THE RHODODENDRON COLLECTORS: PETER COX

Julian Taylor-Whall

The Rhododendron Collectors:

Forrest - F; Kingdon-Ward - KW; Wilson - W; Rock - R; Ludlow and Sherriff - L&S; Cox - C; and Clark - AC: initials and names most rhododendron enthusiasts will be familiar with from avidly seeking out the labels dangling from the lower branches of the plants those collectors introduced, mature specimens of which can be found populating all the principal UK gardens that specialise in the genus and are open to the general public throughout the flowering season.

Yet the exquisite treasures they discovered have never before been gathered together and illustrated within the pages of a single volume, each opus highlighting the work of an individual plant hunter.

So a host of photographs portraying those plants in UK cultivation - images captured over the course of the last three decades on a myriad of visits to the leading horticultural establishments of England, Scotland and Wales - have been gathered together across the heptad, with each volume augmented with pertinent texts and articles, most written at the time the expeditions took place, plus full field number listings of all the species and natural hybrids that were so painstakingly amassed on those trips across the rhododendron-rich regions of Southeast Asia.

THE RHODODENDRON COLLECTORS

Julian Taylor-Whall

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- *Front Cover* -
CCH 4023 - *R. galactinum*

- *Title Page* -
CH&M 3093 - *R. hodgsonii* aff.

- *Contents* -
Peter Cox in one of the greenhouses at Glendoick.

- *Historical Texts* -
SBEC 60 - *R. yunnanense* ssp. *yunnanense*

- *The Cox Plant Hunting Expeditions* -
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Historical Texts:

Rhododendrons in North-Eastern Turkey.

by Peter Cox and Peter Hutchison.

The two of us and John Apold made a short trip this summer of 1962 to north-east Turkey during the months of June and July. We had no special purpose in mind but hoped to collect rhododendron seed, if not all shed, and possibly plants, along with various bulbs and other plants of interest.

The Pontus mountains of north-eastern Turkey, unlike the rest of the country, have a heavy rainfall on their Black Sea side. They reach their greatest height of over 12,000 feet inland from Rize, some fifty miles west of the Russian frontier. With a humidity of 90%+ the climate along the coast is suitable for growing tea, and quite a flourishing industry is building up. Enough is now produced nearly to meet Turkey's own needs, and they hope soon to have sufficient for export.

So with its heavy rainfall and high humidity it is not surprising that a population of native rhododendrons flourishes. The coast itself is too hot for the maximum growth of a plant that likes cool conditions, but *R. ponticum* and *R. luteum* both grow right down to sea level where there can be little or no frost. It would be interesting to see how hardy these would be in Britain compared to those taken from their maximum elevation at over 6,000 feet inland.

The first rhododendron we saw was *R. ponticum,* growing in beech forest about midway between Istanbul and Ankara at only about 3,000 feet. These were nearly past flowering in early June and had not been nearly as well covered with flower as we get in a corresponding amount of shade here. The next meeting with a member of the genus was between Sebin Karahisar and Giresun on the dry south side of the divide just before the start of the forest belt. This was *R. luteum* in a pure stand on an open hillside and was also past its best. Later, on the top of the pass at 6,000 feet, *R. ponticum* (A.C. & H. 53-54) became very plentiful, growing in clearings among *Picea orientalis.* A few good trusses still remained here, and we were at once struck with the enormous variation in colour, shape of truss, and size and shape of leaf. The colour varied from pale mauve to deep rosy magenta, the latter being a shade never seen in *R. ponticum* in cultivation to our knowledge.

But the most important point we noticed was that all the *R. ponticum* seen in Turkey in many localities did not agree at all in foliage with what is regarded as typical in Britain. The flat dark green, shiny leaf and red stems are just not seen among the native plants. In them the leaf tends to be harder, less shiny, with recurved margins, and is often of a paler green. The last two distinctions tend to be more marked in open situations.. The red stems are usually entirely absent and the growth is altogether firmer. In dense shade the leaves grow to a larger size than is normally seen here. There is little doubt that most of our plants here are hybrids of *R. ponticum* and the American *R. catawbiense,* with other influences here and there.

Another striking thing seen in Turkey were the very severe attacks of the rhododendron bug, or lace-wing fly, *Stephanitis rhododendri,* or anyway what we took this to be. The undersides of some leaves were black with the insects and bad discolouration of the leaf was much in evidence. This was to be found only in open situations. Later we found similar attacks on *R. ungernii* and what we presumed was the aftermath of the attacks on *R. caucasicum,* showing black areas under the leaves no doubt due to mould growing on the insects' secretion.

From Giresun we travelled east along the coast, stopping at Trabzon and district for a few days. Then we went on to Hopa where we went inland to Artvin. Here the steep-sided mountains rise up to 6,000 feet above the very hot and dry valley with its large dirty river. On the dry valley sides such shrubs as *Ribes cotinus, Buxus, Punica granatum* and figs grow. The Town of Artvin itself is about 1,000 feet above the river and above this, the flora soon changes, passing through Juniper scrub, mixed deciduous copse, and then up into *Picea orientalis* forest. Soon rhododendrons begin to appear, firstly *R. luteum* and *R. ponticum,* both over in early July, then *R. ungernii* (A.C. & H. 119), just coming into bloom with its handsome foliage up to nearly a foot long. The truss is small and compact, with about twenty flowers, white or cream, sometimes with a pink tinge and with green spots. It grows to 10 feet in shade. This grows quite commonly at about 5,000 to 6,000 feet with the first of *R. smirnowii* (A.C. & H. 118) and the last of *R. ponticum* true to type. The undersides of the leaves of *R. ungernii* are covered with a pale brownish indumentum, not quite as dense as that of *R. smirnowii.* This latter species is more common and widespread in the area we visited as it grows above the tree line at 7,000 feet. It has wider, more frilly-edged flowers than *R. ungernii,* whose corolla is funnel-campanulate, and it has smaller, narrower leaves.

In little bays in the spruce, near our camp called Mercivan, occurred various groups of plants, each different from the other and inhabiting their own little glade. These we took to be natural hybrids between *R. ungernii* and *R. smirnowii* as they varied from near the typical rose-purple (A.C. & H. 120) of *R. smirnowii* to the cream of *R. ungernii.* The leaves also lay between the typical species, as did the various parts of the flower. These points were verified by Mr. Davidian who very kindly checked all our rhododendron specimens. One particular group had darker lines down the corolla and was really very attractive (A.C. & H. 121).

As one approached the edge of the tree line at about 7,000 feet, the last species in this area becomes common. This was *R. caucasicum* (A. C. & H. 114), a parent of many of our hybrids but very rare in cultivation in its true form. Unfortunately it was mostly over but an odd truss or two remained. It was a pale yellow, sometimes with a pink tinge, and appeared to be quite pretty in its yellow forms. The truss is compact and shows itself well on top of the very dense mats of growth which are usually not more than two to three feet high. One can walk through this, somewhat as one would walk through Heather in Scotland, but with rather more difficulty owing to the branches which always grow downhill for several feet. In any shady corner it tends to grow ranker with leaves larger than the normal 2-4 inches, so it would probably be advisable to grow the type in full sun in Britain. The leaves are obovate with a thin matted tomentum underneath, a rusty colour on mature leaves. The foliage is near to that of 'Christmas Cheer' and 'Nobleanum', especially with regards to the indumentum. The habit and flowers are not unlike those of 'Cunningham's Sulphur', sometimes regarded as a form of *R. caucasicum,* but the foliage is quite different, as the former has much narrower leaves with recurved margins and lacks the indumentum of the true species.

Growing among *R. caucasicum* near its lower limit were some curious plants which are apparently forms or hybrids of *R. ponticum.* They varied from pure white - really a nice plant (A.C. & H. 103) with characters very near to those of true *R. ponticum* - through a pale pink which was growing next to it (A.C. & H. 103), to two clumps of a dirty pinkish cream, and a pale yellow with a hint of pink growing a few miles away [all now designated as *R. x sochadzeae*]. The leaf was always longer than that of *R. caucasicum* and no indumentum was present. In this area no true *R. ponticum* could be found, so it is strange how what would appear to be hybrids got there.

Around the whitish *R. ponticum* were clumps of *R. caucasicum* with every flower head eaten off, presumably by the cattle we saw nearby. All the upland pastures of Turkey are very heavily grazed by vast herbs of sheep, goats and cattle, which eat up every green leaf

or shoot that tries to grow more than an inch above ground level. But surprisingly enough *R. caucasicum* still manages to seed itself in a soil which has little humus or anything which would be likely to encourage rhododendrons. In the woodland the soil is usually very shallow and where the ground is logged off erosion becomes serious, particularly if it is heavily grazed.

The surrounding mountains rise to over 12,000 feet to the west and 11,000 feet to the east. Much of this high country has been poorly or totally unbotanised so other forms and hybrids could well exist.

On Kuru Kurun two colour forms of *R. smirnowii* occur (A.C. & H. 129), one a deep rosy-mauve and the other a pale mauve-pink. both were pretty but should obviously not be grown near bright coloured modern hybrids. Big sheets of the paler form not more than 5 feet high occur above the tree line and looked lovely with sheets of a campanula nearby. Higher, huge mats of *R. caucasicum* covered the hillsides.

From Artvin we drove inland to a drier area and up to a pass of over 8,000 feet. Here above the trees on cliff ledges and steep slopes facing north grows *R. caucasicum,* this time in full flower. Two forms occurred, one a pale yellow (A.C. & H. 147), the other a yellowish-pink. No other rhododendrons were seen in this area.

Then back we went along the coast to Of, then inland in the direction of Bayburt and Erzerum. Near the top of the pass at about 7,000 feet among lilies and veratrum were many small seedlings of *R. caucasicum.* Few mature plants were visible, so it is strange that these seedlings came to be growing in fairly rank herbage often a long way from a source of seed. From this it is obvious how well certain rhododendron seeds are suited to wind dispersal.

The Cox-Hutchison account of their 1962 expedition to Turkey was originally included within *The Rhododendron Year Book 1963,* Number 17, edited by P. M. Synge, M.A., F.L.S., and J. W. O. Platt, F.L.S., and published by the Royal Horticultural Society in December 1962.

R. x sochadzeae on the Pontic Range, Turkey.

An Expedition to North-East India, 1965.

by Peter and Patricia Cox, and Peter Hutchison.

An expedition to collect plants had been under consideration for some time and the eastern part of the Himalayas seemed the most promising place. Bhutan was tried and permission was quickly refused. This left what is now known as the North East Frontier Agency, or NEFA for short. The mountains of NEFA, forming the northern part of Assam, are the least well known of the whole Himalayan chain owing to little effort at administration there until recently.

A brief description of the distribution of rhododendrons in the Himalayas might be of interest to those who have not made a study of this subject. The west end of the Himalayas is dry even in the foothills overlooking the plains. As one goes east the rainfall steadily increases right along to the extreme east of Assam where it borders with Burma not far from the Yunnan frontier. This rise in rainfall naturally develops a richer rhododendron flora so in the east a greater number of rhododendron species is generally found. As the heavy-rainfall foothills are not high enough to include much of the main rhododendron belt which is between 8,000 and 14,000 feet, the species are most plentiful on the high ridges which catch the monsoons sweeping up from the south. The ridges get progressively drier towards the semi-desert plateau of central Tibet. In these drier areas only certain drought-resistant species occur such as various members of the *Lapponicum* series.

The three districts bordering NEFA to the west, north and east have all been fairly well explored botanically. Kingdon-Ward and Ludlow and Sherriff have covered the area to the west and north of the Kameng River which lies just to the east of Bhutan, which itself of course has been well explored by Ludlow and Sherriff. To the north both Kingdon-Ward and Ludlow and Sherriff have been to the top and sometimes just over the passes on the Tibet NEFA frontier coming from Tibet, but have penetrated little into NEFA itself. To the east Kingdon-Ward has collected in certain parts of the Mishmi country near the extreme north-east corner of NEFA, which makes the NEFA area of tremendous interest in fitting together the distribution pattern of rhododendrons and the chances of finding new species and varieties are great. Examples found in Bhutan and west of it are *R. falconeri, R. niveum, R. ciliatum, R wightii, R. nivale, R. campanulatum, R. boothii, R. barbatum* and *R. grande.* Some of these do stretch round into south Tibet. To the north on the Tibet NEFA border, are *R. tsariense, R. sherriffii, R. erosum, R. pudorosum, R. lopsangianum* and *R. wardii* Ludlow and Sherriff. To the east of the Mishmi area grow *R. cephalanthum* var. *crebreflorum, R. crinigerum, R. megacalyx, R. calostrotum, R. cerasinum, R. tephropeplum, R. mishmiense, R. sinogrande* and *R. arizelum.* Species common to all three areas are surprisingly few, especially from both Bhutan and the Lohit-Mishmi country. Some of these are *R. forrestii* varieties, *R. vaccinioides, R. edgeworthii, R. cinnabarinum, R. micromeres* and *R. campylocarpum.* It is therefore of great interest to find out just how far east the Bhutan plants spread, and the reverse with the Mishmi ones. Only three or four expeditions, allowed to travel where they like in NEFA, will be able to answer this.

We collected in three areas, two well known botanically and one unexplored before our visit. The first was the Khasia Hills which lie to the south of the Brahmaputra and are therefore isolated from the Himalayas. These hills rise to some 6,400 feet at Shillong Peak and so everything coming from here is on the tender side. The second place to be visited was the Subansiri division of NEFA which lies between the Kameng division bordering Bhutan and the Siang division (Abor Hills). This was to have been our chief collecting ground as nearly all is virgin territory, but in the end we were limited to one ridge just over 9,000 feet overlooking the Assam Plain. At one time we had hoped to do a considerable amount of collecting in the higher mountains near by, especially the ridge of over 12,000 feet to the west, but just when we thought it was all settled, we were completely refused permission for both this ridge and the Se La near the Bhutan frontier, which was tried as an alternative. Other ground nearer Tibet was out of the question owning to the Chinese threat. The third place collected in was around Sandak Phu near Darjeeling in North-west Bengal. This was only done by Peter and Patricia Cox as Peter Hutchison had left for home having failed to gain any further permission for NEFA.

We flew out to Delhi in early March, where eventually permits were promised. We then cleared the heavy baggage which had come by sea, through customs in Calcutta, and went on to Shillong, the capital of Assam, to meet the Botanical Survey of India (Eastern Section) with whom we had arranged a joint expedition. We were most hospitably entertained by Mr. E. P. Gee, well known as an authority on the wild life of India.

Once more there were delays while we waited for word from Delhi. When the permit finally arrived it contained the unpleasant shock that we were only to be allowed to collect on the ridge to the south-east of Zero. This was most unsatisfactory for our purpose as this ridge only reached a height of some 9,750 feet. Furthermore our photography was restricted to the flora and our ciné camera was entirely forbidden. The photographs we did take had to be submitted to the NEFA Authorities for approval. None of these restrictions had been mentioned in all the correspondence and interviews we had with the Ministry of External Affairs in Delhi.

Additional delays were incurred waiting for the Botanical Survey's jeep which was then in Bhutan, but the time was usefully employed collecting in the surrounding country. We made contact with Dr. Rao who is head of the Eastern Circle of the Botanical Survey of India, and we also met Mr. Sastri and Mr. Kataki, the botanists who were to accompany us on our trip into NEFA. All of them gave us much help and indeed we could not have had two better companions on a trip of this kind.

On Shillong Peak near by grew a very fine red *Rhododendron arboreum* (C. & H. 305) which was in full flower on our arrival. It made a tree of up to 35 feet with wonderful rich glowing flowers in compact trusses. It is a pity that only the most favoured of us can grow this good form owing to its tenderness. It has been in cultivation for a very long time but is now quite rare in gardens. In mild districts where one can grow this splendid plant, it should be seen more often. This has a long flowering period as a few trusses still remained on our next visit to Shillong some time later. In the gorge below the Peak we found, after quite a search, *Rhododendron inaequale* (C. & H. 301), a fine species with large scented flowers in trusses of up to six, white with a yellow throat. Coming from only 5,000 feet it is only for the greenhouse in most districts. It grows on rocks overhanging the stream and is sometimes epiphytic. It was out of flower on our first visit, and we only spotted it growing up on the cliff face when sitting down eating bananas. We were lucky in finding a quantity of last year's seed still unshed, some of which have germinated well. On a later visit we saw it in flower.

A few miles away to the south-west, *R. formosum* (C. & H. 302) grew on open scrubby knolls, usually a small bush not more than 4 feet in height. It varied from pure white to a pale pink with stripes down the corolla. This plant is getting rarer owing to the scrub being cleared. The leaves of this form are rather wider than the type specimen and the majority of this species in cultivation. In another place not far away, we found other, looser shrubs with larger flowers and leaves, which may have been half way between *R. formosum* and *R. inaequale.* Various forms of *R. formosum* were about the only rhododendrons cultivated in Shillong. These, mostly collected plants from the wild, showed considerable variation in flower, leaf, habit and flowering time. In good situations, these were often fine compact bushes of up to 8 feet, which covered themselves with flower from

R. formosum (pink form).

R. formosum (white form).

Both forms were photographed by Peter Cox growing in the garden of Mr. E. P. Gee at Shillong, Assam.

mid-March to mid-April.

The area from the Khasia Hills, where Shillong is situated, through to Burma is very rich in orchids, especially species of Dendrobium. We made several trips searching for these, including Shillong Peak, and Pynursla and Cherrapungi to the south. The last place is famous for its heavy rainfall of about 400 inches and it poured on our arrival there. Fortunately it soon stopped and when the mist cleared for odd moments we were able to catch glimpses of the magnificent waterfalls plunging down the escarpment. Cherrapungi is claimed by some to have the highest rainfall in the world but the right to this somewhat doubtful distinction probably belongs to a small village nearby, Mawsynram.

Curiously, nearly all the plateau around Cherrapungi was devoid of trees. No doubt much has been cleared but this area of really heavy rainfall never had more than a mossy scrub forest. If this forest is removed, the soil is rapidly leached and soon only a poor grass covering remains.

Eventually everything was fixed up and we left for NEFA. We travelled to North Lakhimpur by the south bank of the Brahmaputra and after a night at Kaziranga, crossed to the north bank of the river. The crossing took three ferries, one over the main stream of the Brahmaputra, the others over the lower reaches of the Subansiri. Both rivers were dotted with rafts of water hyacinth floating down, a beautiful but rampageous plant that covered many of the pools and lakes of the Assam Plains with its lavender-blue flowers. Between the first and second ferries we had to cross the width of Majuli Island, said to be the largest inland island in the world. Finally we reached the hot and smelly little town of North Lakhimpur and after a fiery curry in the only restaurant in town, we found rooms in the circuit house where we bedded down along with a remarkable assortment of insect life.

The North-East Frontier Agency

Along the foothills of the Himalayas, on the north side of the Brahmaputra plains, runs the Inner Line, separating two entirely different worlds. To the north lies the intricate, folded country of the Himalayas, where everything seems to live on the near perpendicular. To the south are the immaculate tea gardens, the thatched villages with their betel-nut palms and banana trees and the huge grey river itself, flanked by the ever-changing mud flats.

We left the next evening for Zero. The new road is no mean engineering achievement, threading along the near vertical slopes and carving its way through dense subtropical jungle. From the foothills we could see the nine-thousand-foot ridge, which was to be our first objective, quite clearly. On the way, we went to an agricultural experiment station, and

in a creaky bamboo hut on stilts, were fed on delicious omelets, raw onions and carrots, all washed down with rum. It was very welcome as apart from a banana for breakfast, it was the first food we had had that day. We were now in the country of the Dafla people and we saw parties of them on their way down to the plains. By now it was dark and groups of them huddled round their fires under the shelter of some trees. A ring-tailed civet cat was briefly lit up in the headlights as it ran across the road and occasionally a mithun loomed out of the darkness. The latter are semi-wild cattle.

Zero is situated at an altitude of 5,000 feet in the Apa Tani valley, which lies some 50 miles by road from the plains. This is the largest area of level ground in the eastern Himalayas. Our base was the newly built Circuit House, in which we were very fortunate to stay, before setting out for the south-east ridge. It is perched on top of a knoll, covered with *Primula denticulata,* overlooking the rice-growing valley. The steep slopes that surround the valley are partly wooded although jhum or slash-and-burn cultivation has scarred them in many places. The first signs of temperate genera could be seen, and among other trees and shrubs, we found one huge tree of Ward's Carmine Cherry, *Prunus cerasoides* var. *rubra* (C. & H. 359). It was some 80 feet high and even after finding the fallen flowers on the ground, we could scarcely distinguish it from the forest canopy above. From the slope opposite, however, it stood out in a blaze of colour.

The NEFA Administration has been careful to preserve the tribal organisation and to interfere to an absolute minimum in the running of the villages. Our first trip down into the village below Circuit House brought us face to face with a row of Apa Tani chiefs who greeted us with cheerful cries of "jai hind". They wore short red coats issued by the Government and underneath nothing but traditional Apa Tani cane belts, dyed red and brought into a tail behind. Like some of the surrounding tribes, they have their hair gathered into a topknot on their forehead, with what looks like a knitting needle stuck through it, but the Apa Tanis have a distinguishing blue mark on their chins. They are short and stocky people, somewhat Tibetan in their general appearance, and we could not help noticing the tremendous development of their calf muscles. They are never without their *dao,* a short chopping sword which they carry slung across their chests and under their arms.

The South-East Ridge

We spent just under a week collecting in the area around the valley and making preparations for our trip to the ridge which we could see lying away to the south-east. Through our binoculars it appeared to be sprinkled at the very top with trees and shrubs in bloom, an enticing prospect. When. the morning of our departure came, we had planned for an early start and were ready by 8.30 a.m. By 10.30 there was quite a group of porters sitting around chattering but it was another hour before the loads were lifted and the tin trunks tied to the head bands, with which everything is carried, by the flimsiest looking strips of bamboo. 20 kg is the official government amount for a load and there was a good deal of testing of weights before everybody was satisfied. When we joined the collectors from the Botanical Survey, however, we found that only eleven out of the twenty porters they needed had arrived and these were demanding extra ration-carriers as the country to which we were going was uninhabited. The laid-down scale is that there should be one ration-carrier to every five porters and one *sirdar* to every ten. Finally one the Botanical survey botanists was left to follow on the next day when more could be collected.

Our first day's march was therefore only some 5½ miles up over a low ridge, through 200-foot-high pines and then dense subtropical forest. These pines were *P. wallichiana* (*P. excelsa*) which tradition says were brought by the forebears of the Apa Tanis to this valley. Indeed it did not seem to grow naturally anywhere in the near vicinity. We finally dropped down to our first camp by a marshy clearing in the trees. Across the far side of the bog we could see two plants with white flowers, and while the camp was being prepared we waded across through the mud to find that the first was a scraggy Michelia, rather surprising at this low altitude of about 5,400 feet, but cheering as the first sign of a temperate flora. As we approached the other shrub, however, our spirits rose. It was *Rhododendron nuttallii* (C. & H. 374) just coming into flower with its huge lily-like flowers almost luminous in the evening light.

R. nuttallii.

R. parryae.

Unfortunately, a fine crop of of supposedly unopened seed pods which were there for the taking turned out to have been scoured by bugs with incredible thoroughness. We found not one viable seed. This was undoubtedly a magnificent form and it is sad that we failed to introduce it into cultivation. This is as far east as typical *R. nuttallii* has been found. It appears to be a rare plant as Major Sherriff tells us that he never found it on all his expeditions. Closely related *R. sinonuttallii* comes from south-east Tibet. *Rhododendron maddenii* (C. & H. 375) also grew at the edge of the marsh, a low bush still of course in tight bud but again interesting to find at this low altitude.

Our first night's camp was a little disorganised as it was dark by 6 p.m. and the porters had made themselves at home on top of all our trunks under their tarpaulin, at any rate those who were not crowding around studying our every movement, examining our kit and generally getting in the way. However we spent a surprisingly insect-free night and the next day started climbing in earnest. The additional height soon brought us among more rhododendrons. First a mysterious little seedling with hairy leaves, then we started to find fallen flowers of *R. parryae* (C. & H. 373). But it was some time before we could spot a plant in the high forest canopy and even later before one could be found growing on a tree that could be climbed. It was indeed a fine flower, white with a yellow throat and of course sweetly scented.

What we thought was a poor but unusual form of *R. arboreum* turned out on our return home to be *R. peramoenum* (C. & H. 387) [now *R. arboreum* ssp. *delavayi* var. *peramoenum*] named by Mr. Davidian of the Royal Botanic Garden in Edinburgh. It usually comes from Yunnan. It had a very narrow leaf and unfortunately this form had a rather small truss of red flowers. We found it growing in dense forest, and as a result, it was very shy flowering.

At 6,500 feet among other rhododendrons was *R. griffithianum* (C. & H. 389), not nearly in flower, but these may be smaller than usual as the seed capsules which we did find were very small. Patricia Cox also found a seedling of *R. edgeworthii* (C. & H. 421) and although we found this again several times, it never appeared healthy and no flower buds for this year were found. Both these species grow to the west and east of here.

We stopped at the river which runs along the foot of the ridge which was our objective as we were told that from there on water would be very scarce. Fortunately every container was filled as indeed our next camp turned out to be dry and the porters cooked their rice for the evening meal along the riverside. It was most picturesque with the smoke rising among the river boulders and the jungle crowding in above us from the steep slopes. We then had a long steep haul to our next stopping place at 7,200 feet, perched on a spur of the ridge. There we were joined by Mr. Kataki of the Botanical Survey who arrived after dark with extra porters and supplies, having done some hard marching. They came through the forest, now dark, carrying blazing torches of pinewood.

The next morning we were woken early with a high-pitched argument going on among the porters. It appeared that there was some sort of strike on; they wanted more money, they wanted to go home, but basically the trouble was that this was the season for cultivating their rice fields and their absence would be unpopular. Mr. Mitra, the NEFA official who had been detailed to accompany us, had been plagued with deputations of porters all night and by morning had reached the end of his tether. We heard shouting from his tent and he came rushing out brandishing his revolver in all directions and releasing torrents of abuse at the porters.

This touch of drama appeared to do the trick and we were soon on the move again. The forest above the camp was in full and spectacular flower. Michelias were hung with fragrant and fragile flowers; in all there appeared to be three species. The stark branches of *Magnolia rostrata* were not yet in leaf and far from flowering but the litter of cones on the forest floor was proof of last year's abundance.

Soon, at 7,500 feet, we found another rhododendron similar in appearance to the *R. peramoenum* growing lower down, but this had papery leaves with none of the plastered indumentum common in the *Arboreum* series. It looked like one of the *Irroratum* series, which was correct as it turned out to be *R. kendrickii.* This grew in a narrow belt up the mountain side up to 8,000 feet, and was a small tree to 20 feet with a fairly tight truss of unspotted dark red flowers. We searched all round for seedlings with no success and could only find a tiny pinch of seed, but of course from this elevation, it will definitely prove tender. The species, like *R. nuttallii,* has been collected previously in Bhutan.

Rhododendron grande (C. & H. 431) soon began to appear, magnificent trees in full flower varying from cream to pale yellow, sometimes with a strong pink tinge. The trees were often as much as 50 feet high with trunks 2 feet in diameter; they were a magnificent sight wherever a view could be had, although standing under them one could scarcely see anything except the trusses silhouetted against the sky and well out of reach. Luckily there was an abundance of small seedlings to be collected. This form, unlike some from further west, has a good compact truss and should prove a first-rate plant for mild or sheltered gardens. We were very lucky in hitting it at its best and hope that in a few years time many

fine specimens of this form will be seen flowering as wonderfully as we saw them, in the mild western areas of. Britain. *R. grande* is a common plant in Bhutan and Sikkim. A small-leaved form of *R. vaccinioides* (C. & H. 419) was common on the trunks and branches of *R. grande* and other trees from 7,500 to 9,000 feet. This is reported to have lilac-pink or white-tinged-with-pink flowers, ⅓ inch long, but these were still in bud on our visit. It is a widespread species having been found as far apart as Sikkim, south-east Tibet and Nagaland.

We made camp in a small damp hollow below our ridge where again, in spite of continual drips, we were short of water and had to rely on a tiny trickle on the hillside. This was to be our base for exploring the ridge. It was hard even to cook a meal with the sodden wood around and before long the ground was everywhere churned to mud, as the party was in all nearly seventy strong. There were our own porters and those for the Botanical Survey and of course there were ration-carriers and *sirdars* for those porters. In addition Mr. Mitra, of the NEFA Administration, had brought a party of Government Nepali porters for his own use. It was a fairly crowded encampment perched in this damp notch on the mountain side and level space was at a premium.

From this camp we spent some time making excursions along the ridge and into the rain forest that clothed its flanks. On one occasion we scrambled several hundred feet down the almost vertical slope and very nearly got lost on the way back, eventually arriving at camp in a state of near-exhaustion. The crest itself was about 6 miles long and shaped something like a tent with two small peaks at either end, the one just above our camp being 9,250 feet and the one at the far end 9,750 feet. It was cold and dismally wet up on the ridge. Although the rain was not quite continuous, the mist was and indeed the shrouding only broke twice for intervals of a few minutes during all the time we were there. The result was that the forest formed a ceaselessly dripping canopy; even when the rain stopped the slightest gust of wind would bring a rattle of drops on the taut roof the tents.

On the ridge, the spine itself was often only 3 or 4 feet wide, but the thickness of the forest and the mist prevented one from having any sense of the immense drop on each side of this precarious little gangway perched at 9,000 feet up in the clouds. The curious feeling of being in a private world was only broken when the mist suddenly parted and revealed a breathtaking panorama. To the north were endless folds of the Himalayas, looking as if they had been cut from varying shades of blue cardboard. To the south the hill ran away in an almost unbroken slope to the plains of Assam, sunlit more than 8,000 feet below us. We could see the twisted ribbon of the Brahmaputra and even the Subansiri river running out to join it. It was only minutes before the mist hemmed us in again.

The temperate rain forest which covered the ridge was a remarkable plant community. The dominant plants were rhododendrons, particularly *R. grande,* with other evergreen trees and these formed a nearly continuous canopy 40 to 50 feet above the ground. Here and there one could see the sky where a deciduous tree had not broken into leaf, perhaps a species of Sorbus or *Magnolia campbellii alba* with its great flowers looking like white birds perched on the branches. Below this canopy the ground was relatively clear except where brakes of bamboo occurred. Underfoot there was a springy layer of humus often feet thick and covering the ground so completely that we scarcely saw a stone or bit of bare rock along the entire 6-mile length of the ridge. It was evidence of the tremendous accumulation of vegetable matter, growing and falling and then being preserved in this thick, quiet layer, half-decomposed.

Everywhere, covering everything, was moss: thick wads of it on the upper sides of branches; drapes of it on the lower; long wisps of it hanging from the twigs and leaves. In this moss wrapping of the forest existed a whole plant community of its own. There were many epiphytes, species of *Agapetes, Vaccinium* and *Smilax* and little *Pleione maculata* whose white flower occasionally studded the dark green of the moss.

The only plant which escaped this covering of moss was a most interesting Rhododendron (C. & H. 418). We called it "Old Baldy" on account of its great trunk of pinky-brown bark, which gave the moss no foothold and left it looking rather naked in this forest [*R. hylaeum* var. *subansiriense*]. In spite of its name it was a fine species, obviously close to *R. neriiflorum,* but a tree of up to 45 feet in height. At this time, in mid-April, the flowers were nearly all over and the growth buds well advanced. The flowers were waxy red in trusses of ten to fifteen. Young trees of 15 feet were still unflowered but this was in dense shade. In cultivation in a more sunny situation they may start flowering very much younger. This plant is undoubtedly one of our most exciting finds as true *R. neriiflorum* is a shrub of 6 to 9 feet and its sub-species *euchaites* grows to barely twice that. In fact no member of the *Neriiflorum* series with the exception of *R. mallotum* ever makes anything approaching a tree let alone one with a trunk 2 feet in diameter. Most of this series comes from further east.

Another notable rhododendron was *R. arizelum* (C. & H. 427). At first seen only in bud, we later saw a colony in full flower, a beautiful form with fine foliage and lovely deep rose-pink flowers. Again we were lucky to be able to collect a number of seedlings of this plant. It was an interesting find as *R. arizelum* has never been recorded so far west before. Previously its habitat was regarded as being north-west Yunnan and Upper Burma. This grew just below the summit and on one or two smaller rises at about the 9,000-foot mark. In one place it mixed with *R.* "Old Baldy" which itself is often growing along with *R. grande. R. arizelum* here makes a small level-topped tree of 30 feet with fine dark rugose foliage with a lovely thick red-brown indumentum.

R. maddenii (C. & H. 438) was fairly common, especially along the top of the ridge. As it grew in dense shade, it was shy flowering and on many plants we saw, there was only a total of one flower bud. But it must flower better some years as an abundance of small. seedlings were to be found on many mossy stumps and trunks. Here this was a very variable species with a tremendous variety of leaf shape and size.

There were a number of other interesting plants in this rain forest including two species of Daphne, a Clethra (C. & H. 403) probably *C. delavayi,* but probably the most surrealist figure in the whole community of the rainforest was a holly, *Ilex nothofagifolia* (C. & H. 424) which scarcely ever reached the canopy above and so had to live its life in the gloom. To catch what light there was its branches were spread out in great horizontal fans, each of the tiny leaves touching one another, in crinkly layers of rich green. From these tabular layers of foliage the moss hung as always in drapes.

As might be expected, herbaceous plants were scarce in the dark rain forest. We did, however, see two species of primula, both growing in quite dense shade. One belonged to the *Cortusoides* section (C. & H. 444) and was a charming little plant with clear pink flowers. It was uncommon and we only saw three or four plants of it in all. The second primula (C. & H. 446) belonged to the large *Petiolares* section and had mauvy-pink flowers.

The very tips of the two peaks at each end of the ridge were the only places cleared of forest and without the competition of the rhododendrons. There we found several plants growing which we failed to find anywhere else. *Rhododendron micromeres* (C. & H. 420) grew on stumps of trees and fallen trunks and sometimes the bare ground. It was not quite

- opposite -

The expedition team photographed near the Apa Tani valley by Mr. A. R. K. Sastry.
Standing, left to right: Patricia Cox, Peter Hutchison, Mr. Mitra, Peter Cox, Mr. S. K. Kataki,
then standing and seated, the Botanical Survey of India team and some of Apa Tani porters.

in flower when we found it but a collected plant was later seen to have pale yellow flowers with greenish spots. We were able to collect both plants and seeds of this species. It is at present very rare in gardens, but should be possible to grow in the milder west-coast areas. This species in usually epiphytic but we could have missed seeing it in the tops of trees lower down the ridge. The distribution ranges from Bhutan to Burma. Also on the first peak grew *Rhododendron euchaites* (C. & H. 422) [now reclassified as *R. neriiflorum* ssp. *neriiflorum* Euchaites Group] which, unlike "Old Baldy", had a glaucous underside to the leaf; as well as this the young seedlings were hairy whereas the latter had glabrous leaves. The growth and flowers had not yet started to move and altogether it was totally different from "Old Baldy".

Other interesting plants growing on the peaks were a Leucothoe, Hypericum, Osmanthus, Vaccinium and what looked like a Weigelia.

By the time we had made thorough collections on the ridge it was getting on in April and the porters were getting restive. They had little protection against the cold and wet and Patricia Cox had a regular flow of requests for aspirins and "something to take the cold away". We had also assembled quite a nursery of seedling plants, bedded down in moss in the hollow of an old tree, and the 21st April was spent packing them into baskets and tin trunks. It was pouring with rain as usual and while we were fortified with relays of hot soup we could reflect on the advantage of having women on expeditions. The next morning we left for the journey back, and we were soon out of the drips. A sufficiently small Michelia was found to cut down, to enable us to get some specimens. This took quite a bit of doing. We shed layers of clothes as we gradually dropped down each thousand feet.

When we reached the marshy area where we had made our first camp, some time was spent exploring the forest round about. A long search was made for mature specimens of the small hairy rhododendron which we had collected on the way up, and eventually three rather unhealthy-looking plants were found after we had just about given up hope of finding it. This was later identified as a member of the *Ciliicalyx* subseries of the *Maddenii* series (C. & H. 475) [now identified as *R. coxianum*]. The flower buds were swelling and when we cut them open it appeared the flower was going to be yellow. Fortunately we managed to obtain a little seed of this interesting plant. There was quite a difference in the foliage of the hairy seedlings and the three mature specimens so there is still doubt whether these are in fact one and the same species. We also found another most interesting rhododendron (C. & H. 459) [*R. santapaui*] although at first we scarcely recognised it as belonging to this genus. It was a small epiphytic shrub with curious leathery leaves and after we had found some capsules we came to the conclusion that it must belong to the *Vaccinioides* series on account of the long "tails" on the end of the seeds. The leaf shape is elliptic, which is totally unlike most members of the series which have a retuse apex. The plant itself hung down off the trunks of trees with a very loose sprawly growth.

Shortly after we arrived back at Zero our fears were confirmed. We received a telegram informing us that we were to be restricted to the south-eastern area that we had just visited and all the most promising high country to the west and north was forbidden. After this there seemed little point in remaining at Zero, so after more collecting around our house we regretfully left this most attractive valley, the Coxes for Shillong where they could look after the plants which had been collected, while Peter Hutchison went on from there to Delhi in a last attempt to get the authorities to change their minds. Their flat refusal to do so effectively brought the trip to a disappointing end and Peter Hutchison left for Britain.

Sandakphu

After Peter Hutchison had left for Delhi and we (Peter and Patricia Cox) had got the seedling plants nicely settled down in Shillong, Mr. Gee suggested that if the rest of NEFA was completely refused, why not go to Sandakphu near Darjeeling from where he had recently returned. This was one of the few Himalayan areas for which a permit could be obtained, and although the flora was well known it would give us a chance of collecting more material and seeing the Himalayas properly. We promptly wrote off to Peter Hutchison to suggest that he joined us at Darjeeling. Shortly after this a telegram arrived from him saying that all permission had been flatly refused and that he was off home. Unfortunately he left Delhi before our letter arrived.

Local enquiries proved that a permit had to be obtained from the West Bengal Government in Calcutta so off there we went into the sweltering sticky heat. This gave us a good opportunity to fix our arrangement for the journey home. We collected our permit, this time a mere formality, and took a non-scheduled flight to an airport near Siliguri. The plane turned out to be the usual Dakota with no pressurisation and no lining to the interior. We shared a rickety old Austin taxi up to Darjeeling in the dense mist and drizzle with no windscreen wipers. Even though this took half the time of the train, we arrived late and were lucky to get a room for the night. We were able to hire a Land-Rover easily, and take on an excellent bearer who even climbed trees to collect seeds and specimens for us.

The next day again proved misty and remained like this all the way to Sandakphu. The road was only just good enough for even a Land-Rover and later it broke a spring. That night there was a violet storm with a howling gale, lashing rain, endless flashes of lightning and crashing of thunder. At 4.30 a.m. cries of "Come and see Everest" had us up in no time. Suddenly the storm had ceased and left the atmosphere crystal clear. The whole range from west of Mt. Everest to east of Kanchenjunga could be seen. We watched the sun rise and light up the snow peaks, with the area below the clearly defined snow line a deep blue. Much of the earlier part of the morning was spent photographing this magnificent spectacle but keeping the tripod steady in the wind was a problem. Blue and white anemones carpeted the area in front of us. Vast acreages were covered in weather-beaten *Rhododendron campanulatum* with *R. cinnabarinum* var *roylei* (C. & H. 579) amongst it. The latter was not yet in flower at this elevation. The *R. campanulatum* was a very poor form with a small truss, and an occasional white form among it also had a poor truss. But the combination of a foreground of *R. campanulatum* in flower, and a background of mountains, left an unforgettable sight. After breakfast we set out in the direction of Phalut, 14 miles towards Sikkim. We soon came across an open space of ground covered with *Primula calderiana* (?) growing in an area where the snow lingers long. One gully had hundreds of plants, a fine sight. All were of an attractive magenta.

Further on we came across *Rhododendron hodgsonii* (C. & H. 581) at the edge of Abies forest. A few plants were an unusually good form with rose-pink flowers with no blue in them. Many were over but a few fine full trusses remained. An hour's search produced a few unshed seeds, but no seedlings small enough to fly home could be found. Some small stunted plants of only 4 to 5 feet were flowering, but they may have been of considerable age. Also at 10,000 to 11,000 feet, a little further on, grew *R. barbatum* (C. & H. 580) nearly all finished flowering, though a few fine scarlet trusses remained. Some plants with longer leaves and no bristles, otherwise resembling *R, barbatum,* were found. This may be what is called *R. imberbe* in cultivation [now synonymous]. Here too, were plenty of *R. arboreum* with flower almost over, mostly poor, varying from an indefinite red to pink. The indumentum sometimes approached the rusty colour of *R. cinnamomeum.* A little lower down, *R. falconeri* became mixed up with *R. hodgsonii* and a whole range of natural hybrids

occurred between them with flowers often a nasty muddy colour. This has been known as *R. decipiens.*

On the steeper open ground around Sandakphu and on the way to Phalut there were patches of *R. lepidotum* of which none were yet in flower. Some of these are recorded to be pale yellow. Near Phalut, the country gets very bleak. There are whole forests of horrid stunted Abies with the ground littered with fallen trunks. Many have dead storm-damaged tops. When grazing causes erosion of the top soil and cutting the trees opens up the canopy, surrounding rhododendrons and other shrubs soon go back. Here we found *Pleione hookerianum* growing in moss on a dying tree. This was a lovely sight in an ugly area. We saw both pink and white forms. We failed to find *Rhododendron thomsonii, campylocarpum* or *wightii,* all of which have been found in and around Sikkim.

Our return journey to Siliguri in the plains was unfortunately rather rushed but the day was largely clear. A grand view of Kanchenjunga could be seen from various points en route. *R. falconeri* was common a great deal of the way down from 10,000 to 9,000 feet. This form had cream-coloured flowers, rather drooping and was very floriferous (C. & H. 584). It appeared to be a form that is often seen in old gardens. One group of *R. triflorum* (C. & H. 586) was found in a heavily grazed and hacked off area. The one plant in flower was quite small and compact but no doubt somebody had pruned it! Several plants of *Meconopsis napaulensis* grew round about and a little lower down *Piptanthus laburnifolius* was in full flower.

At this altitude were fine specimens of *Rhododendron cinnabarinum* var. *roylei* [now Roylei Group], with some still in flower when we passed. They were a waxy plum-crimson colour with bloom on the outside and were pendant. We stopped a little later on to lift *R. falconeri* seedlings growing on the roadside bank and found below them in damp soil, a petiolaris primula (C. & H. 587) which had finished flowering. We collected a few plants of it. We had our last view of the snows through a gap in the forest which here is quite dense and unspoilt. Near by we found a very fine Enkianthus, presumably *E. deflexus* (C. & H. 578) with larger flowers than usual rimmed and lined with wine red. An occasional *R. lindleyi* appeared along the roadside, hanging from a tree or bank.

Below here *R. grande* started to appear. This, and *R. arboreum* made up forests by themselves; *R. grande* had of course long finished flowering. Around Darjeeling on rocks and trees a great quantity of coelogynes were in full flower, quite easily seen even in thick mist. Also we saw several mostly inaccessible plants of *Rhododendron dalhousiae* (C. & H. 585), greeny yellow when first out later fading to cream. Below Darjeeling, *Zephyranthes,* a native of America, had gone wild and great groups of it were most colourful, looking as though they had always grown there.

We took our first and last train in India from Siliguri to Gauhati. The journey was quite comfortable in itself but the wait for hours on the platform for it come amongst dozens of prone smelly bodies, was not a pleasant pastime.

We had a brief stay back in Shillong to pack up the plants before setting out for home. These were packed tightly in small baskets surrounded with polythene, which were then wired into larger baskets. Considering that many of the plants were in full growth, they travelled surprisingly well with not much damage. This was largely due to the great help from our agents in Calcutta, who met us off the plane, and made arrangements with the health authorities and saw that they were air conditioned. Thanks are also due to Kew who handled them in London. This may be the first time that a quantity of rhododendron seedlings have been collected in their natural habitat, then flown home in the growing season.

Summary

We found in all about thirty species of rhododendron, only three of which we saw in more than one place. These were *R. lindleyi, R, grande* and *R. arboreum;* the last was in fact a different form in each district. Of these thirty, sixteen were on the ridge south-east of Zero, NEFA, five of which have an eastern distribution, five a western and four come from both. The other two are so far unnamed and may be new species. So as might be expected, the species from here seem to be divided about equally between a western and eastern influence.

The area we were able to visit in NEFA proved to have a fascinating flora but owing to the limited elevation, many of the plants will prove too tender for general cultivation in Great Britain and North America. It was tantalising to find ourselves so near the high country, waiting to be explored and obviously full of rhododendrons. However we do feel that the expedition was in many respects fruitful and it was certainly an unforgettable experience to have visited and collected in an unknown corner of the Himalayas.

This account of the Cox-Hutchison 1965 expedition to north-eastern India was originally included within *The Rhododendron Year Book 1966,* Number 20, edited by P. M. Synge, M.A., F.L.S., and J. W. O. Platt, F.L.S., and published by the Royal Horticultural Society in November 1965.

Collectors' Techniques: Then and Now.

by Peter Cox.

This account was written for *The Rhododendron Story: 200 Years of Plant Hunting and Garden Cultivation,* which was edited for the Rhododendron Group by Cynthia Postan, and published by the Royal Horticultural Society in 1996.

All professional plant hunters have had to discover within themselves a standard of dedication to their work far beyond that required for most other vocations. All the great plant hunters of the past proved to be people capable of getting themselves out of the most desperate situations by sheer fortitude and being able to keep calm when to panic might have meant certain death.

These explorers were usually selected by the then leaders in the botanical or horticultural world from among their own staff and they often had great foresight in their choices. Who could have picked more successful collectors than Robert Fortune, George Forrest and Ernest Wilson? Others, like Joseph Rock, achieved what they did by sheer determination, arrogance and daring. A few like Reginald Farrer and George Sherriff were sufficiently well off to pay their own way and hunted plants purely for their own amusement. Perhaps the most dedicated of all was Frank Kingdon-Ward who spent his whole life exploring, and then gave us the pleasure of being able to read of his travels in his books and articles. The chief reason he had to carry on into old age was because he was paid so little for his efforts and could not afford to retire.

Often two or more years were spent on one trip out East, usually with a break or two in some town in the foothills or on the coast. With only ships to travel out to the East (or elsewhere), river boats to take them part of the way into the interior and rough tracks onwards, travelling was slow, often very uncomfortable and sometimes dangerous.

Nowadays there are no full-time professional plant hunters, though a few still pay their way by selling what they collect (often in the form of shares of seed). Visits to good plant areas are short, the plant hunters are usually in and out within a month, very often little serious trekking is done, and only hotels and guest houses used for accommodation.

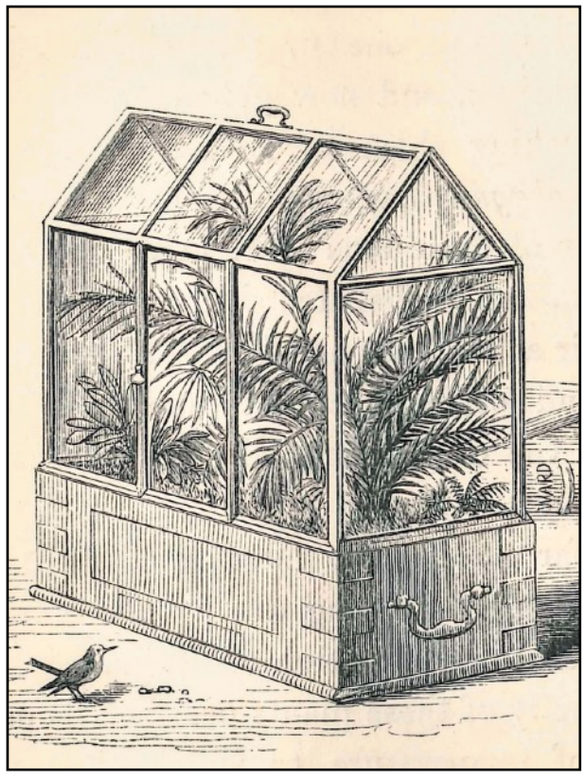
The methods of collecting have, of course, also changed and the results have not necessarily changed for the better. Some of the great collectors of the past will be described and their methods compared with plant hunting today. As we rarely have to suffer the same degrees of hardship, solitude or danger, it is not easy to select those of today who would have equalled the great achievers of the past. The great majority of rhododendrons (other than Vireyas) are found wild on the mainland of South-East Asia: therefore I will only cover this area.

Robert Fortune

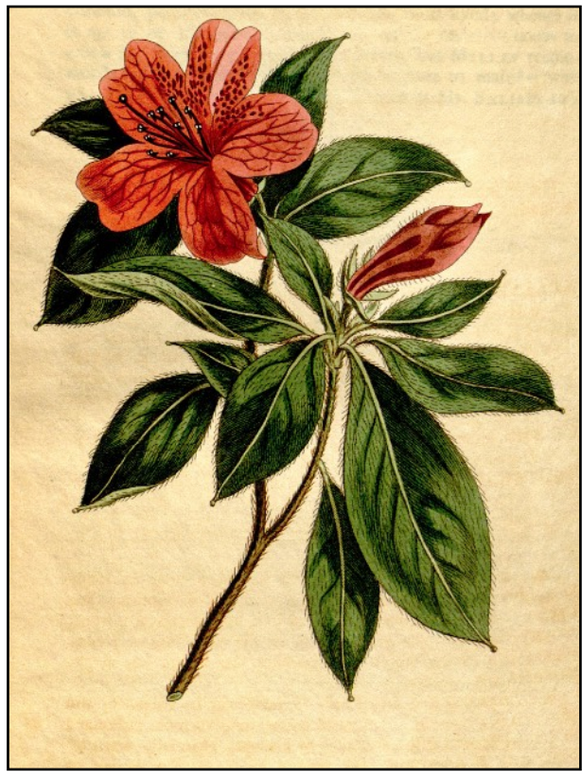
Robert Fortune was a gardener by trade and had a thorough apprenticeship. He joined the staff at the Royal Botanic Garden, Edinburgh (RBGE) under the famous William McNab and after only two and a half years was recommended for the post of superintendent of the hot-house department at the Royal Horticultural Society's garden at Chiswick. He was soon appointed the Society's collector in China were he collected over the period from 1843 to 1862. He proved to be a first-rate choice for the job. Not only was he skilled at transporting the plants but he was able to recognise a good plant and introduced few poor ones. He was a great correspondent and made copious notes and diaries, but sadly, most of these were destroyed by his family on his death.

Very little was known about the plants of China in 1843. Fortune was asked to look out for one particular rhododendron in what is now Guangdong province in south China, but he was also told to search for yellow-flowered camellias, which in the event were not to be introduced into cultivation until over 100 years later. Packets of seed were to be large enough for general distribution wherever possible.

Peace had only just been made with China, so Fortune was unable to travel far away from the treaty ports, especially on his first expedition. Many plants were acquired from local nurserymen who at first locked their gates as they were frightened that he would take their plants without paying. In the end he gained their confidence and was offered every plant in Shanghai! He introduced some evergreen azalea cultivars including *R.* 'Amoenum' (which he named himself) and, subsequently of course, *R. Fortunei* which he found in the mountains where he was able to collect a quantity of seed. He remarked on the wide-spread azaleas in the wild, mostly *R. simsii.*



A Wardian Case



R. simsii

Fortune took live plants with him from Britain to Asia, partly as presents, but partly to gain experience in looking after plants collected in China. Similarly, he took vegetable seeds, for presents and to see how they would travel. He remarked that there were great difficulties in preserving the seeds of trees and shrubs in south China because of the attacks of maggots and we still have this problem in the present day. All his live plants were sent home in Wardian cases, designed by Mr N B Ward of London. These cases were constructed of wood and glass and made as airtight as was possible by sealing with strips of canvas dipped in boiling tar and pitch. Before the journey, the plants would be established in the cases for 10 to 14 days in 23-26cm (9-10in) of soil and this was often covered with moss. During this time the plants would be watered frequently. A promise had

to be obtained from the ship's captain that the cases would remain on the poop deck for the whole voyage where they would be least frequently washed by sea water in rough weather. It was also important for the cases to be raised 15cm (6in) to allow water used for washing the decks to pass underneath. Water condensed on the glass when the sun shone and then dropped back onto the plants in the evening like dew. If the cases were not accompanied by Fortune himself or anyone else expert enough to inspect them regularly, they were kept closed for the entire four months' voyage to England. If expertise was at hand, they would be opened during the day (not at night), using sliding doors in calm weather to allow a good clean-up. On one voyage, Fortune left China with 250 plants in 18 cases and 215 arrived in good condition. He sometimes took the precaution of splitting a consignment between two ships to spread the risk. On one occasion he took with him two little hand cases containing very special plants, on a partially overland route.

Fortune was obviously very level-headed and could keep calm in the face of danger. On one trip he was twice attacked by pirates. He told the crew to shelter as best they could from the shots from the pirates' guns and waited until their ship was near enough for his shotgun to be effective. He then let them have it and on both occasions they were beaten off. But for all his virtues, apparently Fortune lacked a sense of humour.

Sir Joseph Hooker

Sir Joseph Hooker started with the great advantage of having an illustrious father who was also director of Kew. Hooker junior had had the best available training as a taxonomist and geographer and few people to this day have been so well prepared for the job as he was for Sikkim. He fully understood the possible variations to be found within a species, and also the importance of distribution, which some later taxonomists seem to have forgotten. He was also quite a competent artist.

Hooker's first expedition had been to Antarctica so he had some experience of roughing it before setting off in 1848 for his famous travels in Sikkim and district. His friend and helper, B H Hodgson, had studied ethnology and zoology in Nepal for 25 years and had completed a natural history of birds and animals in the region. As a consequence he had a considerable influence on Hooker's travels and studies. Hooker's first collections amounted to 80 porter-loads taken to the foot of the mountains, then for five days by cart and then to Calcutta by river. On his second expedition in 1850, food had to be sent to the party at intervals, because the country's resources were not capable of feeding 40 to 50 men. Compared to nowadays extra porters were needed due to the bulk and weight of the equipment, instruments and clothing. Hooker subsequently spent two months in Calcutta arranging the shipment of his collections and completing manuscripts, maps and surveys.

Missionaries

The first westerners to travel into the richest rhododendron areas of Sichuan and Yunnan were either not interested in plants or else collected very little. The first to collect plants were not professional collectors but were there for other purposes, notably to convert the natives to Christianity.

The most famous of these missionaries were the Frenchmen, Pères Armand David, Jean-Marie Delavay, Paul Farges and Jean Soulié. All collected herbarium specimens, most of which were sent to the Musée d'Histoire Naturelle in Paris, to Adrien Franchet the only taxonomist to do any serious work on them. Many of the specimens disappeared or were left unexamined. Most species were subsequently rediscovered and successfully introduced as seed by such collectors as Wilson, Forrest and Rock. However, these missionaries had one positive advantage over later collectors in that they worked from an established base

Robert Fortune

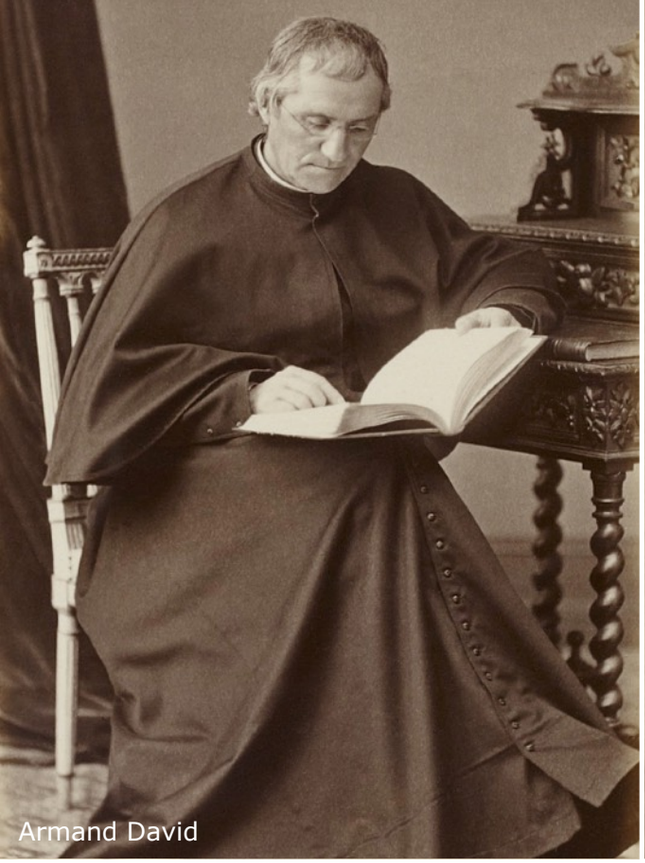
Sir Joseph Dalton Hooker

in China. Whether one approves of missionary work or not, undoubtedly these dedicated men must have suffered loneliness, depression, discomfort and some were tortured and murdered by Tibetan lamas.

Armand David (1826-72) was a trained naturalist and it is for his work on the fauna of China that he is best known. Jean-Marie Delavay was a model collector making excellent herbarium specimens and field notes, most of which he accomplished single-handed. He was reputed to have collected 200,000 specimens. W G Bean saw a large number of rhododendron seedlings from Delavay's collecting in the Jardin des Plants in Paris in October 1889 and he brought back a few tiny plants to Kew. According to him, nearly all had perished at an early age from being kept too hot. Paul Farges discovered some fine rhododendrons and other plants in an area that was not renowned for its richness in rhododendrons. Jean Soulié was especially popular because he was a skilled physician. He had little opportunity to send back seeds and was finally murdered along with one of his assistants.

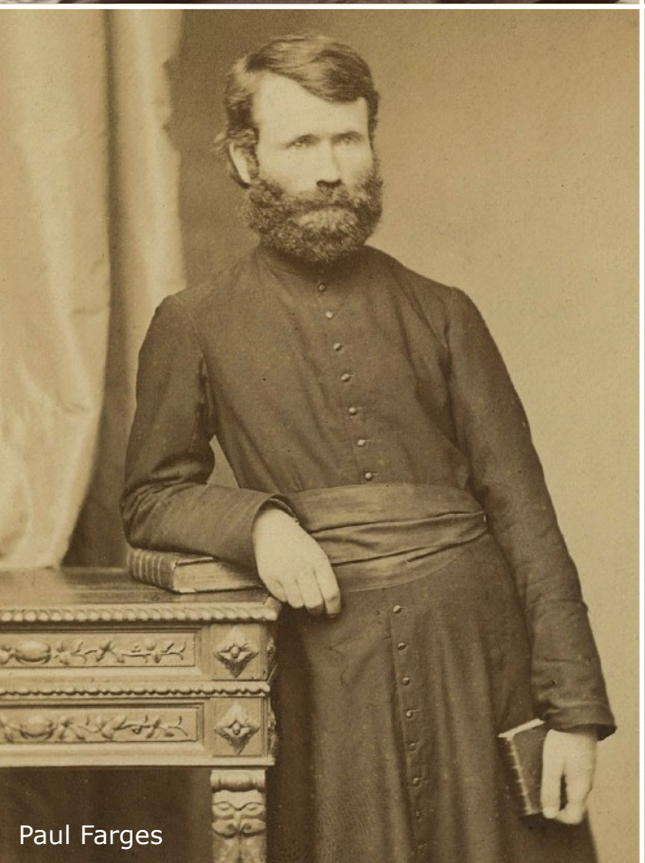
Augustine Henry

Augustine Henry went to China as a maritime customs official and was stationed at Yichang. He then became a medical officer. He took to collecting plants only out of boredom and trained two natives to help him. Many species he discovered were collected later by Wilson.

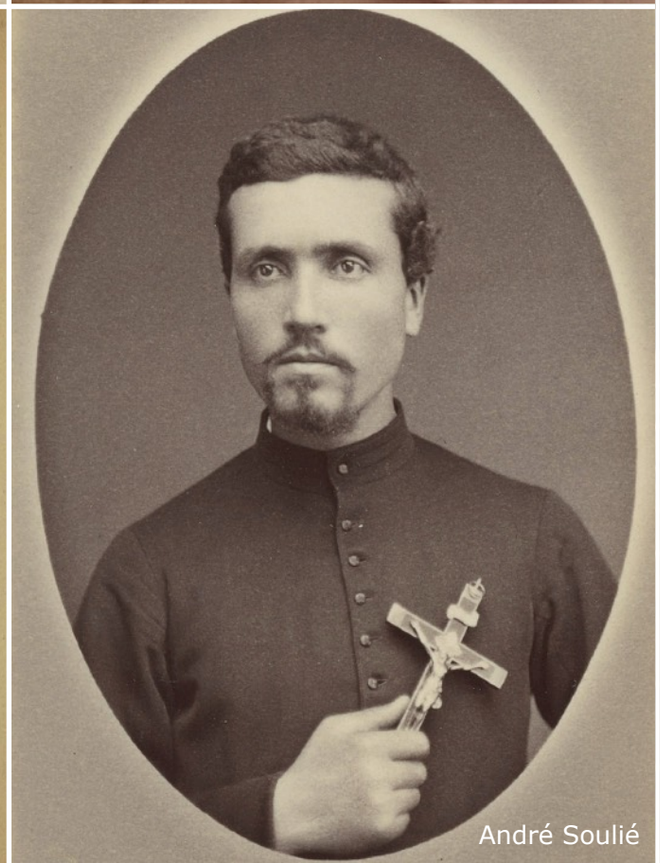


Armand David

Jean-Marie Delavay



Paul Farges



André Soulié

Augustine Henry

Ernest Wilson

My father, E H M Cox, considered Ernest Wilson to be the best of the collectors, but he is not my favourite. He studied botany for which he won a Queen's Prize Award and then went on to teach the subject. In 1899 at the age of 23 he was picked by the Director of Kew to collect for the famous nursery firm of James Veitch and Sons. He was told by his employer to concentrate on finding *Davidia involucrata* as almost every other worthwhile plant in China had probably already been introduced!

Wilson proved to be an excellent collector. He liked the Chinese, was very diplomatic and always got on well with people. His memory was excellent and he was very knowledgeable on trees and shrubs. Although his books are interesting and informative, it is difficult to follow his actual itineraries. He disliked heroics and was very modest, so little is known about his adventures.

His early days in China were spent in the company of Augustine Henry, from whom he learnt much. He travelled lightly compared with other explorers of his day, but he always used a full-plate camera. His first expedition was so successful that Veitch sent him out again in 1903 to collect *Meconopsis integrifolia.* Alas, not long after he returned from another very successful expedition, Veitch's Coombe Wood nursery was sold up and a huge clearance sale took place. Thus the plants Wilson collected were not as well distributed as those of Forrest and Kingdon-Ward a few years later.

Wilson was then appointed by Professor Sargent of the Arnold Arboretum, Boston, to carry on collecting until 1919. He eventually settled in the USA to work on his collections with Alfred Rehder, a skilled taxonomist. Sadly, Wilson and his wife suffered untimely deaths in a road accident. Splendid old specimens of Wilson's original introductions are still growing in the Arnold Arboretum.

Wilson covered an amazing amount of ground in north-west and north Sichuan in areas I have myself driven through, so I can vouch for the distances involved. Although some new rhododendron species have been discovered in areas covered by Wilson, he did not miss much.

A team of eight helpers assisted Wilson to press and dry his herbarium specimens, prepare and pack his seeds, roots and bulbs for shipment to England and the USA. More than 13,000 seedlings of *Davidia involucrata* germinated which, with one assistant, he potted himself. At the end of his first expedition for the Arnold Arboretum he had collected (by native collectors) 18,237 lily bulbs, something that fills us with horror these days. If only 837 arrived in America in good condition, it was because he tried to save money by not packing every bulb individually in clay as he had done for Veitch. The following year he repeated the exercise, sending 25,000 bulbs. This time each bulb was coated in moist clay which was allowed to dry before being packed in a crate and surrounded by pulverised charcoal. Vulnerable seeds and cuttings were packed in moist sphagnum and wrapped in oiled paper. Wilson also wrapped beech seedling in sphagnum and packed them in a ventilated trunk. This shipment accompanied him home and arrived in excellent condition.

George Forrest

George Forrest was a man who knew what he wanted to do, determination being stamped all over his somewhat grim features and sturdy frame. He was always very much a countryman, fond of shooting and fishing. Several years in Australia, partly looking for gold, toughened him up. Returning to Scotland, he worked for two years handling herbarium specimens which he always did standing up. This taught him the importance of good quality herbarium specimens.

- *opposite* -

This photograph of Wilson was taken shortly before his departure to China in 1899, at the age of 23.

When A K Bulley of the firm Bees was looking for someone well-qualified to undertake botanical exploration, Forrest was recommended by Sir Isaac Bayley Balfour of the RBGE. One reason for his success was his personality. He always had friendly relations with the Chinese and minority tribesmen. He was genuinely interested in their well-being and made use of the brief time he had spent as an apprentice pharmacist to doctor them and help them in other ways. He took out lymph for inoculating the locals against smallpox at his own expense. Forrest's great organising ability was another reason for his success. His excellently trained native collectors helped him to cover more ground and collect quantities of good specimens and seeds. This produced many mule-loads of seed weighing many pounds. Such quantities were unnecessary and resulted in much unsown seed and many unwanted seedlings. I well know how far even a small packet of rhododendron seed can be divided up and still give ample for everyone, even a nurseryman. But conservation was hardly considered in those days. Collecting enormous quantities of rhododendron seed has little or no impact on long-lived rhododendrons, but stripping hillsides of all available seed of, say a monocarpic meconopsis with its localised distribution could have dire consequences for the future of that species.

Over 30,000 herbarium specimens were collected by Forrest, the most important contribution to the flora of Yunnan ever likely to be made. He also made fine collections of mammals, birds and insects and studied geological formations and soil character. Nor did he leave his loyal staff to do all the collecting: he himself saw nearly every plant he collected and he took all his own photographs. He was a keen observer with an eye for beauty, also self-disciplined and a man of his word: he always did his best for his sponsors.

In a letter written while resting in Bhamo, Burma, Forrest gave the only clear account of how he organised his collecting. If he wished to collect seed of any plant seen in flower, he would select a good herbarium specimen, noting in his field notes that it was desirable. When returning to collect seed, he would show the flowering specimen to his collectors, giving its location. From the combined flowering and fruiting specimen he would then draw up a full botanical description. His chief collector was evidently so good that he was able to remind Forrest of the details he had forgotten.

Reginald Farrer

Reginald Farrer's early interest in plants started in the Ingleborough hills of Yorkshire behind his home. His was a curious, complex, strange and fascinating personality; he was a tireless traveller, great walker and fearless climber. His eye for a good plant was usually sufficient to spot its potential garden value. Though he introduced enough good plants to be classed among the great collectors, he tended to be over-optimistic about his finds succeeding in gardens at home. Farrer was well read and had a great memory. He had a peculiar power of living within himself and a fertile imagination that stood him in good stead. He adored the work of plant collecting and liked to take all the credit for himself. The names of Purdom and my father who accompanied him on his Gansu and Burma trips respectively were never included in his field notes or seed numbers.

Farrer and my father found it difficult in the monsoon period to stop herbarium specimens from becoming mouldy and had constantly to search for maggots and wood lice. The seed were dried on racks, but they also sent home some plants. During the autumn they were hard at work from first to last light sorting and labelling seeds and specimens.

Frank Kingdon-Ward

Frank Kingdon-Ward has always been my idol as a collector. He accomplished almost everything alone, only occasionally having another European or, latterly, his second wife as

George Forrest

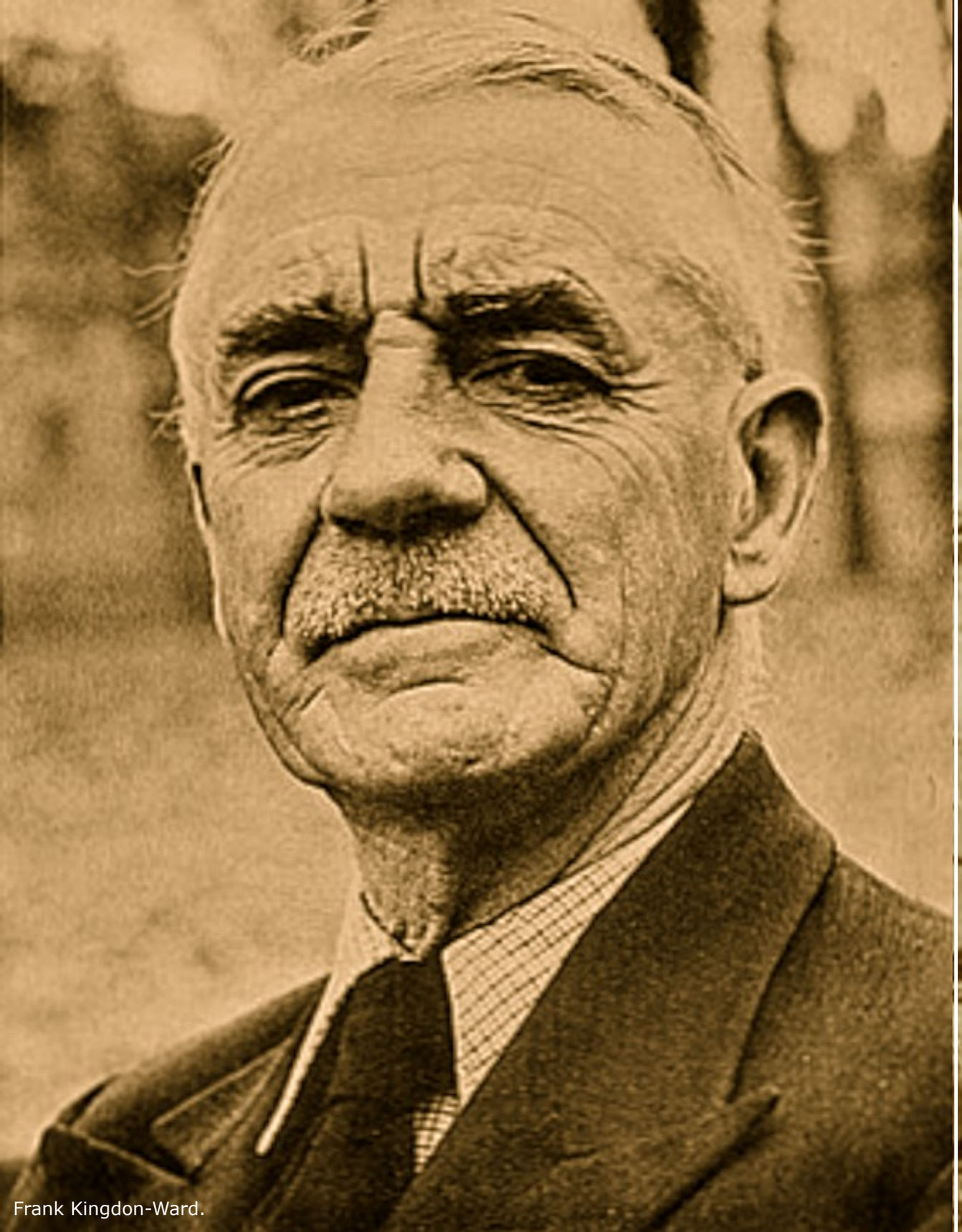
Reginald Farrer

companion. He travelled through more difficult and wetter country than any other collector. He had the temperament to endure solitude and was obsessed with the wilderness. His ambition was to be an explorer and he accepted the career of a plant hunter only because there appeared to be more money in it. He started with little interest or knowledge of plants and this is borne out in his earliest book, *The Land of the Blue Poppy* (1913). Although he received medals for exploration, he did not reach the top rank of geographer-explorers, finding surveying and map-making irksome and being happy in his later years to hand the job over to others.

Like most collectors, Kingdon-Ward had an excellent eye for a good plant and would go to extraordinary lengths to collect seed of outstanding plants that he had seen in flower. Like Farrer too, he had an unerring memory for the exact position of a plant, even if buried under snow. Examples of his tenacity were in his collecting of *R. cinnabarinum* ssp. *xanthocodon* Concatenans Group growing in impenetrable thickets and finding *R. cephalanthum* Crebreflorum Group after endless searching on cliffs in snow.

Kingdon-Ward had two methods of collecting. The first was to stay in one valley, covering the ground thoroughly and the second was to be constantly on the move. He used both techniques with great success, but on the whole the former seems to have been more satisfactory. He found many new species in the autumn in the Tsangpo Gorge when he collected 'blind', that is, without seeing them in flower.

He did not get on as well with the local people as Wilson and Forrest did, and he had many difficult moments especially with the notorious Mishmis in what is now eastern Arunachal Pradesh.



Frank Kingdon-Ward.

Joseph Rock

I had the good fortune to meet Kingdon-Ward briefly at an RHS show in London when my father introduced me to him. I shall always remember this tiny wizened old man who looked so frail that a puff of wind could blow him away.

Joseph Rock

Joseph Rock was perhaps the most extraordinary of all plant collectors. From a humble background in Vienna, he escaped from his father to turn up penniless in Hawaii in 1907. He had by then learned several languages and proceeded to investigate the wildlife of Hawaii, becoming the acknowledged expert on the flora. He could be very moody and had peculiar reasoning but nevertheless usually got his way. He was always restless, never making any attachments that could tie him down.

He was sent to China as an agricultural explorer and soon learned to travel in style with two cooks and a butler, using a clean table cloth, silver and napkins and maintaining an Austrian diet. On his return to civilisation he would indulge in operas, fancy hotels and *haute cuisine.* Staying with an elderly friend of mine Rock insisted on being fed on lily bulbs every day, much to his host's annoyance. It is surprising that he could afford such a life, but apparently his exploring paid handsomely. His scholarship did not and in his old age he had to live off his savings.

Rock organised his collecting largely by using trained native collectors, although not to the extent that Forrest did. He tended to collect many consecutive numbers of one species, with what purpose I am not sure, but presumably to show the variations within certain populations. Those collections aggravated gardeners who could not be bothered to grow say, 14 almost consecutive numbers of *R. crinigerum* and the sheer bulk of his collections put growers off. Rock collected in China from 1923 until the Communist takeover in 1949 forced him to leave his beloved Lijiang forever.

He once made the dreadful blunder of claiming Minya Konka in Sichuan to be the highest mountain in the world, when it proved to be only 7,590 metres (24,900 ft). My own observations indicate that he invariably overestimated the altitudes on his herbarium specimens. His photographs must be among the finest monochrome photographs ever taken and a unique study of China as it was before the Communist revolution.

I once met Rock when he came to see out garden. At that stage, little had been done to it since the neglect of World War II, and it had also suffered from a particularly damaging spell of weather. I well remember his remark that our garden was not as good as that of Windsor Great Park. I did not take to the man.

Ludlow and Sherriff

Frank Ludlow read botany under Professor Marshal Ward, Kingdon-Ward's father, and on leaving university, became a teacher in Asia including Tibet. After some years in various posts he went to Kashgar where he met George Sherriff. Ludlow the biologist and Sherriff the soldier soon found they had much in common and went on shooting trips together. They became great friends and planned to explore Bhutan and Tibet in the years ahead. Oddly, they always called each other by their surnames.

Their expeditions were precisely planned and Sir George Taylor, later Director of Kew, acted as their home agent, apart from the 1938 expedition when he accompanied them. Like Rock, Sherriff was a great organiser, due to his temperament and military training. He even had vegetable seeds sown at intervals along their proposed route and arranged for the produce to be collected and brought to their camps. They had an excellent Turki cook and all, including their staff, lived in style.

They even carried a small library with them.

Frank Ludlow and George Sherriff photographed in Kashgar during 1930.

Ludlow and Sherriff systematically explored Bhutan from west to east and then, similarly, south and south-east Tibet, collecting hundreds of bird skins and herbarium specimens. In 1936 they sent four crates of living plants in the cold room on a P&O liner. In 1938 they made what was possibly the first ever air transportation of live plants from South-East Asia to Britain. Alas, World War II led to the loss of many of these introductions. Their 1949 trip to Bhutan produced enough seed for 20,000 packets. It was amazing that they collected so much since they were often frustrated, as when most of the seed was devoured by grubs or when browsing yaks had eaten all the flowering shoots on the meadows or, to crown it all, early snow had obliterated everything.

I knew Geordie and Betty Sherriff very well and loved visiting their beautiful garden at Ascreavie, Angus, where they grew primulas and meconopsis so successfully. It was the Sheriff's and Frank Ludlow who inspired me to take up plant hunting. Once my wife and I visited Ludlow in his cubby hole in the Natural History Museum's herbarium where he gave us advice before our 1965 trip to north-east India. He told us that Sherriff always wore gym shoes but that he always wore boots and that we could take our choice! We chose the latter.

The End of an era

The final expeditions of Kingdon-Ward, Rock, and Ludlow and Sherriff, in 1956, 1949 and 1949 respectively, could be called the end of an era - as both China and Burma closed their

borders, and Bhutan and Arunachal Pradesh became harder to get into. There was a time when the only great plant hunting area open was Nepal.

China did not reopen its doors until 1980, but Arunachal Pradesh and Burma remain almost out of bounds to the present day - [note: this was the case in 1996, but access to these areas would improve immeasurably post the millennium] - as do most of the frontier areas between India and Tibet. It is these parts that area still the least botanically explored of all South-East Asia. In this interval of around 30 years many changes have taken place in the world, not the least being the vast increase in air transport and in the number of people who can afford to travel long distances. Although many people have at last become aware of the need for conservation, natural resources are alas being plundered without a thought for tomorrow. All these events have completely revolutionised the way we now set about plant hunting, often with a self-imposed ban on collecting any plants. Many countries make some attempt at conservation, such as banning all collecting of plant material. Unfortunately, despite these rules, the illegal collecting of whole populations of plants like orchids, bulbs and corms continues apace.

1956 to the present day

My first trip to South-East Asia in 1965 took place at a time of transition between the year-long plus expeditions of old and the whistle-stop tours of today. By pulling strings with the Indian authorities, my wife and I managed to get briefly to the Subansiri division of Arunachal Pradesh, in an area not previously explored by westerners. We flew out, while our luggage, including food for the mountains, went by sea. Although we spent two and a half months in India, most of this time was wasted arguing with officials about our permit for entering Arunachal Pradesh (known then as the North-East Frontier Agency). But we were able to collect plants, and this can make all the difference to the success of a spring-only trip when seed can be very scarce.

On our way we stayed with a retired tea planter in Shillong and, while waiting to go on to Darjeeling after leaving the Subansiri, we wrapped some hundreds of our rhododendron seedlings in little balls of moss tied on with cotton and bedded them down in a shady place in our friend's garden. For the journey, our plants were put into baskets. Luckily our agents in Calcutta had an air-conditioned office where we were able to leave the plants until near our departure. Before finally leaving, the baskets were thoroughly searched and then surrounded with sacking, so we were not able to check their well-being until our arrival in London. The arrangement was that the plants would be cleared at Kew and they would keep a selection and pass the rest back to us. I had to stay on in London to collect them, and so far so good, but rounding a corner in a taxi in Hyde Park, the basket slid off the shelf next to the driver on to the street and the plants were scattered all over the place. Luckily there was little traffic and I was able to collect every one, little the worse for their experience. The plants had travelled well and losses were small. To our disgust, our collection of *R. grande,* the bulk of our seedlings, proved to be early into growth and hopelessly tender.

In 1966 James Keenan of the RBGE went to Burma, the last person to get in on a collecting trip from the West. After months of wrangling with the Burmese government, he was finally given his permit in December to go to Bumpa Bum, a mountain that had not been previously explored. The forest proved to be almost impenetrable so Keenan had to scramble up river beds. He made some interesting collections, both herbarium and seed, and flew home, leaving his collections to travel by sea. This proved to be a disaster for only one seed lot germinated and that was a berberis. Undoubtedly the seeds had either been cooked or rotted off. It was a lesson I have never forgotten.

After years of effort at attempting to get into China we succeeded in 1981. The Kunming Botanic Institute put a tremendous effort into making this expedition a success. Five of us plus our hosts spent a month on the Cangshan, central-west Yunnan, from late April to late May camping at four different sites. It would be fair to say that this was the first ever successful spring seed collection as most, if not all, earlier collections had been made in the autumn when most seed ripens naturally. We were undoubtedly lucky that the previous season had been a bumper one for flower and also that the spring weather had been kind and had not knocked all the remaining seed out of the capsules. Fairly plentiful seed was had off nearly every rhododendron species we found, giving an adequate amount for a good distribution. There was no question of the pounds of seed as collected by Forrest; just one small fairly full packet of many seed numbers.

In those days, there were no restrictions on collecting plants. Two of us were put in charge of the plant collections while the rest of the party looked after the herbarium specimens. After each camp we returned to base where all the plants were stored in a small outhouse with some light but no direct sunlight. We had to be exceptionally careful not to over water as rot could have set in and rapidly spread. Losses were small and mainly restricted to primulas, notoriously difficult to transport when in growth. The plants were packed into baskets with part of a basket for a lid. It took the two of us until 2am to finish the job. On our first leg of the journey to Guangzhou we had the baskets in the compartment with us but in Hong Kong, where we knew the governor and his wife, it was better still. Talk about VIP treatment! Into the first class lounge; escorted onto the plane where our plants were handed to us and placed with us in first class on the upper deck. Eventually all, including ourselves, arrived in excellent condition at RBGE where the plants started their six-month quarantine.

Seeds were easier to handle. On fine days they were laid out by our tents or hung up in cotton bags to dry and were given a rough cleaning before packeting for the journey. Spring-collected seed is never as clean as that collected in autumn due to all the rubbish associated with old seed capsules. Germination was excellent and seed of the larger species kept its viability for up to five years in a refrigerator.

After four years of trying to get back into China with no success, three of us went on a private trek to Nepal in May 1985. This time I was allowed to make my own quarantine arrangements, provided I collected certain plants only and kept them for six months in an insect-proof frame away from any other plants. The plants were tied to round woven bamboo mats in a layer of moss and these mats were wired into a basket. One day I was horrified to see polythene tied over the top of the basket: the heat that might have built up under the polythene if the sun had been out could have killed the lot. The polythene was promptly replaced with an umbrella. Despite the roasting trek back to the roadbed by way of the Arun valley, all went well until Delhi Airport. An Airline official, no doubt hoping for a backhander, refused to allow the plants on to our plane, the excuse being that the plane was full. We telexed from London to Delhi and they actually arrived the next day, looking rather the worse for wear. On arrival at my home they were nicely bedded into the frame and most made a good recovery. Alas, this was not the end of their troubles. There was one of the rare plagues of field voles that year and when I came to open the frame again after two weeks of snow almost every plant had been mown off just above ground level; luckily some did recover.

Our seed collections in Nepal were the poorest I can remember on any spring trip. On our trek we were constantly soaked by either heavy rain or violent hail storms, one bad enough to knock all the leaves off *R. thomsonii* and tear tear the tough leaves of *R. hodgsonii* to shreds. This sort of weather can also knock off any remaining seed capsules.

Autumn seed collecting is invariably more certain, particularly after a poor flowering season. On several occasions, I have collected very green capsules in early to mid-September, and with just two or three exceptions, the germination has been fine. Also, in the autumn, just one or two large, or a handful of small, capsules are ample, while in the spring, to obtain a few seeds, every available capsule has to be grabbed.

In recent years seed from South-East Asia has been coming in from various sources. With a few exceptions, seed collected by other people does not germinate as well as my own. Often the seed looks good and yet proves to be dead after sowing. Some seed may have been stored in a drawer for some years but most has undoubtedly been killed by over-heating. I prefer paper seed packets to polythene for collecting in the wild, although in wet weather paper packets can disintegrate. Some people use little polythene packets but I reckon they could end by losing their seed from sweating in heat. Viability can also be lost by being crushed in non-padded envelopes in the post.

Herbarium specimens also need to be treated very carefully. The best specimens are those where the drying paper has been laboriously changed day after day until the specimens are dry. These days many people are in a hurry and cannot be bothered with this paper changing. So they rig up a sort of oven where the specimens are cooked, supposedly very slowly, over very gentle heat. Invariably the specimens end up partly shrivelled and on occasion, I have even seen the drying paper singed.

However expert plant hunters may be, many seed batches reach their recipients either as *Rhododendron* sp. (short for species) or wrongly named. Naming plants in the field can be tricky, even for the most knowledgeable, and I have certainly made mistakes myself, though I will not put 'sp' on a rhododendron packet.

Present-day plant hunting trips to South-East Asia can be roughly divided into three categories:

1 - Parties of up to 20, or even more, organised by travel companies. These rarely camp, making use of any local accommodation available, and are not necessarily entirely botanically oriented.

2 - Smaller groups from two to eight in association with local botanical institutions.

3 - One or more persons travelling on their own, making use of public transport, and often roughing it in the worst accommodation. This third group may have difficulties in reaching the most remote areas, but has the advantage of flexibility on time spent in each area.

There are, of course, variations on these categories, according to country. Some spring trips are now being followed up by autumn trips for seed.

Post-1949 plant hunters are numerous and many have been on only one or two trips. The question arises, who among the present-day plant hunters could have accomplished what the likes of Fortune, Forrest and Kingdon-Ward did? I like to think that people such as Roy Lancaster, Ron McBeath, Tony Schilling and Chris Grey-Wilson would have achieved just as much.

- left -
Peter Cox near the Bimbi La, Tibet, 1998.

- right -
Members of the Sino-British Expedition to the Cangshan
on the steps of the Kunming Institute of Botany, Yunnan, China, 1981.
Back row, left to right: Peter Cox, Gaby Lock, David Chamberlain, unknown.
Middle row: Peter Hutchison, He Qungan, Tien-lu Ming, Tao Deding, Guan Kaiyun.
Front row: Lu Zhenwei, Roy Lancaster, Guo-mei Feng, Bob Mitchell, Mrs Ruizheng Fang.

Rhododendron Introductions 1915-2015: An Assessment.

by Peter Cox.

This account was written for the Centenary Edition of *Rhododendrons Camellias & Magnolias,* which was edited for the RCMG by Pam Haywood, and published by the Royal Horticultural Society in 2016. The text follows the Edinburgh Revision taxonomy finalised in 1996 - *The Genus Rhododendron: it's classification and synonymy* - so does not reflect the most recent botanical nomenclature and structural changes.

The period just before and after the First World War to the Second World War was the heyday of the professional plant collectors George Forrest and Frank Kingdon-Ward. Ernest Wilson had retired in 1915, Forrest carried on until his death in China in 1931, while Kingdon-Ward went on collecting until in his 70s in 1956. A century ago, a new type of collector was appearing on the scenes: Reginald Farrer, Joseph Rock and Ludlow and Sherriff, who all had independent means, were really just amateurs collecting for the fun of it. Travelling was still quite primitive using ships, to some extent trains, horses and one's feet and expeditions were mostly for a year or more, seeing plants in flower in the spring and then going back and collecting the seed. After the Second World War, things started to change completely. Years changed into months and later weeks, motorised transport took one much closer to the plant hunting scene and by 2015, local hotels had become the usual way of spending the night, except where camping was essential to get into the hinterland. Many more individuals regard plant collecting as part-holiday and partly for something for one's own garden or nursery. Amongst these what I would call 'enthusiastic plant hunters' are (or were) Warren Berg, Franz Bosch, Bob Cherry, Alan Clark, Philip Evans, Steve Hootman, Tom Hudson, Roy Lancaster, Ted Millais, Edward Needham, Jens Nielsen, Garrett Richardson, Keith Rushforth, Hartwig Schepker, Peter Wharton, my son Kenneth, my great friend Peter Hutchison and myself. Various other people contributed a lot, often from just one or two trips or to one or two districts. We, in addition to covering much of the territory the previous collectors explored, went further afield into areas with less species over all but rich in what had not been previously collected in such areas as central Arunachal Pradesh in NE India, the Chinese provinces Guizhou, Guangxi, Henan and Shaanxi, and Vietnam.

The ethics of collecting in someone else's country are becoming more and more questionable and the days of going and collecting a few seeds may be coming to an end with the ridiculous Nagoya Protocol which insists collecting is only done with official government permits. Even permission for national botanic gardens to collect is becoming more and more difficult and the freedom of exchange of plants between botanic gardens and others is now fraught with complications. This is going to leave conservation *ex situ* (cultivated) in a most unsatisfactory mess with public or semi-public gardens not able to accept plants from individuals who have collected 'illegally'. It is just as well that in recent years a number of knowledgeable plants people have now collected most of the remaining known *Rhododendron* species but will they get into trouble if they distribute these plants with their own collectors' numbers attached?

For those that do not know it, Glendoick, where I live and garden, lies at the foot of the Sidlaw hills overlooking the fertile Carse of Gowrie between Perth and Dundee. We get about 76mm of rain a year and an absolute minimum of -18°C, recorded by me just once. Damaging spring frosts are perhaps the worst hazard for our plants. We very rarely get temperatures over 26°C and hardly ever get completely dry months. I also garden in the west with at least double the rainfall and less winter frost.

I will go through the various subdivisions of the genus *Rhododendron* and highlight the taxa I consider the most valuable introductions between 1915 and 2015 excluding the tropical vireyas.

Most forms of *Rhododendron arboreum* were collected by Joseph Hooker *et al* but the subspecies *R. arboreum* ssp. *delavayi* var. *albotomentosum* was brought in by Kingdon-Ward from Mt. Victoria, central Burma, in 1956. This forms a relatively slow-growing and compact plant with white spongy indumentum and scarlet flowers in compact inflorescences. Alas, it is only hardy in the milder west coast gardens. Also collected first after 1915 was *R. lanigerum,* again by Kingdon-Ward. Closely related to *R. niveum* and often hard to tell apart out of flower, this has bold spherical trusses of red to pink flowers in February-April from distinctive fat flower buds. It forms a large rounded bush and is not suitable for gardens prone to bad spring frosts. It is found wild in SE Tibet and adjacent Arunachal Pradesh. The last new species to come our way in subsection Arborea is *R. fansipanensis* from Vietnam with mauve-pink flowers with a paler throat. It is unlikely to prove hardy away from west coast gardens.

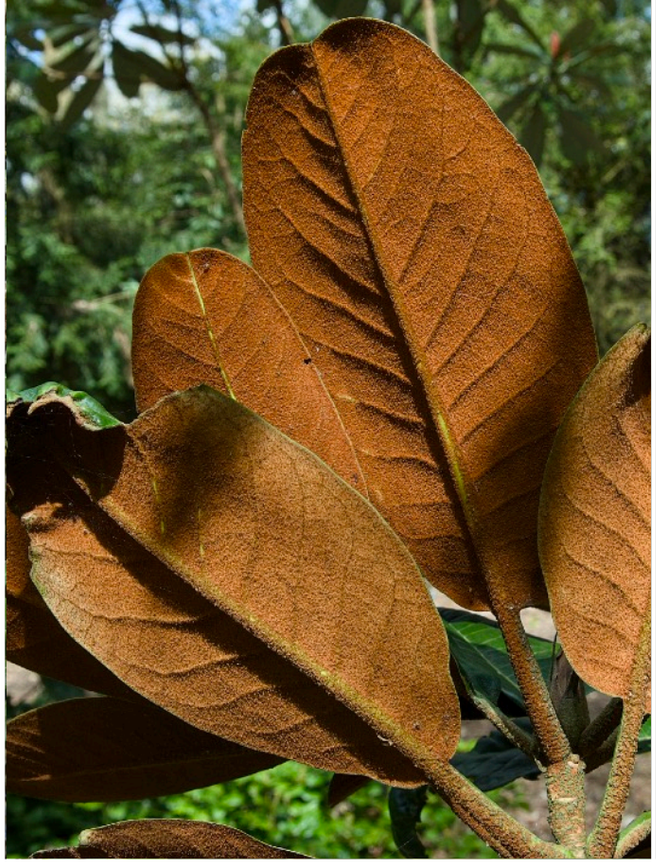
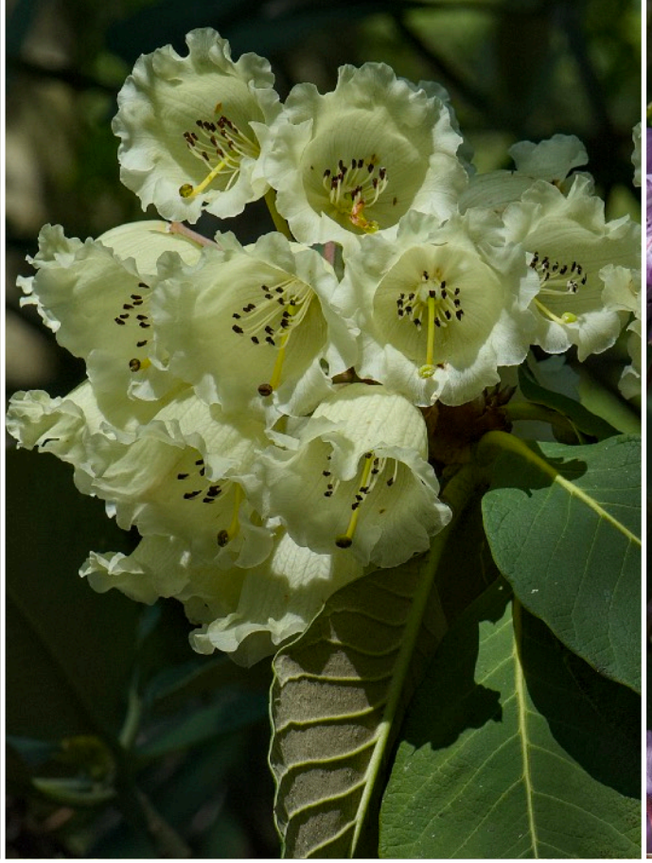
Most members of subsection Argyrophylla were introduced before 1915 but a few were first introduced later. The majority are very hardy and good garden plants although some are liable to have persistent chlorotic foliage but the following do not. *Rhododendron argyrophyllum* ssp. *nankingense* is a fine plant both for foliage and flower with shiny dark leaves and nice pink flowers, particularly the clone 'Chinese Silver'. This is only known from the mountain Fan Jin Shan in NE Guizhou. *R. pingianum* may be just a form of *R. argyrophyllum* and the plant as found on Emei Shan in Sichuan does not quite match the botanical description which gives a rufous ovary as opposed to green. This species was particularly fine covered in clear pink flowers in 2014 at Glendoick. It forms a large, compact rounded bush with white undersides to the leaves. *R. denudatum* is a vigorous species with nice dark, bullate shiny leaves, apparently not introduced until the 1990s. It has neat inflorescences of various shades of pink with a blotch or spots. Liable to grow leggy in shade. Found in C & S Sichuan, NE Yunnan and NW Guizhou. Similar but with a loose inflorescence is *R. coeloneuron* while *R. longipes* has small narrow leaves. I feel that there are too many species in this subsection and that a little sinking is in order.

Rhododendron exasperatum, from subsection Barbata, was introduced by Kingdon-Ward in 1926, the name meaning rough, referring to the dense bristles and shaggy persistent perulae and not exasperating to grow! It has recently been found several times so is actually quite widespread in the wild. It has highly attractive young growth but watch out for late frost. The fine red flowers are in full inflorescences from February to April. It often grows on rocks indicating its need for good drainage. Its relative *R. erosum* is less bristly and also has striking young growth but its flowers are small compared with the leaf size.

Rhododendron campylocarpum ssp. *caloxanthum* was not introduced until 1919 from the Burma-Yunnan border by Reginald Farrer and my father Euan. It is smaller than its subsection Campylocarpa relative ssp. *campylocarpum,* with neat rounded leaves, glaucous in the best forms. The loose flower inflorescences are usually pale yellow. A new form of *R. souliei* was first collected on the previously remote Luoji Shan in SW Sichuan in 2008 and again since. This is plentiful on the mountain over a large altitudinal range where it has pink flowers at the top and paler ones lower down. While promising and perhaps easier to grow than the classic form from the Kangding area of W Sichuan, it does not have the beautiful saucer-shaped flowers, being more campanulate but starts to flower just as young.

- opposite -

Left to right, top: *R. arboreum* ssp. *albotomentosum* (KW 21976), *R. lanigerum, R. argyrophyllum* ssp. *nankingense* 'Chinese Silver', and *R. pingianum*.
Left to right, bottom: *R. denudatum, R. coeloneuron* (PW 27), *R. exasperatum* (KW 8250), and *R. campylocarpum* ssp. *caloxanthum*.

The big-leaved species of subsection Falconera and its closest relatives in subsection Grandia are amongst the grandest evergreen shrubs that can be successfully grown outdoors in the UK. It is remarkable that *Rhododendron arizelum* was not introduced until 1917 as it is perhaps the commonest and most widespread of all the big-leaved species, occurring in Arunachal Pradesh, Burma, SE Tibet and Yunnan. So it is hardly surprising that it is also very variable. The leaves are smaller than most of the subsection but are attractive with a brown to cinnamon thick woolly indumentum. The flowers vary from cream through pale yellow to shades of apricot to crimson which usually fades out to pink. A bonus is its pink to reddish-brown trunk on a round topped large-shrub or small tree. *R. heatheriae* is a recently named version of *R. arizelum* from SE Tibet with a leaf tapering to the base.

When I was in Bhutan in 1988 I found an isolated uniform population of a plant under CHM 3093 that looked like *Rhododendron hodgsonii,* apart from its very thick dark chocolate-brown indumentum, which breeds true from hand-pollinated seed. It undoubtedly originated from a natural hybrid of *R. hodgsonii* x *R. kesangiae* as I saw occasional similar plants elsewhere which were definitely hybrids. It is well worth growing just for its striking indumentum which it shows off well on its upturned leaves.

My son Kenneth discovered the very distinct *Rhododendron titapuriense* in central Arunachal Pradesh in 2001 and it was introduced in 2003-4. At the low elevation of 2,300-2,530m it was always likely to be tender but to our surprise came through the 2008-10 winters with little damage. Kenneth at once recognised that this was something new, with its rugose leaves with thick rusty-brown indumentum, forming a large tree growing to a height of 10m plus. It was not in bloom at the time so he did not see the flowers but it was later photographed by Michael Blooman in 2010 (see *Rhododendrons, Camellias and Magnolias 2014,* p. 80-1).

Rhododendron sinofalconeri is undoubtedly one of the finest species to have come into cultivation in recent years. It was first introduced from N Vietnam in 1993 and SE Yunnan in 1995. It might be thought that from these locations it would be tender but it has proved very hardy for us and very vigorous too. It has not got the outstanding foliage of *R. falconeri* itself, the indumentum being rather pale, but its cream to yellow flowers in perfect long-lasting inflorescences in April-May rival *R. macabeanum* in its best clones and it frequently wins first prizes or even best in show.

Newly introduced to cultivation are several members of the indumentum-less subsection Fortunea and some of these are outstanding. *Rhododendron davidii* was described in 1886 so has long been known of but the true plant does not seem to have been established in cultivation or was lost until Edward Needham collected it in 1993 on Emei Shan, Sichuan. It has nice foliage and rather unusual coloured flowers in shades of lavender-blue in February-March but it often gets away with not being frosted. Ours has the distinction of being the first species to ripen its seed. Closely related to *R. huanum* which tends to have smaller leaves and smaller later flowers.

In 2010 from southern Guangxi from the tops of low mountains of just 1,300m is *Rhododendron faithae* with large broad leaves and white flowers. Much to our surprise, all the plants were nearly defoliated by very active caterpillars in November. It appears to be distinct and its hardiness is as yet unknown, though it is rather early into growth so in danger of being frosted.

- *opposite* -

Left to right, top: *R. arizelum* ssp. *arizelum, R. hodgsonii* aff. (CH&M 3093), *R. sinofalconeri* (C&H 7183), and *R. davidii* (EN 3255).
Left to right, bottom: *R. glanduliferum, R. hemsleyanum* (EN 2097), *R. asterochnoum* (C&H 7051), and *R. glischrum* ssp. *rude*.

Rhododendron glanduliferum is one of the larger-leaved members of this subsection and does not produce its scented pale pink flowers until June-July. It is evidently very rare in the wild and where we found it in 1995 in NE Yunnan it grew as an isolated patch among endless fields of potatoes and is most unlikely to be there still. Also likely to be rare is the more recently brought in *R. magniflorum* which, from its name, has very large flowers. At present it looks like *R. glanduliferum* and it may be synonymous although it is reputed to have only 5 corolla lobes as compared with 7-8.

Rhododendron hemsleyanum is another very rare Fortunea species in the wild, only known on Emei Shan in Sichuan. It was one of the few species to come to us first from America, brought there in 1937 and here in 1965. It forms a large broad specimen with wide wavy leaves and scented white flowers in June-August. There was a new collection in 1989 which has not grown into such an upstanding specimen and flowers earlier. A very vigorous collection I made from SE Yunnan in 1995 - C&H 7189 - we first called *R. hemsleyanum* aff. But which has since been named *R. serotinum* aff. It has less wavy leaves and a more upright habit with white scented flowers in June-July.

Perhaps the finest recent arrival in the subsection is *Rhododendron platypodum* from Jinfo Shan in Chongqing province (formerly part of Sichuan), in 1999. This has impressive large, broad, thick leaves to 19 x 11cm and tall inflorescences of rich pink flowers in April-May. One drawback is that the leaves are inclined to go brown at the edges, probably caused by dryness at the roots. It has so far only been recorded from Jinfo where it prefers to grow on rocks and cliff edges and is threatened with extinction due to a lack of seedlings and human activity.

Rhododendron qiaojiaense is a close relative of *R. decorum* which now incorporates *R. decorum* ssp. *cordatum* as we called our collections of C&H 7132 and 7150. It has little scent but is nonetheless a good free-flowering hardy plant, especially if grown in the open, being a bit straggly in shade.

Rivalling *Rhododendron platypodum* as the best new introduction in the subsection is *R. yuefengense,* not described until 1995. This was introduced in 2002 from Mao'er Shan, N Guangxi, and has proved to be a winner, flowering in three years from seed and easy to grow. It is very compact, much wider growing than tall, particularly in full sun. The flowers are pale pink to pink in upright but loose inflorescences in June. The round leaves are very handsome. Thoroughly recommended. We tried to get to Mao'er Shan twice but only after it had been successfully introduced from there by Tom Hudson and Edward Needham as TH 2785. (We never found out why all foreigners were being excluded in 2009-10). The Chinese have considered that *R. yuefengense* may be synonymous with *R. platypodum* but it is quite obvious to us that they are totally distinct.

There are other names floating about that may or may not prove significant. *Rhododendron asterochnoum,* as we know it, is very close to the well-known *R. calophytum,* while both have varieties described by the Chinese that seem to have little sign of being distinct. *R. maoerense* may be close to *R. fortunei.* So called *R. orbiculare* ssp. *cardiobasis,* as recently introduced from Mao'er Shan, soon makes a leggy specimen and does not have much to do with ssp. *orbiculare*. *R. chihsinianum* may or may not have been correctly introduced and probably fits in this subsection.

Of the subsection Glischra species, *Rhododendron glischrum* ssp. *rude* was first introduced by Kingdon-Ward from SE Tibet in 1924 and later found by us, in some quantity, in Arunachal Pradesh. This is doubtfully distinct from ssp. *glischrum* as the quantity of hairs on the upper leaf surface is variable. Its pink blotched flowers are pretty and its hairy leaves unusual. It flowers in May on a medium-sized shrub. *R. recurvoides* has only been found once, in the extreme northern tip of. Burma in 1924 and nobody has been back there

since. It forms a dense relatively low shrub rarely over a metre high with dark shiny rugose leaves. Distinct, with the combination of being very bristly plus having a thick cinnamon indumentum and persistent perulae. The pink-spotted flowers open in March-May.

Subsection Grandia is rich in relatively newly found species. *Rhododendron balangense* is aberrant in the subsection, having only a 5-lobed corolla and 10 stamens while the rest have 6-10 lobes and 12-20 stamens. I think the Chinese are right in placing it in subsection Taliensia. It is found in the Wolong valley on the way to the Balang Pass in NW Sichuan at 2,350-3,400m, inhabiting the banks and cliffs for a limited stretch above the river, and seems to be an example of a natural hybrid establishing itself as a species. It is perhaps from *R. watsonii* x *R. rufum,* both of which grow not that far away, but another tentative parent would be *R. longesquamatum* as it has persistent bud scales. It is a handsome enough foliage plant with its broad leaves with greyish-white indumentum but the white-or-tinged pink flowers are in rather poor flat-topped inflorescences in April-May. It was first introduced by Warren Berg as a stray seed in a packet of *R. phaeochrysum* in 1983.

Rhododendron kesangiae is a curious case where the collectors and taxonomists seriously slipped up, calling it a natural hybrid of *R. hodgsonii* x *R. falconeri* (which admittedly do occur above and below the altitude with overlapping). It is found well into western Arunachal Pradesh. The broad, somewhat rough leaves have variable indumentum from fawn to silvery. The flowers are in handsome inflorescences which vary from pink in the west, to mostly white in the east. It has proved to be hardy but requires extra shelter or its petioles may break from strong wind. It was Keith Rushforth and David Long, who both did a lot of exploring in Bhutan, who noticed the anomalousness.

The well-known and loved yellow *Rhododendron macabeanum* was not introduced until 1927 by Kingdon-Ward from Japvo in Nagaland. Normally this does well with us and has the ability to rejuvenate from adventitious shoots off the trunk after a hard winter, but 2009-11 proved too much for it and ours were either killed or cut well back. The pale woolly indumentum separates it from the rest of the subsection. Quite variable in the fullness of the inflorescence and the colour, which can be cream or yellow. A new introduction was made from the mountain Saramati on the Nagaland-Burma border by Steve Hootman *et al* in 2003. This collection, NAPE 052, is from a dwarfer high elevation form with darker, thicker indumentum which so far has formed a rounded much branched bush. This has already proved hardier than the old form and, provided it produces good yellow flowers, should be an invaluable introduction.

Rhododendron magnificum was introduced by Kingdon-Ward in 1931 from the Upper Burma-SE Tibetan frontier. This is very closely related to *R. protistum* which is much slower in producing its indumentum. Both species start into growth very early so are really only suitable for the mildest of British gardens. I only know of two gardens that grow these really well, Mount Stewart in Northern Ireland and Brodick on the Isle of Arran. *R. protistum* was formerly grown under the name *giganteum* and it is a shame that name had to go. The flowers are rose to crimson-purple and open very early.

One of the hardiest and slowest-growing of the subsection is *Rhododendron pudorosum,* only found in the Tsari valley of S Tibet and introduced in 1936 by Ludlow, Sherriff and Taylor, first flowering in the RBGE in 1972. The only other collection was made by my son Kenneth in 1999 - CER 9906 and 9931 - and these flowered rather quicker, starting in 2011. The fine pink to mauve-pink blooms are, alas, early, so are often frosted. It develops into a shaggy plant with persistent bud scales.

The widespread *Rhododendron sidereum* is found in Arunachal Pradesh, Burma and Yunnan and the best forms have good yellow flowers but many are cream. It has amongst the smallest, narrowest leaves of the subsection and out of flower can be confused with *R. arboreum.* Most introductions are too tender for us in east Scotland, but it is relatively late-flowering so usually escapes frost. First introduced in 1919 and several times since.

Vietnam has given us surprises with regards to hardiness. The new *Rhododendron suoilenhense* was thought to be related to *R. protistum* but is actually very different and distinct. Unlike the latter, it grows after frost has stopped. It has flowered in the south of England with cream to pale yellow flowers with or without a blotch in March-April. although it has so far proved hardy at Glendoick, it is liable to have a weak root system and fall over.

Rhododendron griersonianum, which merits its own subsection, was discovered in 1917 but not seen again until 1931. I spent a little time searching for it in 2000 but maybe did not get to quite the right area. This is one of the most distinct species which produces its bright red flowers in June-July at a very young age. It was the most popular species to use in hybridisation until *R. yakushimanum* came along. Over the years it has just proved hardy enough to grown successfully at Glendoick. A bit sprawly, it is easily propagated and very free-flowering. Growing in the heavily cultivated Shweli valley, is it extinct in the wild?

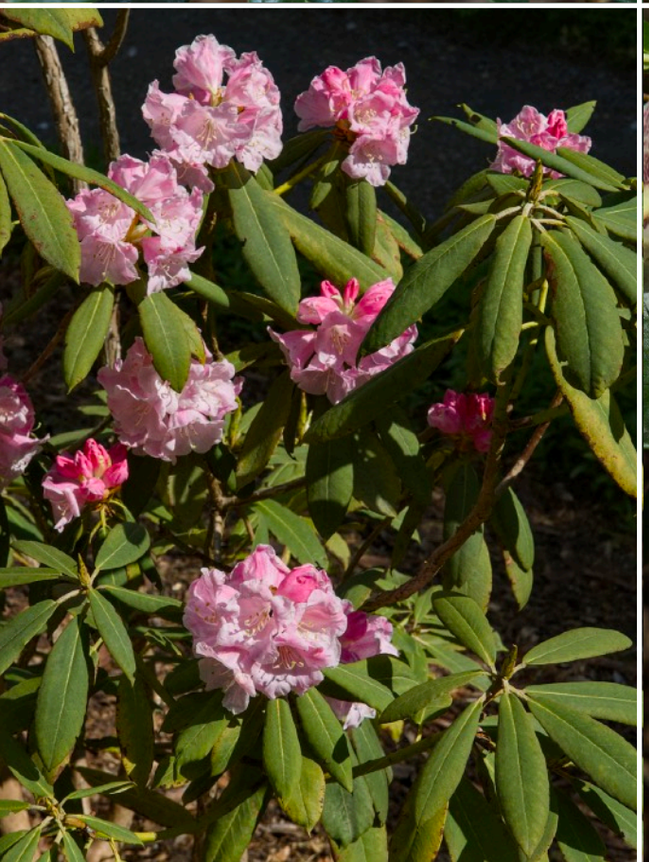
Subsection Irrorata contains a number of mostly tender species, only fit for milder and mildest gardens. *Rhododendron aberconwayi* is generally hardy enough for Glendoick. It has small stiff leaves and an upright habit and its flowers are usually white with crimson spots. Introduced in 1937, it flowers in May-June. We grow two clones, the 1945 Windsor form raised from McLaren T41 'His Lordship' AM and one from Cecil Smith's garden in Oregon, USA. Both are good. The date of introduction of *R. annae* is unknown but probably the 1930s. It is rare in the wild in Guizhou and NE Yunnan but it was reintroduced by Peter Wharton in 1994. It has an upright habit and pretty white flowers. *R. annae* ssp. *laxiflorum* is more tender, coming from SW Yunnan. The clone 'Folk's Wood' from Sandling Park in Kent, raised by Alan Hardy, was introduced and simultaneously received an AM in 1977.

Rhododendron araiophyllum is another rather tender species from the Yunnan-Burma border. Early into growth, it has white to pink blotched and spotted flowers in April-May. A new introduction is *R. petelotii* from Fan Si Pan, Vietnam, which was written up in *Rhododendron, Camellias and Magnolias 2014.* Related to *R. tanastylum,* it seems to be a better plant with full inflorescences of intensely red flowers and promising, if hardy enough. Lastly in this subsection is *R. ramsdenianum* from low altitudes in SE Tibet. Introduced in 1924, this is really only suitable for very mild gardens and even there it tends to be shy-flowering and early into growth. Reintroduced in 1996, a seedling was killed here in a hard winter. It does occasionally give good trusses of blood red flowers at Glenarn, W. Scotland. The related *R. gongshanense* was introduced in 1997-2000 from NW Yunnan. It has fine trusses of light red flowers in early spring but is hopelessly early into growth so useless for us at Glendoick.

Several people have collected recently in SE Tibet and neighbouring Arunachal Pradesh and there was been a new species and a range of different forms in subsection Lanata brought back. *Rhododendron lanatoides* was only described by David Chamberlain in 1982, previously being grown under *R. roxieanum* aff. Found by Kingdon-Ward in the 1920s and Ludlow and Sherriff in 1947, we found a good population in the Rong Chu, SE Tibet, in 1996. Previously, plants were only being grown in three gardens in the UK. It grows into an upright plant with narrow shiny leaves covered with dense, thick brown to fawn indumentum on the underside. The white flushed pink flowers are very early,

- *opposite* -

Left to right, top: *R. x balangense, R. kesangiae, R. magnificum,* and *R. suoilenhense*.
Left to right, bottom: *R. aberconwayi* (McLaren U35a), *R. annae* (PW 85), *R. araiophyllum,* and *R. ramsdenianum*.



generally February-March, but are produced at a comparatively young age. Very distinct and worth growing just for its foliage. *R. circinnatum* was discovered by Kingdon-Ward in S Tibet and introduced by us in 1998. It makes a small tree to 6m with thick yellowish-brown indumentum and cream unmarked flowers.

Subsection Maculifera has several species only introduced within our 100 year period and some are proving to be excellent garden plants. *Rhododendron anwheiense* is found in the province of Anhui in eastern China so it is very hardy. I remember once going to the Valley Gardens, Windsor Great Park, and this species was the only one that had not been frosted. Introduced in 1925, this makes a rounded bush with somewhat loose inflorescences of pink to white flushed pink flowers in April-May.

Rhododendron morii, introduced from Taiwan in 1918 can grow relatively large. The time of growth varies considerably and the plentiful white to flushed rose flowers open in March-May. Often mixed with it in the wild are the two fine species *R. pachysanthum* and *R. pseudochrysanthum.* The former occurs on just one mountain above the tree line and is one of the finest species introduced in the latter part of the 20th century, in 1972. The indumentum is amongst the best in the genus on both leaf surfaces, tending to be brown on the upper surface in shade and silver in the sun, while the lower surface is much paler on young leaves than old. The flowers, produced in March-April, are usually pale rose-pink, occasionally white, often spotted. A must have for species enthusiasts. *R. pseudochrysanthum* has a wide altitudinal range, growing right to the top of the highest peak at 4,000m and so varies tremendously in its statue. We had a batch of wild seed which produced all sizes from very dwarf and shy-flowering to quite tall. Pale pink forms are more desirable than white ones in my opinion and are very attractive with loose but well-presented flowers. This lacks the indumentum of *R. pachysanthum* with just a little on the midrib. Avoid too much fertiliser.

Another winner is *Rhododendron ochraceum.* Discovered by Wilson, it is strange that it was not established in cultivation until 1994-5 introductions. Peter Wharton found the occasional plant at Dashahe in N Guizhou and then Steve Hootman and I found, dare I say it, a much superior form above Leibo in S Sichuan. This was found growing on the top of huge rocks which indicates its need for very good drainage. It forms a rounded bush with neat narrow leaves with some indumentum and ball inflorescences of rich red flowers in March-April. I regard this as one of my best finds. It is now a rare plant in the wild and in danger of extinction.

Rhododendron oligocarpum was only described in 1983 from Chinese collections in Guizhou and Guangxi. Closely related to *R. maculiferum* it has attractive two-tone flowers of pale pink to purple in loose trusses in April. Introduced by Jim Russell from Fan Jin Shan in 1985, it has grown into a sizeable free-flowering specimen. In contrast, *R. sikangense* has proved slow to flower with us. It grows into a large plant so it needs plenty of room. *R. cookeanum* Davidian was sunk into this by Chamberlain and a few large plants exist which were formerly under that name. The foliage is rather nondescript and the flowers are white to purple with or without spots. Hopefully worth waiting for *R. sikangense* var. *exquisitum* has wider leaves with a little indumentum.

Subsection Neriiflora has many taxa introduced within our period. The majority come from moorland above the tree line and can be tricky in warm southern gardens, preferring northern cooler conditions. Also avoid too much fertiliser. There are many names applied to a thorough mixture of different coloured flower forms including various multi-colours. *Rhododendron aperantum* from the Yunnan-Burma border is in this category. With its low domed habit and persistent bud scales, it is distinct and can have flowers varying from red to pink in cultivation, though it is recorded as having almost every colour one can think of in the wild. Introduced in 1919, *R. citriniflorum* is similarly a high altitude species, again with different coloured flowers including bi-colours and sometimes good yellows, of which I saw one plant in the wild. This had no seed and in any case would not likely have come true to colour. *R. citriniflorum* var. *horaeum* is also variable but one clone of Forrest 21850 with orange flowers is outstanding. Two other related species can vary enormously in flower colour. *R. parmulatum* from the south side of the Doshong La in SE Tibet has an amazing colour variation, with or without many spots. I was lucky enough to see these in full flower in 1996. First introduced by Kingdon-Ward in 1924. Another very variable species is *R. temenium* var. *temenium,* but much less spotted. A nice yellow is *R. temenium* var. *gilvum* Rock 22272 'Cruachan' FCC, an award it hardly deserves and which it received at a Scottish show where awards were easy to get! This species is inclined to be slow to flower.

There are many forms of *Rhododendron sanguineum,* surprisingly not introduced until 1917. Most of those cultivated have red flowers and var. *haemaleum* has the nearest to black of any rhododendron, which is quite popular. These are again alpine species from above the tree line and flower in March-May. *R. sanguineum* ssp. *didymum* also has very dark flowers which do not open until June-July and this prefers nearly alkaline soil. Introduced 1921. A Ludlow and Sherriff discovery, *R. trilectorum* was re-found by us in 2002 in Arunachal and introduced. It flowered at quite a young age with comparatively late, cream flushed pink flowers.

There are several red-flowered species with indumented leaves which tend to be more woodland plants, all introduced between 1915 and 1935. *Rhododendron beanianum* has small dark leaves with dense rufous indumentum and dark red flowers in March-May. A near relative is *R. piercei,* which makes a larger, more rangy specimen. A new introduction of son Kenneth's lies somewhere between the two species, collected in Arunachal Pradesh in 2004 under APA 060, it could prove to be a better plant than either of the above. *R. catacosmum* has rather larger leaves than its relatives and scarlet to rose-crimson flowers with a big calyx. *R. haematodes* ssp. *chaetomallum* is similar, while *R. pocophorum* has thicker indumentum. Compact *R. miniatum,* a Ludlow and Sherriff find, was introduced by my son Kenneth in 1999 from Tibet but it is proving to be shy-flowering. It has been misplaced in subsection Thomsonia with *R. sherriffii* and fits much better here.

Very distinct is *Rhododendron mallotum* with a more tree-like habit, thick, stiff rugose leaves with striking woolly cinnamon-brown indumentum. This was discovered on the Burma-Yunnan border in 1917 by Kingdon-Ward and all plants in cultivation from that period were collected by Farrer and my father Euan in 1919. I was lucky enough to find a few scattered plants amongst bamboo in the same location in 2000 and it seems to be in danger of extinction. The fine crimson-red flowers in full inflorescences are early and liable to be frosted.

Rhododendron microgynum is closely related to *R. sanguineum* and allies but grows bigger and is easier to grow and more reliable to flower. Some plants in cultivation may still be grown under the name *R. gymnocarpum* which is now a synonym. *R. sperabile* is closer to *R. neriiflorum* but with some indumentum. We found one plant on the Nam Wa pass in 2000 on the Dulong-Salween divide near the related *R. floccigerum.* As expected, very few seedlings come true to type. *R. sperabile* var. *weihsiense* has larger leaves with paler indumentum.

- *opposite* -
Left to right, top: *R. lanatoides* (KW 5971a), *R. anwheiense, R.morii,*
and *R. maculiferum* ssp. *oligocarpum* (GUIZ 148).
Left to right, bottom: *R. sikangense* var. *sikangense* (CEE 246), *R. parmulatum* 'Ocelot' AM 1977,
R. x haemaleum (R 31) and *R. didymum*.

Lastly in the subsection comes *R. chamaethomsonii.* This covers a multitude of natural hybrids including many *R. forrestii* crosses plus extreme forms of the latter which grow taller. Most have several flowers to the inflorescence instead of the 1-2 flowers of *R. forrestii.* In some places, like the Doshong La in SE Tibet, *R. forrestii* grows prostrate in the most exposed places while the taller *R. chamaethomsonii* keeps itself to where there is a little shelter. Where *R. forrestii* grows alongside the likes of *R. sanguineum, R. aganniphum, R. parmulatum,* and *R. selense* there can be a whole host of natural hybrids and in all probability all plants grown under the names var. *chamaedoron* and var. *chamaethauma* are natural hybrids. Several of these are attractive plants and worthy of cultivation. It was introduced in 1922.

The subsection Parishia contains fine large-growing, late red-flowered species, but all are tender for us at Glendoick, flourishing in climates like Cornwall and New Zealand. *Rhododendron huidongense* and *R. urophyllum* may have been introduced recently, if correctly identified. The former is recorded from quite high altitude so should be hardy, the latter is very low so probably tender.

Rhododendron elliottii is only found wild in NE India at a low altitude and suffers at Glendoick in a hard winter but has proved to be a very useful parent for late-flowering red hybrids. Where it can be grown, such as Pukeiti on the north island of New Zealand, it is one of the finest reds. *Rhododendron facetum* is similar in hardiness, coming again from low altitudes in NE Burma and W Yunnan, and is again a very fine plant where it succeeds. *R. kyawii* comes from even lower with larger leaves. I grow it in my conservatory and it is about to reach the roof. I collected it in W Yunnan in 1997 where it grew alongside the very tender *R. nuttallii* at only 2,000m. A fine plant where it can be grown.

The subsection Pontica rhododendron commonly known as 'Yak' (*Rhododendron degronianum* ssp. *yakushimanum*) is now one of the best-known taxa in cultivation and more used in hybridisation than any other species. It is only those at the highest altitude above the tree line that are regarded as so special, lower down on the island of Yakushima they grow taller with broader less attractive leaves, and to think it was only introduced in 1934 the year I was born! Even the clones 'Koichiro Wada' AGM and its sister can grow quite tall if planted in shade. Its relative, *R. makinoi,* is very different, with narrow leaves which are inclined to be chlorotic unless given near alkaline soil with plenty of magnesium. Its pink flowers open in June.

DNA testing has indicated that *Rhododendron hyperythrum* should actually be moved from Pontica and placed in subsection Argyrophylla. This Taiwanese species comes from a very low altitude and yet is very hardy, obviously a relic of some geographical movement many years ago. Those who have seen it on Taiwan say that the leaves are not recurved in the wild as they are in cultivation. Most plants in cultivation have pure white flowers in April-May but it can be tinged pink. Free-flowering and attractive, it is popular as a parent for hardy hybrids in Scandinavia.

Subsection Selensia species have never been popular with gardeners as they are generally not all that showy and can be shy-flowering. *Rhododendron hirtipes* is rare in cultivation although it has been collected several times from SE Tibet. I would call it dainty, with its rounded hairy leaves and pretty pink flowers. Being early-flowering it is not often seen at its best. *R. selense* ssp. *jucundum* is perhaps the best of the various forms of *R. selense* as it is free-flowering with relatively large pink flowers in April-May. We have found it rather short-lived. Kenneth and I were lucky to see a whole hillside in full flower in 1992 on Cangshan, W Yunnan (see frontispiece of *The Encyclopaedia of Rhododendron Species).*

Subsection Taliensia are renowned for their often intriguing foliage but also their reluctance to flower in cultivation. All come from high elevations and are therefore very hardy but need cool growing conditions and good drainage. Several, though, can be spectacular when in full flower in the wild, covering whole hillside above the tree line. There are a number of exciting new introductions even though many species had already been introduced by Forrest before 1915. The majority make medium-sized compact bushes which are best grown in a reasonable amount of sun. Avoid fertiliser.

One of the most outstanding for foliage is *Rhododendron bureavii* with semi-persistent indumentum on the leaf upper surface and thick rusty-red below. The flowers are white flushed rose in April-May. The original introduction from N Yunnan has so far produced the best foliage forms but it has recently been found in several different places. The related *R. bueavioides,* distinct with its short petiole, was not apparently introduced in its true form until 1986 from NW Sichuan. It does not have such striking leaves as *R. bureavii.* Another good foliage plant is *R. elegantulum* with pinkish to rufous-brown indumentum. It is freer-flowering than most of the subsection, with pink flowers in February-May.

Rhododendron principis is one of the biggest growers of the subsection and comes from relatively dry areas in Tibet. It can reach 6m, with shiny dark green narrow leaves and white to pink flowers in March-April, pretty in its pinkest selections

Two connoisseur's species are *Rhododendron pronum* and *R. proteoides* which form the neatest little compact bushes 30-60cm high and more across. Their foliage is exquisite but both are decidedly shy-flowering in cultivation. The former has glaucous leaves when young and thick fawn indumentum on the underside. The latter has semi-persistent indumentum on the upper surface when young and thick rufous indumentum below.

A fine taxon in the wild was what we called *Rhododendron phaeochrysum* aff. with yellow flowers with red spotting. This was discovered by Ludlow and Sherriff but not introduced by them and never named. We collected it in 1998 but it has not flowered yet and seems hard to grow.

The variable *Rhododendron roxieanum* is one of the most unusual members of the subsection, its variety *oreonastes* being the most sought after with its exceptionally narrow leaves and attractive little trusses of white to flushed rose flowers in April-May. Apt to become straggly in too much shade. *R. roxieanum* var. *cucullatum* has wider leaves with rich-coloured indumentum.

Rhododendron farinosum is at present in subsection Argyrophylla but undoubtedly its closest relative is *R. wiltonii* of subsection Taliensia. This was introduced by Jens Nielsen in 2011 and, much to our surprise, some plants produced their little white flowers in 2014. In the wild in NE Yunnan it forms low mounds of up to 2m. It seems easy to grow.

What seems to match the description of *Rhododendron comisteum* has appeared as a possible hybrid of *R. proteoides.* It is a neat little plant with fine foliage and indumentum. Other new introductions to look out for in the future once they are established in cultivation are *R. dachengense, R. roxieoides, R. yaoshanense* and a new form of *R. bueavioides,* a very handsome plant with little indumentum. *R. yaoshanense* already looks interesting at five years old with a prostrate habit.

Subsection Thomsonia contains several good species, mostly with attractive peeling bark and leaves usually lacking indumentum. Most have loose inflorescences of often red flowers. While the majority are quite hardy, many flower early so are vulnerable to spring frost. Several are subject to powdery mildew.

- opposite -

Left to right, top: *R. mallotum, R. weihsiense, R. elliottii* ssp. *elliottii* (KW 19083), and *R. kyawii*.
Left to right, bottom: *R. degronianum* ssp. *makinoi, R. selense* ssp. *jucundum, R. elegantulum,* and *R. vellereum* (KW 5656).

Rhododendron cerasinum was discovered by Kingdon-Ward and the two different colour forms were nicknamed by him as 'Cherry Brandy' for the bi-colour cherry-red and white and 'Coals of Fire' for the all red ones. This is a neat plant which flowers quite late, so escaping frost. It is inclined to hide its flowers under the leaves, particularly when young.

Rhododendron eclecteum and *R. stewartianum* are early flowerers which can have different colours ranging from white to rose to red to yellow, even sometimes bi-coloured, blooming in February-April, the latter species having few flowers to the inflorescence and a little indumentum. *R. meddianum* var. *meddianum* is a comparatively small and slow grower with brilliant red flowers and which should be better known. Its variety *atrokermesinum* is more robust but some grow too early and get frosted. Both are found in Burma.

Rhododendron subansiriense was discovered by Peter Hutchison, my wife and myself in 1965 in Arunachal Pradesh, where it had made a small tree. It was the only plant in the forest with its trunk not covered in moss so we christened it 'Old Baldy'. It has fine, tight inflorescences of crimson-scarlet in March but suffers from too early growth. Its close relatives *R. faucium* and *R. hylaeum* also have striking peeling bark but similarly suffer from early growth. Both have shades of pink flowers.

Rhododendron thomsonii ssp. *lopsangianum* is generally a smaller form of the well known *R. thomsonii* ssp. *thomsonii* but in the wild it has proved to be very variable and merges with other species such as *R. sherriffii,* which has thick chocolate-brown indumentum and fewer flowers to the truss, and even *R. succothii* of subsection Barbata. Some have a thin indumentum while others have a glaucous leaf underside. All this is muddling and I think *R. sherriffii* and *R. lopsangianum* should be together in their own subsection.

The crimson flowered *Rhododendron populare* was discovered by Ludlow and Sherriff in S Tibet and first introduced by Kenneth from Arunachal in 2001. Sadly, it is very susceptible to powdery mildew. Lastly in subsection Thomsonia in the rare *R. viscidifolium,* named after its sticky whitish indumentum on the leaf underside. It only has one to three flowers to the inflorescence but these are of an unusual coppery-orange colour. Very distinct.

Rhododendron venator was formerly in subsection Parishia but is now in its own subsection. It is a useful fairly late-flowering red in May-June. It comes from the Yarlung Tsangpo Gorge in SE Tibet, from a low altitude, but is surprisingly hardy.

Subgenus *Rhododendron* includes both Section Pogonanthum and Section Rhododendron. These are the lepidote (scaly) species, the majority of which are dwarf. There is also the scaly Subgenus Vireya rhododendrons which are mostly tropical and cannot be grown outside in the UK.

Most species in the dwarf Section Pogonanthum (previously the Anthopogon Series) were introduced before 1915 and those that were brought in later are very rare in cultivation and is some cases difficult to grow, especially in the south of England where it is too hot for them. All have aromatic leaves and tubular corollas with spreading lobes and are really connoisseurs' plants with a unique attraction. *Rhododendron collettianum* from the Afghanistan-Pakistan border has white flowers and comparatively large leaves. In contrast *R. kongboense* has small deep pink to shades of red flowers and an erect habit. The true *R. laudandum* var. *temoense,* low growing with white flowers, would be a gem if it were easier to grow. Both the last two are Tibetan.

Section Rhododendron covers the rest of the scaly species excluding the tropical Subgenus Vireya. *Rhododendron leucaspis* of subsection Boothia was first discovered by Kingdon-Ward in SE Tibet on rocks and steep banks and subsequently reintroduced from nearby areas. It makes a neat rounded bush with hairy leaves and white flattish flowers which are very freely produced but it is not hardy enough for the coldest gardens. *R. dekatanum* was introduced by Ludlow and Sherriff in 1936. Related to *R. sulfureum* we found it unnamed at Muncaster, NW England and it has proved hardy at Glendoick. It has bright yellow flowers in February-March.

While *Rhododendron cinnabarinum* ssp. *cinnabarinum* was introduced away back in 1849 by Hooker, its subspecies were not brought in until after 1915. These were popular plants but, sadly, many are now too susceptible to powdery mildew to be grown successfully. All have tubular, pendant, fleshy flowers, generally on upright bushes to some 5m or more though some stay lower. Luckily, some are still mildew resistant, especially what we grow as *R. cinnabarinum* ssp. *xanthocodon* with yellow flowers and the Purpurellum Group with plum-purple flowers. We all really miss the susceptible ones with shades of red and orange, the bicolour forms and their hybrids.

The scented *Rhododendron edgeworthii* was first introduced a long time ago but there have been many reintroductions recently. This has the unusual combination of indumentum and scales on the leaf underside, and the thickness and colour of the indumentum differs considerably. It also varies in hardiness and we can grow several different selections outside at Glendoick. The flower colour ranges from pure white to strongly flushed pink. The little known yellow flowered *R. seinghkuense* was introduced by Kingdon-Ward from Upper Burma and reintroduced by my party, in a form with both superior foliage and flowers, from the trip up the Salween in 1997. While tender, it has survived against a sheltered wall at Glendoick for many years.

Rhododendron fragariiflorum, in its own subsection, is halfway between Lapponica and Saluenensia subsections. Pretty in the wild with its little pink flowers and tiny leaves, it does not seem to flourish in cultivation. Another species in its own subsection and even more distinct is *R. genestierianum* with a reddish peeling bark. This has leaves very glaucous-white beneath and most unusual fleshy reddish-purple flowers with a glaucous bloom. It is only suited to mild gardens like Brodick on the Isle of Arran, largely due to its early growth.

Subsection Glauca also has leaves glaucous on the undersides and also peeling bark. The flowers are bell-shaped and similar in shape to those of the Campylogynum subsection. All make small shrubs of 60cm-1m or so. *R. brachyanthum* has small yellow flowers but is useful for its lateness, usually June-July. *R. charitopes* ssp. *charitopes* has most attractive apple-blossom pink flowers but is somewhat bud tender while ssp. *tsangpoense* has purplish flowers. *R. glaucophyllum* var. *tubiforme* has more tubular pink flowers than var. *glaucophyllum* while var. *album* from Nepal has white flowers. *R. luteiflorum* has early beautiful yellow flowers but with us only gets away. with not being frosted every few years.

Subsection Lapponica has a multitude of variable dwarf species which take the place of our heathers on the mountains of the Himalaya and W China. Many are very similar and I consider that the quantity of taxa could be reduced still further from what the New Zealand botanists, the Philipsons, did in sinking previous species in 1975. The less attractive are not popular and I will not include them here and most of the better ones were introduced prior to 1915. One of the best, with the deepest flower colour, from indigo-

- opposite -
Left to right, top: *R. roxieanum* Oreonastes Group, *R. hylaeum* var. *faucium, R. lopsangianum,* and *R. venator* (Watt32).
Left to right, bottom: *R. collettianum* (H&W 8975), *R. kongboense, R. leucaspis,* and *R. genestierianum*.

blue to reddish-purple, is *Rhododendron russatum,* introduced in 1917. There have been new ones brought in recently like *R. tsaii* and *R. amundsenianum* which have yet to prove their worth.

Subsection Ledum is now included in the genus *Rhododendron.* These species are of limited garden value owing to their small white flowers and most were originally introduced in the 19th century. Also newly placed in *Rhododendron* by the Australian taxonomist Lyn Craven is the genus *Menziesia* which I would have thought would be better in the genus *Enkianthus* with similar-shaped pendulous flowers and also deciduous leaves. I am not sure how widely this has been accepted by taxonomists in general. Native to North America and Asia there have been several new selections come on the market, some of which are hybrids.

Rhododendron cowanianum and *R. lowndesii* were both introduced from Nepal in the 1950s. They are very rare in cultivation and it would be a pity if the latter is lost as it is a pretty little thing with plentiful flay yellow flowers. *R. cowanianum* is of little garden value.

The huge subsection Maddenia has many fine garden plants but the majority are too tender for most British gardens, doing best in Cornwall and the extreme western Scottish and Irish gardens. But several recent introductions from south China and Vietnam are proving to be surprisingly hardy and well worth attempting. The Maddenii alliance is widespread from the Himalaya to Yunnan and Vietnam and there have been many re-introductions, especially from Vietnam. On the whole, *Rhododendron maddenii* ssp. *crassum* from the east is hardier than ssp. *maddenii* from the west and it remains to be seen how hardy those from Vietnam are. Most have white scented flowers which open late in the season and can make sizeable plants.

The Dalhousiae alliance contains several of the large-growing gems of subsection Maddenia. All are usually epiphytic in the wild so appreciate excellent drainage. *Rhododendron dalhousiae* var. *rhabdotum* from the Himalaya has the most startling cream-coloured flowers with a bold red stripe down each corolla lobe. This can only be grown outside in the mildest gardens. It flowers late, usually July, but has little scent compared with the following. What we grow as *R. excellens* from Vietnam is closely related to the huge flowered *R. nuttallii* but it is a bit smaller in all parts. It has proved relatively hardy as a plant at Baravalla, my west coast garden, but is bud tender. *R. levinei* and *R. liliiflorum* from Guizhou and Guangxi provinces are mostly hardy with us and well-worth attempting, given really good drainage. Both have white scented flowers in May-June. A form of *R. lindleyi* introduced by Ludlow and Sherriff named *R. grothausii* by H. H. Davidian has proved to be just hardy enough to grow at Glendoick in a favourable position. We do not consider it deserves any botanical status. The closely related *R. taggianum* is the Chinese equivalent of the Himalayan *R. lindleyi. R. megacalyx* is another good scented species but only hardy in the mildest gardens.

The Johnstoneanum alliance contains several smaller species compared with the Dalhousiae alliance and again require good drainage. *Rhododendron formosum* var. *inaequale* has one of the finest scents in the genus but is too tender for most of the country. It is evidently very rare in the wild and we were lucky to spot it in the gorge below Shillong Peak, Meghalaya, NE India, when stopping for a rest in 1965. *R. scopulorum* is one of the first in the season to flower and is equally tender, coming from a low altitude in Tibet.

There is a group of taxa around the dwarf yellow *Rhododendron valentinianum* from west Yunnan some of which have only just been introduced. *R. valentinioides* is much taller-growing and later flowering with deep yellow flowers and comes from SE Yunnan; a dwarfer form has been introduced from Vietnam. *R. changii* comes from Jinfo Shan in Chongqing province with paler earlier flowers and with us is a bit shy-flowering. All so far are proving reasonably hardy.

There is another group of species, most of which were first introduced before 1915, which are all somewhat similar and some might be sunk. These are centred around *Rhododendron ciliicalyx.* Among those introduced since 1915 are *R. horlickianum, R. roseatum* and *R. fleuryi.* Most have white to pale pink flowers, some are scented and almost all will survive in the mildest gardens. A new introduction of considerable merit with fine yellow flowers is *R. leptocladon* which was introduced from Vietnam in 1992-4. It has not proved hardy enough for us at Glendoick. Another introduction from Vietnam is the curious, small leaved and white flowered *R. crenulatum* which should prove to be quite hardy.

Subsection Monantha consists of a few autumn-flowering epiphytic species. With small tubular-campanulate flowers we presume that the flowers are too small to have been considered worthy of introduction by Kingdon-Ward etc. Of borderline hardiness, they have a long flowering period if grown indoors. Species introduced so far include *Rhododendron monanthum* and *R. kasoense* which have yellow flowers, *R. concinnoides* with pinkish-purple flowers and as, as yet, unnamed *species nova* with cream flowers. Efforts to cross them with spring-flowering taxa have so far failed.

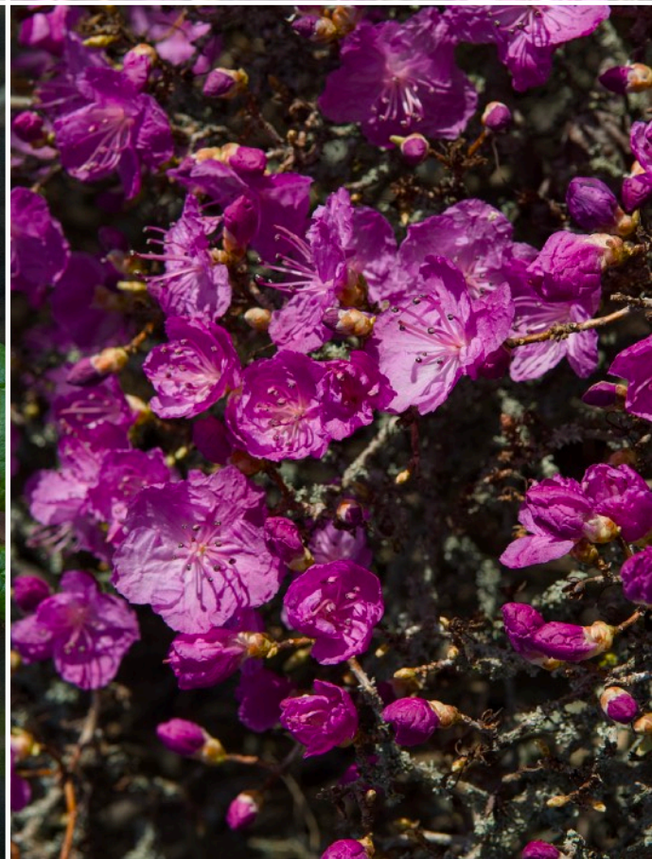
One of the finest new introductions amongst the lepidote species is *Rhododendron dendrocharis* of subsection Moupinensia. Described in 1886, it was apparently not introduced or at least established in cultivation until the 1980s. It is a super little plant with plentiful pink to occasionally white flowers in March-April. Excellent for a raised bed or a tree stump, it has proved hardy. The flowers are as big as those of *R. moupinense* but the leaves are smaller and the plant is lower and more compact. Why Wilson did not bring it back is a mystery as it is widespread is Sichuan and into NE Yunnan. The closely related *R. petrocharis* is similar.

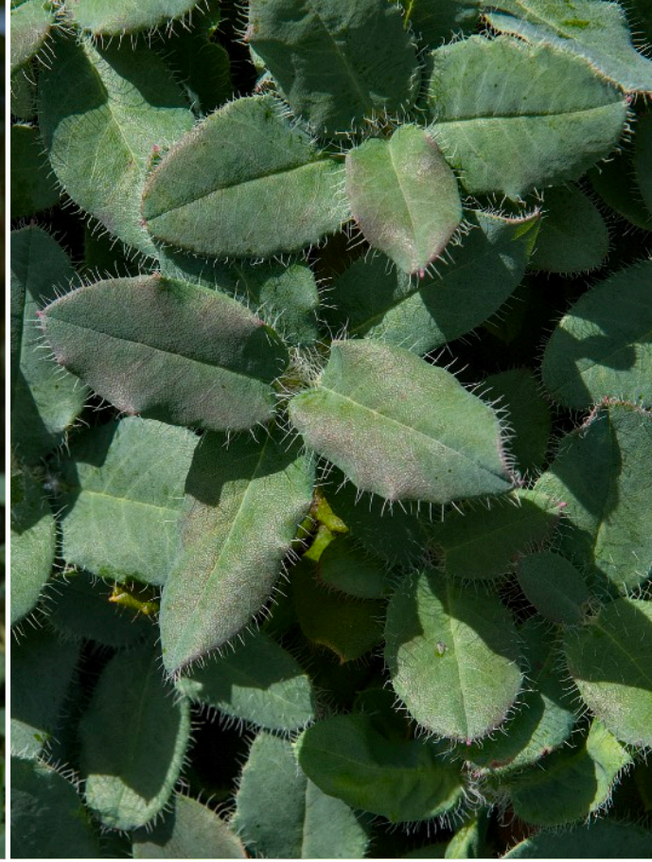
From subsection Rhodorastra, *Rhododendron mucronulatum* var. *taquetii (chejuense)* would be well worth a higher status than a variety as it is distinct from other forms of this deciduous species. It is quite compact and flowers later than the taller forms with pink to purple freely produced flowers in March-April. Not introduced until 1976, and again in 1982.

Subsection Saluenensia consists of valuable very to semi-dwarf taxa with comparatively large flowers in the pink-purple range. All were first introduced just before or after our 1915 deadline. *Rhododendron calostrotum* contains amongst the dwarfest of all rhododendrons in its ssp. *keleticum,* particularly in the Radicans Group. Flowering in May-June, it generally escapes frost and the purple flowers show themselves off nicely on long pedicels. *R. calostrotum* ssp. *calostrotum* is somewhat taller and the leaves are usually glaucous. The striking selection 'Gigha' has almost red flowers. *R. calostrotum* ssp. *riparium* usually has less glaucous leaves. Calciphilum Group has tiny leaves and pink flowers while Nitens Group has purplish flowers and is useful for its June-July flowering. *R. calostrotum* ssp. *riparioides* is a little larger in all parts, has glaucous leaves, and deeper purple flowers which often open in the autumn in addition to spring. *R. saluenense* does not quite fit into our date scale. It has dark green shiny and hairy leaves and flowers in shades of purple.

- *opposite* -

Left to right, top: *R. russatum, R. maddenii* ssp. *maddenii* (Bowes-Lyon 10134), *R. maddenii* ssp. *crassum,* and *R. dalhousiae* var. *rhabdotum*.
Left to right, bottom: *R. formosum* var. *inaequale, R. dendricola* ssp. *scopulorum, R. valentinioides,* and *R. mucronulatum* var. *taquetii*.





Subsection Scabrifolia contains mostly rather straggly taxa and some are of little garden value and were first brought in before 1915 anyway. The mostly terminal and axillary flowers range from pink to white to red. There is a newly described and introduced species called *Rhododendron fuyanense* resembling a narrower leaved hairy *R. racemosum* with white to pink flowers.

Subsection Tephropepla species are mostly rather tender so only suitable for mild gardens. *Rhododendron auritum* is like a paler-flowered *R. xanthostephanum* with tubular-campanulate pale yellow flowers on an upright bush. *R. tephropeplum* is quite variable in leaf size and shape. The pink flowers are pretty and it should be more widely grown but not in the coldest gardens. The Deleiense Group have the largest leaves and flowers.

Subsection Trichoclada has both evergreen and deciduous species. *Rhododendron mekongense* and *R. trichocladum* are both deciduous and best planted in clumps to maximise the effect of their yellow flowers. *R. lepidostylum* is one of the best foliage plants in the genus with very glaucous evergreen bristly leaves, especially when young, and most attractive when covered with drops of moisture. It forms a compact plant some 30-50cm wider than high and has yellow flowers in June that somehow disagree with the foliage. *R. viridescens* also has glaucous young evergreen leaves and yellow flowers in June-July. It forms a more upright bush than *R. lepidostylum.* Rubroluteum Group has yellow flowers tinged and spotted red.

The large subsection Triflora contains many excellent medium to large shrubs that respond well to being cut back if straggly or getting too large for their allotted space. The well-known near blue, *Rhododendron augustinii* has two subspecies worth growing for the own merit: ssp. *chasmanthum* just differs botanically from ssp. *augustinii* but there are some fine selected forms with tighter inflorescences and ssp. *hardyi* has almost completely deciduous leaves and showy white flowers with yellowish green spots. There have been many recent new introductions of ssp. *augustinii* itself and some have proved to be a month later in flower than previous cultivated forms. *R. zaleucum* var. *flaviflorum* should be mentioned as it is a nice plant and very rare in cultivation and should be spread around. Kingdon-Ward introduced it in 1953 from Burma under KW 20837 and it has large pale yellow flowers and is reasonably hardy. It has the typical very glaucous leaf underside of *R. zaleucum.* Most other species were brought in in the early 1900s so do not concern us here.

Subsection Uniflora contains some little gems ideal for a trough or raised bed. *Rhododendron imperator* was introduced by Kingdon-Ward from Burma; it has a near prostrate habit and wide open pinkish-purple flowers in April-May. A more recent collection by ourselves from SE Tibet tends to be semi-deciduous and not such a nice garden plant.

The first time I saw *Rhododendron ludlowii* was in the Sherriffs' garden Ascreavie in Angus and I was so taken with it I took some pollen home and at once started hybridising with it. It has unusually large bowl-shaped yellow flowers. I was thrilled to find it on the Subansiri-Siyom divide, Arunachal Pradesh, in 2002, and this collection seems to be more compact and a little easier to grow than the Ludlow and Sherriff introduction. *R. pemakoense* is the easiest of the subsection with large near-pink flowers which can be so plentiful they hide all the foliage but being early, it is easily frosted. *R. pumilum* was discovered by Hooker in 1850 but plants in cultivation were most likely collected much later. Kingdon-Ward christened it 'Pink Baby'. It has 1-3 pink flowers like little thimbles on long pedicels and is rather a weak grower. The history of *R. uniflorum* is a bit of a mystery as we could only find *R. imperator* where Kingdon-Ward found the former which has wider leaves and more funnel-shaped flowers.

A few species of Subgenus Vireya, section Pseudovireya from SE Asia and Taiwan are in cultivation and sometimes grown outside in mild gardens. These are all little epiphytic plants with yellow or white flowers. *Rhododendron insculptum* is found up the Salween in NW Yunnan and has single bright yellow flowers in summer and makes a neat pot plant. *R. kawakamii* is found in Taiwan and has just survived at Baravalla on a mossy rock. It has yellow flowers in late summer. *R. rushforthii* has distinct glaucous leaves and comes from Vietnam. It also has yellow flowers and should be successful in the mildest gardens. We discovered *R. santapaui* in Arunachal Pradesh in 1965 growing on tree trunks. It has creamy-white waxy flowers in late summer and has proved to be successful in Australia. *R. vaccinioides* is widespread in the wild and is often mistaken for a *Vaccinium.* It has tiny white flowers and is of little horticultural merit.

The Japanese species of section Brachycalyx of subgenus Tsutsusi contain the Reticulatum Alliance which is a collection of closely related so-called species split off by Japanese taxonomists; it is hard to tell when they were first introduced. Of more interest are the three closely related species *Rhododendron amagianum, R. sanctum* and *R. weyrichii,* also from Japan. Respectively, these have reddish-orange, rosy-purple and salmon-pink flowers in May to July. All prefer more heat and sunshine than we can give them in Scotland.

Most of the widely cultivated species and their hybrids in section Tsutsusi (evergreen azaleas) were introduced before 1915 from Japan and the southern Chinese species are not really suitable for our climate, requiring more summer heat. One species that was not introduced until 1957 was the red-flowered Taiwanese *Rhododendron nakaharae* which grows prostrate and does not flower until June-August. Two clones are well distributed in cultivation, 'Mariko' and more recently 'Mt Seven Star'. Both are surprisingly hardy and have been very useful as parents.

ENDNOTE

There has been a rush of new introductions in recent years and just in time, too. Many taxa are severely threatened in the wild and only likely to be saved by cultivating them. Are we going to be able to collect any more? I wonder. I am sure there are more interesting finds still to make.

- *opposite* -
Left to right, top: *R. auritum, R. tephropeplum, R. trichocladum* var. *trichocladum,* and *R. lepidostylum*.
Left to right, bottom: *R. imperator, R. pumilum* (McBeath 1120), *R. amagianum,* and *R. weyrichii*.

THE TWELVE BEST RHODODENDRON SPECIES INTRODUCTIONS OF THE CENTURY

as chosen by Peter Cox

1. ***Rhododendron degronianum* ssp. *yakushimanum*** is considered by many to be the perfect rhododendron and is the most used in hybridisation.

2. ***Rhododendron griersonianum*** was the former species most used for hybridising. It is great for producing late flowers and free-flowering plants.

3. ***Rhododendron macabeanum*** is one of the finest big-leaved species with good foliage and outstanding yellow flowers in the best selections.

4. ***Rhododendron facetum*** is very influential in the production of late-flowering red hybrids along with its relative *R. elliottii.*

5. ***Rhododendron pachysanthum*** is one of the best foliage plants in the genus; hardy and with pretty flowers. It makes a good parent.

6. ***Rhododendron bureavii*** is another very fine foliage plant with outstanding indumentum and reasonably easy to grow for a Taliensia.

7. ***Rhododendron nakaharae*** is a very fine reasonably hardy dwarf red azalea and a good parent.

8. ***Rhododendron ludlowii*** is a special favourite as a parent of some of my best dwarf yellow hybrids, and I was so thrilled to find it in the wild myself.

The following four are amongst the best of recent introductions:

9. ***Rhododendron ochraceum*** forms a rounded bush with fine narrow leaves and bell-shaped scarlet flowers. It has a good future as a parent.

10. ***Rhododendron dendrocharis*** is an outstanding dwarf, usually rich pink, free-flowering, best in a raised bed or on a tree stump.

11. ***Rhododendron platypodum*** has thick impressive foliage and fine upright trusses of strong pink flowers.

12. ***Rhododendron yuefengense*** is free-flowering from just three years old. It has pale pink flowers, fine leaves and a very compact spreading habit. Easily grown.

R. degronianum ssp. *yakushimanum*
'Koichiro Wada' FCC 1947

R. griersonianum

R. macabeanum

R. elliottii ssp. *facetum*

R. pachysanthum

R. bureavii

R. nakaharae

R. ochraceum (C&H 7052)

R. dendrocharis

Peter Cox, 1934-2025.

On Tuesday April 8th, 2025, the rhododendron and horticultural worlds lost a giant from amongst their ranks. For on that day, Peter Alfred Cox - professional nurseryman, pre-eminent collector, distinguished hybridiser and acclaimed author, and at that time, one of the sixty-three holders of the Royal Horticultural Society's highest accolade, the Victoria Medal of Honour - passed away at the age of 91.

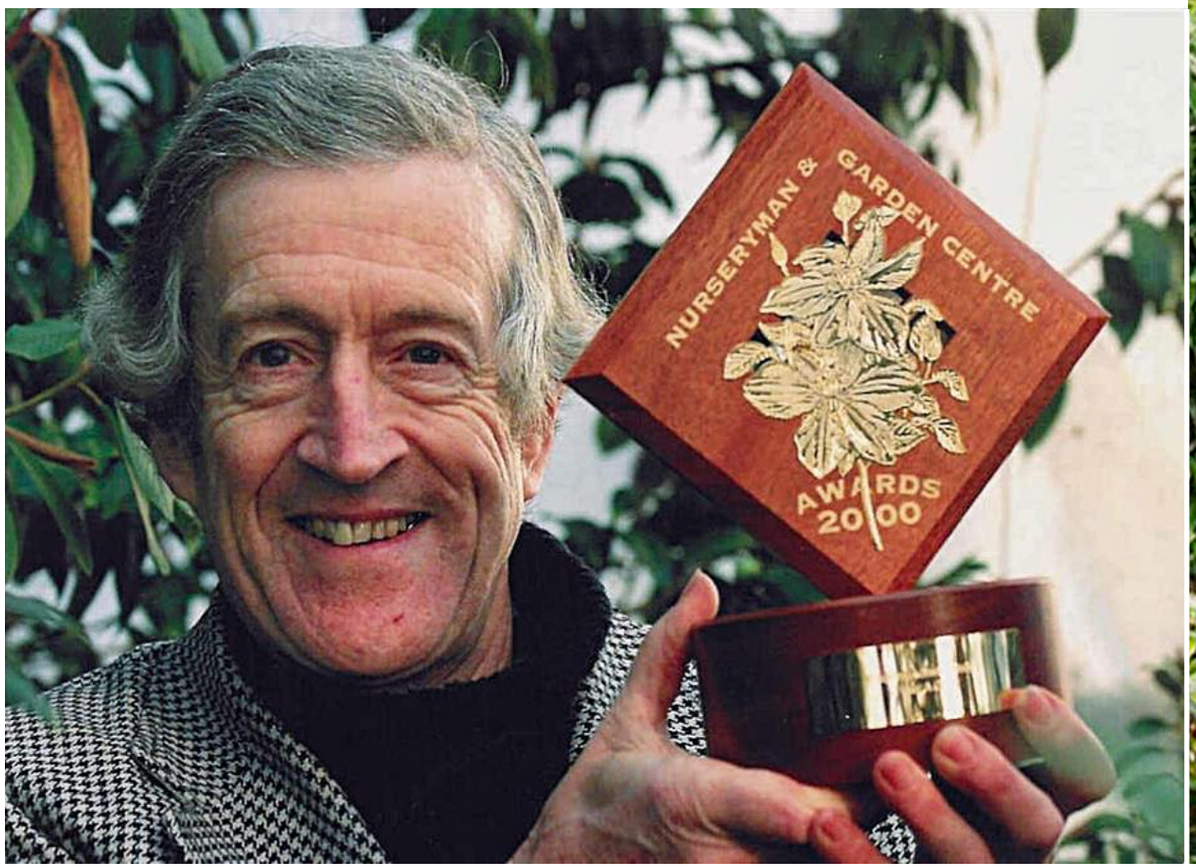
A comprehensive appreciation of his life and work will be published in an upcoming edition of the RCMG Yearbook, but until then, a detailed biography can be found on the Glendoick Gardens website, with a history of the Cox family at Glendoick also available to read on a different page. In addition, the Scottish Rhododendron Society website has a short appreciation written by Peter's son Kenneth, this titled *Lifetime achievements of Peter Cox V.M.H.*

The links to each are set out below:

https://shop.glendoick.com/Peter-Cox

https://www.glendoick.com/about-us

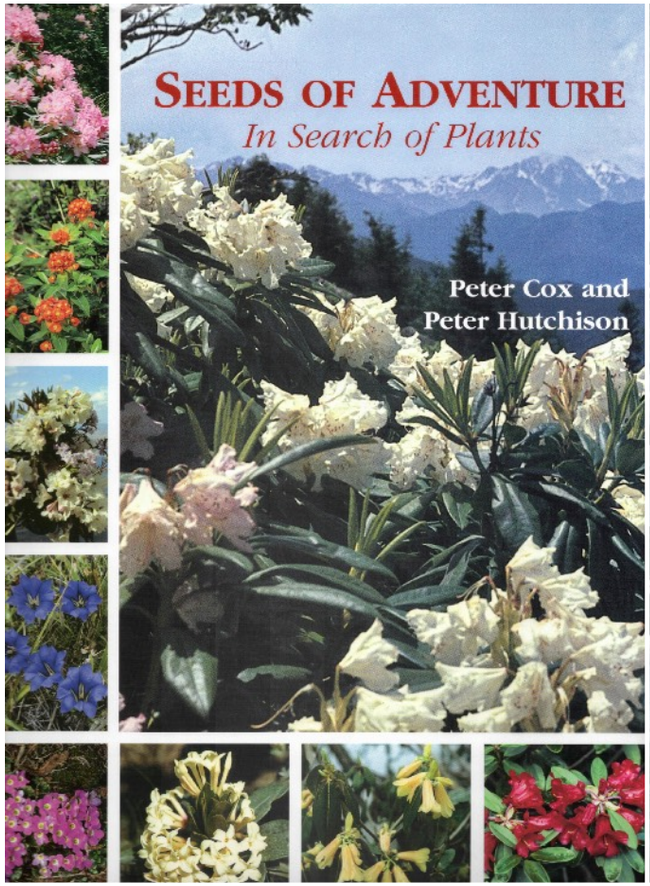
https://scottishrhododendronsociety.org.uk/lifetime-achievements-of-peter-cox/



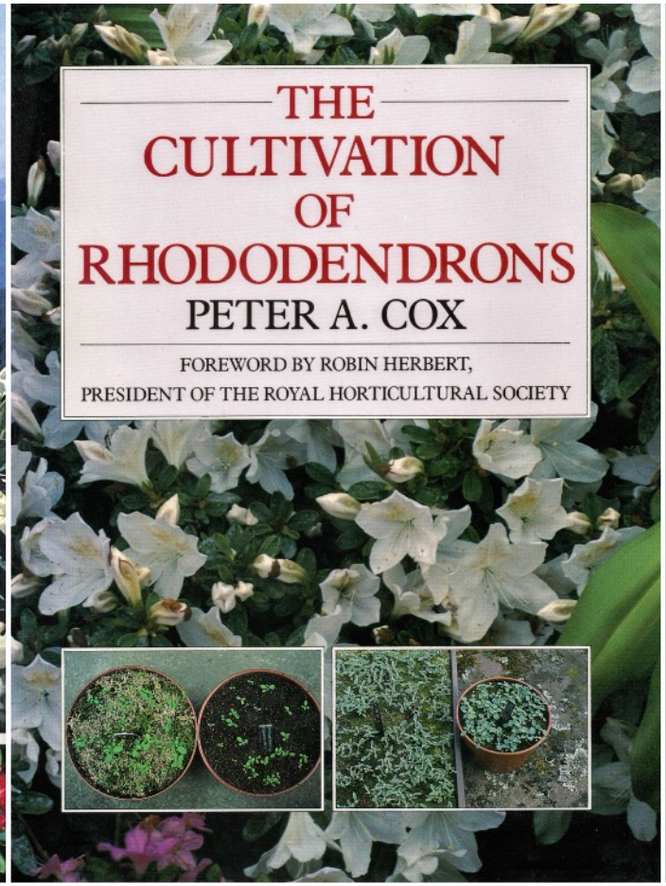
Peter photographed in 2000 with his Nurseryman & Garden Centre Award.

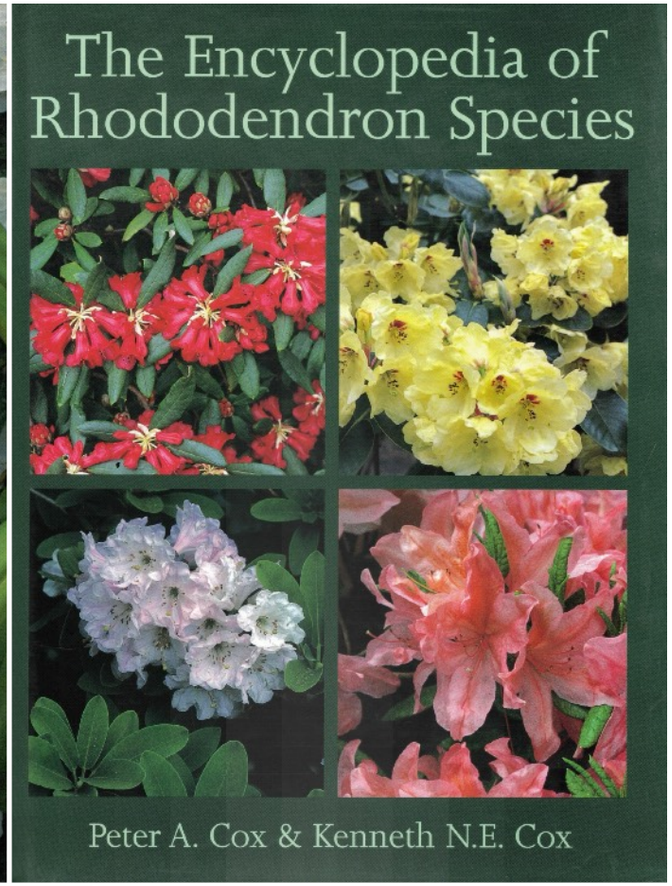
And at Glendoick in 2013, photographed by *The Courier* newspaper, Dundee, on receiving an MBE for services to Horticulture.

- opposite -
The covers of a few of the outstanding books on Genus *Rhododendron* written by Peter Cox.

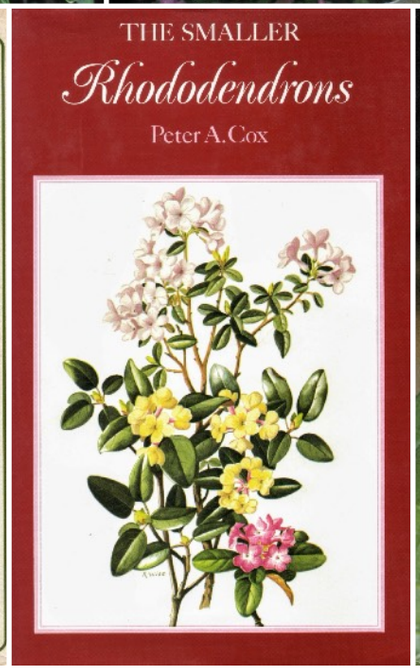


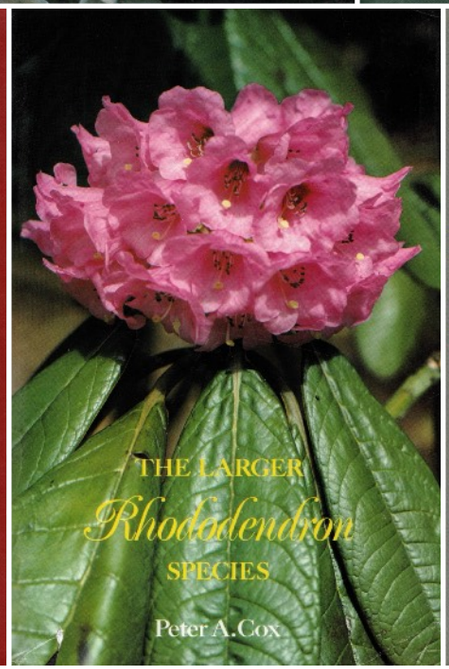
SEEDS OF ADVENTURE
In Search of Plants
Peter Cox and
Peter Hutchison

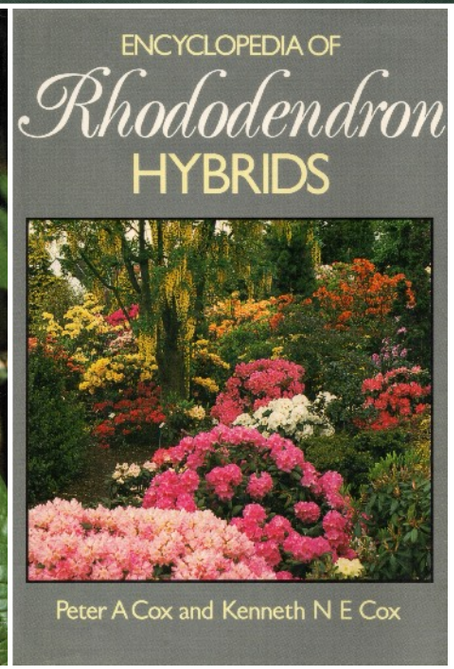

THE
CULTIVATION
OF
RHODODENDRONS
PETER A. COX
FOREWORD BY ROBIN HERBERT,
PRESIDENT OF THE ROYAL HORTICULTURAL SOCIETY


The Encyclopedia of
Rhododendron Species
Peter A. Cox & Kenneth N.E. Cox

DWARF
RHODODENDRONS
Peter A. Cox
Published in association with The Royal Horticultural Society


THE SMALLER
Rhododendrons
Peter A. Cox


THE LARGER
Rhododendron
SPECIES
Peter A. Cox


ENCYCLOPEDIA OF
Rhododendron
HYBRIDS
Peter A Cox and Kenneth N E Cox

The Cox Plant Hunting Expeditions:

The 1962 Turkey Collections (Apold, Cox & Hutchison):

ACH 102	x sochadzeae (NH)	ACH 129	smirnowii
ACH 103	x sochadzeae (NH)	ACH 130	x sochadzeae (NH)
ACH 114	caucasicum	ACH 131	x sochadzeae (NH)
ACH 118	smirnowii	ACH 147	caucasicum
ACH 119	ungernii	ACH 204	luteum
ACH 120	ungernii x ? (NH)	ACH 205	ponticum
ACH 121	ungernii x ? (NH)	ACH 206	caucasicum
ACH 121b	ungernii		

The camp near Yalnizçan, southeast of Artvin, Turkey.
Peter Cox is pictured with the local forestry chief - The Mudur (seated) - his son, plus a bodyguard, truck driver and assistant.

- *right* -
John Apold.

AC&H 102 - *R. x sochadzeae*

AC&H 102 - *R. x sochadzeae*

AC&H 102 - *R. x sochadzeae*

AC&H 102 - *R. x sochadzeae*

AC&H 102 - *R. x sochadzeae*

AC&H 129 - *R. smirnowii*

AC&H 129 - *R. smirnowii*

The 1965 Arunachal Pradesh, Meghalaya & Bengal Collections (Cox & Hutchison):

C&H 301	inaequale	C&H 396	coxianum	C&H 421	edgeworthii	C&H 475	coxianum
C&H 302	formosum	C&H 399	lindleyi	C&H 422	phaedropum	C&H 579	cinnabarinum
C&H 305	delavayi	C&H 416	neriiflorum	C&H 427	eximium	C&H 580	barbatum
C&H 320	formosum	C&H 418	subansiriense	C&H 431	grande	C&H 581	hodgsonii
C&H 373	dendricola aff.	C&H 419	vaccinioides	C&H 438	maddenii	C&H 584	falconeri
C&H 389	griffithianum	C&H 420	leptocarpum	C&H 459	santapaui		

Peter and Patricia Cox in a ‘posed’ shot at Upper Shillong, NE India, taken for Baxters of Fochabers, who had supplied the expedition with cans of their soup.

C&H 302 - *R. formosum* var. *inaequale*

C&H 302 - *R. formosum* var. *inaequale*

C&H 302 - *R. formosum* var. *inaequale*

C&H 418 - *R. hylaeum* var. *subansiriense*

C&H 418 - *R. hylaeum* var. *subansiriense*

C&H 418 - *R. hylaeum* var. *subansiriense*

C&H 418 - *R. hylaeum* var. *subansiriense*

C&H 418 - *R. hylaeum* var. *subansiriense*

C&H 418 - *R. hylaeum* var. *subansiriense*

C&H 418 - *R. hylaeum* var. *subansiriense*

C&H 422 - *R. neriiflorum* ssp. *phaedropum*

C&H 422 - *R. neriiflorum* ssp. *phaedropum*

C&H 422 - *R. neriiflorum* ssp. *phaedropum*

C&H 422 - *R. neriiflorum* ssp. *phaedropum*

C&H 427 - *R. falconeri* ssp. *eximium*

C&H 427 - *R. falconeri* ssp. *eximium*

C&H 579 - *R. cinnabarinum* ssp. *cinnabarinum* Roylei Group

C&H 579 - *R. cinnabarinum* ssp. *cinnabarinum* Roylei Group

C&H 580 - *R. barbatum*

C&H 580 - *R. barbatum*

C&H 580 - *R. barbatum*

C&H 580 - *R. barbatum*

C&H 581 - *R. hodgsonii*

C&H 581 - *R. hodgsonii*

The 1981 Yunnan Collections (Sino-British Expedition to the Cangshan):

Species collected around the environs of Kunming, at a lower altitude than the Cangshan mountains, are identified by a 'K' preceding the field number.							
SBEC K058	spinuliferum	SBEC 181	decorum	SBEC 365	jucundum	SBEC 621	virgatum
SBEC K059	duclouxii (NH)	SBEC 182	sinogrande	SBEC 439	decorum	SBEC 640	crassum
SBEC K063	decorum	SBEC 183	facetum	SBEC 471	trichocladum	SBEC 641	brachyanthum
SBEC K064	siderophyllum	SBEC 184	neriiflorum	SBEC 473	neriiflorum	SBEC 664	yunnanense
SBEC K068	spinuliferum	SBEC 194	yunnanense	SBEC 474	racemosum	SBEC 694	crassum
SBEC K108	decorum	SBEC 207	edgeworthii	SBEC 484	anthosphaerum	SBEC 720	delavayi
SBEC K112	decorum	SBEC 210	sulfureum	SBEC 504	trichocladum	SBEC 721	irroratum
SBEC K113	microphyton	SBEC 218	yunnanense	SBEC 519	campylogynum	SBEC 734	decorum
SBEC K141	ciliicalyx	SBEC 228	decorum	SBEC 532	sulfureum	SBEC 749	fastigiatum
SBEC K143a	microphyton	SBEC 235	lacteum	SBEC 533	fastigiatum	SBEC 750	trichocladum
SBEC K160	spiciferum	SBEC 239	irroratum	SBEC 534	fictolacteum	SBEC 751	cephalanthum
SBEC K161	siderophyllum	SBEC 240	brevistylum	SBEC 535	cyanocarpum	SBEC 753	fastigiatum
SBEC 15	ciliicalyx	SBEC 244	cyanocarpum	SBEC 543	jucundum	SBEC 804	fastigiatum
SBEC 42	decorum	SBEC 249	sulfureum	SBEC 544	jucundum	SBEC 805	trichocladum
SBEC 47	delavayi	SBEC 257	facetum	SBEC 545	dichroanthum	SBEC 806	racemosum
SBEC 60	yunnanense	SBEC 258	heliolepis	SBEC 546	taliense	SBEC 840	anthosphaerum
SBEC 64	irroratum	SBEC 260	cyanocarpum	SBEC 554	balfourianum	SBEC 883	irroratum x ? (NH)
SBEC 100	irroratum	SBEC 265	virgatum	SBEC 555	taliense	SBEC 890	facetum
SBEC 103	sulfureum	SBEC 295	crassum	SBEC 557	fastigiatum	SBEC 897	fictolacteum
SBEC 104	sinogrande	SBEC 323	x agastum (NH)	SBEC 561	haematodes	SBEC 898	irroratum
SBEC 115	ciliicalyx	SBEC 331	yunnanense	SBEC 565	yunnanense	SBEC 949	facetum
SBEC 116	decorum	SBEC 334	sinogrande	SBEC 581	taliense	SBEC 957	fictolacteum
SBEC 119	x agastum (NH)	SBEC 343	haematodes	SBEC 582	lacteum	SBEC 969	unidentified species
SBEC 120	delavayi	SBEC 345	lacteum	SBEC 583	balfourianum	SBEC 971	cyanocarpum
SBEC 121	rubiginosum	SBEC 349	jucundum	SBEC 584	balfourianum x ? (NH)	SBEC 1014	facetum
SBEC 130	rubiginosum	SBEC 350	roxieanum Cucullatum aff.	SBEC 585	haematodes	SBEC 1058	yunnanense
SBEC 160	fictolacteum	SBEC 351	trichocladum	SBEC 586	haematodes	SBEC 1059	decorum
SBEC 162	cyanocarpum	SBEC 361	cyanocarpum	SBEC 587	campylogynum	SBEC 1060	decorum
SBEC 163	anthosphaerum	SBEC 363	heliolepis	SBEC 601	dichroanthum	SBEC 1072	crassum
SBEC 172	neriiflorum	SBEC 364	haematodes	SBEC 607	edgeworthii	SBEC 1225	decorum

SBEC 60 - *R. yunnanense* ssp. *yunnanense*

SBEC 60 - *R. yunnanense* ssp. *yunnanense*

SBEC 60 - *R. yunnanense* ssp. *yunnanense*

SBEC 064 - *R. irroratum* ssp. *irroratum*

SBEC 064 - *R. irroratum* ssp. *irroratum*

SBEC 100 - *R. irroratum* ssp. *irroratum*

SBEC 100 - *R. irroratum* ssp. *irroratum*

SBEC 100 - *R. irroratum* ssp. *irroratum*

SBEC 100 - *R. irroratum* ssp. *irroratum*

SBEC 121 - *R. rubiginosum*

SBEC 121 - *R. rubiginosum*

SBEC 163 - *R. anthosphaerum*

SBEC 163 - *R. anthosphaerum*

SBEC 163 - *R. anthosphaerum*

SBEC 163 - *R. anthosphaerum*

SBEC 172 - *R. neriiflorum* ssp. *neriiflorum*

SBEC 181 - *R. decorum* ssp. *decorum*

SBEC 182 - *R. sinogrande*

SBEC 184 - *R. neriiflorum* ssp. *neriiflorum* aff.

SBEC 249 - *R. sulfureum*

SBEC 249 - *R. sulfureum*

SBEC 334 - *R. sinogrande*

SBEC 334 - *R. sinogrande*

SBEC 334 - *R. sinogrande*

SBEC 334 - *R. sinogrande*

SBEC 345 - *R. lacteum*

SBEC 345 - *R. lacteum*

SBEC 345 - *R. lacteum*

SBEC 345 - *R. lacteum*

SBEC 349 - *R. selense* ssp. *jucundum*

SBEC 349 - *R. selense* ssp. *jucundum*

SBEC 349 - *R. selense* ssp. *jucundum*

SBEC 349 - *R. selense* ssp. *jucundum*

SBEC 350 - *R. roxieanum* Cucculatum Group x *lacteum*

SBEC 364 - *R. haematodes* ssp. *haematodes*

SBEC 365 - *R. selense* ssp. *jucundum*

SBEC 365 - *R. selense* ssp. *jucundum*

SBEC 365 - *R. selense* ssp. *jucundum*

SBEC 365 - *R. selense* ssp. *jucundum*

SBEC 484 - *R. anthosphaerum*

SBEC 484 - *R. anthosphaerum*

SBEC 507 - *R. neriiflorum* ssp. *neriiflorum*

SBEC 543 - *R. selense* ssp. *jucundum*

SBEC 543 - *R. selense* ssp. *jucundum*

SBEC 543 - *R. selense* ssp. *jucundum*

SBEC 545 - *R. dichroanthum* ssp. *dichroanthum*

SBEC 545 - *R. dichroanthum* ssp. *dichroanthum*

SBEC 555 - *R. taliense*

SBEC 555 - *R. taliense*

SBEC 555 - *R. taliense*

SBEC 555 - *R. taliense*

SBEC 585 - *R. haematodes* ssp. *haematodes*

SBEC 585 - *R. haematodes* ssp. *haematodes*

SBEC 586 - *R. haematodes* ssp. *haematodes*

SBEC 586 - *R. haematodes* ssp. *haematodes*

SBEC 804 - *R. fastigiatum* ssp. *fastigiatum*

SBEC 804 - *R. fastigiatum* ssp. *fastigiatum*

SBEC 804 - *R. fastigiatum* ssp. *fastigiatum*

SBEC 804 - *R. fastigiatum* ssp. *fastigiatum*

SBEC 840 - *R. anthosphaerum*

SBEC 957 - *R. rex* ssp. *fictolacteum*

SBEC 1059 - *R. decorum* ssp. *decorum*

SBEC 1059 - *R. decorum* ssp. *decorum*

SBEC 1060 - *R. decorum* ssp. *decorum*

SBEC 1060 - *R. decorum* ssp. *decorum*

The 1985 Nepal Collections (Cox, Hutchison & McDonald):

CHM 2003	triflorum	CHM 2011	lindleyi	CHM 2036	cinnamomeum	CHM 2054	thomsonii
CHM 2006	griffithianum	CHM 2024	campanulatum	CHM 2049	setosum	CHM 2069	glaucophyllum var. barunianum

Peter Hutchison admiring the view from an altitude of 3,700m on the Milke Danda ridge, Nepal.

The 1986 Sichuan & Yunnan Collections (Cox, Hutchison & McDonald):

CHM 2500	polylepis	CHM 2568	invictum	CHM 2620	vernicosum	CHM 2638	x detonsum (NH)
CHM 2501	rufum	CHM 2578	watsonii	CHM 2620	x detonsum (NH)	CHM 2639	traillianum
CHM 2517	dryophyllum	CHM 2591	rufum	CHM 2630	primuliflorum	CHM 2646	uvariifolium
CHM 2523	capitatum	CHM 2604	yunnanense	CHM 2635	rubiginosum	CHM 2652	tatsienense
CHM 2531	rufum	CHM 2606	racemosum	CHM 2636	cuneatum		
CHM 2545	przewalskii	CHM 2619	decorum	CHM 2638	adenogynum		

Left to right: James Hutchison, an unknown woman, Patricia and Peter Cox, and Donald Maxwell MacDonald.

CH&M 2604 - *R. yunnanense* ssp. *yunnanense*

CH&M 2604 - *R. yunnanense* ssp. *yunnanense*

CH&M 2606 - *R. racemosum*

CH&M 2606 - *R. racemosum*

CH&M 2606 - *R. racemosum*

CH&M 2606 - *R. racemosum*

CH&M 2635 - *R. rubiginosum*

CH&M 2635 - *R. rubiginosum*

CH&M 2635 - *R. rubiginosum*

CH&M 2638 - *R. adenogynum*

CH&M 2638 - *R. adenogynum*

CH&M 2638 - *R. adenogynum*

CH&M 2638 - *R. adenogynum*

CH&M 2638 - *R. adenogynum*

CH&M 2639 - *R. traillianum*

CH&M 2639 - *R. traillianum*

CH&M 2639 - *R. traillianum*

CH&M 2639 - *R. traillianum*

The 1988 Bhutan Collections (Cox, Hutchison & McDonald):

CHM 3006	kesangiae	CHM 3050	camelliiflorum	CHM 3080	flinckii	CHM 3106	campylocarpum
CHM 3007	barbatum	CHM 3056	hodgsonii	CHM 3082	setosum	CHM 3108	cinnabarinum
CHM 3008	camelliiflorum	CHM 3057	thomsonii	CHM 3088	thomsonii	CHM 3109	succothii
CHM 3009	keysii	CHM 3058	kesangiae	CHM 3089	wallichii	CHM 3113	argipeplum
CHM 3017	falconeri	CHM 3060	griffithianum	CHM 3090	aeruginosum	CHM 3114	glaucophyllum
CHM 3020	grande	CHM 3062	falconeri	CHM 3091	bhutanense	CHM 3115	kesangiae
CHM 3024	campylocarpum	CHM 3070	argipeplum	CHM 3093	hodgsonii aff.	CHM 3116	camelliiflorum
CHM 3025	succothii	CHM 3076	camelliiflorum	CHM 3094	pendulum	CHM 3130	wightii
CHM 3026	argipeplum	CHM 3077	hodgsonii	CHM 3099	kesangiae aff.	CHM 3132	fulgens
CHM 3030	thomsonii	CHM 3079	succothii	CHM 3105	succothii	CHM 3136	flinckii
CHM 3036	triflorum						

The 1988 expedition team at rest, left to right: Keith Rushforth, Peter Cox, Peter Hutchison, Donald Maxwell MacDonald, Warren Berg, James Hutchison (behind), Romy Millais, Garrett Richardson and Ted Millais.

CH&M 3006 - *R. kesangiae* var. *kesangiae*

CH&M 3006 - *R. kesangiae* var. *kesangiae*

CH&M 3006 - *R. kesangiae* var. *kesangiae*

CH&M 3057 - *R. thomsonii*

CH&M 3058 - *R. kesangiae* var. *kesangiae*

CH&M 3062 - *R. falconeri* ssp. *falconeri*

CH&M 3062 - *R. falconeri* ssp. *falconeri*

CH&M 3062 - *R. falconeri* ssp. *falconeri*

CH&M 3062 - *R. falconeri* ssp. *falconeri*

CH&M 3062 - *R. falconeri* ssp. *falconeri*

CH&M 3062 - *R. falconeri* ssp. *falconeri*

CH&M 3062 - *R. falconeri* ssp. *falconeri*

CH&M 3093 - *R. hodgsonii* aff.

CH&M 3093 - *R. hodgsonii* aff.

CH&M 3105 - *R. succothii*

CH&M 3105 - *R. succothii*

CH&M 3113 - *R. argipeplum*

CH&M 3113 - *R. argipeplum*

CH&M 3136 - *R. lanatum* ssp. *flinckii*

CH&M 3136 - *R. lanatum* ssp. *flinckii*

CH&M 3136 - *R. lanatum* ssp. *flinckii*

CH&M 3136 - *R. lanatum* ssp. *flinckii*

The 1989 Sichuan Collections (Chamberlain, Cox & Hutchison):

CCH 3902	x monosematum (NH)	CCH 3932	aganniphum
CCH 3903	pachytrichum	CCH 3933	rufum
CCH 3904	faberi	CCH 3938	aganniphum
CCH 3905	pingianum	CCH 3939	watsonii
CCH 3906	wiltonii	CCH 3944	przewalskii
CCH 3907	pachytrichum	CCH 3946	aganniphum
CCH 3908	calophytum	CCH 3951	oreodoxa
CCH 3909	strigillosum	CCH 3952	rufum
CCH 3910	pachytrichum	CCH 4012	dendrocharis
CCH 3911	calophytum	CCH 4016	orbiculare
CCH 3912	pingianum	CCH 4020	augustinii
CCH 3914	strigillosum	CCH 4021	x balangense (NH)
CCH 3915	dendrocharis	CCH 4023	galactinum
CCH 3917	davidii	CCH 4026	watsonii
CCH 3919	pachytrichum	CCH 4029	concinnum
CCH 3920	longesquamatum	CCH 4030	nigropunctatum
CCH 3921	augustinii	CCH 4034	primuliflorum
CCH 3922	lutescens	CCH 4054	phaeochrysum
CCH 3923	calophytum	CCH 4064	aganniphum
CCH 3924	prattii	CCH 4065	phaeochrysum
CCH 3925	concinnum	CCH 4066	rufum
CCH 3926	wasonii	CCH 4089	rufum
CCH 3927	vernicosum	CCH 4103	primuliflorum
CCH 3928	nigropunctatum	CCH 4104	rufum
CCH 3929	przewalskii	CCH 4105	capitatum
CCH 3930	aganniphum	CCH 4107	aganniphum

- opposite -
David Chamberlain, *c.* 1985.

CCH 3905 - *R. pingianum*

CCH 3905 - *R. pingianum*

CCH 3905 - *R. pingianum*

CCH 3905 - *R. pingianum*

CCH 3905 - *R. pingianum*

CCH 3906 - *R. wiltonii*

CCH 3906 - *R. wiltonii*

CCH 3906 - *R. wiltonii*

CCH 3906 - *R. wiltonii*

CCH 3907 - *R. pachytrichum*

CCH 3907 - *R. pachytrichum*

CCH 3924 - *R. prattii*

CCH 3924 - *R. prattii*

CCH 3924 - *R. prattii*

CCH 3924 - *R. prattii*

CCH 3926 - *R. wasonii*

CCH 3926 - *R. wasonii*

CCH 3926 - *R. wasonii*

CCH 3927 - *R. vernicosum*

CCH 3927 - *R. vernicosum*

CCH 3927 - *R. vernicosum*

CCH 3927 - *R. vernicosum*

CCH 4016 - *R. orbiculare* ssp. *orbiculare*

CCH 4016 - *R. orbiculare* ssp. *orbiculare*

CCH 4023 - *R. galactinum*

CCH 4023 - *R. galactinum*

CCH 4023 - *R. galactinum*

CCH 4023 - *R. galactinum*

The 1990 Sichuan Collections (Cox):

Cox 5000	wiltonii	Cox 5059	unidentified species
Cox 5001	pachytrichum	Cox 5060	intricatum
Cox 5003	decorum	Cox 5061	prattii
Cox 5005	racemosum	Cox 5062	concinnum
Cox 5008	lutescens	Cox 5063	fargesii
Cox 5009	davidsonianum	Cox 5064	unidentified species
Cox 5011	concinnum	Cox 5066	bureavii x ? (NH)
Cox 5012	sikangense	Cox 5069	nigropunctatum
Cox 5013	watsonii	Cox 5070	concinnum
Cox 5014	faberi	Cox 5071	primuliflorum
Cox 5015	orbiculare	Cox 5072	bureavioides
Cox 5016	dendrocharis	Cox 5073	przewalskii
Cox 5020	floribundum	Cox 5075	watsonii
Cox 5021	calophytum	Cox 5076	bureavioides
Cox 5022	lutescens	Cox 5080	websterianum
Cox 5025	polylepis	Cox 5081	x agglutinatum
Cox 5028b	prattii	Cox 5085	concinnum
Cox 5029	longesquamatum	Cox 5089	trichanthum
Cox 5030	prattii	Cox 5090	denudatum
Cox 5031	nitidulum	Cox 5091	davidsonianum
Cox 5035	davidsonianum	Cox 5092	lutescens
Cox 5039	bureavioides	Cox 5099	racemosum
Cox 5040	davidsonianum	Cox 5100	lutescens
Cox 5043	nitidulum	Cox 5101	galactinum
Cox 5044	thymifolium	Cox 5105	sikangense
Cox 5045	intricatum	Cox 5110	wiltonii
Cox 5046	wasonii aff.	Cox 5118	phaeochrysum
Cox 5047a	decorum	Cox 5121	intricatum
Cox 5056	souliei	Cox 5123	websterianum
Cox 5057	dryophyllum	Cox 5132	dryophyllum
Cox 5058	x agglutinatum (NH)	Cox 5133	prattii

Peter Cox at Glendoick with a selection of his dwarf ‘Bird’ hybrids.

C 5016 - *R. dendrocharis*

C 5016 - *R. dendrocharis*

C 5016 - *R. dendrocharis*

C 5016 - *R. dendrocharis* ‘Glendoick Jewel’

C 5022 - *R. lutescens*

C 5022 - *R. lutescens*

C 5022 - *R. lutescens*

C 5022 - *R. lutescens*

Cox 5028b - *R. prattii*

Cox 5030 - *R. prattii*

Cox 5030 - *R. prattii*

Cox 5030 - *R. prattii*

C 5046 - *R. wasonii* x *phaeochrysum*

C 5046 - *R. wasonii* x *phaeochrysum*

C 5046 - *R. wasonii* x *phaeochrysum*

C 5046 - *R. wasonii* x *phaeochrysum*

Cox 5063 - *R. oreodoxa* var. *fargesii*

Cox 5063 - *R. oreodoxa* var. *fargesii*

C 5090 - *R. denudatum*

C 5090 - *R. denudatum*

C 5090 - *R. denudatum*

C 5090 - *R. denudatum*

C 5090 - *R. denudatum*

The 1992 Sichuan & Yunnan Collections (Cox):

Cox 6000	unidentified species	Cox 6038	temenium aff.	Cox 6095	campylogynum	Cox 6130	unidentified species
Cox 6001	unidentified species	Cox 6047	selense	Cox 6096	campylogynum aff.	Cox 6132	intricatum
Cox 6012	chryseum	Cox 6048	arizelum x ? (NH)	Cox 6099	chamaethomsonii	Cox 6136	primuliflorum
Cox 6016	x flavorufum (NH)	Cox 6051	hypolepidotum	Cox 6100	forrestii	Cox 6143	flavidum
Cox 6021	edgeworthii	Cox 6053	cephalanthum	Cox 6101	sanguineum	Cox 6144	souliei
Cox 6024	selense	Cox 6054	eclecteum	Cox 6108	wardii	Cox 6145a	radendum
Cox 6025	praestans	Cox 6055	mekongense	Cox 6111	sanguineum aff.	Cox 6146	x agglutinatum (NH)
Cox 6026	fulvum	Cox 6056	sanguineum	Cox 6112	chameunum	Cox 6148	bureavii
Cox 6035	saluenense	Cox 6067	selense	Cox 6117	uvariifolium	Cox 6149	trichanthum
Cox 6036	eudoxum	Cox 6070	x flavorufum	Cox 6119	wardii	Cox 6150	wiltonii
Cox 6037a	temenium	Cox 6094	tapetiforme aff.	Cox 6124	chasmanthum	Cox 6157	riparium

Peter Cox in the nursery at Glendoick.

C 6095 - *R. campylogynum*

C 6095 - *R. campylogynum*

C 6095 - *R. campylogynum*

The 1992 NW Yunnan Collections (Sino-Scottish Expedition to Northwestern Yunnan):

SSNY 2a	vernicosum	SSNY 164	primuliflorum
SSNY 10	racemosum	SSNY 173	tapetiforme
SSNY 14	hippophaeoides	SSNY 221	oreotrephes
SSNY 24	oreotrephes	SSNY 224	balfourianum
SSNY 35	vernicosum	SSNY 228	wardii
SSNY 46	hippophaeoides	SSNY 229	hippophaeoides
SSNY 47	racemosum	SSNY 230	trichostomum
SSNY 55	selense	SSNY 248	primuliflorum
SSNY 56	wardii	SSNY 250	beesianum
SSNY 63	uvariifolium	SSNY 270	chryseum aff.
SSNY 65	beesianum	SSNY 275	oreotrephes
SSNY 66	heliolepis	SSNY 276	oreotrephes
SSNY 83	russatum	SSNY 285	trichostomum
SSNY 90	fictolacteum	SSNY 292	beesianum
SSNY 92	oreotrephes x rubiginosum (NH)	SSNY 296	complexum
SSNY 94	decorum	SSNY 303	beesianum
SSNY 95	decorum	SSNY 304	heliolepis
SSNY 99	wardii	SSNY 305	rupicola aff.
SSNY 104	vernicosum	SSNY 320a	aganniphum
SSNY 108	phaeochrysum	SSNY 322	aganniphum
SSNY 112a	phaeochrysum	SSNY 323	beesianum
SSNY 129	telmateium	SSNY 350	platyphyllum
SSNY 131	chameunum	SSNY 352	taliense
SSNY 138	aganniphum	SSNY 354	fastigiatum
SSNY 140	dryophyllum	SSNY 358	lacteum
SSNY 143	x flavorufum (NH)	SSNY 363	brachyanthum
SSNY 144	dryophyllum	SSNY 364	dichroanthum
SSNY 148	primuliflorum	SSNY 369	campylogynum
SSNY 149	chryseum	SSNY 370	cyanocarpum
SSNY 151	selense	SSNY 371	haematodes
SSNY 160	tapetiforme	SSNY 372	trichocladum
SSNY 161	primuliflorum	SSNY 374	crassum
SSNY 162	unidentified species	SSNY 375	virgatum
SSNY 163	phaeochrysum		

Peter and Kenneth Cox out in the field.
On the Scottish side, the rest of the SSNY team included Peter Hutchison, David Chamberlain from the RBGE, and Ian Sinclair from Youngers Botanic Garden, Benmore, one of the Edinburgh outstations.

SSNY 108 - *R. phaeochrysum* var. *phaeochrysum*

SSNY 108 - *R. phaeochrysum* var. *phaeochrysum*

SSNY 108 - *R. phaeochrysum* var. *phaeochrysum*

SSNY 108 - *R. phaeochrysum* var. *phaeochrysum*

SSNY 108 - *R. phaeochrysum* var. *phaeochrysum*

SSNY 322 - *R. aganniphum*

SSNY 322 - *R. aganniphum*

The 1994 Yunnan Collections (Cox):

Cox 6502	adenogynum	Cox 6516	x flavorufum (NH)	Cox 6531	coriaceum	Cox 6541	x bathyphyllum (NH)
Cox 6507	edgeworthii	Cox 6517	saluenense	Cox 6532	fulvoides	Cox 6542a	proteoides
Cox 6511	praestans	Cox 6519	uvariifolium	Cox 6534	eclecteum	Cox 6542b	x bathyphyllum (NH)
Cox 6512	arizelum	Cox 6521	sanguineum	Cox 6538	citriniflorum	Cox 6543	citriniflorum
Cox 6513	eclecteum	Cox 6529	saluenense	Cox 6539	citriniflorum aff.	Cox 6544	mekongense
Cox 6514	rubiginosum	Cox 6530	heliolepis	Cox 6540	x didymoides aff. (NH)	Cox 6548	decorum
Cox 6515	chryseum						

Campsite on the Mekong-Salween Divide at 550m, 1994.

C 6521 - *R. sanguineum*

C 6521 - *R. sanguineum*

C 6521 - *R. sanguineum*

C 6521 - *R. sanguineum*

C 6521 - *R. sanguineum*

C 6543 - *R. citriniflorum* ssp. *citriniflorum*

C 6543 - *R. citriniflorum* ssp. *citriniflorum*

The 1995 Sichuan & Yunnan Collections (Cox & Hutchison):

C&H 7003	rex	C&H 7040	augustinii	C&H 7078	augustinii	C&H 7158	bureavii
C&H 7008	augustinii	C&H 7041	rubiginosum	C&H 7085	denudatum	C&H 7158b	bureavii
C&H 7009	vernicosum	C&H 7044	argyrophyllum	C&H 7100	yiliangense	C&H 7159	unidentified species
C&H 7010	racemosum	C&H 7045	argyrophyllum	C&H 7108	strigillosum	C&H 7164	lacteum
C&H 7012	denudatum	C&H 7047	strigillosum	C&H 7111	calophytum	C&H 7166	cookeanum
C&H 7022	tsaii aff.	C&H 7049	huanum	C&H 7116	calophytum	C&H 7178	delavayi
C&H 7025	ambiguum	C&H 7050	unidentified species	C&H 7118	denudatum	C&H 7179	delavayi
C&H 7027	vernicosum	C&H 7051	asterochnoum	C&H 7124	lutescens	C&H 7180	excellens
C&H 7032	argyrophyllum	C&H 7052	ochraceum	C&H 7131	glanduliferum	C&H 7183	sinofalconeri
C&H 7033	argyrophyllum	C&H 7053	tatsienense aff.	C&H 7132	vernicosum	C&H 7185	pogonostylum
C&H 7034	rex	C&H 7055	openshawianum	C&H 7145	yunnanense	C&H 7186	oblongilobatum
C&H 7035	strigillosum	C&H 7072	longipes	C&H 7150	vernicosum aff.	C&H 7189	serotinum
C&H 7037	racemosum	C&H 7073	huanum	C&H 7157	wumengense		

The 1995 expedition team group photo, left to right: Sun Welbang, Yang Zhenhong (from the Kunming Botanical Institute), Eileen Farnes, a Chinese lady, Ted Millais, Peter Hutchison, Romy Millais, David Farnes, Peter Cox, Meg Weir, Wen Lee (driver), and Steve Hootman.

C&H 7003 - *R. rex* ssp. *rex*

C&H 7022 - *R. hippophaeoides* var. *tsaii* aff.

C&H 7022 - *R. hippophaeoides* var. *tsaii* aff.

C&H 7022 - *R. hippophaeoides* var. *tsaii* aff.

C&H 7022 - *R. hippophaeoides* var. *tsaii* aff.

C&H 7051 - *R. asterochnoum*

C&H 7051 - *R. asterochnoum*

C&H 7052 - *R. ochraceum*

C&H 7052 - *R. ochraceum*

C&H 7052 - *R. ochraceum*

C&H 7052 - *R. ochraceum*

C&H 7052 - *R. ochraceum*

C&H 7052 - *R. ochraceum*

C&H 7072 - *R. longipes* var. *longipes*

C&H 7072 - *R. longipes* var. *longipes*

C&H 7072 - *R. longipes* var. *longipes*

C&H 7072 - *R. longipes* var. *longipes*

C&H 7073 - *R. huanum*

C&H 7073 - *R. huanum*

C&H 7073 - *R. huanum*

C&H 7073 - *R. huanum*

C&H 7073 - *R. huanum*

C&H 7100 - *R. irroratum* ssp. *yiliangense*

C&H 7100 - *R. irroratum* ssp. *yiliangense*

C&H 7100 - *R. irroratum* ssp. *yiliangense*

C&H 7100 - *R. irroratum* ssp. *yiliangense*

C&H 7118 - *R. denudatum*

C&H 7118 - *R. denudatum*

C&H 7124 - *R. lutescens*

C&H 7124 - *R. lutescens*

C&H 7124 - *R. lutescens*

C&H 7124 - *R. lutescens*

C&H 7164 - *R. lacteum*

C&H 7164 - *R. lacteum*

C&H 7164 - *R. lacteum*

C&H 7164 - *R. lacteum*

C&H 7183 - *R. sinofalconeri*

C&H 7183 - *R. sinofalconeri*

C&H 7185 - *R. irroratum* ssp. *pogonostylum*

C&H 7185 - *R. irroratum* ssp. *pogonostylum*

C&H 7185 - *R. irroratum* ssp. *pogonostylum*

C&H 7185 - *R. irroratum* ssp. *pogonostylum*

C&H 7189 - *R. serotinum*

C&H 7189 - *R. serotinum*

C&H 7189 - *R. serotinum*

C&H 7189 - *R. serotinum*

C&H 7189 - *R. serotinum*

The 1996 Tibet Collections (Cox & Cox):

C&C 7500	nivale	C&C 7521	cephalanthum x laudandum (NH)	C&C 7545	laudandum	C&C 7565	tsangpoense
C&C 7501	bulu	C&C 7522	arizelum aff.	C&C 7546	temoense	C&C 7566	faucium
C&C 7502	mahogani	C&C 7523	exasperatum	C&C 7547	lepidotum	C&C 7567	ramsdenianum
C&C 7503	viridescens	C&C 7524	rude aff.	C&C 7549	hirtipes	C&C 7570	nuttallii
C&C 7504	cephalanthum	C&C 7525	rude aff. x ? (NH)	C&C 7550	oreotrephes aff.	C&C 7571	scopulorum
C&C 7506	griseum	C&C 7526	lanigerum	C&C 7553	lepidotum	C&C 7574	lanatoides
C&C 7508	hirtipes	C&C 7527	megeratum	C&C 7554	scopulorum	C&C 7575	kongboense
C&C 7509	dignabile	C&C 7530	imperator	C&C 7556	griseum	C&C 7577	lanatoides
C&C 7510	cerasinum	C&C 7531	viridescens	C&C 7557	viridescens	C&C 7578	hirtipes
C&C 7514	wardii	C&C 7536	fulvoides	C&C 7558	lepidotum	C&C 7580	fragariiflorum
C&C 7516	forrestii	C&C 7537	cerasinum	C&C 7559	primuliflorum	C&C 7581	temoense
C&C 7517	concatenans	C&C 7538	parmulatum	C&C 7561	pemakoense	C&C 7584	wardii
C&C 7518	parmulatum	C&C 7540	lanatoides	C&C 7562	sanguineum	C&C 7585	lepidotum
C&C 7519	mekongense	C&C 7541	campylocarpum	C&C 7563	riparium	C&C 7591	nivale
C&C 7520	viridescens	C&C 7542	riparium				

Kenneth Cox and *R. campylocarpum* on the Doshong La, Tibet.

C&C 7521 - *R. cephalanthum* Nmaiense Group x *laudandum*

C&C 7521 - *R. cephalanthum* Nmaiense Group x *laudandum*

C&C 7521 - *R. cephalanthum* Nmaiense Group x *laudandum*

C&C 7530 - *R. imperator*

C&C 7530 - *R. imperator*

C&C 7530 - *R. imperator*

C&C 7580 - *R. fragariiflorum*

The 1997 Yunnan Collections (Chamberlain, Cox, Hootman & Hutchison):

CCHH 8015	peramoenum	CCHH 8078	kyawii	CCHH 8120	zaleucum	CCHH 8199	charitopes
CCHH 8016	edgeworthii	CCHH 8079	sinogrande	CCHH 8125	phaedropum	CCHH 8201	keleticum
CCHH 8041	monanthum	CCHH 8080	caloxanthum	CCHH 8126	chrysodoron	CCHH 8205	leptocarpum
CCHH 8208	monanthum	CCHH 8080	genestierianum	CCHH 8126a	edgeworthii	CCHH 8206	charitopes
CCHH 8000	spinuliferum	CCHH 8087	lukiangense	CCHH 8133	monanthum	CCHH 8209	edgeworthii
CCHH 8016	edgeworthii	CCHH 8100	gongshanense	CCHH 8136	fulvum	CCHH 8222	heliolepis
CCHH 8036	peramoeunum	CCHH 8100a	dendricola	CCHH 8137	stewartianum	CCHH 8225	trichocladum
CCHH 8052	sulfureum	CCHH 8104	nuttallii	CCHH 8140	arizelum	CCHH 8230	cyanocarpum
CCHH 8053	facetum	CCHH 8106	seinghkuense	CCHH 8162	cinnabarinum	CCHH 8236	sulfureum
CCHH 8054	sidereum	CCHH 8107	protistum	CCHH 8177	citriniflorum	CCHH 8253	impeditum
CCHH 8070	xanthostephanum	CCHH 8108	taggianum	CCHH 8178	cephalanthum	CCHH 8254	taliense
CCHH 8074	maddenii	CCHH 8109	chrysodoron	CCHH 8180	caloxanthum	CCHH 8258	campylogynum
CCHH 8075	maddenii	CCHH 8116	chrysodoron	CCHH 8185	sanguineum aff.	CCHH 8260	brachyanthum
CCHH 8076	megacalyx	CCHH 8119	genestierianum	CCHH 8197	sperabile	CCHH 8262	dichroanthum
CCHH 8077	nuttallii						

David Chamberlain.

Steve Hootman.

CCHH 8016 - *R. edgeworthii*

CCHH 8016 - *R. edgeworthii*

CCHH 8016 - *R. edgeworthii*

CCHH 8016 - *R. edgeworthii*

CCHH 8109 - *R. chrysodoron*

CCHH 8109 - *R. chrysodoron*

CCHH 8253 - *R. fastigiatum* ssp. *impeditum*

CCHH 8253 - *R. fastigiatum* ssp. *impeditum*

The 1999 Guizhou & Chongqing Collections (Cox & Hutchison):

C&H 9001	changii		

Peter Hutchison and Peter Cox, Guizhou Province, China, 1999.

C&H 9001 - *R. valentinianum* var. *changii*

C&H 9001 - *R. valentinianum* var. *changii*

C&H 9001 - *R. valentinianum* var. *changii*

The 1998 Tibet Collections (Cox, Hootman & Cox):

CHC 8501	aganniphum	CHC 8512	phaeochrysum aff.
CHC 8502	aganniphum Glaucopeplum	CHC 8518	circinnatum
CHC 8503	wardii	CHC 8524	phaeochrysum aff.
CHC 8504	phaeochrysum aff.	CHC 8527	phaeochrysum aff.
CHC 8509	vellereum		

The 2000 Yunnan Collections (British-American Salween Expedition):

BASE 9532	megacalyx	BASE 9657	gongshanense
BASE 9577	fletcherianum	BASE 9659	hylaeum
BASE 9579	floccigerum	BASE 9671	diaprepes
BASE 9580	arizelum	BASE 9672	mallotum
BASE 9583	crinigerum	BASE 9688	pseudociliipes
BASE 9584	eclecteum	BASE 9697	pseudociliipes
BASE 9588	crinigerum	BASE 9698	araiophyllum
BASE 9594	xanthospethanum	BASE 9701	facetum
BASE 9635	protistum	BASE 9707	fulvum
BASE 9640	leptocarpum	BASE 9716	calostrotum
BASE 9649	tephropeplum	BASE 9726	ciliicalyx
BASE 9651	laterifolium		

The 2002 Arunachal Pradesh Collections (Hutchison, Evans, Cox & Cox):

HECC 100??	eclecteum aff.	HECC 10025	edgeworthii
HECC 10004	dendricola aff.	HECC 10028	faucium
HECC 10005	nuttallii	HECC 10029	leptocarpum
HECC 10006	dendricola	HECC 10031	boothii
HECC 10007	boothii	HECC 10035	hookeri
HECC 10009	kasoense	HECC 10036	megeratum
HECC 10010	sinofalconeri aff.	HECC 10039	exasperatum
HECC 10011	kendrickii	HECC 10040	kasoense
HECC 10014	sidereum	HECC 10040	rude
HECC 10015	grande aff.	HECC 10041	trilectorum
HECC 10016	succothii	HECC 10042	sherriffii
HECC 10017	ludlowii	HECC 10042	lopsangianum aff.
HECC 10018	chaetomallum Chamaephytum	HECC 10043	succothii
HECC 10019	trilectorum	HECC 10044	arizelum
HECC 10023	lindleyi	HECC 10050	ludlowii
HECC 10024	kasoense	HECC 10053	lopsangianum aff.
HECC 10054	succothii	HECC 10067	rude
HECC 10064	cerasinum	HECC 10068	arizelum
HECC 10066	chaetomallum	HECC 10075	dendricola aff.

The 2010 Sichuan Collections (Cox, Dodson, Hootman & Milliken):

CDHM 14508	bureavii	CDHM 14530	spinuliferum
CDHM 14520	rex	CDHM 14576	augustinii

Peter Hutchison and Peter Cox at Baravalla, their garden on Scotland's west coast.

- *opposite* -
Peter Cox, with his father Euan and their dogs Patsy and Tulip, at Glendoick in the early 1950s.

Photographic Acknowledgements:

Any illustrated text attempting to detail the collecting expeditions that Peter Cox carried out during his lifetime can happily benefit from the extensive published photographic archive of the Cox family and that of Glendoick Gardens, their nursery business and garden centre, based at Glencarse, just off the A90, midway between Perth and Dundee, in Scotland - https://shop.glendoick.com/ - so just as with the preceding five volumes, much gratitude is due for allowing their use in this book.

They are:

p. 7 - Peter Cox in one of the greenhouses at Glendoick;
p. 11 - *R. x sochadzeae* on the Pontic Range, Turkey. Photo by Peter Cox;
p. 13 AL - *R. formosum* (pink form). Photo by Peter Cox;
p. 13 AR - *R. formosum* (white form). Photo by Peter Cox;
p. 14 R - *R. nuttallii.* Photo by Peter Cox;
p. 15 L - *R. parryae*. Photo by Peter Cox;
p. 17 - The expedition team photographed near the Apa Tani valley by Mr. A. R. K. Sastry. Standing, left to right: Patricia Cox, Peter Hutchison, Mr. Mitra, Peter Cox, Mr. S. K. Kataki, then standing and seated, the Botanical Survey of India team and some of Apa Tani porters, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 28 L - Peter Cox near the Bimbi La in Tibet, 1998, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 50 BL - Peter Cox photographed in 2000 with his Nurseryman & Garden Centre Award;
p. 54 L - the camp near Yalnizçan, southeast of Artvin, Turkey. Peter Cox is pictured with the local forestry chief - The Mudur (seated) - his son, plus a bodyguard, truck driver and assistant, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 54 R - John Apold, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 60 - Peter and Patricia Cox in a 'posed' shot at Upper Shillong, NE India, taken for Baxters of Fochabers, who had supplied the expedition with cans of their soup, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 140 - Peter Hutchison admiring the view from an altitude of 3,700m on the Milke Danda ridge, Nepal, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 141 - James Hutchison, an unknown woman, Patricia and Peter Cox, and Donald Maxwell MacDonald, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 154 - the 1988 expedition team at rest, left to right: Keith Rushforth, Peter Cox, Peter Hutchison, Donald Maxwell MacDonald, Warren Berg, James Hutchison (behind), Romy Millais, Garrett Richardson and Ted Millais, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 202 R - Peter Cox at Glendoick with a selection of his dwarf 'Bird' hybrids;
p. 222 - Peter Cox in the nursery at Glendoick;
p. 226 R - Peter and Kenneth Cox out in the field. On the Scottish side, the rest of the SSNY team included Peter Hutchison, David Chamberlain from the RBGE, and Ian Sinclair from Youngers Botanic Garden, Benmore, one of the Edinburgh outstations;
p. 232 - campsite on the Mekong-Salween Divide at 550m, 1994, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 238 - the 1995 expedition team group photo, left to right: Sun Welbang, Yang Zhenhong (from the Kunming Botanical Institute), Eileen Farnes, a Chinese lady, Ted Millais, Peter Hutchison, Romy Millais, David Farnes, Peter Cox, Meg Weir, Wen Lee (driver), and Steve Hootman, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 282 - Kenneth Cox and R. campylocarpum on the Doshong La, Tibet. Photo by Peter Cox;
p. 298 - Peter Hutchison and Peter Cox, Guizhou Province, China, 1999, the photo was included in *Seeds of Adventure,* written by Peter Cox and Peter Hutchison, and published by The Antique Collectors Club in 2008;
p. 303 - Peter Cox, with his father Euan and their dogs Patsy and Tulip, at Glendoick in the early 1950s.

Photographs of the rhododendrons growing in the gardens at Glendoick, along with those from other locales where the plant portraits were taken are all set out below, again, with the website details of those collections visited. Thanks is extended to each establishment for allowing images taken in a private-use capacity, to be reproduced herein. Appreciation is also due the institutions, organisations and individuals who allowed the portrait photographs of historical and noted figures associated with the genus to appear alongside the text.

Key: AL - above left; AC - above centre; AR - above right; BL - below left; BC - below centre; BR - below right; ACL - above centre left; ACR - above centre right; L - left; R - right.

Alpine Journal
https://www.alpinejournal.org.uk/
p. 26 AR - Frank Ludlow and George Sherriff.
Photograph included within the article *Exploration of the Bhutan Himalaya*, by Michael Ward, published in *The Alpine Journal 1997,* and reproduced courtesy of the Alpine Club and the Sherriff collection.

Arduaine Garden, Oban, Argyll:
https://www.nts.org.uk/visit/places/arduaine-garden
p. 31 - AL; p. 35 - BR; p. 36 - ACL; p. 39 - AR; p. 43 - BCL; p. 62; p. 63; p. 102; p. 103; p. 104; p. 105; p. 312 - AR.

Benmore Botanic Garden, Argyll:
https://www.rbge.org.uk/visit/benmore-botanic-garden/
p. 9; p. 32 - BL, BCR; p. 40 - ACL, AR; p. 44 - AR, BR; p. 48 - AR; p. 65 - AL, BL, R; p. 66 - L, AR, BR; p. 67; p. 77; p. 78; p. 79; p. 95; p. 98; p. 99; p. 100; p. 101; p. 136; p. 137; p. 138; p. 152; p. 153 - L. AR, BR; p. 160; p. 161; p. 162; p. 163 - L, R; p. 164; p. 165; p. 176; p. 178; p. 206; p. 208 - R; p. 216; p. 217; p. 239; p. 244; p. 245; p. 252; p. 253; p. 254; p. 255; p. 266; p. 267; p. 268; p. 269; p. 280; p. 281 - BL, BR; p. 312 - AL.

Branklyn Garden, Perth:
https://www.nts.org.uk/visit/places/branklyn-garden
p. 122; p. 123; p. 124; p. 125; p. 130; p. 291; p. 292; p. 293 - L, R.

Brodick Castle Garden, Isle of Arran:
https://www.nts.org.uk/visit/places/brodick-castle-garden-country-park
p. 35 - ACR.

The Courier, Dundee, Scotland:
https://www.thecourier.co.uk/fp/obituaries/5226499/peter-cox-glendoick-garden-centre-rhododendron/
p. 50 R - Peter Cox, photographed at Glendoick in 2013 by *The Courier* newspaper, Dundee, on receiving an MBE for services to Horticulture.

Crarae Woodland Glen, Inveraray, Argyll:
https://www.nts.org.uk/visit/places/crarae-garden
p. 31 - BL; p. 47 - L.

Dawyck Botanic Garden, Stobo, Peebles:
https://www.rbge.org.uk/visit/dawyck-botanic-garden/
p. 36 - BL; p. 227; p. 228; p. 229 - AL, BL, R.

Glenarn Gardens, Rhu, Helensburgh:
https://www.discoverscottishgardens.org/garden/glenarn-glorious-gardens-of-argyll-and-bute/
p. 32 - BR; p. 44 - ACL.

Glendoick Gardens Ltd, Perth:
https://glendoick.com/
p. 31 - BCL, BR; p. 32 - ACR, AR; p. 35 - AL, ACL; p. 39 - BCR; p. 40 - BCL; p. 45 - BL; p. 49 - L, R; p. 80; p.81; p. 92; p. 120; p. 121; p. 128; p. 129; p. 131; p. 172; p. 173 - L, AR, BR; p. 180; p. 181; p. 182; p. 183; p. 190; p. 191 - L, R; p. 196; p. 197; p. 205; p. 209 - L, R; p. 213 - L, R; p. 214; p. 215; p. 223; p. 224; p. 225; p. 230; p. 231; p. 233; p. 234; p. 235 - L, AR, BR; p. 236; p. 237; p. 246; p. 247; p. 248; p. 249; p. 250; p. 251; p. 270; p. 271; p. 272; p. 273; p. 274; p. 275; p. 281 - AL, AR; p. 283; p. 284; p. 285; p. 286; p. 287; p. 288; p. 289; p. 296; p. 297; p. 312 - BR.

Howick Hall Gardens & Arboretum, Alnwick, Northumberland:
https://howickhallgardens.com/
p. 148; p. 149 - L, R; p. 150; p. 151; p. 168; p. 169; p. 218; p. 219; p. 220 - L, R; p. 221.

Inverewe Gardens, Poolewe, Wester Ross:
https://www.nts.org.uk/visit/places/inverewe
p. 43 - BL; p. 64 - L, R; p. 68; p. 96; p. 97; p. 126; p. 127; p. 134.

Roy Lancaster:
p. 29 - Members of the Sino-British Expedition to the Cangshan on the steps of the Kunming Institute of Botany, Yunnan, China, 1981. The colour photograph featured on page 159 of the second edition of *Plantsman's Paradise: Travels in China,* written by Roy Lancaster and published by Garden Art Press in 2008. There is no credit for the image on the Photographic Acknowledgements page (nor one for the black-and-white version that appears in Roy's earlier edition of the book *Travels in China: A Plantsman's Paradise,* published by the Antique Collectors' Club in 1989).

Logan Botanic Garden, Stranraer:
https://www.rbge.org.uk/visit/logan-botanic-garden/
p. 43 - ACL, AR, BCR; p. 61 - L, AR, BR; p. 94; p. 299; p. 300; p. 301.

Missions Étrangères de Paris:
https://irfa.paris/en/the-mep-in-asia/
p. 22 ALL - Armand David; p. 22 ALR - Jean-Marie Delavay; p. 22 BLL - Paul Farges; p. 22 BLR - André Soulié.

Muncaster Castle Gardens, Ravenglass, Cumbria:
https://www.muncaster.co.uk/
p. 31 - ACR; p. 32 - AL; p. 35 - AR; p. 36 - BCL, BCR; p. 39 - AL, ACL, ACR, BR; p. 040 - AL, ACR, BCR, BR; p. 43 - AL, ACR; p. 44 - AL, ACR; p. 45 - R; p. 48 - L.

National Botanic Garden of Ireland:
https://heritageireland.ie/places-to-visit/national-botanic-garden/
p. 22 R - Augustine Henry, aged 41, in the courtyard of the Customs quarter at Simao. In his hand is an Irish blackthorn walking stick.

National Geographic Society:
https://www.nationalgeographic.org/society/
p. 25 R - Joseph Rock.

Nymans Garden, Handcross, West Sussex:
https://www.nationaltrust.org.uk/nymans
p. 31 - ACL; p. 260; p. 261; p. 262; p. 263; p. 264; p. 265.

Popperfoto:
www.gettyimages.co.uk/detail/news-photo/english-botanist-plant-explorer-and-writer-frank-kingdon-news-photo/2212892947?adppopup=true
p. 25 L - Frank Kingdon-Ward in 1950. Photographed by Paul Popper.

Public Domain:
p. 20 CRL - a Wardian Case (from *On The Growth Of Plants In Closely Glazed Cases,* by Nathaniel Bagshaw Ward, published in 1852); p. 20 CRR - *R. simsii* (from *Curtis's Botanical Magazine,* Volume 36, Tab 1480, published in 1812); p. 21 ARL - Robert Fortune; p. 22 L - Ernest Wilson, photograph taken just before he set off on his first expedition in 1899.

Pushed Up The Mountain:
https://www.pushed-up-the-mountain-film.com/
p. 290 L - David Chamberlain.

Ray Wood, Castle Howard, North Yorkshire:
https://www.castlehoward.co.uk/visit-us/the-gardens/the-woodland-garden
p. 5; p. 32 - ACL; p. 36 - AL; p. 69; p. 88; p. 89; p. 93; p. 109; p. 144; p. 145 - AL, BL, R: p. 158; p. 159; p. 166; p. 167; p. 207.

Rhododendron Species Botanical Garden, Seattle, Washington State, USA:
https://rhodygarden.org/
p. 290 R - Steve Hootman, Executive Director of Horticulture & Curator, alongside *Rhododendron roxieanum*.

Royal Botanic Garden, Edinburgh:
https://www.rbge.org.uk/visit/royal-botanic-garden-edinburgh/
p. 1; p. 24 ARL - George Forrest; p. 24 ARR - Reginald Farrer; p. 31 - AR, BCR; p. 32 - BCL; p. 35 - BL, BCL, BCR; p. 36 - ACR, BCR; p. 39 - BL, BCL; p. 40 - BL; p. 43 - BR; p. 44 - BCL; p. 50; p. 55; p. 56 - L, AR, BR; p. 57; p. 58; p. 59; p. 82; p. 83; p. 106 - AL, BL, R; p. 107; p. 108; p. 110; p. 111; p. 112; p. 113; p. 117; p. 118; p. 119; p. 135; p. 170; p. 171; p. 175; p. 177; p. 179; p. 184; p. 185; p. 186; p. 187; p. 188; p. 189; p. 192; p. 193; p. 194; p. 195; p. 198; p. 199; p. 200; p. 201; p. 209; p. 210; p. 211; p. 212; p. 240; p. 241; p. 242; p. 243; p. 256; p. 257; p. 258 - L, R; p. 259; p. 276; p. 277; p. 278; p. 279; p. 294; p. 295.

Royal Botanic Garden, Kew:
https://www.kew.org/
p. 21 ARR - Sir Joseph Dalton Hooker.

Royal Botanic Garden, Wakehurst Place:
https://www.kew.org/wakehurst
p. 36 - AR; p. 45 - BR; p. 48 - BR; p. 86; p. 87; p. 132; p. 133; p. 139; p. 142; p. 143; p. 146 - L, R; p. 147.

Royal Horticultural Society, Wisley:
https://www.rhs.org.uk/gardens/wisley
p. 44 - BL; p. 203; p. 204 - L, R; p. 208 - L; p. 312 - BL.

Savill Garden, Windsor Great Park:
https://www.windsorgreatpark.co.uk/en/experiences/the-savill-garden
p. 155; p. 156; p. 157.

Scottish Rhododendron Society:
https://scottishrhododendronsociety.org.uk/
p. 302 - Peter Hutchison and Peter Cox at Baravalla, their garden on Scotland's west coast.

Valley Gardens, Windsor Great Park:
https://www.windsorgreatpark.co.uk/en/experiences/the-valley-gardens
p. 44 - BCR; p. 70; p. 71; p. 72; p. 73 - L, AR, BR; p. 74; p. 75; p. 84; p. 85; p. 90; p. 91; p. 114; p. 115; p. 116.

VanDusen Botanical Garden Association:
https://searcharchives.vancouver.ca/people-botanists-david-chamberlain-botanist-edinburgh-botanical-gardens;rad
p. 174 - David Chamberlain, *c.* 1985, courtesy of the City of Vancouver Archives, British Columbia, Canada.

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About the Author.

Julian Taylor-Whall was born in Lowestoft at the end of November, 1957. He received a grammar school education before embarking on a three-decades-long career with the BBC at Television Centre. During that time he worked on many of the now classic shows made in the production facilities there, the studios at Lime Grove and Elstree, and at the Television Theatre.

He retired early in 2008, moving to a small village in West Cumbria, just outside the Lake District National Park.

His interests include landscape and plant photography, music, film, writing, and of course, the cultivation of rhododendrons. His previous multivolume treatise on that genus can be freely downloaded at:

https://www.rhodogroup-rhs.org/publications/books/temperate-rhododendrons.

- above -
Atop Great Gable, a self portrait against cloud.

- *back cover* images -

SBEC 60 - *R. yunnanense* ssp. *yunnanense*	C&H 418 - *R. hylaeum* var. *subansiriense*
C 5016 - *R. dendrocharis*	CCH 4016 - *R. orbiculare* ssp. *orbiculare*