RHODODENDRONS 1990
with Camellias and Magnolias

The Royal Horticultural Society
London

Acknowledgements

TO THIS ONLINE EDITION

The volumes of *Rhododendrons with Magnolias and Camellias* issued between 1990 and 1999 could not have been published online without the generosity of others.

The Rhododendron, Camellia & Magnolia Group extend their thanks to the descendants of the contributing authors, and others who are now responsible for the copyright, for permitting those words to be reproduced in this format.

Despite our diligence in seeking the current copyright holders, there may be authors whose work is still in copyright who we were unable to trace, for which we apologise. The Group's 'Takedown Policy' may apply in this case; please visit
http://www.rhodogroup-rhs.org/takedown-policy
for details.

2025

RHS
Rhododendron, Camellia & Magnolia Group

Front Cover *Rhododendron niveum from Inverewe* — *Photo: Elizabeth Cameron*
Back Cover: *Rhododendron 'Mrs. J. G. Millais'*
joint winner of the photographic competition — *Photo: Mrs. B. Cooke*

RHODODENDRONS 1990

with

Camellias and Magnolias

No. 42

THE ROYAL HORTICULTURAL SOCIETY
VINCENT SQUARE
LONDON

ISBN 0-906603-70-6

Contents

Illustrations

Foreword

In the year when the Council of the Society has agreed that the name 'Magnolias' be added to the Group's official title it is good to see that we have a note on a newly reported member of the Magnoliaceae, *Michelia maudiae*, and it is to be hoped that this will lead to more articles on the 'newcomers' in the future.

As a direct result of recent visits to Bhutan, one of which is reported within, we have the publication of two new species found there. From even further afield comes news of a visit to the little-known Wuyi Mountains in South East China.

Reflecting our widely spread membership, we have articles from which we can compare the cultivation of rhododendrons in Wales, Ireland, Scotland, Belgium and Germany, and there is a very timely reminder from both Mervyn Kessell and Philippe de Spoelberch of the necessity for correct and meticulous labelling of plants.

Our front cover is the work of Elizabeth Cameron, a talented Scottish artist, and inside she lets us into the mysteries of her art.

Turning from the particular to the general, John Basford reports on the Fourth International Rhododendron Conference in Australia.

For those who may be inspired to take up propagation of rhododendrons, Dick Reynolds passes on some valuable hints and tips on the methods he uses with such great success.

The results of the hardiness trials of camellia cultivars in the colder more northerly districts of the country are published, although members who attended the annual tour in Cornwall last May will remember noting the advantages a mild seaside location could provide for their cultivation.

As if to remind us that we must always be on our guard, a sombre note is struck by reports of devastation by powdery mildew at Inverewe.

There is a good pictorial record of the annual tour and, finally, there are the usual reports of shows, reviews of some interesting books and details of awards to plants, making in all a publication of which we can be justly proud.

The honorary editor reminds me that she is always pleased to receive, in addition to entries for the photographic competition, contributions for the next number, preferably not more than 3,500 words in length. These may be sent to her at 84 Barton Road, Cambridge, CB3 9LH, to reach her by 31 March, 1990.

BRUCE ARCHIBOLD

Conserving an old rhododendron garden

MERVYN S. KESSELL

Although it is difficult to differentiate between the dictionary meanings of the words 'conserve' and 'preserve' it is generally believed that museums preserve and that horticulturists conserve. In practice, horticulturists as a group deal with a living and changing environment where plants like people live, age and die. When it comes to the rich heritage that people in the British Isles and, for that matter, in other parts of the world, enjoy it is only reasonable to expect that, as guardians for future generations, we must take adequate steps to ensure that the gardens, and the rarer species in them, will exist in a hundred years.

Unlike works of art that may be unique, it is not the right of any one individual to keep the only specimen in cultivation to him or herself. It is also foolhardy for, as has been witnessed in the last two or three years, sudden and devastating storms or other vagaries of the weather can wreak havoc on a seemingly protected environment.

How many enthusiasts are lucky enough to inherit a large old garden with mature, or over-mature, trees and shrubs? By all accounts, a surprising number. The first reaction of a new incumbent is to buy or hire a chain saw and spend a few days cutting down everything in sight, including perhaps a large *thomsonii* lurking surreptitiously behind an old *ponticum*. Alternatively he or she can sit back and do absolutely nothing for the first year except to go round the garden at weekly intervals marking and noting the specimens which show promise when they flower. It is also surprising how often large old specimens conceal lead serpentine labels ensconced somewhere in their branches. Older gardeners will not be surprised that even in today's high-tech world there are very few substitutes with the same long term life and legibility.

The subject of labelling in old gardens reminds me of an interesting anecdote – and one which I can guarantee is absolutely true. Some years ago a friend purchased a large and well known garden in Argyll following the death of its previous owner. However the old housekeeper, who thought that she ought to make the garden look tidy for the new owners, spent many a long day clearing up the UNTIDY engraved bronze labels from the base of the species! Thankfully she was not quite as efficient as she thought and there were still a few around when we started to clear the undergrowth.

1. Conserving and developing the records

Records come in all sorts of different shapes and sizes. If you are fortunate enough to purchase the house and/or garden from a real enthusiast he or she will probably be more than willing to give you the records if available. These may be held in the form of books, individual sheets, or orders or receipts from the companies or individuals from whom the plants were obtained.

In many cases records go back some considerable way and the paper may have become quite fragile thus necessitating a photographic record of the individual pages. This system has been employed at least once in the last few years at considerable expense to the new owners, but fortunately they felt it was worthwhile. Photocopying is often a cheaper and easier substitute, providing the book is of a type which will not suffer from being opened flat.

In the case of the garden which I mentioned in Argyll, I was fortunate to purchase a number of old RHS Rhododendron Species and Hybrid handbooks with different coloured ticks against certain plants in the garden which greatly assisted both myself and the new owner with the identification of many specimens. Some enthusiasts keep their records in a loose leaf file system which allows individual records to be entered in alphabetical rather than, or in addition to, chronological order and this makes photocopying of the records fairly simple.

Although a relatively new science in terms of record keeping, photography is still old enough to show gardens of the last century in excellent detail. In earlier examples the prints may be in black and white or, later on, in colour prints or slides. This form of record keeping is extremely useful especially where larger specimens have tended to swamp the smaller species which may still be found in a rather poor condition under some overhanging boughs. The Polaroid camera has its uses here, especially if it is essential to view the results quickly or the prints can be attached to a lightfast and waterproof container on the plant for short-term reference after the flowering period.

Within the last four or five years the advent of the relatively cheap personal computer has meant that the use of plant databases has come within the scope of the average gardener and is no longer restricted to the botanical gardens.

As well as keeping records of the plants which are already there, it is worth noting in a diary anything relating to the removal of certain trees and shrubs and the effects these have on the underlying flora.

A geographical location of individual plants on a plan is one of the best ways of backing up a record system. Plans can often be found attached to the title deeds of the house although the scale may be too small to use without modification. With the advent of cheap modern photocopying facilities enlargements of existing plans can be made for £2 or £3 (or less depending what you require). If the original is either unavailable or unsuitable for reproduction the Ordnance Survey can often supply originals especially if you live within an urban area where their surveys are regularly updated. Aerial surveys have become more popular in recent years and some companies have vast data banks of photographs which have been taken over the past few years.

Failing the above solutions, you can at a price dependent on the level of detail required, employ the services of an engineer or surveyor who will provide you with an up-to-date plan. The pitfall of the latter solution is that it is extremely difficult to take accurate readings where it is impossible to have line of sight of the measuring staff, although a little judicious pruning will help. Once the

outline plan has been completed and the paths inserted, each area can then be coded or named to permit a cross-reference to your detailed records.

2. Conserving the old plants

Under certain circumstances the removal of dead material can be quite simple, especially if it is restricted to isolated specimens. In the real world of horticulture plants never fit into text book categories. Often a dead tree may stand some 60ft tall, within a large planting of *R. neriiflorum* and the only way to remove it is to hire a team of expert arborists and to lower the branches gently piece by piece. This operation will be expensive, but weighed against the loss of a particularly fine plant, which in itself may be worth £200 or £300, it is a cost worth considering.

There are a number of reasons for removing dead or senescent rhododendrons, two or the more important ones are:
(1) For the safety of the garden user and/or the removal of the possible damage to other plants should the dead specimen suddenly fall. (2) The other reason for the removal of specimens is the possible elimination of Armillaria (honey fungus) which can be a serious problem in many gardens, although it must be admitted that this is a problem that many horticulturists tend to live with. While I do not wish to go into the details of pest and disease control, sick plants in general often show the first sign of stress in their topmost branches. Since these can often be seen in an overgrown garden above the lower canopy of foliage, it should be possible to target these plants as the first stage of the clearance operation.

3. Propagation

This brings us to the thorny subject of propagation. It is highly unfortunate that certain individuals believe or at least pretend to believe that plants in general and rhododendrons in particular should be treated like oil paintings or other works of art. With the exception of man-made hybrids the only influence that the human race tends to have on the plant kingdom is the destruction of living species. With the destruction of many native habitats, especially in the Himalayas, it is vitally important to ensure that no one person owns the unique specimen of a single species.

Layering is probably the safest, if not the fastest, way of ensuring propagation of certain species. It is also one of the easiest for the beginner who lacks special facilities, and it lends itself to the overgrown garden where plants have been forced over at an angle bringing the lower branches into contact with the soil. Aerial layering would not seem to be practised as much as it used to be, probably due to the faster techniques such as mist, fogging and microprop. However, it is still useful for the one-off non-commercial application where the individual is prepared to wait for a year or two.

Cuttings are probably the commonest method of propagation especially where it is important to reproduce an identical clone which obviously cannot be reproduced from seed. While it is quite probable that the beginner lacks the experience to root certain rare species, there are a number of specialist growers who would, with advance warning, be more than willing to help.

Grafting, although not particularly difficult, certainly necessitates some skill and therefore should not be attempted by the beginner on the only shoot of the last branch of the last specimen in cultivation.

The use of seed for the propagation of extremely rare species is not to be recommended unless the flowers have been carefully hand pollinated or as a last resort.

4. Conserving and replacing windbreaks

In the more exposed gardens the importance of windbreaks cannot be over-emphasized. Inverewe is one of the classic Scottish gardens where a barren windswept coast was turned into a subtropical paradise. Even in the small town garden, wind protection for certain species is essential since turbulence around and between buildings can be almost as destructive as a full-blown Westerly.

Probably the commonest planting in the older garden was the much maligned *R. ponticum* and even today it still provides an excellent shelter and is seldom surpassed for regeneration in the face of biting winds. I fully accept that in many gardens and large estates it has got totally out of hand and must be controlled, but this should be done with careful consideration for the other plants, which will suffer if too much is removed too quickly. The gradual replacement of the shelter-belt can and should, where necessary, be carried out over a number of years.

The west coast gardens from Cornwall to Ross-shire support windbreaks of a truly international flavour with such species as *Griselinia littoralis, Escallonia macrantha, Olearia macrodonta*, etc., supplementing our native Birch, Alder, Hawthorn and Sea-Buckthorn. Certain conifers, such as the Scots and Lodgepole Pines, are acceptable as dot planting in amongst the lower canopy - but others such as Leyland's Cypress should be avoided in exposed areas which are subject to salt-laden winds.

The optimum permeability for any windbreak is about 50-60 per cent, which allows the wind to be filtered as opposed to the solid barrier which tends to cause turbulence on the leeward side. This will give good protection up to six times its height.

5. Identifying the plants

Those with enough knowledge to use an identification key suddenly find that the eminent authorities do not agree with each other as to what constitutes a species, subspecies, or variety, neglecting of course the considerable possibility that the unidentified plant may be a hybrid which will not fall into any category. Where do you go from here? There are a number of options which are not necessarily mutually exclusive. Even if the experts do not entirely agree with each other by relegating some species to subspecific rank, they are usually willing to point you in the right direction.

Where do you find the experts? The major establishments, such as the Royal Botanic Gardens of Edinburgh and Kew, or the Royal Horticultural Society's Wisley Gardens, contain some of the world's authorities. They ae normally very helpful, although they do require good specimens, preferably with flowers

and sometimes seed capsules.

In addition other major establishments, such as the National Trust for Scotland, England and Wales, and the equivalent body in Northern Ireland, usually have experts in the more famous rhododendron gardens.

Hybrids do present a particular problem, as mentioned earlier, and these are usually a job for the specialist nurseryman who is so familiar with certain hybrids that he can identify the specimen just by its habit or flowering time.

6. An endangered species - an example

As mentioned earlier, a considerable amount of work was being carried out in an Argyllshire garden which entailed sending specimens for identification to the Royal Botanic Gardens, Edinburgh. Included in a particular batch was a sample of a rather curious plant that I was unable to key out to anything specific through the normal methods. Within a short space of time we had received a very interesting letter from Dr. Chamberlain, indicating that it was a recently named species called *R. lanatoides* which was so rare that he believed we might have the only specimen in cultivation.

Since then there has been considerable debate on the variety of the species, since it is unusual in having a very thick, pale tawny indumentum and a glossy upper surface. It has been placed in the Lanata subsection. It is just possible that there may be another specimen at Castle Howard, but this has not as yet been confirmed. Fortunately, a number of well known propagators have managed to graft some scions, so the specimen is not now unique. Under different circumstances it could have been lost to cultivation.

Rhododendrons in West Germany

KENNETH N. E. COX

Research for our book *The Encylopaedia of Rhododendron Hybrids* took my father and me to West Germany in 1987, where we toured some of the gardens and nurseries in the north of the country. To many people, 'German rhododendrons' suggest little more than the *forrestii* Repens hybrids of Dietrich Hobbie such as 'Scarlet Wonder' and 'Elisabeth Hobbie'. In fact, the Hobbie hybrids are only a small part of the story. There may well be more rhododendrons grown overall in West Germany than in the UK and there is certainly a larger scale of commercial production.

The history of hybridizing in West Germany goes back to the last century. The early hybrids of Standish and Noble, the Waterers and others were fairly quickly distributed in Europe, and one of the nurseries who obtained many of them was the firm of Seidel in Dresden (now in East Germany). The Seidel catalogue of 1859 listed over two hundred early English and Belgian hybrids, most of which were not entirely hardy in the very cold winters of the region. To remedy this, Rudolf Seidel and other members of the family began an extensive breeding programme, aiming to produce hybrids hardy to −29°C (−20°F). Rudolf Seidel used hybrids such as 'Everestianum' and species such as *R. smirnowii* and *R. catawbiense*; and over six hundred hybrids were named during the period 1880 to 1920. These hybrids can be seen in many of the German collections and several of them are grown in the USA. Very few are grown in the UK, the only one being in general commerce 'Helene Schiffner', a pure white *R. arboreum* hybrid.

In 1890 in the greenhouse of the Royal Porcelain factory of Berlin, Otto Shultz made some of the earliest *R. griffithianum* hybrids, crossing this tender species with hardy hybrids such as 'Prince Camille de Rohan'. None of these hybrids proved to be hardy in Germany, so two hundred of them were sold to C. B. Van Nes in Holland, who propagated them for the UK market. Among these hybrids were 'Queen Wilhelmina', 'Mrs A. M. Williams' and 'Geoffrey Millais'. From these hybrids, the Dutch raised 'Britannia', 'Earl of Athlone' and others.

This Dutch-German connection is most important today. It is well known that many of the rhododendrons in British garden centres are bought in from Holland. What is less well known, is that the Dutch themselves grow few rhododendrons, and that much of what they sell is in fact grown in West Germany, mostly in an area in the north-west between Bremen and the Dutch border. The area around Bad Zwischenahn is the centre of the German horticultural industry and there are many large nurseries here, growing every conceivable tree and shrub, from the rarest to the most common. The largest nursery here (easily the largest in Europe) is Bruns whose fields stretch out in all directions. Bruns' 470-page folio catalogue of trees and shrubs is impressive

in itself, but the most surprising thing is the range of sizes on offer. They can supply you with, say, a spruce tree from the usual 3ft size up to a 20-30ft specimen which will cost you a mere £1500. These trees are field grown, but moved every two years with lifting and cutting gear of their own design. When you buy such trees, they are dug, wrapped and loaded into special wagons at the nursery's own railway station and taken to their destination where, again using their own equipment, the tree is planted. Although only a small percentage of their operation, Bruns grow thousands of rhododendrons. Erich and Wilhelm Bruns made several hybrids during the sixties and these and many other species and hybrids can be seen in their garden at Gristede in Bad Zwischenahn. It is not particularly impressive, as it features an endless repetition of the same varieties, particularly their own hybrids such as 'Gloria', 'Diana' and 'Seestadt Bremerhaven'. Their rhododendron production is very impressive, however, with rows and rows of uniform, compact, healthy plants.

The most important distinction between rhododendron cultivation in the UK and West Germany is that in West Germany most elepidote varieties are grafted. This is not because they find rooting cuttings harder than we do, but simply because grafted plants seem to grow much better in their climate. The result is hardy, vigorous, compact, healthy plants which can be treated in a uniform manner. The advantages of grafting were graphically illustrated by comparing grafted plants growing side by side with those on their own roots in the nursery garden of Joh Wieting. 'Cunningham's White' is used for most varieties as it is hardy, easy to root, and, most importantly, tolerant of neutral and poorer soils. Unlike the infamous *R. ponticum*, traditionally used as a rootstock in the UK, 'Cunningham's White' does not generally throw up many suckers. Some hybrids, notably those with *R. fortunei* ssp. *discolor* blood in them, seem to have a long-term incompatibility with 'Cunningham's White', and for such hybrids other rootstocks (mainly hardy *R. wardii* hybrids) are used. Grafting is done from December to February on two-year-old rootstocks. These are packed in beds, with heating cables underneath and are left to be hardened off in these beds until they have produced their first growth. Amongst elepidotes, only *R. williamsianum* and *R. forrestii* Repens hybrids are not normally grafted. Surprisingly, in addition to hybrids, many wholesale nurseries graft quantities of hardy species such as *Rr. brachycarpum, calophytum, campanulatum, degronianum, insigne, fortunei, oreodoxa, smirnowii, wardii* and *yakushimanum*.

Many of the nurseries in the area have bred rhododendrons. D. Heine has named a number of *R. yakushimanum* and other hybrids. G. Arends and the Bohlje nursery have raised hybrids of *forrestii* Repens, *williamsianum, wardii* and a *keleticum* Radicans group hybrid called 'Radistrotum'. Two names, those of D. Hobbie and H. Hachmann, are by far the most important for rhododendron growers outside Germany. The Hobbie nursery is at Liswege outside Westerstedt. Surrounding the nursery, which is now run by Dietrich Hobbie's daughter, is an amazing sixty-acre 'rhododendron park' in a forest

consisting mainly of pine. Here the original grexes of the many Hobbie hybrids can be seen, many of them confounding the idea that they are dwarfs, as they tower above you. In addition to the well-known *R. forrestii* Repens and *R. williamsianum* hybrids, Hobbie made many using *Rr. wardii, discolor, brachycarpum, dichroanthum* ssp. *scyphocalyx* and *insigne*. All these hybrids and their parent species can be seen on a grand scale in the Hobbie park, alas mostly unlabelled, but we were fortunate to have the expertise of Joh Wieting to identify the plants. Many self-sown seedlings are starting to take over, but the garden is still well worth visiting. It is not only rhododendrons which impress in this garden. The carpets of *Cornus canadense* are most striking and there are also hundreds of plants of *Enkianthus campanulatus* which we saw in full flower, ranging from deep red, through pink and white. A few miles from the Hobbie park is the nursery of Joh Wieting who was our guide and adviser on our trip. He is one of Germany's foremost rhododendron experts, and his nursery has a very extensive list of species and hybrids. He has endeavoured to select and propagate the best plants from the Hobbie park, including the best clones from each grex. During Hobbie's lifetime, many indifferent clones were distributed.

The Hachmann nursery is located quite a distance from the other places described in this article, in the Holstein region to the north of Hamburg. Hans Hachmann has taken over the mantle as the major German hybridizer. He has apparently made nearly three thousand crosses, and at the time of writing he has named several hundred hybrids. As he is still crossing enthusiastically each year, the future holds much further promise. He is aiming to produce hybrids hardy to −26°C (−15°F) to withstand the hardest German winters. At the time we visited, the Germans were recovering from one of their worst winters in memory, and Hans Hachmann had been able to evaluate the hardiness of his own hybrids in the face of extreme conditions. The blaze of colour in his garden is a testament to the toughness of his creations. It should be mentioned that in West Germany the flowering season is compressed, with few flowers appearing before late April and the peak of flowering being in late May and early June. In consequence, if you visit the rhododendron gardens in the second half of May, you are faced with a blaze of colour seldom equalled in the UK where the flowering season is spread over several months. Hans Hachmann has hybridized evergreen and deciduous azaleas, as well as rhododendrons of every size and colour. We have been growing many of his hybrids at Glendoick for some years and have had time to evaluate them for the UK climate. Among the good ones are the purple-blue lepidote hybrids and 'Azurika', the large red elepidote 'Feuerschein', the purple 'Azurro' and 'Rasputin' and the blotched hybrids 'Diadem' and 'Kokardia'. Hachmann and several other hybridizers have used the species *R. insigne* in breeding with considerable success. Hachmann's pink hybrid 'Brigitte' is the most impressive of those so far released, and it will be commercially available in this country in the very near future (see fig. 4).

Hachmann has used *R. yakushimanum* more than any other species, but he

informed us that very few of the English *yakushimanum* hybrids are hardy enough for the German climate. Amongst those which are hardy enough are 'Caroline Allbrook' and 'Sneezy'. He has raised *yakushimanum* hybrids in many shades. Amongst the best ones at Glendoick are the white 'Hachmann's Porzellan', the yellow 'Marietta', the pink/cream 'Lampion', the rosy-red 'Morgenrot', the amazingly floriferous 'Hachmann's Polaris' and our favourite, the two-toned pink 'Fantastica'. Hans Hachmann's hybrids are a tremendous achievement for the northern European climate, but many of them will not really be worth growing in the milder climate of the UK. Unfortunately many of the less interesting ones are being micropropagated and sold in the UK, which may result in Hachmann's hybrids gaining a reputation that they don't deserve.

One of the world's foremost experts on rhododendron hybrids, Walter Schmalscheidt, has built up an extraordinary collection from all over the world at the horticultural research station at Oldenberg. Herr Schmalscheidt has written two books on rhododendron hybridizing in Germany. He has obtained the oldest and most obscure English hybrids, many of which are now largely unknown here. He is one of the few people who could visit an overgrown garden full of old hybrids and name most of them. It is a great pity that a national collection of, say, nineteenth-century English hybrids does not, as far as I know, exist in the UK. If anyone should wish to start one, Walter Schmalscheidt would be an excellent source of advice and of authenticated material.

Many West German cities have large public parks which contain considerable plantings of rhododendrons. Perhaps the most impressive of all is the 87-acre Rhododendron Park and Botanic Garden at Bremen, the headquarters of the German Rhododendron Society, formed in 1935. Amongst mature trees with lakes, streams and hills are thousands of rhododendrons, all beautifully labelled! As well as extensive plantings of German, Dutch and English hybrids we found a selection of the American hybrids from the eastern seaboard of the USA. The collection of deciduous azalea hybrids is the best we have seen anywhere, and it may indeed be the world's largest collection. All the different groups of hybrids from England, Holland, Belgium, West Germany, the USA, Canada and New Zealand are laid out systematically, providing a unique opportunity to compare the best. For us it was a chance to collect pollen of the best hybrids of each colour for using in hybridizing at home. The botanic garden area contains an impressive rock garden which amongst other plants, contained a mat of *R. camtschaticum* growing like a weed, tumbling over the rocks. While many growers in the UK fight to keep this arctic species alive, it is a common commercial plant in West Germany, and we often saw beds of several hundred saleable plants at the nurseries we visited.

Bremen also boasts a greenhouse collection of species not hardy in West Germany. The greenhouse complex covers over 1800 sq m and, as with the rest of the garden, is under the care of Dr. L. Heft, one of West Germany's foremost experts on rhododendrons. It is a curious sight to see huge plants of

Rr. griffithianum, elliottii, rex ssp. fictolacteum, thomsonii, and other species familiar to us as outdoor plants, growing in a greenhouse, but it is the only way Germans can enjoy the less hardy Himalayan species. The collection is very comprehensive, as good as can be found in many of the best British collections; and of course a greenhouse collection does not have its early flowers frosted! Another part of the greenhouse complex houses a collection of vireyas, some of which grow hanging down a vertical rock face, covered with moss and rotted wood, with constant irrigation from the top. This is the nearest approximation to the wild habitat of vireyas that we have seen, and it could be imitated elsewhere. There is also a collection of the indica azaleas commonly sold as houseplants. Outside the greenhouse we found the German equivalent of the Wisley Trials, where hybrids and evergreen azaleas are tested for hardiness and general quality. Here we found that the recent hard winter had done considerable damage, especially to large old evergreen azaleas. Trials of perennials and herbaceous plants also take place here.

For a rhododendron lover, a week in May or early June in West Germany would be as rewarding as in any other of the world's rhododendron growing areas. Don't expect to see large-leaved species or Rothschild hybrids, the climate simply does not allow such plants to be grown outside. But the Germans make up for this by growing the hardier species, hybrids and azaleas extremely well and on a large scale. They have some of the most spectacular rhododendron plantings anywhere.

Thirty years on at Pant-yr-Holiad

GEOFF. H. TAYLOR

With thirty years of rhododendron culture behind me it seems a good time to take stock; to view successes, remember failures and to think ahead.

A quick look around the garden reveals only one solitary ailing plant – a rather poor pink-flowered form of *R. wasoni* – possibly suffering from exposure, due to the recent removal of a screen of hazel bushes. However, improvements can be made in the rest of the garden, especially where there is overcrowding.

Originally the home of about a dozen so-called 'compact' rhododendrons, the banks of the old millstream are again overcrowded despite the rescue some years ago of smaller inhabitants, such as *R. radicans, R. pemakoense* and *R. lepidostylum*. On one bank, 'Elizabeth' and the Japanese azalea Amoenum will just have to fight it out with perhaps the rhododendron becoming ground cover beneath Amoenum – in one very old garden I have actually walked beneath the branches of this Japanese azalea. To lift and replace either would be catastrophic to surrounding rockwork, while the remains of 'Blue Tit' amongst them will have to be abandoned and replaced elsewhere.

From another bank we have already removed *R. roseum* and *R. racemosum* from the threat of *R. williamsianum* and 'Scarlet Wonder'; long, lanky specimens were hauled out, replanted in vacant areas and staked securely. Eventually the lower dormant buds started into growth and the gawky tops were pruned away with consequent loss of effective flowering for several years. A better remedy would have been to grow a few replacements from cuttings.

Although many overhanging branches have already been removed, others are still casting too much shade. A three-metre high specimen of *R. cinnabarinum* is reaching out for light and several others are becoming quite leggy. But if one is to judge the right amount of shade to leave it is best to carry out the necessary lopping on a sunny day before leaf fall.

On the other hand, an otherwise healthy *R. falconeri* is developing a one-sided shape, due to a draught of cold air from the east and there is a case for planting a quick-growing conifer as a shield. In another part of the garden a eucalyptus planted to shield a group of rhododendrons from excessive sun has resulted in *R. tephropeplum* reaching for the sky between its branches.

As an experiment, the hybrid 'Fabia', suffering dieback, was fed with 20-10-10 NPK artificial fertilizer a couple of years ago and has shown due appreciation. It might therefore be as well to get around some of the others with a light dressing of inorganic fertilizer. In the woodland part of this garden the ground cover is largely ivy, which may be utilizing much of the goodness from the natural annual mulch of dead leaves. Formerly, I have found the best feed to be well-rotted cow-dung spread as a mulch, but transporting sufficient to the

hundreds of plants along steep paths without mechanical power is difficult. Admittedly, most of our trees (ash, aspen and sycamore) are themselves greedy feeders in the topsoil.

While some species and hybrids are planted to excess in the garden, a few are singletons in the collection and, with young plants in our nursery, this seems a ludicrous state of affairs. Should a calamity occur, a name could be lost from the catalogue. *R. oreotrephes* is a case in point: the specimen grows beneath a towering ash of many years that regularly drops its branches. So far all have missed. Knowledge that there are two of everything would be comforting.

'Bodnant Yellow' is one rhododendron that nearly failed some years ago through severe bark splitting. This complaint seems to be a combination of impoverished soil combined with adverse weather conditions. In this case the bark split on two sides parted completely from the wood, and then miraculously continued to service the plant via the two almost microscopic strips of cambium which have now lignified and can support the plant unaided.

Many of the large-leaved species are also single specimens, but propagation of *R. sinogrande* (once identified by one visitor from foreign climes as a breadfruit tree!) presents difficulties, if only because one cutting would occupy such a lot of bench space and anyway I am loth to go round my youngster with secateurs. Air layering might be feasible, but somehow polythene-shrouded branches do not go along with my idea of a natural garden. Seed is one alternative and, fortunately, ideas about this practice are changing; seedlings are no longer automatically decried as rubbish, providing, of course, that the seed is of wild origin or hand pollinated from a good form. Seedlings of *R. decorum* (Hu 14694) growing in this garden show no apparent deviation from the parent plant which flowers regularly each year, the creamy blooms perfuming the atmosphere on a sunny day and contrasting beautifully with an adjacent *Acer palmatum* 'Atropurpureum'.

Even with dwarfs, one or two remain as solitary plants, including *R. caesium*, which is in my opinion a much under-rated species. Flowering here in late June and into July, with yellow bells and glaucous leaves, it has been much admired by visitors. I think it and several other dwarf species, such as *R. pemakoense, R. lepidostylum* and *R. scintillans*, deserve to be more widely available in garden centres – some would even make excellent dwarf informal hedging.

I seem to have planted *R. ambiguum* and *R. augustinii* everywhere, because of the temptation to match the lemon yellow of the former against selected blues of the latter. Furthermore, both are attractive in foliage with *R. ambiguum* showing autumn colour with the bright yellow of fading leaves beneath the new garb and the new growths of *R. augustinii* glinting reddish in the summer sun.

While great attention is paid to the foliage of the larger-leaved kinds, the smaller leaves of the compact growers are often neglected, but one has only to see the bronzy new growth of *R. davidsonianum* contrasting against the hue of *R. glaucophyllum* to realize the potential. So eminently suited to smaller gardens, these surely merit wider planting and, while admiring the foliage in

autumn, there is the spectacle of each bush being covered with fat terminal buds portending the usual wondrous show of flower in store, such are the reliable habits of these species. Another compact grower, *R. rigidum* (Rock 59207), is worthy of specific mention, presenting a pillar of white blossom in our quite dense woodland and, again, never failing to flower.

As a result of my first successful seed sowing many years ago, *R. spiciferum* has become rather over-planted as it occupies desirable sites. Flowering in early spring with weather-resistant blooms, it is welcome but not showy, and room must be found for longed-for additions, such as the Loderi group, *R. discolor* and several others. Another move ought to be that of a bush of *R. morii*, which is much too near a blue spruce for comfort. According to some published material, this species may present difficulty in cultivation, but it has proved quite easy in this garden, where three specimens flower regularly each March with carmine-blotched white flowers - a pleasant contrast to the naturalized daffodils (see fig. 10).

Often I feel that the behaviour of my rhododendrons does not match that published in books on the subject, with tenderness ratings being a case in point. At the start of gardening here I planted six specimens of *R. griersonianum* on sites varying from sheltered to exposed. With the exception of one, stunted because planted in a dry spot beneath a towering ash which grabs every bit of available moisture, all thrive. The whole question of moisture requirement has had scant coverage in the reference books and it is quite obvious in the garden here that some species require appreciable amounts of moisture to attain full potential. In a moist position, *R. macabeanum* has made twice the growth of other large-leaved species in drier situations, and as for *R. hippophaeoides*, said to grow wild in boggy areas, it thrives in this garden with its roots under water for much of the year. Perhaps tenderness and moisture requirement should go hand in hand, for desiccation seems the real enemy in cold conditions.

Looking around, I think a few of my own daft crosses would be better on the bonfire, releasing some good sites for alternative plantings. Mostly from the Lapponicum series, these crosses are no improvement on existing hybrids and certainly not up to the standard of *R. cuneatum* ssp. *ravum* which is a particularly fine plant, blooming freely in April and usually showing quite a few flowers in autumn - another potential dwarf for the world of commerce.

Although many are planted out in the garden, showing healthy growth and flowering regularly, there is little to commend my own hybrids so far, the most common complaint being too few flowers per truss, or, in many cases, too vigorous a rate of growth. However, I do have hopes for some *R. cinnabarinum* crosses which flowered for the first time a year ago. At the moment, I am tempted to explore the possibilities of using *R. carolinianum* in hybridizing, especially as I have some fine specimens with one or two of the rare variety *album* growing very well in a woodland setting.

Just as some acquaintances are trying to re-introduce *R. arborescens* and *R. viscosum* into the hybrid azaleas to win later time of flowering, so I am exploring late-flowering rhododendrons. After a good search around the

country, I have finally acquired the September-flowering *R. serotinum* and I can only hope that it is more eager to flower than the large bush of *R. auriculatum*, which last flowered some three years ago. Without the stress of flower production *R. serotinum* is growing really well and may get among the clouds: it is trained as a climber at Kew. Having recently lost species rating, *R. serotinum* is now apparently thought to be a hybrid of *R. decorum* - but crossed with what?

One species that I am interested in is *R. selense*, which thrived and flowered here long before it received the well-deserved award a few years ago. Flowering in June, this member of the Thomsonii series is proving a robust fast-growing rhododendron capable of withstanding exposure, here shielding *R. macabeanum* from any east wind. If it were more generally available, it might well replace *R. ponticum* as a windbreak.

The larger commercial hybrid rhododendrons, mainly of ancient introduction, are dotted about the garden. They grow well, flower like textbook pictures, but somehow lack the fineness of pure species. Perhaps an exception might be made for the cinnabarinum hybrids such as 'Lady Rosebery', 'Lady Chamberlain', 'Conroy' and 'Cinnkeys', which seem in a class of their own. Despite the hard wintry weather of recent years, none has suffered in health. The same can be said for our Japanese azaleas, which have thrived since being moved to the banks of a stream in thin woodland - possibly another case of moisture sufficiency. They positively shrank in stature in a drier situation.

So much for thirty years; with a hundred or so species in the garden, surely it is time to call a halt. I nearly stopped propagating some years ago, and then along came people searching for the lesser known sorts. Economically priced bench heating became a reality, mist watering systems easily obtainable and improved lighting available. Today, one of my greenhouses is a beacon of light from dusk until the witching hour. On raising seedlings I have not diverted from my plan of twenty years ago, but as for taking cuttings, I am continually experimenting with many factors. Perhaps one day I might arrive at a definite conclusion, but from past experience I would say that whatever it is it will be suitable only for the west coast of Britain and for cuttings actually taken in that area, such it seems is the effect of climate on this form of propagation.

Spots in the garden are still reserved for unacquired species like *R. giganteum* and *R. keysii*; the former to prove I can grow it out of doors and the latter because I have yet to see this one of Cinnkeys's parents in flower.

And in another thirty years, shall I, as an octogenarian, still be clambering about this hillside garden, crawling beneath rhododendron bushes to get at the odd bramble seedling and settling down in a nicely warm greenhouse on a wild March day to prick out seedlings? Quite possibly!

Twelve years on at Herkenrode

PHILIPPE DE SPOELBERCH

Growing rhododendrons in Belgium is probably not very different from what one would expect in East Anglia. Weather conditions are slightly more extreme; we are closer to the main continental mass of Europe and further away from the warm influence of the Gulf Stream. Herkenrode is located 25km north-east of Brussels, at an altitude of 15m above sea level. The sea is, nevertheless, quite a distance away (100km). The soil is heavy clay. This is ideal poplar country. Platanus and Magnolia also do well on these soils which in parts are too acidic for them (pH. of 4 to 5.5). Drainage is essential and rhododendrons must be kept away from low points. But the slightest elevation and a good layer of leaf mould are all that is really needed to get plants started. Ideal conditions have been found under oaks and larch. Rhododendrons do survive under beech but growth is very slow. If they can be established, they will live for many years. Some old hybrids had reached 3m high and more, and their success probably prompted me to try more rhododendrons when, in 1973, I started the collection at Herkenrode. *Rhododendron ponticum* is not really as hardy as *R. catawbiense*, and I believe that the large Hardy Hybrids on the estate are catawbiense hybrids.

Approximately 3 hectares of woodland garden were planted with rhododendrons and other acid-loving plants: Acer and Magnolia, Stuartia and Styrax. Many other shrubs have also been introduced.

When planting the rhododendron collection two objectives were pursued: grouping species by subsection and avoiding excessive colour contrast. The initial layout soon proved to be too small to contain all of the species in some subsections and, today, the grand design is muddled up. One can, nevertheless, often compare closely related species within their subsection, and this has been of great interest when sorting out plants, learning to identify them and spotting the hybrids among the purchased 'species'. The second objective has been more challenging. After all these years I cannot suppress a certain uneasiness at the time of flowering, and the increasing size of the shrubs is making things worse. What originally seemed to be a safe system for avoiding clashes of colours has been most difficult to respect. I have moved hundreds of plants around and sometimes had to get rid of them.

In any case, I feel that only one-third of the colour spectrum should be used at any one time and of the three possible combinations, red/white/blue is the most attractive (providing any presence of yellow is strictly banned). Blue/yellow is the second good combination and this is often the situation in the area reserved for the lepidote subsections; but it is essential then to make sure that there is no touch of red in any of the flowers. White is not really necessary in this combination because there is no real intermediate: mix blue and yellow in any combination and you get green instantly which, of course, is present all

over in the background. The third combination is red/white/yellow to the exclusion of blue. These are the colours of fire and they are out of fashion. I still like them. But there are so few pure reds, and yellows bloom much earlier anyhow. Azaleas are the best bet for anyone in love with this colour scheme. I did not succeed and have given away most of my fiery azaleas.

Maintenance of the 10 hectares of garden and arboretum is handled by one hardworking gardener who insists on spending the long May and June evenings dead heading a good thousand flowering rhododendrons. Without him, Herkenrode would not be what it is today. Chemicals are used, abundantly, to control weeds and woodland shrubs (brambles, sycamore, maple, oaks, etc.). Further, it has been the policy to acquire only the best machines.

Winter protection is provided in January and February in the form of pieces of burlap, loosely placed on iron or bamboo sticks. The difference is dramatic.

Our rhododendrons have not suffered from any major diseases. *Armillaria mellea* is everywhere. The woodland garden was created within an old mixed beech/oak/larch wood. Most beeches were felled but their roots were not excavated. The cost would have been prohibitive. Every year, in November, masses of mushrooms appear all over the grounds. It is difficult to find an area without these fructifications. But only two rhododendrons have succumbed to date and I am quite optimistic that healthy rhododendrons will not be bothered. I have cultivated the soil around some of the more important plants. Clean soil and disturbance seem to be resented so that a ring of cultivated ground around plants is a good preventive measure.

Labelling was not an easy matter. The Instruction Booklet of the Recording Scheme of the International Dendrology Society would have been a great help at the beginning. Clearly, the single most important element on a label is a straightforward numerical accession number. It should have no other signification attached to it. The number will refer to a simple sequential Accession Book where other important known facts about the plant should be recorded. Labelling material also proved to be a challenge. After many trials I settled on white plastic bands which are made of a soft PVC. These are engraved, cut to length and bound to the plants with extensible 'plastic string'. Over time, the engraved letters become filled with dirt and they become more legible on the white background of the label.

One of our major problems came with the revision of Rhododendron classification and of course, nomenclature: I had to change all my labels and computer entries.

Weather conditions were the single most important factor influencing the growth of rhododendrons at Herkenrode. Over the last twelve years we have witnessed all possible extremes from drought to cold temperatures. Conditions never seem to be the same, as the following notes indicate. In this shortened report, no list of plants has been provided. Our computer inventory lists, for 1500 plants in the collection, the relevant data with regards to hardiness during the twelve-year period, or at least for the more significant periods.

Most of us will remember the great drought of 1976. The long-term damage to plants was less than one might have feared, but all plants looked very miserable. In retrospect, defoliation seems natural enough and I even wonder if it might not have been more effective in such conditions to defoliate rhododendrons instead of watering every day. Indeed once started watering had to be continued on a regular basis. The only eventual casualties were large-size rhododendrons which had been removed to new locations.

Many plants suffered from bark-split in 1976-7 for no apparent reason. It might have been that when the autumn rains came after the drought none were properly hardened when winter arrived. Some survived for a few years, but most died later.

By 1982 optimism had returned and the collection contained 500 rhododendrons. On 13 January the thermometer dropped to −18°C. The days were warm with the surface leaves exposed to sunshine while the soil was frozen. We lost most of the tender plants which normally grow in English gardens. Survivors were 'Aladdin', 'Argosy', 'Beau Brummel', 'Beefeater', 'Biskra', 'Jalisco Elect', 'Matador', 'Queen of Hearts' and 'Vanessa'.

In January 1985 a high pressure zone stabilized over central Europe and sent dry and cold winds blowing from the east. In the woodland the thermometer dropped to a low of −19°C and on an open lawn the temperature dropped to −24°C on one night. Many rhododendron leaves curled up beautifully, but a second cold wave hit us in mid-February. Branches and leaves were covered with spectacular sheets of ice. I do not think the plants were harmed, but dessicating winds followed and to make things worse there was a late frost on 27 April. We lost 53 taxa that year. I suppose whatever survived may be referred to as 'hardy in Belgium'. The full extent of the damage appeared in May when conifers were seen to have suffered badly and *Cedrus deodara* was almost wiped out in Belgium. Even the oaks suffered bark-split. Most of the rhododendrons in the collection suffered to some extent from cut back, defoliation, leaf damage, or destruction of flower buds. But some came through unharmed, including 27 species (some of which were protected by snow) and 24 hybrids which managed to flower.

The 1987 winter was the second worst of the decade. It started when the cold front hit us on 4 January. The cold spell went on until the end of the month, with a minimum of −17°C. There was no snow and sun became a major problem in open areas of the woodland garden. At mid-day the temperature would rise and many rhododendrons were burned on the south-facing side. Most roots were totally frozen and there was no way the exposed leaves could replenish the loss of water occurring during the warm and sunny hours.

To conclude this report, I should mention how disappointing both alpine and continental climate plants have been. Belgium has a maritime climate and such plants cannot cope with our damp and mild winters. *Rhododendron aureum* and *R. redowskianum* (a relative of *R. camtschaticum*) which I brought back from North East China (Changbai Shan) have died out after a few years. They need to spend their winter under snow and have a good summer with plenty of

ultraviolet radiation.

There have been some successes and I would like to report the most interesting, as these plants are not well known. They should be planted more often on the continent. R. 'Jack Skelton' is a vigorous early hardy cream yellow hybrid named in the honour of one of the head gardeners at Trewithen. Its parentage is 'Dr Stocker' × 'Mrs Lindsay Smith'. It flowers at about the same time as the better known R. 'Rothenburg' and has a more open structure. Another hardy plant for continental Europe is R. 'Biskra', the only cinnabarinum hybrid to grow well with us and flower with profusion. It acquired its hardiness from the other parent: *R. ambiguum*. A delicate spreading shrub for every garden is R. 'Gartendirector Rieger' a plant of great charm. R. 'Helene Schiffner' is a very special pure white with the darkest foliage. One species too little known is *R. annae*, the only member of the Irroratum subsection to do well at Herkenrode. All the others died. Its flowers are delicately spotted and appear consistently every year. Among my other favourites: 'Mary Swaythling', 'Oxlip', 'Halcyone', 'Lodauric' and much hardier than in UK reports, 'Romany Chal' (*eriogynum* × 'Mosers Maroon').

I have stopped buying hybrid rhododendrons because of the excessive colour impact of the new cultivars appearing on the market every year. I enjoy growing species of wild origin and find them particularly attractive if collected by myself. This is of course of no interest to other visitors, but somehow brings back many memories of wonderful days out in the wild.

The next step will probably be one of further specialization in the framework of some kind of National Collection Scheme. It is probably the only way out of the increasing choice of plants which the rhododendron collector can purchase around the world. Collectors somehow like to feel that they see the end of the tunnel and obviously this one is getting longer and longer.

My main recommendation to beginners is to spend a lot of time and money on improving the soil conditions in your garden. The right drainage, pH, and mulch will triple the volume and hardiness of comparable plants in less than ideal conditions. Ten years after planting this can mean the difference between a superior plant and one not worth carrying.

Herkenrode is half an hour North of Brussels and it is open to all members of the Rhododendron Group who may wish to visit it. Do give us a call.

Bhutan revisited, 1988

KEITH RUSHFORTH

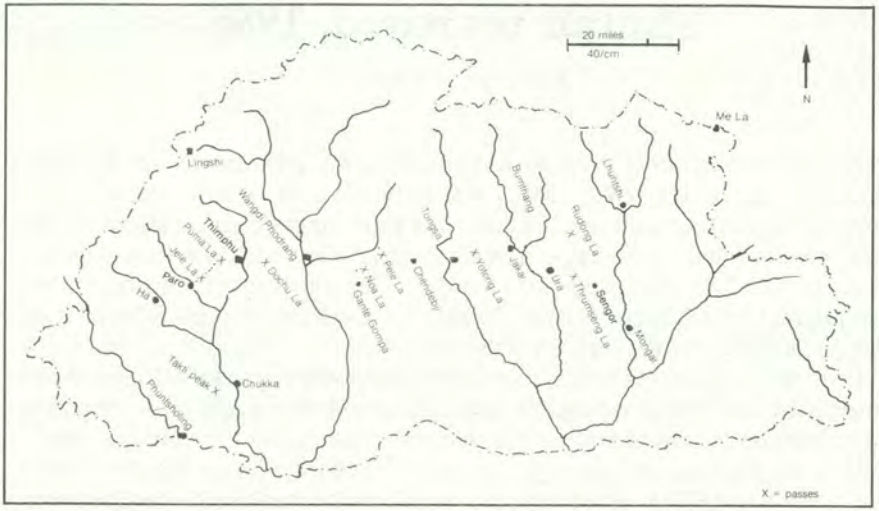
In *Rhododendrons 1988/9*, pp. 20-6, Anne Boscawen gave an account of a trip I led to Bhutan in April/May 1987. I was fortunate to be able to lead a further party in September/October 1988 and can thus compare observations on the plants seen on both these trips, as well as on my October 1985 visit to north-west Bhutan. The 1988 party included Peter Cox, Sir Peter Hutchison and his son James, Donald Maxwell MacDonald, Ted and Romy Millais, Warren Berg (USA) and Garrett Richardson (USA).

Until the building of the first road into Bhutan was begun in 1960 travel was entirely by walking or riding, using the old established paths crossing passes and rivers or following ridges. The modern road across the country closely follows the ancient east-west highway used by Griffith, the first botanist to visit the country in 1837/8, except where it bypasses the traditional route between Thimphu, the capital, and Paro by following the river valleys. In 1987 we had walked part of the old route, from Paro up to the crest of the Jele La. We now walked it in the opposite direction from Thimphu over the Pumo La.

Thimphu is in a dry valley, with forest dominated by *Pinus wallichiana*. However, the ridge to the west rises to over 13,000ft and is much wetter. At about 9,500ft *Picea spinulosa* becomes dominant, with local patches of *Larix griffithiana*. Above these to the tree line *Abies densa* forms extensive forests on all the main ridges. The *Rhododendron* species include the ubiquitous *arboreum* along with *lepidotum* and *triflorum* at lower elevations. As height is gained the number of species increases, with *R. setosum* along with *Rr. cinnabarinum, wallichii* and *campylocarpum*. At around 11,000ft grow a mixture of *R. barbatum* and *R. argipeplum*, each with stunning barks. Shortly below the crest at 11,800ft, two plants of *R. succothii* and a single young *R. thomsonii* were found. *R. succothii* is much commoner in a small area on the west side of the pass. We did not see *R. lanatum* which is recorded at 13,000ft from the mountain above the nearby monastery at Pajoding. Other plants seen included both *Rosa sericea* and *R. omeiensis*, occurring together at 11,250ft.

We descended to Dsaluna in the Jiminang valley for the night at just under 9,000ft and then camped before the climb up to the Jele La (22/09). The Jele La (Bele La) is the type locality for *R. papillatum* which Cooper found in 1914 at 10,000ft. Unfortunately it is not recorded where he found it, whether on the east or west flank, and aneroid altimeter readings are not that precise. In 1987 we had failed to spot any *R.papillatum* when climbing from Paro and we now hoped to find it by coming from the Dsaluna side. However we probably did not take the precise route used by Cooper when he discovered it.

The Jiminang region is rather dry and on the way to the summit, at 11,400ft, only the everpresent species were seen. More interesting though, was the



discovery of trees of *Acer caesium* to 18m tall. With *A. caesium* were large trees of *A. campbelliie, Pinus wallichiana, Populus ciliata, Fraxinus* species and scattered *Picea spinulosa* and *Tsuga dumosa*, with shrubs of *Corylus ferox.*

At 10,000ft above Paro two plants which might possibly have been *R. papillatum* were found in a small grove of *Acer stachyophyllum*; however, these were sterile and did not wholly convince those who saw them. Descending to Paro we found the local variant of *Malus baccata* in fruit.

The next day (23/09) involved a brief trip to Taksang Gompa - the Tiger's Nest monastery. This, along with the other Bhutanese monasteries, is now closed to tourists but we were able to climb to the teahouse and look up to the monastery which is set on a vertical basalt cliff. In 1987 we were shown a single plant of *R. edgeworthii* in flower at this point but one of the Bhutanese collected a piece from another plant for us. Following his trip to Bhutan in the spring of 1988, Tony Schilling questioned whether the Taksang plants might be cultivated, as Taksang is the only recorded locality for it in the Paro valley; also the altitude at 9,500ft is high for the species in the Himalaya, although it occurs higher in Yunnan, and the locality is much colder and drier than usual. We spent much time searching the cliff around the first plant and Peter Cox found a small colony of six mature plants and four seedlings growing on a small ledge facing north-east. These had the appearance of being natural and restricted to this very precise niche which would be both damper than usual and fully shaded from the sun. My view is that the plant is natural at Taksang and hopefully this origin will prove to be hardy.

We drove to the Dochu La where we spent the night at the lodge on the crest, half the party in tents, the remainder on the lodge floor. The Dochu La was the first opportunity for the group to see the newly described *R. kesangiae* Long &

Rushforth and assess its status (see fig. 1). Peter Cox used the opportunity to look for hybrids between it and the sympatix *R. falconeri*. He found some which looked plausible hybrids but only young seedlings, never a mature plant. Although I strongly suspect some were hybrids, I also think some of the other apparently intermediate seedlings might equally just be exhibiting the inherent variability in leaf indumentum of young *R. kesangiae*. One seedling I collected as *R. falconeri* in 1987 has produced mature foliage suggesting it to be pure *R. kesangiae*. What were agreed as the more promising hybrids always had a darker indumentum than either postulated parent and this was a feature also of putative *R. kesangiae* × *hodgsonii* seen later on the Pele La.

Ludlow and Sherriff recorded the unusual wine-red colour of the flowers of *R. camelliiflorum* on the Dochu La. Without flowers we were left to remark on the enormous variation in foliage shape. Another interesting point is that only *R. barbatum* is found here, with no *R. argipeplum*; it is also the furthest east that I have seen *R. barbatum* although Chamberlain cites it as occurring across northern Bhutan - perhaps it requires a drier climate than *R. argipeplum* with only sites such as the Pumo La being sufficiently intermediate to accommodate both within ten metres. Other species seen included *R. grande* as trees to 10m, seedlings of *R. edgeworthuii, vaccinioides* and lindleyi, what was possiblt R. *dalhousiae* var. *rhabdotum*, large shrubs of *R.keysii*, and the ubiquitous ones, including trees of *R. arboreum* 15m tall with trunks 0.8m in diameter. Peter Cox and I hitched a lift down the east flank and walked back trying to find *R. kendrickii*, which has been recorded from here, but without success.

Both *Magnolia campbellii* and *M. globosa* are found growing on the Dochu La, although restricted to the wetter eastern flank. In 1987 *campbellii* was covered with its large white flowers, now *globosa* was starting to show the shiny red seeds on its pendant fruits. Another unusual plant was *Descaisnea insignis*.

We drove (24/09) across the deep, hot, dry and windy Mo Chu valley, stopping at Thinleygang to look at the most westerly stand of *Pinus bhutanica*. East of Wangdi Phodrang (only 4,500ft) the road continues up a dry valley with only *Pinus roxburghii* and other xerophytic plants. At about 6,500ft we started to see *R. maddenii* and on a small cutting at the side of the road at around 8,500ft were seedlings of a dozen species. At the village of Norbding we turned off the main road east to Gante Gompa. This meant a climb (for the vehicle!) through a north-facing mixed temperate forest until the crest of the Noa La when the climate abruptly changes. The vegetation becomes grass dominated and the local people herders of sheep. Larch reappeared, along with Rr. *thomsonii, campylocarpum, wallichii, triflorum* and *keysii*.

The following morning (25/09) we walked down from the crest of the Noa La at 10,700ft to Norbding. At the top the forest on the north side and crest was dominated by *Abies densa* with understorey and associated trees of *Sorbus arachnoidea* and shrubs to 5m of a *Lonicera* sp. Slightly lower down trees 15-20m tall of *S. thibetica* and *Betula utilis* were growing, with large shrubs and

MILLAIS NURSERIES

RHODODENDRONS
AZALEAS
ERICACEOUS SHRUBS

CROSSWATER FARM
CHURT, FARNHAM
SURREY GU10 2JN
Tel: FRENSHAM 2415

RHODODENDRON SPECIES
AND HYBRID
AZALEAS

New hybrids available this year for the first time include the following:

BALI	An extra hardy plant. Neyron Rose flowers with a yellow throat. June.
BAMBINO	(*yakushimanum* x Lems Cameo). Possibly the finest salmon pink Yak hybrid to date.
BLACK MAGIC	A late dark red with fine flowers and good habit.
CANADIAN BEAUTY	A fast growing, large flowered hybrid. Two shades of pink, with yellowish centre. June.
DINEY DEE	Orange buds opening to deep lemon yellow, well-textured flowes. Late May.
LILA PEDIGO	(Odee Wright x Crest). Large yellow flowers of good substance on a compact low growing plant. June.

In addition we have added to the large number of species Rhododendrons which we have to offer.

Details are available in our new 1989/90 catalogue, priced at £1.00 (cheque or stamps).

We give a 10% discount on all plants collected from our Nursery, Crosswater Lane, Churt, Farnham, Surrey.

Tel. Frensham 2415

small trees of *Hydrangea heteromalla, Prunus cornuta, Viburnum nervosum, Acer caudatum* and *A. pectinatum*. Lower down at around 9,500 to 10,000ft were tall trees of *Acer sterculiaceum, Meliosma dilleniifolia, Magnolia campbellii, Tsuga dumosa* and more *Betula utilis*.

The main rhododendron at the top was *R. kesangiae*, but lower down *R. falconeri* was the dominant one. In 1987 it was in flower with good deep yellow blooms in the valley below the Pele La and above Norbding. Now, however, foliage was the guiding feature and this varied, with some correlation with altitude. Many of the plants at higher altitude had a strongly persistent indumentum on the upper surface whilst all appeared to have a good lower indumentum. The ones with the persistent upper surface indumentum were judged to fit *R. eximium*. My personal view is to discount this taxon, allowing it no more than varietal status. Sherriff in 1936 recorded the populations from further south along the same ridge but around the Black Mountain as being *R. falconeri* up to 10,000ft with yellow flowers and *R. eximium* with pinkish ones above up to 11,000ft. In 1987 plants with dingy (I mean dingy) pink flowers were found on the Yotong (Yuto) La east of Tongsa and on Takti peak west of Chukka (precisely 27°N and approximately 89°30′ East), in each case at around 10,000ft along with yellow flowered ones. The Takti plants of *R. falconeri sens. lat.* appeared to have non-glandular ovaries and pedicels.

From Norbding we drove to the summit of the Pele La at 11,100ft. This is at the top of the range of *R. kesangiae* which was in local patches and mixed with the first sighting of *R. hodgsonii*. When not in flower, *R. hodgsonii* can be distinguished from *R. kesangiae* by the acute buds with long awl-like scales, sparser and cup-shaped indumentum, different leaf and smooth flaky bark.

We camped the night beside the Chorten and prayer or Mame wall by Chendebji, 8,200ft. Rhododendrons included *R. lindleyi, griffithianum, edgeworthii, arboreum,* low altitude *falconeri* and an odd hybrid. There was no sign of *R. neriiflorum* subsp. *phaedropum* which was found by Ludlow and Sherriff near here.

The Yotong La is the pass between Tongsa and Jakar in the Bumthang region. Most of the party spent the afternoon of 27 September on the crest of the pass but Peter Cox and I, being in a different vehicle and thinking everyone else was behind us, stopped at two different points on the western flank. On the Yotong La it is the western flank which is moister and thus more species rich, whereas so far all the other passes have been moister on their eastern flanks. At 10,300 ft we were at the top of the range of *R. falconeri*, finding a magnificent tree 15m tall with good foliage. Also found at this point were *Acer campbellii, Magnolia campbellii* (this was where Griffith was the first Briton to find it in flower a decade before Hooker saw it and named it after Campbell), *Skimmia multinerva, Corylus ferox, Taxus wallichiana, Sorbus thibetica* and *Malus sikkimensis*. Also we recorded *Sorbus insignis* from Bhutan for the first time.

On crossing over the Yotong La the next day (28/09) we stopped at the crest at 11,635ft, noting *R. hodgsonii*, a single *R. succothii*, a large leafed *R.*

argipeplum and *Acer pectinatum* to 6m. One member even managed to collect a leech at this point - so much for Kingdon-Ward's comments about being above the leech zone at 8,000ft! In 1987 we had stopped at 11,400ft on the west and 11,300ft on the east, on both occasions stopping in the *R. kesangiae* zone but missing the *R. hodgsonii* zone; *R. kesangiae* is not found on the crest.

On the 29 September we walked (or rode - it's easier if not as comfortable) up the west flank of the Rudong La to Phokphey. Here we had a better campsite than the rough Yak pasture of 1987 and my gloomy forecast was not fulfilled. The track rises through the dry Tang valley, which is mainly *Pinus wallichiana* forest, with *Populus rotundifolia* (an aspen), *R. triflorum* and fields of buckwheat, with, in wet flushes or running water, *R.thomsonii*. From 10,400ft up to 11,900ft just below Phokphey campsite, a hairy unnamed *Pipthanthus* aff. *tomentosus* was common as a shrub to 2-3m.

Phokphey campsite, at 12,500ft, is in the moist cold temperate zone and thus much richer in species than the lower slopes. At the side of the open meadow where the soil is rather boggy were plants of *R. anthopogon*, one of which has an open truss of whitish pink blooms, and *R. setosum* along with several taller growing species. Particularly good was the first plant of *R. flinckii*. Also patches were smothered in beautiful blue gentians and *Meconopsis paniculata* was growing amongst shrubs in open *Abies densa* forest.

As we could not descend the Rudong La to Lhuntshi, we decided to go to the crest and as far down the other side as time permitted. The walk up from Phokphey to the Rudong La is along a gently sloping path through *Abies densa* forest in which the principal rhododendron was *R. hodgsonii* but differing from the normal description in the broader leaves, often no more than twice as long as broad and rarely as much as 2.4 times, with a notched apex. At just below 13,000ft the ascent becomes abrupt up to the crest at 13,600ft (now measured at 1,000ft higher than in Ludlow & Sherriff's day) and the forest cover disappears, to be replaced by massed rhododendrons. The principal ones are *R. bhutanense* and *wightii*, which dominates the crest, and *flinckii* and *(campanulatum* subsp.) *aeruginosum*. In 1987 I had reached the crest of the Rudong La through the snow and mist and descended 10m below the top on the east side. David Long later asked me whether *R. bhutanense* was found on the east side. Now crossing the crest on a clear day showed that it goes no more than 10m beyond, stopping very abruptly as the east side near the pass is locally dry (further east is much wetter). *R. wightii, flinckii* and *aeruginosum* all continued down the other side. *R.bhutanense* forms a shrub to 4m with very distinctive sub-cordate leaves which for the first season are held pointing somewhat upwards, forming a cup or saucer shape, whereas the other species have them drooping down. It was noted that the rather plastered indumentum on the lower leaf surface could be either dark or light in colour. The flowers are recorded as pink but, apart from Simon Bowes Lyon's photograph printed with the original description, I have yet to see it in flower. *R. setosum* also occurred near the summit, along with *Cassiope fastigiatum.*

At approximately 13,100ft we came upon a discrete population of a large-

leaved rhododendron, expecting it to be *R. hodgsonii*. This fitted, in so far as the buds and bark and young seedlings up to a foot high had similar-looking spaced cup-shaped hairs on the lower leaf surface. However, the leaves of the mature plants were very different being much broader and oval, rather than obovate, and less than twice as long as broad. They, and the capsules, were very attractively felted with a dense red-brown indumentum. The population sampled consisted of perhaps a few score of mature plants but further groups of similar plants were found lower down with no hint of *R. hodgsonii* or any other large-leafed species around. My feeling, and in the absence of flowers it is pure speculation, is that it may be a taxon linking *R. hodgsonii* with *R. rex* (my opinion is that *R. arizelum* is not allied to *R. rex* but should be treated as a subspecies of *R. falconeri*). It will be interesting to observe plants in cultivation. Another unexpected but more pedestrian discovery was *R. fulgens* which was found with a blue foliaged *R. cinnabarinum* and other species at 12,900ft.

The path down the eastern side of the Rudong La descends by a series of steps and ledges across the face of a cliff. It is this cliff which makes the Rudong La a hard climb from the east (we found the west side hard enough!) and it was on the cliff where Ludlow & Sherriff recorded *R.glaucophyllum* subsp. *tubiforme* as common. Peter and I scurried off down the cliff looking for this, reassured that we had two riding ponies to take us back to the crest. We eventually came upon a group of four plants at 12,700ft.

The Sheltang or Ura-Sheltang La (01/10) was a 'must' as it was the only place where I could show people *R. pendulum*. This is found there on a south-west facing quartz cliff. We discovered this site in 1987 when stopping to look at some excellent *R. kesangiae* in glorious pink flower. Also good on the Sheltang La are plants of *R. flinckii*. This has either pink or yellow flowers and seems to be variable in this respect. The leaves are elliptical with a pointed apex and on the underside they have a thin rich red-brown indumentum. *R. flinckii* has been treated as a synonym of *R. lanatum* but the plant itself appears quite distinct and is being upheld as a species by David Long in the 'Flora of Bhutan'. *R. lanatum* from the Lingshi area of north-west Bhutan differs in a number of characters, primarily the obovate leaves with a thicker but still red-brown indumentum. My plants of *R. lanatum* from Derek Fox's 538 from Sikkim differ from both of these in the smaller ovate leaves with a chocolate indumentum. It would be interesting to see how the *R. lanatum* from the ridge above Thimpu fits into this variation.

On the 2nd October we drove east to the spectacular landslide site 19km east of Sengor in eastern Bhutan. The entire hillside had slipped down into the stream a thousand feet below. Peering over the edge at 9,300ft we saw *R. maddenii* and *R. neriiflorum* subsp. *phaedropum*, the latter being a new find. Walking back up the road towards Sengor was another new one, trees of *R. kendrickii* to 10m with narrow crinkled leaves and very slender capsules. *Vaccinium glauco-album* was also present. We stopped again at 10,000ft and about 8km before Sengor where we had our last sighting of *R. kendrickii* along with *Larix griffithiana* and *Tsuga dumosa* with shrubs such as *Clematis*

tongluensis, Buddleia colvillei, Philadelphus tomentosus and *Magnolia globosa*. An out-of-reach *R. pendulum* was also seen, along with *Schizandra*, several *Cotoneaster* and *Clematis tongluensis*.

At 11,000ft on the east side of the Thrumseng La and again at 11,600ft on the west side and some 12km east of Ura we observed *R. kesangiae* with somewhat different leaves and unusual buds with acuminate scales as found in subsection *Falconera* species. The stop near Ura was almost where we stopped in 1987 when plants with much paler flowers were observed, photographed but not collected. A seedling from each of these localities also shows some oddity, although still, I suspect, broadly within the variation of *R. kesangiae*. No possible large-leafed species was around to suggest hybrids but two other, as yet un-named, subsection *Grandia* species are known from further east (represented in cultivation by Ludlow & Sherriff 1208 and Kingdon-Ward 13681).

The next morning (03/10) we explored the Ura area, a dry zone which would be a forest of *Picea spinulosa* if not cleared by man. I chose to go north towards Samsong Gompa (monastery) and climbed up to the rim of the valley. Near the Gompa is a narrow defile which leads to the plateau above and down which runs a stream used for the monastery's water supply. A *R. flinckii* in this defile at 12,200ft had leaves below the flower trusses which were 15cm long by 6cm, oblong-obovate and rounded apiculate. In total I noted ten rhododendrons, viz. *Rr. thomsonii, arboreum, triflorum, wallichii, lepidotum, succothii, campylocarpum, cinnabarinum, hodgsonii* and *flinckii*.

The next two days were taken up with the return journey but on the 6 October we made a day trip from Phuntsholing, on Bhutan's border with India, back to Takti peak above Gedu where there is a road to the microwave repeater station linking Bhutan with the outside world. Near the summit at 10,900ft we saw *R. glaucophyllum* subsp. *glaucophyllum*, which in May 1987 was covered with its pink flowers. Also at this point was a form of *R. arboreum* with a thickly felted indumentum and which keys out in Chamberlain to subsp. *delavayi* (it is interesting to note that he plots one collection from the Chumbi region which is approximately 60 miles due north). *R. kesangiae* was also found at this elevation with large trees of *R. falconeri* lower down.

'Species Novae' from Bhutan

D. G. LONG

Anne Boscawen's article in *Rhododendrons, 1988-89* mentions on p.23 two rhododendron species whose names are unfamiliar, *R. bhutanense* and *R. kesangiae*. These have now been described as new species by Dr. D. G. Long, Curator of the Herbarium at the Royal Botanic Garden, Edinburgh.[1] Both were collected in 1968-9 by Mr. Simon Bowes Lyon of St. Paul's Walden Bury in Hertfordshire and again in 1987 by Keith Rushforth.

The following description of these two species is reprinted with the kind permission of the Editor of the *Notes from the Royal Botanic Garden, Edinburgh,* and Dr. D. G. Long. (Hon. Ed.)

Rhododendron bhutanense Long & Bowes Lyon, **sp. nov.** (subgen. *Hymenanthes*, sect. *Ponticum*, subsect. *Taliensia*).

R. wightii Hook. f. simile sed frutice minori 0.6-3m, foliis basi subcordatis, petiolis brevioribus, 3-10mm, pedicellis brevioribus 8-13mm, corolla rosea, filamentis ovarioque glabris.

Type: Bhutan, Punakha district, Tang Chu, Ritang, 4270m, 7 vi 1937, 'Shrub 4-6 feet. Buds bright pink. Corolla very pale pink, lobes deeper pink. Large magenta basal patch and spots. Ovary, style and filaments glabrous; ovary dark red. Calyx glabrous, very small, lobes rosy. Leaves upper surface dull green, glabrous; lower surface with coarse brown tomentum covering midrib. The highest growing Rhododendron, except the dwarfs, on open rocky hillside.' *Ludlow & Sherriff* 3218 (holo. E; iso. BM, E).

Shrub 0.6-3m, branchlets stout, closely greyish or whitish floccose when young. Leaves coriaceous, elliptic or elliptic-obovate, 6-12.5 × 3-5cm, acute or subacute, base subcordate sometimes narrowly so, dark green and glabrous above except on impressed midrib with greyish closely matted floccose hairs towards leaf base, hairs sometimes extending to mid-leaf or beyond; lower leaf surface closely appressed brown tomentose with dense, radiate hairs, moderately soft to touch; petiole short, stout, 3-10mm, greyish floccose above, thinly brownish tomentose beneath. Racemes subglobose, 6-9cm diameter, dense, 8-15(-22)-flowered. Penduncle conical, 1.5-2cm; pedicels slender, 8-13mm, glabrous or puberulous. Calyx minute, 5-lobed, c.1mm, glabrous. Corolla campanulate, deep pink in bud, when open pale pink (rarely almost white) with a dark magenta basal blotch and red spots on upper side, 2.5-3.5cm long, 5-lobed; nectar pouches absent. Stamens 10; filaments glabrous throughout. Ovary ovoid, 4-5×3mm, glabrous; style glabrous; stigma capitate. Fruit cylindric, almost straight, c.15×5mm, glabrous.

1. *Notes, RBG Edin.* 45(2): 327-33 (1989).

Rhododendron bhutanense is a distinctive new species endemic to Bhutan, having remained overlooked in herbaria under several different names for many years. It was first collected by R. E. Cooper in 1915 and identified with *R. campanulatum* D. Don. Between 1937 and 1949 it was collected in seven new localities by F. Ludlow and G. Sherriff, identified variously with *R. agglutinatum* Balfour f. & Forrest (now *R. phaeochrysum* Balf. f. & W. W. Smith var. *agglutinatum* (Balf. f. & W. W. Smith) Chamberlain), *R. campanulatum* D. Don and *R. wightii* Hook. f. More recently it has been rediscovered in eastern Bhutan by S. Bowes Lyon who suggested it was probably an undescribed species, and again by K. Rushforth.

The Cooper and Ludlow & Sherriff specimens were studied by D. F. Chamberlain in 1979 and their unusual combination of glabrous ovary and radiate leaf indumentum led to the conclusion that they were hybrids between *R. wightii* Hook. f. and *R. campanulatum* D. Don subsp. *aeruginosum* (Hook. f.) Chamberlain; they were treated as such by Chamberlain (1982: 373).

More detailed study of these specimens suggests that they represent a good species and are not of the above hybrid origin. Evidence for this is: (i) the specimens are uniform in most important characters such as leaf shape, indumentum, flower colour etc., both in the field (S. Bowes Lyon *in litt.*) and in the herbarium; (ii) the geographical area is limited to mid and eastern Bhutan from 90°11′ to 91°51′E, whereas both *R. wightii* and *R. campanulatum* subsp. *aeruginosum* occur together throughout the whole of northern Bhutan and Sikkim; (iii) *R. wightii* has yellow flowers, a colour not apparent in any specimen of *R. bhutanense*; (iv) both the putative 'parents' have filaments which are pubescent at the base, whereas in *R. bhutanense* they are glabrous.

R. bhutanense fits well within subsect. *Taliensia* Sleumer, as re-defined by Chamberlain (1982), and keys out close to *R. phaeochrysum* Balfour f. & W. W. Smith, a variable species from Yunnan, Szechwan and S E Tibet, and is probably a close, though disjunct, relative. *R.phaeochrysum* differs in its larger leaves which are usually rounded at the base, more sharply pointed, often shortly acuminate apex, midrib ± glabrous above, longer petioles 15-20mm, more thinly tomentose lower leaf surface, and filaments pubescent towards the base.

Other E Himalayan species which might be confused with *R. bhutanense* are *R. wallichii* Hook. f., *R. campanulatum* D. Don., *R. lanatum* Hook. f. and *R. flinckii* Davidian. *R. wallichii* differs in its non-cordate leaves, thinly tomentose beneath with stiff hairs which are rough to the touch, petioles glabrous or with a few long pilose hairs lilac or pinkish mauve corollas, and filaments pubescent at base. *R. campanulatum* (including subsp. *aeruginosum* (Hook. f.) Chamberlain) differs in its glabrous petioles, leaves more thickly appressed fawn or pale brown tomentose beneath (soft and velvety to touch), longer pedicels 15-25mm. and filaments puberulous at base. *R. lanatum* and *R. flinckii* differ in their leaves which are more thickly and softly tomentose beneath, petioles which are whitish to reddish-brown tomentose (not floccose), racemes with

fewer (4-8) flowers, yellow corollas and filaments pubescent at base.

Distribution and Ecology. R. bhutanense is now known from twelve localities in central and northern Bhutan, from Ritang (90°11'E) to the border with Arunachal Pradesh (Merak, 91°51'E). It might be expected to occur in adjacent SE Tibet or Arunachal Pradesh. It is now known from W Bhutan.

R. bhutanense grows above the tree line between 3500 and 4300m, in juniper/rhododendron scrub and on open rocky hillsides. On two collections, it was described by Ludlow & Sherriff as 'The highest growing Rhododendron, except the dwarfs' and 'The commonest high altitude Rhododendron, other than dwarf spp.'. K. Rushforth reports that on the summit of the Rudong La it was common, growing with *R. wightii*. S. Bowes Lyon (*in litt.*) listed its associates at Merak as *R. wightii* Hook. f., *R. campanulatum* (probably *R. wallichii* Hook. f.) and *R. anthopogon* D. Don.

Cultivation. Fruiting plants of this species were collected by R. E. Cooper in 1915 but there is no record of plants under that number (4286) in cultivation. The species has now been introduced into cultivation by K. Rushforth from seed collected on the Rudong La (*Rushforth* 1219 and 1221) which has proved viable.

Rhododendron kesangiae Long & Rushforth, **sp. nov.** (subgen. *Hymenanthes*, sect. *Ponticum*, subsect. *Grandia*).

R. grande Wight simile sed soliis late ellipticis vel obovatis 20-30×10-16cm. venis lateralibus 12-15 jugis, corolla rosea, capsulis angustioribus 35-40×9-10mm.

Type: Bhutan, Tongsa district, 1.3km E of Pele La, 3350m, 13 v 1984, 'Shrub or small tree 4-8 m tall, flowers pink', *Bruce Bartholomew* 1668 (holo. E).

Large shrub or tree 3-12m; bark rough; branchlets closely whitish compacted-floccose. Bud scales rounded, outer ones cuspidate. Leaves broadly elliptic to obovate, (15-)20-30×(7-)10-16cm (to 50×30cm on juvenile plants), apex rounded to almost truncate with short blunt mucro, base cuneate to rounded, lateral veins 12-15 pairs, strongly prominent beneath; lamina dark green and glabrous above; indumentum beneath of densely matted white or silvery hairs, with (or sometimes without) a sparse to dense floccose layer of whitish dendroid hairs; petioles stout not flattened, 2-3.5cm, glabrous or whitish compacted-floccose. Racemes terminal, subglobose, 12-17cm diameter, 20-25-flowered, aromatic. Pedicels 1.5-2.5cm, glandular. Calyx a minute obscurely-lobed rim 1-2mm high. Corolla funnel-campanulate, 3-4.7 cm long, (7-)8-lobed, pale to deep pink, with large purple blotch and nectar pouches at base. Stamens 15-16; filaments glabrous. Ovary densely glandular, with or without sparse eglandular tomentum. Capsules (*Cooper* 2088) 35-40×9-10mm, curved.

R. kesangiae was not recognized as a distinct species until April 1987 when a party led by K. Rushforth observed and collected it in a number of localities throughout central Bhutan, noting its distinctive bark, leaf indumentum,

flower colour and relatively uniform appearance, as well as its clear differences with *R. hodgsonii* and *R. falconeri*. It is largely from their specimens, observations and photographs that the evidence for describing it as a new species is now very convincing.

R. kesangiae has been collected by most botanists who have visited Bhutan from W. Griffith in 1838 and R. E. Cooper in 1914 and 1915, to the present day. Because of the large leaves and pink flowers many of these collections were named *R. hodgsonii*, although a few had been tentatively named as *R. magnificum* Kingdon Ward, a species endemic to Upper Burma.

Chamberlain (1982) in his revision of elepidote Rhododendrons, suggested that at least some of these collections were hybrids between *R. hodgsonii* and *R. falconeri*. Recent study of these plants in the herbarium, and by K. Rushforth in the field, clearly demonstrates that the plants belong neither to *R. hodgsonii* nor *R. hodgsonii* × *R. falconeri* of subsect. *Falconera* Sleumer, but to subsect. *Grandia* Sleumer. Evidence for this is the rough bark, the rounded (not long-acuminate) bud scales, complete lack of cup-shaped hairs on the leaves and presence of floral nectar pouches.

The only member of subsect. *Grandia* reported to date from Bhutan is *R. grande* Wight, which differs from *R. kesangiae* in several important respects, notably leaf shape, number of lateral veins, flower colour and capsule shape. However, to the east of Bhutan, in Assam, SE Tibet, NE Burma and W Yunnan several other pink-flowered members of subsect. *Grandia* have been described. All appear to be quite distinct from *R. kesangiae: R. wattii* Cowan differs in its much smaller leaves and 6-lobed corollas; *R. montroseanum* Davidian and *R. pudorosum* Cowan differ in their proportionately much narrower, oblanceolate leaves; *R. praestans* Balfour & W. W. Smith differs in its strongly flattened petioles; *R. protistum* Balfour & Forrest in its leaves glabrous beneath; and *R. magnificum* Kingdon Ward (possibly the closest relative) in its larger more obovate leaves with 18-20 pairs of veins, tomentose pedicels, larger corollas up to 6cm, and densely tomentose ovaries.

Several other, as yet unidentified, specimens from Assam, SE Tibet and N Burma show some affinities with *R. kesangiae*, e.g. *Kingdon Ward* 13646 (BM, E), 13647 (BM) and 13681 (BM and cult. Windsor), all from Poshing La, Assam, have similar leaves, except for the lateral veins which are less prominent beneath and the hairs which are stellate rather than dendroid. *Kingdon Ward* 9385 from the Adung Valley and *Ludlow, Sherriff & Elliott* 13568 from the Tsangpo gorge area, both identified, possibly wrongly, as *R. montroseanum*, are also related but have smaller leaves with stellate rather than dendroid hairs. Until further collections of pink-flowered plants of subsect. *Grandia* are made from this region, *R. kesangiae* remains unknown E of Bhutan.

Distribution and Ecology. R. kesangiae is at present known only from Bhutan, but is widely distributed throughout the central part of the country from 89°30′E to 91°20′E. The habitats reported for it are principally Fir (*Abies densa*) and Hemlock (*Tsuga dumosa*) forests where it grows as a large shrub or

small tree, on the moist forested ridges between c.2900 and 3650m, in the zone immediately below and up to the tree line. Other recorded associates include bamboos (e.g. *Arundinaria maling), Rhododendron falconeri, R. hodgsonii, Magnolia campbellii* and *M. globoas*. Rushforth et al. (*in litt.*) noted that *R. falconeri* commonly grew with *R. kesangiae* at the bottom of the range of the latter, but that *R. hodgsonii* was normally at slightly higher altitudes, rarely growing alongside *R. kesangiae* at the top of its range. He did not observe *R. falconeri* and *R. hodgsonii* growing together or even near each other.

Cultivation. Plants considered to belong to *Rhododendron kesangiae* have been introduced into cultivation at St Pauls Walden Bury by S. Bowes Lyon, from seedlings presented to him in 1968 by Her Majesty the Queen Mother of Bhutan, Ashi Kesang. At his suggestion, this new species has been named in her honour, in recognition of her long interest in the plants and vegetation of Bhutan, and her close association with George and Betty Sherriff and Frank Ludlow during their botanical exploration of Bhutan. These plants have been distributed to gardens at Wakehurst Place, The Great Park, Windsor, and Lochinch Castle. Foliage from plants at St Pauls Walden Bury, Wakehurst and Lochinch agrees closely with wild material of *R. kesangiae*. However, confirmation of their identity must await study of the flowers. Seedlings of *R. kesangiae* were collected in Bhutan in 1985 and 1987 and seed in 1987, by K. Rushforth and introduced to Britain.

A visit to the Wuyi Mountains

ADRIAN WHITELEY

In early June 1988 I was privileged to be a member of a party of Britons led by Lady (Noel) MacLehose who were allowed to enter the Wuyi Mountain Reserve in Fujian Province, south-east China. The northern part of Fujian Province is a remote area more or less closed to foreigners since the Communist Revolution. No Western botanists had visited the mountains for at least half a century. The possibilities for research into what plants could be expected were therefore very limited, with no known floras or other accounts to refer to. General descriptions of the vegetation to be found in the mountainous areas of Taiwan seemed to be the most promising. We were therefore hoping to rise from subtropical arable land through evergreen laurel forest, bamboo forest, mixed evergreen and deciduous forest with conifers and, on the higher peaks, shrubby cloud-forest and alpine meadow. Through the thoughtful organisation of our hosts at the Reserve's Research Centre we experienced all these types within a remarkably small area and caught the tail-end of the flowering of the area's rhododendrons.

We arrived at the Reserve's Research Centre in time for a late lunch and were then installed in the staff quarters. Our rooms were on the first floor of a long, low building built alongside a river running fast over rocks and boulders. A balcony ran the length of the building and looked out over the river onto a steep, wooded slope. After the long hot journey it was a welcome relief to bathe in the river and have a gentle walk along the road in the company of Dr. Ling. The first plant that drew our attention was *Macleaya cordata*, growing immediately at the roadside. The stems were grouped in fours and fives but not close together and never forming the dense thickets we experience in the herbaceous border. Covering a wide area of waste ground was the pretty, white-flowered *Erigeron annuus*, a slender plant about 18 inches tall with flowers ½ across.

Not far from the Research Centre we saw our first rhododendron, a rather poor specimen of *R.simsii*, just at the end of its flowering period but still a welcome sight. Not far away was a young tree of *Michelia skinneriana*, its magnolia-like flowers small but deliciously scented.

After dinner we had a formal meeting with the Reserve Director, Mr. Tang, several of his staff and a representative of the Forestry Service. A list of visits was produced, headed by one to the highest mountains in the Wuyi range, Huanggangshan or Mt. Huanggang at 2,158m.

I was presented with the supplement to the Wuyi Science Journal containing a list of all the plants so far found in the Reserve. Excitedly, we turned to the pages of rhododendrons, magnolias and camellias. There were fifteen rhododendrons listed, including *R. farrerae, R. mariesii* and *R. ovatum*. Most are tender species little encountered in cultivation. Eleven camellia species and

six magnolias were also listed, including *C. cuspidata, C. oleifera, M. denudata, M. liliiflora* and *M. sieboldii*. We had little hope of identifying any of the camellias but we hoped to find at least a few rhododendrons and magnolias in flower, although at the low altitude of the Reserve the seasons are considerably advanced in comparison to Britain.

The next day dawned bright as we set off for Mt. Huanggang. As we approached the base of the mountain the road became rougher and narrower, becoming a single track with a near-vertical drop on the left and a raw hewn cliff on the right. The vegetation we were travelling through was evergreen laurel forest with a generous sprinkling of oaks and figs and odd splashes of white provided by species of *Cornus* and *Hydrangea*. As we ascended, more deciduous trees appeared such as *Liriodendron chinense, Liquidambar formosana* and species of *Lindera*. Crossing the border into Jiangzi Province we had to make a detour to visit the Wildlife Museum and pay our dues. There was an exhibition of the plant and animal life to be found in the area, with photographs of the more notable plants, including *Magnolia sieboldii, M. cylindrica* and *M. officinalis*, but no rhododendrons.

From the museum the road climbed more steeply and passed through areas of bamboo forest. Pure stands of *Phyllostachys pubescens* over 60 feet tall covered vast areas of the mountains, mostly towards their bases but often extending quite high in graceful tongues. From a high vantage point looking out over adjacent peaks the valleys appeared in places to be clothed in fur.

As we approached the summit, having helped push the mini-bus over a landslip, the trees became shorter, more deciduous trees were present and conifers appeared. Tantalising glimpses of a large white rhododendron were had through the trees and beside the road twenty-foot-high bushes of *Weigela florida* were in full flower in several shades of pink.

Abruptly, only a few hundred feet from the summit, the trees and shrubs gave way to rough grassland studded with stunted trees of *Pinus massoniana* and *P. taiwanensis* with isolated bushes of *Rhododendron ovatum* still covered in pale pinkish-mauve flowers about an inch across. By now we had entered the clouds and visibility was very poor. We were dropped off at the top and were to make our way back down the road to meet the mini-bus later. Dr. Ling took us over the tussocky grass studded with the yellow flowers of species of *Potentilla* and *Hypericum* and occasional plants of a small pink *Thalictrum* and the foliage of *Veratrum atroviolaceum*. The object of our pilgrimage was a splendid isolated shrub of *Magnolia sieboldii* in full flower just below the summit. The species is at the southern limit of its range in the Wuyi Mountains and we were very lucky to see it. Other shrubs in association with it, species of *Viburnum, Pyracantha* and *Ilex* were stunted and sculpted by the wind. The magnolia did not seem to be affected, however, and was duly admired.

Walking further down we were struck by the variety of species of *Rubus*. Because of the steepness of the mountainside we were strictly confined to the road. One of the party attempted to scramble down to a plant of *Rhododendron simiarum*, the white one we had already glimpsed through the trees, but had to

give up as the incline and shaly surface proved impossible to negotiate. We therefore had to make do with viewing through binoculars for a closer look! However, the situation did have advantages since we were often on the same level as the heads of trees growing lower down the slope. This enabled closer examination of the silvery foliage of species of *Castanopsis*, the splendid mottled bark of the branches of *Stuartia sinensis* and the scented white flowers of *Styrax odoratissima*. Several small groups of the Chinese hemlock, *Tsuga chinensis*, rising above the general canopy were also more easily studied than if we had been looking up into the branches.

The next morning was spent in a valley quite close to the Research Station where we could get off the road and examine the flora of the forest floor. Ferns were very prominent and varied. Other than the diminutive blue *Iris speculatrix* there was little in flower but occasional splashes of pink were provided by a large-flowered species of *Indigofera*. At this rather low altitude rhododendrons and magnolias seemed to be hardly represented.

We were led to the bottom of the steep-sided valley to see a venerable old specimen of *Ginkgo biloba*. It was rather difficult to observe through the surrounding bamboo, but it had a massive trunk and a rather ragged head, the branches covered with epiphytic ferns and lichen. Returning to the road we spotted *Nandina domestica* on the forest floor and the silvery foliage of a species of *Boehmeria*. By the roadside there were two very fine species of *Actinidia, A. hemsleyana* with long, narrow bronzy leaves and large pale pink flowers and *A. eriantha* with smaller flowers of a deeper pink and leaves with a striking silvery undersurface.

On day three we walked up a valley alongside a small rushing river to a plateau with tea bushes and a small grove of *Magnolia officinalis*, grown for the medical properties of its bark. Seeing the trees turn to silver as a gust of wind caught the leaves and revealed their undersurfaces was quite breathtaking. Also planted between the tea terraces were bananas and the Chusan palm, *Trachycarpus fortunei*, grown for its fibre, used to make rope and twine. Frustratingly, the only rhododendrons glimpsed that day were large plants of the elusive *R. simiarum*, The fourth day was spent in quite a low-altitude valley where the vegetation was composed of evergreen laurel forest with various oaks and figs and an undergrowth of ferns, grasses and small shrubs. One handsome broad-leaved grass, a species of *Setaria*, had a very rough surface and was said to be the best material for finishing fine ivory carvings. Two other notable plants found were *Arisaema heterophylla*, a tall aroid with a large digitate leaf and creamy white spathe, and *Dendrobenthamia hongkongensis*, a large shrub like an evergreen *Cornus* with glossy foliage and four large creamy bracts surrounding clusters of insignificant flowers. Also of interert were *Houttuynia cordata* invading disturbed ground at the roadside and *Lilium brownii*, spotted at the side of the road on the way back, a tall interest were *Houttuynia cordata* invading disturbed ground at the roadside

Our fifth and last day in the Reserve was spent at even lower altitude. Hence the vegetation was rather more tender and we were among rice paddies.

After our all-too-brief stay in the Reserve we thanked our kind hosts on the sixth morning and travelled to the edge of the Wuyi range and the centre of the Wuyi Scenic District, a place where the Chinese themselves go on holiday.

At Fuzhou we were entertained to a banquet by the Head of Friendship and various other dignitaries before flying back to Hong Kong, wishing we could have stayed longer and been able to hunt out all the rhododendrons and magnolias we had missed.

Rhododendrons in garden design

MARY FORREST

This article describes how rhododendrons have been used in gardens in Britain and Ireland and gives an overview of their ornamental attributes. Reference is made to many species and hybrids, details of which are given in the *Rhododendron Handbook* (1980), the *Rhododendron Handbook*, Part Two, 1956 and elsewhere. The focus is on rhododendrons rather than azaleas.

Rhododendrons first became popular with Victorian garden owners as evergreen flowering plants, used in shrubberies. With the vast range of species from the plant hunting expeditions in the twentieth century to the Himalayas and China, their popularity grew not only as flowering plants but also as ornamental shrubs. In numerous gardens where site, soil and climatic conditions have been favourable they have been used successfully to create formal and informal planting schemes.

One such garden is Mount Stewart, Co. Down, now the property of the National Trust. Here, Edith, Marchioness of Londonderry, a rhododendron enthusiast who contributed to the expeditions of Forrest, Kingdon-Ward and Rock (Londonderry, 1954) and later exhibited at many of the Royal Horticultural Society's shows in London, made full use of species and hybrids. The original design and planting plan of the square Sunk Garden was prepared by Gertrude Jekyll in 1920 and shows *Rhododendron* 'Coccinea Speciosa' and *R. ferrugineum* (Tooley, 1985). Lady Londonderry altered this planting plan and transferred the orange *R.* 'Coccinea Speciosa' to long borders where it remains to this day. In another small formal layout, the Mairi Garden, Lady Londonderry limited the flower colour to blue and white in which *R.* 'Loder's White' plays a significant part. Elsewhere, in the Rhododendron Wood and the Lily Wood an informal approach is evident. The visitor walks along meandering grass paths, beneath light woodland, between rhododendrons planted as a specimen or in small groups. This type of planting reflects the owner's interest in collecting and cultivating species and hybrids.

Informality is further expressed in a well-sheltered section of the garden known as Tir nan-Og (land of the ever young) where rhododendrons are planted in association with a range of tender trees and shrubs. On the drive, a group of some thirty specimens of *R. macabeanum* have attained arboreal proportions and is the one example in this garden of planting *en masse*. To view this type of planting at its best, one must visit Mount Congreve, Co. Waterford, where huge drifts of rhododendrons merge to create a mosaic of colour beneath oak woodland.

The formal gardens at Mount Stewart can be described as compartmental: each individual garden has its own identity yet is linked with the surrounding gardens. A similar style is demonstrated at Achamore, on the Isle of Gigha, a garden created by Sir James Horlick. Here trees and tall hedges which were planted for shelter against the Atlantic gales, now act as walls and canopies, and

one has the sense of moving from one outdoor room to another. Some of these 'rooms' are very small with space for only one or two large plants. Others have planting schemes falling from tall hedges through a layer of shrubs to a horizontal layer of grass which forms a unifying carpet.

In several gardens, planting is combined with architectural features such as brick walls, stone paving and sculptural ornaments. At Glenveagh National Park, Co. Donegal, there are two such examples. A stone staircase leading to a viewing point is flanked by *R. ciliatum* and is quite separate from the rest of the garden (Forrest, 1985). The visitor is surrounded by native oak and moss-covered rocks. One might well question the use of exotic species in such a situation where colour and form contrast with the indigenous plants. However, the pale pink flowers are a delight to behold and fuse with nature's own scheme of diversity and interest. The rectangular outline of the Italian terrace is softened by surrounding vegetation, mostly rhododendrons flowering over a long period. Formality is accentuated by large pots of azaleas, terracotta oil jars and seats (see fig. 2). At Bodnant, Clwyd, a circular stone tank is surrounded with *R. williamsianum* which is allowed to fall informally over the water. A judicious choice of garden ornament can enhance and complete a garden scene, as at Brodick in the Isle of Arran where a stone finial is centred within a semi-circle of deciduous azaleas.

The strictly botanical approach, which aims to display collections of species can be seen at, for instance the Royal Botanic Garden, Edinburgh. The recent renovation of this notable collection has been described by Shaw (1986). Sir Peter Hutchison and Mr Peter Cox have established a remarkable botanical collection in natural surroundings at Baravalla, West Loch Tarbert, Argyllshire (Haworth, 1988). The collection of species and hybrids on Battleston Hill at the RHS Garden at Wisley, provides visitors with the opportunity to study plants at close quarters.

In any garden the Victorian hardy hybrids, such as 'Pink Pearl', 'Cynthia' and 'Fastuosum Flore Pleno' are still popular especially in the less mild areas where they can be used to provide shelter for the more tender kinds. Some old favourites, such as 'Cunningham's White' and *R. luteum* are cultivated in plant containers on a pedestrianized Glasgow street. There are many other hardy hybrids which are worth considering for public open spaces and amenity schemes.

Apart from colour, rhododendrons have many ornamental attributes which deserve attention, including shape, foliage and bark. They exhibit a range of growth and habit: prostrate plants, despite their slow growth rate, are suitable for use as groundcover and rockery plants, e.g. *R. campylogynum*; medium-sized shrubs with an open growth habit, e.g. *R. neriiflorum*; forming a neat hemispherical bush, e.g. *R. yakushimanum*,suitable for use as a globular shape in a formal design. The 'large leafers', members of the sections Falconera and Grandia form big bushes or small trees and will often serve as a foil or backdrop and give height to a shrubbery. Most rhododendrons, however fall into the category of medium-sized shrubs with a dense to lax growth habit.

With few exceptions, the genus is evergreen. Two species, *R. mallotum* and *R. bureavii* have received Awards of Merit as foliage plants. Leaves vary in size from a few millimetres, e.g. *R. anthopogon*, to many centimetres, e.g. *R. falconeri* and *R. grande*. There are some notable exceptions to leaf shape, e.g. orbicular (*R. orbiculare*): oblong (*R. cerasinum*), or linear (*R, roxieanum*). Texture also varies, some species are glabrous while others have an indumentum on the undersurface of the leaf. This includes all the 'large leafers', *R. sanguineum* and *R. neriiflorum*. At any time of the year *R. falconeri* can be identified by the brown felt-like indumentum on the undersurface of the leaf and a distinctly veined or rugulose upper surface. *R. sinogrande* has a very thin silver indumentum beneath the leaf, as have *Rr. neriiflorum* and *R. glaucophyllum*.

The developing young foliage on some rhododendrons is a very attractive feature and, even if they never flowered, deserve a position in a planting scheme. The 'large leafers' are noteworthy in this regard. Frank Kingdon-Ward describes the developing foliage of *R. sinogrande* thus: "The great spear-headed buds burst in July and even in August one can pick out the trees a mile away by the plumes of silver foliage shooting up from ruby-red tubes" (Bean, 1976). Depending on the species, the young leaves may be clothed in a tawny brown or white indumentum, e.g. *R. macabeanum, R. yakushimanum* and *R. rex. R. bureavii* is outstanding, with the developing young leaves sitting like rusty red candles in the midst of older leaves. The young foliage of *R. magnificum* stands upright like the uncurling fronds of the Ostrich Plume fern, *Struthiopteris germanica*. The leaf colour of emerging young foliage varies from bronze - typical of *R. williamsianum* and some of its hybrids – to the intense glaucous blue of *Rr. campanulatum* var. *aeruginosum, lepidostylum* and selected forms of *thomsonii* and *cinnabarinum. R. exasperatum* is notable for reddish new foliage with bristles on the petiole. In some species, e.g. *R. valentinianum* and *R. johnstoneanum*, hairs fringe leaf margins or form a fine cover over the surface of the leaf. Such minor features come to the fore when a shaft of light falls on the plant.

A low winter sun will often highlight bark such as the plum-coloured stems of *R. barbatum* and its hybrid, 'Shilsonii'. The older branches of *R. thomsonii* and its hybrids, 'Cornish Cross' and 'Barclayii', display a handsome snake-bark effect while others like *R. triflorum* and *R. glaucophyllum*, have a peeling paper bark, tan-coloured in the former and plum-coloured in the latter.

With the exception of a true blue and green, all colours are reflected among the flowers. The season opens in January with the pink or white flowered plants, such as *R. dauricum* and *R. moupinense*, and closes in August with the white flowered *R. auriculatum* and *R. maddenii*. In between come the multicoloured species and hybrids. Most shades associate well together, though care must be taken with the positioning of the purple *R. niveum* and the vivid orange-red flowers of *R. griersonianum*. Some rhododendrons, especially the 'large leafers' are not floriferous in their early years, however the dwarf species and most hybrids flower each year.

In my opinion there are a few rhododendrons that, even if they never flowered, would provide interest and beauty in any garden or planting scheme. These are *R. thomsonii, R. yakushimanum, R. maddenii* subsp. *crassum, R. edgeworthii, R. falconeri, R. sinogrande, R. bureavii, R. glaucophyllum, R. campylogynum* and *R. roxieanum*.

Rhododendrons are worthy of consideration by all landscape designers and private gardeners. Apart from their own inherent qualities, they associate well with other plants formally and informally in small gardens or large parks. They cannot be ignored.

References

Bean, W. J. (1970-1980). *Trees and Shrubs Hardy in the British Isles* (ed. 8) London.

Forrest, M. (1985). 'Rhododendron collections in County Donegal', *Rhododendrons with Magnolias and Camellias*, 1984/85, pp. 37-42.

Gould, N. and Synge, P. (1956). *Rhododendron Handbook*, Part Two, *Rhododendrons Hybrids*, The Royal Horticultural Society London.

Haworth, P. (1988). 'The Rhododendron Group Tour of Argyllshire', *Rhododendrons with Magnolias and Camellias*, 1987/88, pp. 65-72.

Leslie, A. (1980). *The Rhododendron Handbook*, The Royal Horticultural Society, London.

Londonderry, E. (1954). 'Rhododendrons at Mount Stewart, Co. Down, N. Ireland', *Rhododendron and Camellia Yearbook*, pp. 12-15.

Shaw, R. D. (1986). 'Renovating the Rhododendron collection in the Royal Botanic Garden, Edinburgh', *Rhododendrons with Magnolias and Camellias 1986-87, pp.9-16.*

Tooley, M. (1985).'Gertrude Jekyll and Mount Stewart', *Moorea* 4, pp. 53-60.

How I paint rhododendrons

ELIZABETH CAMERON

I have been asked to write a few words about why and how I paint rhododendrons. I find this task quite difficult, much more difficult indeed than painting them. One very good reason is that I live in a part of the country where they grow and thrive in great profusion: living amongst them I cannot ignore them. They are always there throughout the year from early spring when *R. dauricum* appears before the first snowdrop until winter comes again bringing, even in this northern land, the flowers of *Rr.* 'Nobleanum' and 'Christmas Cheer'.

I have not always been a botanical painter, but an urge from childhood to express myself in pencil and paint drove me to art school. Before war service in the ATS intervened I had completed a whole year of drawing from life, and I am sure that this training in accurate drawing stood me in good stead later when I came to paint flowers. My ability to paint accurately what I see has probably helped to compensate for my lack of botanical training. To achieve a natural effect one must paint what one sees and only afterwards check up on the botanical description to make sure one has not committed a howler, such as providing too many stamens. After the war years came marriage, rearing a family and running a frozen food business with my husband on the Black Isle north of Inverness. The only art I could manage at this period, when I could briefly escape from other duties, was an occasional landscape. I still paint a few such pictures each year as I consider the change of subject is beneficial.

By the time most of my family had fled the nest and I had rid myself of business encumbrances, the urge to paint once again became irresistible. But it was still hard to escape for a whole day and thus it was that some time in 1971 I took a little rose into the house to paint. The result pleased me, so I took another flower, and then another, and yet another. I was able to leave my studio at intervals when needed in the kitchen and elsewhere. In this way, very late in life, I started the career of botanical painting which now totally absorbs my time, while the days of painting mediocre landscapes get fewer and fewer.

I always take my flowers indoors to paint if at all possible. This is not just because it is handier but also because the light outdoors is too strong and comes from too many directions. Occasionally, if I know a flower is one that will wilt quickly, I draw it *in situ*, and only then bring it in to paint. In my studio, with its good north light, I can achieve the colour and tone far better than in the ever-changing light and shade of the open air. Rhododendrons do not wilt and alter as quickly as many other flowers and if they can be kept at a moderately even temperature they behave remarkably well as models. After a visit to a rhododendron garden like Inverewe, I return with several species to paint, and I have to cram my fridge with rhododendrons.

When starting a picture, I like if possible to have several specimens of the

plant material. One has in this way a choice of flowers and leaves to combine into a good shape and composition. The decision about the size of the paper on which the proposed composition will fit comes next, after which I sketch it in very lightly. If I am satisfied with the result, I then proceed to draw in more carefully and in great detail the part I am to paint first. I do not draw the whole thing in detail at this stage as I often wish to make minor changes as the painting proceeds. If a bud is to be included in the picture, I always do it first, as buds move and change more quickly than flowers in full bloom; if left until the main bloom is done they are often in full bloom too. The next stage is to paint the main flower or feature of the composition and I will probably spend from five to ten hours doing it, and sometimes even longer.

One of the joys of painting rhododendrons is that every truss has such a wonderful variety of colour and shape. Colouring the shadows is most important as even in one truss the colour can vary widely. The pigments mixed for one shadow will not do throughout the whole painting. The quality of the tones is also very important and I always keep the tone light to start with and build up the depth of colour gradually. Not until I have more or less finished the whole painting do I put in the deepest and darkest tones. It is always possible to darken, but much more difficult to lighten tones already painted.

A serious difficulty in painting the early flowering rhododendrons (as with all early plants) is the temperature of the studio. Either the artist freezes to death or has to put on a little heat which the flower all too quickly resents and shows its annoyance by wilting. I work in the cold as long as I can bear it covered by rugs and electric pads, but when I turn up the heat inevitably my model suffers, and I have to rush it to the fridge to recover, after which I need to recover too.

As leaves last far longer than flowers, I usually leave painting them to the last, but they are as challenging to paint as the flowers. They need most careful study as each species differs. It is often important to show the underside of the leaves as the indumentum can be one of the surest ways of identifying a species. Leaves vary in colour, size and texture, just as flowers do; branches also show a wide variety of colour and growth. In fact it is hard to remember that *R. sinogrande*, for instance, belongs to the same family as some tiny heather-like species. The artist has to work boldly for the large species and then change swiftly to painting the finest detail. This is only one reason why, if I were condemned to paint just one botanical family for the rest of my life, I would unhesitatingly choose the rhododendron. I would never have a dull moment!

Fig. 1 Rhododendron kesangiae, species nova from the Pele La, Bhutan (p. 22)

Fig. 2 *Formal use of rhododendrons on the Italian terrace at Glenveagh, Co. Donegal (p. 39)*

Fig. 3 *Rhododendron cubittii from Borde Hill, a prizewinner at Vincent Square on 14 March, 1989 (p. 60)*

Fig. 4 Rhododendron 'Brigitte', a Hachmann hybrid from Germany (above left) (p. 10)

Fig. 5 Camellia 'Inspiration': one of the hardiest varieties for cold areas (above right) (p. 48)

Fig. 6 Rhododendron schlippenbachii at Chyverton, taken by Dr. G. Hargreaves, joint winner of the photographic competition (below)

Fig. 7 *Powdery mildew at Inverewe (above left) (a) affected leaves; (above right) (b) defoliation (p. 55)*

Fig. 8 *Camellia japonica 'Dona Herzilia de Freitas Magalhaes' at Porthpean (p. 54)*

Fig. 9 *Michelia maudiae (above left) (p. 49)*

Fig. 10 *Rhododendron morii at Pant-yr-Holiad (above right) (p. 15)*

Fig. 11 *Rhododendron irroratum 'Polka Dot', from Exbury, a prizewinner at Vincent Square on 14 March, 1989 (p. 59)*

The 1989 Tour of Cornwall 6-12 May

The 36 participants in the tour spent the first morning at the Royal Cornwall Garden Society's show at Carlyon Bay with the Group's own splendid display. In the afternoon they visited Mr. and Mrs. Petherick's beachside camellia garden at Porthpean (see p. 52). Next day Mr. and Mrs. Gilbert's inland garden at Lancarffe was a contrast with both formal and woodland areas and many superbly grown rhododendrons. The next visit was to the late Maj. General Harrison's garden. Tremeer has created its own myth and has the best forms of familiar species selected by himself and many superb hybrids. Another garden near the sea is Trebah, now owned by Mr. and Mrs. Tony Hibbert. The steep valley plunging to the Helford River estuary is crammed with denizens of a

Fig. 12 The valley at Trebah

Fig. 13 *Rhododendron crinigerum at Lancarffe (above left)*
Fig. 14 *Magnolia dawsoniana 'Chyverton' (above right)*
Fig. 15 *Magnolia sieboldii at Penjerrick (below)*

Fig. 16 Magnolia × veitchii at Trewidden with the largest reputed span in the UK

favourable micro-climate. The party moved on to visit Penjerrick, owned since the eighteenth century by the legendary Fox family. Mature trees are witnesses to its former glory, which, if fortune smiles, will one day return. Tregothnan, home of Lord and Lady Falmouth, was different again. It is an old garden with many trees and shrubs of great age, some connected with figures of the past, such as Hooker and Canon Boscawen. At Chyverton, Mr. Nigel Holman's garden, there were more plants considered marginally hardy, with a bias towards plants from Latin America. Crossing the county, Sir Arscott Molesworth St. Aubyn's garden at Pencarrow has historical links with William Lobb and the name 'Monkey Puzzle'. Today it has a splendid array of 560 flowering rhododendrons. Trewithen was the next 'famous name'. In 1904, Major Johnson 'took an axe and claimed light and air for his trees'. He made the garden famous for its Asian magnolias and it is still immaculate. The last day provided two gardens within earshot of the Atlantic breakers. Trengwainton, owned by the National Trust and Major Simon Bolitho, and Trewidden, owned by the latter's son, Captain A. R. Bolitho, summed up gardening in Cornwall. A benign climate (with occasional disastrous lapses) encourages gardeners to grow plants from all over the world. Trengwainton is full of things that excite admiration and envy and Trewidden has similar treasures. The 1989 tourists may well be grateful to all these gardeners who so generously opened their gates to us.

Fourth International Rhododendron Conference

October 1-5, 1988

JOHN BASFORD

The fourth International Rhododendron Conference at Wollongong University, NSW, was sponsored by the Australian Rhododendron Society as one of Australia's Bicentennial activities. The conference mainly focused on the Azalea and Vireya sections of the genus with some more general papers.

The greater part of Saturday was given over to azaleas and varied from Dr. Peter Valder on the possibilities of genetic engineering in relation to future azalea breeding to Dr. Kenichi Arisumi who showed slides of the great range of forms and colours that occur in *Rhododendron kaempferi* on the island of Jyushu in southern Japan. There was also a paper by Mr. Rodger Davidson, a commercial grower, on what was at present available among the evergreen azaleas and the direction in which present breeding was heading. It should be noted that due to the warmer climate most of the evergreen azaleas grown in Australian gardens are varieties normally grown as pot plants in the UK and that they flower in early spring at the start of the main rhododendron flowering season. The day finished with a very informative paper from Dr. David Chamberlain on some of the newer finds in China and where they fit in among the rhododendrons we already know and grow.

On Sunday Professor Fang Ming-Yuan started the day with a paper on Subsection Irrorata and I was particularly interested in his collection of slides of plants of *R. irroratum* growing in the wild and showing flowers with no spots at all right through to where the spotting became the main flower colour. There was also considerable variation in flower and truss size. Ken Gillanders, who has a wellknown nursery in Tasmania, followed with a detailed paper on Ericaceae in Australia, most of which were unknown to me. Unfortunately many of them would not be hardy in this country, except one or two from the cooler high rainfall areas. Dr. John Rouse, whom I had met on my previous visit to Australia, gave a very clear paper on the problems of hybridizing rhododendrons with short and long styles. He showed excellent slides of the results of such crosses where the pollen tubes of short-styled species did not grow long enough to fertilize long-styled flowers and the jumbled mass again resulting in failed fertilization of a reverse cross. I now know why I fail to get seed from what appear to be straightforward crosses.

The rest of the day was taken up with papers on the collection, growing and breeding of Vireya rhododendrons. There were excellent slides shown by Rev. Norman Cruttwell of the Vireya rhododendrons he had found on his collecting

trips during his many years of ministry in Papua New Guinea. Graham Smith, the Curator of the Pukeiti Rhododendron Trust in New Zealand, an old friend of mine, gave full and clear details on growing Vireyas under glass where, given enough light, they flower the year round. In a later talk with Graham I found he was growing quite a few Vireyas in the open mainly on steep banks where they seem to withstand the few degrees of frost they get at Pukeiti. He has sent me a list of the species he is growing and I hope to try a few of them in suitable situations at Brodick Castle in the near future.

On Monday we started with Dr. Brian Morley, Director of the Adelaide Botanic Garden, discussing the place of rhododendrons in a botanic garden, followed by Dr. Dan Bloxell describing the planting and development of a new garden at Mount Tomah, 120km from Sydney, where cool climate plants should do well. For the rest of the day we toured the Wollongong Botanic Garden and also visited the Mount Pleasant Rhododendron Park where I saw my first collection of Vireya rhododendrons growing and flowering in the open. It was interesting to see in some adjoining beds a collection of *Camellia japonica* varieties growing and flowering heavily in the warm climate. We spent the next couple of days on organized visits to private gardens in the Blue Mountains and Southern Highlands where the range of plants that flourished was extensive and many of the rhododendrons we grow in British gardens were putting on an excellent display. As you would expect when growing in a warmer climate than ours, the two essentials are shade and plenty of water for irrigation - given these, they thrive.

After the Conference I moved to the outskirts of Melbourne where I stayed with a friend before visiting the Australian Rhododendron Society's garden at Olinda in the Dandenang hills not far away, and judging the early azalea show. There were a large number of entries at the show including a range of evergreen azaleas, some interesting species including Vireyas, and a section for hybrids in which it was nice to see some good varieties that had been produced locally. I found it particularly interesting to return to this beautifully laid out and extensive garden and to see how it has developed since I was there four years ago. It is also very gratifying to see the results of both scions and seed sent out many years ago now growing and flowering just as well as they do at Brodick Castle.

A few days later I flew over to Tasmania to see how the Emu Rhododendron Garden had developed. Four years ago I had been driven through the bush round the twenty-acre site on an old tractor. We had also long discussions on the proposed layout and organization. Now, as well as basic buildings, there is a garden with two lakes, roads, paths and very considerable plantings. In fact, it has advanced so far that the Governor of Tasmania, Sir Philip Bennett, was able to perform the official opening on 9 November, 1988. As a working gardener I can appreciate the vast amount of work that has gone into this project - much of it voluntary - and can also see its great potential both as a focal point for rhododendron enthusiasts and as a tourist attraction. May the Olinda and Emu Rhododendron Gardens continue to prosper!

Camellias: the story of a widening appeal

A. E. F. LANE

This year is the 250th anniversary of the first flowering of camellias in Britain. In 1739 Lord Petre's plants at Thorndon Hall in Essex were considered too tender to be planted outdoors and from then camellias were grown only in orangeries and conservatories until the first years of this century. They then began to be recognized as suitable for planting in the open and the greatest stimulus towards producing camellias well suited to our climate was made by Mr. J. C. Williams when he crossed *C. saluenensis* (from the hills of south-west China) with *C. japonica* to commence the series of crosses which, with their offspring, are known as williamsii hybrids in his honour.

Today there is a growing demand throughout the United Kingdom for varieties which can successfully be grown outdoors and the supply of plants is now plentiful in every garden centre and in many high street shops. It is with a view to uprating past assessments of hardiness, habits of growth and flowering quality that the International Camellia Society has been running trials at four centres in Britain. At gardens in Harrogate, Edinburgh, Belfast and Willoughbridge (near Market Drayton) the progress of some eighty varieties is being monitored and the results to date confirm the pre-eminence of *C.* × *williamsii* and other hybrids in these gardens - particularly in terms of flowering ability.

A number of lessons have been learnt and several must be of first-rate importance for gardeners in the north and in eastern counties. The trials point to the risk of high losses of young plants in severe winters when they are sited in exposed positions lacking much in the way of screening from strong winds. (Yet all varieties of camellia are remarkably hardy once they have developed an adequate depth of root to avoid frost damage). They also point to good soil drainage and careful husbandry as being of equal, or even greater, importance than location in Britain in terms of latitude. So success will certainly attend those gardeners who do not hasten to plant out one- or two-year-old plants and who pay particular attention to soil condition.

At the Northern Horticultural Society garden in Harrogate a variety of adverse conditions have been overcome. Clay soil and full exposure to Pennine winter conditions have presented a severe challenge but, after a number of setbacks, good progress is now being made after transferring the plants to a position less exposed to the prevailing westerly winds and into beds that have been raised to improve drainage. Most camellias are said to die from wet feet and if the soil is sodden part of the year, or if there is heavy clay soil near the surface, then planting with at least half the root system higher than the surrounding soil seems sure to repay well.

Drainage is no problem at the Royal Scottish Zoological Society garden at Corstorphine, Edinburgh, where a very successful trial is in progress. Indeed past wisdom would suggest that conditions there would have proved too dry, for the soil is light with rock at no great depth below the surface. But, with protection from only northerly winds, the varieties under trial have prospered well. The south-facing aspect without shade at any time of the day has no doubt been a notable ingredient in the success here and, from mid-February to the end of May in all but the most severe winters, there is a continuous display of flowers from plants several of which are now between six and ten feet in height and producing in excess of seventy blooms.

Each year there is also an outstanding display in the walled garden of the Sir Thomas and Lady Dixon Park in West Belfast, where the trial is under the control of the Director of the City Parks Department. Here the hallmarks of success have been the choice of a very congenial site and outstandingly good husbandry. The plants under trial are in beds facing south and west and, again, they are without shade thus providing further proof that the tree cover that camellias are alleged to enjoy is not essential for success, at least in northern gardens. The Society's trial has been enthusiastically progressed by the Director and his staff who are now expanding the collection of camellias in the park to make what must be the finest outdoor display in the Province.

The trial at Willoughbridge, near Market Drayton in the rolling North Staffordshire countryside, is at the delightful Dorothy Clive Garden. This comprises seven acres with fine views and a wealth of plants thriving on a light, well-drained soil.

Here some seventy varieties of camellia may be seen and, despite some losses of young plants in the coldest winters (notably 1977-8), a very successful trial has now been established and continues to develop as an attractive feature of this fine garden under the guidance of the knowledgeable Curator.

The Society's annual audit of progress in each trial confirms that *C. japonica* varieties - despite their hardiness and lush foliage - flower less profusely than *C. × williamsii* and similar hybrids in the midlands and the north. Nevertheless many of the *C. japonica* varieties on trial have bloomed well and special mention should be made of 'Lady Vansittart', 'C. M. Hovey', 'Charlotte Rothschild', 'Clarise Carleton' and 'Tricolor'. The following hybrid varieties have prospered particularly well at each of the centres and can be confidently recommended:
'Anticipation'; 'Donation'; 'Bow Bells'; 'Inspiration'; 'Brigadoon'; 'J. C. Williams'; 'Charles Michael'; 'Mary Larcom'; 'Dainty Dale'; 'St. Ewe'

If a best variety under trial were to be chosen then the vote at present would have to go to 'Inspiration', a hybrid (*C. reticulata × C. saluenensis*) introduced in 1954. It has flowered consistently well at each centre throughout the trials and can now be rated with 'Donation' for hardiness (see fig. 5).

Michelia maudiae: a promising newcomer?

MAURICE FOSTER

In the spring of 1905, Mr. S. T. Dunn, Superintendent of the Hong Kong Forestry and Botanical department, was given two months leave of absence to explore the wild and beautiful mountains of central Fukien, a coastal province just north of the tropics about midway between Hong Kong and Shanghai. At the end of the expedition he was the guest of Mr. Lei Kam, the literary Mandarin at Yenping, and spent an 'interesting day' in his garden. Amid a great variety of trees and shrubs he came across two Michelias, both new species, from which he took herbarium specimens. He named these *Michelia maudiae*, after his wife who had accompanied him on his expedition and had been his 'constant companion'; and *Michelia skinneriana*, after the head of the American mission in Yenping, who had been very helpful to him and had introduced him to the literary Mandarin.

There are about 45 species of Michelia, mostly tropical, all native to South East Asia, and of which some 17 species occur in China. To date three species have been hardy enough to grow outside in Cornwall and South West Ireland — *Michelia figo, M. compressa* and *M. doltsopa*. The last is probably the best known for the beauty and fragrance of its abundant flowers, with 40-50 ft specimens at Caerhays and in other Cornish gardens. Michelia is closely allied to Magnolia. The main difference is that the flowers are borne in the leaf axils and not terminally.

As far as is known, no living material of *M. maudiae* came out of China until 1983/84 when seeds were distributed by the Shanghai Botanic Garden — the first introduction into Europe. Both Roy Lancaster and James Harris at Curry Mallet raised seedlings from this distribution and the plant illustrated was bought as a small seedling from Mr. Harris in 1985. It was fattened up for a year in a pot prior to planting out in a bed in full light in an unheated conservatory. It was healthy and robust but bushy and stocky, with relatively short internodes. After three years it had attained 2ft 6 ins in height, apically dominant, neat and symmetrical. By contrast a rooted cutting of *Michelia doltsopa* in similar conditions had exceeded 5 feet. It has some similarity to *Magnolia virginiana* with both foliage and stems quite glabrous. The leaves are oblong to ovate/oblong but with the undersurface glaucescent rather than glaucous and with a rather yellowish cast (see fig. 9).

That same year, 1987, buds appeared in the upper leaf axils in late summer and it was soon evident that it would flower in 1988, just four seasons from sowing. This was no tentative initiation either, as the small plant set seven flower buds. For a member of the Magnoliaceae, some of which postpone flowering from seed for two decades, this was an unexpected and welcome

revelation. As far as is known this is the first record of a flowering specimen in Europe. It may have flowered in the warmth of the southern United States, where it has recently been on offer in a magnolia specialist's catalogue. Roy Lancaster distributed plants to both Abbotsbury and the Savill Garden about which I have no information.

The flowers are a very pure white, with no hint of cream or ivory, with petals 2-2.5in long and a sweet, light fragrance. They are carried singly in the axils of the upper leaves, both on the leading shoot and the main laterals. There are nine tepals in three rows of three and on the second day after opening, the outer row reflexes sharply.

Mr Dunn was evidently much taken with his new Michelia. Not only did he select it to name after his wife (out of some 40 new species of various plants he had just discovered in the wild on his expedition), he also described it as 'arbor parva, pulchra', the latter perhaps a somewhat self-indulgent adjective in a scientific description. Horticulturally his enthusiasm could not only be forgiven but, on this early evidence, fully justified. It appears to have excellent potential, freeflowering with a beautiful fragrant flower (it has set a further twelve buds this year), good evergreen foliage, compact growth and a very short period of adolescence. It also roots from cuttings.

The great unanswered question is of course hardiness. Roy Lancaster's 12in seedling remained outside through the winter of 87/88 without damage; not a demanding test as it was a mild winter, but a good start — it has some frost resistance. Sir Peter Smithers' plant in his climatically favoured garden overlooking Lake Lugano has come through two easy winters and grown vigorously. The fact that *Michelia maudiae* was discovered in a garden rather than the wild means that it was not necessarily native to the sub-tropical region where Mr. Dunn found it but that it could possibly have come from a much cooler area. It is not known if the mother plant in Shanghai is in the open.

Time will tell, but in any event, on the evidence so far, it could be a valuable addition to the Magnoliaceae for gardens in the milder counties and worthy of a place among the great collections of its distinguished Asian relatives.

Rhododendron, camellia and magnolia notes

'How to . . .'

Thirty years ago we bought a 22-acre woodland, adjacent to our house, on the edge of Dartmoor in Devon. Our aim was to make a bird reserve. The woodland was a dark, dense and damp thicket of naturalized silver birch, overgrown chestnut and hazel coppice with oak standards, and a few scots pine. The land slopes southwards for the most part, rising gently to 500ft, with the northern boundary over the crest of the hill, overlooking superb views of the moors and deeply wooded valley of the R. Bovey. Our woodland deeds state that it is an area of outstanding natural beauty. This is indeed true.

Our first task was to thin the trees to let in the light and air, to cut back the dense undergrowth of bracken and brambles in the more open areas, and finally to lay hedges to fill the many gaps, and to fence where the hedges had died out through lack of light. As our work progressed the woodland became alive with wildlife, dappled light and shade everywhere, and as a free flow of fresh air rolled down the hill we realized we had created ideal conditions for growing rhododendrons.

Our first aim achieved, with some seventy nest boxes occupied by Pied Flycatchers, Blue Tits, Tree Creepers, Tawny Owls, etc, the problem now became 'How to . . ' stock our woodland with rhododendrons? Initially we planted *R.* 'Pink Pearl', 'Cynthia' and all other hardy hybrids that were available in the local garden centres. Then we started buying by mail order from specialist nurseries. Soon we realized that this was an expensive operation. New methods would be needed. From the pages of David Leach's excellent book *Rhododendrons of the World* we learnt about the 'Nearing Frame' and constructed our own.

Soon we were propagating large numbers of cuttings each year and, with the generous help of our friends, quickly extended our collection. In some cases we were able, by this means, to return rare and treasured plants that had died out subsequently in their original gardens. However the Nearing Frame, excellent as it is, has its limitations in the range of material that can be propagated. It is ideal for the smaller/medium-leaved varieties, but is inadequate for many of the difficult-to-propagate rarer species. To fill the gap specialist nurseries have provided some excellent grafted plants. But grafted plants are expensive, and there are always the suckers. Seed has been another good and cheap source of plants when supplied from such a reliable source as The American Rhododendron Society; hand-pollinated or wild-collected species being particularly interesting to grow.

However the real corner was turned with the advent of micropropagation. Micropropagated plants have proved to be the best source of supply of vigorous young plants. No suckering! In fact a virile flush of young growth from the 'root

ball' is characteristic of micropropagated plants. All that is needed is a good growing-on medium to balance the root growth to the top (many micropropagated plants tend to be top heavy by the very nature of their birth). As soon as root growth is well established, they grow away magnificently. By buying large quantities of tiny micropropagated plants and growing them on in open nursery beds it is possible to produce some extremely healthy plants very quickly and cheaply. In this way you can stock your garden and have many over for sale or exchange.

We harvest our crop of rhododendrons annually. A selection of the best are planted out in the woods, and the balance are sold on 'Open Days' or wholesale to garden centres and nurseries. Some nurseries reduce the lovely large, open ground, root balls and squeeze them into containers to meet the demands of modern marketing.Others, being more sympathetic to the needs of the plants, are happy to have the wrapped root balls in peat beds in the 'old fashioned way'. I know which plants I would prefer to buy!

DICK REYNOLDS

A camellia garden by the sea

In the mid-1950s Maurice Petherick started planting camellias at Porthpean. The garden of about four acres is laid out on a low cliff directly above the beach at the south-eastern corner of St. Austell Bay in Cornwall. There is a panoramic view of the sea, particularly from the top of the garden (a rising slope covered in primroses and violets) - blue sea, blue sky, sailing boats and a beautiful coastline. His first task was to create shelter; there was only a rather ragged line of tamarisk, which ran along the edge of the cliff. Behind this he put chestnut fencing, then a hotch potch of bay, elder, ash, *Elaeagnus ebbingei*, pittosporum, anything that would protect the young Camellias and stand up to the vicious salt-laden gales that blow straight in and do so much damage. In fact, the garden is quite grey with salt after a particularly bad gale, and we pray for rain to wash it away. But, I am thankful to say, our prevailing wind comes from the south-west. Elsewhere in the garden there is much more in the way of natural windbreaks; large, well-established beeches, chestnuts and Monterey pines protect us from the north and west, though we do have a problem with the wind eddying round and ricocheting back on to the plants. Sometimes we have to put up artificial shelter in the form of netting to help the young ones get established.

As each plant was put in the ground, Maurice made an entry in a card index with very outspoken comments as to the nursery from whence it came: what sort of condition it was in on arrival and, always, the price and the cost of the freight. A progress report was added after a year. A typical one reads 'Scented Treasure' double peony form, cherry red blossoms that have the spring fragrance of English pinks', followed by: 'I could detect no scent when at last it bloomed'. This disaster came from California and cost $4 in 1960. Some two hundred camellias were planted during the first five years. About eighty came

from Nuccio in California. The card index tells us that nearly all were 'browned off' due to freezing on the aeroplane, but they recovered later. They certainly did, and are now some of the most beautiful specimens in the garden.

Camellias are really very rewarding plants to grow, flowering as they do right the way through the winter, and, if they like your soil (and Heaven alone knows why they flourish on our shaly cliff) and your climate, they need little attention. We give ours a top dressing of manure in the autumn and now and again a feed of Vitax or sulphate of ammonia. Leaf cuttings are taken from September to March before the new growth starts and they are put in a mixture of peat and sand and kept in the propagator until rooted. Then they are potted into small pots and left in the cold greenhouse. After a year they go outside to harden off, but are kept very well protected from the wind. Obviously our top priority is to keep the garden going as Maurice Petherick would have wished, and we intend to enlarge and vary the collection as the years go by, and, in order to accommodate and contain it, a certain amount of re-shaping of the garden has become necessary. Already a new path has been made, along which we shall plant the nine little Sasanquas imported from Japan last year, and in this way new vistas open. It is an enormously satisfactory and rewarding task, despite the inevitable disappointments and disasters that sometimes happen.

CHARLOTTE PETHERICK

A little-known northern garden

Parcevall Hall, originally a sixteenth-century farmhouse, lies in a remote corner of the Yorkshire Dales at Skyreholme near Appletreewick, some 15 miles north-east of Skipton. Sir William Milner, tall, visionary, religious, reclusive and eccentric, bought the place in 1927. It was derelict. Set at a height of 750ft above sea-level and surrounded by open moorland, it must have seemed an unlikely place for a garden But it had a stream, a southerly aspect and a splendid view of Simon's Seat, the local hill. The renovation and extension of the Hall was a gargantuan task, but it was superbly carried out in the style of the original. Of the garden it is recorded that its construction took thirty men three years. Sir William's dream was realized thanks to his ideas, his patience and, of course, his wealth.

Sir William was a member of the pre-war Rhododendron Association and he was fortunate to have received advice and help in stocking his garden from enthusiasts such as J. C. Williams of Caerhays, Lord Grey of Howick Hall and Sir Robert James of St. Nicholas, Richmond. Through such channels he obtained rare plants collected by Forrest and Farrer. He raised a number of rhododendron hybrids which have never been named, documented or propagated. Some are most attractive, for example, a low-growing plant with a flower somewhat resembling *R. thomsonii*, except that the outside of the corolla is a delicate shell-pink shading to white at the petal tips while the inside is almost pure white.

After the war Sir William became a founder-member of the Northern Horticultural Society and helped to set up the gardens at Harlow Car,

Harrogate. When he died in 1960 the estate passed to the Guardians of the Shrine of Our Lady of Walsingham. The Hall is now leased to the Diocese of Bradford and is used for retreats.

The plants grown are necessarily hardy, for this is not a mild climate, although there is a somewhat unhappy specimen of *Crinodendron hookerianum* growing against a wall. There are two woodland areas containing rhododendrons besides the main garden, which is mostly informal although with some formal sections. Labelling is a problem, and expert help is needed with identification. Unfortunately, cash limits allow no more than two or three gardeners, as compared with fourteen in the garden's heyday, and funds for buying in new plants are strictly limited. Nevertheless Jo Makin, who has superintended the garden for the past four yours or so has made an impression on twenty years of neglect and many overgrown plants are now getting the light they need to regenerate. Plants have been propagated. Some are offered for sale and others put into some of the cleared areas.

Visitors will find much to interest and charm them in this remote and idyllic spot and refreshments are usually obtainable in the informal and friendly environment of the Head Gardener's cottage. The garden is open to the public from 10 a.m. to 6 p.m. every day from Easter until the end of October.

STEPHEN FOX

Camellia 'Dona Herzilia de Freitas Magalhaes'

The unusual japonica cultivar pictured in figure 8 was discovered in the garden of an old house near Oporto. Beryl Urquhart, in her book, *The Camellia*, Vol. I (1956), tells us that J. Moreira da Silva, who introduced it in 1948, wrote that it was raised in 1925 by Dona Herzilia herself from seed found under other camellias. The flower is described as an incomplete double about 4in. across with a closely packed centre of small petals and petaloids. Flowers on the same plant vary from bright crimson shading off to deep pansy violet. Sometimes crimson predominates and sometimes violet, but all the petals have a distinct venation. It was painted for Beryl Urquhart's book by Raymond Boothe. Our photograph was taken by Dr. George Hargreaves in the garden of Mr. and Mrs. Christopher Petherick at Porthpean, St. Austell.

CYNTHIA POSTAN

Inverewe expects . . .

NIGEL PRICE

Inverewe, that normally tranquil garden on the north-west coast of Scotland, is at war. We have suffered an invasion - powdery mildew has arrived and with devastating effect. The sudden onslaught took us by complete surprise, but the Inverewe forces have been mobilized and we are fighting back with great determination. On most dry days our front line troops, dressed in blue combat fatigues and gas masks, are to be found spraying anything remotely resembling a rhododendron (visitors are well advised to keep moving!). We suffered an attack of a quite different nature in February of this year when a minor hurricane uprooted 120 trees in just a few wild hours, creating at least a month of unwanted extra work. It was some small consolation to know that our powdery mildew spores (yes, it was active in February) must have been blown to Bratislava and beyond!

We first noticed powdery mildew on *R.* 'Lady Chamberlain' in 1987. Unfortunately, the first indication was almost complete defoliation. We should have spotted trouble earlier, but with three or four thousand rhododendrons in the collection and limited resources it is impossible to check each individual as often as we should. Many other *R. cinnabarinum* forms and hybrids soon followed and were cut down to induce new growth and to make spraying easier. Little else appeared to be affected. 1988 turned into a very depressing year indeed. By the end of the season over two hundred species and hybrids were showing signs of infection. Unfortunately, some of the worst affected were those which make up the bulk of our collection, such as *R. thomsonii* and *R. campylocarpum*. Effects ranged from total defoliation of some, variously coloured blotching and mottling on others, and, occasionally, the more typical grey discolouration which we would expect from powdery mildew on other genera. Even hardy hybrids did not escape; one large old clump of R. 'Cynthia' was reduced to a very sick-looking specimen with yellow and grey mottling over both upper and lower leaf surfaces. R. 'Hugh Koster' suffered partial defoliation. *R. ponticum* windbreaks were affected which is cause for great concern. There are acres of *R. ponticum* seedlings in the woodlands surrounding Inverewe, a never-ending source of reinfection for the garden. Those species and hybrids with thick indumentum seem to be resistant, but where leaves have been damaged infection can occur (see fig. 7).

Many people associate powdery mildew with cold wet summers and damp conditions. In fact, quite the reverse is true. Worst effects are seen where rootballs suffer periods of drought, near tree roots and in exposed situations. The soil at Inverewe is a very shallow blanket peat over sandstone which, although saturated for much of the year, can dry badly at times and this is precisely what happened in May and June of 1988. The drought coupled with high humidity above ground provided perfect conditions for mildew.

Another point that became clear was that nutritional deficiencies seem to accentuate the effects of the disease. Most of the background rhododendrons at Inverewe have not been given any manuring, artificial or otherwise, since planting. They have had to rely on 'self mulching' for all nutrition. This may be perfectly adequate on more favourable soils but not on our shallow peat. Also, the woodland is predominantly pine which produces a notoriously poor litter while taking valuable nutrients from the rhododendrons beneath. Not surprisingly deficiencies occur, phosphorus and magnesium being the most common. It is interesting to note that the symptoms of these two deficiencies in rhododendrons can cause purple blotching and premature leaf fall, very similar to the symptoms of powdery mildew. We have started a major feeding programme which should result in every rhododendron receiving a supplement of compound, slow release fertiliser at a rate of 4oz. per square yard (Inverewe plants still refuse to 'grow' metric). We are also foliar feeding with a 2 per cent solution of magnesium sulphate.

Mulching is a problem which has yet to be solved, as we are always short of good, organic matter. Every year 60 tons of farmyard manure and 15 tons each of bracken and seaweed are collected and composted together with all the usual leaves and garden waste. We have huge compost heaps all over the garden. Unfortunately most of these end up in or on the cultivated perennial beds and borders leaving next to nothing for mulching rhododendrons. Perhaps the answer lies in a large brushwood chipper; if we had had one while clearing up after the recent gale we might have considerably more than a few small piles of ashes to show for our efforts! It is a problem which must be solved, as the addition of humus is as important here on our shallow peat as it is for light sandy soils, not only for its nutritional value but also in providing an essential reservoir of soil water for those dry periods which we often experience in early summer. In short, it appears that any factor which puts rhododendrons under stress will make them more susceptible to mildew infection and will enhance the effects. Plants must be provided with optimum growing conditions.

There seems to be very little 'official' advice on ways of dealing with the disease. It is from our own observations and lengthy discussions with similarly affected gardens (particularly the Younger Botanic Garden at Benmore) that we have been able to formulate a spray programme for Inverewe. Several chemicals have been used with varying degrees of success; 'Nimrod', 'Fungaflor' and 'Bayleton' are to be recommended. Incidentally, 'Bayleton' will treat rhododendron rust as well. These are systemic fungicides - the chemical is translocated from the leaf surface to all parts of the plant. However, the plant must be actively growing for them to have any effect at all. Systemics would have been quite useless in the recent mild winter when powdery mildew was active and the rhododendrons dormant, and the same must apply for periods of drought. Therefore, it is necessary to use a 'contact' acting fungicide such as 'Repulse' or 'Bravo' during the dormant season, and we use alternate sprays of systemic and contact for summer and spring use. A surfactant or spreading agent such as 'Agral' is added to all our diluted spray mixtures as rhododendron

leaves are notoriously difficult to wet thoroughly, particularly young growths. Without a spreader the expensive chemicals are just going to splash off or accumulate at leaf tips.

Application of the chemicals presents yet another problem. They have to be applied to the underside of the leaf and this is particularly important when using contact acting types which must thoroughly wet all parts of every lower leaf surface. Ordinary knapsack sprayers are quite ineffectual; they are slow, hard work, and it is impossible to spray large specimens efficiently. We have found that motorised knapsacks, such as the Cooper Pegler 'Hurricane', have a far superior performance. The diluted chemical is gravity fed into a powerful jet of air which enables us to spray 15ft high specimens effortlessly. Also, the jet of air actually turns the leaves so that the undersides are presented to the spray. Like all good things this type of sprayer has its drawbacks, being expensive and very noisy in use. It might be possible to use Ultra Low Volume sprayers such as the 'Turbair' for applying systemic fungicides. These sprayers distribute minute droplets of concentrated chemical in a fraction of the time taken by conventional methods. They are lightweight and, because the chemical is in near-concentrated form, there is no water to carry about and no time-consuming trips to a convenient tap. However, they are really only suitable for trained operators working on the calmest days. Finally, it must be said that as standing under a large rhododendron in a mist of fungicide is not the most pleasant experience, a complete spray suit with hood, respirator and eye protection is a must. Gardens open to the public must consider visitor safety too: we use mobile barriers to isolate areas for spraying.

Powdery mildew must be recognized as a potentially devastating threat to rhododendron gardens. Control measures are going to have to be regular and permanent, - not too bad for the small garden where routine spraying can be carried out in much the same way as we would for roses or soft fruit, but for a garden such as Inverewe with several thousand plants to protect it is going to involve colossal costs in materials and labour. There are many questions which we would like answered. Why is powdery mildew suddenly affecting rhododendrons? Is it a new strain, or perhaps the result of climatic changes? Is it a natural phenomenon or experienced only in cultivation? Is the problem any less in areas polluted with sulphur emissions? If, as our observations suggest, some species are resistant, should we be considering a breeding programme to produce a new race of resistant hybrids? Lastly, and perhaps most importantly, we would like to know how our continual applications of fungicides are going to affect the beneficial soil fungi such as mycorrhizas. Evidently much research is needed and, in view of present cutbacks in this direction, perhaps we should be approaching tourist boards as a possible source of funding.

Hopefully, by the time this Year Book is distributed we will be well on the way to getting the disease at Inverewe under control. The rhododendron collection, although not the best in the country, is an integral part of Inverewe.

The Rhododendron Shows 1989

JANE AND IVOR STOKES

THE EARLY RHODODENDRON COMPETITION

14-15 March, 1989

An exceptionally mild winter and spring meant another unusual flowering season for rhododendrons this year. At the time of the Early Show, many gardens were as much as a month in advance of normal years. In Swansea most of the plants that were in peak condition for the 1988 competition had all but finished flowering, bearing few trusses of show quality. However, the number of entries in this competition was up on last year with thirteen entrants showing plants. Many of the gardens that had found themselves in the path of the October 1987 hurricane had been cleared of much of the devastation caused by the wind and were able to consider competing again.

Class 1, for four species, attracted four entrants, the first prize being awarded to Edmund de Rothschild showing Rhododendron *calophytum, macabeanum, irroratum* 'Polka Dot' and the good red *arboreum* 'Rubaiyat'. Second and third prizes were won by Borde Hill and High Beeches respectively.

Class 2 was won by Borde Hill with a good spray of *R. macabeanum* growing under Kingdon Ward's No 7724; a truss from this plant also won *Class 3* for them. Hydon Nurseries were second in *Class 2* with a pretty spray of *R. racemosum* 'Rock Rose', whilst High Beeches took third prize with *R. oreodoxa*. There were fourteen entries in *Class 3*, Brodick were second behind Borde Hill, with *R.magnificum*, Hydon Nurseries were third with a truss of *R. irroratum* 'Polka Dot' and R. J. Gilbert of Lancarffe was awarded fourth prize for *R. arboreum* ssp. *campbelliae. Class 4, R. arboreum* and its variants, was won by a blood-red truss from Swansea's Clyne Gardens. Exbury were second with a white form and a var. *roseum* from Borde Hill was third.

Only one prize was given in *Class 5* and that was to a pink form of *R. coryanum* from Swansea. The large full truss of *R. barbatum* Hooker's variety won first prize for Borde Hill in *Class 6*, with Edmund de Rothschild and R. J. Gilbert, both also showing *R. barbatum*, being awarded second and third prizes. There were ten entries in the Falconera and Grandia Subsections. *Class 7*. The first prize again went to Borde Hill's *R. macabeanum* KW7724, whilst Brodick, who grow *R. magnificum* to perfection, were second. A truss of *R.macabeanum* (also growing under KW 7724) shown by Swansea City Council, was given third place. *R. calophytum*, from Exbury, won first prize in *Class 8* for a species of the Fortunea subsection. *R. oreodoxa* from High Beeches was second and Mrs. Kleinwort was third with a good strong truss of *R. sutchuenense* from Heaselands. *Class 9* was won by *R. piercei* shown by Borde Hill Gardens, the closely related *R. beanianum* being awarded second place for High Beeches and *R. neriiflorum* winning a third prize for

Borde Hill.

There was only one entry in *Class 10* and that, deservedly, won first prize for *R. thomsonii* from Exbury.

Class 11 attracted six entries, the first prize being won by High Beeches with a spray of *R. lutescens*, Brodick were second with *R. luteiflorum* and Mrs. Potter's *R. racemosum* was placed third. There were only two entries in *Class 12.* Exbury;s *R. irroratumo* 'Polka Dot' (fig. 11) winning first prize and Mrs. Potter taking second prize with a spray of *R. fulgens*. All three prizes in *Class 13* were taken by plants from Clyne Gardens, *R. ramsdenianum KW 6284* won first prize, the other two being awarded to *R. fulvum* and an almost unspotted truss of *R. irroratum.*

Class 14, the first in the Hybrid section, was won by High Beeches with an un-named cross between *R. montroseanum* and *R.macabeanum*, R. 'Nestor' and a truss of R. 'Muriel'. Second prize was taken by Exbury showing R. 'Red Argenteum' and two *R. calophytum* hybrids - R. 'Our Kate' and an un-named clone from *R. calophytum* R. × 'Avalanche'. Borde Hill was third.

Class 15, any hybrid, one spray - was won by Edmund de Rothschild with the splendid red R. 'Choremia'. Borde Hill's home-raised R. 'Anne Clarke' was second and R. 'Nestor', entered by High Beeches, was third.

Class 16 attracted nine entries, the first prize was won by John Fox, who showed an un-named cross between *R. calophytum* and *R. eximium*. Although in its twelfth year, this was the first year that the plant had flowered. Swansea City Council were second with R. 'Hodconeri', the third and fourth prizes were won by Borde Hill. *Class 17* was won by Edmund de Rothschild showing Choremia, Borde Hill took second and third prizes whilst Mrs. Kleinwort took fourth. A truss of R. 'Janet' won first prize in *Class 18* for Swansea City Council. High Beeches' un-named cross between R. 'Mrs. H. Shilson' and *R. sutchuenense* was second and Borde Hill was given third prize for a truss of R. 'Anne Clarke'. John Fox took first prize in *Class 19* with R. 'Alix', a good red hybrid between *R. barbatum* and *R. hookeri*, combining the foliage characteristics (bristles and hooks) of both parents. Second prize was awarded to High Beeches with a truss of R. 'Nestor', and R. 'Shilsonii' won third prize for Mrs. Kleinwort.

Class 20 was won by Swansea showing a cross between *R. grande* and *R. hodgsonii*, they also took second prize with a truss of R. 'Hodconeri'. The aptly named R. 'Bordeaux', a good wine-coloured cross between *R. gymnocarpum* and *R. beanianum*, was given third prize for Edmund de Rothschild. Only the first two prizes were awarded in *Class 21*. R. 'Lucy Lou' won for Exbury and John Fox was second with R. 'Snow Lady'. Hydon Nurseries showed a perfect truss of the Vireya species. *R. zoelleri*, to win *Class 22.* Borde Hill were second with a beautifully scented *R. cubittii* (fig. 3) and *R. burmanicum* was third for Dr. and Mrs. Dayton. There were only two entries in *class 23*, Borde Hill won with a spray of *R. cubittii*, no other prize being awarded.

THE MAIN RHODODENDRON COMPETITION
3-4 May, 1989

By the time of the Main Rhododendron Show the season had returned to normal. Most rhododendrons were flowering at their usual time and promised a wide choice of material for the show bench. However, the bright sunny weather during the last week of April brought widespread frost with the lowest night temperatures of the year being recorded in some areas. Trusses that had been left on the bushes and earmarked as likely to be in perfect condition for the competition were reduced to a brown pulp. The mild weather and overcast skies of the weekend immediately before the show allowed a few more buds to open, but for this there would have been many more empty classes. Much of the material that was exhibited showed signs of damage and in several classes the awards given reflected this.

SPECIES

There were only two entries in *Class 1*; first prize, the Lionel de Rothschild Challenge Cup, was awarded to a group of eight species exhibited from Exbury. The exhibit consisted of *R. sinogrande, R. fictolacteum, R. arizelum, R. arboreum, R. bureavii, R. uvarifolium, R. niveum* and *R.metternichii*. Swansea City Council, who won this cup in 1988, were second.

Class 2 attracted four entries; this also was won by Edmund de Rothschild, with Richard Gilbert of Lancarffe being given second prize and G. A. Hardy third. *Class 3* had the highest number of entries in the species section. From the twelve trusses exhibited the judges awarded the McLaren Challenge Cup to a specimen of *R. aberconwayi* shown by F. G. Bourne in his first competition. Second prize went to Edmund de Rothschild for a truss of *R. fictolacteum*. High Beeches were third with *R. falconeri* , whilst Mr. Bourne also won the fourth prize with *R. wiltonii.*

The Roza Stevenson Challenge Cup for Class 4 was given to a spray of a good pink *R. davidsonianum* exhibited by Exbury. Mrs. Potter's Wentworth garden, yielded a spray of *R. carolinianum* to win her second prize. G. A. Hardy took third with *R. augustinii* and a delicate lilac-coloured *R. oreotrephes* won fourth prize for Lady Adam Gordon. There were nine entries.

Class 5, for 'Arboreum and its variants' had only two entrants; it was won by Edmund de Rothschild, whilst the truss from Clyne Gardens, Swansea, exhibited as *R. kingianum* was declared of hybrid origin and not placed. Exbury also won *Class 6* with a fine rounded truss of *R. niveum*. They were the only entrants in this class. *Class 7* attracted only two entrants. *R. glischrum* won first prize for Exbury and *R. morii* from Lancarffe took second prize for Mr. Gilbert. Both the exhibits in *Class 8* were in poor

condition. The better, shown by Exbury, was given only second place, whilst the truss from Swansea took third.

R. sinogrande was exhibited by both entrants in *Class 9*, the judges giving the first prize to Swansea City Council and the second to Exbury Gardens. First prize in *Class 10* was awarded to High Beeches who exhibited a specimen of *R. falconeri* with an unusually full rounded truss and no trace of the normal purple basal blotch. Second prize went to Swansea for a truss of *R. eximium* and the third prize was given to *R. falconeri* shown by John Fox.

Class 11 had only two entrants. *R. fictolacteum* winning first prize for Edmund de Rothschild and a truss of *R. arizelum* from High Beeches taking second prize. Entries in the remainder of the species classes were very low with most of them only attracting one or two exhibits. In *Class 12 R. semnoides* was given a second prize for Swansea and was the only award made in this class. *Class 13* had three exhibits, *R. decorum* shown by Swansea gained first prize, whilst *R. orbiculare* shown by both Lady Adam Gordon and Edmund de Rothschild took second and third places. *R. uvarifolium* was the only exhibit in *Class 14*, but took second prize for Edmund de Rothschild. Mr. F. G. Bourne's *R. aberconwayi* won first prize in *Class 15* with the other entry *R. hardingii*, shown by John Fox, being given second prize. Exbury won *Class 16* with *R. faberi* and the second prize went to *R. wiltonii* shown by F. G. Bourne.

R. wightii from Littleworth won *Class 17* for Lady Adam Gordon, the specimen from High Beeches took second place. In *Class 18* only a third prize was awarded, this went to a spray of *R. euchaites* from Exbury; the frost had affected both entries in this class. Exbury's *R.metternichii* was the sole entry in *Class 19* and was given a first prize. *Class 20* had two entries, a specimen exhibited as *R. caloxanthum* from High Beeches won first prize whilst Mrs. Potter was awarded second with *R. campylocarpum*. The single entry in *class 21*, a spray of *R. wardii* from Exbury Gardens, was given a second prize. The single entries in *Classes 22* and *23* were unplaced.

Class 24, which allows blooms to be exhibited from plants cultivated under glass, had only two entries. The first prize went to *R. edgeworthii* exhibited by John Fox, the second was awarded to G. A. Hardy. Although having *R. edgeworthii* as a parent, the beautiful hybrid R. 'Fragrantissimum' that appeared in *Class 25* was not eligible for a prize, but would have gained an honour had it been shown in either *Class 86* or *87*. The spectacular lone specimen of *R. lindleyi*, that took first prize for Mr. Gilbert in *Class 26*, had nine flowers in the truss, all in perfect condition. There were no entries in *Class 27*. A spray of *R. dendricola* shown by John Fox in *Class 28*, the only exhibit was given first prize. *Class 29* attracted just two entries: *R. meddianum* exhibited from Swansea's Clyne Gardens took first prize whilst the second was given to a truss of *R. thomsonii* shown by Richard Gilbert.

At Clyne *R. schlippenbachii* had long finished flowering by the time of this show, and from the lack of entries in *Class 30* this appears to have been the

case everywhere. *Class 31*, however, had four entries. The prizes were all given to specimens of *R. luteum*. Swansea won first prize; the second prize was awarded to Edmund de Rothschild and the third went to Dr. and Mrs. Dayton. There was just one entry in *Class 32* – the three sprays of deciduous azaleas exhibited by Exbury consisted of *R. vaseyi*, *R. reticulatum* and *R. luteum* and were awarded first prize. *Class 33* failed to attract any entries, whilst the only entry in *Class 34*, a specimen of *R. tephropeplum* from Swansea had several unopened buds and only gained a second prize. Likewise, in *Class 35* a spray of *R. campylogynum* exhibited from High Beeches was only given second prize. There were no entries in *Class 36*.

The *R. glaucophyllum* exhibited by High Beeches in *Class 37* won first prize, as in the next four classes, it too was the only entry. In *Class 38* only a second prize was awarded, that went to a spray of *R. rubiginosum* from Exbury. *Class 39* was won by a specimen of *R. nigropunctatum*, also from Exbury. *R. baileyi* took the first prize in *Class 40* for Mr. Gilbert. Whilst High Beeches gained the first in *Class 41* with a spray of *R. calostrotum*. There were no entries in *Classes 42, 43* or *44*. *Class 45* however, which required a spray of *R. augustinii*, did prove more popular, with five entries on the show bench. The first prize was awarded to Edmund de Rothschild, the second to High Beeches and the third went to Lady Adam Gordon. There were three entrants in *Class 46*, Mrs. Potter showed a nice form of *R. concinnum* to take first prize. Lady Adam Gordon's *R. ambiguum* took second, and the third prize was awarded to *R. triflorum* var. *bauhiniiflorum* from Swansea.

A good pink spray of *R. davidsonianum* won the first prize for Exbury in *Class 47*. The second prize went to *R. rigidum* from Swansea, with High Beeches gaining third place with another pink specimen of *R. davidsonianum*. *R. hongkongense* shown in *Class 48* by G. A. Hardy gained a second prize, but would have been better placed in *Class 49* as, although tender, it does not belong in sect. Vireya. *Class 50*, the last of the species section, was won by a spray of *R. carolinianum* exhibited by Mrs. Potter.

HYBRIDS

There were five entries in *Class 61*, which asked for trusses of eight hybrids. The first prize went to John Fox, whose display consisted of Rr. 'Bernard Shaw', 'Queen of Hearts', 'Aurora', 'Babylon', 'Loderi' var. 'Gamechick', 'Susan', 'New Comet' and an unnamed *R. calophytum* hybrid. Second prize went to High Beeches, the third prize was awarded to Mrs.Hooton and a fourth to Mrs.Kleinwort. *Class 62*, attracted nine entries. This class, too, was won by John Fox showing trusses of Rr. 'Calfort', 'New Comet', and 'Naomi Glow'. The fact that R. 'New Comet' featured in both these classes, despite a note in the schedule stating that different hybrids must be entered, evidently escaped the attention of the judges. The second prize was won by Exbury, with an entry from G. A. Hardy gaining third. The single entry in *Class 63* showed signs of damage caused by the frost of the previous week, but was awarded a second prize for Edmund de Rothschild.

Class 64 attracted the largest number of competitors in the show; there were twenty-one entries in this class. The first prize, the Loder Challenge Cup, was awarded to G. A. Hardy for a superb truss of R. 'Idealist'. The large leaved R. 'Fortune', a good yellow hybrid, won second place for Edmund de Rothschild. Mrs. Kleinwort was third with R. 'Crest', and a truss of R. 'Red Glow' took fourth prize for Mrs. Hooton.

The foliage of R. 'St. Tudy' was almost completely obscured by the wealth of flowers on the branch; this won *Class 65* for Exbury. The second prize, for a spray of R. 'Ightham Yellow' was won by Lady Adam Gordon, whilst G. A. Hardy's R. 'Idealist' took the third prize; there were six entries in this class.

The Crosfield Challenge Cup, in *Class 66*, for 'Six hybrids raised by or in the garden of the exhibitor', was awarded to Swansea City Council for a group of plants raised by Admiral Walker-Heneage-Vivian at Clyne Castle. Edmund de Rothschild whose Exbury hybrids were awarded this cup in 1988, gained second place, whilst the third prize went to Lady Adam Gordon, for a display of Mangles rhododendrons raised at Littleworth.

Exbury was the only exhibitor in *Class 67* and gained the first prize with an entry consisting of R. 'Trianon' and two unnamed hybrids, R. 'Idealist' × R. 'Lady Bessborough' and *R. decorum* × R. 'Hotei'. In *Class 68*, Swansea City Council took first and second prizes with unnamed crosses made by the Admiral. The third prize went to Mrs. Hooton with a specimen of R. 'Boddaertianum'. Paddock Farm also yielded a first prize for Mrs. Hooton in *Class 69* R. 'Loderi' grex (which attracted seven other entries), with a truss of the variety 'Venus'. John Fox was second with R. 'Loderi' var. 'King George' and Edmund de Rothschild was third with var. 'Pink Diamond'.

Lady Adam Gordon won *Class 70* with a truss of R. 'Beauty of Littleworth' which was raised in her garden, the same hybrid shown from Exbury gained a second prize, whilst John Fox was third with R. 'Lamellen'. The only entry in *Class 71*, R. 'Yvonne' exhibited by Edmund de Rothschild, was given a first prize. There were five entries in *Class 72*, Lady Adam Gordon took the first with R. 'Psyche', High Beeches were second with R. 'Humming Bird' and Exbury was third with a spray of R. 'Bow Bells'. *Class 73* had seven entrants, Mrs.Hooton won with a truss of R. 'China', R. 'Hullaballoo' won second prize for High Beeches. B. E. Wright took third with R. 'Susan' and a fourth prize was given to John Fox for a truss of R. 'Babylon'. *Class 74* attracted six entries; this too was won by Mrs. Hooton, showing a truss of R. 'Carita Inchmery'. She also took second prize with R. 'Penjerrick'. Lady Adam Gordon won the third with R. 'Idealist'. *Class 75* was won by John Fox for R. 'W.F.H.', R. 'David' took second and third prizes for Mrs. Hooton and Edmund de Rothschild. There were six entries in *Class 76*. High Beeches won with a truss of R. 'Rosy Dawn', Mr. Gilbert was second and Mrs. Hooton took the third prize.

In *Class 77*, four of the five exhibits featured R. 'Queen of Hearts', but it was R.

'Roza Stevenson' shown by B. E. Wright which won the first prize. The second prize went to Mrs. Kleinwort and the third prize to Mrs. Hooton. First and second prizes in *Class 78* went to Swansea for their crosses *R. hodgsonii* × *R. grande*, and *R. niveum* × *R. falconeri*. Edmund de Rothschild was third and the entry from High Beeches was Highly Commended. There were six entries in this class.

R. 'Matador' won first and second prizes in *Class 79* for Mrs. Hooton and Mrs. Kleinwort respectively, whilst Swansea took the third prize. R. 'Glamour', the single entry in *Class 80*, won the first prize for Exbury. Edmund de Rothschild also won a first prize in *Class 81* with the beautiful yellow R. 'Lionel's Triumph'; the other two entrants in this class, Mrs. Hooton and Lady Adam Gordon, received second and third places.

Although there were three entries in *Class 82* for R. 'Elizabeth', only two prizes were awarded. The first prize went to Mrs. Hooton and the second to Exbury. The only entrant in *Class 83* was Exbury who were awarded the first prize. *Class 84* was won by Mrs. Kleinwort showing a truss of R. 'Seven Stars'. Second prize went to Mrs. Hooton with R. 'Shrimp Girl' and the third was awarded to Exbury. Their entry in *Class 85*, a superb spray of R. 'Biskra', won the first prize. Second was awarded to High Beeches for a spray of *R. cinnabarinum* × *R. xanthocodon*, whilst the third prize was awarded to Lady Adam Gordon for another spray of R. 'Biskra'. *Class 86* failed to attract any entries. R. 'Fragrantissimum' was the only exhibit in *Class 87*, and won a first prize for Swansea. There was only one entry each in *Classes 88* and *89*. These were sprays of R. 'St. Tudy' and R. 'Biskra', both won first prizes for Edmund de Rothschild. There were no entries in *Class 90.*

Class 91 for R. 'Yellowhammer' had two entrants; the exhibit from Exbury took first prize and the second went to Mr. Gilbert. *Class 92* also failed to attract any entries. There were three entries in *Class 93*, the first prize went to High Beeches for a cross between *R. irroratum* and R. 'Loderi'. The second prize went to Lady Adam Gordon for a specimen of R. 'The Queen Mother' and the third prize went to Edmund de Rothschild for a truss of R. 'Gibraltar'. There were no entries in *Class 94*. Mrs. Kleinwort won *Class 95* with a truss of R. 'Mrs G. W. Leak', the other entry in this class R. 'Odee Wright' was given a second prize for Edmund de Rothschild. R. 'Odee Wright', again exhibited by Exbury, was the only entry in *Class 96* and was given a second prize. *Class 97*, the last in this section, failed to attract any entries.

MISCELLANEOUS

Class 100 'Any species of evergreen azalea' attracted only one entry, this was exhibited by Exbury and was a spray of R. 'Amoenum', which was awarded second prize. The botanical status of this plant has varied over the years, regarded by some as a variety of *R. obtusum* and by others as part of a hybrid swarm based around that species. The same plant exhibited in *Class 101* by

Swansea was declared 'Not As Schedule' this year but won the same class in 1988. I understand that the latest thought on the subject is that it should be regarded as a hybrid and that the judges will treat it as such in the future. The other four exhibits in *Class 101* ('Any hybrid evergreen azalea') were all awarded prizes. The first prize went to Lady Adam Gordon for a spray of the white hose-in-hose azalea R. 'Kure-no-yuki', the second went to Edmund de Rothschild for R. 'Irorayama', whilst Mrs. Potter took third and fourth prizes with R. 'Hinodegiri' and R. 'Eddy'.

Class 102 had four entrants. The first prize was awarded to Exbury showing sprays of R. 'Addy Wery', R. 'Jeanette' and R. 'Kure-no-yuki', no second prize was given, but the entry from Dr. and Mrs. Dayton took the third. Interestingly, the two specimens exhibited as R. 'Kure-no-yuki' differed considerably. The spray shown by Lady Adam Gordon had no stamens in the flowers whilst the Rothschild plant did have stamens. One of the plants also was a slightly creamier colour than the other. Perhaps one of them was R. 'Shin-Seikai'. *Classes 103* and *104* had no entrants. *Class 105*, the last competitive exhibit in the show, wanting two leaves each from six Rhododendrons was won by a display from Clyne Gardens, the other exhibit, from Exbury, was placed second.

Notwithstanding the extraordinary weather conditions, the number of exhibitors was up on recent years, and despite the few obvious empty classes, the show was enjoyed by visitors and exhibitors alike.

The Camellia & Magnolia Shows 1989

WALTER MAGOR

THE EARLY CAMELLIA COMPETITION

14-16 March, 1989

After an exceptionally mild winter gardens in the south of England were further forward than usual by the middle of March, and there was a good display of camellia blooms, mostly grown under glass. Exhibitors who grow their camellias in the open tend to keep their exhibits for the April competition, feeling that in March they cannot compete with blooms grown under glass. This year, how wrong they were! On my return to Cornwall, within two days of the show, I visited two gardens near the south coast where I saw blooms on camellias growing in the open which, in my opinion, would have won their classes at the show, in competition with those grown under glass, in particular 'Mrs R. L. Wheeler'and 'Captain Rawes'.

DIVISION I: SPRAYS

There were some rough nights over the weekend before the show, which may account for the very few exhibits in the spray classes. In fact, apart from the hardier × *williamsii* hybrids, only two *japonica* sprays and one *reticulata* hybrid were shown in the eleven classes for which they were eligible.

Class 2: Camellia 'Robert Strauss' was the only exhibit in this class for a semi-double *japonica*, and it received first prize for Stonehurst, where it had originated.

Class 3: a slightly blemished C. 'Elegans' was the only exhibit for an anemone- or peony-formed *japonica*, and this was awarded third prize for Mrs. Kleinwort at Heaselands.

Class 7: for a spray of reticulata or one of its hybrids had one exhibit, a nice spray of 'Inspiration' shown by Mr. D. Robertson from Bracknell, which received third prize. One leaf had slight scale damage, and if the exhibitor had removed this leaf, it might have received first prize.

Class 12: for a single-flowered cultivar of C. x williamsii contained two exhibits. St. Ewe won Mr. Robertson second prize. The other entry, labelled 'J. C. Williams', was probably 'Bow Bells' a *saluenensis* seedling, which is not a × *williamsii*; it was dropping, and did not receive an award.

Class 13: the single entry for a semi-double × *williamsii* was 'Cheapside' (*saluenensis* × *japonica* 'Gloire de Nantes') from Mr. R. F. Winter of Ascot, which received first prize and was put up to the committee, where it was selected for trial at Wisley.

Class 14: for any peony-, rose-formed or formal double × *williamsii* had three exhibits. 'Debbie' from Mr. Ridgeway, who lives at Harrow, received first prize. 'E. G. Waterhouse' from Mr. Robertson was given third prize. A semi-double 'Donation' from Dr. & Mrs. Dayton from West Humble near Dorking was 'Not According to Schedule'.

Class 15: for any hybrid or species not eligible for the previous classes had two exhibits. Dr. & Mrs. Dayton showed a *japonica* cultivar, which was N.A.S. Mrs. Assinder from Putney showed 'Cornish Spring', but only received third prize, as it showed signs of scale damage (which could have been removed).

DIVISION II: BLOOMS

SECTION A

Cultivars of Camellia japonica

Class 16: for any 3 single-flowered cultivars had three exhibits. Mr. Winter won first prize with 'Hatsu-Zakura', 'Jennifer Turnbull' and 'Rogetsu'. His Grace the Duke of Devonshire was second with 'Alba Simplex', 'Jupiter' and 'Sieboldii' from Chatsworth, and Stonehurst were third with 'Evelyn', 'Furo-An' and 'Mattie Cole'.

Class 17: for any single-flowered white cultivar also had only three exhibits. Chatsworth won with 'Alba Simplex'. Mr. Winter was second with 'Rogetsu', and Mrs. Assinder third with another 'Alba Simplex'.

Class 18: for any single-flowered self-coloured cultivar had five exhibits. Chatsworth won with 'Jupiter'; Mr. Winter was second with 'Jennifer Turnbull' and third with 'Daitairin' (syn. 'Hatsu-Zakura'). The other entries were a 'Sylva' and an 'Evelyn'.

Class 19: for any single-flowered variegated cultivar had two exhibits. 'Clarissa' from Stonehurst was first, with 'Sieboldii' from Chatsworth second.

Class 20: for any three semi-double cultivars had four exhibits. Chatsworth were first with 'Dr. Tinsley', 'Sode-Gakushi' and a bloom labelled 'Guilio Nuccio Var', though it was difficult to see any variegation. Chatsworth were also second with 'Drama Girl', 'Mrs. D. W. Davis' and 'Mars'. Stonehurst were third with 'Lotus', 'Robert Strauss' and 'Wildfire'.

Class 21: for any semi-double white cultivar had three exhibits. Stonehurst won with 'Mrs. de Bisschop'. Chatsworth were second and third with 'Sode-Gakushi' and 'Lotus' respectively.

Class 22: for any semi-double self-coloured cultivar had six exhibits. Chatsworth were first and second with 'Guilio Nuccio' and an unnamed cultivar not obviously semi-double. Stonehurst were third with 'Wildfire'.

Class 23: for any semi-double variegated cultivar also had six exhibits. Mrs. Kleinwort won with 'Donckelarii'. Dr. & Mrs. Dayton were second and third with two unnamed cultivars. The 'Latifolia' from Chatsworth was N.A.S. as it was not variegated.

Class 24: for any three anemone- or peony-formed cultivars had two exhibits, and Mr. John Tooby won with 'Anemonaeflora', 'Blaze of Glory' and 'Elegans'. Chatsworth were second with 'Elegans', 'Marguerite Guillon' and 'Powder Puff'.

Class 25: for any anemone- or peony-formed white cultivar attracted only one exhibit, and Chatsworth won first prize for 'Powder Puff'.

Class 26: for any anemone- or peony-formed self-coloured cultivar had seven exhibits, and was won by Mr. Tooby with 'Elegans'. 'Preston Rose' from Stonehurst was second and 'Elegans' from Chatsworth third.

Class 27: for any anemone- or peony-formed variegated cultivar had only one exhibit, and 'Marguerite Guillon' from Chatsworth gained second prize.

Class 28: for any three rose-formed or formal double cultivars had two exhibits. Chatsworth were first with 'Alba Plena', 'Margaret David' and 'Mathotiana Rubra'. Stonehurst were second with 'Cardinal Var', 'Duchesse de Caze' and 'Rubescens Major'.

Class 29: for any rose-formed or formal double white cultivar had three exhibits, and was won by 'Alba Plena' from Chatsworth. 'Masterpiece' from Stonehurst was second, and third prize went to Mrs. Waterlow from Chelsea for 'Commander Mulroy'.

Class 30: for any rose-formed or formal double self-coloured cultivar had nine exhibits. Chatsworth were first and second with 'Grand Sultan' and 'Mathotiana Rubra'; Stonehurst were third with 'Rubescens Major', and Mr. Ridgeway from Harrow was fourth with 'Joseph Pfingstl'.

Class 31: for any rose-formed or formal double variegated cultivar had three exhibits. 'Contessa Lavinia Maggi' won first prize for Chatsworth, and second prize for Stonehurst. Third prize went to 'Principessa Clothilde' shown by Mr. E. D. Wearn.

Class 32: for any six cultivars of C. japonica had three exhibits. Stonehurst won with 'Drama Girl', 'Duchesse de Caze', 'Faith', 'Furo-An', 'Robert Strauss' and 'Wildfire'. Mrs. Assinder was second with 'Adeline Patti', 'Bob Hope', 'Bob's Tinsie', 'Brushfield Yellow', 'Lady Clare' and 'Tomorrow Parkhill'. Chatsworth were third with 'Elegans', 'Latifolia', 'Mathotiana Rubra', 'Mrs. D. W. Davis', 'Peach Blossom' and 'Sieboldii'.

Class 33: for any three cultivars of C. japonica had only two exhibits, and was won by Stonehurst with 'Blackburniana', 'Clarissa' and 'Mathotiana Supreme'. Heaselands were second with 'Dr. Tinsley', 'Elegans' and 'Flowerwood'.

Class 34: for any cultivar, one bloom, shown by an exhibitor who has not won a prize at any RHS Camellia Competition since 1985 is usually referred to as the 'Beginners Class', so it was nice to see it won by that modest man the President Emeritus of the International Camellia Society, who explained afterwards that, due to the exigencies of his recent office, he has not been showing for several years, and that in any case he is showing from a new garden: the winning exhibit was called 'Mrs. Martin Cachet'. This year this class was something of a booby trap, as the conditions were printed at the top of page 54 of the schedule, but at the bottom of the previous page it was shown that classes 32-34 were for mixed types of *C. japonica*. The other four entries, three × *williamsii* and one *reticulata* hybrid were therefore 'Not According to Schedule'.

SECTION B

Class 35: for any three hybrids had three entries, and was won by Stonehurst with 'Daintiness', 'Debbie' and 'Julia Hamiter'. Chatsworth were second with 'Debbie', 'Donation' and 'Julia Hamiter'. The third exhibit, from Mrs. Assinder, showing 'Brigadoon', 'Gaytime' and 'Margaret Waterhouse', was declared N.A.S., and it was not clear why, as these are all × *williamsii* hybrids.

Class 36: for any three reticulata had only one entry, which won first prize for Stonehurst, showing 'Fortyniner','Milo Rowell' and 'Nuccio's Ruby'.

Class 37: for any three reticulata hybrids, of which one parent is × *williamsii or saluenensis* also had only one entry, which won first prize for Chatsworth, showing 'Francie L', 'Leonard Messel' and 'Valley Knudsen'.

Class 38: for any reticulata hybrid of which one parent is × *williamsii or saluenensis* had two exhibits. Chatsworth won with 'Francie L' and Mr. Robertson was second with 'Inspiration'.

Class 39: for any single-flowered reticulata had only one entry, the Wild Form, which won first prize for Chatsworth.

Class 40: for any semi-double reticulata, other than those eligible for class 38 had three exhibits. Mr. Tooby won with 'Lasca Beauty'; Chatsworth were second with 'Captain Rawes', and Mrs. Waterlow's 'Francie L' was N.A.S.

Class 41: for any reticulata not eligible for the last three classes had no exhibits.

Class 42: for any three × *williamsii* had four exhibits. Stonehurst won with 'Anticipation', 'Debbie' and 'Donation'; Chatsworth were second with the same three; Heaselands were third with 'Anticipation', 'St. Ewe' and 'Innovation' (which is a *reticulata* hybrid and should have been disqualified), and Mrs. Assinder was fourth with 'Brigadoon', 'Margaret Waterhouse' and 'Tristrem Carlyon'.

Class 43: for any semi-double × *williamsii* had four exhibits, and was won by 'Brigadoon' shown by Mrs. Assinder; Heaselands were second with 'Donation', and Stonehurst third with 'Daintiness'.

Class 44: for any peony- or anemone-formed × *williamsii* had ten entries. Chatsworth won with 'Ballet Queen Var'; Mr. Ridgeway was second with 'Anticipation'. Chatsworth were also third and fourth with 'Jury's Yellow' and 'Debbie' respectively.

Class 45: for any hybrid other than reticulata or × *williamsii*, had one exhibit, 'Mary Phoebe Taylor', a *saluenensis* seedling, which won for Chatsworth.

SECTION C

Class 46: for any yellow species or hybrid had three entries. All showed 'Jury's Yellow', Chatsworth winning first prize, Mr. Ridgeway second, and Mrs. Waterlow third.

THE MAGNOLIA COMPETITION
14-15 March, 1989

The Magnolia Competition this year was a disappointment, due perhaps to the very early season and some cold nights just before the show.

Class 1: for a vase of any magnolia in bloom of the species kobus, salicifolia, stellata, or their hybrids had two exhibits of 'Leonard Messel'. Mr. Potter's won first prize; Mr. Holman from Chyverton was given a third.

Class 2: for a vase of any other magnolia had one exhibit, a *M. cylindrica* from Chyverton.

Class 3: for three distinct magnolias, one bloom of each had one exhibit, for which Mr.Holman received a first prize, consisting of *M. sargentiana robusta, sprengeri* and a not very white *campbellii alba.*

THE MAIN CAMELLIA COMPETITION
11-12 April, 1989

After the unusually mild weather from December to March, a welcome spell of rather colder weather in mid-March had brought about a check on further bud opening, so there was a reasonable display of camellias grown in the open at the Main Camellia Competition.

The RHS administration had still not appointed a steward to replace the late Mr. George Ayling, who had died in January, so once again there was no steward to whom exhibitors could refer when staging. One of the judges, however, did step into the breach, so there were not quite as many exhibits 'Not According to Schedule', as might have been expected.

A disparity between the schedule and the entry forms in the numbering of classes 53 to 72 caused some confusion, and the judges had to renumber some of the classes to allow for the 6 blooms of × *williamsii*, and for the semi-double × *williamsii* other than 'Donation', included in the entry form but not in the schedule or on the benches.

DIVISION I: SPRAYS FROM THE OPEN

Support for these 16 classes was slightly better than it had been for the Spray classes at the Early Competition a month earlier, but there were only seven exhibitors.

Class 1: There were no exhibits in the class for any six sprays.

Class 2: for any three sprays Mrs. Griffiths from Thames Ditton received first prize for the only entry, consisting of 'Debbie', 'Grand Slam' and 'Magnoliaeflora'.

Class 3: for sprays of any three cultivars of C. japonica second prize was awarded to an exhibit consisting of 'Contessa Lavinia Maggi', 'Grand Slam' and a cultivar labelled 'Berenese Boddy', which was the only exhibit.

Class 4: For a spray of any single-flowered cultivar of C. japonica. There were no entries.

Class 5: for a spray of any semi-double cultivar of C. japonica. Mrs. Assinder from Putney received first prize for 'Adolphe Audusson'. Lady Wood from Holland Park also had an entry in this class, but it did not receive an award.

Class 6: for a spray of any anemone- or peony-formed cultivar of C. japonica had one exhibit, Mrs. Griffiths' spray of 'Elegans', which showed signs of virus infection, but received first prize.

Classes 7 and 8: for a rose-formed or formal double, and for a small flowered cultivar of C. japonica. There were no entries.

Class 9: for a spray of reticulata Mrs. Griffiths received second prize for 'Dr. Clifford Parks', the only entry.

Classes 10 and 11: for sprays of C. saluenensis and of a single cultivar of C. × williamsii. No entries.

Class 12: for 'Donation'. Two entries. Mrs. Potter from Wentworth received first prize for a very large spray, and Mrs. Griffiths was given second prize for a smaller one.

There was no *class 13* in the schedule, but the entry form provided the usual class for any semi-double × *williamsii* other than 'Donation', but there were no exhibits.

Class 14: for any × williamsii cultivar other than a single or semi-double had one entry, 'Anticipation' from Mr. J. W. M. Graham of Par in Cornwall. This was awarded first prize, in spite of two flower heads having fallen, and another being considerably weathered.

Class 15: for any other hybrid of C. saluenensis. 'Inspiration' was shown by Mr. Robertson from Bracknell, but this did not receive an award.

Class 16: for a spray of any species or hybrid not eligible for the previous classes (e.g. *C. cuspidata* or its hybrids) had no entries.

There was no provision for *classes 17-24*, either in the schedule or the entry form.

DIVISION II: BLOOMS FROM THE OPEN

Class 25: for any twelve blooms was far and away the best class in the show, for which the Leonardslee Bowl is awarded. This attracted nine entries, a very level class which took the judges nearly half an hour to judge. First prize went to Mrs. Christopher Petherick, showing for the first time in London from the late Mr.Maurice Petherick's collection at Porthpean on the south coast of Cornwall near St. Austell, a great triumph for Tony who had staged the exhibit. This consisted of 'Anticipation', 'Captain Rawes', 'Coral Pink Lotus', 'Dear Jenny', 'Elsie Jury', 'Joshua E. Youtz', 'Julia Hamiter', 'Royalty', 'Te Deum', 'Tiffany', 'Tomorrow' and 'Water Lily'. Not considered quite good enough for this exhibit, a beautiful bloom of Augusto L'Gouveia Pinto from Porthpean was included in the International Camellia Society's (non-competitive) display, where it excited considerable admiration. Mrs. Hooton from Loxwood in Surrey was second with an almost equally good exhibit, consisting of 'Anticipation', 'Berenice Boddy',

'Bridal Queen', 'Brigadoon', 'Dr. Louis Pollizzi', 'Elegant Beauty', 'Francie L.', 'Grand Prix', 'Leonard Messel', 'Miss Charleston', 'Sergeant Barrios' and 'Royalty'. Third was Mrs. Assinder with 'Adelina Patti', 'Adolphe Audusson', 'Bob Hope', 'Bob's Tinsie', 'Carter's Sunburst', 'Contessa Lavinia Maggi', 'Dr. Clifford Parks', 'Lady Clare', 'Lady de Saumarez', 'Margaret Waterhouse', 'Tristrem Carlyon' and 'Wilber Foss'. Fourth Prize was awarded to Mr. R. F. Winter from Ascot, who showed 'Breschini's Pride', 'Carter's Sunburst', 'Donation', 'Gertrude Preston', 'Jean Lyne', 'Jennifer Turnbull', 'Leonard Messel', 'Marie Bracey', 'Mathotiana', 'R. L. Wheeler', 'Souvenir de Bahuaud Litou' and 'White Peony'. Other exhibitors in this class included Mrs. Potter with an outstanding 'Mrs. D. W. Davis'; Mr.Graham with fine blooms of 'William Hertrich' and 'Tiffany'; Mrs. Griffiths with a fine 'Eximia'.

SECTION A: SUB-SECTION 1:

Single Cultivars of Camellia japonica

Class 26: for any three single-flowered cultivars had five entries, and was won by Mr. Graham with 'Charlotte de Rothschild', 'Jupiter' and his 'Will's Path', which previously attracted the attention of the International Registrar because it was not registered. Second were Stonehurst with 'Furo-An', 'Mattie Cole' and 'Rogetsu'. Third and fourth prizes went to Mr. Winter, with respectively 'Apple Blossom', 'Gertrude Preston' and 'Rogetsu', and 'Daitairin', 'Jennifer Turnbull' and 'Jupiter'. Mrs. Potter was responsible for the other entry, showing 'Gertrude Preston', 'Jennifer Turnbull' and 'Jupiter'.

Class 27: for any single-flowered white cultivar had four entries and was won by Lady Wood from Holland Park with 'White Swan'. Third and Fourth prizes went to 'Rogetsu', shown respectively by Stonehurst and Mr. Winter. No second prize was awarded.

Class 28: for any single-flowered self-coloured cultivar had five entries. 'Jupiter' was first and third, shown respectively by Mrs. Potter and Mr. Winter. Second prize went to Mrs. Hooton for 'Donckelarii Splendens'.

Class 29: for any single-flowered variegated cultivar attracted only one entry, and Stonehurst received first prize for 'Clarissa'.

SUB-SECTION 2

Semi-Double Cultivars of Camellia japonica

Class 30: for any three semi-double cultivars contained four exhibits, and was won by Stonehurst with 'Adolphe Audusson', 'Guilio Nuccio' and 'Lady Clare'. Second prize went to Mrs. Hooton for 'Berenice Boddy', 'Haku-Rakuten' and 'Sergeant Barrios'. Third prize was awarded to Mrs. Potter for 'Adolphe Audusson', 'Haku-Rakuten' and 'Lady Clare'. The other entry was from Mr. Winter.

Class 31: for any semi-double white cultivar had only one entry and second prize went to Stonehurst for 'Silver Anniversary'.

Class 32: for any semi-double self-coloured cultivar had nine entries, and first prize went to Mrs. Potter's 'Adolphe Audusson'. Mrs. Assinder had three entries, and second prize went to her 'Bob Hope'. Third Prize to Mr. Winter for 'Breschini's Pride'; and fourth to Mrs. Griffiths for another 'Adolphe Audusson'.

Class 33: for any semi-double variegated cultivar had six entries. First prize went to Lady Wood for 'Lady Vansittart'. Second prize to Paulton Square Garden Association, for 'Yours Truly'. Third prize to Mrs. Griffiths for an unknown cultivar.

SUB-SECTION 3

Anemone- and Peony-formed Cultivars of Camellia japonica

Class 34: for any three anemone- and/or peony-formed cultivars had no entries.

Class 35: for any anemone- or peony-formed white cultivar had only one entry, 'White Peony', for which Mr. Winter was awarded first prize.

Class 36: for any anemone- or peony-formed self-coloured cultivar had six entries, and was won by Mrs. Hooton with 'Miss Charleston'. Second prize went to Mrs. Assinder for 'Bob's Tinsie'; and third prize to Mr. Graham for 'R. L. Wheeler'.

Class 37: for any anemone- or peony-formed variegated cultivar had two entries. 'R. L. Wheeler' was shown both by Mrs. Potter and Mr. Winter, but no award was made.

SUB-SECTION 4

Rose-formed and Formal Double Cultivars of Camellia japonica

Class 38: for any three rose-formed and/or formal double cultivars had two entries, and was won by Stonehurst, showing 'Rubescens Major', 'Coquetti' and 'Duchess de Caze'. Second was Mrs. Waterlow from Paulton Square, with 'Commander Mulroy', 'Contessa Lavinia Maggi' and 'Name Unknown'.

Class 39: for any rose-formed or formal double white cultivar had only one entry, 'Mathotiana Alba' from Mr. Robertson, which had dropped, and no award was made.

Class 40: for any rose-formed or formal double self-coloured cultivar had four entries, and was won by Mrs.Maria Byk of Sulivan Road, SW6 with 'Ave Maria'. Second prize went to Mrs. Griffiths for 'Eximia'; and third prize to Paulton Square Garden Association for an unnamed cultivar. The fourth entry was Mr. Tooby's 'C. M. Hovey'.

Class 41: for any rose-formed or formal double variegated cultivar had five entries and was won by Mr. E. D. Wearn of Boston Manor with 'Principessa Clothilde'. The other four entries were of 'Contessa Lavinia Maggi', of which the largest had been shown by Mrs. Assinder and received second prize.

SUB-SECTION 5

Mixed Types of Camellia japonica

Class 42: for any six cultivars had four entries, and was won by Stonehurst with 'Adolphe Audusson', 'Apollo', 'Ballet Dancer', 'Flowerwood', 'Guilio Nuccio' and 'Lady Clare'. Second prize to Mr. Winter for 'Breschini's Pride', 'Carter's Sunburst', 'Guilio Nuccio', 'Mathotiana', 'R. L. Wheeler' and 'White Peony'. Third prize to Mrs.Hooton, for 'Australis', 'Berenice Boddy', 'Donckelarii', 'Grand Prix', 'Haku Rakuten' and 'Miss Charleston'. Mrs. Potter received fourth prize for an exhibit which included 'Haku-Rakuten', 'Jupiter', 'Morning Glory', 'R. L. Wheeler' and 'Souvenier de Bahuaud Litou'.

Class 43: for any three cultivars, open only to those who had not won a prize in this competition in the last three years had only one entry, Mrs. Assinder who received first prize for 'Dobrei', 'Guilio Nuccio' and 'Konron-Koku'.

Class 44: for one bloom of any cultivar shown by someone who had not won a prize in this competition in the last three years had no entry.

DIVISION III

Miscellaneous

Class 45: for any three, other than cultivars of C. japonica had three exhibits. First prize went to Mrs.Hooton for 'Anticipation','Elegant Beauty' and 'Francie L'. Mrs. Griffiths was awarded second prize for 'Anticipation','Debbie' and 'Dr. Clifford Parks' and Mr. Tooby third prize for 'Betty Ridley', 'Bridal Gown' and 'The Red Baron'.

Class 46: for any three cultivars of C. reticulata other than those descended from C. saluenensis had only one entry, from Mrs. Hooton, who showed 'Francie L', 'Inspiration' and 'Leonard Messel', all of which have *C. saluenensis* in their parentage. The exhibit was therefore N.A.S.

Class 47: for a bloom of a single-flowered reticulata had no entries.

Class 48: was won by Mrs. Hooton for a bloom of a semi-double *reticulata* with 'Francie L', the only entry.

Class 49: for a bloom of an anemone- or peony-formed cultivar of C. reticulata had two entries. Mrs. Griffiths was awarded first prize for 'Dr. Clifford Parks', and Mrs. Hooton received second prize for 'Leonard Messel'.

Class 50: for a bloom of a rose-formed or formal double cultivar of C. reticulata had no entries.

Class 51: for any reticulata hybrid with saluenensis had two entries from Mr. Robertson. 'Francie L' was awarded first prize and 'Inspiration' second prize.

Class 52: for any three hybrids between C. reticulata and saluenensis had no entries.

(For the next 20 classes, the numbering on the entry form is used, the schedule number following in brackets, where there is a disparity).

Class 53: for one bloom of six × williamsii hybrids had two entries. Mrs. Hooton won with 'Anticipation', 'Brigadoon', 'Elsie Jury', 'Freedom Bell', 'Jenefer Carlyon' and 'Rose Parade'. Mr. Holman from Chyverton in Cornwall was second with 'Anticipation', 'Citation', 'Crinkles', 'Debbie', 'Elsie Jury' and 'Philippa Forwood'.

Class 54: for any three × williamsii hybrids had three entries and was won by Mrs. Hooton showing 'Anticipation', 'Daintiness' and 'Elegant Beauty'. Mr. Graham was second with 'Anticipation', 'Debbie' and 'Elsie Jury'; and Mr. Tooby third with 'Bridal Gown', 'Debbie' and 'Julia Hamiter'.

Class 55: for a bloom of any single-flowered × williamsii attracted only one exhibit, 'Rose Bowl', for which Mr. Tooby received first prize.

Class 56: for a bloom of 'Donation' had two entries, rather different in colour. Mrs. Griffiths' received first prize, and Mrs. Hooton's second.

Class 57: for a bloom of a semi-double × williamsii, other than 'Donation' had two entries, both from Mrs. Assinder, who was awarded first prize for 'Margaret Waterhouse', and second prize for 'Brigadoon'.

Class 58 (57): for a bloom of any anemone- or peony-formed × williamsii had four entries. Stonehurst were first with 'Debbie', and Mrs. Hooton second with 'Rose Parade'.

Class 59 (58): for any rose-formed or formal double × williamsii was won by 'E. G. Waterhouse', shown by Mr. Robertson, the only entry.

Class 60 (59): for a bloom of C. saluenensis had one entry, from Mr. Winter.

Class 61 (60): for a yellow species or hybrid had no entries.

Class 62 (61): for any species or hybrid not specified above had one entry, C. 'Cornish Snow', from Mrs. Assinder.

DIVISION IV

Restricted to Plants Grown Under Glass or Other Protection

This was where Stonehurst came into its own, though it would have been nice to have seen some entries from Chatsworth also.

Class 63 (62): for any three single-flowered cultivars of C. japonica grown under glass had only one entry, and Stonehurst received first prize showing 'Furo-An', 'Mattie Cole' and 'Rogetsu'.

Class 64 (63): for any three semi-double japonicas also had only one entry and was won by Stonehurst with 'Apollo', 'Coral Queen' and 'Wildfire'.

Class 65 (64): for any three anemone- or peony-formed japonicas had two entries and was won by Mr. Tooby, showing 'Anemonaeflora', 'Blaze of Glory' and 'Elegans'. Stonehurst were second with 'Ballet Dancer', 'Marguerite Guillon' and 'Touchdown',

Class 66 (65): for any three rose-formed or formal double japonicas had only one entry, from Stonehurst, showing 'Nuccio's Gem', 'Pink Pagoda' and 'Betty Ridley' which unfortunately was N.A.S.

Class 67 (66): for a single-flowered cultivar of C. japonica grown under glass had only one entry, 'Clarissa', for which Stonehurst received first prize.

Class 68 (67): for a semi-double cultivar of C. japonica had two entries. Stonehurst received first prize for 'Grand Prix', and Mr. Tooby second prize for 'Madame Victor de Bisschop'.

Class 69 (68): for an anemone- or peony-formed cultivar of C. japonica had three entries. Mr. Tooby was first and third respectively with 'Elegans' and 'Blaze of Glory', and Stonehurst were second with 'Touchdown'.

Class 70 (69): for a rose-formed or formal double cultivar of C. japonica had two entries. Stonehurst were first with 'Pink Pagoda', and Mr. Tooby second with 'Jubilation'.

Class 71 (70): for any three cultivars of C. reticulata had only one entry, consisting of 'Arch of Triumph', 'Valentine Day' and a rather weathered 'Howard Asper', for which Stonehurst received second prize.

Class 72 (71): for any cultivar of C. reticulata also had only one entry, 'Forty-niner', for which Stonehurst received first prize.

Book reviews

Rhododendrons of China, Vol. I, 170 pp., 194 colour photographs, 1988, ed. Feng Guomei (Science Press, Beijing/Batsford), £45 (£37.50 to members of the Group, plus postage £1.95).

Volume I deals with the native rhododendron species of Yunnan, the south western province of China, bordering Tibet and Burma. Volumes II and III are likely to cover the species that grow in neighbouring Xizang (Tibet) and in the five south-eastern provinces of China, including probably Hongkong and Taiwan. The Sleumer classification of the genus is followed, describing 51 taxa in subgenus Hymenanthes, 38 in subgenus Rhododendron, and one each in subgenera Anthodendron and Azaleastrum. The Edinburgh revision of species is not followed exactly, for instance, *R. arizelum* and *R. fictolacteum* are shown as separate species, and not as subspecies of *R. rex* (subspecies *rex* is not included,though it is recorded from Yunnan). The Himalayan *R. campylocarpum* is represented by subsp. *caloxanthum*, and *R. augustinii* by a white form of subsp. *chasmanthum*. Several varieties in subsection *irrorata* are treated as separate species, but retain the names given them at Edinburgh. The only unfamiliar name is *R. gratum*, so named at Kunming in 1980 by T. L. Ming, and this the Edinburgh classification treats as a synonym of *R. basilicum*, though the illustrations do not show the characteristic flattened winged petiole of that species.

After a table of contents listing the 91 taxa dealt with, there follow 8½ pages of text, with chapters on the geographical distribution of rhododendrons in the world, and in China, Chinese literary records, classification, botanical characteristics, ecological environments in Yunnan, and the economic uses of rhododendrons. This leads up to the main body of the work, 183 pages devoted to the 91 taxa, each consisting of a detailed description of the plant and its inflorescence, its distribution in Yunnan, and from one to five mainly excellent colour photographs of the inflorescence, and of the plant growing in the wild, often with a really beautiful mountain scenery background. In most cases there is also an outline map showing the locations where it grows.

This is a book to treasure.

W.M.

Yunnan Camellias of China, 189 pp., 174 colour plates, 1988 (Science Press, Beijing/Batsford), £45 (£37.50 to members of the Group, plus postage £1.95).

For 250 years camellias (*C. japonica* from Japan, Korea and eastern China) have been grown as ornamental shrubs in this country, until the present century chiefly as greenhouse plants. From 1917, *C. saluenensis* from western Yunnan has also been grown, and its crossing with *C. japonica* has produced a hardier race of camellias, known as *C.* × *williamsii*. Regarded as rather exotic, two other Chinese cultivars have been grown for many years in a few gardens,

which were recognized as belonging to a different species, *C. reticulata*. These were a carmine rose semi-double introduced from Canton in 1820 by the captain of an East India merchantman, Captain Rawes, and named after him: also, though less wellknown, a dark red formal double introduced some years afterwards by Robert Fortune as 'Flore Pleno', later described in 1848 by Sir William Hooker as 'Robert Fortune'. The species *C. reticulata* was found in the wild in Yunnan by Forrest in 1913, and it has been grown ever since as *C. reticulata* 'Wild Form', a single pink.

This species, endemic to Yunnan, has been cultivated throughout the province, and a number of large and very old plants exist in monastery and palace gardens, while the Kunming Botanical Garden has collected and catalogued the many cultivars that have arisen. A set of twelve of the best cultivars from Kunming was presented to the Crown Estate at Windsor in 1956 by the late Mr. Ralph Peer; these were described by Mr. Findlay in *The Rhododendron and Camellia Year Book - 1964.* Since then they have chiefly been known in this country as the 'Kunming Camellias', and a number of these have received awards from the RHS. A more detailed account of the Kunming cultivars is contained in Col. Tom Durrant's article at pp.70-80 of the *The Rhododendron and Camellia Year book - 1970* in which he lists twenty-two forms then known.

After chapters on the history of Yunnan camellia cultivation and on their botanical characteristics, the main feature of this beautiful book is 77 pages of coloured plates of 120 *R. reticulata* cultivars, single, semi-double and double forms under their Chinese phonetic alphabet names; keys to these are at Appendices III and IV, which give the name in Chinese characters, and the equivalent English name. 'Captain Rawes' is now 'Guixia' or 'Returning Cloud', and 'Robert Fortune' is 'Songzilin' or 'Pagoda'. These appendices unfortunately do not give the page numbers, but the International Registrar, Mr Tom Savige, most obligingly provided this key at pp. 115-8 of the 1987 *International Camellia Journal* (no. 19).

There follow chapters on the biological characteristics and environmental factors of Yunnan camellias, and on propagation, planting and care. Then, chapter 8 deals with 36 other camellia taxa grown in, but for the most part not endemic to, Yunnan, 19 of which are illustrated, including the yellow *C. chrysantha* and one other yellow species, *C. euphlebia*. The last chapter deals with the introduction and cultivation of *C. chrysantha*.

This is a book which is well worth having; it was previously published in Japanese, and subsequently in Chinese, but this English edition is very welcome though it has taken three years to get here. The editor of this English edition is Dr Bruce Bartholomew of the California Academy of Science, co-author with Professor Chang Hung-Ta of the Sunyatsen University in Canton of a monograph of the genus Camellia, which is now the standard work on the subject, and of which Batsford published an English edition in 1984.

W.M.

The photographic competition

The judges have had a very hard time of it this year, and they would like to thank the many members who submitted prints and slides. The prize has been split this year, as the two outstanding entries represented quite different aspects of the genus. The photograph of the old favourite Hardy Hybrid, Mrs. J. G. Millais, submitted by Mrs. B. Cooke, (of Cobham, Surrey) skilfully reveals the almost orchid-like character of the individual flowers against a dark background. Dr. George Hargreaves (of Alveston, Bristol) has chosen a spray of *R. schlippenbachii* from a plant in the garden of Chyverton to present the flowers of this fairy-like species which no woodland garden should be without. Congratulations to the winners: alas, only £5 each, but they must surely be happy to see their photographs in print. A pity that we have so few entries depicting leaves, indumentum or new growth even though flowers are what we all long to see. Perhaps there will be more next year? (See fig. 6 and back cover.)

Corrigenda: Rhododendron scales

The following amendments should be made to the captions below the illustrations of scales in *Rhododendrons 1988-9, with Magnolias and Camellias*, opposite p. 52.

Top left to right A. *tephropeplum* B. *zaleucum*
Centre left to right C. *campylogynum* D. *seaesiae*
Below left to right E. *glaucophyllum* F. *fastigiatum*

The consequent amendments to the text should be as follows:

Page 9 line 19, amend Fig. 1C to read Fig. 1F
Page 9 line 26, amend Fig. 1E to read Fig. 1C
Page 10 line 2, amend Fig. 1F to read Fig. 1E
Page 10 line 5, amend Fig. 1F to read Fig. 1E
Page 10 line 11, amend Fig. 1E to read Fig. 1C
Page 10 line 27, amend Fig. 1E to read Fig. 1C

Awards in London 1989

RHODODENDRONS

'Daviesii' (*molle* × *viscosum*) **AM** 21 May 1989, as a hardy flowering plant. A deciduous azalea. Trusses loose 7-10-flowered. Corolla 5-lobed, tubular funnel-shaped, up to 3.8 × 3.8 cm. White with orange-yellow blotch in upper throat, corolla tube with slight reddish flush becoming green towards base and densely covered with viscous glandular hairs. Stamens 8-10 held free. Filaments white. Anthers light orange-brown. Style greenish, held free. Calyx 5 deeply divided lobes, to 2 mm, green, glandular hairy. Crossed and raised by Isaac Davies, exhibited by Edmund de Rothschild, Exbury Gardens, Southampton, Hants.

'Fabia' (*dichroanthum* × *griersonianum*) **FCC** 21 May 1989, as a hardy flowering plant. Crossed (1927) and raised by Lord Aberconway, exhibited by the Crown Estate Commissioners, The Great Park, Windsor, Berks. See AM description in *RHSJ* LIX (1934), p.403.

'Lady in Waiting' ('Idealist' × 'Crest') **AM** 3 May 1989, as a hardy flowering plant. Trusses full, 11-12-flowered. Corolla 7-lobed, funnel-shaped, up to 4.5 cm long and 10 cm across. Creamy yellow, strongly flushed Orange Group 29B in bud, opening to Yellow Group C, with some orange flushing, most markedly on reverse of upper lobes, and slight red staining deep in upper throat. Stamens 14, irregular, or of equal length, held within. Anthers dark brown. Style green, glandular. Calyx green, 7 irregular lobes, to 8 mm. Leaves oblong-elliptic, up to 13.5 by 6 cm, dark matt green above, paler reverse. Free from indumentum. Crossed, raised and exhibited by the Crown Estate Commissioners, The Great Park, Windsor.

'Leo' ('Britannia' × *elliottii*) **FCC** 21 May 1989, as a hardy flowering plant. Crossed and raised by Lionel de Rothschild, exhibited by Edmund de Rothschild. See AM description in *RHSJ* LXXIV (1949), p. 173.

'Mrs Innes Hamilton' ('Champagne' × 'Albatross') **PC** 21 May 1989, as a hardy flowering plant. Trusses lax, 12-14-flowered. Corolla 7-lobed, tubular to open funnel shape, up to 55 mm long and 90 mm across, pure flesh-pink without any marking or staining. Filaments pink, anthers brown, style green, stigma maroon, calyx pink, to 11 mm long. Leaves elliptic, hairless, up to 15 by 6 cm. Crossed, raised and exhibited by Cdr. Innes Hamilton, Montfleury, Christchurch Road, Virginia Water, Surrey.

'Oxenden' (*souliei* × *calophytum*) **AM** 4 May 1988, as a hardy flowering plant. Trusses 10-11-flowered. Corolla 7-lobed, broadly campanulate, up to 7 cm long and 10.5 cm across. Buds Red-Purple Group 65A, opening to white, flushed red-purple Group 65D, with yellow-green blotch in throat; fragrant. Stamens 12-14, irregular, held within, filaments white, anthers brown. Calyx rudimentary to 3 mm, green-red. Leaves oblanceolate, up to 15 by 5 cm, mid-

green above, paler beneath, free from indumentum. Crossed, raised and exhibited by G. A. Hardy, Sandling Park, Hythe, Kent.

'Susannah Hurley' *(nuttallii × megacalyx)* **FCC** 4 May 1988, as a flowering plant for the cool greenhouse. Trusses 3-5-flowered. Corolla 5-lobed, tubular-campanulate, up to 8.5 cm long and 12.5 cm across, white suffused yellow deep in throat; reverse very slightly tinged pink; strongly fragrant. Stamens 10, irregular, held within, filaments yellow-green, anthers dark brown. Style of equal length or held free. Calyx 5-lobed, green, slightly scaly; up to 2.5 cm long. Leaves oblong-elliptic, up to 16 by 6 cm, mid-green with scattered scales above, densely scaly below. Crossed, raised and exhibited by G. A. Hardy.

Awards after trial at Wisley 1989

RHODODENDRONS

On the recommendation of the Rhododendron and Camellia Committee, Council has made the following awards to Rhododendrons, after trial at Wisley. The number in brackets after the description of the plant is that under which it was grown in the trial.

HARDY HYBRID RHODODENDRONS

'Red Carpet' (*America* × *forrestii* Repens group)) **FCC** 13 April 1989. Introduced by Messrs J. H. P. Holt and the late D. G. Hobbie; raised and sent by the late D. G. Hobbie. Plant 70 cm high, 180 cm spread, vigorous, slightly spreading habit; very free-flowering; leaves 5 by 2.5 cm, medium dark dull green. Flower truss 10 cm diameter, 7 cm deep, conical shaped, fairly lax, 3 flowers per truss; corolla 5 cm diameter, 4 cm long, widely funnel campanulate shaped, margin waved, a slightly glossy colour nearest to but paler and brighter than Red Group 46A. Little scent. Flowering from 3 April 1989. (AM 1983) (164).

'Arctic Tern' (*trichostomum* × unknown) **AM** 10 May 1989. Sent by P. A. Cox, Glendoick Gardens Ltd, Perth. Plant 120 cm high, 140 cm spread, vigorous, upright compact habit; free-flowering; leaves 3.5 cm long, 5 mm wide, light medium glossy green. Flower truss 3.5 cm diameter, 2.5 cm deep, globular shaped, very compact, 17 flowers per truss; corolla 1 cm diameter, 5 mm long, campanulate funnel-shaped, margins entire, white. Little scent. Flowering from 7 May, 1989. (HC 1983) (137).

'Bashful' *(yakushimanum × 'Doncaster')* **AM** 10 May 1989. Raised by John Waterer Sons & Crisp Ltd; introduced by the Waterer Group; sent by Waterers Nurseries, Bagshot, Surrey. Plant 90 cm high, 200 cm spread, vigorous, fairly upright habit; free-flowering; leaves 10 by 3 cm, medium dull green. Flower truss 13 cm diameter, 8 cm deep, globular shaped, fairly compact, 16 flowers per truss; corolla 6 cm diameter, 4.5 cm long, funnel-shaped, margins entire, very pale pink flushed from reverse with between Red Group 55B and Red

Group 55C at centre, upper petal speckled with between Greyed Orange Group 163B and Greyed Orange Group 163C. Very little scent. Flowering from 9 May 1989. (275).

'Carmen' (*sanguineum* ssp. *didymum* × *forrestii* (Repens group)) **AM** 10 May 1989. Raised and introduced by Exbury Gardens Ltd; sent by Hydon Nurseries Ltd, Hydon Heath, Godalming, Surrey. Plant 20 cm high, 50 cm spread, vigorous, spreading, very compact habit; free-flowering; leaves 3.3 by 1.7 cm, light medium glossy green. Flower truss 8 cm diameter, 6.5 cm deep, conical shaped, fairly lax, 3 flowers per truss; corolla 3.3 cm diameter, 3 cm long, openly funnel-shaped, margins entire, a waxy colour between Red Group 46A and Red Group 46B, very fine veining slightly deeper. Very little scent. Flowering from 1 May 1989.

'High Summer' ('Inamorata' × 'Mrs. J. G. Millais') **AM** 30 May 1989. Introduced by Millais Nurseries; raised and sent by E. G. Millais, Millais Nurseries, Crosswater Farm, Churt, Farnham, Surrey. Plant 130 cm high, 190 cm spread, vigorous, upright habit; free flowering; leaves 10 by 5 cm, medium dull green. flower truss diameter deep, dome-shaped, fairly lax, 12 flowers per truss; corolla 7 cm diameter, 4.5 cm long,openly funnel shaped, margins waved, nearest to but much paler than Yellow Group 2D, upper half of throat speckled with Yellow Group 10B. Little scent. Flowering from 29 May 1989. (208).

'Marion Street' ('Stanley Davies' × *yakushimanum*) **AM** 10 May 1989. Raised, introduced and sent by F. J. Street, Heathermead, West End, Woking, Surrey. Plant 120 cm high, 170 cm spread, vigorous, slightly spreading habit; free-flowering; leaves 10 by 4 cm, medium dark dull green. Flower truss 16 cm diameter, 9 cm deep, conical shaped, compact, 14 flowers per truss; corolla 6 cm diameter, 4.5 cm long, funnel-shaped, margins slightly waved, very pale pink tinged from reverse with a colour between Red Group 55B and Red Group 55C along midrib, speckled with Greyed Yellow Group 160B on upper petal into throat. No scent. Flowering from 5 May 1989. (263).

'Mountain Star' ('Stanley Davies' × *yakushimanum)* **AM** 10 May 1989. Raised, introduced and sent by F. J. Street. Described *RHS Proceedings*, CXI, p.141. Flowering from 5 May 1989. (HC 1986) (291).

'Patty Bee'. (*keiskei* 'Yaku Fairy' × *fletcherianum*) **AM** 13 April 1989. Raised by W. E. Berg, USA; sent by the Royal Horticultural Society, Wisley, Woking, Surrey. Plant 22 cm high, 50 cm spread, vigorous, spreading, fairly compact habit; free-flowering; leaves 4.5 by 2 cm, medium dark dull green. Flower truss 7 cm diameter, 5 cm deep, dome-shaped, compact, 5 flowers per truss; corolla 4.5 cm diameter, 2.5 cm long, openly funnel-shaped, margins waved, slightly paler than Yellow Group 4D. Little scent. Flowering from 3 April 1989.

'Rothenburg' ('Diane' × *williamsianum*) **AM** 30 March 1989. Raised by V. von Martin; sent by J. A. Fox, Holmwood House, Glenmore Road, Crowborough, Sussex. Described RHS Proceedings CXII, p. 153. Flowering from 26 March 1989. (HC 1987) (215).

'Scarlet Wonder' ('Essex Scarlet' × *forrestii* (Repens group)) **AM** 10 May 1989. Introduced by Messrs J. H. P. Holt and the late D. G. Hobbie; raised and

sent by the late D. G. Hobbie. Plant 100 cm high, 110 cm spread, vigorous, upright habit; free-flowering; leaves 7 by 4 cm wide, medium glossy green. Flower truss 12.5 cm diameter, 7.5 cm deep, globular shaped, fairly lax, 5 flowers per truss; corolla 6 cm diameter, 4.5 cm long, funnel campanulate shaped, margins frilled, Red Group 50B tinged with Red Group 50A becoming paler at throat, throat occasionally spotted with Red Group 50A. No scent. Flowering from 2 May 1989. (HC 1970) (161).

'The Honourable Jean Marie de Montague' *(griffithianum* hybrid) **AM** 10 May 1989. Raised by Messrs Van Ness; sent by Messrs W. Fromow & Sons, Windlesham Nurseries, Windlesham, Surrey. Plant 130 cm high, 210 cm spread, vigorous, spreading habit; free-flowering; leaves 12.5 by 5 cm, medium dark dull green. Flower truss 15 cm diameter, 9 cm deep, dome-shaped, fairly compact, 14 flowers per truss; corolla 8 cm diameter, 5.5 cm long, widely funnel campanulate shaped, margins waved, a colour between Red Group 53C and Red Froup 53D, upper half of throat spotted with Greyed Purple Group 187B. No scent. Flowering from 2 May 1989. (60).

'Vinestar' *(keiskei* × *racemosum)* **AM** 13 April 1989. Raised by R. R. Forster; introduced by the Horticultural Research Institute, Ontario; sent by Hydon Nurseries Ltd. Plant 24 cm high, 60 cm spread, vigorous, fairly compact habit; free-flowering; leaves 4 by 1.5 cm, dark dull green. Flower truss 7.5 cm diameter, 6 cm deep, dome-shaped, compact, 12 flowers per truss; corolla 4 cm diameter, 2 cm long, funnel-shaped, margins entire, white variously tinged with Red Group 55C and Red Group 55D from reverse of petal. Little scent. Flowering from 4 April 1989.

'Vintage Rose' (*yakushimanum* × ('Jalisco Eclipse' × 'Fusilier')) **AM** 10 May 1989. Raised by John Waterer Sons & Crisp Ltd; introduced by the Waterer Group; sent by Waterers Nurseries. Plant 100 cm high, 180 cm spread, vigorous, fairly upright habit; free-flowering; leaves 10 by 4.5 cm, medium dull green. Flower truss 13 cm diameter, 8 cm deep, conical shaped, slightly lax, 8 flowers per truss; corolla 6 cm diameter, 6 cm long, funnel-shaped, margins slightly waved, nearest to but paler than Red Group 56D, lower margins tinged with a colour paler than Red Group 55B, upper half of throat spotted with Red Group 42C, extreme base of throat Red Group 55A. No scent. Flowering from 6 May 1989. (HC 1979) (73).

EVERGREEN AZALEAS

'Titipu' ('Kirishima' × 'Malvatica') **AM** 10 May 1989. Raised by J. B. Stevenson; introduced and sent by Hydon Nurseries Ltd. Plant 110 cm high, 131 cm spread, vigorous, upright habit; free-flowering; leaves 2.5 by 1 cm, medium dark fairly glossy green. Flower truss 7 cm diameter, 4 cm deep, dome-shaped, compact, 5-10 flowers per truss; corolla 3 cm diameter, 2.5 cm long, tubular funnel-shaped, margins entire, Red-Purple Group 72C very lightly flushed with a colour between Red-Purple Group 72B and Red-Purple Group 72C, upper half of throat spotted with Red-Purple Group 61A. Little scent. Flowering from 21 April 1989. (135).

'Tit Willow' ('Kirishima' x 'Malvatica') **AM** 10 May 1989. Raised by J. B.

Stevenson; introduced and sent by Hydon Nurseries Ltd. Plant 66 cm high, 145 cm spread, vigorous, spreading habit; free-flowering; leaves 2 by 1 cm, light medium fairly glossy green. Flower truss 5 cm diameter, 3.5 cm deep, dome-shaped, compact, 4 flowers per truss; corolla 3 cm diameter, 2 cm long, funnel-shaped, margins entire, Purple Group 75B lightly flushed with a pinker but slightly paler colour than between Purple Group 75A and Purple Group 75B, upper half of throat speckled with Red-Purple Group 72A. Little scent. Flowering from 9 May 1989. (43).

'Offwell' *(indicum x eriocarpum* 'Gumpo' x *macrosepalum*) **HC** 30 May 1989. Raised by H. Dawson; introduced and sent by the Knightshayes Garden Trust, The Garden Cottage, Knightshayes, Tiverton, Devon. Plant 28 cm high, 48 cm spread, vigorous, slightly spreading habit; free flowering; leaves 3.5 by 1 cm, medium glossy green. Flower truss 10 cm diameter, 5.5 cm deep, conical shaped, fairly lax, 3 flowers per truss; corolla 6 cm diameter, 4.5 cm long, open funnel campanulate shaped, margins very slightly waved, slightly brighter and pinker than Red Group 38A, upper half of throat speckled with Red Group 39A. Little scent. Flowering from 28 May 1989. (36).

THE RHODODENDRON, CAMELLIA AND MAGNOLIA GROUP

LIST OF OFFICERS AND MEMBERS OF COMMITTEE 1989

Chairman: B. Archibold, Starveacre, Dalwood, Devon EX13 7HH. Tel. 040 488 221.

Hon. Secretary: Mrs. J. W. French, 67 Chartwell Court, Churchill Square, Brighton BN1 2EX. Tel. 0273 26817.

Hon. Treasurer: Peter A. Reynolds, Woodland Grove, Bovey Tracey, Devon TQ13 9LG. Tel. 0626 832/336.

Hon. Tours Secretary: Mrs. V. M. Archibold, Starveacre, Dalwood, Devon.

Hon. Year Book Editor: Lady Cynthia Postan, 84 Barton Road, Cambridge CB3 9LH. Tel. 0223 353314.

Hon. Bulletin Editor: Geoff. Taylor, Pant-yr-Holiad, Rhydlewis, Llandysul, Dyfed SA44 5ST. Tel. 023 975 493 (Branch organizer South West Wales).

Hon. Seed Distribution Organizer: David Clulow, Tilgates, Bletchingley, Surrey RH1 4QF. Tel. 088 384 32190.

Hon. Membership Secretary: R. H. Redford, Fairbank, 39 Rectory Road, Farnborough, Hants. GU14 7BT. Tel. 0252 523005.

Recruiting Secretary: Alastair Stevenson, 24 Bolton Road, Grove Park, London W4 3TB. Tel. 01 994 05840.

Dr. Florence Auckland, 53 Oakland Drive, Bolton, Lancs. BL1 5EH.

Clive Collins, Grove Hill, 18 Monksway, West Kirby, Merseyside L48 7ES.

David Farnes, Corton Lodge, 7 Burntwood Avenue, Emerson Park, Hornchurch, Essex RM11 3JD.

Miss Mary Forrest, Dept. of Horticulture, University College, Belfield, Dublin 4, Ireland (Branch organizer Ireland).

John Fox, Holmwood House, Glenmore Road, Crowborough, E. Sussex TN6 1TN (Branch organizer South Wast).

J. T. Gallagher, Oldfield, Moorlands Road, Verwood, Dorset.

Lady Adam Gordon, Hethersett, Littleworth Cross, Seale, Farnham, Surrey GU10 1JL (Branch organizer Wessex).

C. E. Grainger, The Gables, Finborough Road, Stowmarket, Suffolk. (Branch organizer East Anglia).

G. A. Hardy, Hillhurst Farm, Hythe, Kent CT21 4HU.

Major E. W. M. Magor, Lamellen, St. Tudy, Bodmin, Cornwall PL30 3NR.

Miss C. E. Perring, 47 Havelock Road, Hastings, Sussex TN34 1BQ.

Major R. A. W. Reynolds, Woodland Grove, Bovey Tracey, nr. Newton Abbot, Devon TQ13 9LG (Branch organizer South West).

Major T. Le M. Spring-Smyth, 1 Elcombe's Close, Lyndhurst, Hants. SO43 7DS.

Index

of Rhododendrons, Camellias and Magnoliaceae

As applied to rhododendrons, (a) indicates an azalea; V refers to Section Vireya.

An asterisk after an award indicates one given after trial at Wisley in 1989; awards prior to 1989 are not shown.

Printed by Quintrell & Company Limited, Wadebridge 815282

£4.50