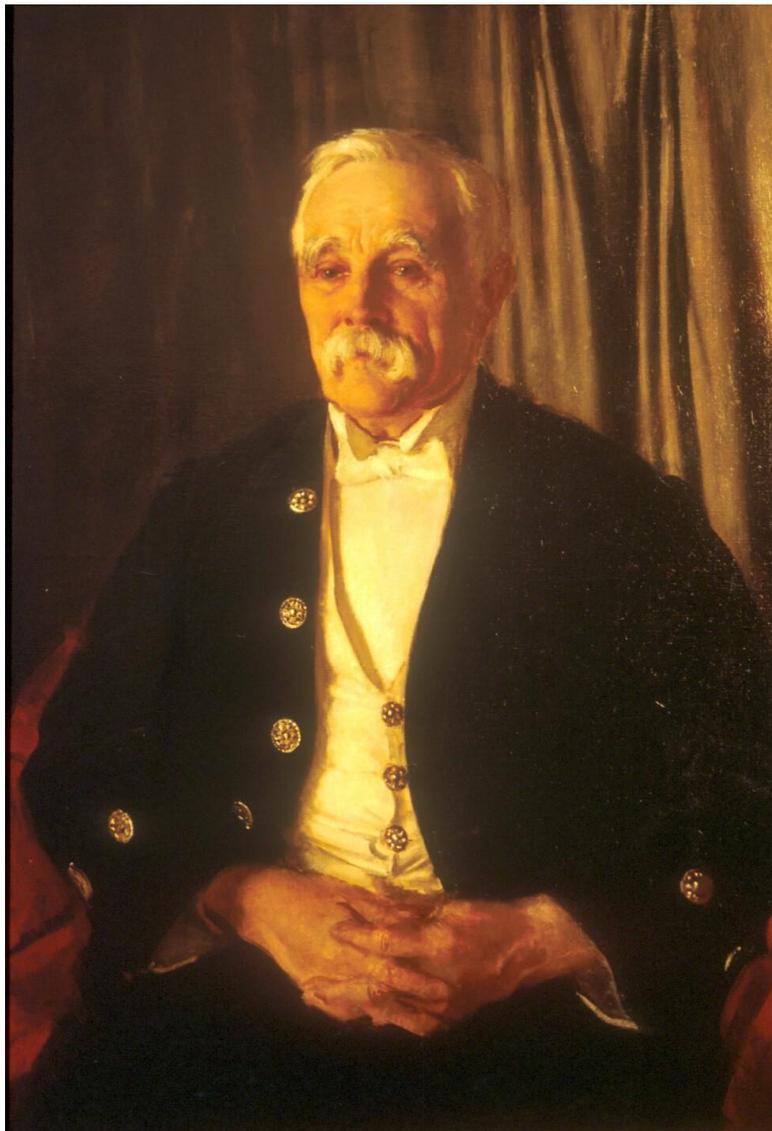


**THE MEMORIAL DAY**

**HELD FOR**

**GEORGE CLARIDGE DRUCE**

**18th May 1996**



This booklet was produced by the Ashmolean Natural History Society of Oxfordshire and edited by Frances Watkins and Serena Marner.

We would like to thank the Head of the Department of Plant Sciences of the University of Oxford for kindly giving us permission to use the photograph on the cover of this booklet.

We are also grateful to the Department of Plant Sciences, Magdalen College and the University of Oxford Botanic Garden for their hospitality on the Memorial Day.

Further information and copies of this booklet may be obtained from Dr. C. R. Lambrick, Picketts Heath, Ridgeway, Boars Hill, Oxford, OX1 5EZ.



## SUMMARY OF THE DAY'S EVENTS

The George Claridge Druce Memorial Day was held in Oxford on Saturday, 18th May 1996 to celebrate the life of a distinguished field botanist and Fellow of the Royal Society, and to mark the official unveiling of a new headstone in Holywell Cemetery. The original monument was lost in the 1970s leaving the former Oxford Mayor's grave unmarked. The new stone was purchased by The Botanical Society of The British Isles (BSBI), the cost of erection was met by subscription and the day was jointly organised by the Ashmolean Natural History Society of Oxfordshire, the University of Oxford Plant Sciences Department and Oxford University Botanic Garden.

The day began in the Plant Sciences Department, where Druce artefacts were on display in the Fielding-Druce Herbarium (see page 11). This was followed by lunch during which Camilla Lambrick, President of the Ashmolean Natural History Society of Oxfordshire, welcomed everyone to the event and Franklyn Perring proposed the toast "Floreat Flora", the significance of which he promised would become apparent later.

After lunch the gathering repaired to the lecture theatre where Stephen Harris, Curator of Oxford University Herbaria, gave a welcome on behalf of the Department of Plant Sciences. Dr Lambrick thanked the department for the use of its facilities, which she felt appropriate since it was a major beneficiary of Druce's bequest. She then introduced Serena Marnier, Manager of The Fielding-Druce Herbarium and Honorary Librarian of the Ashmolean Natural History Society of Oxfordshire to lecture on this "lover of plants, mover of people" and his connection with the Society (see page 3).

Dr Lambrick then introduced the key speaker, historian of science, David Allen, to speak on Druce and the biodiversity of the British flora, (see page 5).

The assembly was then led via Mansfield Road and Jowett Walk to Druce's final resting place in Holywell Cemetery. The cemetery is managed by The Friends of Holywell Cemetery with wildlife conservation advice from BBONT. Amongst the vetches, crane's-bill, grass and daisies are the graves of several other Oxford notables, including the author of *Wind in the Willows*, Kenneth Grahame. Druce's mother, Jane, is also buried here. Druce's grave is in a tranquil spot at the back of the cemetery, close to the enclosing wall and trees which provide afternoon shade. On either side of the gravestone *Geranium x oxonianum* 'Claridge Druce', provided by the Oxford University Botanic Garden, has been planted.

The company gathered around the grave in light drizzle to hear David Pearman, the President of the BSBI, and Sylvia Chandler, the granddaughter of a cousin of Druce. Sylvia Chandler recalled how she learnt of her family connection and followed in Druce's footsteps (see page 18). Making the unveiling speech, David Pearman said he found it difficult to believe he was standing by the grave of a man who had inspired him in his formative years. He recalled collecting Floras, following Druce's tours through the Botanical Exchange Club and yearning to be a botanist who had "seen everything; every variety". He expressed his enormous pleasure in unveiling the stone

and thanked all those involved in organising the day and the erection of the headstone. He then removed the cloth.

The stone, fashioned from Jurassic limestone from Druce's native Northamptonshire, bore the inscription:

George Claridge Druce

1850 -1932

Floreat Flora

The Sherardian Professor of Botany, Hugh Dickinson, guided the group through Magdalen College where Druce was an honorary fellow. This included a view of the deer park, the fritillaries, the quadrangle and the interior of the chapel.

The programme of events concluded in the conservatory of the University Botanic Garden where tea was kindly served by the Horti Praefectus, Timothy Walker. This provided an opportunity for conversation and inspection of the gardens. Prints of the painting *Geranium x oxonianum* 'Claridge Druce' by Rosemary Wise were on sale to raise funds for The Friends of The Botanic Garden.

Christopher Hoskin

## **DRUCE AND THE ASHMOLEAN NATURAL HISTORY SOCIETY OF OXFORDSHIRE**

George Claridge Druce was born in 1850 and died in 1932. Pharmacy was his business and he owned a Chemist shop in The High in Oxford from 1879. BSBI members will be aware of Druce's contribution to their Society as Secretary of the Botanical Exchange Club from 1904 until his death, and that he changed the name of the Society a few years later (not without some opposition) to the Botanical Society and Exchange Club of the British Isles. He also produced a number of excellent local county floras including the Floras of Oxfordshire and his native Northamptonshire, as well as the Floras of Berkshire and Buckinghamshire.

However, many people may not be aware of Druce's contribution to those interested in natural history at a very much more local level, on which indeed he spent quite considerable time. Druce was one of the founders of our present day *Ashmolean Natural History Society of Oxfordshire*. In 1880 he teamed up with Professor Lawson, the Sherardian Professor of Botany at the University at that time, and placed a notice in the local papers. The notice invited interested people to a preliminary meeting of the 'Oxfordshire Natural History Society and Field Club' and Druce signed himself *Secretary pro tern*. The initial meeting, with a view to forming the Society, took place in the Lecture Room at the Oxford Botanic Garden on May 27th 1880, almost exactly 116 years ago to the day of this memorial meeting. The meeting of the Oxfordshire Natural History Society and Field Club was successful, the Society was thus formed and Druce became its Honorary Secretary. He wrote up full reports of all the meetings from 1880 to 1883 and these appeared in the Oxford Newspapers. Originally the Society had five presidents of five different sections and thirty-four ordinary members. (The sections were Entomology, Botany, Bryology, Ornithology, and Geology). During these early years, Druce found himself running the Society single handed. He dealt with all the correspondence, organised lectures, brought or obtained exhibits for the meetings, and wrote the minutes and reports. He also found himself having to encourage people to take an interest in the Society. Professor Lawson had left Oxford by 1882 and some of the other founder members were not able to spare much time to help. This was also at a time when Druce was working extremely hard on his forthcoming *Flora of Oxfordshire* (published in 1886), which meant he was spending time in the field and working in the herbarium. As a consequence of the lack of support by his colleagues and the decreasing time he was able to spend on Society business, the Society went into a somewhat dormant phase for four years from 1883. However, the Oxfordshire Natural History Society and Field Club was revived in 1887 thanks to the indirect influence of Queen Victoria! 1887 was the Queen's Golden Jubilee Year, and this possibly led some of the original members to arrange a commemorative meeting in honour of the Queen. The revival meeting was held on the Queen's birthday - May 24th (almost another anniversary of the event today). On this occasion a proper committee was formed.

Druce was elected President of the Society four times (1895-1897, 1905-1906, 1915-1916, 1928-1929) and was Treasurer from 1880 until he died in 1932, with the exception of two years. He was relieved of his secretarial duties from 1887 but he wrote all the annual sectional reports of Field Botany in the Proceedings of the Society; also a number of botanical papers in the same journal.

1901 was a memorable year for Druce and for the Society. During this year Druce held office as the Mayor of Oxford and yet he still found time to give a lecture to members on *A Journey to North Africa*, probably the only lecture to be given to the Society by a serving Mayor. 1901 also saw the amalgamation of the former Ashmolean Society (founded in 1828) and the Oxfordshire Natural History Society (founded by Druce and Professor Lawson), hence its current name. To seal this union, Druce entertained all the members on July 8th 1901 at the Oxford Town Hall to 'The Mayor's Conversazione'. He incurred much expense during the year putting on receptions and was very generous to the City of Oxford. With the death of Queen Victoria, he had to announce the accession of King Edward VII and travel to St. James' Palace with eight members of the Corporation to convey the congratulations of the City of Oxford to His Majesty.

Also in 1901, Druce secured a plot of land for the Society of botanical and zoological interest named 'The Ruskin Reserve', near Cothill. His friend Henry Willett generously donated the reserve. Druce became one of the trustees of the land with Professor Poulton (Professor of Zoology at the University). In 1903, Druce also bought an additional portion of land adjoining the reserve for the Society. However in 1916 the Ruskin Reserve, near Cothill, was transferred to the ownership of the National Trust. Many field excursions were held there, led by Druce. He indeed led numerous field excursions for the Society.

During his lifetime George Claridge Druce gave 73 lectures to the Society (see page 14 for a list) on a variety of different topics, and the last one at the age of 81, just a few months before he died. In 1883 he gave a lecture entitled *New species and varieties of plants added to the British flora* on which subject the audience will hear more from David Allen. Other lectures Druce gave included those on *Rare Scottish Plants and their Homes*, *The Botanical work of George Don*, *How Plants Spread*, and *Alien Plants - Undesirable and Otherwise*. In the latter half of his life Druce was wealthy enough to travel abroad quite extensively and this enabled him to give many lectures on his travels illustrated with lantern slides. Topics included: *A tour in Spain and Portugal*, *Ceylon*, *Japan*, *The Azores*, *Greece*, *Norway and Holland*, *Algeria*, *Cyprus* and so on. I, myself would have been very interested in some of his lectures, especially those on the *History of Herbaria*, *Oxford Botany and Old Herbals* and *Sibthorp's Journey into Greece and his Flora Graeca*. Druce gave at least one Christmas Lecture each year which was especially for children, including one on 4th January 1904 entitled *Turkey - neither Roast or Boiled (but an account of a visit to Turkey)*. The Society continues the tradition of Christmas Lectures for children to the present day.

To conclude, a few words about the very attractive book-plate designed especially for Druce and presented to him by his friends from the Botanical Society and Exchange Club of the British Isles (see page 12). The book-plate brings together many of the different facets of his life. Included in the design are the arms of the City of Oxford, for which he did so much, and the Arms of Magdalen College, the college which presented him for an honorary MA in 1889. Another feature is the arms of the University of Oxford. Druce was Special Curator of the Fielding Herbarium from 1895 at the old Botany School of the University (the fore-runner to the present Department of Plant Sciences). The Botany School was then situated at the Botanic Garden, and so in the middle of the book-plate is the Danby Gate at the entrance to the

Garden. The Fielding-Druce Herbarium in the Department of Plant Sciences is where Druce's collections are now housed and I feel privileged to take daily care of his Herbarium as Manager of the collection. Amongst others, I am also particularly indebted to Druce for having made a bequest to the University, without which I might not be working in the Department of Plant Sciences today! In the middle of the right-hand side of the book-plate are the arms of the Ashmolean Natural History Society of Oxfordshire. Long may the Society survive in memory of Druce.

Serena K. Marner

## **DRUCE AND THE BIODIVERSITY OF THE BRITISH FLORA**

Though Druce has been much written and talked about, no all-round biographical treatment of him has ever appeared. Ironically, he left a sum in his will specifically for that purpose, even suggesting two alternative possible authors, but the only evidence that this was even embarked upon is a short typescript in one of the thirty-two box-files which now accommodate his voluminous papers. Doubtless the sheer size of that omnium-gatherum (for he seems never to have thrown away the slightest scrap of paper) and its largely unsorted state have permanently deterred any would-be successors.

Any biographer will need to tackle two glaring mysteries. The first is the financial one: how did a man who started out with next to nothing and never owned more than a house and a small chemists' shop come to leave a fortune equivalent to two million pounds at present-day values? We know that he spent very little on high living, his nearest concession to that being the extensive foreign travel he undertook in the years of his retirement. On the other hand he did build up a large and valuable library and a reputedly no less valuable stamp collection; he was a lover of antique silver; and his dividend counterfoils are those of an adventurous investor. Possibly, through his political and freemasonry connections he received some lucrative tips on where to place his money.

The second mystery is the social one: how did a man of his humble background and by occupation a small tradesman come to move so extensively in aristocratic circles? His weakness for lords and ladies was clearly a standing joke among his fellow botanists, to judge from contemporary letters; indeed one or two of the bolder ones even dared to tease him on this score. The best guess is that his involvement in local Liberal Party politics bore him up into more elevated circles nationally, and his charm, enthusiasm, wide reading and wide travel did the rest. He was certainly a person of broad sympathies, ever ready to help those who had suffered misfortunes, and full of encouragement and kindness for young people.

His greatest asset, however, was seemingly unlimited energy. He loved dashing around, and there was a strong streak of impatience in his character. In his scholarly work he tended to be rather slapdash and as a field botanist it is symptomatic that he never set out to master any critical group. He preferred to hurtle along, with only shallow furrows to show for his ploughing. Given that energy, his output was consequently immense. Although best remembered today for his series of massive county Floras and the steadily bulkier annual reports he produced for the Botanical Exchange Club, the huge amount of effort he devoted to studying the University's early herbaria and the several volumes that emerged from that deserve to be celebrated as well. These doubtless played a major part in securing him his Oxford D.Sc., unquestionably his most significant achievement - for while his doctorate from St. Andrews was an honorary one, and his F.R.S. presumably fell into that small category of its fellowships that the Royal Society awards for general services to science rather than for research, that D.Sc. was 'by examination': in other words, submitting published work and being grilled on it in a viva. Probably the only other British amateur naturalist to have risen to such an academic height was the late W.S. Bristowe, who was similarly recognised by Cambridge for his lifelong study of spiders.

Druce's most important and enduring legacy is one he may never have expected. This was his creation of a substantial national botanical society out of a tiny club for the postal exchange of herbarium specimens. Though he accomplished this with a singular degree of high-handedness, largely altering the character of the club without proper reference to its existing members, refusing to operate through committees and using its publications largely as his own personal vehicle, he nevertheless left behind a body that was too big to be disregarded and that filled an obvious gap. If the Botanical Society and Exchange Club had not been invented by him, the BSBI would have had to be built from the ground up.

First and last, Druce was a collector. In that he was no different of course from virtually every other naturalist of his and earlier generations. Although by his time there was no longer the age-old excuse that there were no public collections available for reference, forming one of your own was still accepted as the standard way of going about the study. Collecting of all kinds was in any case warmly smiled upon by nineteenth-century culture. Druce, though, outdid all his contemporaries and predecessors in the very size of the British herbarium that he accumulated, much of it by the acquisition of numerous lesser collections formed by others. He became so proud of it indeed that he very understandably sought to ensure that it was kept together after his death and continued to serve a useful purpose. To that end he bequeathed it to Oxford University, along with his house and library and an endowment for a curator, a student and a fellow, with the express wish that these should constitute an institute for the furtherance of systematic botany. Quite separately he also made the University one of his two residuary legatees (the other was what was then known as the Society for the Promotion of Nature Reserves). It thus benefited from his munificence twice over, though that second and larger tranche came to it only after seven years' delay, while the law courts argued endlessly about the precise intentions of what proved to have been an all-too-Drucean will.

Apart from his sometimes unbridled rapaciousness as a collector, Druce's botanical work had two special characteristics which attracted much criticism. One was his long-standing disagreement with the contemporary international code of nomenclature, resulting in his inflicting on British botany numerous names which no one else accepted as the correct ones. The other was the undue attention people felt he gave to minor variants, especially resuscitating for these many names buried and forgotten in the past literature and in bestowing on many others new names of his own devising. Nineteenth-century botanists, in Britain no less than elsewhere, made a practice of noting variation below the species level and giving this taxonomic recognition, but eventually this was carried to excess and a strong reaction set in. The rise of the new science of genetics exposed many inconsistencies and, later still, systematic breeding experiments showed that much variation was too continuous in character to be sensibly chopped up into discrete, Latin-designated entities. Rather than attempt to cleanse this Augean stable, by sifting the worthwhile from the worthless, professional botanists increasingly preferred to ignore it altogether. Those of them who studied species or genera on a worldwide scale had in any case long since seen their task as far too daunting to warrant their bothering with mere minor variation: that was considered a luxury pardonable in areas like north and central Europe where the potential for further taxonomic study seemed otherwise to have been exhausted. The example of the monographers was presently being followed by writers of national and local Floras too. 'Varieties' (that contemptuous and catch-all term for anything rated less than a species)

were dismissed as mostly at best of questionable worth, and by omitting them, space was conveniently saved and printing costs kept lower. Broadly speaking, that is the attitude that still obtains to this day.

Undoubtedly, much of the old 'variety-mongering' was rather mindless, an excuse by collectors to bump up their scores, a kind of low-level botanical 'twitching'. It was an activity propelled in large part by the mere presence of names in catalogues and other standard books: few people saw it as the study of micro-evolution or tried to defend it as that. And certainly there were aspects to it that always seemed hardly defensible in logic. One was the retention in the literature of names for variants that had been proved experimentally to have no hereditary basis - to be, in other words products of mere environmental conditions (in the technical terminology, 'ecads'). Another was the coining of names for single-character variants of apparently quite random occurrence. The potential number of these, after all, is legion and which of them are so honoured must be a matter of chance. If their distribution has no pattern, how can they tell us anything of interest? And if they are of no interest, why go to the trouble of giving them names?

However, *some* simple-character variants differ from the common run in having distinct ranges. These, surely, *are* worthy of names - for unless they bear a Latin label, they will simply go unrecorded. They may be a colour form which, for some reason we cannot usually guess at, has been successful in spreading across a particular district or region. Thus there is a form of the Gladdon, *Iris foetidissima*, in which the normal livid purple corolla is replaced by one of a lemon-yellow colour with merely purple lines. Named var. *citrina* by Bromfield early last century, it has a marked concentration in the Purbeck district of Dorset, where perhaps it originally arose. A comparable example we owe to Druce himself: a version of the Common Cow-Wheat, *Melampyrum pratense*, with flowers of an intense golden-yellow, his var. *hians* is seemingly confined in these islands to the region of the older rocks in the North and West. In the Lake District, for example, populations of the species are often exclusively of this form.

Such variations in flower colour are not necessarily just local or even regional in their distribution: in some cases they range right across a continent. Wild Radish, *Raphanus raphanistrum*, occurs in four different colour forms, which replace one another from south to north in Europe in a series of broad but overlapping belts. The northernmost of these, with deep golden yellow flowers, which Linnaeus named var. *luteus*, is widespread in the north-west of Scotland and also extends southwards to the Isle of Man (possibly brought there as a weed by the early Viking farmers). In the south of Britain the white and pale yellow forms commonly grow intermingled and there discrimination between these by insect pollinators has recently been found to be extremely marked.

That is a rare case where the selective influence in nature keeping the variation sustained has been able to be identified. Usually one can do no more than speculate why a particular pattern has arisen. Why, for example should the Scarlet Pimpernel, *Anagallis arvensis*, very largely live up to its name in the north and west of Europe but preponderantly produce blue flowers down in the Balkans? That climate must play some part in this is suggested by the fact that the one colour gives way to the other in a very gradual fashion, the proportions of each shifting from one end of the continent to the other. This type of pattern is technically known as a morph-ratio cline. Through the operation of some strong selective factor or factors the proportions of the different forms

are kept in a more or less steady balance. Climatic transitions tend to be gradual, so wherever climate acts as an influence, that balance changes along a geographical gradient.

Two such gradients have recently been shown to exist in Corn Spurrey, *Spergula arvensis*, in what must rank as a model study of its kind. One is in the proportion of plants lacking pimples on the seed-coat, a variant long known as var. *sativa*. The other is in the proportion of plants with a particularly dense clothing of hair. The two appear to be independent genetically. Both increase north-north-westwards and with increasing altitude - and not only in the British Isles, but across Europe as a whole. It is easy to believe that the greater hairiness is an adaptation to a colder and wetter climate, but how to explain the gradient in the character of the seed-coat? Surprisingly, experiments show that var. *sativa* germinates more readily at low temperatures: in some way a smooth seed-coat either has or is linked to a protective advantage under such conditions.

But that is not all that the Corn Spurrey work has brought to light. Much more surprisingly, counts made of the same populations after an interval of twenty years showed that while the seed-coat character had shifted but slightly in its proportions, sizeable changes had taken place in some localities in the proportion of the very hairy plants. In other words, there appears to be a botanical counterpart here to the striking fluctuations from year to year that have been demonstrated to occur in the extent to which particular variants find expression in populations of butterflies. The drastic ups and downs which insect populations undergo have the effect of causing startling instability in the degree to which individual characters are represented. New mutants can emerge and spread through a population as a result with impressive rapidity. For once, we can almost watch evolution taking place in nature before our eyes.

Ratio clines - that is, geographical gradients in the incidence of a particular character - are known to occur in several other British species. The most familiar is the one exhibited by Lords and Ladies, *Arum maculatum*. In the north and west of Britain almost all the plants have unspotted leaves, but as one goes southwards more and more have on them large black blotches (though even as far south as Wiltshire spotted plants constitute no more than about 20%). By contrast, Water Purslane, *Lythrum portula*, has an east-west cline in the length of its calyx segments. This was another variation that Druce was the first to draw attention to in Britain, though the picture he presented of its occurrence was only half-complete and his taxonomic treatment ("var. *dentata*") ill-founded in consequence.

By this point it will have become apparent that single-character variants can occur in all manner of features, by no means just in flower colour. Next in conspicuousness after that is the presence of ray florets in species that are normally rayless. The best-known instance of this is the variety of Groundsel, *Senecio vulgaris*, which we unfortunately have to call var. *hibernicus* even though it has no claim to being specially Irish or even native in that country (the name was coined by Syme when somebody found it on waste ground at Cork). This is known to be the product of a single gene without dominance and there is a school of thought that that gene has been acquired from the closely-related Oxford Ragwort, *Senecio squalidus*, in the course of the crossing that sometimes occurs between these two species. I side with Clive Stace in believing that hypothesis far-fetched, but it is admittedly hard otherwise to explain why this variant has been increasing so markedly in the British Isles in the

past half-century, everywhere as an obvious adventive. The best guess is that it has come from somewhere in the south of Europe and holds some extra attraction for the insects that pollinate Groundsel.

If ray florets do indeed confer some advantage in the competition to be pollinated, then that might explain how the analogous form of Nodding Bur-marigold, *Bidens cernua*, has managed to obtain strong footholds in parts of South Lancashire and Cheshire. In that case, though, why have some species that normally do possess rays given rise to locally successful variants that lack them? Many sand-dune populations of the Common Ragwort, *Senecio jacobaea*, particularly in the Low Countries and in the west of Ireland, are wholly rayless. Any explanation that could work for that could hardly also hold for the rayless variant of Sea Aster, *Aster tripolium*, for the noticeable increase of this latter on many East-Coast saltmarshes in recent years is credibly attributed to its greater ability to withstand submergence by the tides, the spread of *Spartina* having perhaps produced changes in ecology which have provided the necessary opening.

By no means all single-character variants are as conspicuous as these, though. Some indeed are so easily overlooked that up to now they have escaped receiving taxonomic recognition. It was, for example, only when the account of Prickly Sowthistle, *Sonchus asper*, was being prepared for the Biological Flora of the British Isles, that it came to light that there is a variant of that with white fruits instead of the normal brown ones and that this is common in the Orkneys and on the north and west Scottish mainland. With such a regional range it clearly deserves a name.

Unlike the various cases we have been considering so far, there are numerous variants which are obvious adaptations to a particular specialised habitat. Bittersweet, *Solanum dulcamara*, for instance, and Cleavers, *Galium aparine*, both have true-breeding prostrate versions peculiar to shingle beaches; Devil's-bit Scabious, *Succisa pratensis*, and Betony, *Stachys officinalis*, have given rise to genetic dwarfs to cope with windswept cliff-tops; Common Corn-salad, *Valerianella locusta*, and Thale Cress, *Arabidopsis thaliana*, have developed cushion forms to meet the demands of life on sand dunes and limestone pavement respectively - this last is another variant whose discrimination we owe to Druce (he described it as var. *brevicaulis* in 1924). Technically known as 'ecotypes', these tend to be more complex genetically than the single-character variants. At the same time it is unsafe to assume that any variant that looks like a product of a particular habitat is necessarily true-breeding: some species give rise to growth forms that mimic the real thing. Cultivation experiments may be needed to prove that a name is not being borne by an impostor.

There is one case known to me where a single-character variant has achieved a distribution which coincides largely, but not quite wholly, with a particular ecotype. In other words, two separate pieces of genetic equipment are responding to the same environmental selective influence. This is in the Scarlet Pimpernel, *Anagallis arvensis*. This is another species which boasts a maritime ecotype, one with a more condensed, suberect habit. On some dune systems or shingle beaches the populations of this uniformly have the normal scarlet flowers, but in the west of the British Isles a recessive with salmon-pink petals completely prevails. The particular light intensity that characterises the Atlantic fringes has presumably favoured the spread of a sub-albino variant in this as in one or two other species.

This nicely illustrates how minor variants can gradually accumulate more and more differentiation over time to the point where they merit elevation to the higher rank of subspecies. Another example is furnished by Hedge Bindweed, *Calystegia sepium*. This similarly has distinctive western populations, but in addition to the rose-coloured flowers by which these were initially recognised it has lately been found that associated with that character are more acute leaf tips and stems with more pubescence. Unlike many variants which have been promoted from mere varietal status, it seems to me to have been justly described as subsp. *roseata*.

It is not only because of the light that it may be able to shed on the processes of micro-evolution taking place around us that it seems to me that this nether layer in our flora deserves much more study. It can also be helpful to local workers in seeking to decide the status of various species, or in seeking to distinguish between old-established and newly-arrived populations of the same species. The fashion for sowing wildflower seed is making this latter an increasingly necessary exercise, for some of that seed comes from the Near or Middle East and is resulting in the widespread introduction of new alien strains. Conveniently, some of these strains are noticeably distinct in appearance, as British botanists have long known to be the case in some other species with a much lengthier history of mixed status in this country. Hedge Mustard, *Sisymbrium officinale*, Bladder Campion, *Silene vulgaris*, and Creeping Thistle, *Cirsium arvense*, each have named variants which betray what is credibly believed to be a more emphatically adventive presence in this country by some reasonably prominent difference in hairiness.

It would be wrong of me to conclude this piece of advocacy without acknowledging certain major difficulties that at present confront anyone pursuing this line of study. Perhaps the greatest of these is the nomenclatural chaos: there are no indexes of named variants as there are for species; few people have made exhaustive attempts to compile the published synonymy of any; by and large type specimens have never been indicated when new names were coined and it is not at all easy to know where to look for them. Another problem is the lack of agreement about which taxonomic categories are appropriate. While it seems to be generally conceded that a single-character variant is best given the rank of *forma*, some people reserve 'variety' for ecotypes while others prefer to discard that rank altogether and recognise nothing between *a. forma* and a subspecies. A further hindrance is the still limited extent to which the genetic validity of named variants has been tested. There are reports of cultivation experiments scattered through the past literature, but in all too many cases we cannot be sure that these were sufficiently rigorous. The words 'reverted to type' may sometimes have been an over-hasty verdict.

These difficulties however, are not so great that they ought to be allowed to act as total deterrents. Indeed, their existence is no reason why the simple matter of recording variants and working out their local frequencies should not be being pursued. A high proportion of those in the British flora which have so far had a name bestowed on them are featured in Druce's edition of *Hayward's Botanist's Pocket Book*, a work which was still on the shelves of bookshops as recently as the 1950s and which is surely to be found on the shelves of many libraries at the present day. Never before or since have so many of these 'vars' been brought together between two covers. It is one further legacy that Druce has left us for which he has yet

to receive the credit he deserves - and of which we, his successors, have yet to take anything like adequate advantage.

David Allen

## DISPLAY OF DRUCE MATERIAL FROM THE SPECIAL COLLECTIONS OF THE PLANT SCIENCES LIBRARY

Druce books, manuscripts and artefacts were displayed in the Fielding-Druce Herbarium. The display was intended to show some of the many and varied accomplishments of this remarkable man throughout his active life.

The display included Druce's own copies of his *Floras of Oxfordshire* (1st. ed. 1886, 2nd. 1927), *Berkshire* (1879), *Buckinghamshire* (1926) and *Northamptonshire* (1930) and letters (many very strongly worded!) relating to the change of name of *The Botanical Exchange Club*. Druce was a good citizen and newspaper cuttings showed his work as a member of the City Council, Sheriff (1897) and Mayor (1900). Various certificates showed the many honours awarded to him, of which the degrees conferred by the Universities of Oxford (1924) and St. Andrews (1919) and the Fellowship of the Royal Society (1927) were probably the most appreciated.

The large album entitled *My Eightieth Birthday Book* includes postcards, letters and signed photographs from Druce's many friends which were given on his 80th birthday in recognition of his great labours for Botany. It is a fascinating volume which contains greetings from many eminent botanists and botanical institutes world-wide and shows the high regard in which he was held.

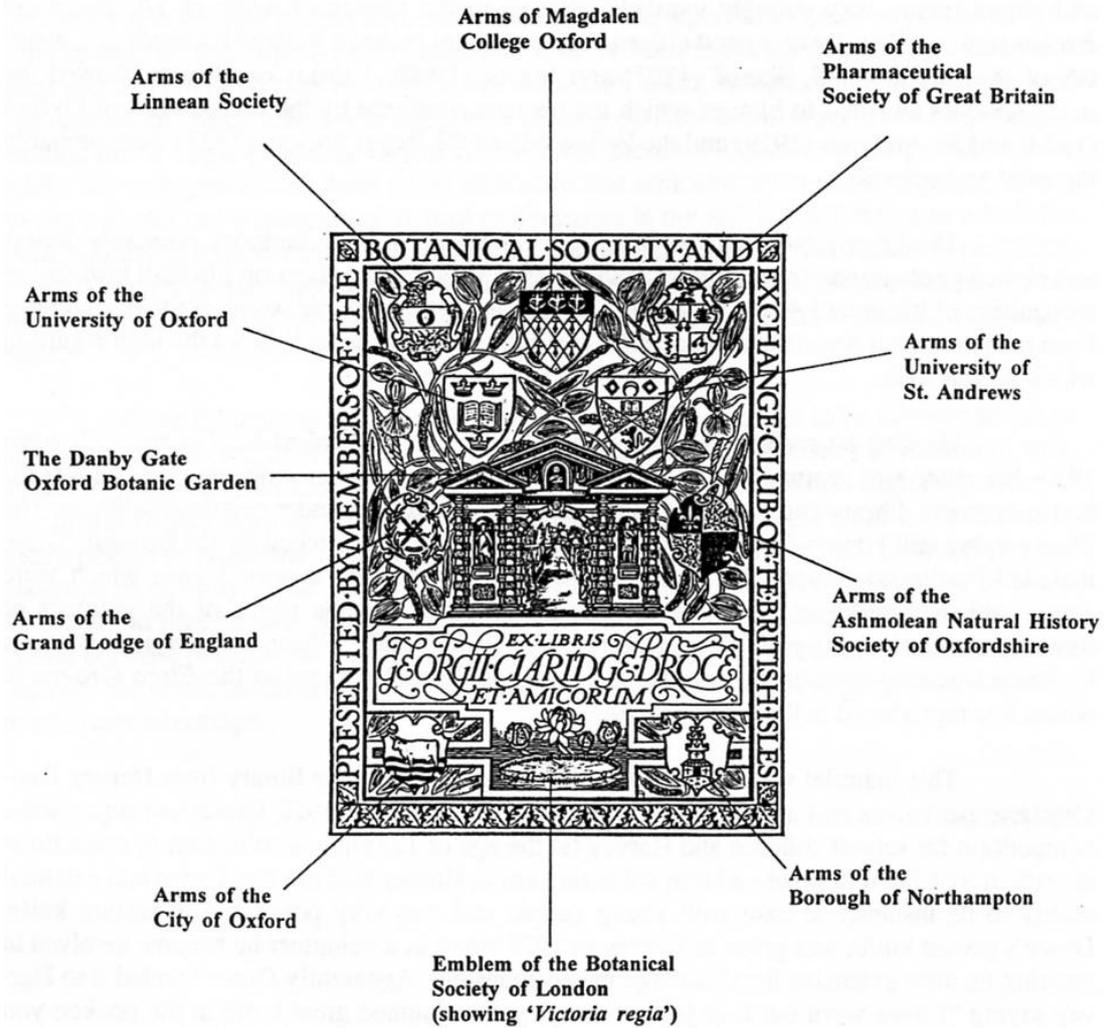
He died a very wealthy man and, according to the *Oxford Mail* of the 15th April 1933, his estate was worth £91,545. A copy of his will was shown indicating that he left his house, herbaria, library and £12,000 to the University of Oxford, under certain conditions. The library today still houses these collections and was very much enriched by the bequest. These included Ferdinand Bauer's 131 numbered drawings of *Mediterranean Scenes* which were never published, although ten were later engraved upon the title pages of the volumes of Sibthorp and Smith's *Flora Graeca*. Number 43, *View of Mount Olympus taken from the road to Brusa* was displayed at the exhibition as well as the 3rd volume of the *Flora Graeca* in which it is reproduced in the frontispiece.

This material was complemented by a recent gift to the library from Harvey Dunkley: two penknives and a hand lens given to him by Druce. In 1922 Druce had organised a competition for school children and Harvey (at the age of 12) made a collection of dried flowers which won the first prize - a large collecting knife. Harvey told me that Druce had a natural ability to be instantly at ease with young people and was very popular. The second knife, Druce's pocket knife, was given to Harvey in 1928 when as a volunteer he became involved in clearing up after extensive flood damage in Liechtenstein. Apparently Druce handed it to Harvey saying "I have worn out four jackets carrying this damned great knife in the pocket; you have it!" Harvey wanted Druce to be remembered for his warmth and humanity.

The last item in the display was a newspaper entry from *Papers by Druce*, no. 9 (p. 2) c1928, held in the library entitled *A plea for the Channel Tunnel* in which he wrote to the *Times* suggesting that it was a suitable time to consider the Channel tunnel scheme. He felt it would help unemployment and increase trade. He was indeed a man of vision!

Anne Marie Townsend

## EXPLANATION OF DRUCE'S BOOKPLATE



The background is illustrated with *Potamogeton drucei* Fryer, a plant discovered by Druce in 1893 (but now known as *P. nodosus*), and *Orchis praetermissa*, a plant originally described by Druce.

Design by Emery Walker

## LIST OF SUBSCRIBERS TO THE COST OF DRUCE'S HEADSTONE

David Allen  
Patrick Boston  
The Botanical Society of the British Isles  
Virginia Clements and Peter Challis  
Sylvia Chandler  
Jack and Peggy Chapman  
Helen Coyte  
Gwynn Ellis  
Richard Fitter  
Peter Gannaway  
Gill Gent  
Alan Hall  
Stephen Harris  
Helen Fortune-Hopkins  
Christopher Hoskin  
Camilla Lambrick  
Shirley Leach  
Janet and Peter Lever  
Alison McDonald  
Serena Marner  
Northamptonshire Flora Group  
Richard Palmer  
David Pearman  
Franklyn Perring  
Roy Perry  
Kitty Southern  
Frances Watkins  
Ruth Wickett  
Robert and Anna Wilson  
Rosemary Wise  
Stan Woodell

The subscription covered the cost of erecting the stone, leaving an excess, which will be put towards further memorials to Druce. These may take the form of more Druce days and the commissioning of a custom-made box to hold his penknives and hand lens.

LECTURES GIVEN BY G.C. DRUCE TO THE ASHMOLEAN NATURAL  
HISTORY SOCIETY OF OXFORDSHIRE

- 1) 1881, June 11 : Occurrence of *Littorella lacustris*
- 2) 1882, Mar 9 : Description and Exhibition of Cincinnati Plants
- 3) 1882, Dec 5 : The Botany of Forfarshire and Notes on the Life of George Don
- 4) 1883, Feb 1 : New species and varieties of plants added to the British Flora.
- 5) 1887, Dec 6 : The Botany of the Cairngorms
- 6) 1888, Feb 28 : Scotch Flowers
- 7) 1888, Nov 27 : Botanical Notes
- 8) 1889, Feb 5 : Tour in Spain (mostly Botanical)
- 9) 1890, Jan 14 : Herbaria, and Reggio's Herbarium
- 10) 1891, March 12 : Botany of the Killarney District
- 11) 1892, Oct 27 : Botanical Notes [About some hybrids and rare plants]
- 12) 1893, Dec 19 : Botany of West Ross
- 13) 1895, Feb 13 : Botanical Expedition in the North of Scotland
- 14) 1896, Jan 29 : Our Forest Trees
- 15) 1896, Nov 4 : Some Botanical Specimens
- 16) 1899, Oct 19 : Natural History of the Long Vacation
- 17) 1900, Jan 1 : Trees (CL)
- 18) 1901, Mar 6 : A Journey to North Africa (while Mayor of Oxford)
- 19) 1902, Jan 8 : A Visit to Algiers (CL)
- 20) 1902, Dec 29 : A Visit to Sicily (CL)
- 21) 1904, Jan 4 : Turkey - neither Roast or Boiled (but an account of a visit to Turkey and Greece (CL)
- 22) 1904, June 8 : Trees
- 23) 1904, Dec 28 : A Tour in Spain and Portugal (CL)
- 24) 1905, Jan 6 : Trees of the Wayside, Mountain and Woodland (CL)

- 25) 1905, Oct 18 : How Plants Spread
- 26) 1905, Dec 30 : Some Christmas and other Fruits (CL)
- 27) 1906, Mar 22 : Botanical Work of George Don
- 28) 1906, Dec 31 : The Hills and Flowers of Scotland (CL)
- 29) 1907, Jan 31 : Search for Rare Plants in the Channel Isles
- 30) 1907, Dec 28 : The Oxford Pageant (CL)
- 31) 1908, Oct 15 : Recent Botanical Work in Britain, and an Account of a visit to Corsica
- 32) 1909, Jan 2 : Ceylon (CL)
- 33) 1909, Oct 14 : Japan
- 34) 1910, Jan 7 : Japan (CL)
- 35) 1911, Jan 9 : Niagara (CL)
- 36) 1911, Oct 17 : The Azores
- 37) 1911, Oct 31 : An Account of the International Botanical Excursion through the British Isles
- 38) 1912, Jan 1 : The West Indies (CL) (Lecture read for Druce by Mr. Leach)
- 39) 1912, Oct 27 : The Flora of Oxfordshire
- 40) 1913, June 3 : The Flora of Oxfordshire (including an interesting account of the origin and history of the Oxford Ragwort)
- 41) 1913, Nov 18 : West Indian Experiences (400th Lecture Meeting)
- 42) 1914, Dec 8 : The Visit of the British Association to Australia
- 43) 1915, Jan 4 : The Panama Canal (CL)
- 44) 1915, Feb 23 : Greece
- 45) 1915, April 27 : The Poisonous Plants of Britain
- 46) 1915, Dec 7 : Rare Scottish Plants and their Homes
- 47) 1916, Jan 7 : Greece and Constantinople (CL)
- 48) 1917, Jan 3 : Old Japan (CL)
- 49) 1917, March 13 : Alien Plants - Undesirable and otherwise

- 50) 1917, Nov 20 : Greece, Turkey, Asia Minor, Crete, Cyprus etc. as illustrated by Ferdinand Bauer's Sepia Drawings made on his journey with Sibthorp in 1790.
- 51) 1917, Dec 31 : Beauty Spots of the World (CL)
- 52) 1918, Nov 26 : The History of Herbaria
- 53) 1918, Jan 8 : Forest Trees (CL)
- 54) 1920, Jan 2 : Algeria, Tunis and Morocco (CL)
- 55) 1920, Dec 28 : A Visit to Czecho-Slovakia (CL)
- 56) 1922, Jan 9 : A Recent Visit to Belgium (CL)
- 57) 1922, Jan 31 : New and Rare Plants to the British Flora
- 58) 1922, May 9 : A Visit to the Shetland Islands
- 59) 1922, Dec 30 : Norway and Holland (CL)
- 60) 1923, March 6 : Ancient Herbaria
- 61) 1923, Nov 29 : Sibthorp's Journey into Greece, and his Flora Graeca
- 62) 1923, Dec 27 : The Oxford Botanic Garden: Its Three Centuries History (CL)
- 63) 1924, Dec 11 : Impressions of Denmark
- 64) 1925, Jan 2 : Shetland (CL)
- 65) 1925, Dec 30 : Jerusalem and Damascus (CL)
- 66) 1926, April 29 : The British Flora, its losses and gains since the Roman Era
- 67) 1927, Jan 5 : Invading Plants and How They Arrive (CL)
- 68) 1927, Nov 10 : A Visit to the Canaries and Azores
- 69) 1927, Dec 28 : Xmas and other Trees (CL)
- 70) 1928, May 31 : Oxford Botany and Old Herbals (Owing to the indisposition of Rev. Moore who was due to lecture, Druce gave this lecture instead)
- 71) 1929, Jan 4 : A Visit to Cyprus (CL)
- 72) 1930, Oct 23 : Cyprus (with lantern slides)
- 73) 1931, Nov 19: Alpine and Other Scottish Plants (628<sup>th</sup> lecture meeting)

CL= Christmas Lecture

Serena Marner

## GEORGE CLARIDGE DRUCE

I first heard of our family connection with George Claridge Druce as a child. My mother was very knowledgeable about wild flowers and she taught me. Once, when I named some (moderately) rare plant she said "Oh that's the Dr. Druce in you" and showed me a faded newspaper cutting which was kept in the yellow box with all the other bits and pieces. The cutting was a report of his death. He was my grandfather's cousin, a Doctor of Science; it all seemed very distant from the rest of us.

I have kept my interest in wild flowers and my other interest is family history. I was a recorder for the new Wiltshire Flora and at one of our annual meetings I met Franklyn Perring who at the time was President of the BSBI. We discovered our common interest in Druce and swapped information, a wonderful mix of botany and genealogy. It was quite a shock to see a photo of George in his doctoral robes; it could have been grandfather Woodward. The genes are strong!

It's strange how events weave a web in our lives, chance meetings and remarks in conversation began to make me feel very close to George. He was friendly with Donald Grose the Wiltshire botanist who lived in Liddington, the next village to Wanborough where I now live. They often botanised together and I checked and double checked my records when I covered the ground they had walked many years before. I'm pleased to report that the yellow vetchling *Lathyrus aphaca* they recorded at Wanborough is still flourishing. The Royal Commission on Historic Monuments is now based in Swindon and when checking some photos of Wanborough church I turned one over to see when it was taken. I couldn't believe my eyes; George was there again. He must have taken the photo from what is now our back garden; I truly walk in his steps.

Having discovered the hardy geranium named after him my husband searched and finally found a plant at a RHS show. We carefully planted and nurtured it - we needn't have bothered - George the geranium is as energetic as George the man! We have to be quite firm with him as he does his best to take over the garden.

I was so sad last summer when I came to Holywell cemetery to find his grave. I couldn't believe that after all he had done in life there was no visible memorial. I am so happy to stand here today by his new headstone and on behalf of the Druces and the Woodwards thank you all. There was an undergraduate saying which went, "if a plant be ne'er so abstruse send it along to Dr Druce". I often wish I could have him botanising with me, but his spirit lives on in amateur and professional alike.

Sylvia K. Chandler

## **ATTENDANCE AT THE MEMORIAL DAY FOR GEORGE CLARIDGE DRUCE**

David Allen, speaker  
Patrick Boston, ANHSO  
Robert Cave, ANHSO  
Peter Challis, ANHSO  
Sylvia and John Chandler, relatives of Druce  
Jack and Peggy Chapman, ANHSO  
Virginia Clements, ANHSO  
Helen Coyte, ANHSO  
Norman and Gillian Cummings, ANHSO  
Prof. Hugh Dickinson, Sherardian Professor of Botany  
Harvey Dunkley, friend of Druce  
R. Gwynn Ellis, BSBI General Secretary  
Richard Fitter, ANHSO  
Peter Gannaway, ANHSO  
Gill Gent, BSBI  
Pauline Goodhind, ANHSO  
Alan Hall, ANHSO  
Stephen Harris, Druce Curator of the Oxford University Herbaria  
Christopher Hoskin, ANHSO  
Caroline Jackson-Houlston, ANHSO  
Shirley Jarman, Secretary ANHSO  
Anthony Jeyes, Godson of Druce and Barbara Jeyes  
Janet Keene, Friends of Holywell Cemetery  
Jean Kenworthy, BBONT  
Rogier de Kok, ANHSO  
Camilla Lambrick, President ANHSO  
Shirley Leach, ANHSO  
Janet and Peter Lever, ANHSO  
Alison McDonald, ANHSO  
Serena Marnier, Manager Fielding-Druce Herbarium  
Elizabeth Moylan  
Tony and Pat Mundell, BBONT  
Alan Newton, BSBI  
Richard Palmer, ANHSO  
David and Mrs Pearman, BSBI  
Franklyn Perring, BSBI  
Roy Perry, BSBI  
Josie Smith, one of the Eynsham Druces  
Kitty Southern, ANHSO  
Anne Marie Townsend, Special Collections Librarian, Plant Sciences Department  
Kathy Warden, ANHSO  
Frances Watkins, ANHSO  
Ruth Wickett, ANHSO  
Robert and Anna Wilson, BSBI Northamptonshire Flora Group  
Rosemary Wise, artist  
Stan Woodell, ANHSO

