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SRS Yearbook No 17

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Cover pictures:

**Front: *Rhododendron maddenii* hybrid grown in a basket nailed to a tree
at Brecklet**

Back: *Rhododendron mucronulatum* in the snow

Both pictures by John Roy

**Editors Note: I have been short of quality pictures to use in this edition.
Please consider sending me your rhododendron portraits for use in your
publications.**

Editorial

Welcome to another Scottish Rhododendron Society Yearbook. The Yearbook is our publication for some more in depth articles about rhododendron gardening, companion planting and explorations to the wild. I am pleased to present a publication with all these subjects.

A regular contributor, Mike Thornley is a founder member of our society. He edited the Newsletters from the birth of the Society. In those days it was typed A4 pages, stapled together. I remember him telling me he justified the typing with careful spacing. Now my electronic software does it for me. Modern computer publishing software has revolutionised the way small societies like ours can communicate with members. In Mike's day pictures were not possible, but our subject is colourful and pictures improve the quality and enjoyment of these publications. Mike has some memories of a friendship founded in the early SRS days, in this edition.

Exploration in the wild is always an interesting subject, and I am pleased to publish an article on a RGBE trip to Sichuan in China. The value of these trips to study wild growing rhododendrons is essential to our understanding of their requirements in the garden. I emphasise this in an article on my own garden.

I would not normally publish an obituary in the Yearbook, but Mark Flanagan was a very important person in horticulture. I know many of you knew Mark, and John Hammond has written an extensive appreciation of his life in horticulture. I am pleased to publish this in our Yearbook.

As your Editor, I am acutely aware that our publications need to be as accurate as possible. This came home to me while editing this edition. I had been given permission to reprint an article that had first appeared in the Journal of the ARS, about finding a rhododendron species in Sikkim, not previously thought to exist there. I know that many of SRS members are not members of ARS so I thought it would be of interest. By coincidence, I had been in contact with Hartwig Schepker in Bremen, Germany about a forthcoming trip to Sikkim that I intend to join. He told me that same rhododendron had been found years earlier at that location under a different name. Oh the pitfalls!

Enjoy your Yearbook.

John Roy

A Gardening Correspondence

Mike Thornley

In the early days of the Scottish Rhododendron Society the rhododendron competition was held as part of the Scottish Rock Garden Club's Glasgow Show held in Milngavie Town Hall. When the show closed Joyce Rutherford of Kildarden would descend on the benches to gather up all the tender rhododendrons, *R. lindleyi*, *R. edgeworthii* and *R. 'Harry Tagg'*, and then sweep out of the hall trailing clouds of glorious rhododendron scent behind her.

In 1985 the show was held unusually late on Saturday 11 May. That year I kept some garden notes in my work diary, written in red ink to distinguish them from the litany of appointments and meetings during the week. The entry for that Saturday reads:

“Both up early and at work before the milkman arrived. Sue hadn't finished the show so went back. Much to our surprise we won the Urie Challenge Cup for the member of the SRGC with most points in the rhododendron classes. Sue also managed to win 60p for her daffs. Dinner at Gl(enarn) with Ed, 2 Australians and the Rutherfords. Nice despite no voice.”

This was only our second show and we were up early cutting more material for Sue to take back to the hall to supplement her entries. Afterwards, at dinner, Ed Wright was pleased with himself having won the Rhododendron Challenge Cup for most points in the show and the Sir John Stirling Maxwell Cup for the best individual species, “an incredible specimen of *R. falconeri*” according to the show reporter Mervyn Kessell. Joyce was pleased with her haul of tender rhododendrons and the two Australians were Keith and Maisie James.

At that time Keith had recently retired and with Maisie was on a tour of Europe, timed so that they could be in Scotland at the peak flowering time for rhododendrons. They visited all the well known gardens and also attended the show where we met, and invited them back to Glenarn for the night. The following weekend they joined the SRS on its trip to Corroul which, years later, Keith recalled in a letter:

“Got an immediate welcome and told to bring rubber boots and be at the Bridge of Orchy Station at 8.00am...What a desolate area the Rannoch moor is! Only one deer seen in the whole trip to Corroul where the party, 20 – 25, piled into 3 Landrovers and were welcomed in the true Scottish manner with whisky”.

That week was the only time we met Keith and Masie but it was the beginning of 30 years of correspondence across half the world.

Not only across half the world but on the other side of the equator, where the seasons were reversed so that Keith would write about his flowering rhododendrons and shows in September and October, something I never quite got used to. The growing season was different as well:

“With warmer and longer spells of weather than in Scotland growth is evident almost continuously. Failure to prune years back has resulted in the need for drastic action (eg x ‘Tally Ho’ 20ft wide)”.

Like all good correspondents we moaned about the weather. While I was describing continuous rain, storms and snow Keith had other problems:

“Our rainfall in the seventh year of drought is still 2/3 of the average of 50 inches. This might seem a lot but yesterday’s temperature of 33°C is rather hard to take”.

Temperatures sometimes reached over 40°C and bush fires were a continuous threat (whereas I would write enthusiastically about some of our more ambitious bonfires) and in one letter Keith reported that he and Maisie, then well into the eighties, were taking turns, hour on hour about, to water their garden. When I complained that we had been badly damaged by 8 inches of snow Keith commiserated, pointing out the advantages that could be gained from the removal of old plants and adding:

“We expect that you will enjoy choosing plants as replacements”: a realistic and suitably blunt Aussie response, especially when Keith knew that it was far easier for us to obtain new plants in Scotland than it was in Australia.

Keith described, in an early contribution to the SRS newsletter (No.5 July 1985), how in pre-WW2 years, nurseries in Australia had shown little enthusiasm for species rhododendrons, instead concentrating on hybrids that could withstand the long summers. However a Special Exhibition of Rhododendrons at Melbourne Town Hall in 1947 created much local interest and for a period more seed and plants including species rhododendrons were imported to meet the new demand. This was cut back when regulations were introduced in 1957, restricting the number of imported plants (from which the soil was removed before being fumigated), resulting in an even greater reliance on seed. A product of this regime was Keith’s *Rhododendron auriculatum* grown from 1947 RHS seed and shown well protected from the hot winds in a jungle of native and non-native plants. In a photograph sent in February 2007 it was 20 ft wide and almost as high and completely covered in flowers, putting our own much older plant to shame.

In March 2002 Keith was writing with some excitement about *Rhododendron davidii*, said not to be in cultivation at the time but nonetheless growing in an unlabelled pot that he had come across at a table sale during the Ballarat Begonia Festival (another plant pot nearby incorrectly displaying the missing label). The plant's identity had been confirmed by the editor of the Australian Rhododendron Society, who was aghast that a seedling, which had not been released, had somehow managed to escape into the public realm (or had been stolen as was suggested). The source of the seed was said to be from an Alan Clark collection, 98232, and to cause further confusion Keith noted that his plant was much taller than the other seedlings and suspected that it was a very good graft.

It was not all rhododendrons. In response to Sue sending seed of *Magnolia rostrata* to Keith a photograph of a fabulously dark pink magnolia came by return: *Magnolia campbellii* 'Darjeeling' in his garden. The original named plant was grown by Hillier as a grafted scion from a tree in the Lloyd Botanic Garden, Darjeeling. Keith had found his plant on his doorstep one morning. He wrote:

"I learnt later that it was from Ken (Campbell) whose many travels included most of the small countries north of India... He had seen the parent plant in Darjeeling but I did not pursue the subject of how he had obtained the plant".

Keith sent photographs of the *Magnolia rostrata*: in the incubator, in pots and then growing in the garden, progress measured by height and number of leaves. I had raised some doubts about open pollinated seed, having at Glenarn a plant of *Magnolia hypoleuca*, in terminal decline, which flowered poorly but at the same time as *Magnolia rostrata*. This sent Keith into his reference books and out into his garden to investigate before reporting back:

"My largest plant now 3 ft high with 14 leaves matches the golden haze of Sue's seedling".

So that was all right. Keith also hankered after primulas and obtained seed from the SRGC seed exchange and when I wrote to say that Sue and I were both fully retired he replied:

"Try collecting arisaemas – I have only 5 and there are 173."

We posted him some of Ann Chambers' cards of her botanical paintings, including arisaemas, which set Keith off on another line of enquiry and making connections.

Keith and Maisie moved into their house in 1948. It is located in Ferny Creek, in the Dandenong Ranges east of Melbourne, and there they created a wonderful garden. They also became deeply involved with the Ferny Creek Horticultural Society which

in the 1950s took over 4 acres of municipal ground and transformed it into the Ferny Creek Ornamental Garden, which subsequently was extended to 10 acres. A number of special interest groups were formed and these provided the volunteers to look after the various parts of the garden. Needing a venue for flower shows the society self funded and built a hall with meeting rooms and a library. It is an extraordinary story of collective enterprise and horticultural endeavour.

In November 1988 I included a note in the SRS newsletter explaining that I was looking for a copy of 'A Quest of Flowers', Harold Fletcher's account of Ludlow and Sherriff's expeditions, and saying that I was willing to pay the going rate for a book which in those pre Google days was difficult to find. Through the post, an early Christmas present, came a copy from Keith. The Ferny Creek Horticultural Society Library had a spare copy and he thought that it should come to me. Keith was always referring in his letters to pages and photographs in 'A Quest of Flowers', and the book became a kind of shared landscape and common ground for our correspondence. Many years later I was able to reciprocate in a small way when Stephen Fox asked if I knew anyone who would like one of the last copies of his cumulative index for the Rhododendron, Camellia and Magnolia Yearbooks. I suggested Keith who wrote: "The arrival of Stephen's compendium created a sensation when I took it to last Thursday's morning-tea", the weekly get together of the rhododendron enthusiasts who formed one of the volunteer groups working in the Ornamental Garden, where Keith, aged 88, was still taking cuttings of Mollis azaleas (166 of them as he reported).

Inevitably we wrote about growing older and how it affected our gardening. This from Keith:

"Another year gone by, energy not quite what I would like and with Maisie being eighty in January we are each watching the other to lend help in the heavier tasks".

I wrote about rueing the decision not to widen the main paths at Glenarn for tractor access when we were restoring the garden in the early days and complaining how it was now becoming more difficult to push barrow loads up hill. Keith replied in his practical way, providing details of his Honda quad bike he used to get round his garden but added wryly:

"I was about 70 when I got it. Yesterday (now 87) I tried to use the barrow to handle gravel but passed it on to Maisie who is 85. I now sit side saddle. Besides you could handle larger crowds with wider paths".

When we were planning a trip abroad Keith would write to advise us on what we



should look out for; for instance he trawled through the *Rhododendron Handbook*, without much success, to identify what we might see in Arunachal Pradesh. He and Maisie when not gardening would take long holidays, driving thousands of miles to Northern Australia in their van. He had a quite different, antipodean perspective on distances and when I wrote about one of our holidays to the Alps he wrote back: “It’s good to know that you are travelling as far as Italy. I expect you realise that Australia is only one day further on”.

We never did get to Australia, something that we live to regret. Keith died on 13 October 2015, bringing to an end 30 years of friendship and letters.

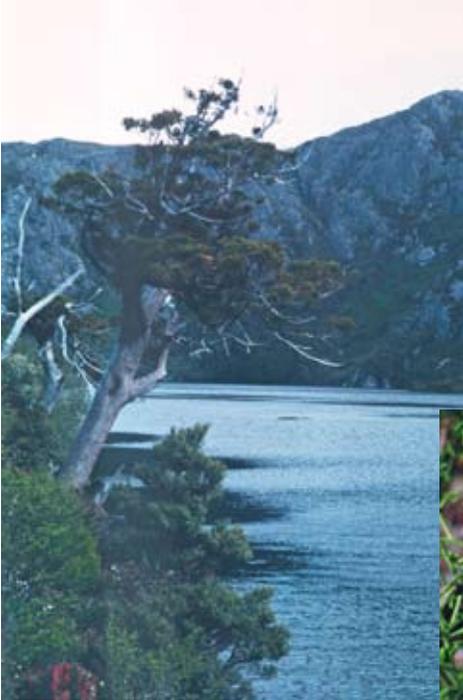
Above: Maisie and Keith James
Below: Ferny Creek Ornamental Garden



Some Southern Hemisphere Conifers

Ian Douglas

A number of years ago I had the notion that many of the conifers from the Southern Hemisphere might be hardier than was generally supposed. Having read such phrases as “unlikely to be hardy in the north” or “does well in the south west (implying England)” it occurred to me that few people had actually tried any of them. I decided that the only way to find out was to grow a few. Getting started threw up some difficulties.



Top Left: *Athrotaxis laxifolia* at Crater Lake

Above: *Microcachrys tetragona*

Left: *Phyllocladus aspleniifolius*

Pictures by the author

The first problem was nomenclature. Some of the conifers are not very well known and over the years, as more information has become available, taxonomists have changed the names, not just at specific level, but also at genus level. Thus when consulting books, depending on the date of the publication, it is possible to get different names for the same plant. Neither are local common names a help: for example in Tasmania there are three “pines” (King Billy, Huon and Celery Top) none of which are true pines! Recently this difficulty has been overcome by the “World Checklist and Bibliography of Conifers”, author Aljos Farjon and published by Kew (2nd Edition 2001). It also includes all the previous synonyms which is particularly helpful.

Another difficulty has been sourcing plants. Because many of these conifers are not “commercial” plants, few nurseries list them and only very occasionally. The Plant Finder is a help which from time to time lists desirable plants although nursery response is not always satisfactory: “sold out” “propagation failure” “too small to sell” etc. However over the years, I have managed to acquire quite a few which are now growing quite happily at Craighrothie.

As far as cultivation is concerned, no special methods have been applied. They grow in ordinary garden soil with some added garden compost. In general I have chosen sheltered positions though in retrospect I think that some of the higher altitude species would do well in more open situations.

To describe the genera/species growing now at Craighrothie, it might be useful to group them geographically:

Chile: There are nine conifers in Chile, seven of which are on the I.U.C.N. list as threatened in the wild. The principal reasons for this are excess logging and habitat destruction. RBG Edinburgh has done useful work here with the Rare Conifer Project both in training Chilean botanists and in seed collection for ex-situ conservation.

Fitzroya cupressoides: Named for Captain Fitzroy, the captain of Darwin’s ship ‘Beagle’. He went on to found what we now know as the Met Office. Early on in my experiment I bought a large plant, about five feet tall, which put on growth for a few years before dying. On digging it up I realised it had been potbound and the roots had never extended into the surrounding soil. My replacement is a small “liner” (a very young plant) which is growing away happily. The British champion is a 20 metre specimen at Ardkinglas on Loch Fyne.

Pilgerodendron uviferum: Another monotypic genus which has also suffered because of the quality of its timber. I have lusted after this species for a long time but only acquired it two years ago. It has settled in well and is making good growth. It is unlikely to make a large tree in Scotland. There are good specimens in the Chile glade at RBG Benmore.

Prumnopitys andina: Listed as vulnerable in the wild, it seems to be fairly well represented in cultivation. Its common name, the Plum Yew is quite appropriate, the foliage looking a bit like a yew or perhaps hemlock. My plant bought as a “liner” has put on about six inches in each of the last two years.

New Zealand: New Zealand has a wide range of conifers from the giant Kauri Pine (*Agathis australis*) which reaches 40 metres in its natural habitat, to the dwarfs of the southern mountains and Stewart Island. Alas, few of the old growth Kauri forests still remain.

***Halocarpus bidwillii* (was *Dacrydium*)**: This has formed a nice small tree over the last fifteen years. It is now about eight feet high, so is suitable for a small garden. An unusual feature is that it carries both mature and juvenile foliage on the same plant.

Lepidothamnus laxifolius: Reputed to be the smallest conifer in the world, it is more of botanical than horticultural interest. The plant I have is about two inches high by ten across after eight years! It also appears to die each winter but revives in the spring. I have however seen a larger specimen (8 inches by 30 inches) at Marwood Hill near Barnstable.

Phyllocladus alpinus: A small genus of four or five species of very unusual conifers. At first sight they appear to have ‘leaves’, but these are in fact flattened stems called phylloclades. The first plant I grew I placed among rhododendrons for shelter and after twelve years is now six feet tall. A more recent plant in the open is growing well. The common name, ‘Celery Top Pine’ refers, with a stretch of imagination, to the ‘foliage’.

Podocarpus acutifolius* and *P. nivalis: Both similar with short needle like leaves all round the shoot. *P. acutifolius* has attractive bronzy foliage which becomes quite distinct in the winter. They both form compact shrubs here. *P. nivalis* fills a similar niche in the mountains of South Island to juniper in the Scottish hills.

Tasmania: This large island to the south of mainland Australia is in an interesting position. It forms a botanical link between South America and New Zealand, for example *Eucryphia*, *Nothofagus* and *Podocarpus* are common to each. The twelve species of conifer are mainly endemic, with three of them ‘vulnerable’ and another three in the category ‘data deficient’.

***Athrotaxis cupressoides*:** Forms an upright small tree with scale type leaves pressed against the twigs. It is growing well at Craighrothie. There is a fine twin stemmed specimen in the botanic garden at St Andrews which is about fifteen feet high and forty-five years old.

***Athrotaxis laxifolia*:** One of the first species that I tried, now about fifteen years old. It has more open foliage than the last species. It is considered by some taxonomists to be a natural hybrid and is labeled as such on the large specimen at RBG Edinburgh.

***Diselma archeri*:** A shrub to about six feet which is not common in cultivation. There is a smaller form called ‘Read Dwarf’ found on Mt Read, which makes an excellent rock garden plant.

***Lagarostrobos franklinii* (was *Dacrydium*):** Huon Pine from the Huon river valley in south-west Tasmania. It is one of those which has suffered from overexploitation. It has very fine pendulous foliage somewhat like a *Cupressus*. Very slow growing and there is some difficulty getting the pendulous nature to form an upright stem. A beautiful plant and one of my favourites.

***Microcachrys tetragona*:** A true mountain plant with a prostrate habit. In Tasmania it gets to about three feet and forms large colonies. Here it has so far achieved six inches and is spreading slowly. The cones are tiny orange balls about a quarter of an inch in diameter. Another one for the rock garden.

To sum up, it has been and still is a fascinating project from which I have derived a huge amount of pleasure. I have shown that it is perfectly possible to grow these conifers as far north as Fife. There are many more still to try and if any member has been successful and is prepared to exchange cuttings, I would be a grateful recipient.

Ian’s garden is in East Fife, on the east side of Scotland.

Twenty-Five Years of Riverbank Garden

John Roy

The Scottish Rhododendron Society, and her sister group, the Rhododendron Species Conservation Group have visited my riverbank garden at Ballachulish, in the west highlands of Scotland on a number of occasions. 2015 marks its silver jubilee. Twenty-five years of gardening a steep highland gorge, where the river level can rise and fall again in an hour.

The River Laroch rises in the glen above the village, between the mighty Beinn a' Bheithir to the west, and the smaller, but no less picturesque Sgurr a' Choise. It's a rocky glen. There is little topsoil and the steep terrain means the high rainfall runs off quickly. By the time the river reaches the village, even in times of less rain, it has a considerable flow. In times of heavy rain the boulders, some weighing many tons, can be heard rumbling and bouncing, driven by a huge force of water.

But let's go back a while. In 1979 I started work in Mallaig, at that time an important fishing port on the western seaboard some sixty miles from Ballachulish. Two days per week I ventured up what was then the only single track trunk road left in the UK. Ten miles from my destination, on the left side of the road, on the outskirts of the village of Arisaig, were curious trees with shiny red trunks. Others had huge leaves with a sort of "hairiness" on their underside. The following spring these beauties burst into flower with amazing trusses of red and yellow flowers. Outside the RBG Edinburgh, I had not seen rhododendron species such as these. When time allowed, on the way home I stopped, hopped over the fence and wandered about in the plantings. This was Larach Mhor, the garden produced by John Holms in the late 1920s and early 1930s. With my "Hillier's Manual" I attempted some identification. So the seeds of rhodoholism were sown.

My garden at the time was a triangle above the River Laroch. It was mainly a slate scree which had been used as a car park when the main house had been a bed and breakfast establishment. *Rhododendron ponticum* grew well, but among these were two different rhododendrons. One had flowers of similar colour to *R. ponticum* but were semi double (*R. 'Fastuosum Flore Pleno'*). The other was a straggly bush, outgrown by the *R. ponticum* so it was nearly invisible in the jungle. But when it flowered it was clearly different. The flowers were white with a brown leopard skin blotch at



the base, in a conical shaped truss. I set about clearing around these bushes.

A year later a family holiday to the Llanberis area of North Wales involved a visit to Bodnant Garden. Strolling in the amazing rhododendron plantings clinched the idea of producing a rhododendron garden of my own. I particularly remember a flight of stone steps flanked by evergreen azaleas. These were so covered in flower they made waves of pink, purple, and red.

At this time I was also doing occasional working forays to the Ardnamurchan peninsula, a remote area boasting the most westerly point on mainland Britain. This took



Above: *Rhododendron sperabile* var. *weihsiense* growing beside the River Laroch, as I remember it in Yunnan

Left: *Rhododendron* ‘Plover’ (*R. dendrocharis* x *R. edgeworthii*) growing in a basket nailed to a tree



me past the Ardgour plant nursery of Ard Daraich, the former holiday home of Constance Spry. Major David and Lady Edith MacLaren had been gardening here since 1969, and David loved to propagate and sell on some of his rhododendrons. So one frosty January day, I called in. I wanted a red one and a yellow one! “Hmph” said David, “I wasn’t expecting customers today. The plants are all frozen into the ground!” However he was persuaded to part with *R. ‘Chink’* and *R. ‘Scarlet Wonder’*. And so my rhododendron garden had begun, and a friendship with the MacLaren family that lasts to this day with son Norrie and his wife Anna Raven.

Fast forward to the latter half of the 1980s. I had a burning ambition to expand my garden. I had plants such as



Above and Right:
Rhododendron leucaspis and
R. exasperatum
grow together on a
boulder.

**Pictures by the
Author**

Rhododendron sinogrande and *R. barbatum* growing in pots, layers of others “temporarily” heeled into the ground, and cuttings that were urgently needing a home. I viewed various properties and areas of ground for sale, but at that time prices were becoming inflated with speculators wanting to develop for profit. So my desired garden “patch” was becoming only a remote possibility. Then I started to see something that was right under my nose. Upstream from where I lived at that point was an area of riverbank overgrown with saplings, brambles, nettles and had been like that all the time I had lived in Ballachulish. Some enquiries revealed the land belonged to the company that had once owned the now defunct slate quarries. A visit to the land agent of the Ballachulish Estate Company, Major John Parnell, clinched a deal for me to buy this area of riverbank, and another small area nearby. So late summer 1990, with loppers and bushman saw, I set about taming the jungle. The area was totally overgrown with ash and sycamore, mostly only six inches in diameter at the base, but twenty feet tall as they fought for the light. It was some four months of hard graft later that *R. sinogrande* and others had a place in the new garden.

The following summer John Parnell called round to see how I was getting on with my project. He was duly impressed, so much so that he offered me the land on the east bank also. Parts of this area were even more overgrown, and exceedingly steep but I needed no persuasion, and the loppers and bushman saw were brought into further action. And so my riverbank garden now encompassed both sides. The steepness of the east bank meant drainage was particularly good, but before I could exploit that, there was much work to do. Some of the more mature trees were retained as shelter, and to ensure the raging torrent did not destabilise the banks. Once again I did most of the work by myself, but for some of the larger trees, I obtained help from two men experienced in using a chainsaw.

Work continued throughout that winter, and planting commenced in the following spring. *Rhododendron barbatum* was finally released from its pot. Years later it makes a wonderful sight, with the overhead canopy drawing it up so its beautiful red trunk is shown off. Another beautiful trunk is that of *Prunus serrula*, also planted on this riverbank. A coincidence of planting it in its position is the winter sun catches the peeling bark on the bare branches and as one walks up the road it looks alight.

In 1999 a house purchase involved a move to the east riverbank, and upstream to my present abode. This added a further third of an acre, and involved several more bushes coming with me. Others were just too big to move.

As with any garden, planting and maintenance continues. I have made many mistakes, mainly with insufficient drainage, and attempting rhododendrons too tender for my area. Although situated on the west coast, and close to the salt water Loch Leven, the effects of the gulf stream are diluted somewhat by the long length of Loch Linnhe. Milder than gardens further inland, I am not as mild as the likes of Arduaine or Inverewe. Undeterred, where the ground refused to drain sufficiently, plants such as *Rodgersia* and some candelabra primulas thrive. Most years the rainfall tops 100 inches (2540mm). 2015 has exceeded all records with rainfall of very nearly 152 inches (3860mm). Planting rhododendrons in these circumstances requires mounding organic matter, and planting above soil level.

Epiphytic rhododendrons such as *R. moupinense* and *R. megeratum* were planted in the forks of ash trees in moss secured by chicken wire stapled to the tree. This let the plants get a start, and the lighter canopy of ash means sufficient light penetrates. Spurred on by this success, I tried screwing metal baskets to other trees, filling them with moss, and planting into them. I have *R. edgeworthii* growing very healthily like this, also hybrids of *R. johnstonianum*, *R. dendrocharis* and one of Chip Lima's Madenia subsection hybrids with yellow flowers.

I have now been on eleven plant exploration trips to the Himalaya and Sino-Himalaya. Each trip has educated me as to the way plants survive in the wild, and I have tried to bring that back to my riverbank. On my first trip to Yunnan, I saw *Rhododendron hippophaeoides* and *R. racemosum* growing together on the plateau at Zhongdian. Always *R. racemosum* was on the drier mounds while *R. hippophaeoides* grew in the damper hollows. I planted both together, mirroring what I had seen. Two years later, venturing over the Doshong La in south east Tibet was an education in itself. On top of a huge boulder the size of a two storey house, *R. exasperatum* and *R. leucaspis* grew together taking advantage of drainage from the incessant rain. I now have both succeeding on a (much smaller) boulder. In Arunachal Pradesh I have trekked through sub-tropical into temperate and alpine altitudes through zones of rhododendrons. Large-leaved and less hardy species survive at lower levels through to tiny alpines such as *R. pumilum* and *R. ludlowii* at the higher altitudes. My large leaved species grow successfully in the valley floor, and the small alpines are happy in raised beds and troughs of free draining material.

I have brought all of these experiences back to Brecklet Riverbank and tried to produce a garden something like a Himalayan glen. How successful I have been is for others to judge, but it has been a most enjoyable 25 years.

Some Thoughts on Rhododendron Hardiness and the Ravages of Winter

John M. Hammond

It is mid-December and for the last three weeks I have been busy putting together an article on the various groups of evergreen azaleas and their origins. Inevitably, this type of article raises many aspects for consideration and one of the key issues for gardeners is: how hardy are these plants, and will they perform well in my garden?

There are many ‘views’ on this subjective topic, indeed, a couple of years ago the R.H.S. revised its hardiness ratings with the aim of providing a more consistent spread of values, but at best these figures are still generalisations. The better part of 20 years ago, based on members’ experiences, the S.R.S. developed a map of Scotland that identifies the hardiness zones for the whole of the country. We have taken the map to many of our shows and display stands over the years and, whilst this provides some useful advice for gardeners, it is still but a generalisation of hardiness expectations. Why is this?

In my view, hardiness is a misunderstood concept, the definition is a man-made illusion and the ratings are often meaningless. Herb Spady, a Past President of the A.R.S. and a resident of Salem, Oregon, had an abiding interest in cold hardiness and we exchanged information and experiences over a number of years. Whilst on first sight Oregon’s conifer forests give the landscape a Scottish resemblance, the State is closer to the Equator, there is significantly less change in the length of day and night across the scope of the various seasons, and climate is more benign with a longer growing season and a hotter, drier, summer. So, here is Herb’s definition of hardiness as stated in a letter dated February 1999:

‘Cold hardiness is defined as the temperature range through which damage to a flower bud, leaf or plant structure has been observed to occur, in a plant at least five years of age and in good health. Flower bud damage is defined as that which detracts from a normal floral display. The range is given by two figures, expressed in both Fahrenheit and Celsius. The lower figure is the lowest temperature after which the plant has been observed to perform normally; the upper figure is the highest figure after which cold damage has been observed.

What information does this somewhat awkward definition provide to the people

evaluating a specific clone or species for their garden? If the garden under consideration seldom experiences temperatures below the highest temperature figure, there is little chance of damage. As the temperature experience in the garden approaches the lower figure the risk increases. Below the lower figure there is almost no chance of survival in the garden for any sustained period of time.’

This concept of hardiness only holds good if the temperature falls gradually in increments over a period of many hours, and the current plant hardiness ratings we use reflect this incremental approach.

Many of the rhododendron species we grow come from parts of the world closer to the Equator than Britain, where there is little change in the length of day and night across the scope of the various seasons; however, they mostly enjoy clearly defined seasons, which enables the plants to set flowers, then ripen their new growth and become dormant ready for the onset of winter. In other words, these species do not recognise the more pronounced change in the length of day and night that occurs in Britain, and this is why the infusion of genes by crossing the species with known hardy plants from the Northern Hemisphere (i.e. *Rhododendron catawbiense*, *R. ponticum*, *R. maximum* etc., or their close hybrids) not only can increase hardiness, but also can increase the recognition of our longer days and nights. In another life, when I was very young, Britain also enjoyed relatively clearly defined seasons with hot, dry summers, followed by an ‘Indian Summer’ in the early-autumn prior to the onset of cold winters with heavy frost and snow. I well remember the 1947 winter when the snow was several feet deep and the railway network ground to a halt. Railway wagons provided the main means of freight transportation in those days; but even the loaded coal wagons standing in the local sidings were useless anyway, as the coal froze solid and couldn’t be moved for the better part of 12 weeks. So, without any coal, when the scrap wood ran out there was no fire at home and all the water pipes froze, then subsequently burst. Since the early 1950s our climate has gradually changed, so much so that for the past several years late-autumn and early-winter in Northern England have become a ‘monsoon’ season with little respite from the constant rains that saturate the garden; thus preventing any replanting or significant work taking place. And, then we tend to slowly drift into winter. None of this enables the plants to fully ripen their new growth, or encourages them to become dormant; so, we have plants with wet feet that do not achieve dormancy prior to the onset of significant frosts.

Another often mentioned aspect is the effect of ‘wind-chill’. The ‘wind-chill’ factor is but another man-made concept that attempts to equate the loss of body heat from the

exposure of human skin to the wind. Thus a wind-chill factor of -10°F (-23°C) says that the heat loss with the wind blowing at some higher temperature is equivalent to what it would be in calm air at -10°F (-23°C). The wind-chill factor would not apply to your pet dog, nor does it apply to plants. The wind does not remove heat from the plants, but it does remove moisture from the evergreen leaves of rhododendrons and, if the ground is frozen, the plant cannot replace the lost moisture, so the leaves get damaged.

There is a school of thought held by some commentators that it is good practice to irrigate rhododendrons in early-December to make sure there is sufficient water in the soil for the plants to take-up moisture, before the onset of heavy frosts, to prevent desiccation. Come the cold, bright sunny days in February, March or early-April when the ground is frozen, the plants lose water that cannot readily be replaced. This ‘thought’ is further under-pinned by the suggestion that dry plants freeze at a higher temperature. There may be some validity in these notions, but there are some inherent dangers too. There are sugars and salts in the moisture of plants and these, to some extent, retard the plant from becoming frozen. The more moisture that is present the more likely that the plant will not freeze, but the problem with this is that there will come a time when a really sharp frost will totally overcome the plant’s resistance and the freezing of a larger volume of moisture will destroy the plant cells and cause the bark to split. There is also the likelihood that if the weather has been wet and not particularly cold for some considerable period prior to December, then the plant will not have become fully dormant and will still be slowly producing new growth, which could be decimated by a sharp frost. So, this is a very risky approach.

You may rightly point out that given this is the fourth consecutive year of ‘monsoon’ type weather from the end of October to late March in Northern England, the soil has been continually saturated, so the risk is inherently high of damage from a sharp frost. So, whilst there is no magic ‘fix’ for bark split, let’s look on the positive side and just deviate for a moment to suggest a way of dealing with this problem, if you are unfortunate enough to find a damaged plant. A few years ago, around the end of February, I found a mature rhododendron that was not looking as healthy as it should have been. On close inspection I found severe bark split near the base of the plant. I obtained a 3ft [1m] length of circa 3ins (7.5cm) wide fabric-type of ‘Elastoplast’ from the supermarket and, when the weather was dry, tightly bound-up the base of the plant, covering the whole of the length of the split, pressing and pulling the bark and stem together as best I could. If you do nothing the split will tend to open-up further as the stem and bark dry out, thus leaving the plant more prone to the entry

of disease. I purposely did not remove the 'Elastoplast', which deteriorated and fell away of its own accord about 18 months later; however, the plant perked-up in the spring and fully recovered over the following year, having formed a callus over some of the wounded area. This is not a guaranteed 'fix', as the remedy assumes you have noticed the problem shortly after the damage has taken place; nevertheless, it is inexpensive and well worth a try!

Unfortunately, there is no consistency so far as nature is concerned, as the weather patterns in recent weeks have demonstrated only too well. It is all too easy to talk about the climate and to place each of the factors involved into separate boxes and discuss them independently. So, it is perhaps more meaningful to take a page from real life and consider what actually happened during the last recorded bad winter. On the afternoon of 18th December, 2009 winter arrived in the Northwest and it began to snow heavily here in Starling. By early-evening the drivers of larger Mercedes, Jaguars, BMW's and Volvos, all without 4WD, had abandoned their skidding vehicles for the night on the hilly road at the front of our house. The snow showers and frosty nights continued over Christmas & New Year, but were only a precursor of what was to come. Heavy snow returned for real during the afternoon of 5th January 2010 and, with the temperature a couple of degrees below freezing, by mid-evening there were blizzard conditions. A blanket of 12 inches (30.5cm) covered everything; so, it was no surprise that the road traffic had ceased completely. I took a look at the garden and decided it would be prudent to clear the roofs of the two greenhouses before they collapsed. Just as well I did, given how the aluminium roof frames creaked when they regained their shape as the weight of the snow was gradually removed; but equally important was the removal of snow, using a lawn rake, from the badly bent branches of many of my plants. Perhaps more pertinent was the fact that another 12ins (30.5cm) of the white stuff had fallen by around midnight. In the early morning the sky cleared and the temperature plunged dramatically to -17.3°C (1.4°F) here in Starling, changing the top layer of snow to solid ice. In the morning there was still a bitter wind as I cleared the ice-snow from the greenhouse roofs for a second time, although there was no way of removing the ice and snow attached to the plants without causing damage. In the early morning of the following day, 6th January, the temperature plunged again this time to -19.5°C (-3°F). In these conditions you might as well throw the rhododendron hardiness ratings out of the window, as many of the so-called 'hardy plants' cannot tolerate a major temperature gradient (i.e. a high rate of change of temperature). This rapid change destroys the cells of borderline hardy plants, taking the form of an inverse burn and the exposed leaves and parts of the plant structure will die, even if the plant itself survives: the problem being that the

plant may not show the extent of the damage until some days or weeks after the event occurred.

Meanwhile, on the same night in the late Ralph Millward's garden at Brackenfield, near Alfreton in Derbyshire, the lying snow had accumulated to 3ft (91.5cm) and in the early-morning the temperature had plunged to -19°C (-2.2°F). But think, 'Location, location, location'! Whilst Starling is around 35 miles inland from the West Coast, Brackenfield (50 miles south-east of Starling) is 135 miles inland from the West Coast, so significantly further away from the modifying effect of the North Atlantic Drift. In practice Brackenfield is closer to the East Coast, some 65 miles to the east, so location is an important consideration. Early the following morning, 6th January, the temperature plunged further to -21.5°C (-7°F). With 3ft of lying snow Ralph and Jenny were 'snowed-in' for two and a half weeks until the local farmer helped to clear their country lane. And, as the snow began to recede, it became all too apparent that the plants protruding above the snow-line had quickly turned brown. Ralph was devastated and thought he had lost all the plants in his collection. So, a couple of weeks later I went to have a look at the damage and, yes, everything above the snowline had been killed outright, including the buds, leaves and plant structure. Below the snowline was no better in terms of the more tender plants as most of them had been killed to the ground, including 'borderline' species such as *Rhododendron thomsonii* ssp. *thomsonii*, (L&S collection), *R. cinnabarinum* ssp. *cinnabarinum* Roylei Group (KW collection), and several large-leaved species. Whilst the leaves of many of the more hardy species and hybrids tended to be dead and/or damaged, I could detect there was still life in the plant structures themselves, so was able to make an assessment that these would sprout and recover, although it may take two to three years for them to regain their original height and width. I also felt that some of the tender plants, having been covered by deep snow, would throw up new growth from the base, and Ralph was much happier when I left to return home; fortunately, over the next couple of years the assessment proved to be correct and I was able to provide replacement plants for some of those that had been lost.

Back in Starling, several mature rhododendrons were killed outright, including *R. calostrotum* ssp. *riparium* (Rock collection), *R. johnstoneanum* (KW collection), also some younger plants of the same two species, and some hybrids; *R. sutchuenense* took five years to die and three azaleas were killed outright. A 10ft x 10ft (3m x 3m) tree of *Fuchsia magellanica* was killed to the ground, but later in the year it threw-up new growth from the ground and, with careful feeding and selective pruning it has fully regained its height and width. The message here is, don't do anything rash

with plants that have been severely damaged by heavy frost. Give them a chance to recover and regenerate new growth on the branches the following spring, or to shoot from the base in the course of the season. If still in doubt, then it's recommended to always seek advice. Incidentally, I did not realise until the early spring in 2010 that when the roofs of both greenhouses had bowed under the weight of the snow the stress had sprung most of the glazing-clips, which were scattered on the adjacent paths, or in container plants, or on the garden. It's good advice to have a spare supply of glazing clips handy, as it's 'par for the course' that some will never be found.

Evergreen azaleas species, together with their close hybrids, which were introduced to Europe in the 19th Century, originate from the Orient, mostly from Japan's temperate Southwestern chain of islands; the exception being *Rhododendron simsii* that comes from China. Their home in Japan has a soft maritime climate with volcanic soils from the mountains that dominate these islands, which do not experience cold winters, so this is the origin of the species and hybrids used to breed the tender decorative florist azaleas. Evergreen azaleas are somewhat erroneously referred to as 'persistent leaved' azaleas in a few publications; however, in the colder climatic conditions in the Western World some are semi-deciduous when planted outside and tend to drop the majority of their leaves in the autumn, which can be somewhat disconcerting if you don't understand the characteristics of the plant you have acquired. Evergreen azaleas sold commercially are mainly hybrids and some will drop the majority of their leaves in a difficult winter such as that in 2009, whilst the remaining leaves will appear to be dying on bare twiggy branches. Don't be tempted to remove these plants from your garden, as most will survive a hard winter to bud-up in the spring.

It is worth mentioning at this point that it can be difficult to determine the cold-hardiness of some of the rhododendron hybrids that have been marketed commercially in recent years, particularly those with complex parentage, which inevitably results in complex plant performance characteristics. Many of the attractive hybrids with yellow, orange, or multicolour flowers have been developed by ardent hybridisers over many years; however, some have reached the retail outlets in Britain without having been first tested in the climatic conditions found in the colder, wetter parts of the U.K. Whilst an enthusiast may carefully tend their new acquisitions, particularly whilst they are young, the general public will purchase the plants with attractive flowers from a garden centre in the spring, but most of them will not withstand their first winter when placed in a garden in full sun and without any soil modification. It can be very enlightening to look-up the family tree of a complex hybrid and work out its full parentage, as this can give an indication of how robust the plant is likely to be. Where

the same species appears a number of times in the ‘family-tree’ I usually add-up the various fractions to make an overall assessment. So far as hybrids originating from the Pacific Northwest are concerned it is amazing how many contain a significant element of *R. wardii* and other parents that are of borderline hardiness. Enthusiasts in Northern England and Scotland often cannot understand why some of these hybrids are problematic to grow and are severely damaged by the first hard winter after being planted out; but, the answer is very evident in their parentage. Many of these hybrids may well perform satisfactorily in the warmer, sunnier coastal climate of Southern England, where they receive sufficient light and sun to ripen their new growth followed by good weather in the autumn to initiate their dormancy mechanisms.

As was noted at the outset, plant hardiness is both a subjective and complex topic. Differing ‘views’ have been stated down the years and, equally, it is a topic that many commentators tend to avoid getting involved with. Nevertheless, you may find the above commentary is thought provoking and will, hopefully, explain some of the background relating to the topic, together with suggesting how to handle some of the problematic issues that can arise in a hard winter.

Rhododendron Conservation in Sichuan, China – October 2015

**Richard A. Baines, David F. Chamberlain and David A.
Purvis**

The Sichuan Forestry Academy invited a team of three consultants from the Edinburgh Botanic Garden to visit Sichuan. They requested advice on field identification of rhododendrons in relation to their conservation needs, to provide training in propagation techniques and to explore the possibilities of a more formal exchange agreement between the two Institutions. This gave an opportunity for a meeting with the staff of the Panda Valley in Chengdu who are already heavily committed at the Zoo in Edinburgh. David Chamberlain was the co-ordinator and taxonomic advisor, Richard Baines, Curator at Logan Botanic Garden, was invited to provide the horticultural expertise and David Purvis acted as photographer, and the link person between Edinburgh Botanic Garden and the Panda Valley. He is preparing the text and photographs for a forth-coming book on rhododendrons at the RBG, a joint project funded by the two institutions.

We arrived in Chengdu on 12th October and were met by our host and interpreter for the trip, Ma Wen Bao. Introductions were then made to the staff of the Academy including director Li Daming. Plans were drawn up for a 6 day field excursion through mountainous country that Ernest Wilson had visited during the early part of the 20th Century. We were to be accompanied by Gu Yanping & Qiu Jian, from the Sichuan Forestry Department and Fei Wang, Director of the SW China Subalpine garden at Ma San Ping.

On the 13th our first port of call was the Mount Emei Botanic Garden where the Director, Li Cehong and his son showed us round a collection of unusual and rare trees and shrubs, mostly collected in the wild in Sichuan. Seeds of rare species are shared with a central seed bank as part of an ex situ conservation project. Many of these would be very suited to the climate at Logan, including a rich collection of Magnoliaceae, *Emmenopterys henryi* and *Camellia omeiensis*.

Our first field experience followed on the 14th with a cable-car ride to the top of Mount Emei, where, at 3000 m, we were greeted by thick mists and aggressive

troops of monkeys. Our descent provided some relief from the tourist development at the summit around the Golden Temple. It also, introduced us to a rich collection of rhododendrons including *R. faberi*, *R. pingianum*, *R. calophytum*, *R. wiltonii*, *R. strigillosum*, *R. ririei*, *R. pachytrichum*, *R. oreodoxa*, *R. lutescens*, *R. concinnum* and *R. ambiguum*. The highlight was *R. williansianum*, growing on a cliff, close to *R. dendrocharis*. Right on the summit, *R. nitidulum* var. *omeiense* was another notable find, accompanied by a rich autumn burgundy display of *Enkianthus deflexus*.

On the 15th our journey to Moxizhen took us through the Niba Shan road tunnel, one of the longest in the world, and past a new hydro-electric dam, during the construction of which several former villages were relocated and flooded. Considerable new road construction was also evident in the aftermath of a recent earthquake. The speed of recent infrastructure developments in China never ceases to amaze. Close to Moxizhen we visited an Academy nursery where Richard's advice was sought on soil media and propagation techniques required for growing rhododendrons. An evening stroll introduced us to a massive renovated Tibetan Temple in the heart of the town, and an impressive gateway to the Gongga Shan Mountain reserve. An interesting use of *Davidia involucrata* seeds as necklace beads was noticed on sale in local shops.

The 16th saw us on route to Kangding, over our first mountain pass. Our first stop on a heavily grazed mountain meadow introduced us to *Rhododendron argyrophyllum* and *R. polylepis*, amongst thickets containing *Decaisnea fargesii* with metallic blue pods, *Osmanthus* and *Berberis*, with scattered *Primula davidii*. Continuing up through extensive stands of *Larix potaninii*, exhibiting spectacular autumn colour, we made further stops to admire *R. pachytrichum* and *R. calophytum*. Probably as a result of the 1500 mm annual rainfall, we were again thrilled to see *R. dendrocharis*, growing as an epiphyte in the crotch of a tree. We passed through the Redstone National Park, where for several kilometres the exposed rocks are covered by a deep red microbial crust. So yes, we indulged our tourist instincts in this amazing backdrop that led up to the majestic snow peaks of Gongga Shan that reach over 7500 m. *R. concinnum* and *R. ambiguum* were again frequent, two species that are difficult to distinguish out of flower. *R. prattii* and *R. oreodoxa* were also present. As we gained altitude there was a sudden change to forests dominated by *Abies*, interspersed with meadows grazed by yaks. On the pass, at 3900 m, above the tree line, we were in a dwarf shrub community dominated by *R. intricatum*, interspersed by stands of the rather taller *R. phaeochrysum*. Amongst them there were dainty pockets of gentians with attractively striped tubes, growing with *Allium azureum*. On the way down from the top, a further stop provided Richard a close encounter with an aggrieved mother yak.

However the up-side was an introduction to what became his favourite rhododendron of the trip, *R. danbaense*, with its large oblong leaves and a rusty red indumentum on the lower surface. Some discussion ensued as to whether it was truly distinct, or *R. bureavioides*.

Approaching Kangding we passed through the ‘new’ city, built three years ago and dominated by a newly constructed hydro scheme. If only we could be supplied by free electricity as are the local residents! The local cuisine is usually a pleasure but on this occasion supper included yak’s heart, pig’s intestines and coagulated blood, a full hearted challenge to our haggis. Roll on a return visit from our Chinese colleagues!

The 17th presented our next challenge, the Zheduo Pass, on route to Danba. A brief stop close to Kangding again turned up *Rhododendron danbaense*. As the altitude increased we again experienced stunning autumn colour, eventually emerging above the tree zone at about 4000 m into a rhododendron scrub belt. A rather heady stop introduced the taxonomic niceties of dealing with a hybrid population between *R. phaeochrysum* and *R. przewalskii*. Above these the rather smaller *R. aganniphum* was dominant, wherever there was a little shelter. *R. souliei* was another associate. The 4200 m summit of the pass opened up a majestic panoramic vista, sadly spoilt by a network of electricity pylons. The ubiquitous prayer flags added a colourful addition. The dwarf 60 cm rhododendron scrub again appeared amongst the snow, containing a range of species in Subsect. Lapponica, including: *R. intricatum* (in flower), *R. nivale* subsp. *boreale* and probably also *R. websterianum*, *R. hippophaeoides* and *R. nitidulum*. On our descent towards Danba we made several stops to admire the mind-blowing landscape of snow-capped mountains and to admire yak-grazed meadows resplendent with gentians and other autumn-flowering herbs. As we descended to more comfortable altitudes, we passed through ‘Yak Valley’, a mountain river gorge with vertical slopes in their full autumn splendour. *R. vernicosum*, occurred along the river bank. We also spotted *R. danbaense*, close to the area from which it was originally described, and the diminutive *R. primuliflorum*. Our overnight accommodation was provided at Danba.

On the 18th we set out on our ascent to the Balang Shan Pass, past the Siguniang Shan. I suppose that we should have expected landslides and road closures, as these are inevitable consequences of travel in the mountains. A stop was made to look at a very non-descript member of Subsect Triflora, which turned out to be *R. amesiae*, a critically endangered species that only survives in two or three fragmentary wild



Left: David Chamberlain at Ma Sa Ping

Below: Seeds of *Davidia* sold for necklaces



Bottom: Gongga Shan and the red rocks





Left: Examining a carpet of Rhododendrons



Right: Richard Baines teaching propagation



Left: David Chamberlain and a hillside of *Rhododendron intricatum*

populations. This species is similar in many respects to the much commoner *R. concinnum*; it also has vivid purple flowers. Further stops before the snow line produced sightings of several species that we had seen in the Yak Gorge. These included a good stand of *R. primuliflorum*, an easy plant to distinguish as it has a characteristic oily smell when the leaves are crushed. Driving around an impressive series of hair-pin bends, the on-coming lorries, with their steaming water-cooled brakes, were at times a highly alarming experience. At 4500 m we reached the summit of the Balang Pass, the high point of our trip in more ways than one. Here the thin air made dodging snow balls a real effort. The scenery across snow-covered slopes was again amazing, challenging us to find words beyond superlative. We all remember the tastiest, spiciest roadside kebabs that you could imagine. Even at this altitude there was a wealth of botanical treasures, including *Meconopsis pseudointegrifolia* (now *sulphurea*) and at least five species of gentians. Again, there was evident pressure from yak grazing, though there was still room for both *R. phaeochrysum* and *R. aganniphum*. On our descent a serendipitous stop at a shored-up section of hillside introduced us to *R. balangense*. This is a species that is restricted to an area of less than 10 x 10 km, having declined significantly due to the construction of new roads and a power station. So far as is known the population is down to less than 200 individuals. *Larix mastersiana* was an interesting associate. We also paused at the Forestry Academy outstation within the Wolong Panda Reserve. The surrounding woodland supported *R. galactinum*, a flowering specimen of *R. maculiferum* and *R. prattii*. As we descended, the trunk road along which we were travelling became rougher and effectively unsurfaced for over 50 km. Passing through Yingxiu, a living memorial at the epicentre of the 2008 earthquake, we finally reached Dujiangyan, our destination. What a day of contrasts, from a sublime snow-covered mountain landscape at 4500 m, through the havoc created by a natural disaster, 4000 m below.

On the 19th our first visit of the business part of our trip was to The SW China Subalpine Garden at Ma San Ping, in a wooded area at 1900 m altitude, above Dujiangyan. For David Chamberlain this evoked very mixed emotions as he had first seen the Garden in 1989, shortly after it had been created. The earthquake, followed by a disastrous mudslide, had taken a terrible toll, on lives and buildings. Access was over badly scarred roads and finally on motorbikes. Prior to 2008 Ma San Ping had supported a collection of rhododendrons, on the edge of a tourist hotel complex that was serviced by a cable car. All the infrastructure had been swept away, leaving a garden with depleted propagation facilities and staff, no water or electricity and an uncertain future. Despite everything, we were greeted warmly by a remaining dedicated staff and we were much relieved to find that there is still a treasure trove of mature species

rhododendrons. Mass plantings of some of the rarer rhododendron species from all over SW China were indeed impressive. In particular, two local species, *R. argyrophyllum* subsp. *omeiense* and *R. davidii* are thriving. The Garden now holds around 300 rhododendron species. Richard again stepped up with a short training sessions of propagation techniques. Ma San Ping still attracts a few hardy visitors at flowering time, but numbers are down to 3% of what they were. Surely, it still has an important role as a centre for ex situ conservation of rhododendrons.

After lunch we visited the amazing 2,500 year old irrigation system at Dujiangyan. The evening started with a visit to a nursery at 500 m altitude, run by the Forestry Academy at Yutang, on the outskirts of Dujiangyan. Despite the provision of shade houses, there was evidence of extensive leaf burn. Evidently, summer temperatures in excess of 40°C, do not suit species rhododendrons. However, Yutang might become a trial ground for cultivar rhododendrons for commercial exploitation in Chengdu. This was followed by a visit to the Panda Valley, an impressive modern development to house the pandas that had survived the earthquake at Wolong. David Purvis was able to demonstrate some of his photographs and to share his thoughts on the format for the forthcoming rhododendron book with Wei Rongping and Li Desheng, the key Chinese collaborators on the project. Discussions ranged over the possibility that one or more rhododendrons could be promoted as a botanical symbol as powerful as the Panda in the conservation world. We were then treated to close contact with the captive but cuddly pandas before our evening return to Chengdu.

During the morning of the 20th, each of us gave lectures to an audience of staff and students at the Forestry Academy. The lively discussion afterwards clearly suggested that the messages from our presentations had been received well. Geng Yuying, one time employee at Ma San Ping and widow of Nigel Price, late of Crarae Garden near Inveraray in Scotland, was in the audience and managed to arrange a meeting with Deputy Director General Jiang Chu of the Sichuan Forestry Department. We were able to discuss with him potential future plans for Ma San Ping. There is the tantalising possibility for a phoenix rise from the ashes and mud of the earthquake; we sincerely hope so.

Our final day was spent visiting the Forestry Academy Nursery and impressive micro-propagation facility. Our impressions were of a well-run facility but sadly within the zone of higher temperatures that are part and parcel of an existence in Chengdu. Richard was again called upon to share his propagation skills, starting with basics such as: sitting comfortably before beginning.

The afternoon was spent at a very interesting Archaeological Museum. The day was rounded off by a farewell Sichuan hotpot dinner hosted by Fei Shimin and Zang Liming. On the 22nd our final ‘duty’ was a TV interview to highlight the potential for collaborative projects between Chengdu and Edinburgh and to raise the profile for rhododendron conservation in Sichuan. We then left for the airport, and our return to Britain.

The success of the trip was down to the meticulous organisation of our hosts in the Forestry Academy. Our thanks go to them for the provision of three air fares and all on-land travel and subsistence. We were fortunate to be accompanied by guides who knew where the rhododendrons were, to within a few metres. We might not have agreed with all the names that they provided, but then who is to say that we were right? While we were expressly not allowed to collect specimens or seeds for ourselves, we did have the satisfaction of assisting in a potential ex situ conservation project. We believe that this project would benefit from collaboration between several different institutions in China. Further, the Edinburgh Botanic Garden, and perhaps other bodies in the west, is in a position to offer advice on rhododendron propagation. This has the makings of an international exchange, within the terms of the Nagoya Protocols, and in the interests of the future survival of rhododendrons in the wild. Watch this space!

Mark Flanagan, V.M.O., V.M.H., Keeper of the Gardens at Windsor Great Park An Appreciation

For those of us with an abiding interest in ornamentals and trees it is almost inevitable that Mark Flanagan will have touched our lives in one way and another and have left an indelible mark on our memory. Perhaps it was whilst he was an apprentice at Manchester City Parks Department, or in the days he was a student on the Honours Diploma in Horticulture course at the Royal Botanic Garden in Edinburgh and a Master of Horticulture course from the Royal Horticultural Society, or whilst working at the Royal Botanic Garden at Kew who sent him in 1987 to Haywards Heath in Sussex to care for Sir Gerald Loder's legacy of fine trees and ornamentals at Wakehurst Place.

Wakehurst, with its diverse pockets of acid soil, heavy clay, wetland and free-draining sand almost certainly attracted Sir Gerald Loder, the first Lord Wakehurst, who bought the estate in 1903 and spent 33 years enhancing the woodland garden. The Great Storm of October 1987 caused enormous devastation to gardens and estates across the South of England, and Wakehurst was but one of the many victims of the hurricane. Mark, as Deputy Curator, found himself faced with clearing-up the inevitable tangled heaps of felled specimen trees and, perhaps more importantly, he was able to visualize logistically how the restoration work that would ensure that the replanting, aided by Andy Jackson, the current Director of the garden, would continue to underpin Wakehurst as a showcase for ex-situ conservation on a global scale.

Pictures: Top: It was evident from our discussions that Mark Flanagan was extremely proud of the Savill Entrance Building, with its undulating roof shaped like a leaf, and its wide range of facilities that was a major step in the enhancing the visitor experience at the garden.

Below: Mark Flanagan and David Coombes discuss the re-plantings and changes that have been made to the Savill Garden in recent years, during an S.R.S. conducted tour of the garden in early-May, 2013.

Pictures by John Hammond





**Above: Mark introduces the SRS to the Savill Garden
May 2013**

Picture by Jonh Roy



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Mark was destined to become an intrepid explorer after Tony Kirkham, Head of the Arboretum at Kew, invited Mark to accompany him when they made several important seed collections, firstly to South Korea in 1989, followed by expeditions to Taiwan, Japan, far Eastern Russia and China. Not only did the trips bear fruit in terms of enabling Wakehurst to be replanted with 50 to 60 individual specimens of species to replicate endangered habitats found in temperate regions worldwide, it also enabled their travels and adventures to be captured in their co-authored book, *‘Plants from the Edge of the World’* (2005, Timber Press, Portland, OR). So, as the tree planting at Wakehurst was taken forward and the canopy has matured, it has enabled suitable understory plantings to be added to enhance the garden’s structure.

It was whilst Mark was studying at the R.B.G. Edinburgh that he met his wife Lesley, and it was also where he initially decided that his dream ambition would be to become the Keeper of the Gardens at Windsor Great Park. By good fortune this became a reality when Mark succeeded the legendary John Bond, who had skillfully enhanced the Royal gardens for 27 years, following his decision to retire in 1997.

Like several modern-day plant-hunters, the Flanagan-Kirkham duo gained much of their inspiration from the expeditions of Ernest ‘Chinese’ Wilson, who was responsible for bringing to the notice of the Western World much of the diversity of Chinese, Japanese and Korean flora that currently graces our gardens. Mark developed an encyclopedic knowledge of Wilson’s travels, introductions and photographic legacy, the latter including over 5,000 glass-plate and another 5,000 nitrate-based negatives of places and plants taken for the Arnold Arboretum. Mark spent time studying Wilson’s letters, documentation and photographs at the Arnold Arboretum Library in Boston with the intention of confirming the routes taken by Wilson on his expeditions, now a century ago. On Mark’s third visit to Sichuan in 2001 with Tony they were able to travel in classic Wilson territory, west of Chengdu, where it was rumored that the skeleton of the massive old Chinese fir (*Cunninghamia lanceolata*), reputed to be nearly 2,000 years old, was still standing at Moxi. By means of using comparative photographs it was not difficult to confirm that this was the same tree photographed by Wilson on 17th July, 1908. By following in Wilson’s footsteps in this way, this led to their second co-authored book, *‘Wilson’s China a Century On’*, (2009, R.G.B., Kew) which many members will have in their library. The Flanagan-Kirkham duo was expecting to publish a similar work based on Wilson’s extensive travels in Japan, and Tony has indicated he intends to complete this objective.

Mark was not only custodian of the Savill, Valley, Frogmore and Royal Lodge Gardens, he was actively involved in seeking to improve the visitor experience and to explain many aspects relating to horticulture, heritage and conservation. He was the driving force behind the extensive development of the Savill Building and the new Visitor Pavilion at Virginia Water. Many members will recall visiting the Savill Gardens on a beautiful sunny morning in early May in 2013, on an S.R.S. Garden Tour, and Mark was extremely keen to make sure he was on-hand to lead the conducted tour and to discuss the history of the gardens, as well as providing a wealth of information about the plants and trees, together with his continuing project to replant areas of the garden.

It is somewhat inevitable that a great plantsman will receive requests for help and advice from the wider horticulture community; so it was that Mark brought his boundless energy and enthusiasm to his role as a Trustee of the Chelsea Physic Garden and a member of the Gardens Panel of the Sir Harold Hillier Gardens and Arboretum. In more recent years he became the highly regarded Chairman of the RHS Woody Plant Committee, introducing a number of reforms and bringing new members on to the Committee. He not only chaired a meeting of the Committee held in June 2011, in the Bramall Learning Centre at RHS Garden Harlow Carr, to discuss the details and planning proposals for a long-term project to revitalize the woodland at Harlow Carr, but also provided the in-depth initial presentation to outline the fundamentals of woodland restoration and the type of plantings that should be considered.

As Keeper of the Gardens in Windsor Great Park, Mark looked after the many collections with a great deal of passion, which was a source of inspiration to those of us with an interest in ornamentals and trees. Whilst in apparent good health, Mark suffered a cardiac arrest in mid-September, followed by several heart attacks from which he never regained consciousness, until he passed away peacefully aged 56 on Saturday 24th October. As soon as she heard that he was seriously ill, the Queen bestowed the Royal Victorian Order (VMO) on Mark, a knighthood recognising distinguished personal service to the monarch, an honour that is exclusively within the monarch's gift, which was presented at his bedside in Harefield Hospital. However, the wheels of horticulture tend to move more slowly and, somewhat remarkably, the RHS placed 118 years of tradition behind it to posthumously award Mark the Victoria Medal of Honour (VHM), as announced by Tony Kirkham in a eulogy at Mark's funeral. With the passing years there is little doubt that this would have come to Mark as a highly regarded elder statesman, bearing in mind the award can only be held by 63

living recipients at any point in time. In his all too short life Mark has touched many people's lives and will be remembered as a kindly gentleman, a family man, as well as a superb plantsman. He is survived by his wife Lesley and his children Callum and Sophie.

John M. Hammond

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Above: Large leaves of *Rhododendron calophytum*
Below: Interesting foliage of *Rhododendron danbaense*
See article about Rhododendron Conservation in Sichuan



