was clear to me that Brook Meadow had the potential to be a valuable habitat, unimproved grassland being exceptionally rare in Essex. With the constant threat of development on the land surrounding Tiptree, I submitted my records to the Essex Wildlife Trust which subsequently led to Brook Meadow being added to the Local Wildlife Site in 2015.

It was against this background that I was excited to receive the email and photographs of a colony of Greater Tongue-orchids growing in the Tiptree area. On our daily dog walks over the next few days Sarah and I covered all the tracks over Brook Meadow looking for any sign of the Tongue Orchids but without success. At the time, I was teaching a couple of days a week at Colchester Sixth Form College and it was there on Thursday 29th July that I received a text from Sarah to say she had

just bumped into a group of highly suspicious looking guys armed with cameras (but no dog!). One of the group was named Sean Cole! He and his friends had found the Tongue Orchids! I can only guess at what Sean and his friends were thinking when disturbed by a local lady walking her dog – or their surprise when she actually knew what a Tongue Orchid was! Between them they were able to tease me with a photo! Needless to say, I was home promptly that day!

The find and the story of the discovery was published in this journal that same year (Cole & Waller, 2017). It transpired the Tongue orchids had been discovered by a James Pickerin who was conducting an ecological survey of the meadow in advance of a planning application. Unsure of what they were, he had posted the photos on a Facebook page. When a storm of interest erupted he quickly took them down again and lay low. I can imagine his employer would not have been best pleased! It must be the most depressing job in the world for an ecologist to sell his soul proving that it is OK to build on a wildlife site! To return to the story, thanks to a bit of sleuthing by Mike Waller the orchids had been rediscovered on 28th June 2017. By this time the flowers were well past their best. Although there were over 60 spikes only a couple of flowers showed any sign of reddish colouration. Everyone was looking forward to the following season and the cat was out of the bag!

Although Brook Meadow is part of a designated Local Wildlife Site and local people have walked there for many years, the meadow is privately owned and the designation does not confer the right of public access nor does it come with any land management obligations. Knowing that the orchids would attract a great deal of interest, and in discussion with Sean, it was decided we would get the land owner's permission to organise some low-key visits rather than leave it to a free for all. Thus we held two successful Saturday visits in the first week of June 2018 and also catered for numerous *ad hoc* requests that enabled over 100 visitors from as far afield as Northumberland, Cheshire, Hampshire and Kent to see and photograph the Tongue orchids. Low key visits have continued each year and details of forthcoming visits will be published in *JHOS*.

The most frequent topic of conversation among those visiting the Tongue Orchids is 'how did they get there?' The colony is some 17 metres from the nearest track in a large area of semi-natural grassland. There is nothing to suggest it was a deliberate introduction. The fact that the species has not spread to other parts of the meadow is evidence that it rarely, if ever, sets seed in Britain. Indeed, of some 500 ovaries inspected since 2017 only one (in 2018) had become swollen with seed (and that despite my early attempts to pollinate artificially).

Fig. 1: The colony put on quite a show in 2021 (photographed on 10^{th} June 2021) Fig. 2: A meadow scene on 1^{st} June 2019.

Photos by Jonathan Greenwood



JOURNAL of the HARDY ORCHID SOCIETY Vol. 19 No.1 (104) Winter 2022

S. lingua, unlike most species of *Serapias*, relies on sexually deceptive pollination, similar to many *Ophrys* species. The flower is apparently self-compatible but not capable of spontaneous autogamy. The most common pollinator is the male small carpenter bee, *Ceratina cucurbitina*, which does not occur in Britain. This bee is lured from a distance by a specific floral scent signature and when closer by the bright red labellum. Studies by Pellegrino *et al.* (2015) on the effects of population structure on pollen flow, clonality rates and reproductive success in fragmented *Serapias lingua* populations, found that fruit set in small populations (of less than 300 spikes) is only about 5% even where pollinators are present. Consequently small populations rely on vegetative reproduction for survival. All this makes it unlikely that the colony in Tiptree resulted from seed blown from locally cultivated plants (were such plants to exist). However, it is possible seed arrived from further afield. In Essex we are familiar with the red Saharan sand that covers our cars from time to time following southerly storms. Maybe the seed arrived with Saharan sand?

A more likely explanation, however, is that the species arrived with strawberry plug plants from Spain. Apparently it was a common practice among strawberry farmers to replace plants with Spanish plugs. If that is the case then it arrived over 25 years ago as the field was last used for strawberries in 1995 and I have photographic evidence the field was sown with a cereal crop in 1996 and 1997. The size of the colony suggests that vegetative expansion has been continuing for many years. However, although the trend has been upwards, the number of flower spikes fluctuates up and down from season to season. Flowering spike counts for the years 2017 to 2021 are 65, 36, 20 and 105. 2020 was a particularly bad year; early signs were encouraging with 47 buds counted on 27th May but the prolonged dry weather meant there was no moisture to facilitate stem elongation and then the plants began to die off. In the end only 20 spikes produced flowers and of these only two (aided by regular watering!) got beyond two flowers. In complete contrast, 2021 produced the best display we've seen yet, with over 100 flowering spikes. In a good year the tallest spikes sport seven or eight flowers. Assuming the orchids did arrive with strawberry plants, the Tiptree Tongue Orchids have also survived ploughing on at least two occasions during the years of barley cultivation and the rosettes, which appear in October, have survived periods under snow and temperatures down to -9°C!

Fig. 3: The only swollen ovary on a plant in 2018 indicates the fortuitous pollination by some random visiting insect.

Fig. 4: Serapias lingua photographed on 10th June 2021

Fig. 5: This plant, photographed on 2nd June 2018, is the subject of the beautiful illustration by Sarah Stribbling in *Britain's Orchids* by Sean Cole & Mike Waller. Fig. 6: *Serapias lingua* photographed on 5th June 2021.

Photos by Jonathan Greenwood



So what is the future for Brook Meadow and its Tongue Orchids? The meadow is still under threat of development and we are fighting a planning application as I write this. It is generally recognised that Tiptree is very short of wide open space and the emerging Tiptree Neighbourhood Plan seeks to protect our Local Wildlife Sites and ultimately to establish some sort of country park. Essex is not renowned for its orchids! The one exception is the small area of chalk in the Grays/East Tilbury area. Beyond that area, Brook Meadow is the site that has the highest number of orchid species. Properly managed it could be covered with seven species of orchid, including thousands of Green-winged Orchids. The ongoing management of the meadow is precarious. The local dog walkers, and others whom we meet and talk to, have taken a keen interest in the meadow and its orchids. The community turned out in force to prevent a tractor and plough that turned up one Friday evening last year from doing its worst. On expressing our concern to Kler Group we were told it was in preparation for a non-invasive geophysical survey! Hardly non-invasive! Not to mention that, in fact, the survey had already taken place! We cannot be certain that the meadow will be mowed annually in the future. Possibly in a deliberate move, it was not mowed in 2019. Even if it is mowed, the current management regime whilst preserving the orchids is not ideal as the cuttings are not removed and the grass is vigorous and too long in some seasons. Also Dwarf Willow is invading the grassland and though cut, grows back more strongly each year. In 2017/18 the willow was weed-wiped which succeeded in holding it back for a couple of years but the timing of the action also reduced the species mix in the meadow including the demise of all the Common-spotted Orchids.

That the Tongue Orchids are concentrated in a single colony also increases their vulnerability. Unwanted attention in connection with anti-social behaviour or developers who see its existence as a threat to their plans aside, even well intentioned botanists inevitably leave their mark in the form of obvious pathways to the site and compacted ground all around the colony. Because of these threats I feel the plants need a bit of a helping hand! This year I perfected my hand pollination techniques which resulted in five swollen ovaries bearing seed. It came as a bit of a blow in July to find that one of the tallest spikes with two successfully pollinated flowers had been dug up and removed by a not so well intentioned botanist! Nevertheless Tiptree Tongue Orchid Seed is now in the capable hands of John Haggar and Neil Evans. Maybe in the future we will be able to create one or two additional colonies,

Fig. 7: This plant was photographed at Wakehurst Place on 26th May 2015. Compared to the Tiptree plants there are a number of subtle differences.

Fig. 8: A dissected flower. Hand pollination requires that one or both of the pollinia are extracted from the capsule of one flower and then transferred, by a fine paint brush, to the stigma of another.

Photos by Jonathan Greenwood



One of two Pollinia descended from the Capsule (Massulae evident)

- Callus

-Labellum

Barrier

Capsule

Stigma

8

elsewhere on the site and away from all the attention. We will at least have a few plants in reserve. It would be interesting to do some DNA analysis and ascertain their provenance – assuming, that is, that comparative data exists (which I'm reliably informed is not the case!). I have, however, noticed that our plants are subtly different from those at Wakehurst Place, which originated from Crete.



Fig. 9: A winter rosette, 27th January 2020. Photo by Jonathan Greenwood

In April this year it was announced that S. lingua has been added to the GB Red list (category: critically endangered) (Leach, 2021). To me this is both surprising and pleasing. Surprising in that the inability of the species to set seed due to the lack of a pollinator must surely limit the ability of this species to disperse beyond its current location within Brook Meadow, let alone further afield. However, on the plus side the species has demonstrated its ability to survive and reproduce (albeit vegetatively) over at least 25 years in an English setting and the listing is pleasing in that it will afford extra protection to both the plant and the meadow in our battle to preserve this valuable habitat.

Ultimately the only way the future of the meadow can be assured is to purchase it. The desire is to ensure that Brook Meadow is properly managed to ensure the long term survival and indeed increase of the orchids on the site and also to provide the open space the village so badly requires. There is a lot of support for such a move within the village community and Tiptree Parish Council would be supportive of this approach. Let's hope the meadow and its orchids will survive to be enjoyed by many visitors, both local and from further afield and for many years to come.

References

- Cole, S. & Waller, M. (2017) A Discovery of *Serapias lingua* in Essex. *Journal of the Hardy Orchid Society* **14**:138-140.
- Pellegrino, G., Bellusci, F. & Palermo, A.M. (2015) Effects of population structure on pollen flow, clonality rates and reproductive success in fragmented *Serapias lingua* populations. *BMC Plant Biol* 15: 222-233 [https://doi.org/10.1186/ s12870-015-0600-8].
- Leach, S. J. (2021) Vascular plant Red Data List for Great Britain: a summary of amendments in years 14 and 15 (2019-20) of the annual amendments process. *BSBI News* 147:27-36.

The Broader Benefits of a HOS Site Visit Sue Parker

To finally be able to show our members the Welsh Irish Lady's-tresses in late July was such a pleasure. The amazement and delight of several casual walkers at being shown one of the rarest orchids in the UK, here in Wales, was even more fun; especially as many who live very close to Dyfi NNR, which is fabled for its orchid populations, appeared not to know that orchids could even grow in the UK let alone almost on their doorsteps. Together with Natural Resources Wales (NRW) we had set aside two days (a Friday and the following Monday) for scheduled visitors and HOS had a further day over the weekend when we accompanied a disabled member to the site.



Fig. 1: HOS members enjoying Irish Lady's-tresses in Wales.

Photo by Sue Parker

Covid notwithstanding, this visit was always going to be tricky to manage. Once people have parked on the site the orchids are very accessible, especially if there has been no rain in the days preceding the visit. Otherwise, the rain would put the bog into Borth Bog! We had no rain for days and were blessed with warm sunny weather – a bit too warm for those of us who were 'on duty' to help park and show members the site. The problem is the access to the very small car park, which is along a single-track rough road with no passing places. Parking on the main road on either side of the entrance to the site is forbidden and so we solved the problems by

running a strict timetable for access to and exit from the site, so as not to overload the car park. Gridlock on the track and in the car park would have been inevitable if the number of visitors who turned up had simply tried to drive onto the site without any knowledge of how many cars were already parked there. It could easily have descended into a series of 'thistles at dawn' confrontations. Covid was manageable, the weather was obliging, and our members (well, most of them!) behaved admirably. Even more important was the fact that the orchids delivered too. With well over 30 plants appearing this year, even the efforts of the slugs who had eaten some of the plants could not spoil the mesmerising sight of this rare orchid growing in a place (a country even!) where it had never been recorded before.

For those not familiar with the story of this amazing orchid event, it was during a last-minute pre-holiday check of grazing animals that Justin Lyons, the Reserve Manager, literally stumbled across the Irish Lady's-tresses on a section of the nature reserve generally ignored by visitors to the site. He knew immediately that this was not an outpost of the small colony of Autumn Lady's-tresses, *Spiranthes spiralis*, that grow in the sand-dune section of the NNR at Ynyslas, some two kilometres away. These plants were so much larger and more robust than the orchids at Ynyslas, which are truly minute. Dashing back to his office, Justin consulted his field guide and was convinced that, no matter how unlikely, he had found Irish Lady's-tresses, *Spiranthes romanzoffiana*. This was soon confirmed by Arthur Chater, one of Wales's top botanists, who abandoned a planned trip to another site and instead hastened to the Bog to see the new orchids.

As always with this most enigmatic of UK orchids, theories abound as to how and how long ago these orchids had colonised the site at Borth Bog. NRW are hoping to carry out studies to see which of the other UK plants the Wales plants are most closely related to, and I hope that amongst other things we will be able to write more about the marvellous, mysterious miracle that has occurred here in Wales.

Planning is well advanced for the visit for 2022, and those who have not already signed up should contact me as soon as possible so that we can get the organisation underway. I think there will be enough members who have visited the site to confirm the logistical difficulties that necessitate the event being somewhat regimented. We realise how frustrating it is to have driven for many hours to get to Borth and then have to hang around in a layby until your allotted time arrives to access the site but the restraint and patience of members helped us considerably to make the 2021 visit a success.

Figs. 2-5: Irish Lady's-tresses, Spiranthes romanzoffiana, at Borth Bog, Wales.

Photos by Sue Parker



The benefits of this visit were many and widespread. HOS members got to see and enjoy a rare species of orchid, more local people became aware of the existence and value of their nature reserves and the Environment Agency's knowledge of the distribution of the orchids has been augmented thanks to the many more eyes involved in the site search. Our reward for several hot, dusty and horse-fly-ridden days on the side of the road, in the car park and out in the field, was surely seeing the joy and amazement of our members, who came to stand and stare at those magnificent Welsh Irish Lady's-tresses.

Field Trips – Back to the Future Richard Kulczycki

After Covid caused the complete abandonment of the 2020 trip calendar, it was a relief to be able to run a nearly full programme this summer. And the sun shone on all the trips. I was lucky enough to attend several trips and have a few personal memories to look back on. My water bottle has a huge dent from breaking my fall on Hutton Roof, my field guide is battered after being lost in the dunes at Sandscale (thanks to the member who found it and hid it in the car park) and my boots have never looked the same after we were rescuing each other in the New Forest bogs. I should say all this was self-inflicted and a wiser head would have been more careful. I was surprised to discover how many different natural history and environmental interests our members have, how much natural history expertise there is in the Society and how many different organisations we belong to. Many members participate in a lot of different survey work. The ones I remember include plants, bats, butterflies, moths, insects in general, snails and deer – plus orchids, of course. The enthusiasm of our trip leaders was infectious.

The long winter meant that orchid flowering times were pushed back. However, all but one of the trips ran on the scheduled date. Generally, the trips would start with the leaders apologising for the lack of orchids due to the late season. However, many sharp eyes are better than a single pair and we were soon finding plenty of orchids on all the trips – sometimes to the evident relief of the trip leaders. The planned season started rather unfortunately as the Kent trip had to be cancelled. Apologies to those booked. The limited car parking required car sharing between locations and the government was still advising against this. I guess we could have said looking for orchids was a form of eye test!

The season proper started at **Sheepleas**, on the crest of the North Downs in Surrey, at the end of May. The trip was enthusiastically led by Gillian and Ken Elsom. Gillian writes: "There were 13 members on the trip including several new members. The weather was dry and sunny and went up to 21°C in afternoon but this was preceded by a cold spring and wet May so the orchids were late, probably about two weeks delayed in development from what would normally be seen. We ended up walking

about four miles through all parts of the reserve and we spent over four hours there. We saw all the target species, although some were still in bud. There was much other interest, including rare bracket fungi, flowers, old charcoal workings, butterflies and Adder's Tongue Fern. The only notable mishap was meeting a group of dog walkers with Great Danes off the lead which went straight through the Bird's-nest Orchids we were about to show the group and decapitated all three of them!" We saw some excellent Fly Orchids and, after being promised a handful, we were soon finding Bird's-nest Orchid in numbers in several parts of the reserve. One member had hiked several miles from the nearest train station to join the group – that's dedication. Let's hope we can car share next year and maybe offer lifts to members without cars.

Two days later, we were meeting in the East Midlands. This was led by Brian Hodgkin, assisted by Judy and John Kingston, and Jean Stowe. The main site was **Barnack Hills and Holes**, after which we went on to **Swaddywell Pit** and **Bedford Purlieus**. Brain Hodgkin writes: "A group of 15 intrepid members met at Barnack determined to make the best of a late May Bank Holiday walk. Barnack is most famous for the large numbers of Pasqueflowers there. We were a little late for the main flowering season but soon encountered good numbers of flowering and seeding plants. The site is also home to a large colony of Man Orchids (hundreds of spikes in a good year) which were the main reason for our visit. With patience we managed to locate a number of specimens but most were fairly small and hard to spot. The only other orchid species we found in numbers at the site were Early-purple Orchids. These were still present in good numbers and in a variety of pink and purple colour shades. We were unfortunately unable to locate any Twayblades, Bee Orchids or the Chalk



Fig.1: *Ophrys insectifera* Photo by Steve Pickersgill

Fragrant-orchids which we had hoped for. We were able to see much larger Man Orchids at Swaddywell Pit, as well as a couple of flowering plants of Early Marsh-orchid ssp. incarnata. Other Dactylorhiza, Bee Orchids and Pyramidal Orchids were seen but were still in bud. At Bedford Purlieus we were entertained by 100-or-so Fly Orchids in good condition. Many pictures were taken. We had also hoped to see Bird's-nest Orchid at this site but 2021's fickle weather kept them underground." Swaddywell Pit is a great little reserve very well-maintained by the Langdyke Trust, almost exclusively by volunteers. I would like to hope the imminent HOS Conservation Award will offer a little help to others developing local reserves like this in the future.

During these two trips we still fully respected social distancing. As the season moved on, the government were relaxing the recommendations. On the 12th June we had two field trips in different parts of the country. We had a trip to the Bedfordshire Chilterns, led by Geraldine and Richard Hogg who, as in previous years, had scouted the sites extensively prior to our trip. They write: "On a beautiful sunny day three sites were explored starting with Cowslip Meadow (CWS), Luton, a large area of wet spring-fed grassland adjacent to the A6. 'The Scrape' near the A6 has been very wet this year, but produced reasonable numbers of Common Spotted-orchids, Southern Marsh-orchids, and their hybrids. One Southern Marsh-orchid plant showed flowers with no markings. The second site visited was **Barton Hills** NNR, maintained by Natural England. This is a large area of chalk downland, with an old quarry area located to the north of the reserve, which is the best place to see numerous orchids and other wild-flowers. Large numbers of Common Spotted-orchids, Chalk Fragrantorchids, and Common Twayblades were flowering, with Pyramidal Orchids only just beginning to open. Four Common Spotted-orchids of the variety rhodochila were seen, each with purplish leaves. A particularly well-marked Common Spotted-orchid was seen which was being explored by a Red-tailed Bumblebee (*Bombus lapidarius*). It stayed on the flower for a number of minutes whilst everyone took pictures of it.



Fig. 2: *Dactylorhiza fuchsii* var. *rhodochila* at Barton Hills NNR. Fig. 3: *Dactylorhiza fuchsii* var. *rhodochila* at Totternhoe Nature Reserve.

Photos by Richard Hogg (Fig. 2) and Geraldine Hogg (Fig. 3)

JOURNAL of the HARDY ORCHID SOCIETY Vol. 19 No.1 (104) Winter 2022

In the afternoon **Totternhoe Nature Reserve** (BCN Wildlife Trust) was visited. This is an old chalk quarry where many orchids were in evidence, including Common Spotted-orchids, Bee Orchids, Pyramidal Orchids, Common Twayblades and Man Orchids. The latter were flowering extremely well this year. One Common Spotted-orchid of the variety *rhodochila* was found on one of the slopes. This was completely different from the Barton varieties. Only two Bee Orchids were seen in flower, and a single Musk Orchid, in bud, was found." It was extraordinary to see this many *rhodochila* plants.

The season was now in full swing. On the 12th June, we were also searching for orchids on the commons around Stroud. We were guided by Colin and Angela Scrutton and Nigel and Maureen Denman, helped by members who did some



Fig.4: Ophrys apifera var. bicolor

Photos by Steve Pickersgill

reconnaissance and shared some tips. Colin writes: "Twelve members joined us in hot sunshine on Minchinhampton Common. At one time, we wondered if there would be much to show them! However, although flowering was nowhere near as prolific as it had been two years ago, we not only found expected orchids but others not seen previously. Among the Bee Orchids, there were at least a couple of var. *bicolor* present as well as var. *flavescens*, the latter not seen in 2019. One member who lived locally was able to show us a new Lizard Orchid spike, whilst the original specimen had not flowered this year. There were also scattered Chalk Fragrant-orchids, Twayblades and Common Spotted-orchids present.

Moving to **Rodborough Common**, Chalk Fragrant-orchids freshly open were widely scattered with occasional Bee Orchids. Among the latter, Nigel had recently found a small group of var. *trollii*, not far from the Denman's house where the group was invited to enjoy their lunch. After lunch, we moved across to **Selsley Common**, where on the steep south-facing slope Bee Orchids, Fly Orchids and the Fly × Bee Orchid hybrid were in flower. The spikes were in good condition although not as robust as two years ago. In the end, the group thoroughly enjoyed the meeting, with the variety of orchids seen, if not the numbers, exceeding 2019."

On the 19th June, 14 of us met in the New Forest. We were led by Christine and David Hughes. This time they were immediately able to assure we would see our target species, as this trip had been postponed by two weeks. Several years had passed since they had last taken us to the bogs around **Wootton Bridge**. The bogs did not disappoint

JOURNAL of the HARDY ORCHID SOCIETY Vol. 19 No.1 (104) Winter 2022

and we were soon helping each other navigate through them – occasionally someone would need to be pulled out. David writes: "This area has widespread acid bog and several areas where we saw *Dactylorhiza incarnata* ssp. *pulchella* in good numbers. These are always scattered so taking a group photograph is a challenge. Here, as in each location, there were good numbers of *Dactylorhiza maculata*. Walking on a mile or so along a typical forest stream we came to an area of patchy bog at **Boundway**. Here tussocks of sedge decorated with *Drosera rotundifolia* and *Drosera anglica* (Sundews), together with *Pinguicula lusitanica* stand out of bare wet peat. On the tussocks are *Platanthera bifolia* and *Gymnadenia borealis*, reflecting the acid nature



of the habitat. There were also *Neottia ovata* and, in bud and to be enjoyed two weeks later, *Epipactis palustris*. In a small grove of Alder there were *Dactylorhiza praetermissa* and graded hybrids with *D. maculata*."

We were then taken to a third site near Holmsley to see Lesser Butterfly-orchids. Unfortunately, it appears many plants had disappeared since David's reconnaissance three days before - it appears they may have been pulled up by members of the public seeking to collect bunches of flowers. Or is there another explanation? No trace of the plants, or any holes in the ground, could be seen. The only evidence consisted of David's before and after photographs. Further on we saw good specimens of Early Marsh-orchids and Southern Marsh-orchids. Finally, we were invited by Christine and David for tea (and homemade cake!) and to see their orchid meadow. Additionally, we saw Northern Marsh-orchids in pots, which had arrived in Hampshire with other plants ordered from nurseries in Northern England.

Fig.5: *Ophrys apifera* var. *trollii* at Rodborough Common. Fig.6: Fly × Bee Orchid hybrid at Selsley Common.

Fig. 7: Lesser Butterfly-orchids at Holmsley. Fig. 8: Disappearance of Lesser Butterfly-orchids at Holmsley. Photos by Hilary Pickersgill (Figs. 5 & 6) & David Hughes (Figs. 7 & 8)





Fig. 9: Red Helleborine at Windsor Hill.

Photo by Ian Howarth

The planned trip for the 19th June was to sites around Leeds. We were led by Charlie Philpotts. Charlie writes: "The trip started off at Ledston Luck which was a working colliery site up until the 1980's. Orchids seen were Northern Marsh-orchid, Southern Marsh-orchid. Common Spotted-orchid plus hybrids, Bee Orchid and Pyramidal Orchid. The second site Townclose Hills is a magnesian limestone outcrop where we saw Twayblade, Common Spotted-orchid and Pyramidal Orchid. The last site was Ledsham Bank, a limestone grassland meadow, which had many Common Spotted-orchids, Marsh-orchids, Northern Twayblades, Pyramidal Orchids and a few Fragrantorchids. The dry spell in spring followed by the dry period did affect the number of plants to be seen but it was still a very pleasant day out. There were nine members on the actual day, another two dropped out due to urgent family commitments. One person was new to the HOS and was made welcome by all the others. He also invited me to Bishop Middleham quarry to show me around the site. We did this a while later and saw Darkred Helleborines in full flower and found the site to be stunning." So there can be rewards for being a trip leader!

On the 1st July, we were hosted by the local Wildlife Trust – BBOWT – at **Windsor Hill**, near Princes Risborough. We came to see the Red Helleborine, which has flowered here for many years now. This reserve has heavily restricted access, as it is surrounded by shooting and forestry operations, and the landowner contractually enforces these restrictions. Any breaches become a very unwelcome management level issue for the Wildlife Trust. Chris Trew, a HOS member and the reserve warden, welcomed us enthusiastically and talked all day about the history and management of these rare orchids. This was one of the "special" trips this year. They were "special" as each had special registration and organisation arrangements. Members were grateful for this opportunity and we organised three separate groups on the day. BBOWT, and its staff, have worked very hard to maintain this small population of plants. So far their efforts have been rewarded, but we are all aware that this orchid's future is precarious in the UK.

We were in Hampshire again on the 3rd July. Jane and Peter Vaughan took us to the marshes at Greywell Moors. While small, this reserve has a long history of botanical interest and exploration, including being explicitly cited by famous botanists for its Marsh Fragrant-orchid population. Jane and Peter write: "Eight of us met at Greywell Moors in north-east Hampshire to visit a restricted-access area of this Hampshire Wildlife Trust SSSI, fen meadow nature reserve. There were hundreds of *Epipactis palustris* in flower, which occurs here in both its standard and var. *ochroleuca* forms, of which we saw many excellent examples. There were scores of the other highlight, Gymnadenia densiflora, present, although due to the poor weather earlier in the season their flower buds were only just starting to open. We also saw many Dactylorhiza praetermissa and what appeared to be hybrids of this with other species, numerous Neottia ovata, a few Anacamptis pyramidalis and a single Dactylorhiza fuchsii, pure forms of which are rare at Greywell. The final orchid species was a single specimen of the site's Ophrys apifera var. belgarum population, albeit with faded flowers. This was growing in a damp area near to Bog Pimpernel (Anagallis tenella). We then drove two miles to visit another, very different habitat, Hampshire Wildlife Trust's Bartley Heath Reserve. This humid heathland SSSI was home to a range of rare plants and enabled us to see an eighth orchid species, Dactylorhiza maculata, several hundred of which were flowering."

The next weekend (10th and 11th July) we were in Cumbria for two trips – one in sand dunes, one on limestone pavement – seeking out some very habitat-specific helleborines. See Alan Gendle's separate trip report on page 12. Additionally, we had trips organised by Sue Parker to see the Irish Lady's-tresses at **Borth** with very complicated logistics and Jonathan Greenwood showed many members round the Greater Tongue-orchids in **Essex**. These sites and trips are detailed in separate articles.

The 2021 field trip programme included over 205 "member days". We saw at least 29 orchid species, plus many hybrids and varieties. We collected about £560 in donations for the smaller organisations hosting us – thank you to the members contributing, some extremely generously. On two occasions we were hosted by reserve wardens – in both these cases we have been invited back in 2022. Thank you so much to all our leaders and all members who helped in any way. This was a really big volunteer effort. In the future, we would like more trips, especially in areas such as Kent, the West, Wales, the Welsh borders, Northern England and Scotland. Some of our younger members do not have cars, so offering car sharing or to pick someone up from a rail station may well help another member attend and will reduce our environmental impact. If you can run a trip, I would love to hear from you.

