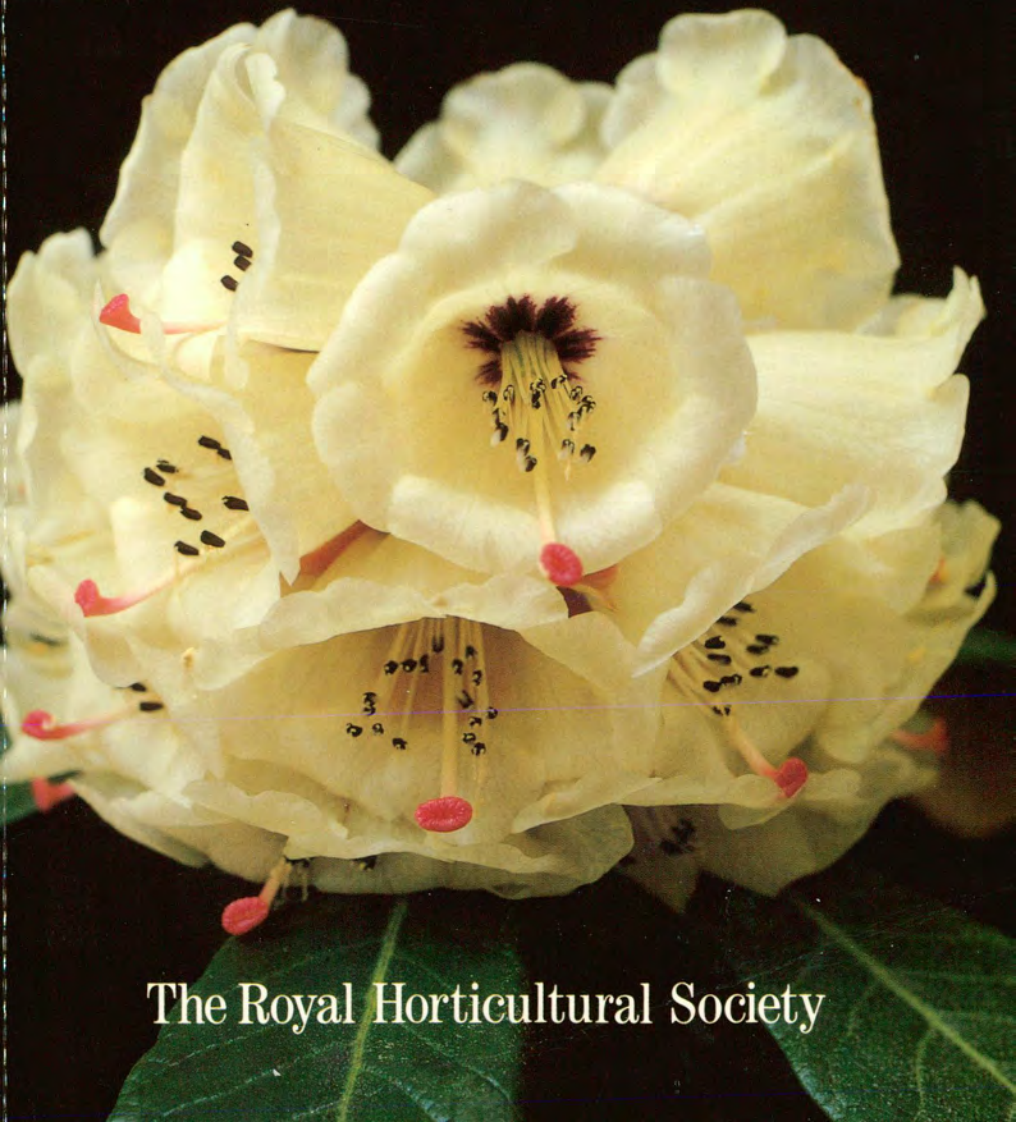
RHODODENDRONS
with Camellias and Magnolias

1994



The Royal Horticultural Society

Acknowledgements

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Rhododendrons

with

Camellias and Magnolias

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Contents

Illustrations

Foreword

The Appreciation of H. H. Davidian, that 'Man of Rhododendrons' whose vast knowledge of the genus has been acquired over the years by much hard work and application and has always been so generously shared, comes timely with the third volume of his *magnum opus* on the species, which has recently been published (reviewed on p.75).

It is encouraging to read that further access to parts of China has been granted by the authorities and Ian Sinclair's report on the SSNY Expedition follows on well from the description of the CLD Expedition contained in the last Year Book. Perhaps a slight disappointment that the collection of seed and live materials was not permitted, as such a great interest is being shown by rhododendron enthusiasts in the West in the possibility of new species being found in China.

Any aid in the classification and identification of rhododendrons is indeed welcome and James Cullen's paper on infloresence buds will be received with great interest.

In view of the considerable temperature range experienced at the Göteborg Botanical Garden it is surprising to note the number of rhododendron species that thrive there. Obviously the process of natural selection for climatic tolerance is of great importance for those who must garden in less favourable conditions and it is to be hoped that further reports on this subject will be available to us in the future.

For any who saw the fine exhibit of *Vireyas* staged by the Royal Botanic Gardens Edinburgh at Vincent Square, the description of an expedition to their home ground, with the possible added bonus of new species to be introduced, will be of great interest to the increasing number of those who grow them, not least our Australian friends where the trade, from perusal of a recent catalogue, seems to have found a ready market.

It is true, as Hideo Suzuki writes, that the three-leaved azaleas of Japan have not been popular in this country; perhaps his article will encourage gardeners to take a greater interest and to pay more attention to the accuracy of their names.

John Bond continues his report on the National Magnolia Collection at Windsor, this time choosing the Valley Gardens. One must indeed respect the views of one to whom not all geese are swans!

The reports on the recent changes of botanical status of some camellia species in the introduction of a new taxa Section is a useful contribution from the International Camellia Registrar.

Once again in China the search for the ancestor of the old Christmas potted plant favourite, *Rhododendron simsii,* is described in detail by Joseph Heursel.

Nigel Price of Brodick Castle Garden writes on a subject close to most gardeners hearts – the most efficient and effective way of labelling plants. For anyone who opens his or her garden, his cry from the heart about stolen or defaced labels will strike a note of sympathy. Why cannot 'they' carry a notebook to record plants of interest rather than removing the label – perhaps 'they' cannot write? As for the deliberate destruction of labels one can only heartily endorse the last few words of the article.

The Group's annual Tour is always a matter of interest and this year's visit to gardens in Surrey and Sussex revealed many treasures in superb settings.

As mentioned in the reports on the Shows, 1993 has been a vintage year for flowering and the displays on the benches at Vincent Square have borne this out. It is always encouraging to note the appearance of new faces among the exhibitors and even more so to see them amongst the prize winners. Hopefully these successes will encourage others, especially in view of Anne Boscawen's very apt remarks about the helpfulness of the RHS stewards.

Cicely Perring sounds a much needed note of warning about the change of venue for the Main Camellia Competition.

Readers will be interested to see the Honorary Editor's remarks regarding the publication in 1996 of a Jubilee Number of the Year Book for which negotiations are at present taking place with the RHS for an extended Year Book.

The judging panel for the Photographic Competition indeed had a difficult task this year and were much impressed by the increased number, and technical excellence, of the entries.

Finally, I am sure that all members would wish to join me in expressing to our Honorary Editor our sincerest congratulations on a first class Year Book.

BRUCE ARCHIBOLD

H.H. Davidian: an appreciation

KEN HULME

The earliest recollections of H.H. Davidian by staff of the Royal Botanic Garden Edinburgh were of a man sitting behind a desk in a cloud of cigarette smoke. On either side long benches stretched out, covered either with herbarium specimens or serried rows of rhododendron trusses in individual glass jars; all waiting to be identified. From the time the late Sir I. Bayley Balfour had established contacts to ensure a flow of specimens from the Sino-Himalayas, Edinburgh became the acknowledged centre for rhododendron studies. World War II inevitably led to a virtual halt in these studies; several staff had been away on duties dictated by national need and returned to a welter of administrative issues. Into this situation stepped a highly individualistic Armenian Cypriot, H.H. Davidian. All that seemed to be generally known about him at the time was that after taking his first degree he went on to graduate with an Honours Degree in Botany.

By 1947 he had arrived in the Royal Botanic Garden and had committed his life, interest and energies to the study of a genus of unending appeal. Scientific problems with the multiplicity of species were becoming ever more obvious and had to be confronted. A resumé of the preceding years will help set the scene and indicate the extent of the task. In the first decade of the present century, E.H. Wilson was involved with plant collecting soon to be joined by George Forrest. This intrepid Scot felt he was working near the centre of the rhododendron world, returning hundreds of herbarium specimens of the genus. Indeed, first assignments indicate his haul in seed might well have included 300 species new to cultivation in Britain. Before long Kingdon-Ward and R.E. Cooper were adding to the supply of specimens. They in turn were followed by Ludlow and Sheriff, and by the American collector, J.F. Rock. The plethora of new material had affected a fundamental extension in the understanding of the genus.

The end of World War II signalled the time for reappraisal and H.H. Davidian was the one man fully involved. With patience and persistence he read the taxonomic accounts, examined living material and pored over herbarium specimens. In those days he often inspected the unrivalled living collection in Edinburgh in the

company of J.G. Duncan. Davidian seemed to have committed to memory detailed accounts in Stevenson's *Rhododendron Species*. On approaching a plant, he would say 'What have we here?' and then go on to recite points from Stevenson's account as they applied to the particular plant: 'Corolla funnel-campanulate 6-7 lobes stylar glands whitish and base of filaments hairy, here we have *R. decorum* and if the stylar glands had been red and filaments hairless, what would that have led us to, Duncan? . . . *R. vernicosum*!'

There were then plants in the garden still labelled '*R. bullatum*'. Davidian pointed out how this was simply a collection further east of Hooker's *R. edgeworthii*. There were many similar examples to this, e.g., plants labelled *R. cantabile*, now placed in *R. russatum* and other plants, labelled *R. cyclium* now placed in *R. callimorphum*. Davidian's fame spread and soon weekends in the spring and early summer were filled with trips to large estates to check the nomenclature of rhododendron collections (Fig. 5). He pondered long about combining plants under one name and 'sinking' the redundant name. In reality it was a course only resorted to *in extremis*; in taxonomic parlance Davidian was inclined to be a 'splitter' rather than a 'lumper'. He had a steady, almost cautious approach, but he was certainly orderly and precise. This made him a good teacher and he gave lectures and demonstrations on the then accepted system of classification. In addition to teaching students at the RBGE some came to the garden, like the young Peter Cox, for private lessons.

Although rhododendrons occupied almost the whole of his working life, he also took classes for British Flora outings. The group, some 15 in number, would make progress together over a particular plant habitat. One after another would shout 'What is this plant Mr Davidian?' The unhurried clear enunciation of the correct botanical name would follow. Back in the garden he feigned disregard for any plant which did not belong to his favoured genus. One garden owner took Davidian on a conducted tour of her plants but temporarily strayed from rhododendrons, pointing with pride to a superb plant of *Phyllodoce nipponica*. Davidian turned and in pained tones said, 'But that is not a rhododendron Mrs Kent'. He later blossomed into a highly effective lecturer using his distinctive tone and inimitable mannerisms to good effect. He also broadened his scope to include matters of cultivation and references to where collectors first encountered a particular species. Few have got away with saying: 'The first enemy of rhododendrons is wind; the second enemy of rhododendrons is wind; and the third enemy of rhododendrons is wind,' but Davidian succeeded with panache. His best role was seen when walking around gardens and applying names to

rhododendrons for the benefit of owners.

Now his years of study of the temperate evergreen species have been set out in three volumes (1982, 1989, 1992), and what an immeasurable improvement they are on the textbook with which we started. He inherited a rudimentary scheme in which Balfour placed similar species together around a dominant species: e.g., all those plants showing affinities with *R. fortunei*, were placed in the fortunei series. Davidian elevated the Balfour approach into a system and provided the definitive account of the species within that system. As well as quite illuminating indications of the range of variability of individual species as seen in herbarium specimens and cultivated plants, a range of horticultural information is included. Thus we learn about hardiness ratings, rooting potential in propagation by cuttings, notes on outstanding forms and awards gained.

The volumes are in fact addressed to the gardener instead of the botanist; their readership style and large numbers of photographs add to their appeal. Mr Davidian instils into his writing his enormous enthusiasm and experience.

In recent years Drs W.R. Philipson, J. Cullen and D.F. Chamberlain have published comprehensive studies of the genus and have revised many of the earlier taxonomic judgements. Now in his eighties, Mr Davidian goes daily to the Herbarium at the Royal Botanic Garden Edinburgh to continue with the work he began in 1947, and we must be full of admiration and gratitude for his dedication to the Genus Rhododendron.

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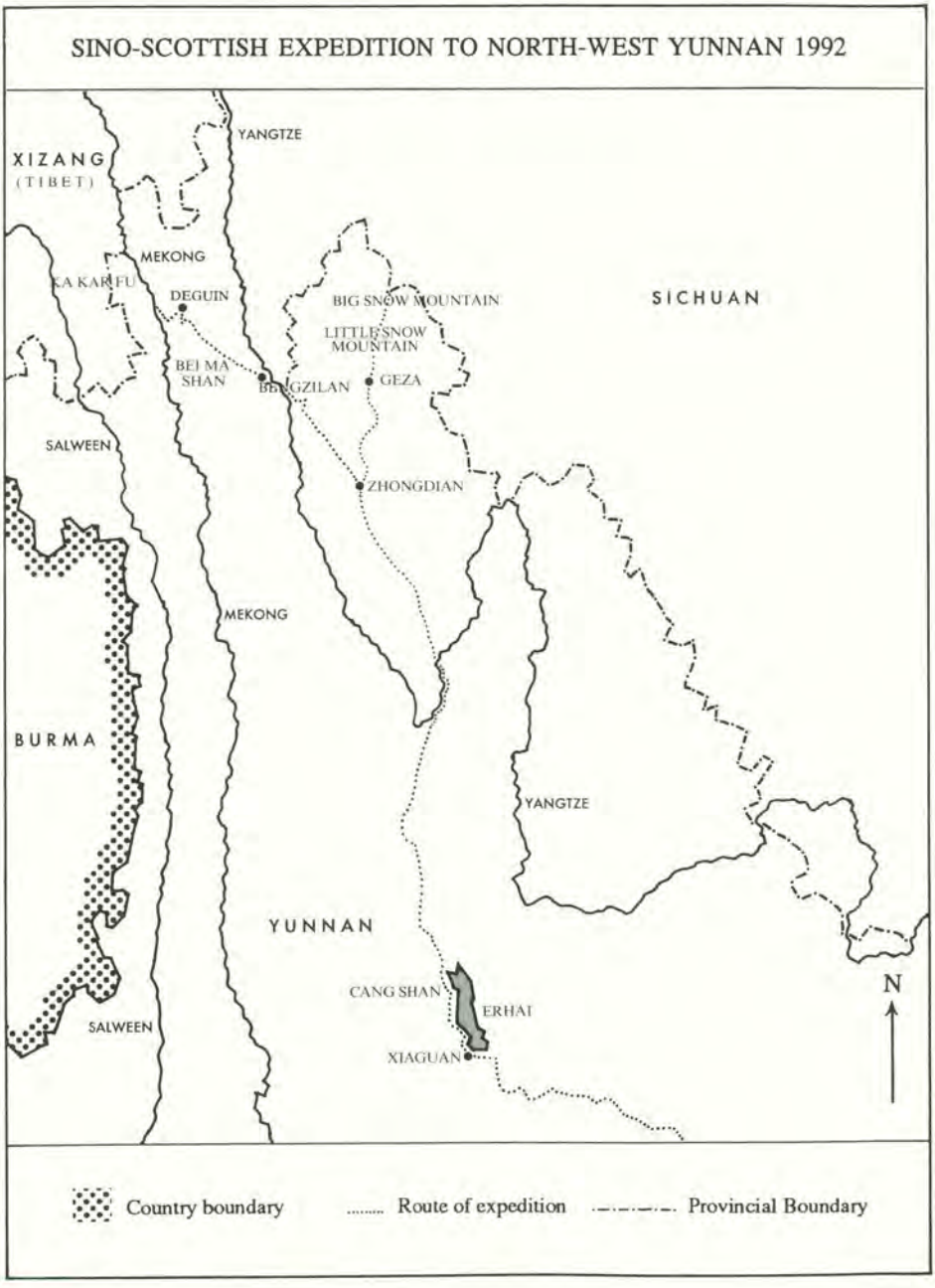
For a review of Vol. III see p. 75


SINO-SCOTTISH EXPEDITION TO NORTH-WEST YUNNAN 1992
XIZANG
(TIBET)
YANGTZE
MEKONG
KA KARFU
DEGUIN
BIG SNOW MOUNTAIN
SICHUAN
LITTLE SNOW
MOUNTAIN
BEI MA
SHAN
GEZA
SALWEEN
ZHONGDIAN
MEKONG
BURMA
YANGTZE
YUNNAN
CANG SHAN
ERHAI
SALWEEN
XIAGUAN
N
Country boundary
Route of expedition
Provincial Boundary

The 1992 Sino-Scottish Expedition to North-West Yunnan (SSNY)

IAN SINCLAIR

The expedition was planned as a joint Chinese/Scottish expedition to North-West Yunnan, from 15 May till 16 June, 1992. It was part of a twinning exchange programme between the Royal Botanic Garden Edinburgh and the Academia Sinica Institute of Botany in Kunming. The objectives of the expedition were to study and work with the Chinese botanists making herbarium specimens of the following plant groups – rhododendrons (including natural hybrids), Asiatic berberis, conifers, Magnoliaceae, Rosaceae, Fagaceae, Aceraceae, Betulaceae Saxifragaceae, Gentianaceae and Umbelliferae – all of which were in the particular field of expertise of members of the expedition. The expedition also studied the temperate forest types and their ecological implications, and was invited by the Local Government of the Zhongdian Prefecture to make written comment on both conservation and the potential for tourism within their prefecture. Herbarium specimens were collected, but permission to collect seed and living material was not granted. The numbers after plant names refer to herbarium sheet numbers, i.e. *Rhododendron wardii* (99) refers to herbarium specimen SSNY 99 collected on the expedition.

The expedition was led by Sir Peter Hutchison, Chairman of the Board of Trustees for the Royal Botanic Garden Edinburgh. Other members of the Scottish team were Dr David Chamberlain, also from the RBGE, Peter and Kenneth Cox from Glendoick and myself, from the Younger Botanic Garden, Benmore. The Chinese members were all from the Kunming Institute of Botany, Academia Sinica. They were Deputy Director Guan Kaiyun, Honorary Professor Yu Shau Wen, Research Associate Fei Yong, and two drivers, Zhong Shun Rong and Chen Shan Hua.

The areas visited were the mountains and plains of the Zhongdian (Chungtien) Plateau, the mountains to the northeast near Dequin (Atunze), the mountains to the North above Geza and finally two days were spent on the Cangshan to the West of Dali. Although Zhongdian was visited by the joint Edinburgh/Kew/Wisley Expedition of 1990[1], they were unable to reach any great altitude

and the district to the north and east, which is very mountainous and inaccessible, has been little visited. Even in the heyday of the great plant collectors, only Joseph Rock passed that way.

The weather was excellent for plant collecting and photography, being dry nearly all the time, conditions that for one who is now happily based in Argyll can be regarded as slightly abnormal. As the weather conditions were dry we encountered none of the problems of landslips and vehicles getting bogged down that the CLD expedition experienced in 1990. In fact, it was very dusty during most of our travels by road beyond Erhai.

Main Plant Collection and Study Areas

1. Wufung

This was our first collecting area of the expedition. The morning of 21 May was spent in this locality, which is approximately 3km (1¾ miles) east of Zhongdian. We collected on a predominantly west-facing dry steep slope. Here we made our first contact with a low-growing evergreen scrub oak, called *Quercus pannosa* by our Chinese colleagues. This plant we would find time and again during the trip on nearly every dry hillside encountered. South- and to a lesser extent west-facing slopes are always very dry. North- and to a lesser extent east-facing slopes being wet.

The altitude range explored was 3250-3350m (10,700-11,000ft). The *Rhododendron* species encountered, included *yunnanense, rubiginosum, vernicosum, hippophaeoides* and *racemosum.* The plant of most horticultural merit, however, was the beautiful, yellow-flowered and scented *Daphne aurantiaca* (9).

2. Bi Ta Hai

This area is c. 20km (12½ miles) east of Zhongdian. The general area was visited on 22 and 25 May, and the lake (Bi Tai Hai) on 22 May.

The approach taken to the lake was due east, slowly climbing from 3315-3525m (10,875-11,550ft) before descending to yak grazing pastures by the lake at 3440m (11,300ft). The wet, north-facing sides of the valley were of spruce forest, the dominant tree species being *Picea likiangensis.* The dry, south-facing valley slopes were of pine forest and were dominated by *Pinus armandii* and the scrub evergreen oak *Q. pannosa.*

Many herbs of interest were found on the valley floor. *Corydalis pachycentra* (78), a striking perennial herb with bright blue flowers,

which was growing in moist turf under *Salix* and *Hippophae* scrub in light shade was of particular note. Four *Primula* species were found; *P. chionantha, sino-purpurea, polyneura* and *deflexa* aff. The populations of *P. chionantha* and *sino-purpurea* were found both separately and intermixed. On initial inspection they appear indentical in all respects except in that of colour and may prove to be colour variations of the same species. Nearby on 25 May, Sir Peter found *Fritillaria cirrhosa* (81) with its nodding green heads and also the taller *F. crassicaulis* (82).

Rhododendron rubiginosum was extremely abundant. The highest altitude encountered was at 3440m (11,300ft) in the spruce forest where specimen (27) was collected. Also found in the spruce forest, but in much smaller populations, were *R. oreotrephes* and *R. vernicosum*.

3. Na Pa Hai

Na Pa Hai is a nature reserve and home to migrant cranes in the winter. The lake is *c.* 10km (6½ miles) northwest of the Zhongdian. It was the mountains to the north of the lake that we visited on 24 and 31 May and on 6 June. This proved to be a superb hunting ground for rhododendrons.

During the visits to the range we made systematic searches across the slopes and along the ridges. This standard system of approach proved successful. The altitudes covered over the three days were from 3475-3870m (11,400-12,700ft). The lower slopes are of cut-over pine forest. At around 3600m (11,800ft) the cut-over pine forest changed to cut-over fir/spruce forest. Flowering rhododendrons found in the pine altitudes were *R. yunnanense, R. rubiginosum, R. selense* ssp *selense, R. vernicosum, R. wardii* and some very interesting hybrids. *R. wardii* appears to be hybridising with *R. vernicosum* (57) and possibly back again with itself (58). *R. vernicosum* aff. (59) could prove to have some non-vernicosum factor also. A rough ratio of one *R. wardii* to five *R. wardii* hybrids, which we also found at Tian Bau Shan and to the north of Big Snow Mountain, raised the question: were we witnessing a species hybridising itself out of existence?

Ascending to 3650m (12,000ft) onto a north-facing, clear-felled fir forest slope we found *R. uvarifolium* (63). This particular specimen was 5m (16½ft) in height. A few large specimens had survived the felling, but most had been crushed. Climbing a further 100m (330ft) onto northeast and north-facing slopes of cleared fir/spruce forest, there was *R. beesianum* (65a) (65b) and *R. heliolepis* (66), (65a) which grew to 5m (16½ft) and had very fine deep pink flowers with a distinct crimson blotch.

On 31 May on our return from Bei Ma Shan we made a brief excursion onto a west-facing slope above the Na Pa Hai Pass. Here we climbed to 3615m (11,900ft) into cut-over conifer, probably ex-spruce. We were rewarded with finds of *R. balfourianum* (224), *R. roxieanum* (225) and (226), a *R. roxieanum* hybrid (227) and *R. wardii* (228), all in full flower.

A third excursion was mounted on 6 June. Having decided to climb directly to above the fir forest and then to traverse back around the mountain, we emerged initially on a northeast facing slope with dwarf rhododendrons and mixed low scrub at 3830m (12,566ft). Several subsect. Lapponicas were found. Skirting into the fir forest at 3850m (12,630ft) we collected a possible *R. beesianum* × *phaeochrysum* (hybrid) (316) which was growing with *R. beesianum*, *R. phaeochrysum* and *R. wardii*. This had formed a large shrub to 5m (16½ft) and had white flowers. On the edge of the forest, at 3850m (12,630ft), we found an interesting rhododendron with persistent indumentum on the upper surface of the leaf, this we called *R. agganiphum* forma (320).

At 3800m (12,470ft) we came across one of the most impressive sights of the entire expedition. Here, below undisturbed fir was a complete understorey of uninterrupted *R. beesianum*. A particularly fine *R. beesianum* (323) with stunning pink flowers was selected for pressing. The forest floor was covered in mosses with pockets of young *R. beesianum* seedlings. On the edge of the fir forest we found *R. balfourianum* (322) for the second time, and at a clearing further along the ridge we collected a *R. rupicola* var. *chryseum* (318) with lovely bright yellow flowers.

Amongst the non-rhododendrons found most noteworthy were three *Cypripediums* (306, 307 & 308) collected at 3500m (11,500ft), an *Omphalogramma* (313) with rich purple flowers at 3830m (12,600ft) on open ground and a small *Iris* (314) with purple standards and falls, and the reverse flushed green.

4. Tian Bau Shan (Face Washing Bowl)

The main part of Tian Bau Shan visited by the expedition on 26 May was *c.* 42km (26 miles) southeast of Zhongdian. Collections were made between 3385 and 3760m (11,100 and 12,350ft) in forest types which ranged from cut-over pine, spruce and fir, to good spruce, larch/fir and rhododendron.

R. wardii (99) (see Fig. 8) was arguably the finest plant seen on the trip. The flowers, which were red in bud, opened to become a superb clean yellow. As with the plants seen earlier at Na Pa Hai, again it had no blotch. It was growing at 3490m (11,450ft) in cut-over spruce forest on a northeast facing slope along with

R. vernicosum. Many hybrids of the two species were seen. One such hybrid collected (78) had flowers which were almost saucer-shaped with crimson buds opening a creamy-pink. We also found *R. vernicosum* hybridising with *R. phaeochrysum* (102) at 3585m (11,760ft). This collection had pale flowers spotted a darker pink. Many excellent pure *R. vernicosum* were seen. One (104) growing at 3650m (12,000ft) had outstanding deep pink flowers.

In extensive *R. decorum* scrub, on cut-over spruce forest, on a southwest-facing slope we collected two very fine specimens of *R. decorum*. One was a very good white (94), and one a very good pink with darker pink stripes to the reverse of the corolla (95).

On a northeast-facing slope of almost pure *R. phaeochrysum* forest, with only the occasional larch emerging through the canopy, we made representative collections of *R. phaeochrysum* from 3580m (11,750ft) to the top of the ridge at 3760m (12,350ft). One (108), found by Peter Cox, was the best form collected. It formed a small tree to 4m (13ft), and had orange/buff indumentum on the older leaves. The flowers were flushed pink with a deep crimson-spotted flare and had crimson tips to the corolla lobes.

5. Bei Ma Shan

Bei Man Shan climbs to 5400m (18,000ft) and lies between Bengzilan and Deqin (formerly Atunze). Bengzilan is a small Tibetan village on the west bank of the mighty River Yangtze at 2120m (6,950ft). Steep-sided arid slopes almost surround it. The massive dry faces are punctured by small green terraces, fed by near-horizontal, man-made water ditches, which often traverse for several kilometres or more, bringing precious water to irrigate the crops. When we arrived on 28 May the people of the village were harvesting their winter crop of long-eared wheat. No mechanical harvesters here, but hand sickles. Threshing and winnowing were being carried out on the flat roof tops as the grain was separated from the chaff. All this was accompanied by singing and much jocular banter, some of which was aimed at us.

Travelling generally northwest from Bengzilan, we climbed slowly up to the higher altitudes of Bei Ma Shan, which has reserve status. At 3300m (10,825ft) this is marked by a stone sign (gravestone style) which informs us that hunting is prohibited within the reserve. At this altitude we are in primary spruce forest (*P. likiangensis*) which contains some giant specimens of birch (*B. utilis*) to 30m (100ft). These magnificent birches have very attractive coppery-red bark. *Rhododendron* species in flower were *oreotrephes, selense* and *uvarifolium*. At 3400m (11,150ft) fir (*A. delavayi*) become noticeable among the spruce. Part of the forest on the south-facing slopes had

been damaged by fire ten years previously. Forest recovery, as we know, is very slow and most of the shrub species are still absent.

By 3650m (11,975ft) we were in predominantly fir forest with some spruce and larch (*L. potaninii*). Climbing from 3650 to 3950m (12,000 to 12,960ft) we saw in flower *R. wardii, R. beesianum, R. phaeochrysum* and an unidentified *Taliensia*. We noticed some frosting of the blooms where the shrubs were in the open. Those under the protection of the trees were undamaged. At 3950m (12,960ft) the tree height noticeably shrinks and larch, just coming into leaf, starts to become the dominant tree species. A few fir are still present and some juniper are observed for the first time.

The Coxes had great hopes of finding *R. proteoides* on Bei Mai Shan's higher slopes, and despite extensive searching on 28, 29 and 31 May, alas, we failed to capture even one. However, extremely valuable collections were made, in particular of Lapponicas and study populations of *R. aganniphum* and *R. phaeochrysum*.

Good population samples of rhododendrons should show, if possible, the range including extremes of flower and leaf characteristics from a reasonably small area, say 10 to 20m (33 to 66ft) square, and then the exercise should be repeated 50 or 100m (164 to 328ft) higher and/or lower. Our herbarium collections (217) and (218) of *R. aganniphum* were of this type. Both were collected on the Bei Ma Shan Plateau on northeast-facing slopes. Field note for *R. aganniphum* (217) collected at 4160m (13,650ft) reads: 'Dense dwarf shrub cover with species totally dominant and no *R. phaeochrysum* present-A population collection of this species. An area of 15m square to show range of population. They are labelled A, B, C etc. and photographed'. Specimen (218) was collected at 4120m (13,500ft) and is accompanied with similar habitat and description notes.

6. 'Our Mekong Glen'

We found this valley almost by accident, at a left-hand bend in the road, 19km (12 miles) northwest of Deqin (formerly Atunze). The road has been cut, like a slash, across steep, arid hillsides of unstable screes on which, almost unbelievably, perch *Cupressus decloux-iana* to 30m (100ft). At the valley bottom the mighty Mekong flows south. On the opposite side of the valley lies the extensive Mei Li Range, its tallest peak Ka Kar Pu towering to 6740m (23,200ft) (Fig. 9). One of the glaciers, which runs east down from the range points, finger-like, directly to this partially hidden valley. We stopped initially at this particular bend as there appeared to be a break in the steep dry hillside. It was not until we walked 300m (1,000ft) up into this gully that we realised the glen's potential. The

glen contains both primary broadleaf and primary conifer forests. The lower broadleafed forest was of very mixed deciduous trees and shrubs with the occasional fir and spruce. The fir was the long-needled *Abies saluenensis*, surely one of the finest of all firs. The largest deciduous trees were birch and maple to over 15m (50ft). Several fine specimens of the Snake Bark Maple, *Acer davidii*, were found, each with striated green bark and pendant, reddish immature fruits.

As is common in narrow steep valleys, a strong gusting wind was blowing up the valley and this made photography particularly tedious. A quarter of an hour must have been spent trying to photograph the dark ruby-red flowers of the climber *Schisandra rubrifolia* (197) as its hanging shoots bounced back and forth with the gusts. In the few hours we spent in the valley on 30 May, climbing from 3000-3180m (9,850-10,400ft), we never reached above the deciduous forest into the conifer forest. This area undoubtedly warrants a 7 to 10 day survey. Herbarium specimens collected include *Deutzia, Viburnum, Cornus, Salix, Berberis, Ribes, Helwingia, Euonymus* and an unidentified member of the Loranthaceae.

7. Little Snow Mountain

Little Snow Mountain (LSM) is to the north of Geza. Approaching the mountains from the south we passed through very good primary pine forest, which is relatively rare in the Zhongdian Prefecture. Amongst this were pockets of deciduous forest which were dominated by massive mature maples (*Acer* spp.). At 2950m (9,680ft) on northeast-facing slopes, growing with *Malus* spp. and *Populus potaninii* were *R. vernicosum, R. yunnanense, R. racemosum* and *R. trichostomum*. As one climbs to 3280m (10,760ft) the occasional spruce (*P. likiangensis*) is seen, but the main features are the huge pines and evergreen oaks in excess of 35m (115ft). The latter may be *Q. semecarpifolia*. At 3280m (10,760ft) the forest changes to mature spruce with an understorey of pine. Amongst the conifers *R. oreotrephes* was in full flower.

As we approached 3320m (10,890ft), however, the scene changed again to one of mass devastation. In 1984 Tibetan hillmen, to create some fresh yak grazing, set fire to a small part of the forest. Tragically, the fire got out of control and virtually the entire upper part of the mountain has been burnt clean of forest. Several thousand hectares of forest simply no longer exist. There had been primary spruce and fir forest up to 3700m (12,140ft). Now, burnt out skeletons, fringing the skyline, stand guard over spreading bamboo and evergreen scrub oak. Little else has been able to survive. Some signs of struggling spruce regeneration is evident, but, unfortunately,

there is very little sign of fir. Some of the other woody genera are still present, though in low numbers and growing extremely poorly due to the lack of tree cover.

Included in a paper being written by the expedition members for the Governor of Zhongdian on Conservation and Tourism in the Zhongdian Prefecture, we have made recommendations for LSM on scrub eradication, replanting and maintenance for the first ten years after planting.

Our stay at Geza on the night of 2 June allowed Peter Cox to find a new use for his ice-axe. He awoke in the early hours to find that someone was breaking into the room he was sharing with Kenneth. Peter sprang from his bed, with ice-axe in hand, and chased the intruders off. The rest of the party snored on throughout the entire incident.

8. Big Snow Mountain

Positioned to the north of LSM, and crossing over into Sichuan, Big Snow Mountain's limestone peaks are an extremely impressive sight. We had only a few hours to explore this area before returning to Geza. In May/June 1993 the RBGE's expedition plans to spend some time, hopefully camping, in this area, which may produce some interesting finds. We can only wait and see.

9. Tian Chi (Heavenly Lake or Loch Heaven)

Tian Chi is located about 15km (9½ miles) southwest of Zhongdian. Unfortunately, devastation also struck here in 1948. This time not man-made, but some type of gypsy moth in plague numbers. Several hundred hectares of forest were destroyed. Re-afforestation is being attempted using spruce, larch and fir.

The area directly around the small lake is, however, virtually untouched and is indeed very picturesque. Several different lapponicums were found on open moorland of dwarf rhododendron and *Cassiope*. Collections of *R. complexum* aff. will require further investigation back in Edinburgh by Peter Cox.

The lake is at 3700m (12,125ft), and the hillside of fir forest on its southern bank climbs to 3800m (12,460ft). This contains very fine stands of *R. beesianum* and *R. phaeochrysum*. We also collected *R. beliolepis* and *R. rupicola* aff.

10. Cang Shan

Much has been written about this magnificent mountain range, even in modern times by SBEC in 1981 and CLDE in 1990.[2] I would only

like to record the discovery, by Kenneth Cox, of *R. cephalanthum* var. *platyphyllum* (305) on northeast-facing cliffs directly below the summit ridge.

Conclusion

The expedition was extremely successful in making reconnaissance trips to Little and Big Snow Mountains and also to the northeast of Deqin, in making representative collections of the target plant families, in helping to solve some rhododendron taxonomic questions, in particular concerning *R. phaeochrysum* and *R. agganiphum*, and in further developing the ties between The Royal Botanic Garden Edinburgh and The Kunming Institute of Botany (Academia Sinica).

I would like to thank the Sibbald Trust who funded my involvement in the expedition.

[1] *See* D. Paterson, 'The "CLD" (Chungtien-Lijiang-Dali) Expedition, 1990', *Rhododendrons with Camellias and Magnolias*, 1993, No. 45, pp. 7-15.

[2] P.A. Cox, 'Expedition to Cang Shan in Yunnan,' *Rhododendrons with Camellias and Magnolias*, 1981/2, p. 1; Paterson, *loc. cit.*, p. 7.

Rhododendron inflorescence buds

JAMES CULLEN

In classifying and identifying rhododendrons, all kinds of features of the plants have been used. These range from gross morphological and structural features – habit, size, characters of leaves, flowers, fruit and seeds – to the microscopic (or almost so) – details of hairs and scales, leaf anatomy, ovary anatomy, etc. – and chemical, and it seems that there is little more to be learned about rhododendron structures at the level of the naked eye (assisted by the hand-lens of magnification 10–20 times).

However, one structure that seems to have been almost totally neglected is the inflorescence bud. This neglect seems to have two main causes: a) the inflorescence bud is an apparently short-lived structure (but see below), and many of its parts fall as the bud opens; and, in a way related, b) the inflorescence buds are rarely represented in herbarium collections, largely because the collectors have naturally preferred to collect material in flower, after the buds have opened, but also because the buds are 3-dimensional structures not well suited to pressing and drying. If they are pressed and dried, they tend to fall to pieces as they lose moisture.

The study of inflorescence buds is therefore something that can best be undertaken in garden collections, preferably those containing properly authenticated and identified material. This article contains merely some preliminary notes made on inflorescence buds in the Royal Botanic Garden Edinburgh during 1988 and 1989. The features of the buds mentioned are those that can be seen when the bud is fully formed and expanded but just before it opens.

It comes as a surprise to many people to learn that, in most rhododendron species, the inflorescence buds are laid down in July or August, generally just after the flush of new leaves has appeared. The buds remain quite small, but by September or October contain perfectly recognisable flowers with fully formed pollen. The buds overwinter in this state, and then, in early to late spring, increase rapidly in size and eventually open to reveal the flowers.

The function of the bud is the protection of the delicate immature flowers from cold, damp and drying winds. In most plants, this function is carried out by the calyx, but in rhododendrons it has been transferred to the bud-scales; this perhaps helps to explain why rhododendrons have either reduced calyces, or, if the

calyces are large, why they are generally coloured and petal-like.

In the great majority of species the inflorescence bud, just before opening, is a spherical to ovoid, solid-looking structure, often pointed, ranging in size from 5mm to 5cm. Its overall colour is usually greenish or brownish and so it is not particularly striking visually, except in a few species (such as *R. lanigerum*) in which the buds are very large, or in those species of subsections Lapponica and Saluenensia in which the buds are very pale to almost white.

Before opening, the bud, from the outside, is seen to consist of tightly overlapping scales. (See Diagram 1a.) The lowermost scales may be somewhat different from the others, and tend to be sterile. The majority of the scales, however, at least in those species where the inflorescence contains several flowers, are fertile, each bearing a flower bud in its axil (the angle between the bud-scale and the axis or rhachis of the inflorescence). The flower buds themselves are rather flattened horizontally until just before opening, and each is closely pressed between the scale in whose axil it arises and a scale nearer the centre of the inflorescence (i.e. one just above). These bud-scales are, in fact, the bracts of the inflorescence. Each flower in the bud, of which there may be from 1 to about 30, has a short stalk on which are borne 2 (rarely more) elongated, scale-like, often hairy structures which are bracteoles; these are similar to the bracts (bud-scales), but relatively longer and narrower. (See Diagram 1b.) As the bud opens, the bracts and bracteoles, having fulfilled their function, absciss and fall, to be rapidly blown away by the wind. An exception is provided by *R. reticulatum* (section *Brachycalyx*) in which the buds are 1-flowered and there are 4 bud-scales; these reflex outwards when the bud opens, and do not fall, remaining as a small green calyx-like structure at the base of the flower-stalk.

In species in which the inflorescence is reduced to 1 or a very few flowers (e.g. *R. moupinense*), most of the lower bud-scales will be sterile, with only the uppermost fertile. (See Diagram 1c.) In cases like this, all the bud-scales are of similar appearance, even though some are sterile and some fertile.

The form and structure of the bud and its bracts offer quite a number of features that may be of importance in classification and identification. In some groups (e.g. Barbata, Falconera, Grandia, Pogonanthum) the whole bud is resinous and sticky, which clearly helps in the waterproofing of the bud as a whole. In other groups no resin occurs. In plants of subgenus *Hymenanthes* the bud-scales are often hairy on both their outer and inner surfaces. If hair is present on the outer surface, it tends to be on those parts of the scale not overlapped by others, and on the margins. The hairs themselves are usually white, quite long, silky and very evenly arranged, but in several species (e.g. *R. anthosphaerum*) the hair-covering may be

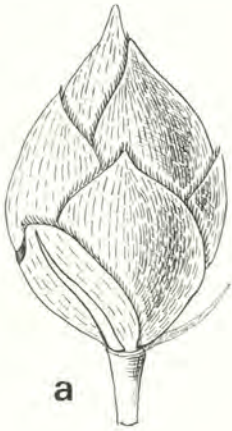
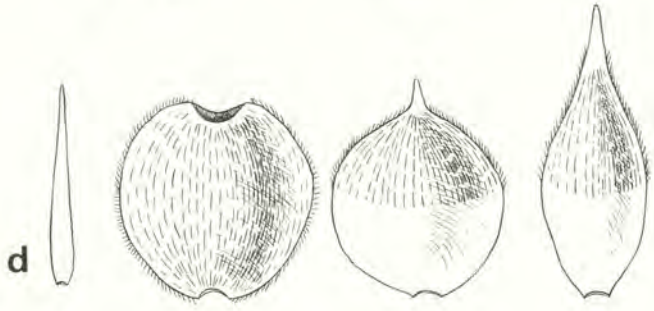


Diagram 1. ***(a)*** *A whole rhododendron inflorescence bud, made up of overlapping bud-scales (bracts).* ***(b)*** *A section through a bud showing the bud-scales subtending the individual flowers, each of which bears 2 bracteoles on its stalk.* ***(c)*** *A section through a bud containing only a single flower (e.g.* R. moupinense*).* ***(d)*** *A series of bud-scales (bracts) from a single bud, starting from the left with a sterile, outermost scale, each one to the right from further within the bud.*



formed from a mixture of brown and white hairs; the significance of this colour dimorphism is completely obscure. In a few species the bud-scales are completely hairless.

In subgenus *Rhododendron* (the lepidote species), the bud-scales are often lepidote on the exposed parts, and quite frequently are also hairy or fringed with hairs. These hairs are generally similar to those found in Subgenus *Hymenanthes*, but in Section *Pogonanthum* the fringing hairs are conspicuously branched (unlike those of Sections *Rhododendron* and *Vireya*), a feature which provides a good diagnostic character for the section as a whole.

In terms of their shape, the bud-scales are very variable. The outermost (lowermost), may be sterile and rather narrower than the rest, but most of them tend to be broad. They may taper gradually to the apex, or may be rather rounded with an abrupt point, or rather abruptly shouldered with either a notch or a small point (or both) between the shoulders. (See Diagram 1d.) In many species the apices of the bud-scales tend to dry and split just before the bud opens.

In a few hybrids the bud-scales reveal their origins as modified foliage leaves by the fact that they bear extremely reduced blades at their apices. These tiny blades give the inflorescence bud a curious appearance, and it is impossible to say whether they represent a normal feature or an aberration.

In an uncertain number of species allied to *R. kiusianum* (Section *Tsutsusi*), the structure of the inflorescence bud is slightly different from those described above. The outer scales are large and sterile, resembling those of other rhododendrons, but the flowers are grouped in the centre of the bud, with extremely delicate bud-scales between them. It is at present uncertain how many species show this bud type, which was first noted by Kaku, Iwaye and Kunishige ('Supercooling ability of Rhododendron flower buds in relation to cooling rate and cold hardiness', *Plant Cell Physiology 21*: 1205–6, 1980).

Again, in most rhododendrons the inflorescence buds are quite separate from buds which give rise to new vegetative growth. However, in Subgenus *Tsutsusi*, the flowers and the new shoots are produced from the same overall bud. This type of structure is discussed in greater technical detail in an interesting paper by Professor Philipson ('Shoot morphology in Rhododendron', *Notes from the Royal Botanic Garden Edinburgh* 43: 161–71, 1985).

Because there is so little information available about the inflorescence buds (and, indeed the vegetative buds as well), it is not possible to say how much variation there is in their characteristics between specimens of the same species. Nor is it possible yet to generalise and describe the inflorescence bud characteristics of the

Subgenera, Sections and Subsections. However, continuing study will reveal something of the value of these characteristics, which perhaps can then be applied usefully to the identification not only of the species, subsections, sections and subgenera, but also of the hybrids.

My thanks are due to Georita Harriott, who drew the diagram.

Rhododendrons at the Göteborg Botanic Garden

BJÖRN ALDÉN

The Botanic Garden was opened to the public in 1923. It belongs to the municipality of Göteborg but serves also as the botanic garden for the University of Göteborg. The first plantations date from 1916. Within 175ha (432½ acres), 20ha (49½ acres) constitute the main garden, another 15ha (37 acres) the Arboretum and the remainder the Nature Reserve. Four valleys run through the area giving the garden a varied topography with hills, lakes, bogs and streams. The lowest point is 27m (88½ft) above sea level and the highest 120m (394ft).

Approximately 12,000 species and 3,000 cultivars are in cultivation with an assortment of useful and ornamental plants. Prominent areas of the garden proper are the Rock Garden (*c.* 5,000 taxa), the Rhododendron Valley (Fig. 14), the Bamboo Grove, the Japan Valley, the Bulb Garden (1,000 taxa), the Arboretum and the Glass House (*c.* 4,000 taxa).

Situation and Climate

Göteborg is situated on the Swedish west coast just south of latitude 58°N. The latitude equals, for example, that of the islands of Sitka in southern Alaska and that of the northern parts of Kamchatka. The proximity of the sea, with a slight but notable influence of the Gulf Stream, gives Göteborg a rather maritime climate. However, compared to similar latitudes in the northernmost parts of Scotland and western Norway, where substantially larger numbers of rhododendron species can be cultivated, the climate is clearly tougher and, more varied. Minimum winter temperature is –26°C (–15°F) (recorded twice, latest 1987) and maximum summer temperature 32°C (89.6°F). Mean annual temperature is 7.6°C (45.68°F); for July 17.6°C (63.68°F); and for February –1.2°C (30°F). The average number of days with frost is 84. Annual average precipitation is 670mm (26¼in), of which most falls in late summer and autumn. There is normally a critical dry period in May and June.

Even though the sometimes low winter temperatures prohibit outdoor cultivation of a number of species, fluctuations in temperature during winter/spring and the uneven dispersal of precipitation over the year are even more critical factors. Most often mild and cold

periods alternate during winter to late spring. This factor in combination with inconsistent snowcover results in very few species surviving without occasional minor damage.

Like most botanic gardens, priority has been given to the wild species. Even though there are rhododendrons like *R. carolinianum*, *R. luteum* and *R. smirnowii* still in cultivation from the first plantations in 1918-19, the first species of real interest came to the garden in the 1930s from the two Swedish expeditions to China. The first of these was the Sven Hedin expedition from 1927-33. The rhododendrons collected by Dr David Hummel in South Ghansu during this expedition arrived in 1931. Species like *R. micranthum*, *R. przewalskii*, *R. rufum* and *R. watsonii* are still constituents of our collection. In 1934 Professor Harry Smith, Uppsala, collected a wealth of interesting species in Sichuan, of which the following rhododendrons are still in cultivation in Göteborg: *R. concinnum*, *R. esetulosum*, *R. intricatum*, *R. nigroglandulosum*, *R. phaeochrysum*, *R. pratti* and *R. vernicosum*.

During the 1950s and later, several expeditions to Japan and two to South Korea have brought home many more species of which the most prominent are *R. albrechtii*, *R. brachycarpum* (several important provenances), *R. degronianum*, *R. japonicum*, *R. kaempferi*, *R. kiusianum*, *R. mucronulatum*, *R. pentaphyllum*, *R. quinquefolium*, *R. schlippenbachii*, *R. yakushimanum*, *R. yedoense* var. *poukhanense* and *R. weyrichii*.

After the severe winters in the mid-1980s, when many species were lost, restoration of the collection now runs at full speed. Highest priority is material of wild, known origin, from China especially. The collection now constitutes around 230 taxa, indoors and outdoors. Considering the much fluctuating and sometimes tough Göteborg climate, the figure mentioned is probably near the maximum possible for outdoors use – over a longer period – in southwest Sweden.

Professor Bertil Lindquist, the Director from 1950 to 1963, was a forest geneticist, who used his interest in forestry to promote the development of the garden's dendrological collections with very positive results. Parts of the garden proper and the Arboretum were used as test plots for trees and shrubs brought home from Japan and other parts of the world during the 1950s and 1960s. The forester's view on collecting, giving priority to elite material and selected provenances, was shown to be equally applicable to species suited also for horticulture. Dr T. Nitzelius, the curator, has been very influential in developing the horticultural side of our collections. He was especially interested in the genus *Rhododendron* and was one of the founders of the Swedish Rhododendron Society.

In addition to a number of hardy Chinese rhododendron species

collected in the 1930s, an increasing amount of wild collected material (particularly from Japan) entered the garden during the 1950s. Among the Japanese rhododendrons, *R. brachycarpum* in particular became an important member of the collection. The variation in flower colour, phenology and hardiness between different provenances (or clones) is very obvious, a circumstance that is still to be utilised when selecting and breeding.

Present-day work follows the same lines. The successive re-opening of rhododendron areas in northwest China will hopefully mean that our work in finding better adapated provenances can once again include species from China, so important for rhododendrons in the wild.

Hardiness in northern gardens

Climatic adaptability or climatic tolerance is a very complex and sometimes misunderstood quality of plants, not least in horticulture. To growers living under colder climatic conditions a most frequently requested quality of a plant is 'hardiness'.

Information on hardiness, almost always meaning frost resistance, is usually given in the form of a climatic zone (or an interval of zones) or as a minimum temperature. Only if you have a stable seasonal climate without too many fluctuations, especially during the plant's normal dormant stage, is this type of information helpful. Most rhododendron growers already know this, have mostly found out the 'hard way'. As there are very few published reports covering tolerance of species, provenances or cultivars in a wide range of climatic conditions, the grower is usually referred to his own experience. In northern Europe, not least in Göteborg, the last 15 years have taught us a lot about climatic tolerance. The exceedingly hard winters of 1985-7 with cool summers between, led to an extensive natural selection in the assortment of species and cultivars. The following four very mild winters interspersed with cold spells have, among other things, forced us to revalue some of the so-called 'superhardy' species. The number of 'safe' species, i.e. species more or less indifferent to the current climatic fluctuation, has diminished drastically. Will this mean we will confine ourselves to the cultivation of only these species? The answer is emphatically – no! Here are some of *our* reasons, and at least the first two should appear familiar to most gardeners.

1. Logical conclusions that probably could be drawn from this discussion don't always compete well with things like human curiosity, vanity or other 'mental defects'. Even though the odds are against us, the wish to surround ourselves with as great a variety of forms and colours as possible is strong enough to determine our actions.

2. A species or variety doesn't have to be one hundred per cent 'hardy' to fulfil its function. Often it is sufficient to enjoy a plant for a period only. When it dies, you can easily get a new one.
3. There is always the glasshouse.

To conclude: little has yet been done to improve climatic tolerance and frost resistance in wild species by natural selection. Most definitely one reason is that the tradition for growing wild rhododendrons as garden plants started, and is still followed, in climatically favoured areas like the British Isles. The need for improvement has thus not been felt. As rhododendron-growing now spreads to colder and colder areas, provenance studies with consequent selection work will be as important as breeding new frost-resistant varieties by crossing species and varieties. This provides the motivation for further trials with 'unreliable' species which will hopefully be continued in the Göteborg Botanic Garden for many years to come.

THE PHOTOGRAPHIC COMPETITION

The Photographic Competition continues to attract entries of high quality. There is no doubt that the genre appeals to members of the Group who mostly feel drawn to shrubs from their own gardens, although the well-known collections also provide happy hunting grounds. This year's winner, hotly rivalled by two runners-up (both of them winners in previous years), succeeded not only because of his skilful use of the camera, but also because of his unusual choice of a 'sitter' (*See* Fig. 10). *Rhododendron sinogrande* has not so far been entered and, to judge from Mr Wilks-Jones's comment, is rarely seen in flower close to. This magnificent species is always a show stopper, even though its leaves are the usual focus of attention. How enviable to be its owner! It would be interesting to know how many other members of the group have succeeded in flowering it and at what age. Could we hope next year to receive photos and a short description of other species, less well-known in cultivation or rarely flowering, for publication? Do send them to the Honorary Editor for the 1995 Year Book.

CP

PRIZEWINNER: John Wilks-Jones, The Hidden House, Beaumaris, Anglesey LL48 8AP.

RUNNERS-UP: George B. Hargreaves, 61 Wolfridge Ride, Alveston, Bristol BS12 2PR (*See* Fig. 11).
C. F. Taylor, San Remo, Cefn Bychan Road, Pantymwyn, Mold CH7 5EN (*See* Fig. 12).

'Rhododendron sinogrande'

JOHN WILKS-JONES

Twenty-four years ago, I bought a small plant of *Rhododendron sinogrande* from Glendoick Gardens for my garden in Conwy, impressed by Bean's description that 'in leaf it is . . . the most splendid and remarkable of all rhododendrons or indeed all woody plants hardy in this country. In the Cornish Woods . . . leaves 2½ft long and 1ft or more wide have been produced on young plants.' My plant produced leaves 60cm (2ft) long during its early years. Then, in 1971, someone trod on it, breaking off all that year's growth. Nevertheless the plant rallied and produced from the base three branches, one of which had to be removed three years ago because of suspected powdery mildew. There are now two sturdy branches, each 1.67m (5ft 4in) high, with leaves up to 45.7cm (18in) long.

In April this year the plant flowered for the first time, producing a defiant truss on each of the two branches, in spite of the lack of height and the proximity of a vigorous and now large *Arundinaria fastuosa*. The lack of height presented me with my first close-up of the flowers of *R. sinogrande*, and I photographed them in an attempt to show their beauty to others (Fig. 10). To this end I concentrated on just a few of the 26 bell-shaped flowers of one truss, using a 80-200mm Zoom-Nikkor and a +1 close-up lens on my Nikon F. The diffused sunlight at 10am on 4 April required an exposure of 1/60 sec at *f*16, the small aperture being needed for depth of field at this close distance. This gives a view of the flowers that I have never seen in illustrations of this rhododendron; priority is usually given to the large foliage, thus detracting from the magnificence of the flowers, if indeed flowers are shown at all.

The Three-leaved Azaleas of Japan

HIDEO SUZUKI

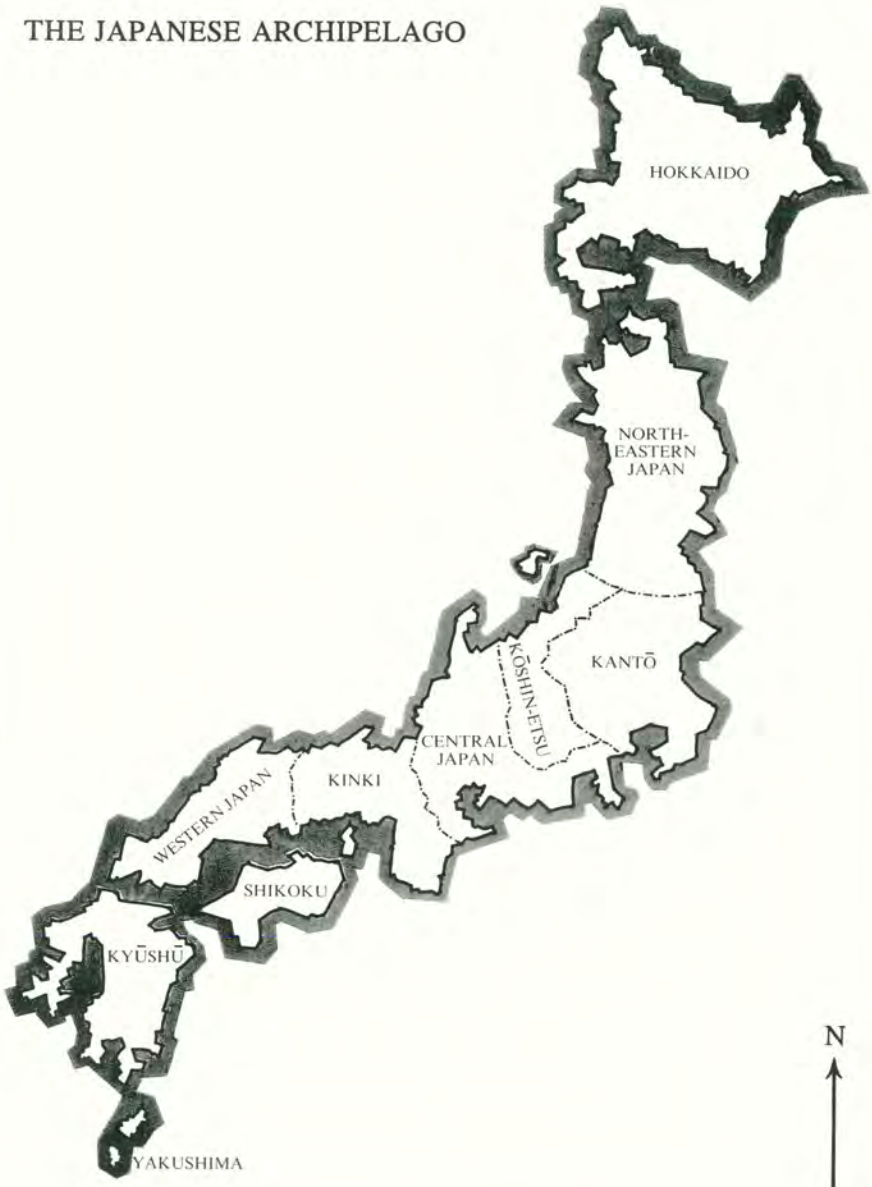
Japan is a country of azaleas where many species grow in the wild and thousands of cultivars have been introduced over the last few centuries, but whenever I have visited the gardens and botanical institutes in the UK I have seen very few of these. Is this because of the climate or is it because they are so little known? When I visited a famous British garden I noticed a familiar Japanese species azalea that we call *R. otakumii*, said to have been found on the bank of the Otakumi River on the island of Yakushima, but the label called it '*R. yakuinsulare*'. *R. otakumii* and *R. yakuinsulare* are different plants with an entirely different appearance. Another instance, although this comes from the US, is the letter I received recently from a correspondent who said he was growing plants from my seed obtained through the Seed Exchange of the American Rhododendron Society. He was puzzled by the name '*R. satsumense*' because he could not find it in any of the books of reference. *R. satsumense* (syn. *R. dilatatum* var. *satsumense*) is an excellent three-leaved azalea much grown by Japanese enthusiasts. But this horticulturally highly prized species seems not to be known in the US.

In this article I shall confine myself to writing about three-leaved azaleas, or Mitsuba-tsutsuji, belonging to Section Brachycalyx. Except for *R. farrerae* from semi-tropical Hong Kong, three-leaved azaleas are all deciduous and in many species in this section the flowers come before the leaves. We think that this enhances the beauty of the blooms. The standard flower colour may be pale purplish rose, but there is great diversity within each species.

I have been told that gardeners in the West prefer evergreens, but here in Japan people like deciduous trees and shrubs, partly because they allow the sunlight to filter through the branches in winter and partly because their more elegant structure suits the bonsai taste better.

This group of azaleas always has a set of three rhombic, broadly ovate-rhombic, or ovate leaves on the terminal shoot. However, the leaves are all more or less spade-shaped. They grow in the mountains throughout the Japanese archipelago (*see* map opposite), although each species has its own habitat. But a species from the warm southern-most island of Kyūshū is not necessarily tender since it

THE JAPANESE ARCHIPELAGO



grows in the mountains. About 67 per cent of Japan is mountainous, although it often seems as if the proportion were 90 per cent.

In early spring azaleas bring colour to the mountain-sides which are still brown and wintry-looking. The three-leaved azaleas are particular favourites of Japanese gardeners, some of whom will only grow this group. Some species are so rare that even I, who have been Vice-President of the Japanese Rhododendron Society for over 15 years, have never seen them and many gardeners know them only by name. There are also rare varieties and forms that are avidly sought by collectors.

The following list does not attempt to provide taxonomic information (for which the reader is advised to consult the *Edinburgh Journal of Botany* 47, 2). It is a description of the species, varieties and forms which are of interest to amateur gardeners and collectors in Japan. Distribution, habitats, forms and varieties are given together with a few horticultural observations. The term 'habitat' is used to denote the limited area in the wild in which some species are to be found.

R. wadanum

One of the typical Japanese garden plants often growing in the same mountain area as *R. dilatatum* but higher; easily distinguished from it because it has 7-10 stamens instead of 5 and has much shorter petioles.

Distribution: from Northeastern Japan down to Central Japan on the Pacific Coast.

Variety: kaiense. The style is said to be hairy. I have never seen the plant.

Habitat: Kantō, Kōshin-etsu.

Forms: white flowers (or *f. leaucanthum*) (If growing a white-flowered form from seed, seedlings with bright green leaves should be singled out in the first autumn. These may come true. The same method applies to any white-flowered rhododendron.) Late leaf-burgeoning emphasises the beauty of the flowers; there is a form with a variegated leaf in which the edge of leaf is creamy; large flowered; hose-in-hose flowers.

R. dilatatum

An early-flowering azalea common to many Japanese gardens; it has 5 stamens (all others have 7-10 stamens).

Distribution: southern part of Northeastern Japan to eastern part of Kinki through Kantō and Central Japan on the Pacific Coast.

Other forms: white flowers; dissected petals; double flowers; semi-double flowers; mixed white and standard-coloured flowers.

Variety: var. *decandrum* (syn. *R. decandrum*). Leaves bright green, early flowering.

Distribution: southern Kinki and southern Shikoku.
Form: white flowers.
Variety: var. *boreale* (syn. *R. hidakanum*), a rather new introduction. Tender.
Habitat: a limited area, remote in the Hidaka Mountain range in Hokkaido, our northernmost island.
Var. *satsumense* (syn. *R. satsumense*) was formerly included in var. *decandrum*. It flowers very early and has beautiful chocolate-coloured new leaves, leathery in texture and with a lustrous surface. Excellent garden plant. The sepals turn over. There is a white-flowered form.
Habitat: southern part of Kyūshū.

R. tatsuoi
Discovered some 60 years ago on a mountain about 48km (30 miles) from my town. Some think it is a natural cross between *R. wadanum* and *R. dilatatum* and others think it is a mutation. One Japanese taxonomist handled this as *R. decandrum*. I have looked for this plant but never found it, although it is said to have been seen in a farm garden. It is doubtful whether it exists in the wild today.

R. viscistylum
A small shrub with small leaves, small dark flowers and a one-flowered inflorescence. Suitable for bonsai.
Habitat: southern Kyūshū.

R. reticulatum
Comparatively small with small leaves, growing in lowland woods; 1-2 flowers. Common in many gardens.
Distribution: southern Central Japan, Kinki, Shikoku and southern Kyūshū.
Forms: white flowers; full double flowers; variegated flowers mixed flowers of white and standard colour; hose-in-hose; marbled or variegated.

R. kiyosumense
A small shrub with small flowers and thin leaves. The buds in winter are conspicuously red. One-flowered inflorescence.
Distribution: Southern Kantō, Central Japan and Kinki on the Pacific Coast. There is a white-flowered form.

R. maebarae
This very rare plant is set apart from other three-leaved azaleas by the rough bark on mature specimens, rather as if the bark had been scraped. There are few specimens in any private or public gardens

and it is not abundant even in its natural habitat deep in the wilds in southern Kyūshū. There is a white-flowered form. Many of the plants grown in private gardens are not genuine: they are said to be hybrids between *R. dilatatum*, white-flowered form, and *R. maebarae*, white form. The latter is known to exist. The variety *obsumiense* I have personally never seen.

R. nudipes

This species is interesting because it came to Kōshin-etsu from Kyūshū along the Japan Sea. However recent literature says the name should only be given to those plants growing in Kyūshū; the others should be classified as *R. lagopus*.

A variety, *R. gracilescens* is a small shrub with small leaves and small tubular, funnel-shaped flowers.

Distribution: Kyūshū.

Another variety, var. *kirishimense*, is said to have wine-red flowers, but I have never seen it in flower.

Habitat: Southern Kyūshū.

R. lagopus* var. *niphophillum

Azalea growers once called this species *R. nudipes (see above)*. The flowers I have seen were mostly deep pink, sometimes slightly purplish: they were beautiful.

Distribution: Northeastern Japan through to Western Japan, mostly along the Japan Sea.

R. lagopus var. *lagopus* usually has deep purplish red flowers, but the colour quickly fades in the sun (Fig. 6).

Distribution: Western Japan.

R. lagopus var. *tsurugisanense* and var. *tokushimense*: I have never seen either of these.

R. weyrichii

This large shrub growing to 5m (16½ft) has large brick red flowers of a unique shape. It flowers after the leaves.

Distribution: Southern Kinki, Shikoku and Kyūshū.

There is a white-flowered form and one called 'Murasaki On' with deep purplish pink flowers. A dark purplish form grown by gardeners is beautiful, but not the right one. The true form has not been propagated.

R. sanotum

A tall densely branched shrub with large deep purplish rose flowers

after the leaves which are thick in texture and lustrous on the surface.
Habitat: a limited area in southern Central Japan.

There is a variety, *lasioginum* with almost the same habit, but sparsely branched. Its habitat is a hill of serpentine rock in Central Japan, 200km (124 miles) east of *R. sanotum*'s habitat. There is a white-flowered form.

R. amagianum
A tall shrub up to 5m (16½ft). The young shoots are densely covered with soft white hairs. The brick red flowers come late in June after the leaves.
Habitat: Izu Peninsula, Southern Central Japan.

R. hyugaense
This is a one-flowered inflorescence. It was once included in *R. viscistylum*.
Habitat: Central and Southern Kyūshū.

'Gotoh' Three-leaved azalea
This dwarf shrub has very tiny leaves and a one-flowered inflorescence. Some good forms are as small and compact as the small form of *R. kiusianum*. It is very rare and is a typical collector's item.
Habitat: the Goto Islands in the North China Sea, west of Kyūshū.

R. yakumontanum
Dwarf, densely branched shrub with thick branchlets. It is highly prized amongst horticulturists here.
Habitat: on Yakushima Island, the home of *R. yakushimanum*.

R. glandulistylum
Flowers after the leaves. The ovary is slightly hairy. I have never seen this species.
Distribution: Central Japan.

R. amakusense
Habitat: in Western Kyūshū, but I have never seen the species.

R. osuzuyamaense
Leaves are whitish on the lower surface.
Habitat: in Southern Kyūshū.

In addition to these native, three-leaved azaleas there are three more of foreign origin. *R. farrerae* from Hong Kong and *R. mariesii* from Taiwan are both small and compact shrubs and are in cultivation. I, personally, have never seen *R. daiyunicum* from Mainland China.

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Vireyas in Irian Jaya

PAUL SMITH

For the past four and a half years I have been cultivating and propagating the Vireya Rhododendron collection at the Royal Botanic Garden Edinburgh (RBGE) which is probably the largest collection in cultivation in the world. To me they are a fascinating and attractive group of plants with so much diversity in the colour and shape of their flowers' foliage.

I was part of the team from the RBGE who staged the exhibit of Vireyas at the RHS Early Rhododendron Spring Show in 1992 (see *Rhododendrons with Camellias and Magnolias,* 1993, No. 45, pp. 50-1.) Our aim was to bring them to the attention of a larger audience and to display them in as naturalistic a setting as possible. I had hoped that one day I would be able to see them for myself growing in their natural habitat and that wish was granted in September 1992, when I joined other members from the RBGE on an expedition to Irian Jaya (the Indonesian part of New Guinea.) The expedition was to the Baliem Valley in the Central Highlands which was only discovered by the outside world in 1938. It is inhabited by the Dani tribe who, despite all attempts by missionaries to change their traditions, still practise their Stone Age lifestyle.

The main valley is flat-bottomed with the valley sides rising steeply to about 2500m (8,200ft) with Gunong Trikora at 4750m (15,580ft) the highest peak. The Dani people cultivate not only the valley floor but also the steep slopes; the staple crop is sweet potato with tobacco, bananas, sugar cane, peas, beans and cabbages also grown.

The Base Camp for the expedition was made at Pabilylo, a small village of about 24 inhabitatnts at 2600m (8,530ft). Reaching the camp entailed a gruelling uphill walk laden with all our equipment and this was the most difficult part of the trip. We were not yet used to the altitude or the heat, but these discomforts were offset by the sight of all the new plants and life around us.

The Dani people live in wooden huts with thick thatched roofs surrounded by cultivated gardens and pig enclosures. We walked for several hours through cultivated areas, finally passing through a narrow strip of woodland where I had my first view of Vireya Rhododendrons and it was very exciting. The area appeared to have been previously cultivated and then left to regenerate and had been colonised by the rhododendrons. The yellow of *R. macgregoriae* was the first to catch my eye and then I noticed *R. inundatum* with

its white flowers which are beautifully perfumed and *R. ciliilobum* with small circular leaves. The plants all appeared to be about the same age. Further on we started to see *R. beyerinckianum* which tended to be a cream-coloured form; at higher altitudes they were usually the more common pink colour. As we pressed on there were occasional glimpses of a *R. macgregoriae* sometimes more than 3.6m (12ft) high emerging from the surrounding vegetation.

The montane forest that we passed through was dominated by *Nothofagus,* the southern beech, which was rather stunted in growth by the poor soil in the area, a white quartzite sand. However there were several rhododendrons growing in this sand in forest clearings, alongside the path – *R. vitis-idaea, R. ciliilobum* and *R. inundatum* – in full sunshine, and as the weeks went by I observed that these clearings would remain waterlogged for a day or two after heavy rain. It was a relief finally to reach the camp, unload and settle down.

We stayed initially in the area of Pabilylo collecting and pressing plants for the herbarium collections in Edinburgh and for the Indonesian herbariums of Bogor, Jayapura and Manokwari. It was especially beneficial for me to be collecting with Dr George Argent from the scientific staff of RGBE who has a wide knowledge and great experience of Vireya Rhododendrons, and from whom I learned a great deal. Many of the rhododendrons were growing epiphytically alongside ferns and many species of orchids. I had expected the rhododendrons to look different in the wild from the ones we grow in glasshouses in Edinburgh, but I had not expected to see them festooned with lichens and mosses, sometimes damaged, often looking straggly and sickly. I should have realised they were competing with everything else around them and were not protected against passing people, insects or pigs! The first species new to me was *R. haematophthalmum* with large pink flowers; growing alongside *R. beyerinckianum* with pink flowers and *R. majus* whose long white tubular flowers are pollinated by moths. There was also an attractive pink form of *R. macgregoriae;* the more common yellow form is pollinated by butterflies.

Higher up in the moss forest *R. wrightianum* became dominant, growing epiphytically on the trees. I was also interested to see other ericaceous plants, but often, we would find only fallen corollas of *vacciniums* and *dimorphantheras* on the forest floor, the plants being too high up in the canopy to see.

On 14 October we set out for several days collecting to the slopes of Mt Trikora. First of all we came across healthy plants of *R. haematophthalmum* growing in fairly densely shaded areas with *R. christii* also growing on the forest floor. This has a beautiful bi-coloured flower with a yellow tube and red lobes and at higher alti-

tudes we also found a pure red form. Leaving the dense *nothofagus* forest behind we moved into the tree fern forest where the smallest rhododendron in the world grows. *R. caespitosum* is a common epiphyte on the *cyathea* stems. Although rather inconspicuous with small leaves and tiny pink flowers, this delicate looking plant has stems firmly anchored around the *cyathea* stems.

The camp site was to be in a cave near Mt Trikora and as we came near to it I saw what was my most memorable view of vireyas in their natural habitat – an open, peaty, waterlogged area covered in *R. saxifragoides* forming dense cushions or mounds of leaves above which, on a long stalk, is a single nodding flower of bright red (*see* Fig. 7). It appears to grow rapidly on top of its old leaves and the mounds, getting larger, with their showy flowers rising above submerged grassland make a spectacular sight. The morning after our first night in the cave there was a fresh fall of snow on the summit and later in the day we were showered with hailstones. During our collecting in this area we found pink *vacciniums* and bright yellow shrubby *Xanthomyrtus* and along with the *R. saxifragoides* were blue and violet gentians and cheerful yellow *Ranunculus* (buttercups). The white cliffs of Mt Trikora were made of sandstone but we did not attempt to climb them. On the scarp slopes were shrubberies of predominantly Ericaceae and Myrtaceae with *Rubus* and *Pittosporum* mixed in. The weather was the most difficult thing to contend with; it was very cold at night and it rained frequently. The local people continued to assist us throughout all this wearing nothing but their penis gourds, though they obviously did not enjoy the weather either. One of the rhododendrons we had hoped to find was *R. habbemae*, which has been seen in the Lake Habbema area but though we searched very hard we drew a blank. We also searched in the Ibele Valley for the white, strongly scented *R. gardenia* which is where it was found 50 years ago by members of the Archbold Expedition, but to no avail. There was, however, a great deal of large-flowered *R. superbum* aff. here, one of its hybrids and *R. inundatum*.

The members of the expedition collected over 20 species of *rhododendron*. Any seed that was available was also collected. We have had great success in Edinburgh in raising plants from seed. Many cuttings arrive back in poor condition, because it is difficult to preserve them in hot and humid conditions over a long period of time. While being unwrapped for inspection they may dry out and there were often no fridges available to keep them cool before the long flight home. Many of the Irian Jaya cuttings were in poor shape by the time we got them back to quarantine and I understand better now the difficulties that scientists face on their expeditions. However some cuttings did survive and by Christmas most of the

seed had germinated. At the present time the seedlings are growing well. *R. saxifragoides* is a very distinctive seedling with bright red stems. This species along with *R. caespitosum, R. recurviflorum, R. haematophthalmum, R. inundatum* and *R. ciliilobum* are all new introductions to the Vireya collection at the RGBE as are two as yet unknown species.

The expedition gave me new insight into Vireya Rhododendrons and the taxonomic work being done on them. It has also suggested to me different methods I might use in their cultivation and has inspired me with the desire to visit other areas to see other species and learn more about these beautiful plants.

The National Magnolia Collection, II

JOHN BOND

On 6 April 1991 I took a walk in the Savill Garden – the purpose – to report on the National Collection of magnolias as I came upon them (*Rhododendrons with Camellias and Magnolias*, 1992, No. 44, p.32). The following year, 1992, I took on the same happy task in the Valley Gardens, but with one major difference, the date was 21 March. It was indeed an early season. My brief was the same as the previous year, to comment on the magnolias and try to ignore the other genera, however attractive and exciting they may be.

The magnolias in the Valley Gardens, as in the Savill Gardens, are spread throughout the garden. The first plantings were made in 1950 and the Collection has been added to regularly, and additions will continue to be made.

I find the garden in excellent order and the quality of flower, in general, better than ever and, with little or no frost since Christmas, the magnolias are no exception.

As I leave the car park at the head of the Valley Gardens, I am attracted by a young 3.6 by 3.6m (12 × 12ft) specimen of *M. cylindrica*, very heavily flowered but still in candle form. Distinct as this species is I can only rate it as a poor 'early soulangiana'. Having decided to proceed down the Azalea Valley I pass a poor specimen of *M. rostrata*, a species which is too tender for us and which has suffered terribly from frost over the years. However, we did once produce a single flower. I do not have the same tale of woe for the trio of 18m (60ft) trees which are planted a short way down the valley. Here we find the original First Class Certificate *M.* 'Charles Raffill', one of the seedlings of the cross between *M. campbellii* and *M. campbellii* ssp. *mollicomata* which were gifts from Kew in 1949. *Magnolia* 'Charles Raffill' once again presents a superb picture of perfection and really is superior and more reliable than *M. campbellii* in our comparatively cold garden. It has one other great merit in that it flowers freely from the age of 12 years or so and, of course, continues to flower with great freedom each year. We have a large number of *M. campbellii* ssp. *mollicomata* throughout the gardens. All of them were raised from seed collected at Caerhays many years ago, all of them are pale pink and all of them have a distinct upright habit, at least during the first 30 years of their lives. I should add

that they are all very pretty and worthwhile in the landscape but not, I suspect, of award standard. We have a great number of new dark forms and hybrids available for our gardens. These colours can be extremely hard and even angry in the landscape and I suggest that pale pink and blush colours are also very welcome. All this brings me to number two of the trio, the very best of our *M. campbellii* spp. *mollicomata*, which is particularly good and after 40 years has developed into a very fine large specimen. Number three is not yet in flower. Again 18m (60ft) high, *M.* × *veitchii* 'Peter Veitch' is a great favourite of mine and so valuable for extending the season and frequently missing the frosts that spoil our early spring display.

As I proceed down the Valley I nod at a very promising 1.8m (6ft) specimen of *M. biondii*, which has yet to flower, and wonder if someone failed to spell my surname correctly!

During the 1950s Villa Taranto, the superb garden which was made by the late Neil McEacharn in northern Italy, issued a very interesting seed list. Amongst the seed acquired from this list was *Magnolia stellata* 'Rosea'. The resulting seedlings showed notable vigour and are considered to be forms of the hybrid group, *M.* × *loebneri*. A few of the grex produced pale pink flowers; the best, however, was a selection which is best described as an extremely robust *M. stellata* and has been named *M.* × *loebneri* 'Neil McEacharn'. A number of these most attractive seedlings including the named Award of Merit selection are growing throughout the gardens.

Some 20 years ago we sowed seed of our best *M. sprengeri* 'Diva' and the resulting seedlings have been flowering for some years. All are good and very pretty and are planted throughout the various valleys. None, incidentally, is true to name. We planted some in nearby Royal Lodge and one of these has proved to be the finest, and I consider worthy of a name.

Another trio of 18m (60ft) trees greets me at the top of the main valley and all these are smothered with quality flower. One is another of our original *M. campbellii* × *campbellii* ssp. *mollicomata* from Kew. The other two came to us from Caerhays via the trade Both were named, neither is true to name, but both are quite lovely. There is no such problem about the 18m (60ft) *M. dawsoniana* on the other side of the valley. This is definitely true to name and quite breathtaking when in full flower.

Three 15m (50ft) specimens of *M. campbellii* support my earlier remarks. They have decided to flower over 40 years, but the flowers failed to open fully, most disappointing.

The area for our last port of call is situated at the top of the valleys, leading to Virginia Water Lake and the Totem Pole, and contains our greatest concentration of magnolias. Firstly, I am attracted

by a large grove of *M. campbellii* var. *alba* seedlings which were planted in 1960. All are now in the 12-15m (40-50ft) range and with one exception are shell pink in colour. In fact, they are typical of the seedlings of this lovely magnolia which abound in British gardens. The exception is *M.* 'Princess Margaret' which is much darker in colour; clearly some other pollen must have influenced this one. *M.* 'Princess Margaret' was awarded a First Class Certificate on its first visit to Vincent Square.

Magnolia enthusiasts tend to be unkind about the old *M.* × *soulangiana* hybrids. The newer Greshams, for example, with their larger flowers are raved about, but I wonder if they are as loyal and reliable? I would like to make a very strong case for almost all of them. The basic *M.* × *soulangiana*, which I believe should now be labelled 'Etienne Soulange-Bodin' is very reliable. If it has a fault it is that the new growth is somewhat chlorotic for a few weeks. The darker *M.* × *soulangiana* 'Rustica Rubra' is another totally reliable cultivar. It is three of the white selections that excite me with *M.* × *soulangiana* 'Alba Superba' with its distinct upright habit my number three choice. Number two is *M.* × *soulangiana* 'Lennei Alba'; this is also upright in habit and is really outstanding, a quality cultivar, with no close connection to *M.* × *soulangiana* 'Lennei'. My number one choice is *M.* × *soulangiana* 'Brozzonii'. Not only is this my favourite amongst the whites but is also number one in comparison with all *M.* × *soulangiana* cultivars. Like all of these *M.* × *soulangiana* forms in this area, *M.* × *soulangiana* 'Brozzonii' is planted as a group of seven which are now some 4.5m-5.4m (15-18ft) tall and wide. It is the latest *M.* × *soulangiana* to flower, often missing spring frosts and it holds its flowers in candle form for many days. *M.* × *soulangiana* 'Lennei' has a somewhat ungainly sprawling habit, but with age the habit is acceptable, especially when laden with its large (the largest of all *M.* × *soulangiana* hybrids) globular deep wine-purple flowers.

This article describes just a few of the magnolias in the Valley Gardens, there are very many more that attracted me on my walk.

Recent Changes in the Botanical Status of Some Camellia Species

T. J. SAVIGE

The RHS *Rhododendron and Camellia Yearbook*, No. 21, 1967, pp. 55-72 carried a translation of an article by Dr Hu Hsen-hsu from the *Acta Phytotaxonomica Sinensis*, Vol. X, No. 2, April 1985 in which he dealt with 14 new species or varieties of species in the *Genus Camellia*, 4 of which he classified in the *Genus Theopsis*.

In dealing with these species, Chang Hungta, in his *Monograph on the Genus Camellia*, 1981 accepted the change to *Theopsis longipedicellata* Hu made by Chang & Fang in *Acta Phytotaxonomica Sinesis* vol. XVIII, p. 229, 1980 where it was reclassified as *Camellia longipedicellata* (Hu) Chang & Fang, and also *Theopsis chrysantha* Hu reclassified as *Camellia chrysantha* (Hu) Tuyama by Tuyama, *Journal of Japanese Botany* 50: 299, 1975; while both *Theopsis euonymifolia* and *T. lungyaiensis* were discarded. Both *Camellia gigantocarpa* Hu and *C. octopetala* Hu were reduced to synonyms for *C. crapnelliana* Tutch.

Over the following years the number of species of the *Genus Camellia* increased from the 201 in Chang and Bartholomew's *Camellias*, 1984, to 278 in 1992. Included were 20 species or varieties of species with yellow flowers. In 1991 Chang Hungta published 'A Revision of the Section Chrysantha of Camellia' in *Acta Scientiarum Naturalium Universitatis Sunyatseni*, Vol. 30, No. 2, pp. 79-84. In this, seven species and five varieties of recent introductions were reduced to synonyms and two varieties were raised to new combined species. This finished up with two vars. of *C. chrysantha*, namely *C. chrysantha* (Hu) Tuyama var *chrysantha* Chang and *C. chrysantha* (Hu) Tuyama var. *microcarpa* Mo & Huang.

Then in the following edition of *Acta Scientiarum Naturalium Universitatis Sunyatseni*, Vol. 30, No. 3, pp. 63-5, 1991 in an article by Chang Hunta and Ye Chuangxing entitled 'A revision of the Species *Camellia Chrysantha* (Hu) Tuyama' the species *C. chrysantha* is reduced to a synonym for *C. nitidissima* Chi. The English abstract states:

> After comparing the specimen C.L. Tso 23483 (typus *Camellia nitidissima* Chi) with X.F. Wu & F.S. Huang 17530 (typus

Theopsis chrysantha Hu) it shows that *Theopsis chrysantha* Hu is completely the same as *Camellia nitidissima* Chi. According to the *International Code of Botanical Nomenclature*, both the names *Theopsis Chrysantha* Hu and *Camellia chrysantha* (Hu) Tuyama are invalid and are synonyms for *C. nitidissima* Chi. At the same time *C. chrysantha* (Hu) Tuyama var. *microcarpa* Mo & Huang and *C. microcarpa* Mo & Huang are reasonably transferred to *C. nitidissima* Chi var. *microcarpa* (Mo & Huang) Chang & Ye.

From this it would appear the *C. nitidissima* Chi would move from Section *Corallina* to Section *Chrysantha*.

Sealy, in his *A Revision of the Genus Camellia* 1958, p. 216, lists *C. nitidissima* Chi amongst the imperfectly known species. He writes:

> *C. nitidissima* Chi in *Sunyatseni* vii. 19-20, t.5 (1948).
> Described as a fruiting specimen collected on Mt Shiwanda, July 29, 1933 by C.T. Tso (No. 23483) and referred to Section *Theopsis*. It had thickly coriaceous, oblong or elliptic-oblong, shining leaves, 8-11cm long x 3-4.5cm wide, stout and shortly pedicellate, massive fruits some 5cm diameter, with sub-orbicular, 6-8mm long bracts and sepals persistent. Fruits dark brown, glabrous and densely verruculose. The plant may belong to Section *Archecamellia*, or it might be a *Tutcheria*, but it is quite impossible to decide from the published account.

Chang in his *Monograph of the Genus Camellia*, 1981 repeats the above date of publication: Chi *Sunyatseni* 7:19, 1948 and Tso's holotype No. 23483, but adds that the fruit was oblate with a pedicel almost 1cm long, bracts and sepals 11-12.

Dr Hu, Hsen-hsu of the Academia Sinica Institute of Botany published in *Acta Phyto. Sin.* vol. X, No. 2, April 1965 a full botanical description of *Theopsis chrysantha*. Its type specimens 17530 (Dec. 25, 1960) and 17628 (July 23, 1964) were lodged in the Guangxi Pharmaceutical Institute Herbarium. His description says:

> Leaves coriaceous, narrowly-oblong, obovate-oblong or lanceolate, 11-16cm long x 2.4-4.5cm wide, apices caudate-acuminate, bases cuneate, petioles 7-11mm long. Flowers golden, axillary, solitary, pedicels 1cm long, bracts 5, sepals 5, petals 8-10. Seed capsules 3.5cm high and 4-4.5cm diameter.

It is unfortunate that Chi's original description was so limited due to the incomplete type specimen, and did not describe the flower so that Hu had very little to alert him to the previous description.

As mentioned previously, Chang Hung *Monograph on the Genus Camellia* consigns *C. gigantocarpa* Hu and *C. octopetala* Hu to be synonyms of *C. crapnelliana* Tutch. However some Chinese botanists do not wholly agree with this action. Huang Shao-fu and Zhao Zhi-fen from the Institute of Subtropic Forestry and Xu Bingshen of the Fudan University's Department of Botany, after morphological and karyotypical studies of *C. octopetala* Hu and *C. gigantocarpa* Hu conclude that, while *C. gigantocarpa* Hu was obviously the same as *C. crapnelliana*, Tutch, the species *C. octopetala* Hu varies sufficiently to be regarded as a separate species.

Their findings were published in *Guihaia* (*c.* 1985), pp. 254-8 entitled: 'The Recognition of *Camellia octopetala* Hu based on Morphological and Karyotypical Evidence'. Their English abstract reads as follows:

> Both *Camellia octopetala* Hu and *C. gigantocarpa* Hu have been treated as synonyms of *C. crapnelliana* Tutch. (Sect. *Furfuracea* Chang) by H.T. Chang in his revision of Chinese camellias. Sealy remarks that *C. crapnelliana* is known only from the original collection and, according to the collector, only one tree was seen. The reduction of *C. gigantocarpa* to *C. crapnelliana* seems reasonable because it is so similar to the original description and figure of *C. crapnelliana* that one hardly finds any difference between the two. But upon the critical comparison of the morphological characteristics between *C. octopetala* and *C. gigantocarpa* it has been found that they differ in the following aspects:
> (1). The flowers of *C. gigantocarpa* being white and 7.5-12cm in diameter, with 5 inner petals, while those of *C. octopetala* are creamy white and smaller, being only 5cm in diameter with 9 inner petals.
> (2). *C. gigantocarpa* possesses 3 free styles while *C. octopetala* possesses 5 free styles. (Although the possibility cannot be ruled out of a variational range of styles from 3 to 5 within a single species.)
> (3). *C. gigantocarpa* possesses broader leaves, dark green above, and more finely denticulate at the margin, while the leaves of *C. octopetala* are somewhat narrower, are olivaceous above and with a coarser denticulation at the margin.

A comparison between the data obtained through a karyotypical study of the two species in question, reveals that they are karyotypically dissimilar, especially in the number of chromosomes with satellites and with secondary constrictions and relative lengths and arm ratios (arm lengths) of the chromosome. The karyotypes can be expressed by the following formulae (Symbols according to Levan et

al.). *C. gigantocarpa*: K(2n) = 30 = 16m + 6m + 4sm + 4sm; *C. octopetala*: K(2n) = 30 = 26m + 2sm + 2sm (Levan et al.). In the light of Stebbins classification of karyotype asymmetry, the karyotypes of *C. gigantocarpa* and *C. octopetala* belong to '2B' and '2A' respectively, and the latter would be considered a more primitive type than the former.

In brief, both morphological and karyological aspects of dissimilarity between the two species suggest that the recognition of *C. octopetala* Hu is probably desirable.

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New Record of Camellias from South China

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Acta Scientarium Naturalium Universitatis Sunyatseni,
No. 2, 1984, pp. 75-80.*

1. *Camellia crassissima* Chang & Shi, sp. nov.
Subgenus *Camellia*; Section *Camellia*; Subsection *Lucidissima*.

A shrub or small tree 1.5-3.5m tall with branches of glabrous green, buds subglabrous. Leaves moderately coriaceous, oblong or occasionally elliptic, 9-13cm long x 3-4.5cm wide, sometimes up to 6cm wide, apices acuminate, bases wide-cuneate, upper and lower surfaces shining olive green, upper half of margins serrate with teeth spaced 3-7mm, 7-8 pairs of lateral nerves prominent on both surfaces, petioles 12-18mm long.

Flower red, 1-2 terminal, sessile, bracts and sepals 8-9, outermost obovate, 2.2mm long, coriaceous, exterior silky yellow; petals 7-8, obovate, 4.5-5cm long, exterior 2-3 silky, bases joined for 6-7mm; stamens in 3-4 series, 3cm long, filaments glabrous, joined at the base to form a tube 10mm long; ovary 3-locule, glabrous, ovules 4-6 in each locule; styles 1.5-2.0cm long, glabrous, apex 3-fid; seed capsule globose, 5-7cm diameter, blackish woody in dried state, dehiscing into 3 valves with walls 1-1.5cm thick, glabrous; seed 4-5 in each locule.

Distribution: Jiangxi Province, Ningang, Dongshan Commune, altitude 550m, Shi Wen-tsun 0005 typus in the herbarium of the Sunyatsen University; Lian-Hua, Fanlao Commune, Anfu-shan, Shi Wen-tsun 004.

While both are in the Subsection *Lucidissima*, the main difference between this species and *C. chekiangoleosa* Hu is that the bracts and sepals are few, only 8-9; the leaves are thicker and with sharper serrations; while it differs from *C. magnocarpa* Chang in that the sepals are strongly silky, the petals are larger, leaves narrower and seed capsule wall thicker.

2. *Camellia paucipetala* Chang, sp. nov.
Subgenus *Camellia*; Section *Camellia*; Subsection *Reticulata*, Series *Reticulatae*.

* Translated by T. J. Savige, International Camellia Registrar.

Fig. 1 *Rhododendron cinnabarinum from High Beeches, Prize winner at the Rhododendron Show, 20 April, 1993 (previous page).* *(See page 68)*

Fig. 2 *Magnolia 'Kobandori' PC 1992, at Tilgates on the Annual Tour, 15 May, 1993 (opposite top).* *(See page 65)*

Fig. 3 *The Malt House, Chithurst, on the Annual Tour, 14 May, 1993 (opposite bottom).* *(See page 63).*

Fig. 4 *Magnolia acuminata ×denudata 'Yellow Bird' at Tilgates on the Annual Tour, 15 May, 1993 (right).* *(See page 65)*

Fig. 5 *Mr H. H. Davidian (centre) with members of the Northern Horticultural Society on the island of Gigha (below).* *(See page 7)*

Fig. 6 Rhododendron lagopus, a 3-leaved azalea from Japan (above left). (See page 34)

Fig. 7 Rhododendron saxifragoides on Mt Trikora, Irian Jaya, September, 1992 (above). (See page 39)

Fig. 8 Rhododendron wardii var. wardii on Tian Ban Shan, NW Yunnan, October, 1992 (left). (See page 14)

Fig. 9 Ka Kar Pu (6740m) on the Mei Li range above the Mekong River (opposite). (See page 16)

Fig. 10 Rhododendron sinogrande in John Wilks-Jones's garden in N. Wales. Winner of the photographic competition (overleaf, top left). (See pages 28, 29)

Fig. 11 Camellia granthamiana at Quinto do Palheiro, Madeira. Runner-up in the photographic competition (above). (See page 28)

Fig. 12 Exbury Solent Azalea 'Barbecue' in C.F. Taylor's N. Wales garden. Runner-up in the photographic competition (below). (See page 28)

Fig. 13 Rhododendron simsii by the Mingshuiguan reservoir in Hubei Province (opposite top). (See page 57)

Fig. 14 Rhododendron mucronulatum × praecox and R. dauricum among wood anemones in the Rhododendron Valley at Göteborg Botanical Garden (opposite bottom). (See page 25)

Fig. 15 Bowl of camellias at the Early Camellia Show, 16 March, 1992 (above). (See page 70)

Fig. 16 Camellia 'Brigadoon', Mrs Assinder's prizewinner at the above Show (left). (See page 70)

Fig. 17 The Rhododendron Group's display at the Rhododendron Show, showing rex and R. augustinii (below right). (See page 69)

Differs from *C. pitardii* Cohen-Stuart having leaves smaller, filaments partly free, perules and petals fewer and styles semi-free.

A shrubby tree with glabrous branches. Leaves thickly coriaceous, narrowly-oblong or lanceolate, 7-9cm long x 2-3cm wide, apices sub-acute or acuminate, bases cuneate, both surfaces glossy olive green, lateral nerves 7 pairs, reticulate veining lightly impressed on upper surface, margins serrate, petioles 5-7mm long.

Flower red, 6-9cm diameter, terminal, sessile, bracts and sepals 7-9, coriaceous with the exterior 3-4 glabrous, the rest silky yellow, 10-13mm long; petals 6-7, obovate, 3-4.3cm long, joined at the base; stamens 1.5-2cm long, partly free, glabrous; ovary silky, 3-locule; style 2.5cm long, 3 partly free.

Distribution: Quizhou province, Pan-xian, Zen Fan-an, 7608 typus in the Herbarium of the Sunyatsen University.

3. *Camellia glabriperulata* Chang, sp. nov.
Subgenus *Camellia*; Section *Camellia*; Subsection *Reticulata*, Series *Reticulatae*.

A tree up to 6m tall, trunk 8-24cm diameter, branches glabrous. Leaves coriaceous, oblong or lanceolate-oblong, 4-5.5cm long x 1.5-2.2cm wide, apices sub-acute or abrupt-acute, bases wide-cuneate to sub-rotund, upper surface bright green, lower olive green, glabrous, 5 pairs of lateral nerves, impressed on upper surface, conspicuous on lower, margins densely serrulate, petioles 4-5mm long.

Flowers red, terminal, subsessile, bracts and sepals 7-9, thinly coriaceous, largest 2mm long, glabrous, ciliate; petals 7-8, obovate, 2.5-3.0cm long x 2.0-2.5cm wide, emarginate, glabrous both sides; stamens 1.5cm long, joined at the base to form a filamentous tube for 8mm, glabrous; ovaries silky, 3-locule; styles 1.5cm long, apex 3-fid; seed capsule globose or pyriform, 2.8-3.2cm diameter.

It differs from *C. saluenensis* Stapf. having obtuse leaves with dense serrations, bases sub-rotund, perules and petals glabrous, stamens free and short.

Distribution: Quizhou Province, Pan-xian, Zeng Fan-an, 8021 typus in the Sunyatsen University herbarium. Pan-xian, Yang Fang-cheng, 7402.

4. *Camellia zengii* Chang, sp. nov.
Subgenus *Camellia*; Section *Tuberculata*; Series *Tuberculatae*.

A tree to 10m tall with shining glabrous branches. Leaves coriaceous, oblong or lanceolate, 9-12cm long x 2.5-3.7cm wide, apices acuminate or caudate-acuminate, base broad-cuneate, upper surface dull green, lower green, lateral nerves 7-9 pairs, prominent on both surfaces, venation reticulate, conspicuous, margins serrulate, petioles 6-8mm long.

Flowers white, 5-6 cm diameter, 1-2 in terminals, sessile, bracts and sepals 8-9, thinly membraneous, 1.8cm long, exterior grey-pilose, petals 7-9, oblong, 3.0-3.5cm long, glabrous; stamens 1.8-2.4cm long, glabrous; ovaries pilose, 3-locule; styles 3, free, grey-pilose; seed capsule warty, 2cm diameter; seeds 1-2 in each locule, 10mm in diameter.

Differs from *C. rhytidocarpa* Chang & Liang by having a greater number of lateral nerves, longer sepals, more petals and shorter filaments in a cylindrical cluster and pilose styles.

The species in Series *Tuberculatae* Chang ser. nov. have obtuse or sub-acute perules and villose ovaries.

Distribution: Quizhou Province, Liping, Feng Fan-an 8017, typus in the Sunyatsen University Herbarium, 8018.

5. *Camellia lipingensis* Chang, sp. nov.
Subgenus *Camellia*; Section *Tuberculata*; Series *Acutiperulatae*.

Differs from *C. rhytidocarpa* Chang & Liang due to its thickly coriaceous, narrowly-lanceolate leaves and glabrous stamens, ovaries and styles.

A shrub-like small tree with shining glabrous angular branches. Leaves thickly coriaceous, narrowly-lanceolate, 9-12cm long x 2.5-3.0cm wide, apices caudate-acuminate, bases broad-cuneate, upper surface shining green, lower yellowish brown, glabrous, midrib sparsely pilose, lateral nerves 7-9 pair, prominent both surfaces, venation reticulate, inconspicuous, margins serrulate, petioles 8-10mm long.

Flowers white, terminal, sessile, 5cm diameter, bracts and sepals 8-9, thinly membraneous, pubescent; petals 10, oblong or ovate, 2.0cm long; stamens 1.5cm long, free; ovaries glabrous; styles 3, free, 1.5cm long, slender, glabrous; seed capsule warty; 3-locule, 2.0-2.8cm diameter; seeds single in each locule.

Distribution: Quizhou Province, Liping, Zeng Fan-an 808, 81064, typus in the Sunyatsen University Herbarium.

6. *Camellia neriifolia* Chang, sp. nov.
Subgenus *Camellia*; Section *Tuberculata*; Series *Acutiperulatae*.

Differs from *C. lipingensis* Chang having thin leaves with entire margins and from *C. rhytidocarpa* Chang & Liang having narrow leaves with entire margins, ovaries glabrous.

Small tree with shining glabrous branches. Leaves sub-coriaceous, lanceolate, 7-11cm long x 2.0-2.5cm wide, apices caudate-acuminate, bases wide-cuneate or sub-rotund, upper surface dark green, dull or slightly glossy, beneath brownish, glabrous, lateral nerves 7-9 pairs, prominent on upper surface, visible beneath, venation reticulate, inconspicuous, margins entire, petioles 10mm long.

Flowers terminal, sub-sessile, bract and sepals 7-8, thinly membraneous, other greyish pubescent, petals not seen. Seed capsule warty, glabrous, 3-locule; styles 3 free, glabrous.

Distribution: Quizhou Province, Chi-shui, Zeng Fan-an, 81091 typus in the Sunyatsen University Herbarium.

7. *Camellia acutiperulata* Chang & C.X. Ye, sp. nov.
Subgenus *Camellia*; Section *Tuberculata*; Series *Acutiperulatae*.

Differs from the species series, leaves larger, styles 5, ovaries 5-locular.

A tree with shining glabrous branches. Leaves coriaceous, ovate-elliptic or oblong, 8-13cm long x 3.5-5.2cm wide, apices acute or obtuse, bases rounded or cuneate, upper surface glossy green, below glabrous green, lateral nerves 6-7 pairs, prominent on both surfaces, margins scattered serrate to entire at base, petioles 5-10mm long.

Flowers white, 1-2 axilliary, sessile, 6-7cm diameter, perules 10-11 with outer 3-4 bracts smooth-pubescent towards the centre, 3-5mm long, apices acute, interior 6-7 large sepals, wide-ovate, 13-17mm long, apices acute, glabrous or pilose; petals 6-7, obovate, 2-3cm long, bases not united, glabrous; stamens 1.6-2.0cm long, almost free or slightly united at base; ovary, rough but glabrous, 4-5 locules; styles 4-5, free, 2.0-3cm long; seed capsule sub-globose, 2.5-3.0cm diameter, 2.0-2.5cm high, pericarp warty, 2mm thick; seeds 1-3 in each locule, brown-pilose.

Distribution: Quizhou Province, Jinzhongshan. Zeng Pei & Xie Qing-jian 17023, 17024 typus in the Sunyatsen University Herbarium, 17024a, 17024b.

New taxa of section Chrysantha Chang from Guangxi*

MO, SIN-LI & ZHONG, YE-CONG
Guihaia, 5, (4): 353-354, 1985

Camelia quinqueloculosa Mo, S.L. & Y.C. Zhong, sp. nov. Subgenus *Thea*; Section *Chrysantha*; Series *Flavae* Chang.

Differs from *C. aurea* Chang in having more petals, 12-14; interior silver-brown or silky yellow; margins ciliate; bracts and sepals with silky interiors and leaves with caudate-acuminate apices.

Forms a shrub to about 4m tall, bark greyish yellow-brown, glabrous, branched yellow-brown, glabrous; leaves coriaceous, yellow green in the dried state, young leaves yellowish-brown, elliptic 8-16cm long x 3-6cm wide, apices acute or caudate-acuminate, bases cuneate or wide-cuneate, margins serrate, both surfaces glabrous upper dark, shining green, beneath green with dark brown glands; lateral nerves 7-8 pair, venation impressed on upper surface, prominent beneath; petioles 10-15mm long.

Flowers yellow, solitary, axillary, pedicels about 4mm long, bracts 4-5, semi-circular, outside glabrous, inside silver-grey, or silky yellow, margins ciliate, petals 12-14, sub-rotund or ovate-elliptic, outside glabrous, inside silky silver grey, margins ciliate; stamens numerous in 3-4 series, filaments glabrous, outer joined at base for one-third of their length, inner lightly joined at base; styles 5, free, glabrous; ovaries sub-globose, 5-angular, glabrous, 5-locule; 2 seeds in each locule; seed capsule compressed globose, 3-4cm diameter.

Distribution: Guangxi Province, Fusui County, on limestone hills in mixed forest. A shrub 4m tall with yellow flower; style 4-5, March 26, 1984, Forest-Ecology Group, 84382. Type specimen in the Guangxi Botanical Institute Herbarium.

[**Note:** This yellow camellia was found by the team organised for the investigation of the yellow camellia resources of Guangxi in 1984. However Chang Hung-Ta in 'A Revision of the Section *Chrysantha* of Camellia', published in *Acta Scientiarum Naturalium Universitatis Sunyatseni*, vol. 30, No. 2, 1991, was of the opinion that it was too close to *C. aurea* Chang and so reduced

*Translated by T. J Savige, International Camellia Registrar.

C. quinqueloculosa Mo & Zhong to a synonym for *C. aurea* Chang.

Then in the following year in a further revision of Section *Chrysantha* by Ye, Chuang-Xing & Xu, Zhao-Ran entitled 'A Taxonomy of Camellia Section *Chrysantha* Chang', published in *Acta Scientiarum Naturalium Universitatis Sunyatseni*, vol. 31, No. 4, 1992, *C. quinqueloculosa* was re-established as a species and *C. longgangensis* var. *patens* S.L. Mo & Y.C. Zong in *Guihaia*, 5, (4): 353-354, fig. 1-3, 1985 and *C. multipetala*, S.Y. Liang & C.Z. Deng in *Forest Sci. Techn.*, 1:9-10, fig. 3, 1990 reduced to its synonyms. There are many variations of leaf shapes in this species which has thick, coriaceous leaves, dry membranous sepals and bracts and ovaries with 2-5 locules. T.J.S.]

Hunting for 'Rhododendron simsii' in Western China

JOSEPH HEURSEL

In Western Europe evergreen azalea (*Rhododendron simsii*, Planch.) hybrids are becoming increasingly popular as flowering pot plants. This plant is attractive because of the wide range of vivid colours, the longevity of the flowers and its availability throughout the year, with the exception of the summer months. When Captain Welbank brought back *R. simsii* from China to England in 1806, he certainly did not imagine that this plant would one day be the origin of the indoor evergreen azalea, more than one hundred million of which are now grown in Western Europe every year.

R. simsii was cultivated for the first time in England in 1812 and flowered well before all other azaleas. It was introduced into France in 1815 and into Belgium in 1818. At about the same time it also appeared in Germany.

Since 1820 *R. simsii*, together with *R. indicum* and *R. scabrum*, have been used by breeders in Belgium, Germany and France to practise crossings. Their offspring gave rise to the first improved cultivars. Subsequently, *R. simsii* itself disappeared from Western Europe.

Now, 170 years of evergreen-azalea cultivation on, it is worthwhile going back to its centre of origin, for very little is known in the West about the natural variation and environmental circumstances in which this species grows. *R. simsii* grows wild in China. It was already extensively referred to in Chinese literature by 1578. It is widespread in the valleys south of the Chan Jiang (Yangtze) River. To the west, it spreads to the provinces of Sichuan and Yunnan, as well as to Hubei. It grows in Thailand and in Taiwan, also on the banks of the large rivers which form the Canton delta in the province of Kwantung.

In April 1989 the Chinese authorities allowed a small group to visit the provinces of Yunnan, Sichuan and Hubei. Ours was a group of seven; cultivators, *aficionados* and one azalea breeder (the writer).

1. The Province of Yunnan

On arrival at Kunming, the capital of the province, we were given an excellent guide and interpreter: Mr Yang Li. The trip was organised by the Kunming Botanical Institute. As Zhang Changqin has told us, the Institute has a collection of 126 species, among which is *R. simsii*. We also saw there a *R. simsii* hose-in-hose type from Tenchong, *R. microphyton*, *R. delavayi* and other species. A striking fact was that the researchers had problems cultivating the perfectly germinated seedlings of the various species because the medium was too heavy. It consisted of locally found red soil with some pine-needle soil. There was a limited production of locally grown *R. simsii* cultivars, mainly for decorating public buildings, factories and schools. They cost £5 a piece. The prohibitively high price, by local standards, explains why only larger communities such as schools and factories can afford to buy an azalea. The quality certainly didn't match European standards, partly because an unsuitable growing medium was being used. The Institute also had a large collection of evergreen azalea cultivars from Japan and the USA including many pre-World War II Belgian cultivars.

Our main aim, however, was to visit sites where *R. simsii* grows in the wild. The next day, we went west to Dali in two minibuses with our guide and two specialists from the Kunming Institute of Botany. Dali lies some 380 km (236 miles) away and the road to it is very badly paved. It is wide and consists of two lanes each way. The right lane, however, is filled with heavily laden pedestrians and cyclists who try to sell their wares in the villages along the road. A motley variety of small livestock is pushed straight onto the market place. The second lane is filled with lorries and buses. Only the odd passenger car can be seen. The average speed of our minibuses was never higher than 35-45km (22-28 miles) an hour. Needless to say a short lunch break in Chuxiong was more than welcome. Shortly before sunset we reached Dali, dead beat.

The next morning we pursued our trip towards the northwest to the Cangshan mountains. This mountain range is 50km (31 miles) long and 10km (6½ miles) wide and has a peak of 4122m (13,524ft). The unpaved road became narrower and more tortuous, lonelier and lonelier, not to say desolate. On the western flank, between 2130 and 2800m (6,990 and 9,186ft), *R. delavayi* was one of the main elements of the vegetation. The plants were in full bloom. It was a sight for sore eyes. This area is the pride of Chinese researchers, and rightfully so. It is certainly worth visiting. G. Forrest too, visited this area on his 1912-14 expedition. The group was disappointed when we failed to find *R. simsii*, the aim of our visit. Our companions said it was 'impossible'. The reason why was because our minibus could only take the group to just outside Dali. Further

down, the road was too bad. It consisted of rough marble rock, sawn by the local marble works at zero level. The tyres and suspension of our minibus were not up to driving on such a terrain.

The next day (1/4/1989) we climbed the eastern flank of the Cangshan mountain on foot from the marble works. On our way we had panoramic views over Lake Er Hai. At 2500m (8,202ft) we found *R. simsii*. The shrubs, that look like undergrowth, are cut for firewood by the local population. Only those branches not reaching ground level, had been able to bud and were blooming.

To see *R. simsii* growing in the wild for the first time was a deeply emotional experience for all of us, evoking feelings of gratitude to the explorers, scientists and gardeners, past and present who had made it possible for the world's most outstanding flowering pot plant to be available to all. We also greatly admired the way in which our Chinese guides had been able, so far from their station, to locate *R. simsii* without any problem.

The following details of its natural habitat will be of interest. The subsoil consists of pure limestone rock which is exploited commercially, as in the marble quarries mentioned above. A layer of humus covers the rock. *R. simsii* grows along the vertical rock faces so that the water can drain away quickly. Other plants in the area are: *Pinus yunnanensis, Gaultheria yunnanensis, Camellia saluenensis* and *Erigeron soncifolium*. When, a few days later, we visited the Lunan Stone Forest (123km/76 miles southeast of Kunming), we found *R. simsii* from Cangshan planted out in a park.

2. The Province of Sichuan

We flew from Kunming to Chengdu, the capital of Sichuan. As, to our great disappointment, *R. simsii* was completely unknown to our local guides, we had plenty of time to familiarise ourselves with the rich Chinese culture in the province. In the end, our companions learned that *R. simsii* grows along the Pujian reservoir. Pujian lies 120km (75 miles) southwest of Chengdu, at an altitude of 700m (2,300ft). *R. simsii* can be found in the wild along the sides of the reservoir. It blooms in the last week of April and a sign points out the presence of azaleas to tourists sailing down the reservoir. The local people know exactly where to find the azaleas among the other vegetation. Near a small pagoda, a few blooming plants could be seen, but it was too early to see the full display. This *R. simsii* variant was also found, planted out, in the temple gardens around Dujiangyan and near the hut of a famous eighth-century poet named Du Fu.

3. The Province of Hubei

From the capital, Wuhan, we drove 80km (50 miles) south towards Xianning. The area is famous for its bamboo forests, tea plantations (the best Chinese tea) and *Osmanthus* sp. Along the Mingshuiguan reservoir enormous quantities of *R. simsii* are found, in bloom, on the Shinaoshan mountain (Fig. 13). The central petal is pale carmine red and blotched. The other petals are red. The style projects 1.5cm above the stamens. The plants have enormous vegetative force and bloom profusely. They have buds all the way to the stems. As usual, the plant grows along rock faces under *Pinus massoniana*. The site lies 300m above sea level. In summer the temperature reaches 37°C (98.6°F) and in winter it drops to –8°C (17.6°F) with 50 days of usually light frost. The rainfall from February to July is 1600mm (63in). After July it gets much drier.

Conclusion

South of the Chang Jian (Yangtze, Blue River), *R. simsii* grows in the wild in several locations. There are 12 sites in the Province of Yunnan, 17 in Sichuan and 13 in Hubei. We visited three. The variants we found in those places are clearly different from each other. Collecting, comparing and studying these variants definitely opens up new perspectives for breeding. The type we found in the Cangshan mountains most closely resembles the first colour chart of *R. simsii* (No. 1480) in *Curtis's Botanical Magazine* (1812). Collecting the variants, however, presents certain difficulties. The sites are far away from large centres and reached by bad roads suitable only for cross-country vehicles. The sites are only accessible with the co-operation of the authorities and local specialists.

References

Sims, J.M.D. (1812), *Curtis's Botanical Magazine*, London, 36.

Zhang Changqin (1992), 'Rhododendrons at the Kunming Institute', *Rhododendrons with Camellias and Magnolias*, 1992, No. 44, pp. 54-5.

Labels at Brodick Castle

NIGEL PRICE

One of the topics which caused the most interest when the Rhododendron Group visited Brodick Castle Gardens in the spring of 1992 was our new labelling system.

Thanks to the Gulf Stream, our mild, moist climate enables us to grow a huge variety of plants, and there are good collections of unusual trees, shrubs and herbs from Australasia, South America and the Himalayas including, of course, our renowned rhododendrons. As part of a Country Park the Castle Gardens are open 365 days a year and our 70,000 visitors range from the erudite to, unfortunately, a very small number of inadequates who can wreak much havoc between pub-opening times, so the labels have to be clear, correct, permanent and, of course, as vandal-proof as possible.

Our existing system, Dymo strip on plastic, fell down in a number of ways: the tape often peeled off, the lettering became quite faded in time and where aluminium stems were used, some sort of reaction occurred which produced a white vertical mark through the face of the label. They looked cheap and unprofessional. In fact the only real advantage was that they were indeed cheap and very easy to produce, so easy that in many gardens label-making became a wet-day job for the inexpert, often resulting in incorrect spelling and numbering. I have fond memories of visiting one well-known garden where all plants of *Erinus alpinus* had been recently labelled '*Ur*inus', a mistake which would perhaps be more at home on a plant of *Lathyrus odorata*.

When we started looking at new label systems, it was clearly important at the outset to identify correctly all our requirements and expectations. We wanted longevity – at least 10 to 15 years – materials and features that would thwart vandalism and pilfering, an aesthetically pleasing format that would provide clear and precise information for our visitors and, of course, all this at a price which we could afford. In fact, we really needed two systems, an 'information' label clearly marked with the name, country of origin, etc. and another, far less expensive, label hidden from view which would be marked with the plant's identification number. Then, if the 'information' labels went astray, as they occasionally do through either theft or accident, we could trace the name and, more importantly clonal name and collector's number, by referring back to our plant records.

This hidden label is clearly very important and we chose to use a stainless steel Dymo tape attached to a treated hardwood dahlia stake driven in at the rear of the plant. This is not only out of sight but, being a number rather than a name, is of absolutely no use or interest to anyone other than ourselves. Although expensive to set up initially (the tape costs more than £11 per roll and the simple but robust hand-held Dymo machine for printing stainless steel costs in the region of £300!), it is a system which could be used as the primary label in private gardens where looks are perhaps not quite so important.

When it came to choosing the type of 'information' label, selection was easy. There were only two real alternatives: either aluminium or zinc 'Edwardian' style labels which could be either engraved or handwritten in permanent ink, or computer-engraved plastic laminate. The latter had many advantages, the most important being that we had a 'tame' computer engraver nearby offering handsome discounts! In fact, this system is very versatile. The machine is capable of producing large signs as well as our labels, and modern materials ensure excellent durability, flexibility and resistance to fading in strong sunlight (admittedly a problem only rarely encountered on Arran). There are numerous colour combinations and lettering styles available making it possible for an original layout to be custom-made for individual gardens. Perhaps, most importantly, computer-engraving produces neat and uniform labels throughout the garden which look good and are clear and easy to read from a distance, so this should result in far fewer hoofprints appearing in our nicely manicured beds and borders. Our standard 7.6 x 5cm (3in x 2in) label can be engraved with up to five lines of information which may include Latin name, common name, family, country of origin, accession number etc., although we have deliberately chosen a very simple format and most have only the Latin name and country of origin. All however, are clearly marked at the top with Brodick Castle which has made a significant reduction in the number of labels which 'disappear' each year.

To hang or not to hang was another very important question. I am not keen on hanging labels, they need checking at least once a year and that's just about impossible in a garden of this size. If they are not checked regularly they start to disappear. Some are lost when the branches die naturally and fall off (or indeed are pruned off – it really does happen but not of course at Brodick Castle), while most are simply hidden from view after a year or two by new foliage giving rise to what we call the 'Ostrich Syndrome'. This is a rather unpleasant complaint which affects visitors and staff alike who are often to be spotted bent double and repeatedly plunging their heads into shrubs looking for names. However, mounting

labels on stems and stakes can have a detrimental effect on the appearance of the garden so clearly a compromise was necessary. We decided to hang labels in areas containing predominantly smaller shrubs (using white-backed labels to make them easier to find – less chance of suffering Ostrich Syndrome), and to mount them on stakes in the more mature areas, such as our Lower Rhododendron Walk where a museum-like presentation really wouldn't look amiss.

The thin hardwood dahlia stake was an abject failure as a mount for the plastic labels. Our inadequates soon found that they could be pulled up easily and used as missiles; those that wouldn't pull up were broken by kicking and those that wouldn't break had the labels smashed. We now use very robust 7.6 x 7.6cm (3in x 3in) stakes driven in for at least half a metre (2ft) wherever possible; the tops are then cut away at an angle of 45 degrees and the plastic labels are finally screwed into position using four strong brass screws. These stems fight back! The natural ground cover in most parts of the garden is fern which hides most of the mounting stakes, but where the fern is sparse we have found it necessary to stain the stakes to make them a little less obtrusive. Cuprinol Decorative Preserver, Country Oak colour, does an admirable job but obviously adds yet more to the overall cost of each label.

The relabelling of Brodick Castle Garden will not be instant; we are limited not only by financial constraints but also by time. Compiling label lists involves researching and updating names, checking our computer records, checking the plants themselves and then there are stakes to be stained, holes to be bored etc., etc. However a distinct improvement should be noticeable in many areas when you next visit these wonderful gardens and, who knows, you may be fortunate enough to come across one of our inadequates nursing a broken toe.

Useful Addresses

'Edwardian' aluminium:

Labelplant, Fairfield House, Northwick Rd, Pilning, Bristol BS12 3HN.

'Edwardian' zinc:

Wells & Winter, Mere House Barn, Mereworth, Maidstone, Kent ME18 5NB.

Engraved laminate:

I.P. Engraving, 'Sylvania', Cladach, Isle of Arran KA27 8DD.

Sheen Developments Ltd, 11 Earl Road, East Sheen, London SW14 7JH.

The Rhododendron Group Tour 1993

RICHARD PADLEY

It is easy to forget how recently rhododendrons and their hybrids have entered our gardens. When Philip Miller published his *Gardener's Dictionary* in 1754 he knew of a mere five species of what he called *Chamaerhododendrons*. Three of these were variants of 'the sweet mountain rose' – *C. alpinum hirsutum* and *C.a. glabrum*, whilst *C.a. serpyllifolium* may presumably be referred to *R. myrtifolium*. The fourth sort, he said, is very tender. He called it *C. indicum* and gave detailed instructions for its cultivation in a warm stove. This left *C. americanum sempervirens* or *R. maximum* which Peter Collinson had introduced from America nearly 20 years earlier. Unhappily he said 'The seeds of this plant rarely grow when brought over.'

Within 20 years *R. ponticum* had arrived, to be followed by *R. catawbiense* and, more importantly, by *R. arboreum*. The great series of hardy hybrids was already under way when a hundred years after Miller's work the younger Hooker's *Himalayan Journals* signalled new genes pouring into the pool.

Surrey was one of the main epicentres of this phase of hybridisation, and among the gardens which the group visited there was still abundant evidence of this historical contribution.

On the evening of 12 May, 31 members met at the Thatchers Resort Hotel, East Horsley to be joined the following morning by six more staying locally. Mr and Mrs Michael Hoare greeted us at the Dower House, Dogmersfield, and gave us maps showing the location of plants in three acres of woodland planted primarily with rhododendrons, many from Mrs Roza Stevenson at Tower Court, and now up to 40 years old. The owners are still making fresh plantings.

Thus armed with the plan, we were confronted with tall plants of 'Beauty of Littleworth' in full flower. We took a clockwise path round the wood, sometimes identifying plants from the plan, sometimes orienting ourselves by identifying the plant and then seeking its place on paper. The profusion of species and hybrid rhododendrons and associated woodland plants was overwhelming and we needed more time to explore. The garden outside the wood contained more treasures – among others a small plant of *Magnolia* × *brooklynensis* 'Eva' and a large one of *Halesia monticola* flowering

the length of its branches. Unhappily nurseries had been unable to supply *Daphne bholua*, the plant of Mr and Mrs Hoare's choice, but we left a promise that it would arrive in the autumn.

After lunch in Farnham we travelled to Littleworth Cross to the splendid wood which Lady Adam Gordon tends so gallantly. Her own accounts of its history have appeared in previous Year Books, the first in 1976 and most recently, after recovery from the gales of 1987 and 1990, only last year. (See 'The Mangles Garden Today', *Rhododendrons with Camellias and Magnolias*, 1993, No. 45, p. 16.)

In the background, after entering the wood, were the rhododendrons, still with plenty of flower. It was a splendid experience to see 'Beauty of Littleworth' on its home ground, obviously hardy despite its *griffithianum* parent. A very large plant of *R. fortunei* reflects its original introduction. Fortune collected the rhododendron that bears his name in Chekiang (nowadays Zhejiang) province, in southeast China, in the hinterland of the treaty ports, during his third expedition in 1853-6. His seeds went to Glendinning's nursery and plants raised from there were auctioned in 1859. Yet another link with the early days was a plant of *R. wightii* from J.D. Hooker's introduction in 1850. The spirit of James Mangles and his brother and sister pervade this wood.

One aspect, however, is attributable to the present owner. In many large collections the eye is assailed by colours like sweet bells jangled, out of tune and harsh. Here great care has obviously been taken to achieve harmony. A deliberate example was to accompany the difficult pink of 'Mrs Frank Mangles' with 'Loder's White'. The latter was certainly raised in this garden, though whether from Mangles' seed, or as a seedling obtained from Luscombe in Devon seems not certain. Even more striking was the grouping of 'Nero', an old dark crimson hardy hybrid of *griffithianum* parentage, with 'Crest', a near perfect *R. wardii* hybrid.

We were all impressed with the obvious health and vigour of the plants after three years of drought. After a luxurious tea we thanked Lady Adam Gordon wholeheartedly and presented her with a plant of *Enkianthus perulatus* and regretfully had to leave.

That evening, Dr H.D. Dingle gave use an illustrated talk on his recent travels in the forests and national parks of Chile. Some of the plants were as strange as the southern stars, and it is true that the flora of Chile is still comparatively little represented in English gardens. There were many memorable images among Dr Dingle's slides; such as huge trunks of *Nothofagus dombeyi*, *Cortaderia* growing not in the pampas but colonising the pumice of a recent lava flow and, of course, *Lapageria*, the national flower of Chile.

Next morning we went to the Malthouse at Chithurst, the home of

Mr and Mrs Graham Ferguson (*see* Fig. 3). Much of the 1.6ha (4-acre) shrub garden occupies a steeply sloping bank at this time of the year dominated by a sea of azaleas, although later, hydrangeas prolong the flowering interest – one of the late Michael Haworth Booth's plant associations. He was Mrs Ferguson's father and his books, especially *Effective Flowering Shrubs*, were influential in the 1950s. Still in hybrid country, there were notable rhododendrons of other series as well. Indeed, one of Waterer's earliest and most lasting mid-nineteenth century hardy hybrids, 'Sappho', was in splendid form, as was 'Damaris', strictly a grex name, whose origins and progress were described by Walter Magor in the 1992 Year Book (*Rhododendrons with Camellias and Magnolias*, 1992, No. 44, p. 58). Nearby, 'Lady Bessborough', this time white instead of rich yellow, was another *campylocarpum* hybrid. Later there were more notable plants to see. A splendid double yellow Banksian rose on the house wall, which also sheltered a solanaceous evergreen, *Vestia foetida*, seen in Dr Dingle's slides the previous evening, and, near the house, *Cornus florida* 'Cherokee Chief', an American seedling displaying bracts the colour of old brick.

After thanking the Fergusons with a plant of *Rhododendron fulvum* we left for lunch at the Devil's Punchbowl in Hindhead, and then went on to Mr and Mrs E. Millais' garden and nursery at Crosswater Farm. The rain, which had threatened, fortunately stayed away.

In the first bed two plants of 'Arctic Tern' gave root shade to lilies. Botanically this hybrid is of great interest. It was raised from seed of *R. trichostomum* which had, so it is believed, been pollinated by a species of *Ledum*. This may well be the first hybrid between the two genera. (B. Starling, *The Plantsman* [1982], 4, pp. 97-9 and *Ibid* [1983], 5, p. 63.)[1]

'Hotei' ('Goldsworth Orange' × [*soulei* × *wardii* var. *wardii*]) subsumes much of the history of the introduction of Chinese rhododendrons in this century, for it includes the genes of four species, all first introduced between 1900 and 1913. The seed parent, 'Goldsworth Orange', is *dichroanthum* × *discolor* (the first introduced from Yunnan by Forrest in 1906, whilst the second was found earlier by Wilson in 1900). The pollen parent came from a cross between the closely related *R. soulei* and *R. wardii*, received as seed at Townhill Park. Both *soulei* and *dichroanthum* were raised in England by Veitch at Coombe Wood where they first flowered in 1909 and 1911 respectively. In its best colour forms *R. wardii* is a pure yellow – an influential parent. It has been collected many times. 'Hotei' itself received an Award of Merit in 1974. It is a deep yellow and rivals 'Crest' as the finest *wardii* descendant. (See Walter Magor, 'F. Kingdon-Ward's Legacy', in the 1992 Year Book,

Rhododendrons with Camellias and Magnolias, pp. 11, 12).

Invidious as it is to select individuals from this garden, 'Pink Gin', a *cinnabarinum* hybrid, apparently immune to powdery mildew, aroused interest, as did the FCC form of what we are now expected to call *Rhododendron degronianum* ssp. *yakushimanum*.

In a bed shaded by mature trees stood a 2m (6½ft) tree of *Acer ukurunduense*, perhaps scarce in cultivation because of its unwieldly name. It is small, slow-growing and handsome, and much to contemporary gardening taste, with five-lobed leaves turning yellow in autumn. It comes from the mountains of Japan. After a most enjoyable tea we thanked our hosts and gave them another Japanese maple – *Acer japonicum aureum* (now known as *A. shirasawanum aureum)*.

Next morning we went to Chiddingfold to Mr and Mrs Paul Gunn's garden at Ramster. Entrance to this garden is between banks of the old hardy hybrid 'Cynthia', a plant often denigrated for its difficult colour. *En masse* and by itself it looked very well. The garden itself has a serpentine lake set among thin woodland, in which was a very large *Kalopanax pictus*. This had most of us looking for the label.

The first part of the garden is fairly open, sheltered by tall, pyramidal conifers (can anyone distinguish *Chamaecyparis* from *Thuja* with certainty at a distance?), and at this time of year is dominated by azaleas in full flower. Beyond is the lake, appearing down a carefully contrived glade showing splendid reflections of the plants on the other side. The path narrowed to pass between tall banks of *Rhododendron* × Loderi with a broad tower of *Hydrangea paniculata*. This garden presented more open views than most, and after coffee many members were content to admire them, without too great attention to plant identification. After thanking Mr and Mrs Gunn and presenting them with a plant of *Hydrangea aspera* we returned to the hotel for lunch.

In the afternoon we travelled through intermittent showers to Mr David Clulow's garden, 'Tilgates' at Bletchingley, where we were met by his head gardener, Mr Graham Rankin, whose article on Magnolias in a recent issue of *The Garden* (June [1993] pp. 252-7) is based on experience here.

This garden was laid out in 1912 but was virtually destroyed in the great storm of 1987. A small area of original planting remains round a lake overhung by a fine *Cedrus atlantica glauca*. Here, was *'Rhododendron* 'White Pearl' (*maximum* × *griffithianum*), a reminder of the garden's origins.

The new garden consists of an archipelago of island beds containing a remarkable collection of well-grouped plants. It was, however, the magnolias that most commanded attention. Tilgates is one of

three national collections and particularly strong in flowering-sized plants of the new yellow hybrids first made in the Brooklyn Botanic Garden the origins of which were described by Maurice Foster in *Rhododendrons with Camellias and Magnolias*, 1991, No. 43, pp. 34-6.

The plants are meticulously labelled, and the first we came to was unnamed except for the parentage (*Magnolia acuminata* × *denudata*) and 'scions collected May 1988 Dario, USA and grafted by David Clulow'. Others continued in similar vein.

The original cross that now defines the grex *M.* × *brooklynensis* was between *acuminata* and *liliflora* and the pink of the latter persists in 'Eva Maria', the original 1956 cross which, however, back-crossed with *acuminata* has produced 'Yellow Bird', perhaps the best yellow from this source so far (*see* Fig. 4). 'Kobandori', from Japan, though smaller flowered, is perhaps its chief rival (*see* Fig. 2). It was awarded a Preliminary Certificate in 1992. Meanwhile crossing *acuminata* with *denudata* has given rise to 'Elizabeth', a paler flower, but better scented and appearing on the leafless stems.

We were invited to tea just as the thunder showers caught up with us. Wide reaching though the range of magnolias in this garden is, we were able, when thanking Mr and Mrs Rankin, to leave them with an addition to it – *Magnolia* '14 Carat'.

Sunday was spent in Windsor Great Park, where we were left to wander at will. In the morning we visited the Valley Gardens, where, for most of us, the centre of interest was the Rhododendron Species Collection, the backbone of which was the great Tower Court collection formed over the first half of this century by J.B. Stevenson and transferred here after his death. At first the main source of colour we saw was from the azalea garden which boasts, *inter alia*, a full set of the Wilson Fifty (*see* back cover). The species are grouped botanically in their series, and frequency of flowering varied. Members dispersed, as the area to be covered could only be sampled in the time available. No doubt each small group had a different floral experience. Some worried about labelling. A plant labelled *R. vernicosum* was scented, and the glands on its style were not red, surely therefore it must be *R. decorum*? Others admired both landscape and plants.

In the afternoon, again unaccompanied, the group wandered in the Savill Garden. Once again, there had been devastation in 1987 and once again it had been treated as an opportunity rather than as a calamity. The development of these gardens was the life work of Sir Eric Savill, Deputy Surveyor, in 1931. He was soon to be appointed Deputy Ranger, and then in 1959 (until 1970) Director of Gardens. Today his remarkable plantings continue to delight.

Sylvia Glass, a member of the Group whom we have not seen

lately, gave us a splendid tea in her rhododendron garden at Virginia Water. Then, after a final night at the hotel, we left, the cars of many members who had collected vigorously from the plant stalls of our hosts looking like well-stocked greenhouses. We were all filled with gratitude to Valerie Archibold who had so ably arranged another successful tour.

[1] The genus *Ledum* has recently been re-classified as belonging in the genus *Rhododendron*. (*Hon. Editor*).

The Rhododendron Shows 1993

ANNE BOSCAWEN

We are enjoying the best flowering season, in most gardens, for many years. This was reflected in the much improved main show. Eleven collections competed, and there were far fewer gaps on the benches than of late. However, flowering started extremely early, many species were already over, and others damaged by an April frost. Some species classes were marred by poor foliage, but entries in the hybrid classes were of a generally very high standard.

Species

The Lionel de Rothschild Challenge Cup was won by John Fox. Organiser of the South East Group, with eight good trusses, including the very fine form of *R. falconeri* with slightly pink edging to the bells, and a nice *R. hyperythrum*. Exbury were second with an almost equally good set, including a very yellow *R. macabeanum*, and a nice blue *R. campanulatum*, with a good indumentum. It is satisfactory that John has built up his collection, in such a small garden, in a comparatively short time.

Class 2 was won by High Beeches, with their compact and very yellow *R. falconeri*, acquired from C. Smith of Guernsey in 1915, *R. morii*, flowering for only the second time, and *R. rex*, from Reuthe in 1919. High Beeches Gardens have now become a Charitable Trust. Sandling showed an interesting trio including *R. dictyotum*, *R. rufum* the A.M. form, and *R. hyperythrum*. The large-leaved species do not grow well in this cold Kent garden.

The Maclaren Challenge Cup went to Hethersett, well known for the many old Mangles Hybrids preserved here, with a splendid large truss of *R. falconeri*, and they also took third with a nice *R. rex*. There were 14 entries here.

The Roza Stevenson Challenge Cup went to a very fine spray of *R. bureavii* in perfect condition, shown by Stonehurst. This old Sussex garden is very welcome back in the show. It must be worth a visit, just to see this plant.

Class 5, was won by Brian Wright, with *R. niveum*. Brian and Iris have built up a very fine collection, in spite of having to move twice to another locality, and they had many special difficulties this year.

Class 6 was won by High Beeches with *R. morii*. Classes 7 and 8 by Exbury, with a pure white *R. campanulatum*, and *R. sinogrande*. Classes 9 and 10 by High Beeches with *R. falconeri*, and *R. eximium*, and Class 14, by the Borough of Swansea with *R. venator* from Clyne Gardens. Clyne belonged to the Vivian family, and many lovely hybrids originated there. The gardens with very many fine old species, flourishing in the damp maritime climate, are now again well cared for. Some curators of publicly owned collections give as much of their own spare time to the rhododendrons as do many amateur enthusiasts.

Class 15 went to Exbury, for *R. dictyotum* (Kathmandu). Classes 18, 19 and 20 asked for trusses of *Campylocarpum, Caloxanthum, Selensia* subsect, etc. and, not surprisingly, were not very effective or well supported. Class 21, was won by Exbury with a deep pink spray of *R. williamsianum*, and Stonehurst was second with a creamy-white form. Class 24 went to Exbury for a nice *R. thomsonii*. Classes 25 and 29 went to High Beeches, with lovely sprays of *R. quinquefolium* and *R. cinnabarinum* (*see* Fig 1.). This last came originally from Tower Court, under the name 'Mt. Everest'. It appears to be resistant to powdery mildew.

Class 30 was won by Stonehurst, with a nice spray of *R. charitopes*, Class 31 by Clyne with a good pink *R. rubiginosum*, and Class 35 by John Fox with a very bright pink *R. spiciferum*. Clyne showed a white *R. yunnanense* ssp. *suberosum*, for fourth place. In Class 38, a lavender mauve form of *R. davidsonianum* from Clyne was preferred to a brighter pink. A very nice spray of *R. ambiguum* from Hethersett was third, Class 39 was won by High Beeches with the F.C.C. form of *R. augustinii*.

Hybrids

Class 50 for eight hybrids, with 7 entries, was won by John Fox, who showed 'Col. Rogers', 'Mariloo', and 'Fulbrook'; Exbury were second, including 'Col. Rogers' and 'Damaris' × *lacteum*. Class 51, for three hybrids, was also won by John Fox, and he included a very fine truss of 'W.F.H'.

Class 53, offering the Loder Challenge Cup, attracted 17 entries and was won by the un-named *niveum* × *eximeum* from Clyne, who were also third with a different clone of the same parentage. High Beeches were second with 'Little Jessica', Class 54 went to John Fox with 'Babylon', and 56 to Clyne with *niveum* × *eximeum* again. 'Loderi' is difficult to show, but John Fox's 'King George' was in perfect condition, and won Class 57; he also won Class 58 with 'Mariloo', and Class 59, for a hybrid of *R. williamsianum*, with the large-flowered, primrose yellow, 'Rothenburg'.

Class 65, for Grandia and Falconera hybrids, reflected Class 53, with the first three in exactly the same order. In Class 68, 'Lionel's Triumph' won for Exbury, Class 69, 'Elizabeth,' Exbury again, and they showed 'Lady Chamberlain' to win Class 72, and were also second with a lovely 'Alison Johnstone'; they won again with an intense blue 'St Tudy' in Class 75. Class 76 was won by Brian Wright with 'Phalarope', and Exbury won 78 with an extremely full-flowered 'Yellowhammer'.

Class 84, for a hybrid under glass, had two entries, both from Dr Dayton, an orange *vireya* hybrid, and 'Lila Pedigo'. Exbury won Class 91, with 'Hana Asobi', an interesting bright pink azalea with a small green eye, and Richmond Park (which includes the Isabella Plantation), won Class 92 for three sprays of evergreen hybrid azaleas.

The Rhododendron Group put up a stand showing a good variety of species, well labelled, and with some excellent photographs and information, but unfortunately insufficient time had been allowed for arranging the vases to best effect, and frost damage spoiled several. They were awarded a Silver Gilt Medal (Fig. 17).

The RHS stewards were extremely helpful to all competitors. This has not always been the case, and makes a tremendous difference, both to new exhibitors, and to those who may have come a very long way to show, and may be without other help.

The Camellia Shows 1993

CICELY PERRING

The 1993 camellia season had a splendid start with the launch by Trehane's of their interesting scented Camellias, including some *sasanquas*, which have proved to be far from difficult to grow, blooming early, closing the old season or opening up the new. It will require a class in the January and February shows if growing *Sasanquas* takes off as it should. Indeed, except in the most inclement years there are sufficient camellias in bloom in January to warrant their inclusion in the February show. The class for 'A Camellia Bloom one vase' is one that could be enhanced.

The mild and wet weather we have enjoyed provided the very conditions camellias love and spring 1993 saw wonderful flower displays. Not just in the 'show piece' gardens but 'over the hedges', here and there and by front doors. If only we could persuade the growers to exhibit (Fig. 15)! The most interesting aspect of The International Camellia Society exhibition at Wembley in April 1993 was the photographic display showing how adaptable camellias are and how suitable for small town gardens and patios. A large tub or pot of 'Lady Vansittart' is a truly lovely sight whether in bloom or not; each leaf twisted and reflecting the light and shining dark green.

The Early Camellia Competition on 16 March 1993 attracted just under 200 entries and the quality was patchy. Again we are greatly indebted to the regular exhibitors whose flowers are a delight. Especially good in Class 1 Sprays, was 'Wildflower' exhibited by Mr D.R. Strauss with six vibrant red blooms and buds which was given a well deserved first. 'Brigadoon', always beautiful, was shown by Marigold Assinder (Fig. 16). Seven superb blooms on a small branch, creating a rich and generous picture, was best in Class 2. A camellia not often exhibited, 'Milo Rowell', had first place in Class 3, flowers showing its Reticulata influence. This exhibit was outstanding for its lovely foliage, but sadly this class attracted only two entries.

It is hard to convey in words the beauty and perfection of many of the blooms exhibited. In Class 10 Mr D. R. Strauss included in his exhibit a lovely bloom of 'Furo-An' – such a contrast to the large many-petalled types. Mr and Mrs Short showed a beautiful example of 'Adelina Patti' gaining a first in Class 11. Class 12 produced a particularly fine set of blossoms. I would especially mention 'Coral Queen' and 'Grand Prix'.

Mr D.R. Strauss came first in Class 13 with 'Charles Bettes', a really

beautiful white. Second and third places went to the Duke of Devonshire with 'Cho-Cho-San' and 'Bob Hope'. John Tooby gained a well deserved first and fourth in Class 14 showing six wonderful blooms.

In Class 15 with 16 entries 'Dobrei' shown by Marigold Assinder took my eye. Seldom shown but not a new introduction it was most outstanding. It is interesting to see different cultivars. The same plants seem regularly to dominate the entries.

The Duke of Devonshire and Mr D.R. Strauss produced a wonderful selection of prize-winning blooms in Classes 16 and 17, Mr and Mrs N.T. Holman obtaining a third in Class 16 for 'Mikado' – outstanding for the colour of its foliage.

In Classes 18 and 19 where six blooms are called for, the Duke of Devonshire entered twice, 12 superb flowers for which he was awarded first and second, and Mr D.R. Strauss third. Of these 'Dr Tinsley' was the best flower for my selection and in Class 19 the Duke of Devonshire came first and Marigold Assinder second, 'Dr Clifford Parks' was quite lovely in her entry.

Class 21 was a particularly lovely exhibit of six entries. The Duke of Devonshire came first and second with six superb flowers. Mr and Mrs Holman, third, exhibited a particularly good 'Grand Jury'.

Class 22 attracted nine entries, The Duke of Devonshire was placed first and second. Third was G. Flockinger. Congratulations on a splendid 'Bryan Doak'; we look forward to seeing more such exhibits.

In Class 23 Mr and Mrs Holman came first and fourth with 'Arch of Triumph' and 'Miss Tulare'. The Duke of Devonshire second with 'Captain Rawes' and Mr D. R. Strauss was third with 'Nuccio's Ruby'. All wonderful blossoms from favourite cultivars.

In Class 24 the Duke of Devonshire secured a first and in his entry was the most beautiful 'Waterlily', hardly open, but absolutely perfect when compared with the fully open 'Waterlily' exhibited by Mr and Mrs Holman for which they were awarded a third place. The delightful range of colour and shape of the flowers could be well appreciated. In the unplaced entries was a superb specimen of that favourite Camellia 'Debbie' exhibited by Marigold Assinder.

In Class 25 first place went to 'Ruby Bells' exhibited by the Duke of Devonshire; second was 'Hiraethlyn'; third was Dr Strauss with 'Mary Jobson'. I must mention my favourite 'St. Ewe' shown by the Duke of Devonshire and unplaced, but what a lovely flower and what a rewarding camellia to grow. In my garden it is three months in bloom and beautiful throughout the year.

In Class 26 there were seven entries. Mr and Mrs Holman were placed first with an unnamed but lovely bloom. Second came the Duke of Devonshire with 'Milshoka' and third, Paulton Square

Gardens with 'Donation', a favourite which has not figured greatly in this show.

In Class 27, there were 12 entries, five of which were 'Debbie'. First 'Debbie' by Mr Strauss, second 'Debbie' by Marigold Assinder, third 'Elegant Beauty' by Mrs B. Waterlow and fourth 'Debbie' again by Mr John Tooby.

The Main Camellia Competition 8 April 1993

In 1962 Mr Reginald A.R. Try wrote in *Rhododendrons with Camellias and Magnolias, No. 16,* p. 125.

> It is a source of great excitement and delight never dulled by passing years, to enter the fine Royal Horticultural Hall as an exhibitor in the Camellia Competition. For here we know that the blooms are shown to the greatest advantage under the wide glazed roof and that the delicate colourings affected adversely by any form of artificial light will be seen at their fullest beauty.

He was certainly not writing about the Wembley Conference Centre. The Camellia Show on 8 and 9 April 1993 took place at a new venue and a new venture at The International Spring Gardening Fair. It is at this show that the Leonardslee Bowl is awarded. This year won by Mr D.R. Strauss out of nine entries each of twelve blooms. Second came Marigold Assinder who won the 'Treve Holman' Award and third Mr Strauss. The blooms were magnificent throughout the classes and the judges must have found their task very difficult. Class 1 produced only one entry. In Class 2 Mr D.R. Strauss was awarded a first, amongst his entry was 'Touchdown' an unusual flower; beautiful, unblemished, quite outstanding.

In Class 3 with five entries Barbara Griffiths was awarded first place with 'Magnoliaeflora', a lovely delicate flower and well-named, second Mr D.R. Strauss with 'Bob Hope' and Marigold Assinder third, with 'Konron-Koku', a wonderful dark red flower which blooms with enthusiasm.

D.R. Strauss was placed first in Class 4. His entry 'Julia Hamiter' was a superb almost open bud competing with 'E.G. Waterhouse'; second shown by Marigold Assinder with 'Blue Danube'; third by Barbara Griffiths. D.R. Strauss also earned first place in Class 5 with 'Betty Ridley', an outstanding entry with strong growth and flowers.

Edmund de Rothschild entered the fray fielding six superb blooms including 'Lady Vansittart Red', a delightful flower. He was placed first out of eight entries, D.R. Strauss second, third A. Hooton and P. Bleary fourth, a really fine collection of blooms, no two of the same variety.

There were three entries in Class 12. D.R. Strauss was awarded first place; in his exhibit was 'Clarissa', a lovely pink with deep pink stripes. Edmund de Rothschild was second. 'Clarissa' figured in Class 13 where again Mr D.R. Strauss was placed first and Edmund de Rothschild second with 'Diatarin', a Camellia which seems to be an error. According to the International Camellia Register this should be 'Dewatairin' and was of ancient origin. Third Mrs B.E. Wright with 'Lily Pons'.

In Class 14 Mr D.R. Strauss took first and third places and Edmund de Rothschild second out of four entries.

Class 15 with 18 entries was notable: superb quality and colour. A well deserved first went to A. Hooton who showed 'Grand Prix', as was the second awarded to Mrs B. Waterlow's exhibit 'Fred Saunders', 'Donckelarii', third, shown by Marigold Assinder and fourth 'R.L. Wheeler' by Edmund de Rothschild.

Class 16 had four entries each of three blooms. Edmund de Rothschild came first, second was A. Hooton and third D.R. Strauss. 'Faith' exhibited by Mr D.R. Strauss was outstanding for colour.

There were 16 entries in Class 17 and the winners were quite special. First, Edmund de Rothschild with 'Professor Charles S. Sargent', a wonderful dark red: second Marigold Assinder with 'Tomorrow Park Hill'; and third Barbara Griffiths with 'Grand Slam'.

Rose Formed or Formal Double Camellias are the general public's idea of what a camellia should look like and Class 18 must have gladdened the hearts of the visitors. All the blooms were well-known and very beautiful flowers. First came D.R. Strauss, second Edmund de Rothschild and third Barbara Griffiths. 'Contessa Lavinia Maggi' figured in four entries including the first three and unplaced. D. R. Strauss exhibited an exceptionally beautiful dark red 'Mathothiana'; his first place was well deserved.

Class 19 was again a popular class with 19 entries. First place to Gerda Flocking with a lovely unnamed light red Rose Form bloom; second D.R. Strauss; and third Marigold Assinder.

Class 20 with seven entries produced some exceptional blooms, especially 'Anticipation', part of the entry of Barbara Griffiths who was awarded third place. The first and second places went to A. Hooton. Edmund de Rothschild included in his unplaced entry a superb 'Elsie Jury' and Marigold Assinder a lovely 'Brigadoon'.

Class 21. This class was somewhat disappointing as some exhibitors did not give, as required, the parentage of their exhibited blooms which eliminated some fine blooms. First went to Barbara Griffiths with 'Dr Clifford Parks', second to Marigold Assinder with 'Captain Rawes' and third to D.R. Strauss with 'Lasca Beauty'.

Class 22 attracted five entries. In this class Edmund de Rothschild was placed first with favourite 'Debbie', 'Anticipation' and

'Brigadoon'. Second was A. Hooton with more favourites, 'Dreamboat', 'Bridal Gown' and 'Daintiness'. Third was D.R. Strauss with 'Debbie', 'Julia Hamiter' and 'George Blandford', while in her unplaced exhibit Mrs Waterlow had a lovely bloom of 'Elegant Beauty'.

Class 23 was for single-bloomed *Williamsii* and produced some really exceptional entries. First, Mr D.R. Strauss with 'Francis Hanger', second Mr and Mrs Short with a lovely 'November Pink' and third Mrs B.E. Wright with a nice pink 'unknown' with long petals and good stamens. It just needs a name.

In Class 24 of 13 entries, Mr and Mrs Short were awarded a well-deserved first for their exhibit of 'China Clay'; second Jane Steptoe. We look forward to seeing more exhibits from her; and third Marigold Assinder.

In Class 25 A. Hooton was awarded first place with a very lovely bloom of 'Elegant Beauty'; Mrs Waterlow second with another 'Elegant Beauty' and third Edmund de Rothschild with 'Anticipation'.

Class 26 attracted six entries. First placed was 'Dreamboat' exhibited by A. Hooton, second 'Waterlily' by D.R. Strauss and third 'E.G. Waterhouse' by Mr and Mrs Short.

Second place in Class 27 went to another example of the 'Seedling of Garnet Gleam': there is no doubt this has a brilliant colour and good prospects for the future.

It was a very fine show with some exceptional blooms, but I fear Mr Try would not have found that the venue came up to the standard of our own much-loved home.

Book Reviews

The Rhododendron Species, Vol. III. Elepidote. Series Neriiflorum-Thomsonii By H. H. Davidian; 381pp, 161 col., 6 b&w. (B. T. Batsford, 1992). Price £70 (£60 to Group members).

This long-awaited book by an acknowledged expert on rhododendron species completes the coverage of the genus. In his review of Vol. I, W. D. Davidson stated, 'Mr Davidian is not enamoured of the revision on new classification proposed by Drs Cullen and Chamberlain, but the outcome of that controversy . . . should in no way detract from the value of his work' (*Rhododendrons with Magnolias and Camellias,* 1982/83, p. 53). These remarks still stand following the adoption of the Cullen and Chamberlain revision and the work reflects the vast knowledge of the author for his subject.

The five maps together with a list of names of the new and old forms of Chinese provinces are useful as are the line drawings of leaf and flower forms, scales, seeds and, more unusually, hairs.

Included in this volume is a key to the series and sub-series followed by descriptions of species. It contains 11 series arranged in alphabetical order. Each series comprises general characteristcs, distribution, affinity with other series, a key to the species and a description, based on herbarium specimens and plants in cultivation, with the more important characteristics appearing in italics. The description is followed by notes on the species in relation to the discoverer, collectors, distribution, native habitats and altitudes, affinity with other species, an account of the plant in cultivation, awards, hardiness and flowering months.

The colour reproduction of the plates is, on the whole, excellent including photographs of some of the more unusual species in flower and some good indications of the attractiveness of new growth. The value of rhododendrons in landscapes as widely divided as Britain, the USA and Denmark is shown together with some well-chosen examples of collecting areas in Burma, Bhutan and China. Black-and-white photographs taken by Joseph Rock during his travels make an interesting addition.

A list of synonyms is followed by botanical descriptions of 17 new taxa, synopsis of elepidote, Rhododendron species and a further list of lepidote species.

This last volume completes what is probably the most comprehensive review of the genus yet produced.

BA

Gardening with Camellias: A Complete Guide by Jim Rolfe. 176pp. 175 col. ill, some line drawings. (Godwit Press, Auckland, New Zealand, 1992), price £25.

The cover is stunning – a spray of *Camellia japonica* 'Fimbriata' against a black background – and if this persuades you to lash out £25 on this beautiful and informative book I don't think you will regret it. *Gardening with Camellias* is one of the most comprehensive and clearly

put guides to camellias I have read and, as the cover indicates, the standard of photography is very high indeed.

After the initial impact of the splendid illustrations you get down to the serious reading, ranging from the history of camellias, where they are to be found, choosing which to buy, growing in the open and in containers and landscaping, to a really splendid chapter on propagation in all its aspects – seeds, cuttings, air layering, grafting (whether cleft, approach, side saddle, cutting or nurse seed graft). There is a chapter on disorders, diseases and pests which is the only part I have a slight reservation about, as the proprietary remedies have not been translated for the benefit of European readers. Thank heaven some of the problems have also not been introduced here – yet. It gives one a real frisson to read about Petal Blight, Leaf Gall and *Glomerella cingulata*, and makes you wonder if we will have to be dealing with these horrors in the future. Pray heaven the Customs will continue to be vigilant.

The appendices include a very helpful piece on showing, a list of Camellia Societies worldwide, and a list of, one assumes, Mr Rolfe's favourite camellias – species and cultivars. I have a small quibble here; the camellias in the list are all fully named – whether *reticulata*, *japonica* or whatever – but in the main text they are not, on the whole. For instance he gives useful lists of camellias for various uses – specimen trees, camellias for the open garden or shrubbery, for standards, for hedging, for ground cover – and never does he give anything but what you might call the given name, never × *williamsii*, *japonica* etc, and this also goes for the captions under the photographs and when you go to the main index you find no help there. I hope another edition will give the full name of every camellia in the text for the benefit of those who have not yet bought the International Camellia Register!

MARIGOLD ASSINDER

Dunedin Rhododendron Group Bulletin, No. 21 (1993)

The 1993 Bulletin of the Dunedin Rhododendron Group continues to offer articles of general interest to Rhododendron lovers in other countries. Tony Schilling, late of Wakehurst Place in the UK, writes of the local habitat of *Rhododendron kesangiae* in Bhutan (see *Rhododendrons with Camellias and Magnolias*, 1990, No. 42, p. 29) and the likelihood of its natural hybridisation with *R. falconeri* and *hodgsonii*. Prof. W. R. Philipson describes the recent merging of the two species of Ledum with the genus Rhododendron 240 years after Linnaeus separated them. He gives sound taxonomical arguments for so doing. Norman Todd's letter from British Columbia comments on the plethora of similar hybrids, discusses the effects of tissue culture on the availability and cost of rhododendrons in commerce and questions the ethics of cultivating moisture-loving plants in a world of increasing water shortage. Several rewarding trips by New Zealanders to Yunnan are recorded and Brent McKenzie describes the Section Glauca. Local activities are chronicled and the photographs are, as usual, stunning.

CP

Awards at London Shows

RHODODENDRONS, 1992

***Rhododendron taggianum* 'Cliff Hanger' AM** 7 April 1992, for exhibition. Trusses 5 and 6 flowered, corolla up to 9.5cm long and 8.5cm across, broadly funnel-shaped, white (White Group 155B) with a small blotch of Yellow-Orange Group 15B in upper throat. Calyx 5-lobed, deeply divided, pale green, up to 1cm long. Leaves obovate, up to 12cm long and 4.5cm across, mid-green, glabrous above, glaucous with uneven scales below. Collector F. Kingdon Ward, under KW8546, exhibited by Millais Nurseries, Churt, Farnham, Surrey.

***Rhododendron* 'Marie Curie' (*fortunei* hybrid × *thomsonii*) AM** 28 April 1992, for exhibition. Truss large, loose, 12-13 flowers. Corolla campanulate, 5-lobed, up to 7cm long and 8cm across, deep pink (Red Group 50B) lower lobes of inner corolla paler with dark veins, upper throat sparsely spotted reddish-brown. Calyx 5-lobed, greenish flushed pink, to 1cm. Stamens 10, irregular, held within, filaments white, anthers dark brown. Style held within. Leaves broadly elliptic, up to 11cm long and 6.5cm across, dark green, glabrous above, paler and glabrous below. Crossed and raised by J.J. Crosfield, exhibited by High Beeches Gardens Conservation Trust, High Beeches, Handcross, West Sussex RH17 6HQ.

***Rhododendron* 'Xanadu' (Apricot Lady Chamberlain' × *cinnabarinum* subsp. *xanthocodon* Concatenans Group) AM** 28 April 1992, for exhibition. Trusses 6 or 7 flowers, loosely held. Corolla campanulate – tubular campanulate, 5-lobed, up to 4.3cm long and 4cm across, light orange (Orange Group 28D-C), outer corolla suffused vivid orange (Orange Group 28B) tinged strong purplish red (Red Group 54A). Calyx rudimentary, green scaly, stamens 10, irregular, held within, filaments flushed light orange, anthers dark brown. Style held free. Leaves elliptic, up to 9cm long and 4cm across, mid-green, glossy above, lightly covered brown scaly indumentum below. Crossed, raised and exhibited by Edmund de Rothschild, Exbury Gardens, Exbury, Southampton, Hampshire.

***Rhododendron* 'Kurt Herbert Adler' (*lochae* × *phaeopeplum*), AM** 14 July 1992, for exhibition, as a tender flowering shrub. It forms a rounded shrub with broadly ovate leaves, to about 9cm by 6cms, covered with brown scales below on a petiole to 2.5cm long. The very fragrant tubular funnel-shaped flowers about 8cm long by 5cm across with five rounded lobes are deep purplish pink, 58D, slightly darker to 58B at the margins, borne in trusses of 6-8 on pedicels to 2.5cms. Calyx rudimentary, the filaments 10, vivid red 52A, and the anthers pale brown. Exhibited by G.A. Hardy, Hillhurst

Farm, Hythe, Kent. Crossed by T. Lelliott in Australia and registered by Strybing Arboretum, San Francisco in 1974.

CAMELLIAS, 1992

***Camellia reticulata* 'Pharoah' AM** 10 March 1992 for exhibition purposes. Flowers, semi-double with wavy petals to full paeony form, up to 15cm across, colour strong purplish red (Red Purple group 58B). A seedling of *Camellia reticulata* 'Cornelian', raised by Howard Asper. Exhibited by Dr J.A. Smart, Marwood Hill, Barnstaple, North Devon.

RHODODENDRONS, 1993

***Rhododendron lapponicum* 'Brian Davidson' PC** 23 February 1993 for exhibition. Flowers in trusses of 4 to 6, corolla 5 lobed, funnel-shaped, up to 1cm long and 1.4cm across, colour vivid purple to vivid reddish purple at base. Stamens, 10 held free within, filaments, reddish-purple, anthers, dark brown, style reddish purple, held free. Calyx, 5 lobed, densely scaly, fringed with a few long hairs. Leaves, oblanceolate, up to 1.7cm long and 0.5cm across dark green, impressed, scaly above with dense, overlapping brownish scales below. Seed collected in Norway by Brian Davidson. Raised and exhibited by A.J. Richards, 'High Trees', South Park, Hexham, Northumberland.

***Rhododendron* 'Graham Thomas' (*campanulatum* × unknown) AM** 20 April 1993 for exhibition. Trusses 10 to 12 flowers, full, rounded, up to 18cm across, corolla 7 lobed, funnel-shaped, up to 5cm long and 10cm across, light purple (Violet Group 87C) paling to very pale purple (Violet Group 85D) in throat, lip of corolla vivid purple (Violet Group 87B). Numerous small blackish spots in upper throat. Stamens 13-14, variable, held within, filaments white, anthers brown, style held free. Calyx rudimentary, green, glandular-hairy, leaves elliptic, up to 15cm long and 5cm across, dull, dark green above, lightly covered below with loose, woolly brown indumentum. Crossed by Donald Waterer. Raised by Knap Hill Nursery. Exhibited by Crown Estate Commissioners, Crown Estate Office, The Great Park, Windsor, Berkshire.

***Rhododendron* 'Pearl Betteridge' ('Damaris' × *lacteum*) AM** 20 April 1993 for exhibition. Trusses 24 to 26 flowers, full, rounded, up to 17cm across. Corolla 5 lobed, broadly campanulate, up to 5cm long and 8cm across, light greenish yellow (Yellow Group 4B to 1C) with slight flush of deep purplish red (Red Purple group 59B) in upper throat. Stamens 10 variable length, held within, filaments yellow, anthers dark brown, style held within. Calyx, rudimentary, 5 lobed, green, glandular-hairy. Leaves, elliptic, up to 14cm long and 6cm across, dull, dark green above, paler beneath. Crossed by

Douglas Betteridge. Raised and exhibited by Edmund de Rothschild, Exbury Gardens, Exbury, Southampton, Hampshire.

***Rhododendron davidsonianum* 'Ruth Lyons' AM** 20 April 1993 for exhibition. Flowers in trusses of 8 to 10, terminal, broadly funnel-shape. Corolla 5, 6 or 7 lobed, broadly funnel-shape, up to 2.5cm long and 4cm across deep purplish pink (Red-Purple Group 68A) with light red spotting in upper throat, stamens 10-14, variable, held free, filaments pink, anthers light brown, style held free. Calyx rudimentary green scaly. Leaves, lanceolate, up to 5cm long and 1.5cm across, dark shiny green above, glaucous and scaly beneath, aromatic. Collector, not recorded. Exhibited by David Clulow, Tilgates, Bletchingley, Surrey.

***Rhododendron* 'Edmund de Rothschild' ('Kilimanjaro' × 'Fusilier') FCC** 24 May 1993 for exhibition. Crossed, raised and exhibited by Edmund de Rothschild (see AM description R.H.S.J. Vol. XCIII [1968] p.489).

CAMELLIAS, 1993

***Camellia* 'Spring Mist' (*japonica* × *lutchuensis*) PC** 26 January 1993 for exhibition as a hardy plant. Flowers miniature semi-double, blush pink. Raised by A.E. Longley and C.R. Parks, USA. Exhibited by Crown Estate Commissioners, Crown Estate Office, The Great Park, Windsor, Berkshire.

***Camellia japonica* 'Moonlight Bay' PC** 16 March 1993 for exhibition, as a hardy plant. Flowers semi-double, large, up to 14cm across, colour, pale purplish pink (62D). Raised by Nuccio Nurseries, USA. Exhibited by J. Trehane & Sons Ltd, Stapehill Road, Hampreston, Wimborne, Dorset.

MAGNOLIAS, 1993

***Magnolia stellata* 'Jane Platt' AM** 20 April 1993, as a hardy flowering shrub, exhibited by D. Clulow, Tilgates, Bletchingley, Surrey.

This cultivar was first found in a garden in Portland, Oregon and named for one of the owners. The flowers to 10cm across, bear 25 to 29 linear tepals each to 5cm by 8mm, acute at apex, narrowing to base, white inside but flushed very pale purple (69A) outside in young flowers but fading slightly to 69B in older flowers. Specimen in Herb. Hort. Wisley.

1996: The Jubilee Year

CYNTHIA POSTAN

Nineteen hundred and ninety six will be a significant year for the Rhododendron, Camellia and Magnolia Group of the Royal Horticultural Society. It will be fifty years since the RHS published the first Year Book for this Group. This elegant, green, hardbacked volume with the logo of the Royal Horticultural Society in gold on the front cover, published in 1946 at ten shillings and six pence, was the successor to the privately circulated pre-war *Notes* of the old, exclusive Rhododendron Society formed in 1915 with its membership restricted to a few wealthy garden owners, botanists, horticulturalists and, of course, the heroic plant collectors themselves: in other words, an inner circle composed of those who had access to the means for collecting, naming, propagating and cultivating this most fascinating genus, new species of which were flooding into the Western world at a bewildering pace.

Rhododendrons had, of course, been introduced from North America and the Caucasus since the eighteenth century and from British India since the early nineteenth century. But it was Sir Joseph Hooker's fabled exploits in Sikkim in 1848-9 that produced 36 of the most beautiful species which we still grow and cherish. When these rhododendrons at last began to flower in this country, not only gardeners but the general public were overwhelmed by their beauty and variety – rivalling even orchids, those flowers so beloved by our Victorian fathers. However, rhododendrons (and their deciduous brethren, the azaleas) remained mainly in the larger private and botanic gardens (although a highly competitive and specialised nursery trade grew up to cater for the increasing commercial demand and to produce the exciting new hybrids) until after the last war, when gardening became the immensely popular pastime of the wider public. The original Rhododendron Society had been formed in 1915 and became the Rhododendron Association in 1927. It was, however, still a small group of 'interested persons' and their paperback Year Books, circulated within the Association and published from 1929 to 1939, contained mostly lists of species, hybrids and collectors' numbers and were the forerunners of the post-war *Rhododendron Handbook* and the so-called 'Stud Book' of hybrids.

In 1945 the Rhododendron Association was wound up and was replaced by the Rhododendron Group of the RHS, membership of which was open to any member of RHS. This was a quite informal association of enthusiasts who paid no dues and who bought the

Year Book only if they wished. However, these Year Books, starting in 1946 with No. 1, were the first generally available publications specialising in rhododendrons, and they will have continued for fifty years in an unbroken series. They provide information, education and entertainment and link us with that small gathering of like-minded friends of 1915. They also reflect fifty years of continuous dedication to the cultivation of the rhododendron by a large number of people who co-operate to further their particular hobby. Though no longer published between hard covers and now edited by the Rhododendron Group themselves, they are a record of the past and a commitment to the future. The Group itself was, of course, re-formed autonomously in 1971.

The present Committee of the Group feel sure that this date, 1996, should not pass unnoticed. They have therefore agreed that the Year Book for 1996 should not only be larger than usual, but should also attempt, perhaps for the first time ever, to cover all aspects of the introduction and cultivation of the rhododendron into the West from the eighteenth century until the present day. A distinguished list of contributors has consented to write about their own particular field. Topics to be covered are: habitat and ecology; collectors and patrons, together with botanic and private gardens; their working gardeners and the nurserymen who helped to supply them; the part played by Sir Joseph Hooker in the world of science and politics of the time; the part played by magazines and nurserymen in stimulating the popularity of rhododendrons; a comparison of plant collecting then and now; the story of hybrids; the establishment of the great herbaria; the development of taxonomical systems and nomenclature; and lastly the astonishing spread of the cult of the rhododendron across the temperate world from North America to the Antipodes.

The emphasis throughout will be to look at the rhododendron through the eyes of the historian and in this way to assess how the plant has exploded from a family with a mere half a dozen species into one with several hundred at a recent count, and how it has influenced, for example, such well known scientific theories as Charles Darwin's *Origin of the Species*.

The literature is already formidable and many of the topics have been studied and written about in varying detail, but never yet, so far as can be determined, from the purely historical point of view. Historians have their own particular way of looking at phenomena of all kinds – including not only human society, but plant society. If this Year Book does no more than start new trains of thought and speculation in the minds of botanists, gardeners, biologists – even sociologists – then the editor will feel she has fulfilled her mission to celebrate a milestone in the history of the genus Rhododendron.

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CORRECTIONS to RHODODENDRONS 1993, No.45

Lady Adam Gordon writes:
'In paragraph 4 of 'The Mangles Garden Today' (*Rhododendrons with Camellias and Magnolias*, 1993, p.16) I stated that *Rhododendron fortunei* was grown from seed sent back by Sir Joseph Hooker. I have learnt since that this was wrong and that the seed was sent by Robert Fortune from China. I have also to report that one of those large plants has, after 140 years, finally reached the end of the road.'

On line 1 of the article 'The "CLD" (Chungtien-Lijiang-Dali) expedition 1990' (*Rhododendrons with Camellias and Magnolias*, 1993, p.7, the date of George Forrest's death was wrongly given as 1933. He died in fact in 1932.

Index

of Rhododendrons, Camellias and Magnoliaceae

(a=azalea; az=azaleodendron; V=Vireya)

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