Heathers 14

Yearbook of The Heather Society 2017

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ISSN 0440-5757

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Calluna vulgaris bud-flowering (Knospenblüher) clones (see inside back cover).

Heathers **14**: 1– 10

Bulletin - the first 50 years

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In February 1963, about 50 like-minded people met at the RHS Hall, Vincent Square, and, at that historic meeting The Heather Society was born. During its first few years, all the Society's news was circulated via the annual *Yearbook*, with the addition of circulars which were sent to members of the newly forming regional Groups. But, it soon became clear that something more was needed – an informal publication, where questions could be asked and expert answers given, and, importantly, an opportunity for members to communicate and share their own experiences. So, in the spring of 1967, the first *Bulletin* was produced by the Society's enthusiastic Secretary, Constance Macleod. It consisted of four typewritten pages of news, reports, letters, short articles and a "Members' Forum". It was to be a twice-yearly publication.

The new *Bulletin* was a great success and, in *Bulletin* no. 2, published later that year, Constance wrote "We are gratified at the reception given to our first *Bulletin* and suggestions and articles have come pouring in." Ah – those were the days! A visit to Harlow Carr was reported, with 50 people attending. This had been arranged by members of the recently formed Midland and Northern Groups. An "informal conference", which was held in the afternoon, was the brainchild of the Northern Group and was the forerunner to the Society's Annual Conferences and Gatherings. The primary object of that meeting was to collaborate with the Northern Horticultural Society in a project to extend the scope of the heather garden in Harlow Carr.

During 1968 the *Bulletins* increased in frequency to three a year and expanded to eight pages. A Slide Librarian, Hugh C. Prew, had been appointed. The Slide

Library was, and still is, a facility for the use of members who give talks and slide shows though few people use slides these days.

In the Spring 1968 issue there was a heather-themed crossword puzzle, and the first supplementary membership list. Membership was rising so fast at this time that, although a full list of members was printed annually in the *Yearbook*, additional *Bulletin* lists were needed to keep it up to date (almost one hundred new members joined that year). Plants and cuttings were being sought for a heather trial to be set up at Harlow Carr (or Harlow Car, as it was in those days) and, later in the year, the Society was the proud winner of a Silver Lindley Medal for its heather display at the RHS Hall, Vincent Square.

By *Bulletin* no. 6 (Spring 1969) the Secretary was commenting that "It will not have escaped the notice of the perceptive that far too often the same people write the articles. ... Ask yourselves if you haven't some experience, some delight, some despair to share with others." So - nothing changes after all!

The two months Constance Macleod spent in hospital that year obviously caused a hiatus in the Society's administration, necessitating the help of her daughter, plus several members, to get the *Yearbook* distributed.

For reasons that are not made clear in the Summer 1969 *Bulletin*, the AGM, which was held on 30 April, had been moved from the RHS Hall at Vincent Square to a different venue and at a different time of day, and was held instead at the offices of the Coal Utilization Council; the tea and sherry, organized by David McClintock, apparently went down very well. This did cause some problems for a member who had come over from Holland especially to speak at the meeting, but had not been informed of the change of venue. He searched the RHS Halls and even the Secretary's home, in vain. However, these 'boozy' meetings only lasted three years, as the Coal Utilization Council was closed down. (History does not tell us whether The Heather Society tea and sherry orgies were the cause of its demise.) So it was then back to afternoon AGMs at Vincent Square. A heather display at Vincent Square was staged by Brian and Valerie Proudley, and was awarded a Silver Banksian medal. There were also a record 98 entries in the RHS heather competitions.

The Society became a charity in 1970 and thanks were given to Alfred and Margaret Bowerman for the hard work they had put into the successful application. Heather competitions at Vincent Square continued to thrive and there was a report on heather trials which were taking place at the Royal Horticultural Society's Garden at Wisley.

In 1971 the first weekend Conference took place at Grantley Hall near Ripon and, judging by the write-up in the Autumn 1971 *Bulletin*, an enjoyable, and sometimes hilarious time seems to have been had by all. The success of this Conference persuaded the Society to make it an annual event. So, in Spring 1972, bookings were being taken for a weekend at Westham House in Warwickshire. 1971 was the year the Society's first President, Fred Chapple, decided it was time to stand down. He died in December 1972, leaving the Society £100 in his will.

Membership continued to grow strongly: I counted 27 new members in the Spring 1971 *Bulletin*, 28 in the Summer, and 81 in the Autumn (136 in all). Warnings had been given that, with membership rising so fast, it might become necessary to omit the annual lists from the *Yearbook*. However, so many people objected, saying it was the only way for members to get in touch with each other, that the suggestion was dropped – for the time being.

The first mention of the Society as the Cultivar Registration Authority for heathers appeared in the Spring 1972 *Bulletin*. This task was in the charge of the erudite David McClintock, who was at pains to impress upon members how important a comprehensive list of cultivar names was for nomenclatural stability. However, he commented that only one name had been submitted so far. Member Ruth Hayden opened her garden in Bath for charity in June 1972 and nearly 500 people turned up. Her Swiss student was not entirely happy to see so many heathers in Ruth's garden, as she told her in Switzerland heather is confined to cemeteries.

The Summer 1973 *Bulletin* reported big changes in the administration of the Society, with the proposal that The Committee should in future become The Council, with several working committees to oversee finance, publications, membership, events and technical matters. There was an unusual invitation to a Cape Heath Party at the home of Mrs Ronald Gray. I loved the wording – "by special invitation to those sufficiently interested and not prevented by distance or prior engagements." Twelve members attended the event, which included the chance to admire the buttercup-yellow *Erica* 'Limelight' in full bloom. One hundred and fifty eight new members joined this year!

News from the various Groups began to appear in 1974 – West of Scotland, Northern, Midlands, Eastern and South East, to date. Organizers for South West England, Ireland and Wales were being sought. The ever-willing Phil Joyner (presently Hon. Secretary) took on the South West Group. He must surely have still been at school at the time? In 1975 the death of the *Yearbook* editor, P. S.

("Pat") Patrick, was announced and the task was taken on by Arnold Stow, who had assisted the editor for several years. By now the *Bulletins* had settled into a recognizable format – with an item from the Secretary, Group News, Members' Forum, Letters to the Editor, reports on Heather Competitions, details of forthcoming conferences and (or so it must have seemed at the time) that ever expanding list of new members.

Subscriptions went up in 1976 from £1.05 (the old, pre-decimal guinea!) to £1.50 single and from £1.50 to £2.00 joint membership. Several major changes occurred in 1977. Not only did the Chairman, Alfred Bowerman, and the Honorary Treasurer, Roy Turner, announce their retirements, but also the Society's amazing Secretary and *Bulletin* Editor, Constance Macleod (at the AGM that year she was deservedly made a Vice-President). To ease the workload engendered by a rapidly expanding Society, much of the administration was handed over to an agency – Harvest House, Reading. I loved this tribute to Constance by B. G. (Jack) London, which gives an idea of her workload:

> As you now know, our long serving, hard-working Secretary, Mrs C. I. Macleod, is retiring from office this year after serving from 1963 when the Society was founded. She has dealt with your subscriptions, answered your letters, checked and despatched the Year Books, written the Bulletins, and typed out thousands of names and addresses for the members list on her battered old typewriter, sometimes working until the early hours of the morning, and only recently got up at 4 a.m. to type out the Group notices then do some gardening. I would like to pay a tribute on behalf of the Membership to this dedicated lady who has voluntarily served us long.

The mantle of *Bulletin* Editor was taken on by Diane Jones. Diane, and her husband Bert, ran Otters Court Nursery – a heather nursery in Somerset that specialized in lime-tolerant heathers. Freak blizzards kept Diane and family cut off from the outside world for three days in the spring of 1978. But, she reported: "When the thaw came, there were our *carneas* and *darleyensis* varieties still in bloom." This was followed in 1979 by the wettest May and highest flood levels for over a hundred years. Not good news for Diane and Bert as they had a brook running through their garden.

In 1977, not only was there a new *Bulletin* Editor, but there was a new Secretary, Pamela Lee, a new Treasurer, Des Oliver, and a new Chairman, Major-General Pat Turpin, who, I remember well, ran Council with efficient military precision. His look, if one arrived a minute or two late for a meeting was enough to terrify. (It terrified me anyway!) Sadly, Sir John Charrington, President and founder member of the Society, died that July aged 91.

The *Bulletin* continued in its time-honoured typewritten format under Diane's stewardship. The various Regional Groups appeared to be thriving. In 1979 Bert Jones took over as *Yearbook* editor, as Arnold Stow's work was taking him away from home so much. After Autumn 1979, the new membership lists appeared more sporadically. Not that the Society was struggling for members – I found a note I had made in my 1986 *Bulletin* that membership had risen to 1,700!

The conferences had become an important and enjoyable part of each year. The venue was usually a college, often an agricultural college, and they were well attended. Facilities were usually adequate, but often involved a walk in all weathers to the dining room or the lecture theatre. But, the attendance record was broken in 1983, when, for the first time, we stayed at a hotel. The idea of a luxury weekend at the Falmouth Hotel persuaded over 80 members to attend. These record numbers created some rather overcrowded meeting facilities and meant the hotel struggled to get everyone fed in time for lectures and visits (which didn't go down well with our military Chairman) but, overall, it was a great success.

Heather exhibits were staged at the RHS Hall by "Mr and Mrs Everett" in August 1983 and 1985 (excuse me blowing our own trumpet!) and were awarded a Silver Flora Medal and a Banksian Silver Medal respectively. Not up to our present Chairman's Silver Gilt standard at Hampton Court, but we were pleased.

Writing from memory, the arrangement with Harvest House to look after the Society's affairs turned out to be not entirely satisfactory, and did not last very long, but the ins-and-outs of it were not aired in the *Bulletins*. The administration was taken on by member, Ken Farrah, followed, on his death, by his wife, Beryl. Anne Small took over in 1986.

1988 was the Society's 25th anniversary and the Conference weekend was held at Gregynog, an attractive mock-Tudor mansion in Powys, owned by the

University of Wales. The house was famous for being one of the earliest examples of the use of concrete in buildings, with concrete being used to replicate the timber framing. The Conference was fully booked, with 73 members attending. As the house had been adapted as a conference and educational centre, it was the luck of the draw whether you had a palatial bedroom in the main house, or a rather basic one in the annexe, as some members discovered to their disappointment.

Having kept the Society very well supplied with news and views for a dozen years, in 1989, Diane decided it was time to stand down as *Bulletin* Editor and "your's truly" was asked by the Chairman to take it on. My first reaction to the request was that it was a lot to live up to. My second was horror – all that typing and, given my limited typing ability, all that Tippex-ing (remember Tippex?). My final thought was – "I need a Word Processor". So, in the autumn of 1989, I began my stint as the *Bulletin's* third editor, learning at the same time how to use my trusty Amstrad, with its 5¼-inch programme disks and no hard drive.

Apart from this minor technological break with tradition, the *Bulletin* carried on much as before. There was still a lot of typing involved, as all the contributions arrived hand-written or typed, but at least the finished product could be saved on to a diskette and taken to the printer. Interpreting handwriting could be challenging: one of my most prolific contributors was David McClintock whose writing was almost indecipherable, and his typing wasn't much better. David was among those responsible for persuading the powers-that-be that *Erica carnea* should be kept as the scientific name for the winter heather, not *Erica herbacea*. As he wrote in my first Bulletin:

> A long, very fully documented proposal to conserve the name of *Erica carnea* over the competing *Erica herbacea*, was prepared by Mr Brickell and myself and put up to the relevant authorities in 1987. The process of obtaining agreement takes time; there are twelve men from different countries on the committee which decides matters. But after two years their individual decisions all arrived and happily the majority agreed.

> Technically this needs the eventual approval also of the next Botanical Congress at Tokyo in 1993, but the chances of disagreement there are so remote and almost unprecedented that it may be taken for granted that it will be passed without comment. Meanwhile a note announcing the result will appear in the journal *Taxon* sometime next year. In all this we had the invaluable advice of Dr R. Brummitt of Kew, who is providentially the Secretary of the Committee. Without his guidance I doubt if we could ever have made the proposal so effective. We are most grateful to him.
>
> Now, please ensure that if you have altered your catalogues and labels to *herbacea*, you return them to *carnea* where they have really belonged.

(At least – I hope that's what he wrote!)

One conference that stands out for me at around that time was in 1992, at the University of Dundee. Here I met the namesakes of those well-known heathers, *Erica vagans* 'Valerie Proudley' and *E. erigena* 'Brian Proudley', who joined us while on a visit from New Zealand. It was like meeting royalty. At this conference we also said goodbye to our Chairman, Major-General Turpin, who, in fairness to him, had run the Society very successfully and efficiently for 15 years. He was standing down due to ill health. Long-time member David Small was welcomed as his successor. (A much more relaxed regime at Council was to follow!)

Erica carnea

Erica ciliaris

Calluna vulgaris

An earth-shattering moment came in 1994, when the *Bulletin* sported a coloured card cover! Three line-drawings of heathers had been produced for me by our talented Swedish member, Brita Johansson – a different species for the covers of the three issues. Actually, the first issue did not go quite as planned, because the printer had not understood the concept, so the whole *Bulletin* was printed on green paper. In this year also, after 15 years as Editor of the Society's iconic little red *Yearbook*, Bert Jones stood down due to illness.

Under its new editor, Dr Charles Nelson, the *Yearbook* became a larger, more impressive publication containing colour photographs for the first time. *The Bulletin* took over the business advertising, with 12 nurseries advertising that year: how many of them still exist I wonder? By now the *Bulletin* was fluctuating in size between 20 and 24 pages an issue, but I had to wait another 15 years for my long-time wish for coloured photographs to come about.

Several years and a couple of more up-to-date computers later, technology was slowly advancing, with some contributions beginning to arrive by post on floppy disks. This was a great step forward, and a big saving of time and effort. It also became possible to pay subscriptions by credit card. Then, of course, email came so articles, reports and photographs arrived electronically. Just magic! Even more magical to me at the time was the Society's first website in 1997 which our computer wizard (and Chairman), David Small had devised for the Society. The idea that information could be accessed by "30 million people worldwide" was, to me, just astonishing. (Incidentally, David gave my now redundant Amstrad a new lease of life, by programming it so that I could produce printed labels for our nursery plants.)

The 1997 Conference, at Newton Rigg College, Penrith, was memorable for both the right and the wrong reasons – one being that it was the weekend of Princess Diana's funeral. The Hayes Garden Centre that we were due to visit was closed as a mark of respect, but the Lakeland Horticultural Society invited us to arrive early, and they set out televisions, so that those who wanted could watch the service. At the AGM, the Society's Secretary of 20 years, Pamela Lee, stood down from the post and was elected a Vice-President. Her place as Secretary was taken by the Assistant *Yearbook* Editor, Ron Cleevely. Dr John Griffiths, our present President, was congratulated that the cross between *Erica manipuliflora* and *E. vagans* he had created, had been accepted as a new hybrid, and had been named *E.* × *griffithsii* in his honour.

In 1999, funding was received from the Stanley Smith Horticultural Trust to enable the Society to complete a database of heather names and finally to publish *The international register of heather names*. This huge undertaking began with David McClintock, who had recorded on individual record cards all the heather names known to him, between 1978 and 1995. (I have previously mentioned David's almost indecipherable handwriting and hardly legible typing, so I can imagine that hours of fun were had interpreting those). The database was extended and refined by Bert Jones and Albert Julian, and was finally brought to its mammoth

fruition by David Small and Charles Nelson. The erudite, eccentric and much loved David McClintock passed away in the year 2001 – a great loss to the Society.

Still in the capable hands of Dr Charles Nelson, 2004 saw the birth of a new-look *Yearbook*, succinctly renamed Heathers, and, in 2005 Charles put on yet another hat and became the Society's Administrator.

In 2009 the *Bulletin* sported colour photographs in its centre pages, at long last.

David Small stood down as President in 2010 and Professor John Griffiths became his worthy successor. This was a sad time for the Society, as the *Bulletin* reported the deaths of two great stalwarts of the Society – recently retired Chairman, Arnold Stow, and ex-Chairman and President, David Small.

By 2012, in the face of declining membership and consequent falling income from subscriptions, Council were worried that the cost of a 20-page *Bulletin* could no longer be justified. So, in the spring of 1993, the first of a new-look, 12-page *Bulletins* was produced, the collating and printing of which was taken over by our Administrator in East Anglia. It was very sad to have to tell Nick, our printer in Bromyard, who had looked after us so well for 25 years, that we would no longer need him. Nick was such a kind and conscientious man. Once, when he was let down by the overnight courier that he had booked to deliver the printed *Bulletins* to the Administrator, he rode his motor bike right across the country, from Herefordshire to Norfolk, to deliver them personally.

2015 saw the launch of the Society's superb redesigned website, under the supervision of Webmaster, Dave Brown. Dave is still adding and improving – especially helpful are the many photographs he is uploading to illustrate the heather cultivars. It was also the year that paper-printed *Bulletins* became a thing of the past and could be accessed via the website. Exceptions are made for members without internet access and libraries; they still receive a paper copy.

In 2016 I decided it was time to stand down as *Bulletin* Editor. After 27 years it had become so much a part of my life that I knew I would miss it a lot. But I didn't realise at the time that my resignation was going to be a part of so many major changes in the Society.

In the Autumn 2016 *Bulletin*, the Chairman reported that Charles Nelson, the Society's invaluable Administrator, Registrar and *Yearbook* Editor, had retired (or was about to retire) from all those posts and that the 2017 yearbook would be his last. As if this wasn't bad enough, Susie Kay, the organizer of so many

memorable gatherings, had decided that the 2017 one in Somerset would be her swan-song. The final change was that, unusually, there were two nominations for the post of Honorary Treasurer. A ballot was held at the 2016 AGM and consequently Allison Fitz-Earle took over the post from Richard Canovan. Richard was thanked for his many years of service to the Society. Allison also took on the job of Membership Secretary. There was also some discussion at the AGM about the future of our dwindling Society, but no conclusion was reached.

The one ray of sunshine within all this turmoil and change, is that a new editor for the *Bulletin* had been found, and it will continue providing news and information to members, in the capable hands of Samantha Barnes. I wish her well for the future, and hope she enjoys her time with the *Bulletin* as much as I have.

And so to 2017 – the *Bulletin's* fiftieth Anniversary – a landmark year!

Looking back, the *Bulletin* has undergone many changes, from its humble beginning, with just four typewritten pages, to a 24-page publication with (long-awaited) coloured photographs, and finally to an *e-Bulletin*. In the future, under its new editor, it will probably change yet again

Sadly, many of the Local Groups have dwindled and gone, but Jean Preston is still reporting on the Yorkshire Group's events, as she has done for the last 20 years, and Barry Sellers's Home Counties Group is still thriving. But pride of place I think must go to Dorothy Warner, who started sending in her North East Group reports 29 years ago. Due to the advancing age of its members, the Group is no more, but Dorothy still sends news of visits that she and friends make to heather gardens and the Ponteland Flower Show.

A complete archive of the *Bulletin*, in pdf format, is available for your enjoyment via the Members' Only page of the Heather Society website www.heathersociety.org.

Heathers **14**: 11– 14

Growing double-flowered heathers

Kathleen Inman
Intakes Farm, Sandy Lane, Longsdon, Stoke-on-Trent, ST9 9QQ.

My first encounter with heathers was at an early age. *Calluna vulgaris* grew a few yards from our house on a rough mound where we children used to play. Many years later I went to work in the propagation department of a commercial tree and shrub nursery. Much of our work was done in a potting shed which had windows which looked out onto stock beds. Early in the spring *Erica carnea* 'Springwood White' and 'Springwood Pink' would be in full bloom in these beds. Tip-cuttings by the thousand would be taken from these later in the year and rooted in the mist-propagation units.

Later I moved to Stoke-on-Trent Parks where again I worked in the propagation department. One of the foremen built a rock ravine, with a stream running through it, in nearby Hanley Park. The intention was that shrubs such as heathers would be planted in this area, which went ahead, but there were not nearly enough plants to fill the large flat area by the side of the stream although it did contain many blocks of different coloured foliage heathers to give interest over a long period. As there were surplus bedding-plants, these were gathered together and planted between the heathers. Although they were unlikely bedfellows it worked and a patchwork riot of colour emerged, beloved by the public and bees. I would often go to this area to pick flowers for various events. *Calluna vulgaris* 'H. E. Beale' was often used in floral arrangements which went to the civic buildings. For this reason it is one of my favourite heathers with its big bold sprays of double flowers. It lasts well as a cut flower and dries well too, and above all is hardy.

Our training officer at the Parks insisted that those of us who were students should collect, press, mount and label at least 50 native plants. This would probably be frowned upon today. A colleague accompanied me on one of the collecting trips and found a double-flowered lady's smock (*Cardamine pratensis*) at Fairy Glen, Wincle, Cheshire. Finding this plant sparked off an interest in collecting double native plants. As the years rolled by my collection grew, albeit slowly. As a member of Plant Heritage, I enquired about the possibility of having a national collection but this did not happen at that time.

Two other species of heathers with double flowers were added to the collection besides *Calluna vulgaris*. They were *Daboecia cantabrica* 'Charles Nelson' (St Dabeoc's heath), and *Erica mackayana* 'Plena' (Mackay's heath), the only species

The "doubles" border at Intakes Farm (K. Inman).

of *Erica* known to produce double flowers. *Daboecia cantabrica* is an evergreen shrub with a felt of fine white hairs covering the underside of the leaves. They can grow to 75cm in height. Flowers of the double cultivar 'Charles Nelson' appear in June; the first ones are usually single followed by a second flush in July which are "double" (see *Yearbook of The Heather Society* **2**: 11–12. 1982). The "double" flowers are tubby and about 1cm in diameter. Just protruding from the mouth are the numerous inner segments. The two outermost layers are usually complete while the stamens and stigma have been replaced by countless smaller petal-like structures so that when the bells are upturned a pattern can be seen with about eight points denoting the inside layers. This cultivar was found by Dr Charles Nelson in 1978 near Carna, Connemara, and given his name. It flowers reliably every year in my garden from June until the first frosts. Recently several new double-flowered cultivars of *Daboecia* have been bred and released by Jens Kjærbøl in Denmark. He was lucky to find pollen on 'Charles Nelson' and decided to cross-pollinate 'White Blum', a plant with upright flowers. After 17 years of work he selected and named 'Romantic Muxoll' (see *Heathers* **11**: 11–13. 2014) and has subsequently introduced the white-blossomed 'Stardust Muxoll' (see *Heathers* **12**: 76–77. 2015). After these have flowered they shed the old blooms which 'Charles Nelson' and other double-flowered heathers do not do.

Erica mackayana 'Plena' does not flower well for me. This may be because it is planted in too dry an area: Mackay's heath is more at home

Erica mackayana 'Plena' in cultivation at Lettergesh, Connemara, Ireland, not far from where it was originally discovered (E. C. Nelson).

in wet bogs in western Ireland and northern Spain. Flowers of *E. mackayana* 'Plena' are quite similar to those of the double *Daboecia*. The foliage is smaller and softer and the leaves are arranged in whorls of four. Two other cultivars of *E. mackayana* with "semi-double" flowers are in cultivation (*E. mackayana* f. *multiplicata*: see *Yearbook of The Heather Society* 1995: 33–40); they are 'Ann D. Frearson' with lilac pink flowers, and 'Maura' with heliotrope flowers which was found in Carna, County Galway, Ireland, by Maura Scannell.

One day standing at the checkout of a local garden centre, a young man clad in leathers asked the assistant if she had any heathers in flower. "No!" was the reply. Overhearing this conversation I offered *Erica mackayana* 'Plena' as it was in flower. The young man followed me home on his motor bike and gathered enough flowers for a button hole to wear at a dinner in Buxton in full Highland dress. He had travelled from Scotland for the occasion. Although not the authentic Scottish heather it was the best substitute we could muster at the time. Frank Knight, Director of the RHS Garden Wisley from 1955 to 1969, also used to wear flowers of this as a button-hole. It was not easy to obtain these cultivars – they were imported from Holland for me.

Over the last few years many heather cultivars, especially double flowered ones, have disappeared from the list in the *Plant finder*. So this was a case for conservation and Plant Heritage gave my collection of double-flowered plants (native and naturalized) National Collection status.

Many of our cultivars are found as sports in the wild. It would be very nice to find a double-flowered mutant in the wild and what better place for me to

Staffordshire moorlands: (left) *Calluna vulgaris* on The Roaches (photographer Nicholas Hine) and (right) "The Winking Man" Ramshaw Rocks (photographer Chris Green).

look would be on the Roaches and the area surrounding the Winking Man in the Staffordshire Moorlands which is on our doorstep and has acres and acres of *Calluna vulgaris*. If I am lucky, the man with the head stone may give me a wink as I pass by.

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Heathers **14**: 15–21

Development of heather production in Germany, particularly *Calluna vulgaris*: from wild heather to a commercial ornamental plant

Kurt Kramer
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For many centuries, people in Europe concentrated on pushing back the spread of the wild heather, *Calluna*. The native heathland yielded less income than the same areas did when converted into grassland or arable land for the production of fodder and foods for human consumption. When the well-being of people improved in such a way that some could become botanists, heather received its scientific name. In 1753, Carl von Linné named the common wild heather *Erica vulgaris*. In 1802, Richard Anthony Salisbury established the genus *Calluna*, and so heather became *Calluna vulgaris*.

Gradually botanists discovered various different varieties within heather, distinguished by distinctive flower colours, growth habits and leaf colours. For further observations, they planted those plants nearer to their homes, the first time that home-owners used heather cultivars for ornamental purposes. In 1805, the German botanist Carl-Friedrich Waitz described and named four "subspecies": *hirsuta, squarrosa, alba* and *plena*. In 1843, Eduard August von Regel added another three, namely *genuina, variegata* and *tomentosa*.

Clones of bud-flowering *Calluna vulgaris*, late October 2013.

Horticulturists propagated the most beautiful plants to sell to generate income. For sales and plant exchanges descriptions of varieties were needed. From the Latin names of the botanists, cultivar names were derived.

From around 1900, exhibitors of trade shows in Germany began showing winter-hardy heathers more frequently; for example the company Goos & Koenemann had at least eight distinct cultivars of *Calluna vulgaris*, named aurea, argentea, Reginae, flore pleno, tetragona, Searly, elata and minima. They also marketed four different *Erica: E. tetralix*, *E. vagans* f. *alba*, *E. stricta* and *E. arborea* var. *alpina*. In 1920, the German perennial grower Georg Arends started to sell bell heathers from his own breeding work – *E. cinerea* 'Delicata', 'Atropurpurea', 'Atrorosea' and 'Splendens'. Soon he found a white flowering *E.* × *darleyensis* sport, and sold it under the name 'Silberschmelze' for the first time in 1937. In 1939, the German tree nursery of Joh. Bruns near Oldenburg listed in its catalogue nine varieties of *E. carnea*, five of *E. cinerea*, four *E. tetralix*, four *E. vagans* and "Erica mediterranea (lilac rose)", today named *E.* × *darleyensis* 'Darley Dale'. Although still listed under the old name *Erica vulgaris*, eleven *Calluna* varieties were mentioned, one of them the double-flowered 'H. E. Beale'! The well-known tree nursery of G. D. Böhlje most probably offered even more varieties.

It was there that I purchased my first heather plants in 1970 so that I could propagate them myself and establish my own nursery exclusively for heathers. However, several things had to happen first to get me interested in heather for the rest of my life. At the edge of the fields of my father's farm and on adjacent moorland, wild *Calluna* grew in its natural habitat. During a military exercise in August 1965 on the Outer Hebrides islands North Uist, Benbecula and South Uist, I saw some white *Calluna* growing in the wild for the first time in my life. As an employee in a nursery attached to a cemetery I already had learned about the different heather species and cultivars.

In 1974 a German plant auction sold 150,000 *Calluna* plants in containers. In discussions with colleagues, we estimated the total annual production of *Calluna* plants in Germany was then about two million. In 1978, I met Geoffrey Yates, David McClintock, Major-General P. G. Turpin and other British heather enthusiasts, who introduced me to The Heather Society. In 1979 Pat Turpin mentioned bud-bloomers to me for the first time.

Due to my specialization in the production of *Calluna*, *Erica carnea*, *E. cinerea* and *Daboecia* I could produce good quality plants. From 1972 Hermann Westermann provided me with a constant supply of new varieties from England. I also visited nurseries at Boskoop in The Netherlands. Soon I had 330 varieties planted in my test plot for comparison; from these I propagated about 20 of the best in larger quantities.

Later I terminated the comparison trials in my own nursery. I donated those cultivars not already there to the Horticultural Research Centre in Bad

Zwischenahn. In autumn 1980, a "Cultivar Inspection Commission" for heather was established there and it is still in operation today. The research centre is home to what is probably the largest collection of heathers in continental Europe.

The high quality plants that I produced created demand in German garden centres and soon I could sell 350,000 heather plants a year including 250,000 *Calluna* to about a hundred customers. Of course 'H. E. Beale' was part of this effort. At a pot-plant nursery I obtained a few 'Peter Sparkes' and for many years it was my best seller. Later I found a dark rose-flowered mutation which I named 'Annemarie' (Bundessortenamt reg. no. CLL1). This was the first heather cultivar with official "Variety Protection Rights". On 'Annemarie' I later found the red sport 'Red Star'.

This success in production and sales did not stay unnoticed by horticulturists near and far. Increasingly, I had to defend myself against competitors. I had to introduce and promote new varieties. Therefore, in 1974 I started to breed heathers. At the same time I staged exhibits at garden shows like the IGA (International Garden Exhibition) in Hamburg in 1973. There, I met the heather enthusiast Fritz Kircher, who became one of the founders in 1974 0f the German heather society, Gesellschaft der Heidefreunde. In 1976, I became also member of Ericultura, the heather society in the Netherlands, then four years old. In the following years I had special contact with their members Hermann Blum and Jos Flecken.

Late-flowering heathers were in demand for sales at the end of October for the memorial days in November (Allerheiligen/All Saints' Day, 1 November, and Allerseelen/All Souls' Day, 2 November). In autumn of 1974 I attempted to produce improved varieties by crossing 'Johnson's Variety' with 'Darkness'. Further crossings of 'Battle of Arnhem' × 'Allegro' resulted in 'Perestrojka' and, later, in 'Peace'. I did not produce these commercially. Other breeding efforts with white-flowering varieties such as 'Long White' brought the commercially viable varieties 'Stefanie' and 'Josefine'.

In addition, I started with goal-oriented pollination of *Erica* species. In 1981, the now world famous hybrid 'Kramers Rote' was introduced, from the parentage *Erica carnea* 'Myretoun Ruby' × *E. erigena* 'Brightness'. In 1985, the tiny plants from the first propagation had to survive a –28°C frost. Naturally, this was only possible with the help of winter protection. Some white *E. carnea* such as 'Isabell' arose out of hybridization of 'Springwood White' with 'Snow Queen'.

The breeding work with bud-bloomers like *Calluna vulgaris* 'Marleen' started in 1984. 'Marleen', as a late colour-showing variety, had already some limited market penetration. I selected the white bud variety 'Melanie' (seedling 84-16-20) out of seedlings derived from my breeding work. In the meantime, 'Marlies',

Calluna vulgaris: Spätsortiment (late assortment): (left to right) front row: 'White Lawn', 'Golden Carpet'; second row: 'Marleen', 'H. E. Beale', 'Annemarie'; third row: 'Peter Sparkes', 'Elsie Purnell'; backrow: 'Long White', 'My Dream'.

a purple-red mutation of 'Marleen', developed. Now a limited assortment of colours could be produced.

To address further competition through mass production by nursery colleagues, I applied for Variety Protection at the German Federal Variety Protection Office. This was granted to me on 18 February 1992. In addition, as of 1994, the (European) Community Plant Variety Protection was established. Variety protection for heather varieties was new to growers. Many did not see any sense initially in the effects, namely prohibition of propagation by other

Calluna vulgaris: Frühsortiment (early assortment): (left to right) front row: 'Gold Haze', 'Heidezwerg', 'Silver Queen'; second row: 'Boskoop', 'Aurea', 'Sonja'; third row: 'Mullion', 'Stefanie', 'J. H. Hamilton'; back row: 'Silver Knight', 'Darkness', 'Eckart Mießner'.

nurserymen. A few years went by until the colleagues decided to apply for a license agreement or stopped the propagation of protected varieties.

One colleague was so bold as to steal cutting material of new bud-blooming heather seedlings from me in 1992. By 1995, I had assembled enough evidence against him so that with the help of a special attorney I could go to court. I won all the legal cases. In 1999, the ownership of three of the clones was returned to me. Finally in June 2005, the court decided to give back the rights to the last four varieties. For the first time, DNA analysis of plants were accepted as evidence in this court cases.

Soon, I had an assortment of bud-bloomers, now with upright growth habit and brighter colours. The first one was 'Alexandra', being a more intense red and more upright than 'Marlies'. 'Alexandra' was named after a former popular German singer, who died in an accident in 1969. Other varieties derived both from deliberate breeding work and random mutation enlarged the assortment. In 1990, I met David and Anne Small. With the help of David, my breeding work in hardy bud-bloomers was made known in the UK. Demand in Germany for winter-hardy heather varieties increased steadily with the support of advertising and marketing. As a result, the production of the popular "annual" pot heath (*Erica gracilis*) declined. I searched for a popular, easy understandable name for the PR-efforts in Germany and Central Europe of the protected varieties. Since most of those clones had a female name registered as the variety name, we decided to establish the brand name Gardengirls in 1997, now a registered trademark

Gesellschaft der Heidefreunde existed from 1974 until the end of 2015. The greatest interest in heather as a garden plant most likely existed between 1980 and 2000. After that, interest diminished. At present time, the largest public heather gardens in Germany are Park der Gärten at Bad Zwischenahn in northwestern Germany and Lausitzer Findlingspark Nochten in the east. Both parks have their own websites with pictures.

Up to 1990, the non-hardy Cape heath *Erica gracilis* was used to decorate graves and public sites in autumn. Winter-hardy *Erica* species or *Calluna* were planted in gardens and public parks, but rarely in cemeteries. This changed significantly year after year with the introduction of winter-hardy *Calluna* bud-bloomers. The market share of *E. gracilis* for use in cemeteries has been reduced to 5%. This is also the situation for public and private plantings in bowls or window boxes.

In the meantime, *Calluna* has also become popular as a decorative indoor plant. A great advantage of *Calluna* is that its leaves are not shed when the plant dries out, whereas this is one of the greatest disadvantages of *Erica gracilis*. Even *Calluna* buds won't change much and will keep their original colour. Florists decorate containers with small accessories. *Calluna* is even popular in flower arrangements, although a trade for cut stems has not yet been established.

As noted, commercial production of *Calluna* in Germany in 1970 was estimated to amount to 2 million pots annually. More accurate statistics for 2015 show an increase to 135 million of which 90% are winter-hardy bud-bloomers. In 2000, my variety 'Aphrodite' was assigned the registration number CLL 100 by Bundessortenamt, the German Federal Office of Plant Variety Protection in Hanover responsible for the testing and evaluation of all heather cultivars in the European Union. The first compact, creeping *Calluna* variety, 'Nelly',

has the number CLL 300. Currently, supported by nine breeders (four being colleagues of mine) and some growers working with mutations, clones with numbers around CLL 540 are being tested.

Five cultivars of *Calluna vulgaris* selected by Kurt Kramer for their natural foliage colour (these are not "painted heathers"): from left 'Zulu', 'Zelia', Zipi', 'Zora' and 'Zoe'.

In continental Europe some growers produce large quantities of *Calluna* bud-bloomers which are sprayed with resin containing water-soluble artificial pigments. Examples of these so-called "painted heathers" can be seen via internet/YouTube: search for "Les Callunas d'Alsace".

More information to DNA analysis of *Calluna*, see "BMC plant biology" (URL www.bmcplantbiol.biomedcentral.com).
Websites with information in English: Bundessortenamt, CPVO, www.heidewelt.de and www.gardengirls.de (including many examples how to use the plants).

Heathers **14**: 22–29

The use of heathers in Scottish clan badges

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If you own one of the older tartan books, when life was simpler and there were fewer clans with distinctive tartans, it will probably have a map of Scotland with different colors for different clan territories. Was it possible you were a Fraser if you lived in Beauly and a Ross or Munro if you lived a mile away in the next village like Muir of Ord?

Those living either side of a line on a clan map would probably recognize the Clan description as the name of their immediate land owner, though quite unlikely to bear his name themselves. They were known among themselves only as the sons of their fathers and grandsons of their grandparents. To ask for a name was to get a pedigree. Clan loyalty was to the Clan Chief though he bore a different name.

How was land owned in those days? The Highlands of Scotland did not have a typical feudal system. The Normans did not invade or conquer Scotland, but the Scottish King David was sufficiently impressed by its advantages for administration and monetary reasons that he invited several Norman barons into Scotland and settled estates on them. This meant that people who for generations had lived in one place suddenly found themselves saddled with a proprietor, a land owner, a tax collector.

Clans in the far north held land in allodium. Allodial tenure is hard to describe except it was not feudal. People in a fertile valley held it, probably originally by force of arms, or perhaps by usucapion, a term in Scots law that means free use of another's property so long as no damage is done.

The royal family gave out baronetcies, dukedoms and earldoms, but if the grant was not followed up by military support it meant little to the people involved. Their immediate and probably sole responsibility was to the Clan itself, where clan meant both immediate and extended family.

In the north things were fairly well established until Norway ceded the Orkneys, Shetlands and what is now Sutherland and Caithness to the Scottish crown. The crown appointed a bishop (the Bishop of Orkney) who unlike his Norwegian counterpart took a firm interest in collecting tithes. To Orkneymen left unmolested for many generations this was most unwelcome. Eric Linklater has a wonderful short story about an Orkney farmer, sorrowfully and apologetically being tortured by a church representative, choosing to have his leg broken rather than pay taxes.

"Macdonald of Glenco", by R. R. MacIan, from James Logan's The clans of the Scottish Highlands (1845). (Image from Am Baile, Highland Archive Centre, Inverness, by courtesy of Jamie Gaukroger, Am Baile Co-ordinator.).

Clan loyalty was primarily displayed by armed service to defend or expand Clan territories. Supposedly men went into battle wearing distinctive clan tartans. They might have been different for each clan, but were probably territorial. They would reflect local dyes rather than the bright chemical dyes that became favoured in Victorian times.

What some did, if not most, was wear a cap or bonnet badge made of sprigs of heather, which in theory could separate friend from foe.

Some septs of the Clan Donald, Clan Macintyre and Clan MacNab wore *Calluna* (heather) as their badge and no doubt shouted "Fraoch!" as they rushed the enemy. *Erica tetralix* (cross-leaved heath) was the badge of other branches of the MacDonalds, and *E. cinerea* (bell heather) was the badge of the MacDougals, Robertsons and MacAllisters, though Dwelly[1] says the badge of the Robertsons should be bracken (*Pteridium aquilinum*). Cowberry (or lingonberry) (*Vaccinium vitis-ideae*) was said by one authority to be the badge of the Davidsons, MacBeans, MacDuffs, MacGillivrays, Mackintoshes and MacQueens. Crowberry (*Empetrum nigrum*) was used for the badge of both the MacLeans and the Camerons, and bearberry (*Arctostaphylos uva-ursi*) for the badge of the Macintoshes and the Rosses, which pretty much used up the available *Ericaceae*. *Daboecia cantabrica*, claimed in error by the Clan Menzies as "Menzies's Heath", did not seem to be a badge worn by any clan, however. The Mackays, living in a boggy place, had to make do with the bulrush or reed, a badge better suited, one would think, for some Egyptian or Mesopotamian tribe. Never having seen it, they modestly refrained from claiming Mackay's heath (*Erica mackayana*) as their clan badge. Nor did the Stuarts claim *Erica* × *stuartii*, both names being honorifics for Victorian botanists. I don't know whether the Travelling People qualify as a clan, though they are clannish enough, but if they did they would surely lay claim to *Erica vagans* as their badge.

Assigning clan badges is highly speculative and often contradictory. The Menzies naturally adopted Menzies's heath as their badge, but the plant, *Menziesia polifolia*, whose generic name dates only from 1781, eventually got its name changed to *Daboecia cantabrica*, St Dabeoc's heath. This was a plant most unlikely to grow in the Clan territory since it has yet to be found anywhere in Scotland. Charles Nelson believes there is a naming mix-up and that Menzies' heath should be the plant known as blue heath (*Phyllodoce caerulea*) long known to British botanists as Menziesia caerulea, a circumboreal plant but very rare being found on only one or two Scottish summits. Dwelly[2] differed, saying Menzies' heath is "*Phyllodoce menziesia*" (a name that does not exist in scientific literature) and not the clan badge, anyway.

The MacPhersons were said to specify white heather, or make do (along with the MacQueens) with the blaeberry or bilberry (*Vaccinium myrtillus*) when they

could not find it. The MacAulays used the cranberry, which had to be the small vining one (*V. oxycoccos*), not the much larger one (*V. macrocarpon*) which had yet to be imported from North America. As you see, plant badges were not particularly distinguishable and could cause many unfortunate events.

This raises a number of questions. Did they only fight when heathers were in bloom? If your badge was *Erica tetralix* or *E. cinerea*, would you be more pugnacious in early summer than in autumn when *Calluna* came into bloom? What if your opponent had picked the same heather? Would you fight over that?

One of the earliest books to feature the tartans and badges of Scottish clans was *The Scottish clans and their tartans*.[3] First published in 1891, it has gone through at least 46 printings. The clan badges are also featured in *Clans, septs and regiments of the Scottish Highlands*.[4] This book is much more detailed and gives alternate possibilities for the clan badges, so there are numerous similarities and duplications. I believe Cameron's *Gaelic names of plants* is the ultimate source, but the authority for these choices is obscure.

Since most cap badges were obtained from local vegetation, it is not surprising that members of the *Ericaceae* were frequently selected for clan identification. The cowberry or lingonberry (*Vaccinium vitis-ideae*) and crowberry (*Empetrum nigrum)* were favorite choices, but so were the oak and pine trees. *Dryas octapetala* (mountain avens) is a beautiful but rather uncommon wild flower found in a few remote limestone areas, but it is fragile. Perhaps the MacNeills and Lamonts chose it for that reason.

Some choices seem rather odd. The Morrisons chose driftwood for their cap badge, but that was no more cumbersome than the pine trees favoured by the MacQueens, MacKinnons, MacGregors and Grants. The pine tree is specified, not just the leaves, so perhaps there was a secondary purpose when attacking the enemy. Maybe this is how tossing the caber got started?

Combination badges might be worn. In his *History of Highland dress*[5], John Telfer Dunbar says the Grant badge was "a sprig of fir, and the Clan Cockade of scarlet and green." "Fir" used here is an alternate name for the Scots pine (*Pinus sylvestris*). The MacNaughtons probably had a hard time finding their chosen plant. This was the trailing azalea (*Kalmia* (formerly *Loiseleuria*) *procumbens*). It is a rare circumboreal plant of arctic summits, and only "locally frequent" in the Scottish highlands.

An interesting item from the past was found by Charles Nelson among papers belonging to Major-General Pat Turpin (past-President of The Heather Society). Written by Norman L. MacPherson, for the 1951 issue of the magazine *Creag Dhubh*, he recounts the three badges associated with Clan MacPherson, red whortleberry, boxwood and white heather. Box (*Buxus sempervirens*), he guesses, though rare in the clan territory, was used because of the similarity of

its leaves to those of red whortleberry (*Vaccinium vitis-idea*). He says that white heather is even rarer, and that its bloom time and rarity argue against its use, so there must be another reason which clan traditions can supply.

> Clan Chief Cluny MacPherson, being pursued by government troops after the Battle of Culloden, decided to sleep out on the moor. He was nearly surprised by them, but on arising, found he had been lying on a clump of white heather. He then declared that hence forward the Badge of the Clan Macpherson would be White Heather [Fraoch Geal].

This provides the date (1746) for adoption of this clan badge and a reason "as good as many another under the circumstances" for its adoption.

It seems the badge was in fact the most important distinguishing feature of the clan, but to maintain this is to enter into a long-standing dispute between the value of tartan and cap badges for this purpose. Tartan took a back seat until King George IV visited Edinburgh in 1822, and became popular after the publication of *Vestiarium Scoticum* by the Sobieski Stuart brothers in 1842. Here their designs of new tartans to supplement the old ones found a ready acceptance among the Victorian gentry willing to discover their own family tartan. Had the Sobieski brothers been Irish instead of Polish, the craze for tartans might well have extended to the Irish clans. Being equally war-like they too would have needed clan identifiers. With greater access to more kinds of heather, one wonders why insufficient attention has been paid to this area of Gaeldom, and can only hope this omission may be soon corrected. The Irish had probably even a greater need for identification of friends and foes.

There is no doubt that the weaving of tartan cloth had an ancient history, but whether a distinctive design of it, now shown with an appended clan name in most tartan books, was used for recognition is a very different question.

R. Money Barnes, in *Uniforms and history of the Scottish regiments*[6], states

> There is no doubt that many setts had been traditional to certain districts for centuries, but the theory that they were a sort of clan uniform seems now to have been quite discredited. The colours were produced mainly from vegetable substances, and this would have affected the predominating hues in certain districts where they were most plentiful.

The *History of Highland dress*[5] by Dunbar makes it very clear that tartan was not used to distinguish men in battle. Highlanders could use any tartan that suited their fancy, just as we choose ties. It was very important to have distinguishing marks in battle and this was achieved through clan badges. Badges were not metal, but floral or anything that could be used for a cockade or rosette to be

worn on the cap. His view was that the use of tartans for identifying clans was basically a Victorian fancy, abetted by lesser nobility to bolster their claim to chiefmanship of a clan or a branch of it. Other historians strongly disagree, but this quotation from the second volume of the Lockhart Papers (1745) supports Dunbar's viewpoint:

> We M'Donalds were much preplex'd, in the event of ane ingagement, how to distinguish ourselves from our bretheren and nighbours the M'Donalds of Sky, seeing we were both Highlanders and both wore heather in our bonnets, only our white cocades made some distinction.

Dunbar adds, "If all the MacDonalds wore the same tartan, surely the writer would have mentioned this rather than the heather they all wore in their bonnets. A common tartan would have been much more confusing than a sprig of heather." Later Dunbar noted that of "two fragments of MacDonald tartan worn during the '45 neither conform with the many MacDonald tartans worn today." C. C. P. Lawson[7] in *A history of the uniforms of the British army* says that "The '45 supplies no evidence that tartans were used as clan insignia." A. E. Haswell Miller, Keeper of the National Galleries of Scotland, was quoted as stating that "Jacobite portraits of the '45 failed to support the theory that the tartan had any significance as a clan badge."[8]

In 1941, I. H. Mackay Scobie asserted that "Among the Highland people it was the Suaicheantas (badge or crest) in the bonnet and not the tartan, which was the distinguishing mark of both individuals and bodies of men."[9] Another quotation from Scobie was to the effect that in 1745 in the Argyll militia "each individual wore his own Highland dress with varied tartans, the only uniform part being the "Hanoverian" black cockade and large [red] coloured cross on the bonnet."[10]

Another Mackay, J. G. Mackay[11] takes a diametrically opposed view as to the recognition value of tartans, although acknowledging excesses in claims of age and authenticity. He goes so far as to use the same quotation from the Lockhart papers and reach a very different view. "'Both being Highlanders' infers they were both dressed in the tartans of their respective branches of the clan, which are so similar they could not be recognized at shooting distance. ... This then conclusively proves that tartans were clan designs."

More persuasive is a letter of 23 July 1703, to Brigadier General Maitland, Governor of Fort William, alerting him that the Laird of Grant "has ordered Six Hundred of his Men in arms, in good Order, with Tartan-coats all of One Colour and Fashion."[12] Had the letter said tartan kilts all of one design it would have been more informative. A later letter to Grant's tenants ordering them to be ready for his hosting a hunting party, does specify tartan short coats and trewes and short hose of one pattern "of red and grein set dyce, all broad

springed ...".[13] Grant was evidently set on this as he specified "the failie of fyve pounds sterling" for anyone not responding within 48 hours to his summons.

On the whole, though, Dunbar seems to have the better argument. It does seem that clan identification was not based upon tartan, despite its antiquity, but was based on bonnet or cap badges or cockades made not of metal as today but of ribbon or some distinctive plant material such as various kinds or colours of heather.

Incidentally, Dunbar has a very detailed appendix on sources and uses of native plant dyes, among which heather will be found. Adam also gives a long list of native dyes, and lists slogans, war cries, banners and pipe music peculiar to the clans.[14] The only reference to the heather I can find is the MacDonald slogan, "Fraoch Eilean" ("The Heathery Isle") but does not say where the isle is to be found.

A volunteer in Cumberland's army relates that after the Battle of Culloden he came across a wounded man who said "Hold your hand – I am a Campbell." The volunteer inquired, "Where's your bonnet?" The man replied it it had been snatched off in battle. The volunteer took the man in tow, but he wisely slipped away later, still capless.[15] Evidently the tartan he wore gave no clue to his Jacobite sympathies. This story adds to the evidence that cap badges were very important identifiers to a people long accustomed to territorial disputes and to wars. As a result, we can confidently consider heathers as having a very significant role to play in parlous times. If nothing else you can now look at a brightly colored clan map and consider that the areas are defined not so much by common clan tartans or a common name as by a common badge, in many cases made of our common heathers. Picking the right one really could be a matter of life or death.

The Battle of Culloden put an end to rebellion and to clan warfare, and the proscription against bagpipes, weapons and highland dress lasted 40 years more. Not surprisingly cap badges survived in the Highland regiments raised from the loyal clans, but surprisingly the white Jacobean cockade continued with the red and black Hanoverian cockade. With time the embellishment of cap badges continued until the bonnet was more fur and feather than fabric.

Major R. Money Barnes[1], in discussing the bonnet worn by the Highland Regiments in the mid-eighteenth century, says "It was usual to wear feathers of blackcock, vultures, eagles, etc., a clan badge (probably a sprig of some plant), or occasionally a piece of fur on the left side, and to this was added the white Jacobean cockade, or the Black Hanoverian one, as the case may be." It is a surprise to find some government troops would apparently wear the Jacobean white cockade.

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Heathers **14**: 30–35

Calluna vulgaris in German Holzbibliotheken ("wood libraries") from the turn of the nineteenth century

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In the history of botany, three basic "documents" can be distinguished in which plants were represented: herbals, herbaria and pseudo-books collected in special repositories. The latter were called variously xylotheques (from Greek xylon = wood) or xylaria (in English); in German they were termed Holzbibliotheken, ambiguously meaning "wood libraries" (libraries containing books on wood) or "wooden libraries" (libraries containing books made of wood).

Since antiquity herbals were manuscripts or, later, printed books either illustrated or not illustrated, with the plants arranged alphabetically by their names or in systematic order. In sixteenth-century Italy collections of dried and pressed herbs, called herbaria (singular: herbarium) as distinct from herbals, were accrued to the traditional formats (Arber 1986: 138–143; Massey 1974; Stafleu 1987). A further development occurred in Germany at the turn of the eighteenth century in the form of three-dimensional imitation books assembled in extensive Holzbibliotheken.

The earliest wood collections were part of eighteenth-century continental Naturalienkabinette, that is, they were more compilations of curiosities or prestigious objects and less a means of knowledge about botany and forestry (MacGregor 2007; Ogilvie 2006: 42). This changed around 1780 in Germany when more scientifically oriented scholars began to establish Holzbibliotheken. From 1791 onwards Holzbibliotheken were produced in quantity and distributed commercially (Feuchter-Schawelka 2012). A handful of ambitious tradesmen dominated the market, the most prominent being Johann Bartholomäus Bellermann, Carl Schildbach, Candidus Huber, Carl von Hinterlang, Friedrich Alexander Schlümbach and Johann Goller. These men devised three different types of Holzbibliotheken which were sold all over Europe and can be found in museums of several countries today: 146 extant Holzbibliotheken are known in Europe and one in the USA.

The three types differ in appearance and in the way the individual "books" are constructed. The simplest type comprises massive woodblocks, each made of the particular tree that it represents; the spine is furnished with bark from that tree and bears a label with the Linnaean name (Figure 1). This type was the oldest one, created by Bellermann around 1788.

Figure 1. Xylotheque in Görlitz, Germany, with books in the form of woodblocks (type 1, Bellermann).

Figure 2. A "book" on heather in the Xylotheque in Kassel, Germany, consisting of book-like cases with removable front covers (type 2, Schildbach) (see also Figure 4).

Figure 3. The heather "book" in the Xylotheque in Hohenheim, Germany, consisting of book imitations that can be unfolded (type 3, Schlümbach and Goller) (see also Figure 5).

The other two types were much more elaborate and were more likely to resemble a true book (Figures 2 and 3). The second type had a spine in the style of type 1, but had labels with additional information as well as supplementary plant material such as bark or lichens on the three outer edges (top, bottom and opposite the spine). Inside, it consisted of a box containing fragments (not pressed flat as in a herbarium) of the plant such as twigs, leaves, flowers and seeds. A sliding lid formed a front "cover" of the "book". This type was designed and manufactured only by Schildbach.

The third type really could be opened like a book, having hinged left and right "pages" with plant specimens and wood samples. This was the most common type of Holzbibliotheken, and was manufactured and distributed by Huber, Hinterlang and Schlümbach-Goller.

The names of the producers-tradesmen just mentioned are still tightly associated with the xylotheques extant in Europe. For example, an information such as "the xylotheque at the Strahov Monastery in Prague (Hinterlang)" indicates to the expert the origin and conveys a fairly clear idea of how this particular collection looks like.

German Holzbibliotheken boomed only for a short time. By around 1815 they became obsolete because forestry became focused more and more on timber, excluding all kind of brushwood. Wood samples, collected in xylaria, the modern descendants of the short-lived xylotheques, were sufficient (Stern 1988).

Heathers in xylotheques

Most heathers, being relatively small shrubs or subshrubs are – as may easily be conceived – inappropriate for making type 1 Holzbibliotheken. However, they are suitable for types 2 and 3 and most extant examples illustrate *Calluna vulgaris* (then named *Erica vulgaris*). One example involving *Erica tetralix* is also recorded but apparently has not survived.

Thirteen "wood books" of *Calluna vulgaris* are extant, twelve of type 3 (five by Huber, one by Hinterlang and six by Schlümbach-Goller) and one of type 2 (Schildbach) (Feuchter-Schawelka *et al.* 2001).

The Schildbachsche Holzbibliothek (type 2) in Naturkundemuseum Kassel (Feuchter-Schawelka 2012; Goff 2014; MacGregor 2007: 132–136) comprises 530 "books" representing 441 trees and shrubs. The "books" range from very large (44 × 27 cm) to quite small (10 × 5 cm). The book devoted to *Calluna* (*Erica vulgaris*) is 17.7 × 13.4 cm.

Carl Schildbach, a self-taught maverick, ingeniously managed to retain a natural appearance of *Calluna* by using a mysterious glaze that kept the components stiff; however the colours are somewhat intensified (Figure 4).

Attached to the back of the front cover is a leaflet with a short description of the plant. Altogether, the "book" had more than eight separate pieces of "information": the different kinds of woods (bark, heartwood, branches) were attached to, or used for the spine, the three edges (fore, top and bottom) and the front and back covers, while a specimen of the plant was placed inside.

The Holzbibliothek from Hohenheim, representing type 3, originally came from the castle there and is now housed at the Institute for Zoology of the University of Hohenheim-Stuttgart. Re-discovered and restored in the early 1970s, it comprises 189 books (uniformly 19.4 × 12.8 cm) made from 153 different trees or shrubs (Rahmann *et al.* 1992; Feuchter-Schawelka *et al.* 2001: 81–82). The Hohenheim collection consists of an older "A-Serie" manifactured by Hinterlang (44 books) and a somewhat younger "B-Serie" made by Schlümbach and Goller (155 books) (Feuchter-Schawelka *et al.* 2001: 72–74, 86–87). Both series are subdivided into broad-leaved trees and shrubs ("Laubgehölze") and conifers ("Nadelgehölze").

Within the "B-Serie" two "books" are devoted to *Calluna*; one illustrates the common ling ("Erica vulgaris") and the other, white-blossomed ling ("Erica alba"). This uncommon variant (*Calluna vulgaris* f. *alba*) was recorded for the first time by the German botanist Hieronymus Bock in 1546 (Funk 2017, this issue).

"Wood books" of type 3 have some traits in common with those of type 2. Thus the covers were made from the relevant wood, while the spine was furnished with bark and lichens or mosses. In the case of shrubs with slender stems (such as heathers) the front and back covers are clad with split (halved) branches. More significant, however, are the differences between the two types. Type 3 can, as noted, be opened like a normal book, hinged along the spine, with the left and right sides padded with moss in which the plant is displayed. The spine also has two compartments, closed by lids, the bigger one containing the plant description (Figure 5: II), the other seed for sowing (Figure 5: III).

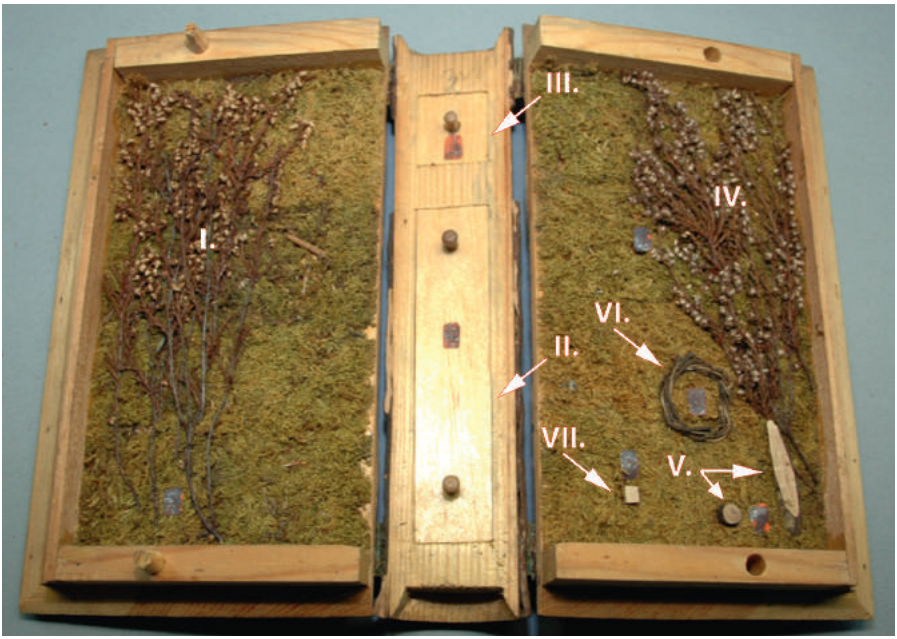
The "wood books" in German Holzbibliotheken were – to use a term from contemporary aesthetics – an intriguing kind of "Gesamtkunstwerk" in miniature, a small work of art unifying descriptive, visual and tactile elements of herbals and herbaria.

Acknowledgements
I am most grateful for unstinting support and permission to reproduce the images to Dr Annegret Bäuerle (Universität Hohenheim-Stuttgart), Peter Mansfeld (Naturkundemuseum im Ottoneum der Stadt Kassel) and Christina Hübner (Kulturhistorisches Museum Görlitz).

Figure 4 (above). The "book" on *Calluna vulgaris* in Kassel with front cover removed.

Figure 5 (below). Opened "book" on white-blossomed *Calluna vulgaris* in Hohenheim. The description of "Erica alba" in the compartment (III) provides helpful references keying the individual parts displayed in the two halves:

> *Most probably a variety of the common heather. It is a small evergreen shrub, inhabiting lowlands and mires, the peat layers of which it augments by its roots being no small part of them. It blossoms in August. The colour of the flowers is white. Since this heather is constantly blossoming, also in winter, it is called winter heather ("Winterheide"). As a young plant, this heather is good fodder for sheep. Its blossoms are eagerly sought by bees.*
>
> *I. Branch with foliage and ripe seed. II. The description. III. Seed for sowing. IV. Hermaphrodite flower. V. Shoot cut through vertically and horizontally. VI. Fibrous lateral roots. VII. 1/12 cubic inch from the heartwood for checking the specific weight.*



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Heathers **14**: 36–39

The naturalized heathers of Newfoundland

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There has been for many years a colony of *Calluna vulgaris* on Signal Hill in St John's, Newfoundland. I failed to find the heather during my first visit to St John's, even after having been told that it was growing on Signal Hill and searching for it in September, when the heather should have been in bloom and therefore easy to spot. Thus when I made plans to visit St John's a second time, I arranged to meet Andrew Patterson, a local resident well acquainted with the Signal Hill heather.

My second visit to Signal Hill was in June, so there was no chance to photograph the St John's heathers in bloom, but Andrew and a friend met me in the parking lot of the Signal Hill visitor centre and immediately pointed out the heather plants on the hill above the visitor centre. How I had missed seeing all those plants in bloom on my earlier visit, I cannot explain. As we followed a trail up the hill from the parking lot, we walked past hundreds of *Calluna* plants. I simply *had* to plan my next visit to St. John's for a time when they would be in flower.

The third time was the charm. My husband, Barry, and I arrived in St John's in early September 2015 and headed for the visitor centre on Signal Hill the next day. Not only were heathers blooming on the hill above the visitor centre. They were also growing well on the opposite side of the building. There was even a single plant right in front of the entrance!

The heather colony here is fairly extensive but by no means a monoculture. Single plants or groups of *Calluna* are scattered over the hillside nestled among other subshrubs, forbs and grasses. Most of the other shrubs are also members of the Ericaceae. The soil here is very thin, a small amount of organic matter mixed with gravel and overlying a rocky substrate.

Newfoundland is a geologist's paradise, an island composed of rocks from both the European and North American tectonic plates, which meet in Ganby. (St John's lies on the European plate.) Newfoundland's nickname is, fittingly, "The Rock". The Signal Hill slope where the stowaway heathers found a happy home centuries ago is underlain primarily by granite.

The Signal Hill heather colony is obviously thriving. We found plants in all stages of development, from seedling to senescent. Flower colour varied

The Signal Hill heather colony begins not far downslope from the Cabot Tower (left), which crowns the hill. From behind the visitor centre on Signal Hill, one can look southwest across the harbour to downtown St John's (visible, top of right photograph).

slightly but was primarily the medium mauve of the "average" *Calluna*. We saw no white or even very pale clones nor were any strongly colour-saturated. We also found none with double flowers or with foliage colour other than dark green.

Although heathers have been reported to grow on the side of Signal Hill that faces The Narrows, the entrance from the Atlantic Ocean to St John's harbour, we did not venture there to look for them on this visit. We did explore the top of the hill around Cabot Tower and some of the slope on the opposite side of the main access road from the visitor centre without finding heathers in either place. Those areas may be just a little too exposed to the strong, salt-laden winds that buffet the hill during storms. The area occupied by the heather colony is in a swale, which gives some shelter from those winds.

Barry and I had learned of one other heather colony in Newfoundland, in Whitbourne, a little town founded in the 1880s on the Avalon Peninsula about 40 miles (64 km) west of St John's. Todd Boland, of the Memorial University of Newfoundland, kindly sent us directions where to look for the heathers of Whitbourne, along the abandoned (1988) railroad right of way in what had been a thriving railway town. Indeed, Whitbourne was built specifically to support the railroad and today is the centre of three possible highway routes to visit the Avalon Peninsula. The old rail line is now part of the Trans Canada Off Highway Vehicle (OHV) Trail.

There has been speculation that the heathers on Signal Hill sprang from seed carried on heather branches used for packing material for one or more

shipments of supplies that arrived in St John's many years ago. If ships accidentally brought heathers to St John's, the train probably brought them to Whitbourne. Their presence so close to the old railway line points to the train as the most likely dispersal agent.

Despite its apparent antiquity, the heather colony on Signal Hill appears to be pretty well confined to one section of that hill. We saw no *Calluna* in other parts of St. Johns, not even directly opposite Signal Hill across the narrows.

This patch of heather along Main Street in Whitbourne was the most impressive we saw and was happily seeding into adjoining areas where conditions were favorable.

The colony in Whitbourne is not so confined. We initially missed the turnoff from Main Street in Whitbourne that would have taken us to the old train depot, but we managed to find quite a few heathers growing along Main Street itself. One corner, in particularly, had a large number of heather plants. We stopped to get a better look and photograph them. Most of the plants were at the top of a slope, growing in what appeared to be mostly gravel. Here, as on Signal Hill, plants were at all stages of development, though colour variations were practically nonexistent. There were many seedlings.

After we had seen so many heathers growing happily along Main Street, finding the heathers along the abandoned rail bed was almost anticlimactic. I admit that we did not explore too far down the OHV trail from the old depot, because on the day of our visit, the trail was a series of large mud puddles and we didn't have proper footwear for such terrain. The heathers we did see along the trail were intermixed with large forbs, shrubs and young trees.

The heathers of Whitbourne seem to be gradually venturing further away from their putative point of origin on the railway. I would swear that I saw a clump of *Calluna* about three feet across growing along the Trans Canada Highway a few miles east of the exit for Whitbourne. Because of the speed we were travelling and the amount of traffic on the highway during that busy holiday weekend, we were unable to stop to investigate. I alerted Todd to this possible outlier of the Whitbourne colony, and Todd confirmed in a reply email that there are, indeed, outlying patches of *Calluna* along the Trans Canada Highway.

After our successful locating of *Calluna* on Signal Hill and in Whitbourne, Barry and I spent two more weeks in Newfoundland and visited numerous other places that might have supported a heather colony. We hiked on trails over rocky substrates where heather relatives *Empetrum nigrum* (crowberry), *Vaccinium vitis-ideae* (known as partridgeberry to Newfoundlanders but lingonberry or cowberry to others), and *Vaccinium angustifolium* (lowbush blueberry or bilberry) – any or all – were thriving and fruiting heavily.

The heathers on Signal Hill had been growing happily among such ericaceous companions. If so many other parts of Newfoundland offer similar habitats, as evinced by the presence of heather's berry cousins, why have heathers not gradually spread throughout the island? There are obviously limiting factors at work here. Certainly Newfoundland gets some ferocious winter storms, but so do the Shetland Islands. There may simply be too much inhospitable terrain separating otherwise favourable habitats for the *Calluna* to leapfrog from one to the next. (No, there are no frogs in Newfoundland, either.) Because the Whitbourne heather colony seems to be venturing into new territory, perhaps it is only a matter of another hundred years or so before heathers find their way to other parts of The Rock.

Heathers **14**: 40–43

"Best of Both Worlds" – my garden design

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On my return to school after the 2015 summer holidays I had to decide on a subject for my one-year project GCSE. After much consideration I decided to design a show garden for the RHS Hampton Court Palace Flower Show, which has always been an ambition of mine.

Where to start

Before I started creating my design I had to decide on what type. I looked on the RHS website at Show Garden Design Applications at the different choices. I noticed that they were promoting "Greening the Grey" (turning parking spaces back into front gardens) and decided to create my design around this theme. I based my design on our front garden, which my dad had converted from garden into parking for our two cars. I chose to design a "city garden" as it measured (6m × 4m) which was the same as our front garden. I realised I needed to increase the "green space", yet provide the needed parking. It was at this point I decided on designing a car-port with a roof garden with a green wall at one end.

I looked in several builders' yards to see what heavy-duty scaffolding was available, as I was aware that the structure supporting my roof garden would need to take considerable weight. As well as this I emailed prominent garden designers to get advice on designing a show garden, such as Will Quarmby (The Heather Society's "Heathers in Harmony" Small Garden at Hampton Court 2011: Gold, Best Small Garden, Most Creative), Hugo Bugg (awarded many gold medals at the Chelsea Flower Show) and Rosy Hardy (many, many gold medals for exhibits in the Floral Marquee at both the Chelsea and Hampton Court flower shows). I had also visited every Hampton Court Palace Flower Show since the age of five, so had a pretty good idea of what was expected.

The design

To design the parking area I measured the length, width and distance between the wheels of my mum's and sister's cars, plus the area required to open doors and get out. I based the hard-standing area on these measurements. The areas in between are of a recycled plastic matrix, filled with gravel, to allow drainage. Stainless steel supports were designed at each end and in the middle to support the roof garden above.

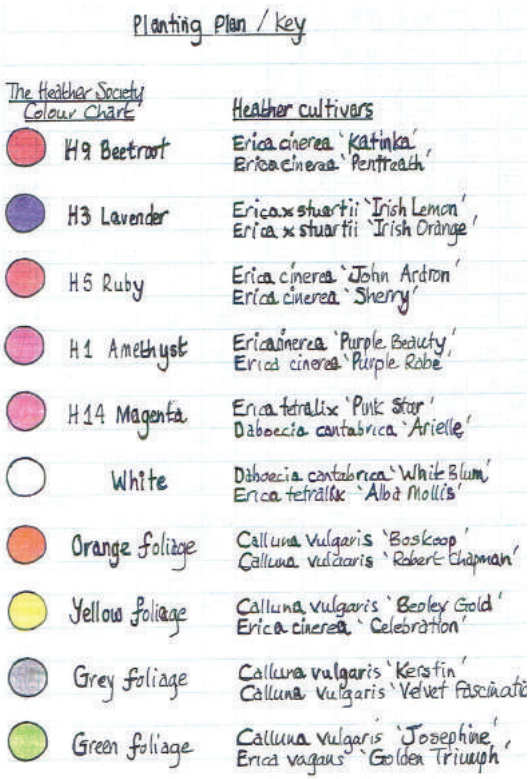

Figure 1. Heather cultivars (colour-coded) for the Roof Garden and Green Wall.

My roof garden is 6m long × 4m wide × 0.25m deep, and 2m above the parking space. It is constructed of marine ply and timber sides, with a butyl lining. Because the Hampton Court Palace Flower Show is in July I decided to use only heathers that are in flower then. I decided to use these heathers as they are shallow rooters, low growers, low maintenance and "Perfect for Pollinators" which made them ideal. I selected the varieties (Figure 1) from The Heather Society website, checking they were available from specialist nurseries. I decided on a rectangular design to give bold blocks of flower and foliage colour diagonally across the roof garden (for plan, see Figure 2).

The roof garden would be filled with ericaceous compost, with seep hose throughout, to allow for summer watering. This water would come from a sump built below the parking area, which would store piped winter rain collected from the roof. This would be pumped up using a garden-pond pump powered by a small solar panel fitted on the roof. I designed in a sky-light to provide natural light into the parking area, and allow central access to the roof for maintenance.

For my green wall I used Vertigarden modules (400mm × 500mm, 37 in total) each containing ericaceous compost and seep hose. I decided on a wave design (Figure 3) for this, again using the same range of heathers as the roof, to produce flower and foliage colour for the Hampton Court Show. Both the roof garden and green wall can be watered from the underground storage tank.

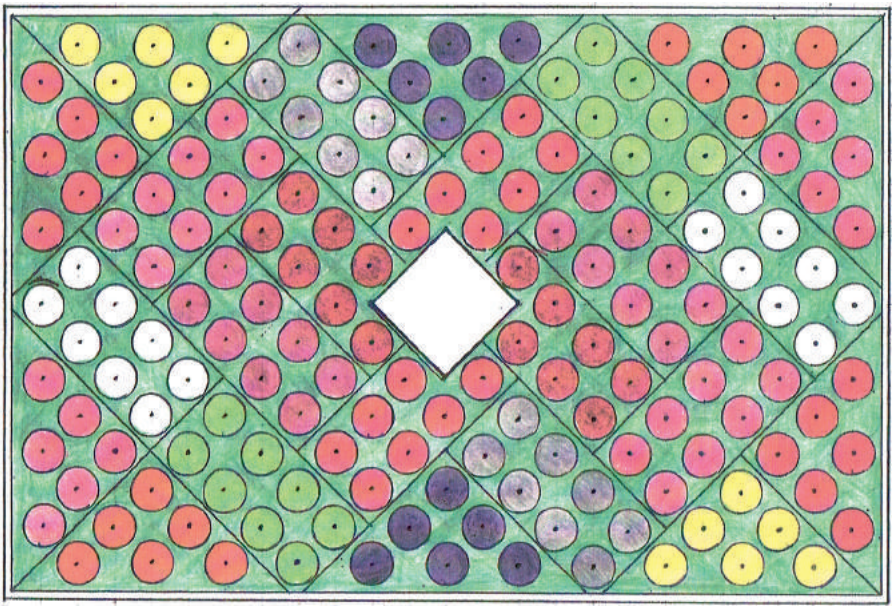

Figure 2. Plan of the Roof Garden (6 × 4m) with central skylight: see Figure 1 for key to the heathers.

Figure 3. Wave design for Green Wall (4 × 2m) with window.

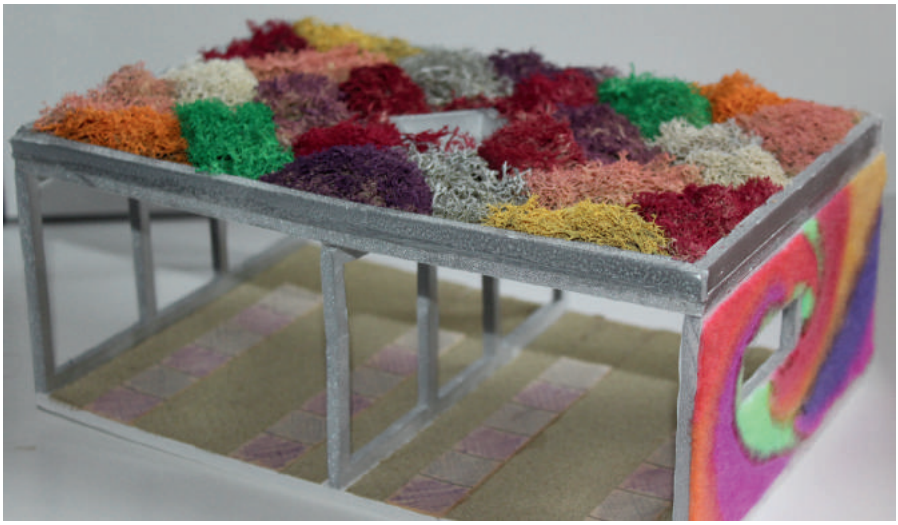

Figure 4. Model of car-port (1:25) with Roof Garden and Green Wall (photograph by Molly Hall).

3D model

To get a better feel of my design I decided to build a 3D model (Figure 4) out of foam board (structure), sprayed lichen (heathers), coloured felt (green wall) and sandpaper (parking base). This helped me understand the practicality of my garden and made it easier to view.

Submit my design to the RHS & the outcome

My project teacher, Mrs Seys, suggested I submit my plan to the RHS Show Garden judging panel for feedback. The constructive criticism and encouragement I received helped me a lot and was appreciated. The RHS asked me to submit a garden design when I am 18.

My GCSE project was awarded 100% and an A*. This project has given me a taste for garden design. I have decided when I have completed my GCSEs in two years time, my grades being good enough, to do a two-year Horticultural Diploma, then go on and do a garden design course. My ultimate aim is to design a gold winning garden at the RHS Chelsea Flower Show.

Heathers **14**: 44–49

Heather honey and white-blossomed *Calluna* in Hieronymus Bock's herbal (1546)

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Around the middle of the sixteenth century attentive botanists in north-western Europe began to realise that some plant descriptions by the ancient authorities (in particular by Pedianos Dioscorides and Gaius Pliny the Elder from the first century AD) did not accord with the observations they had made by themselves in their respective home countries. A prime example of such a discrepancy is the heather *Calluna vulgaris* which, in the herbals of that time, was commonly called "Erice" or "Erica vulgaris". The problem was that when Dioscorides, Pliny and other ancient authors referred to "Erica" they usually meant *Erica arborea*, tree heath, which is frequent in the periphery of the Mediterranean Basin but absent entirely from northern Europe, whereas when botanists in early modern times used "Erica" they were usually referring to *Calluna vulgaris*, the heather abundant throughout northern Europe (see the distribution maps in Nelson 2011: 40, 202). Both species are, so to speak, mutually exclusive. They look quite different and consequently cannot be described congruently. Sixteenth-century botanists, however, did not know about this difference; all they knew was what they had read about "Erice" – a plant which, to make things worse, often was confounded with other shrubby plants such as the tamarisk (*Tamarix*) or even the chaste-tree (*Vitex agnus-castus*).

The first scholars to express doubts regarding "Erica" were Hieronymus Bock (1498–1554) (Figure 1) in Germany and William Turner (*c.* 1509–1568) in England, who almost simultaneously, but independently queried what had been taken at face value about heathers for centuries. In doing so, the approaches of the two botanists were very different. Turner, who had observed heathers in his home county of Northumberland, focused on the growth and habitat. In his *New herball* (1551: p. ij) Turner noted that the heathers he had seen were not tree-like and the landscape where they occurred was quite different from that described by Dioscorides and Pliny.

Turner's German colleague Bock (Latinized as Tragus) had observed heathers growing in the Wasgau, a mountain range in his home region in south-western Germany. He also started out from Dioscorides and Pliny but, unlike Turner, centred upon the blossoms and the allegedly inferior quality of the heather honey made in autumn by bees. Based on his observations, Bock concluded (1552:

Figure 1. Hieronymus Bock (Tragus), by David Kandel (see also Figure 3).

951) that "the Erica of the ancients certainly was not what we call today by this name".[1] Turner's and Bock's reports are important evidence for the general process of the emancipation of natural history from antique tradition that took place during the sixteenth century. However, at the end of his account of heather Bock made a remark which is singular and goes beyond this trend towards autonomy. It concerns the colour of the flowers of some wild *Calluna*.

Before I discuss this, Bock's text needs to be introduced. Bock presented his account of heather for the first time in his *Kreütter Buch* (1546: part 3: 5, *Heiden*[2]). A rather free Latin translation of *Kreütter Buch*, made by David Kyber in Strasburg, soon followed, titled *De stirpium, maxime earum, quae in Germania nostra nascuntur … Commentariorum Libri tres* (1552: 951–952, De Erica). In both the original German text and the Latin translation, descriptions are basically identical, but the Latin is written in a rather formal manner whereas the German original has a more personal tone. The accompanying English translation (see p. 46) is based on the German original; I have modernized Bock's archaic German as that is difficult to read.

The starting point, as indicated in Bock's description, was the reputed inferior quality of heather honey, a bias popularized by Dioscorides and Pliny. This verdict, reiterated by nearly all Renaissance herbalists, was contradicted by Bock's own observations. Bock insisted that honey from heathers was the "best, purest honey". Bock's opinion, shared in recent times by many honey aficionados, might be considered a mere matter of taste and so very debatable. It should be noted, however, that the good opinion is supported by at least one ancient source: a Dioscorides manuscript (Wellmann 1907: 82) stated exactly what Bock later articulated.

While Bock's discussion of honey was rejecting an obstinate commonplace of his time, the final remarks in his description of "Erica" really were unique observations. Bock noted that occasionally one can find heather plants with

Es gibt kaum ein Gewächs in deutschen Landen, das die Bienen lieber besuchen als gerade die blühende Heide im August, deren kleine, rot- bis fleischfarbene, sternförmig angeordnete Blüten zu dieser Zeit einen lieblichen Honiggeruch von sich geben. Daher sagen viele und bringen die eigene Erfahrung als Beweis, dass der beste, reinste Honig von den Heideblüten gesammelt wird, ja, wenn die Waldheiden in der Wildnis nicht gut blühen oder sonst Schaden erleiden, wird im Wasgau und anderen Wäldern zum Herbst hin umso weniger Honig bei den Immen gefunden.

Das sage ich deshalb, weil die alten griechischen und lateinischen Schriftsteller übereinstimmen und schreiben, dass der aus Heiden gesammelte Honig der allergeringste sei. Das muss, nach meiner Meinung, in anderen Ländern geschehen, oder bei den Alten wurde unter Erica nicht wie bei uns die Heide verstanden.

Es sei nun Erica Heide oder nicht, so ist es doch ein schönes, edles, anmutiges Sträuchlein, besetzt mit vielen runden, braunen Sprossen, die überall mit wirklich sehr kleinen, grünen Blättchen geschmückt sind und wie das wohlriechende Zypressenkraut aussehen, aber grüner von Farbe.

Mancher Heidestängel in den Wäldern wird etwa zwei Ellen hoch. Von diesen findet man zur richtigen Zeit welche mit ganz weißen, sternförmig angeordneten kleinen Blüten, aber selten. Diese verwelken im Herbst ganz ohne Frucht oder Samen.

There is hardly a plant in German lands that bees visit more gladly than heather when it comes into bloom in August, because its small, red to flesh-coloured[3] florets emit a lovely smell of honey at this time. Therefore many say, and cite their experience as proof, that the best, purest honey is that collected from heather blossoms, yes, indeed if the forest heathers do not flourish in the wilderness or if they otherwise come to harm, in autumn the bees will produce less honey in the Wasgau[4] and other forests.

I say this because the ancient Greek and Latin authors agree, writing that honey collected from heather is the least valuable.[5] This must, in my opinion, happen in other countries, or the "Erica" of the ancients was not the same heather that we know.

Now let "Erica" be heather [*Calluna*] or not, it is still a beautiful, noble, charming shrub, with many terete, brown[6] stems entirely covered with very small, green leaflets, looking like the fragrant cotton lavender[7], but of greener colour.

In the woods some heather branches grow to about two cubits[8] high. At the appropriate time, although infrequently, one can find some of these with white, star-shaped florets. These wither in autumn entirely without fruit or seed.

entirely white, "ganz weißen" ("prorsus candidum" in Latin), star-shaped flowers. Dating from before 1546, his remarks significantly precede the publication of Bock's pupil Jakob Dietrich, better known as Tabernaemontanus[9] (*c.* 1520–1590), who is usually credited as being the first to have documented white-blossomed heather (Nelson 2011: 50).[10] Tabernaemontanus's (1590: 1111) work contained a picture entitled "Erica alba / Weiß Heyd" (Figure 2), however without any explanations.[11] The figure accompanying Bock's description, by contrast, generally referred to "Heiden" (Figure 3) but provided the necessary information, as indicated, in the corresponding text.

Even more interesting than the fact of Bock's early note about white-blossomed *Calluna* is his additional remark that the withered white flowers were "without fruit or seed". The occurrence of atypical white blossoms (ones that lack the pigments causing the petals to appear coloured) had already been

Figure 2. "Erica alba, Weiß Heyd" (*Calluna vulgaris*) (Tabernaemontanus 1590); the artist's name is not known (compare Arber 1986: 76), possibly a modified copy from Matthiolus or Clusius, later used by Gerard (1597: 1196), but intended to show the common heather (see Nelson 1998).

Figure 3. "Heiden" (*Calluna vulgaris*) (Bock 1546); woodcut by David Kandel (d. 1592) from Strasburg, modified from Fuchs (1542: 254). Other editions/copies are known in which the flowers are (intentionally?) white.

observed by Bock's contemporary, Leonart Fuchs – blue-flowered wild endive (*Cichorium intybus*) occasionally had "entirely white" flowers (Fuchs 1542: 676). At the end of the sixteenth century horticultural acquaintances of the Flemish botanist Charles de l'Écluse were particularly interested in such white variants and even speculated about a link between white flowers and sterility (Egmond 2010: 31–32). But here the case is different and the question arises how Bock, who in other cases carefully observed the development of fruits and seeds, could have been deceived that much in stating that the white heathers lacked fruits and seeds?[12] It seems that whether white flowers and sterility[13] are linked remains open for further investigation.

Notes

[1] In Latin: "certe ueterum Erica non fuit ea quam nos hodie hoc nomine appellamus"; the German original reads: "bei den alten Erica nit Heiden / wie bei uns / gedeüttet worden" (1546: part 3: 5).

[2] In the very first edition, entitled *New Kreütter Buch* (1539), the third part of the 1546 edition including the section on "Heiden", was still missing.

[3] The Latin version has "purpureus" ("purple coloured").

[4] The Wasgau (French: Vasgovie) is a range of hills in the region where Bock was at home (his exact birthplace is disputed). Today, the northern parts of this range belong to Germany (Palatinate Forest) while the southern parts are French (Vosges).

[5] Refers to Dioscorides, *Materia medica* 1.88 and Pliny, *Naturalis historia* 11.15.41.

[6] The Latin version has "purpurantes" ("having a tinge of purple").

[7] "Chamaecyparissus" in the Latin version (= *Santolina chamaecyparissus*).

[8] A cubit was 61cm.

[9] Tabernaemontanus is the Latin name of Dietrich's birthplace, Bergzabern, also located in the Electoral Palatinate where Bock came from.

[10] Since the nineteenth century, in parts of Britain white-blossomed heather, especially ling (*Calluna vulgaris*) has been considered a love-token between couples or, more generally, an emblem of fortune or good luck (Nelson 2011: 50–51, 389–390; Nelson 2006). Before that time, such flowers were without any special significance, being only a freak of nature.

[11] A posthumous edition, with text by Caspar Bauhin and Nicolaus Braun (Tabernaemontanus 1613: 831), stated that white heather, besides the flowers, is "entirely identical" to the common plant (probably quoting Gerard 1597: 1196).

[12] Kirschleger (1852: 507) also referred to Bock's white heather blossoms but ignored their alleged sterility.

[13] At least one heather cultivar, *Erica tetralix* 'Alba Minor' has reported never to have yielded pollen (Griffiths 1985), so is apparently male sterile; it is therefore a useful seed-parent in artificial breeding programmes. However, there are no similar modern reports about white-flowered *Calluna vulgaris* clones.

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Heathers **14**: 50–52

Peace Garden at the Muslim Burial Ground in Woking, Surrey

Lizzie Judson
77 Meadway Drive, Horsell, Woking, Surrey, GU21 4TF.

It is not that often these days that you hear of heathers being newly planted in public gardens and rarely in such unusual circumstances.

The Peace Garden at the Muslim Burial Ground in Woking was officially opened on Thursday 12 November 2015 by His Royal Highness The Earl of Wessex KG GCVO. The garden, on Horsell Common near Woking in Surrey, has a setting and layout you would expect in an Islamic garden – plus pink and white heathers that you would not.

To understand how this interesting garden came to be made we need to go back in time into the history of the Muslim Burial Ground.

The original Woking Muslim Military Cemetery was opened in 1917 by the British government to rebuff German propaganda that Muslim Indian soldiers

who fought and died on our side in the First World War were not being properly buried according to their own religious rites. It eventually contained the bodies of 19 Muslim Indian soldiers from the First World War and eight from the Second World War. The site on Horsell Common was chosen because it was close to the Shah Jahan Mosque, the first purpose built mosque in the UK and Northern Europe. Unfortunately Horsell Common was fairly remote so the Burial Ground was prone to vandalism and in 1969 it was decided to exhume the bodies and re-inter them in the nearby Brookwood Military Cemetery.

Over time, due to lack of funds, the Muslim Burial Ground became more and more vandalized and overgrown by trees and other vegetation. When I first encountered it about 15 years ago it was so overgrown you could barely see it – like discovering a lost temple in the jungle.

The Horsell Common Preservation Society, who now owned the land the Muslim Burial Ground was built on, tried unsuccessfully for many years to raise funds to restore it. Finally in 2011, with the centenary of the First World War looming, they managed to secure an 80% restoration grant from English Heritage with Woking

Borough Council contributing the rest. Then it was a case of deciding what to do with the empty space in the now-empty Burial Ground once the vegetation was cleared and the historic Grade 2 listed structure restored.

After a consultation with local people it was decided to turn the former Burial Ground into a peace garden with features in the garden commemorating the soldiers who had once been buried there. So landscape designer Lionel Fanshawe of Terra Firma was appointed to design this English version of an Islamic garden. The final design contains a water feature and reflective pool, with 27 silver birch trees and an engraved stone to commemorate the soldiers who used to be buried there. The birch trees are under-planted with stripes of pink and white heather to reflect the fact that heather used to be planted around the gravestones in the original cemetery. The result is a tranquil and peaceful garden – a great place to sit and relax and to remember the Indian soldiers who died supporting us in the two world wars. As the garden is on common land it is always open to the public and you can visit any time of day. It is well worth a visit.

For more information see the Horsell Common Preservation Society website: http://www.horsellcommon.org.uk/sites/the-peace-garden/

There is also a video by Woking Borough Council on the restoration: https://www.youtube.com/watch?v=Ffogn5w2dQM

For an in-depth look at the restoration and background to the soldiers once buried there, a BBC documentary is available on Youtube: https://www.youtube.com/watch?v=Y0cDsdMvplQ

Heathers **14**: 53–56

Perth heather collections with a difference

Euna Scott MBE
Perth, Scotland.

The City of Perth lies in the heart of Scotland. Nationally recognized as a centre of horticultural and environmental enterprise and excellence, accolades for the City continue to abound in national and international competitions. 2016 was no exception with the City scoping another Gold Medal in the Royal Horticultural Society's "Britain in Bloom" competition.

However, the story was not always so glamorous. In 1989 derogatory comments in the national press with the headline "Foul City not Fair", spurred businesses, the media, volunteers and public bodies, to work as a partnership to redeem Perth's image for both tourists and residents. A major drive to combat litter and dog fouling was the first key objective. The campaign was named "Take a Pride in Perth". A letter from the then Prime Minister, Margaret Thatcher encouraged the campaign committee and praised them for their combined efforts.

Today, 27 years ago since that jolt to the City's image, residents and visitors enjoy a very different environment. Nevertheless, behind the scenes the same partnership formed in 1989 still actively works within the community and now is undoubtedly recognized as part of the City's culture.

In 1990 the campaign was renamed "Perth in Bloom" and several years later became "Beautiful Perth". The "Bloom" campaign, which has over the years spread throughout towns and villages district wide, has always maintained a clear direction and focus on the "Beautiful Scotland in Bloom" and "Britain in Bloom" three defined pillars – horticulture; environmental responsibility; community involvement. The highest standards continue to be the goal.

The heather collection at Cherrybank

In 1973 whisky magnates Arthur Bell & Sons moved from their Perth city centre premises to new offices on the outskirts known as Cherrybank. In addition to 18 acres of immaculately landscaped greenspace, in 1984 an additional seven-acre extension became home to Bell's National Heather Collection. However, a business amalgamation in 1990 changed the management of Cherrybank including the heather collection to United Distillers UK. Head gardener, Norrie Robertson, who sadly died in 2016, was a stalwart member of the newly formed "Perth in Bloom" committee and United Distillers became the campaign's main

sponsor. Their input was invaluable in the early stages. More changes, however, were to follow with another merger and the name changed to Diageo. Alas, Diageo pulled out of Perth in 1998, and everyone wondered was what would happen to the heather collection.

In 2003 new hope for the garden's retention came when Diageo gifted the entire site to Scotland's Garden Trust (SGT) for the purpose of developing a National Garden with the chosen name "The Calyx". But sadly the SGT's £25 million lottery bid was unsuccessful and in March 2008 the Trust closed the garden to the public.

For the next three years, despite protracted negotiations and public petitions to retain Cherrybank in public ownership, the transfer from SGT to Perth & Kinross Council failed. Meantime the heather collection was deteriorating particularly following the frosts in 2009/ 2010.

On a positive note, however, Cherrybank was later bought by a local businessman and Merlin ERD Ltd continues to flourish maintaining the grounds including the heathers.

The heather collection at Riverside Park

The Riverside Heather Collection, September 2016 (E. C. Nelson).

Registered as a Scottish charity, "Beautiful Perth" has established since 1990 a very creditable reputation not only for winning awards, including the Queen Mother Award for Enterprise, but for delivering a wide range of improvement projects. In 2011 to celebrate the Campaign's 21st birthday, the Committee was ready to spearhead a new venture and the desire to retain a premier heather collection in Perth was still bubbling under the surface.

After discussion between "Beautiful Perth" and Perth & Kinross Council, it was agreed that a new heather collection could be achieved but in a smaller area. Following site assessments the three park areas collectively named Riverside Park – Norie Miller/

Rodney Gardens and Bellwood - were considered to be the best option for a new collection, particularly with the advantage of virgin soil. "Beautiful Perth", as a catalyst, offered to contribute £25,000 to the new planting and, importantly, local volunteer assistance – always a key factor in the Campaign history. Perth & Kinross Council agreed to the proposal and contributed £150,000.

Riverside Park has a stunning setting overlooking the River Tay with the city centre in close proximity. The Park is a short walk from Branklyn Gardens, owned by the National Trust for Scotland and housing three national collections (Meconopsis, Cassiope and Rhododendron taliense). Adjacent to Bellwood is the historic Kinnoull Graveyard where Perth-born Effie Gray, wife of the Pre-Raphaelite painter John Everett Millais, is buried.

The Bellwood area of Riverside Park was the obvious starting area for the new heather beds, but although the landscape structure is good, the permanent planting over the years had become overgrown and a haven for rabbits!

To add interest to the mix, Bellwood has a fascinating history and is the last surviving fragment of Bellwood Nurseries. In 1766 the rich alluvial soil and its position on the lower slopes of Kinnoull Hill attracted James Dickson from the Scottish Borders who established a 60-acre nursery employing over 80 people. The fame of the nursery which continued over some 100 years, soon established a notable clientele, including HRH the Duke of York, second son of King George III who had plantings at Windsor's Great Park carried out with Bellwood trees. The nursery gained fame for the double Scots roses bred from a wild rose found on Kinnoull Hill. The scarlet hawthorn was also bred there and, importantly for the farming community, the distribution of Swedish turnip seed, the Swede, was another first. It was recorded in late 1800s the nursery carried a stock of 10 million trees!

World renowned botanist David Douglas was born in Scone in 1799, and attended Kinnoull School between the ages of 7 and 11 when he left to be employed as an apprentice gardener at Scone Palace Estate. It is recorded that he was often late for school as he preferred to study the flora and fauna on Kinnoull Hill. Was he also curious and familiar with Bellwood Nursery?

Today most of the land once occupied by the nursery has been built on, but fortunately Bellwood Park remains and is leased to the Council by Gannochy Trust who has recently made a much appreciated financial contribution to the establishment of the new heather collection.

Major clearance work started in Bellwood in 2012 which uncovered another link with the past, a small round turreted stone-built garden structure, dating from about 1860, together with two wells. The stream supplying the wells rises on Kinnoull Hill near St Mary's Monastery where a religious shrine was built to recognize the fact that the water was supposed to have health-giving and healing properties.

What an interesting part the heathers have played in Perth's history. The collection in Cherrybank was liberally funded by the whisky industry and maintained by a team of 5 full-time gardeners. Now a new collection in Riverside Park is managed by volunteers with a passion for heathers, a limited budget but perhaps with access to a very different water of life!

Details about Riverside Park heather collection can be accessed at http://beautifulperth.org/

Heathers **14**: 57–61

Heather primacy disrupted: fire, cattle and extreme weather in an ancient Caledonian pinewood

M. H. Hancock
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I was intrigued to receive an invitation to speak at The Heather Society Annual Gathering, and delighted to be given a chance to explain our research at Abernethy Forest, during which we have investigated the management, in the wild, of common heather, *Calluna vulgaris*. As a research scientist working for the RSPB (Royal Society for the Protection of Birds: a nature conservation charity mainly funded by its members), my job is to do the science needed to help support our nature conservation work. One of the main activities of RSPB is to buy and manage nature reserves, and one of our premier reserves in the UK is at Abernethy, 70 miles north of Perth.

Figure 1. An old, open forest stand in the ancient pinewoods at Abernethy Forest RSPB reserve. Abundant heather, as in this photograph, is typical of these stands (photograph © Mark Hancock).

Figure 2. A view of the forest edge and moorland at Abernethy Forest reserve. Heather reaches its highest abundance in this habitat. Young pines, encouraged by reserve management (for example, by deer control), can be seen emerging from the heather (photograph © Mark Hancock).

Thousands of years ago, large areas of Scotland were covered by Scots pine (*Pinus sylvestris*) forest; only a few fragments of this ancient, native Caledonian pinewood remain. The largest of these fragments is Abernethy Forest (Summers 2017), which still retains much of the character and wildlife of the once extensive Caledonian forest. Heather is a very important plant at Abernethy, being abundant both within the forest, and on adjacent open moorland, where much of the woodland was removed by man long ago (Figures 1 and 2).

At Abernethy, we have been testing different ways of managing heather, to see if these can help us achieve our nature conservation aims. Key aims at Abernethy are to promote natural expansion of the old pine forest, and to support important populations of capercaillie (*Tetrao urogallus*), the world's largest grouse. Pines and grouse around the world are sometimes associated with landscapes where ecological 'disturbances' take place – such as natural fires. Meanwhile, one of the most common plants at Abernethy – heather – is famous for its flammability. Similarly, grazing by large herbivores has a 'disturbing' effect on ecosystems, with some similarities to fire. At Abernethy,

perhaps wild cattle (the now extinct aurochs, *Bos primigenius*) could have once played an important ecological role – though some argue that other species like elk (*Alces alces*) were much more important at sites like Abernethy (Summers in press). The effects of both natural fire and large herbivores could perhaps be re-created by managers – using managed fire and cattle grazing respectively. We decided to test these management techniques. We asked the question, at Abernethy, would establishment of young pine trees, and the quality of capercaillie habitat, benefit from ecological disturbances such as fire and large herbivores (grazing, trampling, browsing)?

Figure 3. Cattle in a heather-dominated experimental grazing plot in Abernethy Forest: testing the effects on field layer shrubs, particularly bilberry, an important plant for capercaillie (photograph © Alistair Hamilton).

We set up a series of experimental trials, in which some areas were 'disturbed' by fire or cattle, and similar comparison or control areas were left undisturbed (Figure 3). We then measured the responses, such as the numbers of young pine seedlings getting established, and aspects of the habitat that capercaillie need, such as abundant bilberry *Vaccinium myrtillus*.

Nature is full of surprises – and little did any of us expect that an extreme weather event would also come along during our studies, and 'manage' the heather in its own way. During remarkably dry, cold, late winter weather in February 2003, we were busy carrying out the management fires for the

experimental trials. Only later did we notice how large areas of heather were turning reddish brown and dying. After a few years, these areas held abundant dead heather, now grey and collapsing (Figure 4), leaving gaps which grasses and *Vaccinium* species were colonizing.

Figure 4. An example of an area of extensive heather die-back at Abernethy, three years after highly unusual (low humidity, dry, cold, snow-free) weather in February 2003 (photograph © Mark Hancock).

This type of die-back is sometimes referred to as heather 'frosting', but investigating this particular die-back event (Hancock 2008) suggested that it was more likely caused by a combination of exceptionally low humidity, lack of snow cover, and the age (stem length) of heather at our site. Humidity conditions became so low in the Scottish Highlands in mid-February 2003 that the Met Office made the analogy with desert conditions (Anonymous 2003). These factors may have combined to create exceptional 'winter desiccation' (Tranquillini 1982) stress on heather plants, which coincidentally may have been reflected in some exceptionally low, heather shoot moisture readings that we made on the days of the experimental fires around the same time. This die-back event ultimately led to the long-term loss of about one third of the heather cover in our monitoring plots and across much of Abernethy reserve.

Despite this unexpected event, we were able to test the different management techniques (Hancock *et al.* 2009, 2010, 2011). Fires and cattle grazing were

shown to lead to an increase in bilberry, a key plant for capercaillie, by creating a period of a few years during which heather dominance was reduced. Over a decade after the trials, heather is now back in all the burnt and cattle-grazed areas, though the die-back event has meant it is not quite at the level of its former dominance. The trials also supported the use of heather burning to promote pine regeneration – with new pine seedlings increasing roughly 10-fold after fire. The window of opportunity provided by heather burning has allowed a cohort of new young pine seedlings to establish. Overall, we have been able to measure the value of these heather management techniques as natural approaches to promoting the more rapid expansion of ancient pinewood sites like Abernethy.

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Proceedings of The Heather Society 2016

Awards of Honour

Daphne Everett

The Heather Society Gathering in Perth was chosen as an appropriate occasion to present an Award of Honour to our long-standing member Daphne Everett, whose has retired from editorship of the Society's *Bulletin* after a remarkable 27 years in post, overseeing more than 80 editions of this much loved publication. Daphne was presented with a framed certificate and a gift of heather plants.

Daphne is a very well-known figure in the Society, and one of our top experts in the practicalities of heather propagation and cultivation. She was elected to Council in 1982, and two years later, after several years running a successful heather nursery in Worcestershire, she and her about-to-retire husband Maurice moved to Herefordshire and embarked on a major adventure. This was to be a major expansion of their heather business and the establishment of what was to prove a much acclaimed and much visited garden, now known as The Bannut. The exploits of Daphne and Maurice in developing The Bannut have been well documented in the 2015 yearbook and make fascinating reading. The garden was an immense success, quickly acquiring an enviable reputation and attracting many visitors. Heathers played a major role in the garden, and were often used in innovative ways. After 30 years Daphne and Maurice felt that it was time to down-size and they moved to a smaller property, leaving The Bannut in good hands, and set to work on the challenges of their new garden. We have to be thankful that despite all the demands that The Bannut made

on her time, Daphne was still able to find time for her duties as editor of the Society's thrice-yearly *Bulletin*. She has also held the honorary position of Vice-president since 2005.

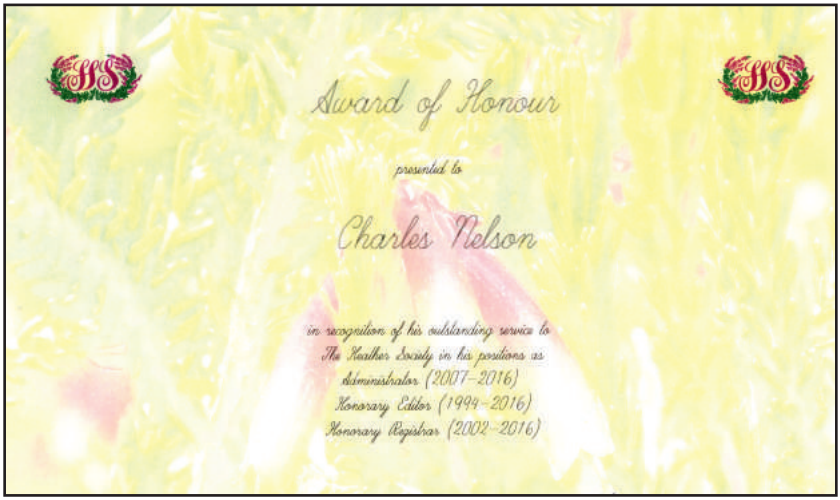
For some 27 years the *Bulletin* has thrived and expanded under Daphne's management, and she has overseen the growth of desktop publishing, the introduction of colour illustration, and most recently, publishing on the internet. Apart from helping us all keep up with Society news, activities and events, the *Bulletin* has proved to be a much appreciated companion. We have all had our spirits uplifted when the *Bulletin* dropped through our letterbox on a dull wintry day, knowing that whatever the weather, we could sit down with a cup of coffee and have a good read about heathery topics. For this, and much more, we owe Daphne a great debt, and the Award of Honour and the gift of heather plants are but small tokens of our gratitude for all her hard work and dedication over so many years. We hope she will now be able to devote more time to her new garden, and that she and Maurice will continue to enjoy gardening with heathers for many years to come.

Charles Nelson

It was my great pleasure at the Perth gathering to present on behalf of the Society an Award of Honour to our distinguished member Charles Nelson, in recognition of his many years of dedicated service to the Society. Charles was presented with a handsome framed certificate and a bottle of Heather Rose gin! Thanks to the covert efforts of our Secretary it was obvious that the Award came as a complete surprise to Charles. My pleasure at being asked to make the presentation was also tinged with sadness, as the occasion marked Charles's retirement from his positions as Yearbook editor, Administrator and Registrar, positions in which his unique expertise and experience have proved invaluable.

When Charles joined the Society more than 35 years ago [1979] we immediately gained a botanist of great academic repute. Charles took up the role of Honorary Editor of the Yearbook in 1994, and thanks to his enterprise the Yearbook immediately saw a step change in content and layout. For the first time colour illustration was used throughout. While continuing to act as Editor of the *Yearbook* Charles was appointed Registrar in 2002, and then as Administrator in late 2006, since when he has continued unstintingly in all three roles up to the present time. Thanks are also due to Charles for the fact that in 1998 the Yearbook gained accreditation from the International Association for Plant Taxonomy, which meant that any new species names published in it were automatically registered.

After much dedicated effort, in collaboration with David Small, he oversaw the eventual publication of the two volumes (in eight parts) of *The*



International register of heather names in 2000 and 2004. This major task provided a comprehensive register of heather cultivar names, as well as listing innumerable synonyms for the hundreds of *Erica* species native in Europe and Africa, and can be considered the jewel in the crown of Heather Society publications. It has since had 15 supplements.

We must remember that outside the sphere of the Heather Society Charles has a very busy life, and demands on his time as a botanist of international repute have been prodigious. He obtained his BSc degree in botany from the University College of Wales, Aberystwyth, in 1971, and his PhD from the Australian National University, Canberra, in 1975. He has now published well over 150 research papers and has edited or authored numerous books. Members will be fully aware of his book *Hardy heathers of the northern hemisphere*, which can rightly be regarded as a *tour de force* among heather books, combining academic rigour with readability, practicality and beautiful illustrations.

He has been awarded the Founders' Medal by the Society for the History of Natural History (May 2013), the Gold Veitch Memorial Medal by the Royal Horticultural Society (February 2015), and, most recently, the Gold Medal of Honour by the Royal Horticultural Society of Ireland (December 2016, during that Society's bicentenary celebrations). We hope this additional Award, though more humble, will express the immense gratitude we all feel to Charles for his many years of dedication to the Society.

John Griffiths, President

45th Heather Society Gathering
9–12 September 2016

The Fair City was chosen as the venue for the 2016 Annual Gathering for the very particular reason that it has a new collection of heathers planted in Riverside Park, replacing the renowned Bell's Heather Collection at Cherrybank.

Long labelled a city, "from time immemorial", Perth was granted formal city status in 2012, Queen Elizabeth of the Scots' diamond jubilee.

VISITS

The Riverside Heather Collection is a short walk from the Royal George Hotel which was the venue for the Gathering, so on Saturday morning, after breakfast, members rambled across to the Park and spent several hours admiring, photographing and discussing the new plantings. Given that all the plants are less than five years old, they were vigorous and (mostly) healthy. The past summer's weather meant that quite a few of the bell heathers (*Erica cinerea*) were still in fine bloom, some patches standing out in glowing colour. Many of the lings (*Calluna vulgaris*) were at their peak, with vigorous young shoots laden with blossom. 'Kinlochruel' was especially fine, brilliant white, standing out in the more recent plantings.

The place selected for the heather collection is the valley of a small stream which flows down to join the River Tay. From the higher points of the park, there are views across the Tay to the city. The banks of the stream are also planted with clumps of grasses, while the adjacent lawns have scattered trees. Kinnoull Aisle and recently cleared Kirkyard can be seen through railings at the top of the slope. More spectacular is the prospect through "Millais' Viewpoint", at which the members were gathered for the traditional group photograph. The viewpoint was created to mark the fact Millais's wife, Effie Grey, is interred in Kinnoull Kirkyard. Being on an eminence, the viewpoint also provides a resting place from which the heathers can be seen

We were welcomed by John Summers, Chairman of Beautiful Perth, and were treated to coffee, oatcakes with cream cheese and strawberries and fudge. We had an opportunity to chat to the volunteers who help maintain the heathers, including Barbara McDonald, one of our members. Afterwards we travelled by coach to Glendoick Garden Centre for lunch and then on to Perthshire Heathers.

Perthshire Heathers is a new enterprise, yet a continuation of the nursery owned by George and Anne Gow. No longer in Perthshire but at Starr Farm outside Cupar in Angus, it is owned and run by Irene and Ken Lang. They

Members gathered at "Millais' Viewpoint" in the Riverside Garden, Perth, 10 September 2016 (E. C. Nelson).

obtained their basic stock from the Gows, and operate as a wholesale nursery, although members were able to purchase plants. We were shown the propagation tunnels and growing areas that were bright with fresh, young heaths. As at Riverside Park, *Calluna* cultivars were in the prime of bloom. A few St Dabeoc's heaths (*Daboecia cantabrica* and *D.* × *scotica*), including 'William Buchanan' and 'William Buchanan Gold' added splashes of deep crimson. Several bell heathers, including 'Romantic Scotland', attracted attention and were among the purchases of members.

The weather was "kind", neither cold nor wet, throughout the weekend. On Sunday, following the business of the annual general meeting, we were brought to Crieff Visitor Centre for lunch, and thence to Drummond Castle. The coach driver, mistaking a sign, drove along the beech-lined avenue, unconcerned about the branches slapping against the roof, sides and windows of the vehicle. Our stately progress abruptly ended when the coach reached the gates at the other end, the left-hand wing mirror suffering in the altercation. A display of expert multipoint turning between the beech trees followed, allowing the coach to return to the car park where our guide, the retired head gardener, had been waiting with great bemusement for The Heather Society!

Drummond Castle has a spectacular situation, on a volcanic dyke, with views southwards over the deerpark to the Ochil Hills. The famous formal garden is

laid out below the castle, and a ceremonious staircase leads down from the castle to it. The basic pattern is the saltire of the Scottish flag – St Andrews cross – picked out by paths lined with low, tightly clipped box hedges. This magnificent "carpet" has existed since 1830, and it is noteworthy that during the 1870s and 1880s at least, the panels of the central "rosette" were filled with hardy heathers. Not today, alas – the only heathers seen in the garden were half a dozen planters in the vegetable garden that contained 'Kinlochruel'. The panels nowadays are emblazoned with white ('Iceberg'), red and yellow roses, and (undoubtedly) seasonal displays of florists' blooms. With autumn approaching, the maples and other deciduous trees in dark late summer foliage. Carefully clipped and shaped evergreens provide contracting textures and shades, punctuating the parterre as if they were "exclamation marks". Classical statuary – marble busts (rank on rank) and urns, maidens and warriors – completed the formal symmetry.

Most members wandered through the garden by themselves while a handful went with the guide. The very much reduced vegetable garden – hidden from view at the lowest point – contained a glasshouse with flowering house-plants a small active vegetable patch, and a named collection of apple cultivars.

THE TALKS

As usual, the gathering was an opportunity to learn: two talks were arranged for our edification. Dr Mark Hancock gave the first of these: "Heather primacy disrupted: fire, cattle and extreme weather in an ancient Caledonian pinewood" (see pp 57–61, this yearbook).

On Sunday evening, we were entertained to a brilliant explanation of the origins of the Riverside Park's heather collections, given by Euna Scott MBE. What might have been a rather pedestrian account of local political manoeuvering, was delivered with wit and panache by a dynamic and determined lady (see pp 53–56 this yearbook)! Euna regaled us with the tortuous story of the local discussions – including the involvement of The Heather Society – which culminated in Riverside Heather Collection. She paid tribute to Richard Canovan (the Society's former Honorary Treasurer) and to Barbara McDonald, a local heather enthusiast and member of long-standing, for their parts in the progress of the new collection. Euna also paid tribute to the small army of volunteers who planted and now help maintain the collection, and to the local officials and politicians who supported. She could have spoken entertainingly for hours, I suspect, on the "ins and outs" of navigating a path through local bureaucracy. Her achievements as chairman of Beautiful Perth are remarkable and she gave us a vivid sense of her pride in the "Fair City of Perth".

THE SOCIETY'S BUSINESS

Suffice it here to record that an annual gathering is a yearly opportunity for members to consider the governance of The Heather Society, to elect a Council for the coming year and to approve the charity's annual report. A diversion was the judging of the photographic competition and the presentation of the Julian Fitz-Earle trophy to the winner, John Plowman.

The annual general meeting on Sunday 11 September, was preceded the previous evening by an "open forum" segment at which these topics were addressed and members had their chance to comment. Declining membership, and consequent diminishing income from subscriptions, present enormous challenges. The year ahead will provide a breathing space for Council to consider whether the Society should remain a charity or be dissolved before being "reformed" in a different guise.

The retirement of Daphne Everett from the editorship of the Society's *Bulletin* was noted and the President, Professor John Griffiths, presented

Daphne with the Society's Award of Honour (see p. 62) in recognition of 25 years' voluntary service to the Society. This distinction had previously only been bestowed once before on Herr Kurt Kramer in 2001 at the first International Heather Conference held at Hamburg, Germany (*Yearbook of The Heather Society* 2001: 63–64).

Professor Griffiths also presented the registration certificate for *Erica mackayana* 'Susie's Blush' to Susie Kay who had propagated this Spanish clone, now named after her in recognition of her enormous contribution to the Society.

Lastly, a little out of sequence, I was very surprised also to be presented with the Society's Award of Honour, and I thank the President and Council for this. As this is the last occasion on which I will act as Honorary Editor for the Society's yearbook, I take this chance to thank everyone who has contributed articles to the 24 issues published during the last quarter century. I also record my gratitude to those others who have made the yearbooks what they should be: a journal of record of the Society's activities and a scholarly, yet readable periodical. During my "watch", David Small, Ron Cleevely, Barry Sellers, Anne Small and Emily Robinson have checked proofs, created layouts and helped maintain high standards. Our various printers worked with efficiency and courtesy enabling The Heather Society to fulfil its "charitable purpose" to "assist the advancement of horticulture and in particular the improvement of and research into the growing of Heaths and Heathers and allied plants."

The 45th Annual Gathering in Perth may have been a turning-point for The Heather Society, leading to a different type of association for heather enthusiasts with a new form of governance. Looking back over my own years of membership, I take pride in the Society's extraordinary achievements, especially the eight fascicles of *The international register of heather names* with its concomitant database of 25,000 names, more than 150 issues of the *Bulletin of The Heather Society* (see pp 1–10) and 52 yearbooks, not to ignore the events, the local and international conferences, annual gatherings and group meetings.

Despite the startling decline of specialist heather nurseries in Britain and elsewhere, evidently heathers are still popular plants for the "mass market": revolutions in production have reduced the diversity of plants available for gardeners, so there is still an important role for societies and associations of heather enthusiasts. Biodiversity is the present "buzzword": keeping as diverse a selection of cultivars in our gardens and nurseries is surely an urgent task. We each have a role to play, so bear in mind that the best way to keep a plant is to give it away: be generous!

E. Charles Nelson

Recent publication

B. Sayers & P. Tobin (editors), 2016. *Heritage Irish plants Plandaí oidhreachta.* 120pp; illustrated. Dublin: ISBA & IGPS. ISBN978-0-9928693-1-1. €30.00.

This enchanting book, a joint production of the Irish Society of Botanical Artists and the Irish Garden Plant Society, with the support of Bord Bia and the Director and staff of the National Botanic Garden, Glasnevin, has been published to celebrate and highlight the very considerable achievements of Irish plant breeders, gardeners, botanists and botanical artists both in the past and in the present day.

There has been a long tradition of breeding and introducing new garden plants in Ireland and the aims of these two societies are to grow, illustrate, describe and conserve Irish heritage plants, those that are raised and named in Ireland, that may become uncommon and may be lost altogether in the future.

In his foreword Charles Nelson provides a masterly overview and historical record of Ireland's garden plants. He details their origins and introductions, the history, people and literature that relate to them and to the famous Irish nurseries and nurserymen, botanical artists and authors since Dillenius, in his *Hortus Elthamensis* (1732), included an engraving of *Euphorbia hyberna*, Irish spurge.

In the following chapters the rich heritage of Irish garden plants is admirably described by authorities on the genera and groups of plants concerned - Snowdrops, Irises, Sweet Peas, Dahlias, Native plants, Daffodils, Primroses and Woody plants.

Each of these accounts is accompanied by very fine water colour paintings of these heritage plants painted by the 58 botanical artists involved, whose works are also presented in a separate gallery with more than 60 paintings of the plants described, including *Calluna* 'Coleen Bawn' and 'Connemara Coleen' and *Erica cinerea* 'Ted Oliver' (all found and propagated by Susie and Alan Kay).

From cover to cover *Heritage Irish Plants* is a fount of knowledge and historical information about the many fine garden plants that originated in Ireland. This, combined with the great skills of the botanical artists involved in depicting these heritage plants, has provided gardeners, botanists and artists alike with a book to be both used and treasured as an admirable record of Ireland's gardening past.

C. D. Brickell VMH

Supplement XVII (2017) to *International register of heather names*

Registered names

Key to symbols: ®: registration details. ✻: description of clone. ●: history of clone.

Calluna vulgaris

'Finula'
® C.2016:02: registered on 21 February 2016 by K. Kramer, Edewecht-Süddorf, Germany.
✻ Bud-flowering (Knospenblüher); buds lilac (H8): September–November; foliage dark green; after 3 years to 10cm tall, 30cm across.
● Seedling raised and selected by Kurt Kramer.

'Maite'
® C.2016:01: registered on 21 February 2016 by K. Kramer, Edewecht-Süddorf, Germany.
✻ Bud-flowering (Knospenblüher); buds red (H6): September–November; foliage dark green; after 3 years to 10cm tall, 30cm across.
● Seedling raised and selected by Kurt Kramer.

'Mina'
® C.2016:03: registered on 21 February 2016 by J. van Leuven, Geldern-Lüllingen, Germany.
✻ Bud-flowering (Knospenblüher); buds red, October–December. Mature foliage very dark black-green; green when young. Habit upright, to 50cm tall × 50cm across after 4 years (pruned).
● Seedling raised and selected by Johannes van Leuven in October 2011. Named after his grandmother.

'Salome'
® C.2016:04: registered on 21 February 2016 by J. van Leuven, Geldern-Lüllingen, Germany.
✻ Bud-flowering (Knospenblüher); buds "salmon" ("a new colour in Calluna"), September–December. Foliage green. Habit upright, to 50cm tall × 50cm across after 4 years (pruned).
● Seedling raised and selected by Johannes van Leuven in October 2012.

Daboecia

D. cantabrica f. blumii 'Pinky Perky'
® D.2016:01: registered 7 December 2016 by D. Edge, Wimborne, Dorset.
✻ Flowers facing upwards, cerise, on upright sweeping branches; June–September. Foliage mid-green throughout year. Upright, sweeping shrub to 35cm tall, to 35cm across in 3 years (not pruned). Flower colour unique in *D. cantabrica f. blumii*.
● Seedling found by David Edge in 2013 at Forest Edge Nurseries.

Daboecia 'Sun Seeker' *
® D.2016.02: registered 7 December 2016 by D. Edge, Wimborne, Dorset.
✻ Foliage pale "golden-yellow" (RHSCC 144A–B, Yellow-green Group: plant from shade-house in December), brightest in summer; leaves crowded on shoots; more or less glabrous with a few very small, gland-tipped hairs above, oval to obovate, to 8 × 6mm, acute, felted and silvery underneath; larger than

'Golden Imp'. Flowers single, purple (H10) relatively few; May–September. Bushy, upright shrub, to 30cm tall, 35 cm across after 3 years (not pruned).

- Seedling found by David Edge in 2014 at Forest Edge Nurseries. * May be *D.* × *scotica* but flowering material not available at time of registration.

Daboecia 'Pink Tina'

® D.2016.03: registered 22 December 2016 by J. van Leuven, Geldern-Lüllingen, Germany.

✻ Foliage. Flowers single, "lachsrosa", July–October. Foliage green. Habit broadly upright, to 50cm tall, 50cm spread after 4 years (pruned).

- Sport on 'Tina' found and propagated by Johannes van Leuven.

Erica

E. arborea 'Grüner Favorit'

® E.2016:09: registered on 29 December 2016 by J. van Leuven, Geldern-Lüllingen, Germany.

✻ Dunkelgrün, sehr buschig mit dicht besetzten Trieben, gute Blüte im Alter von zwei Jahren, winterhart, robust. "The best dark green seedling I found, my favourite."

- Deliberately raised and selected seedling from self-pollinated 'Albert's Gold'. Raised in May 2011, selected by J. van Leuven in October 2013.

E. australis 'Polar Express'

® E.2016:07: registered on 21 December 2016 by D. Edge, Forest Edge Nurseries, Wimborne, Dorset.

✻ Flowers single, in groups of four at tips of shoots, flowering shoots very densely crowded towards ends of branches; corolla c. 9mm long, white, slightly curved, widening towards mouth; calyx segments unequal, with broad translucent margins and pale green mid-rib, lobes c. 3mm long, c. 1.5mm broad; anthers brown; style to 9mm long prominently emerging from corolla, style end green when fresh; nectar profuse; April–June. Foliage deep green; linear leaves to 6mm long. Compact bushy shrub to 0.9m tall, to 1m across in 3 years (not pruned).

- Seedling 05-2-20 raised by K. Kramer in 2005, F2 seedling of self-pollinated 'Mr Robert'. Selected and named by David Edge in 2016 after cultivation in Forest Edge Nurseries. Hardier than other clones of *E. australis* having survived a frost test as a seedling in Germany. Distinguished from 'Mr Robert' and 'Holehird White' by green style end.

E. carnea 'Cordula'

® E.2016:01: registered on 18 February 2016 by K. Kramer, Edewecht-Süddorf, Germany.

✻ Flowers salmon (H15) without any trace of blue, single, larger than normal; February–April. Leaves dark green. Broad, erect shrub to 30cm tall, 35cm across after 3 years.

- Seedling raised and selected by K. Kramer in 2010.

E. carnea 'Sally'

® E.2016:04: registered on 5 December 2016 by D. Edge, Forest Edge Nurseries, Wimborne, Dorset.

✻ Flowers single, small, crowded on shoot tips in dense spike; corolla c. 5mm long, rose pink (H7); calyx paler, lobes to 2.5mm long; anthers dark; January–April. Foliage "lemon yellow" (RHSCC 145A Yellow-green group: plant from shade-house in December) throughout the year; leaves to 10mm long. Compact shrub to 15cm tall, 25 cm across in 3 years (not pruned).

- Sport on 'Saskia' found by David Edge in 2015 at Forest Edge Nurseries.

E. carnea 'Snowbelle'

® E.2016:05: registered on 5 December 2016 by D. Edge, Forest Edge Nurseries, Wimborne, Dorset.

✻ Flowers variously malformed, in unevenly spaced, loose spike; axillary clusters of 1–3 flowers widely spaced; corolla white c. 6mm long, apex splitting unevenly (often not into 4 lobes); calyx lobes 4 (rarely 5), white, petal-like, to 5mm long, c. 1–1.5mm wide, exceeding the corolla until anthesis; stamens 8 (rarely 9–11), often malformed and contorted; anthers tan; style may be malformed and contorted, or straight; ovary green: January–May. Foliage mid-green throughout the year, leaves c. 10mm × c. 2mm, whorls widely spaced. Bushy, low-growing heather; to 20cm tall, to 35 cm across (not pruned) in 3 years.

● Seedling found at Forest Edge Nursery by David Edge, in 2014.

E. × *darleyensis* 'Michael Sellers'

® E.2016:03: registered on 29 August 2016 by Barry Sellers, Norbury, London.

✻ Corolla magenta (H14), 6mm long × 3mm diameter; calyx magenta (H14), 4mm long; anthers brown Flowers January–April (–May). Foliage mid to dark green; young growth cream. Vigorous plant, spreading to 0.6m, to 0.4m tall, after 10 years (not pruned).

● Seedling (EES 77-1) raised in 1977 and selected in 1979 by Barry Sellers from among seedlings of *E. erigena* 'Superba' that had been deliberately cross-pollinated; pollen parent not recorded but probably *E. carnea* 'Myretoun Ruby'. Similar to 'Kramers Rote' but with brighter flowers and cream new growth.

E. × *darleyensis* 'Pink Harmony'

® E.2016.06; registered on 18 February 2016 by Kurt Kramer, Edewecht-Süddorf, Germany.

● Adopted name for E.2013.03 'Pink Magic' (*Heathers* **11**: 69) an established name rejected by CPVO.

E. × *factitia* 'Heidedorf Lüllingen'

® E.2016:08: registered on 7 November 2016 by J. van Leuven, Geldern-Lüllingen, Germany.

✻ Flowers white; malformed style-end noticeably crooked; stamens with sigmoid bend towards apex of filament; anthers without any visible awns. Some flower bud aborted. Foliage mid-green.

● Clone 7 from *Erica lusitanica* × *E. carnea* 'Winterfreude', artificial cross made by J. van Leuven in 2012

E. mackayana 'Susie's Blush'

® E.2016:02: registered on 8 August 2016 by Registrar, The Heather Society.

✻ Bushy heather which responds well to pruning, with vigorous upright shoots to 0.35m tall, to 0.5m across (after 8 years in cultivation; pruned); leaves densely and evenly arranged on shoots, bright green, paler than 'Shining Light'; marginal cilia may be gland-tipped. Buds relatively long and narrow, slightly curved; corolla white at base flushed pale pink towards tip (deeper pink in bud); style tip dark red; anthers brown (darker than 'Shining Light'). (VI-)VII-IX in cultivation.

● A selection from wild plants growing near Cabo de Peñas, Asturias, noticed by members of The Heather Society during a field trip to northern Spain in 2007. Named as a compliment to Susie Kay in whose garden it has been grown and who has propagated it.

The certificate of registration was presented to Susie Kay at the 2016 Annual Gathering.

Other names

Calluna vulgaris

'Adele': CLL 535 (code E. J. 17)

'Asli': www.van-leuven-gartenbau.de

eine weitere weiße, frühe Sorte, sehr vielversprechend. Wüchsig, lange haltbar. Verträgt auch spätes Stutzen, blüht dann entsprechend später.

'Betty': www.silber-gartenbau.de
'Betty' ist ein Sport aus 'Bettina' und deshalb ähnlich starkwüchsig mit großen weißen Knospen und leicht silbrigen Spitzen. Im ersten Testjahr blühte sie zwei Wochen füher als 'Bettina', allerdings auch eine Woche später als 'Madonna'. Damit wäre 'Betty' für einen Übergang zum Hauptsortiment geeignet oder auch eine eingeschränkte Alternative zu 'Madonna'.
'Cierra': CLL 540 (code E. J. 22)
'Dunja': www.van-leuven-gartenbau.de
helles lilarosa, aufrechter Wuchs, große Knospe, Hauptsortiment-Lateline.
'Franca': www.silber-gartenbau.de
'Franca' blüht etwas später als 'Athene', hat einen guten Aufbau mit einem etwas höherem Blütenansatz. Voll ausgefärbt und verkaufsreif waren die leuchtend roten Knospen im ersten Testjahr ab Mitte September.
'Irma': www.van-leuven-gartenbau.de
dunkelrot, spät (Lateline)
'Kemi': www.silber-gartenbau.de
'Kemi' gehört zu den flacher wachsenden Gardengirls in der seit 2015 neuen Compact Line. Sie zeichnet sich auch durch eine gute Haltbarkeit aus und ist die farbliche Ergänzung zu 'Kinja'.
'Kinja': www.silber-gartenbau.de
In Haltbarkeitstests zeigte 'Kinja' schon in Woche 34 die erste Farbe und sah bis Ende Oktober noch gut aus. Die Compact Line kann z.B. als farbige Unterpflanzung der anderen aufrecht wachsenden Sorten dienen. Außerdem findet sie in Schalen oder in einer Gardengirls Combo Line ihre Verwendung.
'Lilia': CLL 537 (code E. J. 19)
'Lioba': www.van-leuven-gartenbau.de
hellrot, aufrecht, spät (Lateline)
'Maura': CLL 542 (code E. J. 24)
'Nebula': proposed denomination for CLL 526 ("Jüli"); *Blatt für Sortenwesen* **49** heft 8: 182 (2016).
'Red Lake': CLL 536 (code E. J. 20)
'Reinweiße Lena': www.silber-gartenbau.de
Die 'Reinweiße Lena' ersetzt auch namentlich ihre Vorgängerin 'Weiße Lena', die durch ihr dunkles Laub und der nicht ganz weißen Blüte nur schwer einen Platz im Sortiment finden konnte. Bei uns wurde sie noch nicht getestet, aber sie hat auf jeden Fall grünes Laub und richtig weiße Knospen.
'Sonna': *Heather news quarterly* **37** (4) [no. 148]: 12 (name only)

Daboecia cantabrica
VL-A: nursery name/code for DAB 17; *Blatt für Sortenwesen* **48** heft 08: 162; __ 09: 191 (2015).
VL-B: nursery name/code for DAB 16; *Blatt für Sortenwesen* **48** heft 08: 162; __ 09: 191 (2015).
VL-C: nursery name/code for DAB 17; *Blatt für Sortenwesen* **48** heft 08: 162; __ 09: 191 (2015)

Daboecia × *scotica*
'W. Buchaman' (error): Marktverband Bremen website (accessed 28 December 2015).
Erica carnea
'Steffi': weiße Blüte, leuchtender als 'Isabell', mittelstarker Wuchs. http://www.heidezuechtung-kramer.de/index.html?con=/heidesorten/ (accessed 14 December 2016).

Erica gracilis
'AW 1007': *Blatt für Sortenwesen* **49** Sonderheft: 52 (April 2016).
'AW 1008': *Blatt für Sortenwesen* **49** Sonderheft: 52 (April 2016).
'AW 1053': *Blatt für Sortenwesen* **49** Sonderheft: 52 (April 2016).
'Glaser's Rote T1.12': www.silber-gartenbau.de
'Glaser's Rote T3.06': www.silber-gartenbau.de