

American Rhododendron Society





American Rhododendron Society

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ARS Home Page: <http://www.rhododendron.org>
ARS Office: <http://www.arsoffice.org>
ARS On-line Journals: <http://scholar.lib.vt.edu/ejournals/JARS/>
ARS Archives: <http://www.lib.virginia.edu/small/>

Society's Purpose

To encourage interest in and to disseminate knowledge about rhododendrons and azaleas. To provide a medium through which all persons interested in rhododendrons and azaleas may communicate and cooperate with others through education, meetings, publications, scientific studies, research, conservation and other similar activities.

Membership Benefits

- Chapter affiliation with scheduled meetings
- Journal American Rhododendron Society* published quarterly
- Annual convention and regional conferences
- Seed exchange
- Listing of registration of names and descriptions of new rhododendron hybrids published in the Journal

To Join the Society

Membership categories:
(January 1 – December 31)

Regular	\$40.00
Commercial	\$90.00
Sustaining	\$75.00
Sponsoring	\$150.00
Life	\$1,500.00

You can join the ARS through your local ARS chapter (check the website www.rhododendron.org for chapter contact info) or by sending a check or money order directly to the Executive Director of the American Rhododendron Society at the above address. Checks must be in US funds. Make checks payable to the "American Rhododendron Society." Membership includes one year (4 issues) of the *Journal American Rhododendron Society* and affiliation with the chapter of your choice. **To receive the winter issue of the Journal, renewals must be postmarked no later than Dec. 1.**

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From the President



Ted Stecki
Vorhees,
New Jersey

We now are entering the winter season. Most districts have been through a cornucopia of fall colors from trees, azaleas and small leaf rhodies that have put on a fabulous show. Soon, most of us will be experiencing the cold temperatures that winter brings. Will our plants survive? Most chapters are telling their members how to get their plants ready for freezing

temperatures. If you haven't got the information, ask for help at a chapter meeting. Senior chapter members have been through many winters and will tell you their secrets.

District 4 hosted the ARS Western Regional Conference in Florence, Oregon, in October. The conference was excellent and the conference team did a great job. District 4 will also host the annual meeting and convention in Vancouver, WA, in the spring of 2011. If you haven't been to a convention, you should plan on attending one. There is information on this convention in this issue of JARS. There also was a Director's Board meeting at the conference that went well. District Directors have been provided with minutes of the meeting to send to chapters in their district as to what was discussed. Shirley

Rock, our membership committee chair, proposed a voluntary Chapter Newsletter Contest. This is a good idea, as it may help improve the amount of quality information in newsletters and thereby help educate and retain members, particularly newer ones. More details to follow!

The Program Library Committee, chaired by Wing Fong, has put together three more DVD's. These DVD's can make excellent programs for chapter meetings, particularly to fill in when a scheduled speaker suddenly cancels. They are \$15 each.

From the Executive Director



Laura Grant
Toronto, Ontario,
Canada

Hoping that you all had healthy and happy Holiday season and are now enjoying a little break from the gardening chores.

We are all wishing for pleasant winter weather for our plants and look forward to a good flowering season in the spring.

Our Board met on October 8th in a beautiful town of Florence, Oregon, on the shores of the Pacific Ocean.

The ever-present fog and mist did not hamper the work at our meeting.

The winning chapters of the membership contest were announced and nine chapters were awarded plants by the Briggs Nursery. The Board has made a decision to extend the contest for another year, which will end on September 1st 2011. Give a gift of ARS membership to a friend or a neighbour and help your chapter grow and win the contest in 2011.

On line renewal service is now available for our members in Australia, Japan and New Zealand due to money exchange difficulties these members have.

The Electronic Media Committee has created an on line membership roster for all of our members. Complete instructions were published in the fall Journal, page number 209. Hard copy of the membership

roster 2010 is now available through our office, to our members, for a nominal cost of \$10.00

There was a discussion on the future electronic version of the Journal ARS and a subcommittee was given a task to explore the various options.

All the chapters are reminded to review their by-laws and send the current copies to our office for safekeeping.

There were a number of updates to the Policies of the Board discussed and will be voted on at the next Board meeting. Current version of the Policies of the Board is available at www.arsoffice.org.

We have a new stock of the vireya brochures at our office available to the chapters for a nominal cost of postage.

I wish all of you happy and healthy gardening season in 2011!

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In this issue...



Jens Birck looks at the many different forms of *Rhododendron roxieanum*. Page 18.



'Martha Hitchcock' is one of 29 plants chosen for the 2011 Rhododendron of the Year award. Page 42.



How to eradicate the nasty and invasive Japanese knotweed. Page 48.

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Cover Photos

Clockwise from top left: Crystal Springs Garden by Harold Greer; 'Silver Front' by Harold Greer; 'First Light' by Sherla Bertelmann; Rutherford Conservatory by Dennis Bottemiller; *R. beesianum* by Ole Jonny Larsen.



Scandinavian Biluoxueshan and Baima Shan Expedition 2010, Yunnan, China

Bent Ernebjerg in Heaven, eastside of Cika Pass. Photo by Mr. Mou.



Bent Ernebjerg
Expedition Leader
Vaerloese, Denmark

Ole Jonny Larsen
Expedition Member
Aalesund, Norway

Ole Jonny Larsen with a harvest of *R. stewartianum* flowers, westside of Selalaka Pass. Photo by B. Ernebjerg.



R. forrestii and *R. saluenense* ssp. *chameunum*,
Selalaka Pass. Photo by B. Ernebjerg.



R. mekongense, westside of Balagong Pass. Photo
by B. Ernebjerg.



R. sanguineum ssp. *sanguineum* var. *haemaleum*,
westside of Balagong Pass. Photo by B. Ernebjerg.

After a couple of rhododendron trips to Sichuan and Yunnan, my interest turned to the area around the Mekong-Salween River divide which is very rich in rhododendrons. For lack of a specifically botanical tour, I joined a commercial trek doing the Chora of Kawa Karpo in 2007. It was a magnificent two-week trek with many high passes, the most well-known being the Dokar La and the Sho La. There were many species of rhododendrons, and the scenery was fantastic. The following year, I arranged a rhododendron expedition to the Gaoligongshan Mountains (Irrawaddy-Salween divide), following in the footsteps of Hootman and Cox (Hootman 2007). This expedition was quite successful, although we were not able to go into the Dulong valley because of snow.

During this trip, I started talking with my Chinese tour operator about a possible new expedition in 2010 to Biluoxueshan, the Mekong-Salween River divide south of the Kawa Karpo Mountains. The goal of the new expedition was to explore the Biluoxueshan mountains from both the Mekong and Salween sides, and both the southern and the northern part of the range. To cover a large area in a short time, we decided to trek across the mountain range twice: once in the southern part and once in the north. On the southern passage, we would use a rarely used path from Zhongpai on the Mekong via Paidi Pass to Fugong on the Salween. On the northern passage, we would use the well-known route from Dimaluo to Cizhong over the Balagong Pass to the Sewalongba Valley and via the Selalaka Pass to the Mekong—a route once used by Kingdon Ward and Handel Mazetti, and now popular with trekkers.

Transportation to Zhongpai would be by plane to Baoshan and from there, by car up the Mekong River valley to Zhongpai. We would return by car from Cizhong to Deqen, and on the highway to Zhongdian, stop on Baima Shan to explore the *Rhododendron proteoides* areas there. From Zhongdian, we would finally set course

for home by plane. These were the plans, and through contacts and announcements in the Nordic rhododendrons societies, I managed to find five participants wanting to join me on the trip: two Norwegians, one Swede, and two Danes.

The recent economical crisis and the enormous Chinese investments in infrastructure forced us to change plans several times. First, the road from Baoshan to Zhongpai was closed, then the highway from Deqen to Zhongdian was shut, and finally the road from Cizhong to Weixi was blocked—all because of road works! Fortunately, it was possible to go by car from Lijiang to Zhongpai by a minor road, reaching the Mekong Valley just north of the city, but we would not be able to get back from Cizhong. To solve this problem, our Chinese tour operator came up with a magnificent solution: trek over Baima Shan by the little known Cika Pass to the Zhubalong Valley (Zhubalong River is a tributary to the Yangtze) and from there by car to Lijiang. To my knowledge, there have previously not been any rhododendron explorations of this pass by foreigners.

All expedition participants met in Copenhagen Airport on May 28, 2010, and flew via Bangkok to Kunming and then on to Lijiang. We arrived in the evening on the following day and met with our Chinese crew. The next morning, we set out on the long drive to Zhongpai. There were plenty of road works on the route but we made it through without problems. On arrival, we learned that the road from Mekong to a village up the side of the valley which we wanted to use was closed because of landslides, meaning that the next day we would have to walk all the way from Mekong to Laowo, the last village on the Mekong side.

Over the Paidi Pass

Day one: We made an early start as we knew it was going to be a long day. It was warm and sunny and the landscape was dry as we walked along the north side of a valley. Fortunately, the temperature got

more pleasant as we gained altitude and after a couple of hours walk we saw our first rhododendron—*R. decorum*, which we saw all the way at lower altitudes, mostly in flower. Other species we saw the first day were *R. arboreum* ssp. *delavayi* and *R. davidsonianum*. In the late afternoon, we arrived at Laowo (2500 m; 8200 feet), a small village inhabited by members of the ethnic Lisu minority, where we slept in the nice and clean schoolroom. A neighboring house had a beautiful display of rhododendron flowers in water bottles collected by a young local woman for decoration, and a nice red truss caught our attention. After close studies of its leaves and flower, especially the flat-topped truss and the short petioles, we identified it as *R. agapetum*, a former species now sunk into *R. kyawii*. We were told that the plant grew “just outside the village and was easy to find,” but that turned out to be a disputable truth. The only plant we saw the next day was below a steep cliff, out of reach for any of us (but maybe not for the young woman?).

Day two: We continued upwards and soon passed the last cultivated field. We were walking in mixed forest with more and more rhododendrons as we ascended. It started raining and this continued all day—we also passed beside a moor area which was quite wet. On the way up, more rhododendrons could be seen. Tender species like *R. sinogrande*, *R. edgeworthii* and *R. anthosphaerum* were the first, but when we reached higher altitudes, we found *R. arizelum*, *R. rubiginosum*, *R. glischrum* and *R. crinigerum*. A real puzzle which resulted in long discussions among our expedition members were *R. dichroanthum* with black(!) indumentum. All plants of this species had this feature, and we wondered if we had found a new variety of this species. A cell phone text message to Remi Nielsen in Norway took us down to earth again. The black indument is simply a kind of black fungi attacking the indument on some species.

In the mid-afternoon, we reached our campsite on the Lower Nianyoibi Lake.

So far we had had mules to carry our equipment, but from this camp onwards we started to use porters as the trail was too difficult for mules. On the river banks at the campsite we found beautifully displayed *R. mekongense* and *R. calostrotum* ssp. *riparioides*, both in flower, almost as if they were planted by a very creative and skilled gardener.

Day three: The morning was dry, but it soon started to rain quite heavily. We arrived at our next campsite in a bamboo forest above the Upper Nianyobi Lake at lunch time. As we ascended, species like *R. selense*, *R. heliolepis* and *R. stewartianum* were found. We also saw lots of big leaved species, mostly *R. rothschildii*, but also some *rothschildii* affs. which we could not identify with certainty.

But then, just by luck, we made our expedition's most important discovery! Near the campsite, at a little distance, some red-flowering rhododendrons were observed by expedition member Jan Rune Hesjedal (JRH). They grew on top of a small rocky structure rising up from around a bamboo thicket. These plants were inspected, and they turned out to be unknown to all expedition members. The plants looked like either *Rhododendron roxieanum* ssp. *roxieanum* or ssp. *cucullatum*, and had deep pink flowers, a very thick rust-coloured indumentum and recurved leaf margins. The mature plants observed in the first stand were 1-1.5 m (3-5 feet) high, and some of the plants seemed to be very old. Some had trunks that were surprisingly thick at the base indicating that they must be very old. There was something like 20 plants in this stand. Later a new smaller stand with four or five plants was found on top of a rock about 50 m (165 feet) from the first stand. The landscape was mostly covered with bamboo and quite difficult to penetrate, so we did not search for more plants in the nearby area. These plants had a much deeper pink flower colour than any *roxieanum* variety known till now, and all plants had the same colour. No ordinary white *roxieanum* were seen. (After the

expedition finished, there has been a long discussion about the status of these plants, and photos and descriptions have been sent to several authorities. Since we did not collect a good living specimen or make a herbarium sheet, the final judgement will have to wait. Until then we have decided to call this plant *R. roxieanum* deep pink form JRH-SBBE. We all feel sure that this will be a much sought-after item among species collectors in the future.)

After lunch, the local guide took us down a steep hillside to the lake—there was no trail so he had to cut his way through the dense thicket. It was a beautiful lake surrounded by rhododendrons, included our deep pink flowering *R. roxieanum*. We had to keep quiet and could not stay long as the local guide feared we should disturb the evil spirits in the lake.

Day four: The morning was dry which was lucky as we had to cross the Paidi Pass. From the camp there was a steep climb, after which we started walking along the mountainside and soon reached the first snow. On the way up we found our first *R. taliense*. Near by grew *R. aperantum* aff. with unusual yellow flowers. Higher up *R. cephalanthum* were seen and some unidentified *Lapponica* species which had just come out of the melting snow.

We crossed a minor pass and walked on the other side to the Paidi Pass (4200 m, 13,800 feet). Except for a narrow strip on the pass itself, the entire route was covered by snow. There was also a good deal of snow on the Salween side, but being on the west side there were spots where rhododendrons, mostly *R. taliense*, were free. Unfortunately, we had a long way to go so there was not much time for exploring. After an hour, we had left the snow behind and had a steep and slippery descent to a big moor area. As we came below the snow line, more and more rhododendrons turned up. The most curious plant, which was seen in large numbers, was one that looked like *R. campylocarpum* ssp. *campylocarpum* with yellow flowers and narrowly elliptic leaves. The problem is that this variety

does not grow in Yunnan at all! The only *R. campylocarpum* present there according to the literature is *R. campylocarpum* ssp. *caloxanthum*. Most plants that we found had yellow flowers, but a few were orange and some were yellowish pink. This may indicate some hybridization between, for example, *R. selense* and *R. campylocarpum* ssp. *caloxanthum*. On the other hand, we saw no pure *R. campylocarpum* ssp. *caloxanthum* in the area. Other collectors have faced this problem before. Some think they are all hybrids (i.e., *R. × erythroclayx*), while others like Jens Nielsen name them *R. campylocarpum* Bilouxueshan type because these plants are both quite distinct and quite widely distributed. No matter what the right answer is, they will make fine garden plants with a good yellow flower colour. We were supposed to camp in the moor area, but it was too wet, forcing us to move on to next possible camp site. As we passed the moor, it started raining, leaving a very wet and muddy trail that we followed past Guadidi Lake and descended to our next camp at 3300 m (10,800 feet), arriving late and very tired.

Day five: The plan for this day had been to go back and explore the west side of the pass. This would have been possible from the moor area, but it was far too long to walk from our lower camp. Instead, we decided to go back to Guadidi Lake and explore the mountainside east of it. Beside the *campylocarpum* mentioned above, we found lots of fine *R. beesianum*. This species was a companion through most of our three treks in Yunnan. It seemed very widely distributed and was also quite variable. We saw all kinds of flowers from white to deep pink, some plants with dark petioles, some just green, and most unexpected—with and without sticky flower and growth buds, which is traditionally known as a good diagnostic feature. Some of the best forms were really gorgeous. So also was one single flowering plant of *R. rupicola* var. *rupicola*. It was in full flower and was better than any form seen before by expedition members.



R. beesianum in snow, westside of Balogong Pass. Photo by O.J. Larsen.



Laowo valley. Photo by O.J. Larsen.



R. proteoides, Selalaka Pass. Photo by J. Brodersen.



R. roxieanum deep pink form JRH-SBBE, eastside of Paidi Pass. Photo by B. Ernebjerg.



Unidentified yellow flowering rhododendron by Guadidi Lake (see article for discussion). Photo by J. Brodersen.



R. aganniphum, westside of Cika Pass. Photo by J. Brodersen.



Yellow *R. aperantum* aff., westside of Paidi Pass. Photo by J. Brodersen.

Day six: We had a late departure as there were only five hours to walk down to our next camp. Soon, the valley grew narrower and the trees and other vegetation more abundant, leaving us walking in a sort of temperate rainforest which continued to our camp at 2000 m (6560 feet). As we descended to a lower altitude, new *Rhododendron* species turned up along the path. Just after leaving the camp, still above 3000 m (9840 feet), we found a very good *R. glisbrum* with large pink trusses. Near by grew a beautiful pink flowering *Schisandra chinensis* in full flower, but unfortunately without last year's seeds present. *R. megacalyx* was seen at a little distance from the path, but the flowers were easily spotted through a binocular, a device which every plant hunter should carry! As we descended we found more tender species not familiar to us, so we could not identify all of them. One plant in *Parishia* subsection must have been *R. kyawii* due to very long leaves, just small remains of an indumentum and still not in flower in mid June. *R. agapetum*, a form of *R. kyawii* which we found in the beginning of the trip, was in flower, and different flowering time is one factor that distinguishes the two forms. At the camp we found some large specimens of *Magnolia* with huge leaves, most likely *Magnolia rostrata*.

Day seven: This was the last day of the first part, with the final descent to the Salween. We walked down a wet slippery trail, followed by an easy walk along a levada (irrigation canal). Along the trail lots of nice, but tender plants were seen, some of them looking more like house plants from the local florists at home. Through the mist we spotted a *Paulownia tomentosa* with its enormous leaves, and further down we saw giant bamboos for the first time. After a couple of hours walk we reached the first village, and the remainder of the route was on very muddy trails through cultivated fields. The trail ended in Fugong, so we simply walked straight to our hotel where a well-deserved shower was waiting.

Fugong to Dimaluo

The next two days were lazy days with just a couple of hours drive up the Salween valley to Gongshan the first day, and an afternoon drive by truck to Dimaluo the day after. The drive to Dimaluo turned out to be quite exciting. The rain had turned the road very muddy, and there were road works which could only be passed with great difficulty, and forcing us to drive in the river just below Dimaluo (1850 m, 1670 feet). It was so scaring that the driver of our second truck did not dare to do it, leaving some of us to walk from there to Dimaluo village where we were lodged in Aluo's guesthouse.

The Balagong and Selalaka Passes

Day one: We started our ascent toward the Balagong Pass in the early morning. The weather was nice and the path was dry, so it was a pleasant hike up the mountain. At 2100 m (6900 feet) *R. virgatum* grew along the path, hopelessly tender to grow in Scandinavia, but when we found the same species at 2800 m (9200 feet), we were more optimistic, and some collected old seeds. We passed the village of Baihanluo, with its nice Tibetan style church. In the afternoon we arrived at some grassland mountain slopes, where our campsite (3700 m, 12,240 feet) was situated at the top of the grassy slope at the edge of a pine forest. The porters were some hours behind us, but that did not matter since we found a lot of rhododendrons there to explore. Among them, *R. sanguineum* subs. *sanguineum* var. *haemaleum* in full flower, admired by most collectors for the almost black flowers. The ordinary red *R. sanguineum* was also present and a few plants with flower colour in between the two. Lepidote species found were *R. rupicola* var. *chryseum* and var. *rupicola*, *R. saluense* ssp. *chameunum* and *R. mekongense* with both yellow and yellow-orange flowers. Larger leaved plants growing in the area were *R. coriaceum* and *R. arizelum*. Some large specimens of a subsection *Irrorata* species were not identified, but it had had obviously red

flowers earlier in the season. We found the *Irrorata* species hard to distinguish since many look quite similar out of flower.

Day two: Today, we were going to cross the Balagong Pass. We started going up through the forest and found *R. haematodes* ssp. *chaetomallum*. Soon there were spots of snow and before the pass on a snow-clad hillside, we found a stand of plants which we thought to be the variable *R. alutaceum*. It was amazing to walk in a thick layer of snow and still have lots of flowering *R. beesianum* beside the path. The explanation to this phenomenon which we would be unlikely to see in a garden in northern Europe, must be that there is no frost in the ground under the snow cover, and that the air temperature is relatively high due to low latitude. It looks like a winter scene, but it is not. The Balagong Pass (4100 m, 13,450 feet) itself was covered in snow, but along the ridge there was a snow-free band on the western side. We found more *alutaceum* here and some *Lapponica* species. The snow on the eastern side of the pass reached down to our planned campsite, so we had to continue down to our next campsite in the Sewalongba Valley (3350m, 10,990 feet).

Day three: We spent the day exploring the Sewalonga Valley, a beautiful glacial valley where we had plenty of time to explore since we only moved our next camp a short distance to near the bottom of the valley, camping just below the Selalaka Pass. During the walk we entered one of the most beautiful and species rich places we saw during the whole expedition. A small spot in the middle of the valley was literally crowded with *Rhododendron*, many in full flower. Add the fact that the weather was lovely and that we had lots of time to explore since the day's walk was so short, and you have the *Rhododendron* collector's heaven. Large stands of *R. selense* and *R. stewartianum* started the show, then many even more beautiful *R. neriiflorum*, with scattered deep yellow *R. mekongense* in between. And just when we thought we had had our share for the day, the "grande finale" occurred—a really big thicket of

mixed big leaved species, *R. arizelum*, *rex* ssp. *fictolacteum*, *R. praestans*, and *R. coriaceum*. The young plants at about 1 m (3 feet) were most impressive due to their enormous leaves.

Day four: The ascent to the Selalaka Pass was a single steep climb up the mountainside. There was a lot of snow at the beginning, but near the pass most of the snow had slid down or melted. We reached the pass itself (4200 m, 13,800 feet) at lunchtime and had a splendid view over the Mekong valley with the Baima Shan Mountains as backdrop. The eastern side was completely covered by snow that continued a long way down, partly because there had been big avalanches. On the south and north going ridge from the pass there was a small snow-free strip between the snow and an almost vertical drop on the western side. Here grew many *R. proteoides*, and looking down the steep western side, we could see them covering a large area, but unfortunately they were not in flower. Together with the *proteoides*, *R. forrestii* formed the most wonderful red carpet, with stems more or less creeping on or even under the surface. *R. saluenense* ssp. *chameunum* was also found at the ridge.

After a long descent in snow snow-free spots with rhododendrons appeared. These spots were like flowering islands with *R. forrestii*, *R. sanguineum* and *R. cephalanthum* with both pink and white flowers, and *R. chamaethomsonii*. One interesting observation was that *R. chamaethomsonii* only occurred as scattered single plants, always with or close to large carpets of *R. forrestii*. This may confirm what several authorities suggest that *R. chamaethomsonii*, at least in some forms, are natural hybrids of *R. forrestii*.

Later we entered a snow-free valley except for some left-over snow from avalanches. A difficult mix of subsection *Neriiflora* species grew along the path and river in the bottom of the valley. After intense inspection, we identified a taxon to be *R. sanguineum* ssp. *sanguineum* var. *cloiophorum*, the distinguishing

feature being the deflexed corolla. We were quite proud with our result—until we looked at the nearest similar plant: No calyx at all! And when we inspected other plants we found that there were all kinds of calyxes: small–big, deflexed–non-deflexed, present–absent and so on. Our wise decision at the end of the day was to call most of them just *R. sanguineum*. Full stop! On the other hand, this was a good lesson about variation in nature. If you sit in your study chamber with a dried specimen, it is easy to identify it correctly. Not so when the whole “family” is present there and then. There is not much sense in giving different variety names to similar plants growing close together that obviously had shared genes for centuries. That night we camped near a whole little forest of *R. arizelum*. Not a bad sight to wake up to! Our campsite at (3550 m, 11,650 feet) was just below a huge tongue of snow from an avalanche.

Day five: The following day we descended to the Mekong River. Just below camp we found a single *R. roxieanum* among *R. saluenense* and further down a few *R. oreotrepbes*. The Mekong valley itself was a lot dryer than the valley we had come from and the sun made it quite a hot day. A couple of hours after lunch, we arrived in Cizhong village, and said goodbye to our porters. We were supposed to drive from Cizhong to Nonglong Village—the starting point for our trek over the Baima Shan. Unfortunately, once again our route along the Mekong River was blocked by road works. We had no choice but to bypass it by walking high up the eastern side of the Mekong gorge, arriving late—after dark and very tired—in Nonglong village (2400 m, 7875 feet), where we were lodged in a private Tibetan house.

Over the Cika Pass

Day one: We started with a steep ascent up the eastern side of the Mekong Gorge. After a couple of hours, we entered a forested area which has been the target of illegal logging, leaving the trail occasionally

blocked by felled trees. Later, we passed through a rather dry east-west valley and walked on an easier path on its north side. Finally, we hit a valley leading north to our camp (3800 m, 12,470 feet) after a long and very tiring day. New species for the expedition were *R. yunnanense* (mostly white flowered with both red and orange blotches) and later on *R. wardii* and fine forms of *R. aganniphum* with thick indumentum and red flowers. There was also a lot of *R. oreotrepbes*.

Day two: We started another long day as we had to cross the Baima Shan Watershed. We had to cross a pass (4100 m, 13,450 feet) to the next valley, followed by three further passes (all above 4400 m, 14,440 feet), one of them being the “real” Cika pass (4450m, 14,600 feet), i.e., the watershed divide. This was true high alpine area, and since there were only patches of snow, the vegetation was available to explore. Again we found *R. proteoides*, *R. aganniphum* and *R. saluenense* ssp. *chameunum*, but no *R. forrestii* ! At the Cika Pass itself we found a totally creeping *R. nivale* ssp? with *R. complexum*-like flowers, and there were several subsection *Pogonanthum* plants with different flower colour, among them some very good pinks. After the last pass, we descended steeply to our campsite at 4200 m (13,780 feet).

Day three: This was the last day of trekking and took us into the Zhubalong Valley. After having admired some flowering *R. nivale* ssp. *boreale* by the camp site, we started by walking across the valley bottom and up the mountainside which, to our joy, was covered with thousands of plants of *R. roxieanum* with all kinds of leaves, from very narrow up to what is called var. *cucullatum* and all possible leaf widths in between. It is obvious that dividing this species into varieties is for garden convenience only. Most had not started to flower yet, but when we reached the ridge, the *roxieanum* were blooming. Another beautiful feature was that many plants had bluish leaves, due to what is called *bloom*, a kind of thin indumentum

on the upper leaf surface. In a garden situation this would be eye catching and surely cause discussion to those not familiar with it. It can in some cases look like a mildew attack! Mixed with the *roxieanum* were also some *R. proteoides*. In this enormous *roxieanum* stand we also found some obvious hybrids with *R. aganniphum*. These had narrow leaves and spongy indumentum—just a little of each species. Some of the *R. roxieanum* were surprisingly big, up to 3 m (9.8 feet) with thick trunks, and we wondered how old the biggest was.

From the ridge, we started the long descent and we walked into a park-like area with *R. phaeochrysum* var. *levistratum* along the fine path. In some places the landscape looked as if it was designed by skilled gardeners. Later, we followed a narrow, damp valley with lush green vegetation and huge conifers, some up to approximately 30 m (98 feet). After a long walk along the riverside we had to cross the river, and the only bridge—which we were forced to cross—consisted of a single log. The mules had to be unloaded and wade through the thundering river, which they did secured by two ropes without any sign of fear. After the crossing there was a steep ascent to a pass into a neighboring valley.

Finally we had a very long, but fairly level walk before descending into Zhubalong Valley (2600 m, 8530 feet). On the way down we passed several low altitude species, among them lots of *R. edgeworthii*, alas past flowering time, but with beautiful wrinkled leaves. A subsection *Parishia* species was also over flowering time. They were trees, up to 5-6 m (16-20 feet) with big elongated leaves. The problem with identifying these species, especially for Scandinavians not familiar with them at all, is that they can both *have* and *not have* indumentum, or they have indumentum at first and then lose it during the season. Reading the manual with a plant in your hand can thus be quite confusing. We ended up calling them *R. kyawii* *Agapetum type?* with a question mark.

Down in the valley we walked some kilometers to the road and our waiting bus. It was a long walk and a steep descent, and most of us were quite worn out in the end, but as a surprise a friend of our guide waited at the bus with the most delicious beer we have ever had! Here we parted with our mule men and woman and drove down the valley to the Yangtze River. Unfortunately it was late and the sun had set, before we could observe the vegetation in the Zhubalong

valley. We arrived at our hotel at 11 p.m. and had a well-deserved dinner before the long awaited hot shower. The final days of our expedition on the Baima Shan had been tough, but rewarding. The following morning we drove to Lijiang and had an afternoon in town and a good bye-dinner with our Chinese crew. For some of us, this had been China revisited, for others it was the virgin tour to China—home land for most *Rhododendron* in the world.

Afterword

We would call this expedition a reconnaissance expedition, as we did not have as much time to explore as planned, but instead covered a much bigger area. We found some very interesting locations that would surely merit another expedition, focused on the most interesting areas and timed to arrive three weeks later when the snow has gone. Our expedition goal was not seed-collecting, but individual members collected some seed samples, which will all be referenced SBBE.

Reference

Hootman, S. 2007. The Gorge of the Dulong, *Rhododendron* Species Foundation and Botanical Garden *Yearbook*, Vol 2: 15-40 (photos: 55-56).

Ask the Experts

(From the November 2010, Rhodovine, Mount Arrowsmith Chapter)

Query: I have noticed that on one of my big leaf rhododendrons, the new leaves are wrinkled and malformed as they unfold.

Answer: All rhododendrons need water during the growing season, but big leaf types need even more because they are spurting out such a large amount

of new plant material compared to their dwarf cousins. Most of that new growth is water—soft and floppy—until it grows into harder tissue. Heat waves at new leaf time are particularly brutal causing them to evaporate water from the large leaves faster than they can suck it up from their roots—thus causing wrinkled leaves. Also moisture in the soil is evaporating before it can get down to the roots and be useful to the plant. Scratch a test hole after watering to see how deeply the water

has penetrated, and re-water if only the surface is damp. Rhododendrons do not like to sit in a pool of water so a well-drained soil with compost and mulch is best. They need moisture and air around the roots. Once the leaves are wrinkled and gimpy, that's it—you are stuck with ugly foliage unless you prune it off. So...babysit your rhodies with the watering can as soon as the growth buds start to stretch.

Ann DeBrincat

A Cytogenetic Approach for the Evaluation of Hybrid State in Rhododendrons

Małgorzata Czernicka¹
Anna Mścichowska¹
Maria Klein¹
Piotr Muras²
Ewa Grzebelus¹



Małgorzata Czernicka

¹Department of Genetics,
Plant Breeding and Seed Science,
Faculty of Horticulture,
University of Agriculture in Krakow,
Al. 29 Listopada 54, 31-425
Krakow, Poland

²Department of Ornamentals,
Faculty of Horticulture,
University of Agriculture in Krakow,
Al. 29 Listopada 54, 31-425
Krakow, Poland

Introduction

Interspecific hybridization plays an important role in rhododendron breeding programs. Although creating an interspecific or intergeneric hybrid of good quality may not be easy, it is often attempted because these plants often extend both the qualitative and quantitative traits of parental taxa and generally broaden genetic variability. Fast confirmation of the presence of parent species genes among all descendant plants is often desirable in evaluating results from breeding programs because:

1. Plants used as parents may be known but self-pollination or fertilization with undesired pollen sometimes occurs. (In our rhododendron hybrids' collection, we identified some such plants that were presumably generated in the way mentioned above. It sometimes isn't easy to recognize such plants based only on morphological features. It also takes several years to get flowers from progeny in order to evaluate inherited traits.

Scientific Article Summary

As *JARS* editor, I have to strike a balance between publishing technical scientific articles and providing information more relevant to the everyday gardener and rhododendron enthusiast, such as basic "how to" gardening information, perspectives on rhodo companion plants and describing experiences ARS members have with their rhodos and gardens. There is an ARS requirement that research funded by the ARS must be published in *JARS*, but in addition, I feel it can be useful to have newly published articles

that members bring to my attention summarized in terms many laypeople can hopefully understand. This is the case here, and Małgorzata has kindly produced the following document that summarises her recently published research. Unfortunately, some technical jargon was still necessary to even simply describe the methodology used. I have a pdf of the original publication that is available for those that are interested. Feedback on whether this approach is useful is welcome.

Glen Jamieson

Having an effective tool for hybrid verification can save time and money by minimising the growing of undesired plants).

2. It is important for both rhododendron breeders and buyers to know for sure what they are selling or buying, so they can better predict what plant traits are likely to occur in future years.

So far, verification of rhododendron hybrids has been done mainly on the basis of morphological features. More reliable methods, such as molecular markers, have also been applied in paternity determination in rhododendrons (Ureshino et al. 1998, Kobayashi et al. 2000, Wei et al. 2006, Contreras et al. 2007, Czernicka et al. 2009). However, molecular markers do not give an exact answer if one or multiple copies of particular genes are present in a hybrid plant's genome. Moreover, this approach requires that the marker profile used has been previously proved to be distinct for both parental forms. These limitations can be overcome

by using novel cytogenetic methods such as flow cytometry or *in situ* hybridization, and flow cytometry has been successfully applied in ploidy analysis in rhododendron hybrids by Vainola (2000), De Schepper et al. (2001), Sakai et al. (2004) and Jones et al. (2007). Flow cytometry is a quick and precise technique, but it can be used for hybridism verification only when the DNA content of parental species differs.

Genomic *in situ* hybridization (GISH) has proved to be the most effective and accurate technique for confirmation of the parental species in progeny derived from interspecific crosses because it allows one to distinguish chromosomes of various origins (Schwarzacher 1996; Friesen and Klaas 1998; Barba-Gonzalez et al. 2005). GISH is a particularly useful tool for confirmation of hybrid state when parental taxa have the same number of chromosomes or similar genome sizes. GISH allows comparison of complementary fragments of chromosome DNA by showing the colored

reactions of fluorochromes connected to probes associated with them. Studied chromosomes from different species are “painted” different colors by associated fluorochromes. GISH utilizes total genomic DNA from one parent as the labeled probe and the other parent’s DNA as the blocking DNA. Alternatively, total genomic materials from both parents are labeled and used as probes. This technique is based on selection during speciation of repeated sequences representing a major part of plant DNA. If the species are distant enough, repeated selected sequences allow the chromosomes from them to be differentiated. In recent years, GISH has played an increasing role in plants genomic research, having been used to study the origin of the genome in allopolyploids, to identify different ancestral genome donors in hybrids, and to determine the phylogenetic relationships between species and cultivars (Markova and Vyskot 2009).

Although GISH procedure has been applied in many plant species, to date as far as we know, no one has employed this method with rhododendrons. The objective of our research was to adapt and apply a GISH protocol for identification of donor chromatin in rhododendron hybrids obtained by interspecific crossings.

Materials and Methods

As plant materials, we used 5 putative hybrids: *Rhododendron aureum* × *catawbiense* ‘Catharine van Tol’, *R. aureum* × *brachycarpum*, *R. aureum* × *yakushimanum* ‘Koichiro Wada’, *R. yakushimanum* ‘Koichiro Wada’ × *aureum*, and *R. catawbiense* ‘Nova Zembla’ × *aureum*, which were obtained in 1998–1999 at the Faculty of Horticulture, University of Agriculture in Krakow. These hybrids were created for material for hybridising new frost resistant cultivars. First though, the parent species of the hybrids had to be verified. For that purpose, we adapted the GISH procedure described by Schwarzacher and Heslop-Harrison (2000). The most important steps of that method were:

(1) chromosome spreads preparation, (2) labeled DNA and blocking DNA probes preparation, and (3) *in situ* hybridization and immunochemical detection (see overview of GISH procedure presented in Figure 1 on page 12).

Chromosome spreads were prepared from root tips and anthers that were collected from immature flower buds. Genomic DNA was extracted from young leaves of all parental forms by using DNeasy Plant Mini Kit (Qiagen) for preparation of labeled DNA probe and blocking DNA. The paternal genomic DNA was labeled with biotin-16-dUTP (Roche) or digoxigenin-11-dUTP (Roche) by using the nick translation method. Shared genomic DNA from maternal taxa, used as blocking DNA, was added to the hybridization mixture. Hybridization was carried out overnight at 37°C in a humid chamber. Subsequently, the slides were washed in 2x SSC and 1x PBS buffers to control stringency. Digoxigenin- and biotin-labeled DNA were detected with fluorescein isothiocyanate (FITC)—conjugated anti-digoxigenin antibody (Roche) and rhodamine-conjugated anti-digoxigenin antibody (Roche), respectively. Finally, the chromosomes were counterstained with 4',6-diamidino-2-phenylindole (DAPI). The fluorescence signals were examined with a fluorescence microscope.

Due to the fact that this was the first attempt of using GISH for rhododendron testing, it was essential to optimize each step of the protocol. The detailed procedure has been described by Czernicka et al (2010).

Results and Discussion

GISH has been applied in analyses of many plant species since its establishment by Schwarzacher et al. (1989) but in *Rhododendron*, that method has never been used either for verification of parent species in interspecific hybrids or in determining the general cytogenetic characteristics of the rhododendron genome. In cases when genus material has

not been previously studied, it is necessary to optimize conditions for particular steps of the GISH protocol (Haider Ali et al. 2002). Difficulties can also be found in the implementation of this technique in a laboratory if it has not been previously done (Schwarzacher and Heslop-Harrison 2000).

Our preliminary GISH experiments determined the best conditions for parental chromosome discrimination. The quality of cytological preparation proved to be an important factor for a successful outcome of *in situ* hybridization. GISH trials were performed for both mitotic and meiotic chromosomes and interphase nuclei preparations derived from root tips and anthers. Despite various modifications of the procedure, it was impossible to visualize fluorescent signals on chromosomes prepared from root tips. GISH with anther preparations produced hybridization signals but their intensity and localization were different, depending on composition of the hybridization mixture. The best differentiation of maternal and paternal chromosomes we found with hybrid genomes was achieved when a 50 ng probe was applied with a 3.0 µg/ul blocking DNA, which yielded fluorescent signals evenly distributed along the chromosomes.

The final result with this optimized GISH protocol allowed us to clearly distinguish individual parental chromosomes in 26 chromosomes of analyzed F₁ hybrid plants. GISH revealed that 13 chromosomes were inherited from the paternal parent and 13 chromosomes originated from maternal parent in diploid plants. Application of the labeled probe of paternal DNA produced 13 chromosomes painted in green or red (depending on the way of probe labeling) and the other 13 chromosomes remained blue because of DAPI staining. Using GISH, it was also possible to observe the separate spatial organization of the parental genomes in the interphase nuclei of these rhododendron hybrids. Sectors of green or red labeled paternal chromatin

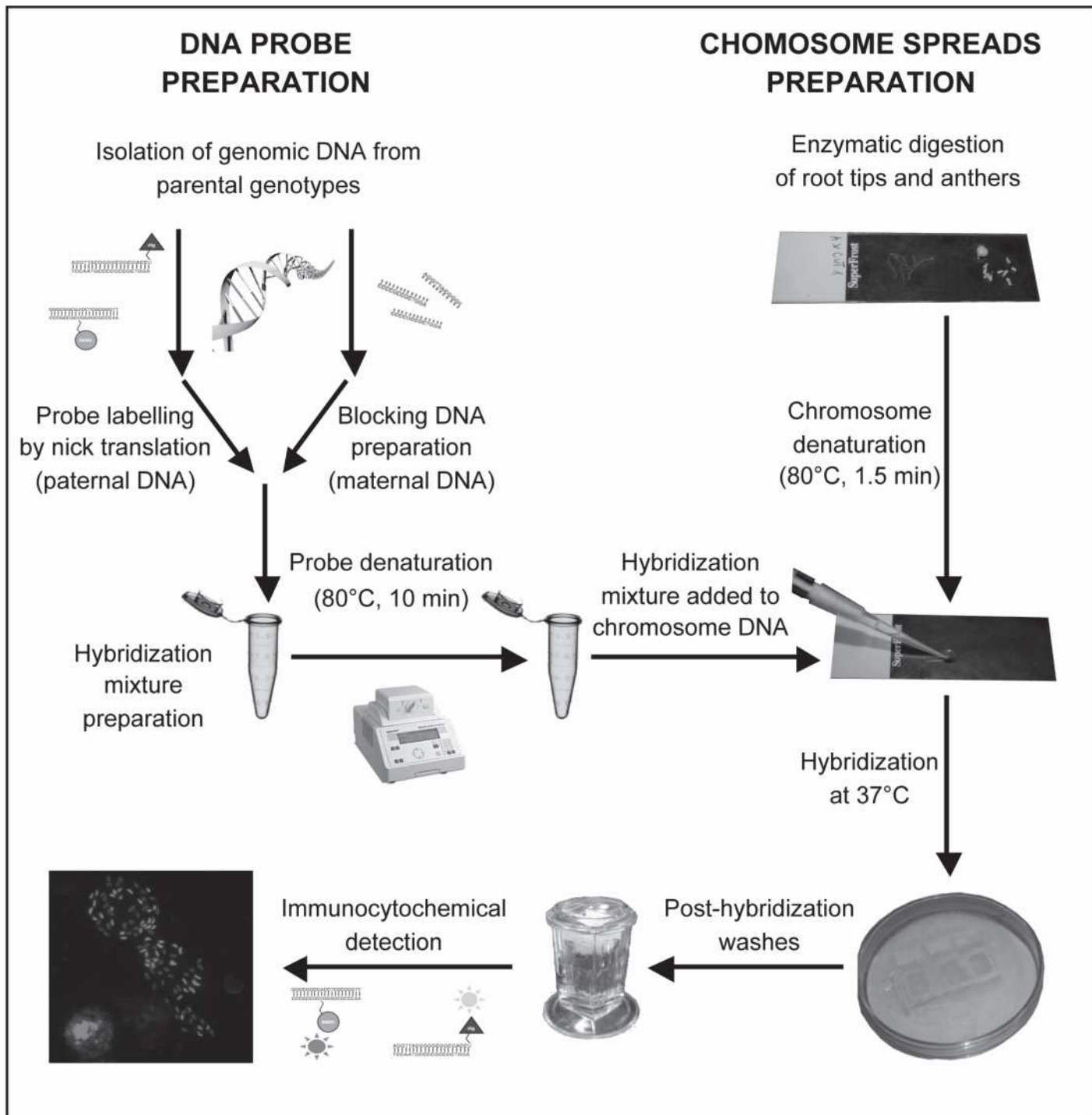


Fig. 1. The overview of genomic *in situ* hybridization (GISH) used for rhododendron hybrids verification.

were observed in the nucleus. Moreover, we received interesting GISH results for anther tapetum cells, in which we often observed 39 or 52 chromosomes. The reason for this polyploidization in tapetum cells was because of an endoreduplication process common in many plant species.

For microscopic preparations containing 52 mitotic chromosomes, GISH with paternal labeled DNA probe resulted in the “painting” of 26 of these chromosomes. It confirmed that half the chromosomes came from each parent plant (microscopic image, Fig. 1). With microscopic spreads

with 39 chromosomes, only 13 painted chromosomes originated from the paternal species.

To sum up our results—we were able to confirm the hybrid state for four out of five analyzed rhododendron hybrids. With GISH, we could exclude *R. aureum*

as a parent of the putative 'Nova Zembla' × *R. aureum* plants because no fluorescent signals of labeled paternal DNA probe were observed on chromosomes of these plants. That result was also confirmed by molecular marker analysis (Czernicka et al. 2009).

These results clearly demonstrated that GISH has a huge potential in the identification of chromosome origin, and that this tool can be used to characterize rhododendron hybrids and cultivars. This method also offers opportunities in substantiating or establishing parentage information for complex rhododendron hybrids (Chase et al. 2003) or polyploids (D'Hont 2005). Moreover, GISH could answer a wide range of questions about genomic relationship among wild and cultivated taxa in order to estimate a chromosomal phylogeny (Devi et al. 2005). *In situ* hybridization needs to be done in the laboratory due to its complicated protocol and its requirement of advanced microscopy. Nevertheless, there is no doubt that with continuing development and improvement of the technology, future applications of the GISH method will play an ever-increasing role in rhododendron breeding programmes.

Literature Cited

- Chase, M.W., S. Knapp, A.V. Cox., J.J. Clarkson, Y. Butsko, J. Joseph, V. Savolainen, A.S. Parokkonny. 2003. Molecular systematics, GISH and the origin of hybrid taxa in *Nicotiana* (Solanaceae). *Annals of Botany* 92: 107-127.
- Contreras, R.N., T.G. Ranney, S.R. Milla-Lewis, G.C. Yencho. 2007. Investigating parentage and hybridity of three azaleodendrons using amplified fragment length polymorphism analysis. *HortScience* 42(3): 740-743.
- Czernicka M., A. Nowicka, E. Grzebelus, D. Grzebelus, M. Klein. 2009. Verification of the hybrid character of interspecific rhododendron progeny by molecular tools. *23rd Eucarpia Symposium – Section Ornamentals “Colourful Breeding and Genetics”, Aug 31 – Sept 4, 2009, Leiden, The Netherlands.*
- Czernicka M., A. Mścichowska, E. Grzebelus, P. Muras, M. Klein. 2010. Paternity determination of interspecific rhododendron hybrids by genomic *in situ* hybridization (GISH). *Genome* 53: 277-284.
- De Schepper S., L. Leus, M. Mertens, E. van Bockstaele, M. de Loose, P. Debergh, J. Heurs. 2001. Flow cytometric analysis of ploidy in *Rhododendron* (subgenus *Tsutsusi*). *HortScience* 36: 125-127.
- Devi J., J.M. Ko, B.B. Seo. 2005. FISH and GISH: Modern cytogenetic techniques. *Indian J. Biotechnol.* 4: 307-315.
- Dong F., J. Song, S.K. Naess, J.P. Helgeson. 2000. Development and applications of a set of chromosome-specific cytogenetic DNA markers in potato. *Theor. Appl. Genet.* 101: 1001-1007.
- D'Hont A. 2005. Unraveling the genome structure of polyploids using FISH and GISH; examples of sugarcane and banana. *Cytogenet Genome Res.* 109 (1-3): 27-33.
- Haider Ali S.N., M.S. Rammana, E. Jacobson, R.G.F. Visser. 2002. Genome differentiation between *Lycopersicon esculentum* and *L. pennellii* as revealed by genomic *in situ* hybridization. *Euphytica* 127: 227-234.
- Jones J.R., T.G. Ranney, N.P. Lynch, S.L. Krebs. 2007. Ploidy levels and genome sizes of diverse species, hybrids, and cultivars of *Rhododendron*. *J. American Rhododendron Soc.* 61(4): 220-227.
- Kobayashi, N., T. Handa, K. Takayanagi, K. Arisumi. 2000. Chloroplast DNA polymorphisms and morphological variation in Japanese wild Azaleas, the origin of evergreen Azalea cultivars. *Acta Hort.* 521: 173-178.
- Markova M., B. Vyskot. 2009. New horizons of genomic *in situ* hybridization. *Cytogenet Genome Res.* 126:368-375.
- Sakai K., I. Miyajima, K. Ureshino, Y. Ozaki, H. Okubo. 2004. Oryzalin-induced allotetraploids of an intersubgeneric hybrid between evergreen and deciduous azaleas. *J. Fac Agric. Kyushu Univ.* 49 (2): 293-299.
- Schwarzacher T, A.R. Leitch, M.D. Bennett, J.S. Heslop-Harrison. 1989. *In situ* localization of parental genomes in a wide hybrid. *Ann. Bot.* 63: 315-324.
- Schwarzacher T. and J.S. Heslop-Harrison. 2000. *Practical in situ hybridization.* Bios Scientific Publishers, Oxford, UK.
- Ureshino K., I. Miyajima and M. Akabane. 1998. Effectiveness of three-way crossing for the breeding of yellow-flowered evergreen azalea. *Euphytica* 104: 113-118.
- Vainölä A. 2000. Polyploidization and early screening of *Rhododendron* hybrids. *Euphytica* 112: 239-244.
- Wei H., Y. Fu and R. Arora. 2006. Utilization of intron-flanking EST-specific markers in the phylogenetic analysis and parentage identification of *Rhododendron* species and hybrids. *J. Am. Soc. Hort. Sci.* 131(6): 814-819.

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New Research Activities

Mary A. Topa

(Reprinted from Rhododendron, August 2010, the newsletter of the Great lakes ARS Chapter, which was reprinted with permission from Leaves, a publication of The Holden Arboretum, Autumn 2009)

Collaborative research projects, particularly those that involve plant collections and natural areas, are an essential part of building a research program at a public garden. An arboretum is a living collection of woody plants intended for scientific and educational purposes. I am often asked how Holden Arboretum's plant collections are used for scientific research, and it is particularly exciting when graduate students discover, sometimes serendipitously, the value of collections in answering a particular research question. This past summer, Laci High, a master's student from the Applied Plant Sciences Department at the University of Minnesota, conducted part of her graduate research at Holden, using the rhododendron collections from the Helen S. Layer Rhododendron Garden and the David G. Leach Research Station. Steve Krebs, Ph.D., director of the Leach Research Station, is on her graduate

committee and is a longtime collaborator with her advisor, Stan Hokanson, Ph.D. High is examining genetic differences in budbreak phenology, more specifically, the simultaneous occurrence of vegetative growth with flowering. This vegetative bypassing effectively obscures the inflorescence and reduces the plant's ornamental value. Some of the more cold hardy cultivars introduced from a Finnish breeding program derived from *Rhododendron brachycarpum* spp. *tigerstedtii*, exhibit this vegetative bypassing trait when grown at latitudes south of Finland. A component of High's research will elucidate the environmental factors, such as photoperiod and temperature that are causing this synchronous bud break. However, the rhododendron collections at Holden have allowed her to evaluate other genotypes that possess this characteristic. She has characterized over 50 species and cultivars at Holden for traits of interest and observed bypassing on seven of these species and cultivars.

Oscar Valverde-Barrantes, a doctoral student in the Biological Sciences Department at Kent State University, is also using the collections at Holden as part of his graduate research. Kurt Smemo, Ph.D., is a member of Oscar's graduate committee and is collaborating on a variety of projects with Oscar and his advisor, Chris Blackwood, Ph.D., Valverde-Barrantes is interested in the evolution of fine root

morphology and symbiotic associations in flowering plants. Root systems of trees contain various classes of roots that differ functionally and morphologically. The smaller-diameter roots of trees (typically those less than two millimeters) play a critical role in nutrient and water acquisition from the soil, and are the most physiologically-active roots. Despite these critical roles, there are still many questions concerning how roots evolved in terrestrial plants, and how evolution has shaped the complex relationship between fine roots and soil microorganisms, in particular, mycorrhizal fungi. Much of our understanding of root development and function is based on annual, agronomic crop species. Holden's tree collections will provide a unique opportunity to study a wide variety of different tree species with divergent evolutionary histories. Valverde-Barrantes is particularly interested in the life history traits associated with modern versus older plant families with a focus on magnolia relatives. His research will focus on how morphology of fine roots have changed throughout evolution among the flowering plants, and how these adaptations have co-evolved with fungal symbiotic associations among plant lineages.

Dr. Mary A. Topa is Director of Research at The Holden Arboretum.

Ask the Experts

(From the Nov 2010 Membership News from the Vancouver Chapter)

Query: I live in Cold Lake, Alberta, 300 kms [186 miles] NE of Edmonton. I saw a TV program with regards to Capt. Dick Steele from Nova Scotia. I am interested in rhododendrons. They are so beautiful! Can you put me in contact with someone who lives in Alberta (if possible), or closest to my district/area. I would like to either write, email, or phone (toll free) for a

catalogue of the type of rhodos that would grow in our area. Thank you very much.
Bunny Ayers

Answer: You certainly do like a challenge, don't you? Most of the rhodos that we grow in the Vancouver area would not be suitable, as they are only hardy to about -15° C (5° F). There are, however, a number of small-leaved rhodos that grow in places like Labrador and northern Ontario/Quebec, and Siberia, that are good to -30° C (-22° F) or more. This

is assuming that you want to grow them outside all year round. If you want to grow in containers, that can be moved indoors during the winter, and protected from freezing, then the sky is the limit. The only constraint being that they shouldn't grow too large, so they don't become too difficult to move. We will ask the membership for ideas, and get back to you in a few weeks. In the meantime, I recommend the following website, to investigate rhodos - www.hirsutum.info. Enjoy! *Bob Wright*

The Rutherford Conservatory at the Rhododendron Species Botanical Garden



Dennis Bottemiller
Federal Way,
Washington

Photos by Dennis Bottemiller



The Rutherford Conservatory at the Grand Opening.

The mission of the Rhododendron Species Foundation has always been to build and maintain a comprehensive collection of the genus *Rhododendron* which includes the tender species. During the history of the organization, we have acquired and grown many of the vireyas as well as tender maddenias but have never had a way to include them in our public display in the garden. This problem has now been resolved with the opening of the Rutherford Conservatory. Through the generous donations of many of our members, we have completed construction of a nearly 5000 square foot (465 m²) steel and glass building to house these collections in a public setting.

This will add a fantastic new feature to the garden and greatly enhance our educational outreach possibilities as well as open new avenues for weddings and events in the garden. In addition to the



The entrance to the Conservatory.



The bridge in the Conservatory.



Plantings in the Conservatory.

large interior there is another 3000 square feet (280 m²) of partially covered outdoor terrace at the entrance to the building that can be configured in many ways for events and display.

Once inside, the visitor will enter a warm humid environment full of plants including the vireyas, tender maddenias and plants associated with them such as orchids, *Agapetes*, *Vaccinium* and gesneriads associated with rhododendrons in the wild. The setting is naturalistic and the plantings will be among great rockeries that have been installed, anchored by 13 columns of basalt, many of which weigh several tons each. Emanating from the central rockery is an up-welling pool above a beautiful waterfall into a lower pool before meandering through the display, under a bridge and over two smaller falls. The sound of falling water adds a great deal of presence to the display of plants and the water feature is stunning to look at.

The conservatory has been sited within the landscape of the Botanic Garden in such a way as to maximize the number of microclimates inside the building. Most production greenhouses are oriented toward the south with the longitudinal center running in an east-west direction to optimize exposure to the sun and make the light conditions inside as uniform as possible. We decided to orient the structure about 30 degrees from “normal” to give us more varied light conditions, and using the structure itself to create shadows within. In this manner, we can create not only areas of differing light levels but also warm and cool areas. We wanted to have as great a range of microclimates as possible without the expense of having physical separation and mechanical controls to create different climate zones within the structure. This is a great cost savings and more aesthetically continuous for the overall conservatory experience than having separate “rooms” and controlling the climate conditions for each room.

Growing conditions inside are

monitored and controlled by a computer located in the control building adjacent to the conservatory. Weather information from the on-site weather station and internal conditions measured by sensors within the house are fed into the control computer, which decides based on set parameters as to what the “house” should do to maintain optimal conditions. Cooling is accomplished using a three faceted approach. First, an automatic shade curtain will begin to close when too much sun begins to heat things up. Then the large roof and sidewall vents running the length of the building will open to passively exhaust heat, and when there is more solar gain than can be released in that manner, the fog system will come on at necessary intervals to effect evaporative cooling and thus allow more heat removal through the venting system. This method eliminates the need for the large and noisy exhaust fans seen in many greenhouses. The fog system will also maintain the proper level of humidity within the growing space.

When temperatures get too cool, heat will be supplied by two 150,000 btu (44 kw-hr) gas fired radiant heaters which we are assured will be sufficient to keep things growing.

The walkways inside and the terrace outside are built from paving stones and add a formal touch to the building. We are offering a program for engraving individual pavers with family names and memorials or anything that you would like to say (pending approval of RSF management) in a permanent way. To take advantage of this opportunity, please contact the RSF office either by email or telephone and the proper forms can be acquired to become involved in this lasting way. This also helps fund the installation of these pavers and on-going maintenance and operation of the building.

As many RSF and ARS members may know, the bulk of the funding for this project was donated by the late Fran Rutherford who had a long standing interest and involvement in the world

of vireyas as well as the RSBG. Fran is past treasurer for the RSF and a long time board member and executive board member. I have known Fran for a long time and he was always keenly interested in both how the vireyas were being grown at the RSBG and in seeking better ways to grow his own collection of plants, many of which he collected himself from the wild. Many of his plants now reside within the new conservatory. I am happy that Fran was able to see the project get underway and was on hand to pitch in the first shovel-full of soil at the ground breaking ceremony. I sincerely wish he could see the now completed building that he was instrumental in funding and providing inspiration for. I think he would be pleased at how it has turned out.

The grand opening of the Rutherford Conservatory was held September 25, 2010, and it was a gala event, the likes of which we have not seen at the garden in a long time! It was well attended and the weather was perfect for the celebration of a new beginning at the Rhododendron Species Botanical Garden, and I encourage all who are interested in rhododendrons to come and see this new addition to the garden!

Dennis Bottemiller is the Nursery Manager / Propagator of the RSBG and is a member of the Seattle ARS Chapter.

Research Summary: Eliminating Rhizoctonia from Azalea Cuttings

(Modified from the Feb 2010 newsletter of the Middle Atlantic Chapter, which was extracted from a USDA Agricultural Research Service Web site article by Stephanie Yao (<http://www.ars.usda.gov/isl/pr/2009/091223.htm>) and from HortScience.)

Rhizoctonia [anastomosis group P] is a fungal disease found on many ornamental plants. It is an annual problem in azalea cultivars grown in containerized nursery production in the southern and eastern United States. A hot water treatment was found to eliminate the disease (Copes and Blythe 2009). The fungus lives on all azalea plant surfaces

and in pine bark soil throughout the year. The damage takes place in July and August when heat and humidity are high. The disease first affects the internal leaves in June and within 24 hours, a plant can go from appearing healthy to having one-third of its leaves turn brown and die.

Disinfectant or chemical treatment has not been very successful in controlling this disease, which made it necessary to find better controls. The duration of hot water treatment at which 99% of stem pieces were predicted to be free of *Rhizoctonia* was 20 min, 16 s at 50° C (122° F) and 5 min, 19 s at 55° C (131° F). The average water temperature at which 99% of the stem pieces were predicted to be free of *Rhizoctonia* was 60.2 (140.4° F) and 56.9° C (134.4° F) when stem pieces were submerged for 30 and 60 s, respectively. Only minor leaf damage occurred on terminal, leafy

stem cuttings when submerged in 50° C water after 40 min. Severe leaf damage did occur if cuttings were submerged long enough in water of 55° C or greater. Of the methods tested, submersion in hot water has the greatest potential for eliminating *Rhizoctonia* AG P from azalea stem cuttings. Submerging stem pieces in 50° C water for 21 min eliminated *Rhizoctonia* and provided the least risk for development of severe leaf damage. The pathogen can be eliminated in less time with water at higher temperature, but there is more risk of damaging the cuttings.

Reference

Copes, W.E. and E.K. Blythe. 2009. Chemical and Hot Water Treatments to Control *Rhizoctonia* AG P Infesting Stem Cuttings of Azalea. *HortScience* 44: 1370-1376.

Potting Mix

Dr. Mark Konrad
Sewickley,
Pennsylvania



David Leach (1961) in his book *Rhododendrons of the World* stated that the growth rate of seedlings under his conditions were considerably better in a medium of 40% leaf mold, 40% premier peat, and 20% sand. He also mentioned that commercial growers used a prepared soil mixture, usually one that had been sterilized. A standard formula was 40% topsoil or leaf mold, 40% Michigan peat, and 20% sand by volume. Lastly he mentioned A.M. Shammarello, who used flats of pure Michigan peat and fertilized them with a nutrient solution.

Weldon Delp put out a detailed formula for growing on seedlings. It was comprehensive and proved very successful for growers. He stated that when the first true leaves form, it is time to transplant

the seedlings. Perhaps it was meant for people doing advanced work with rhododendrons. Following is a copy of his method:

Delp Potting Mix for Rhododendrons and Azaleas

- 1 – 19 liter (5 gallon) bucket of Michigan peat
- 1 – 19 liter bucket Perlite
- 1 – 19 liter bucket coarse peat moss
- 1 – 19 liter bucket pine bark (pro base)
- 2 – ounces Aqua Gro
- 30 ml (2 tablespoons) Gypsum
- 30 ml (2 tablespoons) 18% Rock Phosphate
- 15 ml (1 tablespoon) Epson Salts
- 15 ml (1 tablespoon) Acid Peters (21-7-7)

“I transplant into flats on 5 cm (2”) centers and induce rapid growth from January until June by maintaining a night temperature of 22-24° C (72-75° F). I give them at least 18 hours of daylight. This I do by using 60-watt bulbs spaced 75 cm (30”) apart and 50 cm (20”) from plants. After June 21, the plants are kept without the extra heat and light and are left to go into normal dormancy in the fall. After a period of dormancy, transplant into 4 1

(one gallon) containers. After budding, let them go dormant in a cool greenhouse (below 10° C (50° F).”

A simpler method that has been successful in my hands is the combination of equal parts of Canadian peat and shredded pine bark that has been screened through a 6-mm (quarter inch) wire mesh. A surface application of an acid loving fertilizer is added.

The key to a healthy soil is humus, which contains byproducts of microbial activity. Artificial mixes have become very popular in response to eliminating disease problems; however, with the decrease in organic foot (humus) the natural benefit of soil organisms has been sacrificed.

References

- Konrad, M. 2002. The importance of pH is seedling culture. *J. Amer. Rhododendron Soc.* 56 (3): 136-138.
- Konrad, M. 2008. Seedling Culture: An easy method. *J. Amer. Rhododendron Soc.* 62 (1): 5.
- Leach, D. 1961. *Rhododendrons of the World*. Charles Scribner's Sons, N.Y. 544 pp.

Rhododendron roxieanum's Many Faces



Jens C. Birck, Copenhagen, Denmark

Photos by Jens C. Birck

Rhododendron roxieanum is considered a species that appears in many different forms. There is the narrow leaved var. *oreonastes*, the broad leaved var. *cuculatum* and all the intermediary forms between those two. The form that lies between the two extremes is called var. *roxieanum*. Forms referred to as a var. *globigerum* or *R. globigerum* may be considered by some a species. It has been established that when sowing the *R. roxieanum* forms, you expect results that are 'true to mother', and this is the case when sowing its wild collected seed.

Photos showing characteristics for the var. *roxieanum* are included in Figs. 1–3.



Fig. 1.



Fig. 2.



Fig. 3.

The var. *oreonastes* has often needle thin leaves (Fig. 4). Its leaf size is sometimes related to the growing conditions during the development of the new foliage. In dry weather at springtime followed by a dry summer, leaf size may be reduced by around 50%.

Some consider the species *R. roxieanum* a non-flowering form, but that is not always true. Whether or not a specific plant flowers seems to be a question of age and location, and then also a bit of luck.

I show three years of leaf growth on the same plant in Fig 4. On the smallest leaf, the width is reduced further by 20% because of the leaf drying out. It is fairly easy to observe if it is the var. *oreonastes* that is in front of you, but it becomes much more difficult to distinguish the two other varieties, *roxieanum* and *cuculatum*. I have to rely on guessing in the latter situation.



Fig. 4.

Various keys and revisions do not help much in this differentiation—if indeed there is any!

Firstly, examples (Fig. 5) of what is referred to as var. *cuculatum* and a normal variation of var. *roxieanum* (Fig. 6).



Fig. 5.



Fig. 6.

Fig 7. is a flower that could come from either var. *cuculatum* or *roxieanum*. There is not as much difference between these as we find in *oreonastes*.



Fig. 7.

Fig 8 is a plant that is certainly var. *cuculatum*. The strange part is that the plant was self sown. At the time when it was discovered, I did not have any plant of *cuculatum* in flower, so how this self sown

plant looks like it does defies any really good explanation.

That this was not a coincidence I discovered the next year, when another seedling was found absolutely identical about five meters (16 feet) away from the first one! Later crosses between *R. taliense*, *R. proteoides* and many more from the Taliensia series have not shown anything that looks like this. The plant is now more than 15 years old, 20 cm (eight inches) in diameter, and 15 cm (six inches) tall.



Fig. 8.

New growth on the var. *cuculatum* and *roxieanum* is very exciting (Figs. 9-12), and is in fact better than the flowering in most cases. Colour variation is innumerable, from pure white to red, and many have twisted shoots—which develop into something more normal looking once they are fully developed. The flower buds (Figs 13-16) are also impressive.

In conclusion, I hope to have described clearly with this article that it is simply never enough to have just a var. *roxieanum* in one's collection.

Jens Birck lives in Denmark, is a recipient of the ARS Gold Medal and is a member of the Swedish ARS Chapter. He provided the text and photos.

Editors note: There appears to still be differences of opinion re the naming of the different varieties of *R. roxieanum*, with some feeling that the “species” should be split into a number of separate species while others feel these are just varieties of a single species. This article expresses one



Fig. 9.



Fig. 10.



Fig. 11.



Fig. 12.

view, and should not be interpreted as being definitive on this species' taxonomic status. Chamberlain et al. (1996) refer to



Fig. 13.



Fig. 14.



Fig. 15.



Fig. 16.

R. roxieanum var. *globigerum* and/or *R. globigerum* as *R. alutaceum* var. *alutaceum*.

The Rhododendron Hunter J.D. Hooker

Anitra Laycock
Prospect Bay, NS,
Canada



(Reprinted from the *AtlanticRhodo*, May 2010, newsletter of the *Atlantic Rhododendron and Horticultural Society*)

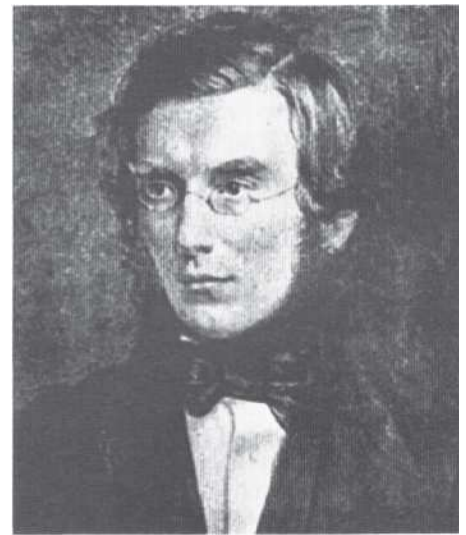
Spring finds us eagerly awaiting the new arrivals, whether from the seed exchange, tissue culture or plant sale, that will one day, we hope, fulfill their promise of added splendour in our gardens. Most of these little plants with their attractive names and alluring descriptions are genetically complex, reflecting the efforts of generations of hybridizers to provide outstanding plants for our local conditions. The origins of these plants, however, lie ultimately in the wild, from which their parent species were brought back by the efforts of the great plant collectors often at the cost of considerable hardship.

One of the earliest and greatest of these collectors was Joseph Dalton Hooker (1817-1911), the foremost botanist of the nineteenth century and a close friend and ally of Charles Darwin. Like many a student of botany, I first became familiar with Hooker through 'Bentham and Hooker' the *Handbook of the British Flora* but his scientific achievements stretch far beyond his contribution to formal taxonomy. The son of a botanist, his father was Chair of Botany at Glasgow and later Director of Kew Gardens, Joseph was a keen naturalist from an early age. His university studies in medicine and in astronomy were all undertaken with a view to pursuing his goal of traveling to the far regions of the world to study plants in their native environment, and to bring home from there representative examples for the establishment of collections in Britain. In 1839 Hooker set sail on James Clark Ross' epic four-year expedition to

the Antarctic in HMS *Erebus* and *Terror*, joining the Navy as assistant surgeon on the *Erebus*, at age 22 the youngest member of the crew. His findings on the voyage, he published on his return in *Flora Antarctica*, beautifully illustrated with full colour plates.

With his book completed, and his reputation as a systematic botanist and geographer firmly established, Hooker was anxious to be off on his travels again. In particular now he was eager to expand his knowledge of tropical botany and his sights were set on traveling to India. With the support of Lord Auckland, First Lord of the Admiralty, himself a former Governor-General of India, Hooker was able to set off again in late 1847, intent on exploring the flora of the Himalayas. For rhododendron enthusiasts the next three years would turn out to be the most important and memorable period of Hooker's travels. Basing himself in Darjeeling, Hooker made plans to explore the surrounding Himalaya together with Archibald Campbell, the British Political Agent to Sikkim. Hooker's keen desire to explore the remote, mountainous kingdom of Sikkim was unfortunately for him not reciprocated by the country's ruling Rajah. Surrounded on all sides by more powerful states, Sikkim was anxious not to arouse the ire of its neighbours, which in addition to British ruled India included also Nepal, Bhutan, and Tibet.

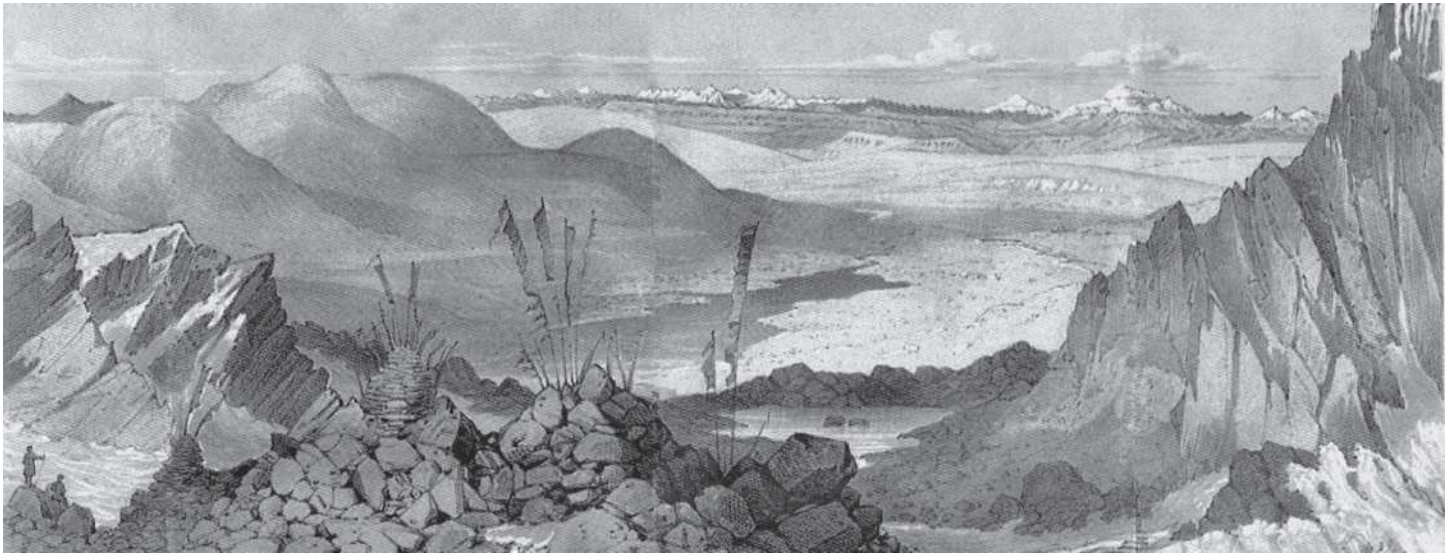
In October 1848, still lacking permission to enter Sikkim, Hooker set off for Nepal and the mountain passes in the vicinity of Mt. Kanchenjunga, the first European to make this journey. The record of his trip sets down in detail his experiences. He describes the hardships and setbacks faced in inhospitable terrain; the native peoples he encounters, the political obstruction and intrigue; the magnificent scenery, the mountains, and the plants he collects. Climbing high towards a pass he takes particular note of



J.D. Hooker, 1817-1911.

the profusion of rhododendrons clothing the mountainside. At last he is permitted an opportunity to enter Sikkim and to make a brief expedition there before returning to Darjeeling in late January 1849.

Later that same year, after finally obtaining permission from a reluctant Rajah, Hooker was off on his travels again. This time he has planned a much lengthier and more detailed exploration of Sikkim. Setting off from Darjeeling on 3 May 1849, his intent was to follow the River Teesta, the major river of Sikkim, to its headwaters in the high mountains of North Sikkim on the Tibetan frontier. Writing to his father, he promises to send shipments of rhododendrons to him as he progresses. The rainy season, which is now well underway, brings additional hazards for Hooker and his party. The long steep river valleys of North Sikkim are particularly prone to huge landslips that make travel difficult and dangerous. At this time too, leeches are present "in incredible profusion." Hooker reports regularly removing more than 100 from his legs and the sores that result take months to heal. But what he found the greatest torment were the sandflies who bit him remorselessly. "We daily arrived at our



Tibet and Cholamoo Lake from the summit of the Donkia Pass, looking North-West. (From J.D. Hooker: *Himalayan Journal* Vol II, John Murray, Albemarle Street, 1854).

camping-ground, streaming with blood, and mottled with the bites of peepsas, gnats, midges, and mosquitoes, besides being infested with ticks." All the while, the emissaries of the Rajah, in particular his minister, the Dewan, were doing everything in their power to sabotage the expedition and force Hooker to return to Darjeeling.

Travelling up the valleys of first the Lachen and then the Lachung rivers in his quest to complete his survey of the sources of the Teesta river, Hooker made his way towards the high passes which lead to the Tibetan Plateau. All the time, besides seeking out and collecting plants and taking measurements that will allow him to construct a detailed map of the area, he records in his journal, with pictures and vivid descriptions, the landscape and people he encounters. Climbing higher and deeper into the mountains following the river, rhododendrons become the most prominent plants "clothing the mountain slopes with a deep green mantle glowing with bells of brilliant colours." Finally, on the 24 July Hooker arrives at the Kongra Lama pass between Sikkim and Tibet. His sense of achievement in finally achieving his goal is obvious: "So here, at last, after three months of obstacles, I stood at the back of the entire Himalaya range." For the next three months he thoroughly explored the region, identifying the source

of the Teesta at Cholamu lake before finally returning to Choongtam via the Donkia pass and the Lachung valley.

One last trip in Sikkim took Hooker, in the company of Campbell, the Political Officer, to the eastern border and the Chola pass. Here on the 7 November 1849 the two Englishmen found themselves taken prisoner by the Rajah's men who were seeking political concessions from the British. Strictly, Hooker was not their object, but he refused to leave Campbell, following beside him as he was taken into captivity and collecting rhododendron seeds along the way. Threatened with invasion and retribution, the Rajah eventually backed down and after six weeks in captivity, both Campbell and Hooker were released and returned to Darjeeling unharmed. The Rajah, for his part, was punished by the British with the loss of his pension and the annexation of the lower lying part of his territory.

All told, Hooker collected more than 3,000 species of plants in Sikkim and Bengal. Subsequently, botanizing in Assam with his old University friend Thomas Thomson he added more than 3,000 more. This collection would form the basis for a projected flora of India that the two planned jointly to undertake on their return to England. Meanwhile, Hooker had been sending back drawings of the rhododendrons he discovered in

Sikkim to the illustrator W.H. Fitch who would produce the superb plates that illustrate Hooker's *Rhododendrons of Sikkim Himalaya* [1849-51].

No significant additions have since been made to the list of rhododendron species Hooker collected in Sikkim, a tribute to the preeminence of his abilities. The magnificence of the plants he introduced, which included *R. thomsonii*, *R. falconeri*, *R. hodgsonii*, *R. campylocarpum*, *R. ciliatum*, *R. nivale*, *R. dalhousiae*, and *R. maddenii*, so opulently displayed in Fitch's renditions, had owners of the great estates, botanical gardens, and nurseries lining up to obtain seed for themselves. Many of these plants have since been extensively hybridized to produce a wide range of beautiful garden plants. Attendees at the Everett Conference last year may remember the fine quality reproductions of Fitch's prints of Hooker's Sikkim rhododendrons that were offered for sale there.

In 1865 Joseph Hooker succeeded his father, William, as Director of Kew Gardens. Although he made other journeys to collect plants, including in 1877 to the USA, it is for the rhododendrons he introduced from Sikkim that Hooker is best remembered.

ARS District 1

Glen Jamieson
Parksville, BC,
Canada



In May 2010, I attended the ARS Spring Convention on Long Island, NY, where I realized how little I knew about that area (and was pleasantly surprised to see how beautifully forested it was, as I had expected it to be much more urban!). I also realized that many ARS members knew little about the area I come from (ARS District 1), and since the following article is about a portion of that area, I thought it would be useful to have summaries about the different ARS Districts in future *JARS* issues so that readers could have more perspective about how the ARS is geographically organized. To start the ball rolling, I have written this brief note about ARS District 1.

The ARS District 1 is British Columbia (BC), Canada (Fig 1), and although the Province (land area is 944,735 sq km (364,800 sq mi)) is larger in area than Washington, Oregon and California combined (858,283 sq km (331,385 sq mi)), the reality is that all the ARS Chapters in District 1 are in the southwest corner of the Province—within 100 km (60 mi) of Vancouver, either in the lower Fraser River valley, called the Lower Mainland, or on the south-east portion of Vancouver Island. There are four chapters in the Lower Mainland (Vancouver (44 members), Fraser South (40, Langley (nearest city)), Fraser Valley (27, Maple Ridge) and Peace Arch (26; South Surrey and White Rock)) and five on Vancouver Island (Victoria (50), Cowichan Valley (47, Duncan), Nanaimo (53), Mount Arrowsmith (58; Parksville, Qualicum Beach and Port Alberni) and North Island (60; Courtenay, Comox and Campbell River). It is a very mountainous

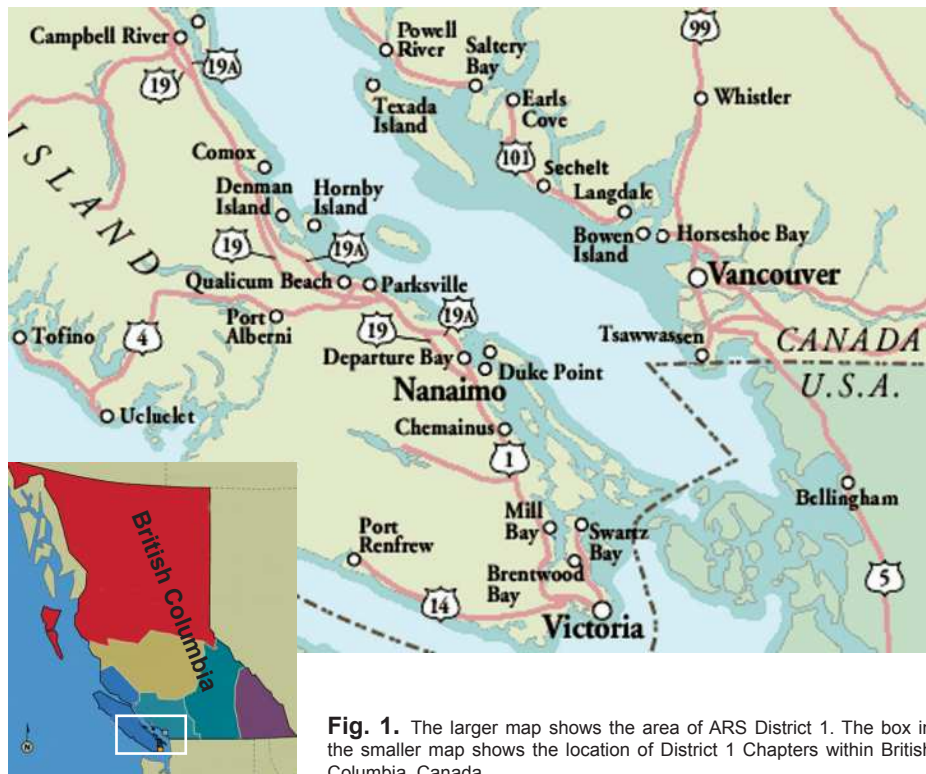


Fig. 1. The larger map shows the area of ARS District 1. The box in the smaller map shows the location of District 1 Chapters within British Columbia, Canada.

province with a rugged coastline stretching for more than 27,000 km (17,000 mi) that includes deep, mountainous fjords and about six thousand islands, most of which are uninhabited. Its Capital City is Victoria, although Vancouver is much larger—the population of the Vancouver metropolitan area in 2006 was about 2.2 million, while that of Vancouver Island was about 600,000, with more than half in the Victoria area.

The climate in the Vancouver-Vancouver Island area is temperate and is usually classified as Oceanic or Marine west coast; its USDA plant hardiness zone 8, similar to that in Seattle, Portland, Amsterdam, London, Atlanta, and Raleigh, North Carolina. The summer months are typically dry, often resulting in moderate drought conditions in July and August, and sometimes into September. In contrast, the rest of the year is rainy, especially between October and March. Temperature and precipitation varies greatly by area, depending on proximity to local mountains, but at Vancouver airport, which is about 15 km (10 miles) from Vancouver's mountains, average

precipitation is about 1200 mm (47 in, but its about 1770 (70 in) in the city of North Vancouver on the mountain slope), the average temperature low in January is 1° C (33° F) and the average temperature high in the summer is 22° C. (71° F). The region is tempered by the warm North Pacific Current (Pacific equivalent to the Atlantic Ocean's Gulf Stream) and is also sheltered by the mountains of Vancouver Island to the west. These influences contribute to making Victoria the warmest and Vancouver the second warmest of Canada's major cities overall, despite the fact their summers are cooler than most other major Canadian cities. In contrast, Vancouver's record low was -17.8° C (0° F), but in most winters, the lowest temperature is often only about -8° C (18° F) for a few days. Some winters are snow-free. The gardening season is thus virtually year-round, particularly for rhododendrons, and the earliest species and varieties start flowering in January/February.

Vancouver and the Island, having the mildest climate in Canada, are a main (Continued on next page.)

Vancouver Island Rhododendron Hybridizers - Part 1



Alan Campbell
Shawnigan Lake, BC,
Canada

(Reprinted from three issues of the Cowichan Valley Chapter Newsletter, Feb, April and May, 2006)

A Never-ending Curiosity

When my wife Sandy and I joined the Cowichan Valley Rhododendron Society in January, 1994, I came to understand the Greek philosopher Socrates slightly better. Socrates is known to have remarked at one time in his life, “All I know is that I know nothing.” This brief, all-encompassing observation epitomizes the epiphany I experienced on that evening in the Duncan [City] Legion Hall. Listening to the program presenter that evening, a fellow by the name of Norman Todd, I began to glimpse the vast reach and depth of information given for the genus *Rhododendron*.

In the 12 years of being a member of the ARS, I have searched out and gravitated towards people whose acute interest in rhododendrons matches my own. Eavesdropping on the conversations of the rhodo gurus of various chapters, sitting in on presentations, and reading the many books covering the varied rhododendron topics have proved, to me, the depth of my chosen field of interest.

Anyone who has attended an ARS convention or conference will have noted

that the last day of these annual events is taken up by the Hybridizer’s Round Table. This round table is a rather informal discussion among a panel of recognized rhododendron hybridizers, a participating audience, and a moderator who fields questions from the audience to the panel members. Now, I have regularly attended these round table discussions, but have yet to contribute: (a) because I am not as yet a hybridizer; and (b) generally speaking, I ‘ain’t learnin much if my lips are movin’. As I mentioned, panel members are noted hybridizers. What also becomes apparent is that the panel is usually composed of nurserymen as well. Being nurserymen as well as hybridizers, they are primarily concerned with the commercial viability of available plant material. I can appreciate this concern...to a point. Placing economic success in the hands of a fickle public is a risk at the best of times, but betting on what Joe Public will find desirable three or four years down the road is chancy in the extreme! I suppose this floral form of “Texas Hold’em” is what has given rise to the Proven Performers List and the announcement of the Rhododendron of the Year—a subtle means of shepherding the uninformed public.

In essence, the outcome of a hybridizers’ round table discussion is to

focus a hybridizer’s work on producing plants that will fulfill the buying public’s expectations; that is, producing plants that provide year-round appeal, are hardy in most conditions, compact, and need little care. Sounds reasonable, but at what cost?

In 1934, a new introduction to the rhododendron world came from Yakushima (Yaku Island) of the Japanese archipelago. The species *R. yakushimanum*, now designated as *R. degeoniana* ssp. *yakushimanum*, is the epitome of the “perfect” rhododendron—a hardy, compact, mounding plant with indumented foliage, and ball-shaped trusses. To further enhance the status of this debutante, the Royal Horticultural Society bestowed one of its highest awards, a First Class Certificate, to the named form *R. Koichiro Wada* in 1947. Hybridizers seemed to become besotted with this ingénue and began churning out “Yak” hybrids into the trade *ad nauseum*. Now don’t get me wrong—here are some fine Yak hybrids; however, there are also, in my opinion, far too many hybrids that are carbon copies of each other, opening pink and fading to white all within a day or two. I’ll stick my neck out even further and suggest the same about many of the *R. williamsianum* hybrids—there are just too many look-alikes. Perhaps

ARS District 1. (Continued from page 22.)

retirement area for many Canadians, and gardening is a very popular hobby. Gardening clubs exist for many plant groups—dahlias, alpines, roses, orchids, etc., as well as for general gardening. Combined ARS chapter membership in

the District is 405, with 137 in the four Lower Mainland chapters and 268 in the Vancouver Island chapters. There is much collaboration and contact between District 1 chapters and members, creating a very dynamic social environment devoted to

our special genus *Rhododendron*.

Dr. Glen Jamieson, Editor of JARS, is a past President and a member of the Mount Arrowsmith ARS Chapter.

some hybridizers would do well to take a page out of Bismarck's "Blut und Eisen" [blood and iron] doctrine, being slightly more cold-hearted when assessing and evaluating their rhodo offspring and culling more stringently.

I have expressed my opinion in the past that hybridizing is another form of artistic expression, and will also concede that art appreciation is very subjective. So, too, is the choosing of rhododendrons. But I do feel that hybridizing to appease the ephemeral affectations of an erratic public rather than the pursuit of personal vision is akin to placing Mona Lisa's smile onto black velvet.

My overactive curiosity for all things rhododendron has unfurled stories and achievements of an unexpected number of hybridizers here on Vancouver Island [British Columbia, Canada]. It will perhaps be a surprise to some that rhododendron hybridizers have been producing plant material on the Island for over 100 years. I expect some of you will know of many of these hybridizers and many of you will know some of them, but I would be quite surprised if more than a handful of you are aware of all the Island hybridizers and their hybrids. I would like to introduce them to you over the next few articles and perhaps give my opinion of their best hybrids.

I suppose that my feelings on learning and curiosity can easily be summed up by quoting one of our great Canadian authors, Robertson Davies:

"Although there may be nothing new under the sun, what is old is new to us and so rich and astonishing that we never tire of it. If we do tire of it, if we lose our curiosity, we have lost something of infinite value, because to a high degree it is curiosity that gives meaning and savour to life."

Dracula and Rhododendrons

Mythology and symbolism play a rich and wonderful part within the history of China, and the rhododendrons has a place within these fables. The rhododendron and the cuckoo share the same Chinese

pictogram, derived from the name of an ancient King of Sichuan who was brutally ousted from his throne and palace by his brother. Legend has it that when the heart-broken king died, he was transformed into a cuckoo and his tears of sorrow fell to the ground and became bright red rhododendrons.

Historical legends inspired by rhododendrons are not isolated to China. Stories from ages past tell us of the Greek commander Xenophon leading his army onto Asia Minor in the 5th century BC where they collected local honey produced from the yellow-flowered *Rhododendron luteum*. This natural sweet delight caused the invading host to have "lost their senses." Luckily for the Greeks, no defenders found them while their honey-induced affliction had them out of sorts. Not so lucky was Pompey's Roman army 300 years later. Perhaps these Roman legions missed that day of history class, but they unwittingly followed the Greeks' footsteps onto the same shores of the Black Sea and into the same *R. luteum* honey-induced stupor, during which the Colchian "homeland security" forces found them [see Joe Harvey's article titled "Apples can kill you—rhododendrons can too" in the Spring 2010 *JARS* issue]. The outcome was, needless to say, unpleasant. *The Two Thousand Year Curse of the Rhododendron* by David Leach (1967), which recounts this story as well as others.

The Cowichan Valley [on Vancouver Island, BC] holds claim to a number of "urban legends," one of which I can now pronounce as documented fact. In 1900, a retired British army medical doctor and his wife, Richard and Susan Stoker, moved to Duncan and into a house near Quamichan Lake, and shortly after built a summer house on Marble Bay at Cowichan Lake. Dr. Stoker was not the only learned member of his family. A brother by the name of Bram was a well-known author. He wrote, among other books, the classic horror tale *Dracula* (Stoker 1981). Now you're asking, "How does Dracula connect with rhododendrons?" Let's continue.

Cowichan Valley Rhododendron Society member Leslie Drew and her husband Frank wrote an exceptional article titled "Furs, Gold, and Rhododendrons," (Drew 1989) that clearly illustrates the early Vancouver Island rhododendron enthusiasts and the interaction between them. I have borrowed some names and dates from it.

Buchanan and Suzanne Simpson settled at Cowichan Lake in 1914 and quickly befriended Dr. and Mrs. Stoker, as people with shared interests naturally will. The Stokers and the Simpsons shared interest in gardening and plants in general swiftly resulted in flourishing gardens and a burgeoning nursery business, nourished with material discovered by plant hunters worldwide. Throughout the 1920s and the early half of the 1930s, their interest turned toward alpine plants and rhododendron species. Eventually, due to personal family matters, the Buchanan Simpsons made the decision to sell their Marble Bay Alpine Plant Nursery business to a Royston couple in 1935.

Ted and Mary Greig, originally from Duncan, shared an intense interest in alpine plants, which prompted their decision to purchase the Simpsons' nursery stock and begin their own horticultural endeavors at their new home in Royston. The alpine plants resented being relocated to this low-level seaside environment, but the rhododendrons flourished. Obtaining wild collected seed from the plant hunting expeditions of Frank Kingdon Ward and those of the partnership of Frank Ludlow and George Sheriff, the Greig nursery became well known for propagating the best forms of species of *Rhododendron*. It is not a rare occurrence to be wandering about an established rhododendron garden and find plant labels reading *R. auriculatum* (Greig form) or *R. strigillosum* (Greig form). Somewhat less common is to come across named forms of Greig-propagated species, two of which are 'Royston Blue', a form of *R. augustinii*, and 'Chancellor's Choice', a form of *R. pseudochrysanthum*, so named by Herman

Vaartnou in honour of Dr. Ian McTaggart-Cowan, Chancellor of the University of Victoria from 1979 to 1984.

The Greig's expertise at propagating species rhododendra, along with the ability to evaluate the best forms, eventually made Royston Nursery a name of distinction throughout the rhodo world. It is thought that at one point the Royston Nursery supplied 10% of the rhododendrons available in North America. For this accomplishment, Ted and Mary were sought out as charter members of the newly forming American Rhododendron Society. Some 20 years later, they would be recognized by the ARS by becoming joint recipients of the Gold Medal, the highest award that can be bestowed by the society.

During the mid-1960s, a group of ARS members formed a non-profit organization which would become known as the Rhododendron Species Foundation. The purpose of this organization would be to establish a comprehensive collection of authentic forms of rhododendron species that were becoming threatened by the destruction of their natural habitat. A member of the group, Dr. Milton Walker, visited the great public and private gardens of Britain requesting propagation material. But there was a snag. American import regulations prohibited the importation of plant material from Europe. Canada did not have the same restrictions, nor was there a restriction on plant material entering the United States from Canada. Dr. Walker contacted the Greigs in Royston to inquire whether the cuttings could be imported and propagated in British Columbia. Mary made further inquiries, and arrangements were made with the University of British Columbia. Over the next several years, cutting material from the major gardens of Britain arrived at UBC and to the propagating skills of Evelyn Jack (now Weesjes), who took on much of the correspondence with the British sources. The birth of the Foundation was secured, made possible by the efforts of Ted and Mary Greig of Royston.

The Royston Nursery Hybrids

Ted and Mary Greig, at the time of purchasing the Buchanan Simpson Nursery stock, were primarily interested in alpine plants, especially those of the primula family. Mary is known to have written in her journal: "I remember being quite unimpressed with the species rhododendron, never having seen any before..." Grudgingly, Ted and Mary agreed to include the rhododendrons as part of the sales agreement. Fascination with the genus *Rhododendron* quickly took hold of the Greigs, especially Mary. With this increasing fascination, so increased the rhododendron seed orders to the Royal Botanic Gardens Edinburgh, Sunningdale Nurseries and Kew Gardens.

At one time, it was commonly thought that seed collected from the seed pods of species rhododendrons would quite naturally produce seedlings of that species. Two hybrids that are attributed to the Greigs are offspring of this wrongful thinking. *R. 'Buchanan Simpson'* is one. Though registered and propagated by the Greig nursery, the original plant came with the stock purchased from Buchanan and Suzanne Simpson. It is suspected that 'Buchanan Simpson' is a "bumble bee" hybrid, an off-chance, open-pollinated cross, the seed of which was among shipments from Britain to the Cowichan Lake nursery. This large-growing plant needs lots of space, but would quickly become a favorite with its heavy-textured leaves and pink flowers, which are openly funnel-shaped, wide enough to display the double blotch of maroon deep in the throat.

The next "Greig hybrid" I would like to mention is a choice little *R. campylogynum* cross. 'Canada' was named and introduced by Jim Caperci of the Mount Rainier Alpine Gardens in Seattle, and he attributed the cross to the Greigs. In a letter dated June 9, 1985, Mary Greig explained the mix-up to Stuart Holland of Victoria: "Caperci's plant came from Sunningdale via us. I expect it was an accidental cross, I never made any

campylogynum cross." In any event, this is a must-have plant, a good one for the rock garden. 'Canada' is a rounded compact dwarf with reddish stems contrasting with the green foliage and covered with tubular deep rose-pink flowers.

One dwarf plant that was hybridized and registered by the Greigs is 'Cutie' (possibly a *R. calostrotum* hybrid). This is a really fine plant for the rock garden that has a tendency to develop rust, but with good air circulation the risk is reduced. A rounded upright-growing plant, 'Cutie' may reach three feet [0.9 m] in ten years, and carries very small leaves and an abundance of small pink flowers tinted lilac. Adulation came quickly to this little gem. The Royal Horticultural Society gave its Preliminary Award to 'Cutie' two years before registration, and the American Rhododendron Society gave its Award of Excellence in 1962. With this praise you might think that any criticism would be difficult to find, but here is what Ken Cox (2005) has to say about 'Cutie': "The sickly name probably also accounts for its declining fortunes."

More familiar to us on Vancouver Island are three very different Greig hybrids. First is 'Royston Red'* (*R. forrestii* Repens Group \times *R. thomsonii*), named by Alleyne Cook of Vancouver, a lower compact plant supporting dark green leaves and blood red flowers. The second on the list is 'George Watling', derived from subsect. *Fortunea*. Both species were used extensively by Mary Greig in her hybridizing, though Alleyne Cook is of the opinion that this plant was another "bumble bee" cross which came out of Britain. Mary named the plant in 1965, and Leslie Drew has cleared up the puzzle of where the name came from, while researching the career of pioneer Victoria nurseryman Richard Layritz. George Watling was the senior staff member with whom Mary Greig always spoke in dealing with the Layritz nursery, and it appears that she respected his knowledge of rhododendrons. A larger growing plant with rounded, glossy leaves and pale

primrose-yellow flowers, ‘George Watling’ makes a fine addition to the garden. ‘Harry Carter’* (*R. strigillosum* × *R. sutchuenense*) is the largest of the three. With its olive green, bristly leaves and pink flowers, Harold Greer calls it “a combination of the best of both parents.”

When those in the rhododendron community speak of a “cross,” they are speaking of a group of hybrids grown either from seed from one capsule or from repeated crosses with the same parents. Perhaps the most notable cross would be the Loderi Group (collective name for *R. fortunei* and *griffithianum* crosses) hybridized by Sir Edmund Loder of Leonardslee or the Naomi Group (Aurora Group × *R. fortunei* crosses) from Lionel de Rothschild of Exbury. The Royston crosses, a crossing of *R. auriculatum* and ‘Fabia’, has given us ‘Royston Yellow’*, ‘Royston Peach’*, ‘Royston Reverie’ (yellow with edges of bright brick red), ‘Royston Orange’* (more salmon colour), ‘Royston Copper’*, and ‘Royston Regency’ (not known to exist any longer). The plants in this crossing all seem to retain the long leaves of *R. auriculatum* and bloom in late July with flowers forming a lax truss (from both parents) and the varied calyx length of ‘Fabia’. Not all of these hybrids are registered, but Alleyne Cook is working at doing this.

More Greig hybrids with the Royston name that have been registered by Alleyne Cook exist mainly in the Ted and Mary Greig Garden in Stanley Park—‘Royston Festival’ (*R. auriculatum* × *R. kyawii*), ‘Royston Frost’ (*R. auriculatum* × *R. hemsleyanum*), ‘Royston Radiance’ (*R. hemsleyanum* × *R. auriculatum*), ‘Royston Rose’ (‘Last Rose’ × *R. auriculatum*), ‘Royston Summertime’ (*R. auriculatum* × ‘Last Rose’). I have not seen any of these in bloom as yet though the registrations give good descriptions of each of them, also mentioning that some hold some fragrance.

Not mentioned in the above paragraph is *R. auriculatum* × ‘Last

Rose’. A question arises over the cross registered. Stuart Holland (1989) wrote an article entitled “About Vancouver Island Hybridizers” in which he mentions the Greig hybrid ‘Royston Opaline’ (*R. auriculatum* × *R. crassum* [now *R. maddenii* ssp. *crassum*]). In the same article is a copied listing from the Royston Nursery Catalogue No. 18 (1965) in which a cross of *R. auriculatum* and *R. crassum* is stated. This suggested crossing may raise some eyebrows. *R. auriculatum* is of the subgenus *Hymenanthes* (elepidote) and *R. crassum* is from the subgenus *Rhododendron* (lepidote) and “never the twain shall meet.” It is understood that elepidotes and lepidotes are not inclined to cross-breed. Of course, never say “never.” A good project would be to set about verifying this cross. I wonder if Dr. Ben Hall is busy?

A number of unrelated hybrids out of the Royston Nursery that should be propagated more are ‘Last Rose’ (*R. fortunei* ssp. *discolor* × Tally-Ho Group); ‘Veronica Milner’ (*R. campylocarpum* × ‘Little Ben’) of Milner garden fame; ‘Len Living’*, a sister seedling of ‘Harry Carter’ (do we actually call two plants with men’s names sister seedlings?) and ‘Butter Ball’ (*R. xanthostephanu* × *R. chrysodoron*). An unregistered, unnamed cross that is seen quite often in area gardens is a cross of *R. bureavii* and ‘Fabia’. I have seen this plant labelled ‘Fabia’ × *R. bureavii* most often yet the only cross listed in the Greigs’ hybridizing stud books is *R. bureavii* × ‘Fabia’. Perhaps I’m just being...well, there is an unpleasant name for that! Halfdan Lem of Washington State did the same cross (*R. bureavii* × Fabia Group), giving us ‘Hansel’ and ‘Gretel’, but Ken Gibson states the Greig plant is far superior to either of Lem’s plants.

Many of the Greig hybrids are only in Stanley Park, and being in one location, in my mind, puts them in a precarious position. Many of these plants are hard to propagate, but Les Clay, Harry Wright, and I continue to try to get them established in more gardens. The hybrid ‘Edith Berkeley’

(*R. auriculatum* × (*R. consanguineum* × ‘Loderi King George’)) is rumoured to still be growing on Vancouver Island, but has yet to be found. Too many Greig hybrids have already disappeared. ‘Royston Regency’ (*R. auriculatum* × ‘Fabia’) died out in Stanley Park in 2001 without being propagated. Others, notably ‘Ted Greig’ (*R. griersonianum* × (*R. campylocarpum* × *R. fortunei* subsp. *discolor*)), ‘Mary Greig’ (*R. neriiflorum* Euchaites Group × *R. souliei*), ‘Cyril Berkeley’ (seedling from *R. forrestii*), ‘Royal Anne (Azor Group × (Nereid Group × *R. fortunei* subsp. *discolor*))—and a host of crosses listed in the Greig stud books are thought to no longer exist. A lifetime of love’s labours lost! The artistry of the hybridizer should be viewed as no less important than that of the playwright.

* = not registered.

References

- Cox, K. 2005. *Rhododendrons & Azaleas —A Colour Guide*. Crowood Press, Ramsbury, Wiltshire, UK: 240 pp.
- Drew, L. and F. Drew. 1989. Furs, Gold, and Rhododendrons. *Rhododendrons on a Western Shore*. Victoria Rhododendron Society, Victoria, BC, Canada: 4-14.
- Holland, S. 1989. About Vancouver Island Hybridizers. *Rhododendrons on a Western Shore*. Victoria Rhododendron Society, Victoria, BC, Canada: 53-55.
- Leach, D. 1967. The two Thousand Year Curse of the Rhododendron. *Rhododendron Information*, ARS, Sherwood, Oregon: 146-170.
- Stoker, B. 1981. *Dracula*. Bantam Books, New York, NY: 432 pp.

Alan Campbell is a past President of the Cowichan Valley Chapter and a frequent contributor to its newsletter.

Awards

CONNECTICUT

Bronze Medal: Thomas Flanigan

It is with great pleasure that the Connecticut Chapter of the American Rhododendron Society awards the Bronze Medal to Thomas Flanigan in recognition of his selfless service to our organization. Tom has served for multiple terms on the Board of Directors, and he is a willing volunteer and supporter of many chapter activities.

Tom coordinates and organizes our annual spring auction banquet by negotiating the menu items, collecting the money, and preparing the site so that our members can have an enjoyable evening of camaraderie with food, drinks, and bidding on new plant material for our gardens. The event has become so popular that many members bring their families and friends to this annual event.

In addition to his planning and organizational skills, Tom has invited many knowledgeable speakers to our monthly meetings, and he has acted as a great ambassador for our club by cultivating relationships with many ARS members across chapter lines at ARS District Conferences and Conventions.

Tom is also actively involved in the Flower Show Committee by helping to organize the entrees for truss show competitions. Needless to say, Tom will generously donate his time to ensure that all of our chapter activities are a success.

Bronze Medal: Jonathan Stone

The Connecticut Chapter of the American Rhododendron Society is pleased to present the Bronze Medal to Jonathan Stone to acknowledge his years of service to our organization. Jonathan has been a dependable and enthusiastic supporter of the chapter, and we have greatly benefited from his many contributions. As a member of ARS for many years, he has served multiple terms on the Board of Directors as well as serving as both Secretary and Treasurer of the Connecticut Chapter.

Jonathan is an avid collector of rhododendrons and companion plants with a keen eye for selecting winning trusses at our annual truss show competitions. After dominating the truss show events for many consecutive years, the chapter retired the Mehlquist Trophy Award in his honor. Dignified yet modest, Jonathan is always willing to share his methodology for growing successful plants with other ARS members. He looks at plants critically

to enjoy the beauty and serenity and harmony they bring to his gardens.

In addition to his respected gardening skills, Jonathan has also helped to solicit generous donations to our annual auctions from several retail nurseries that he and Tom Flanigan have visited to obtain rare and unusual rhododendrons and azaleas.

Both Tom and Jonathan have represented our ARS Connecticut Chapter at the February Flower Shows in Hartford and at the Elizabeth Gardens Rose Weekend in West Hartford.

For many years they have taken the initiative to arrive early at chapter meetings to set up coffee, tea, and refreshments for a social hour that precedes our meetings. Members arrive and socialize by discussing their latest purchases and/or by explaining their successful remedies for gardening dilemmas. For many members, this sharing of personal experience is as important as our meeting's guest speaker program.

It is with great pleasure that we present Thomas Flanigan and Jonathan Stone with their Bronze Medals, the highest honor a chapter in the American Rhododendron Society can award.

DE ANZA CHAPTER

Bronze Medal: Ann Gazenbeek

The De Anza Chapter is proud to present the Bronze Medal to long time member Ann Gazenbeek in recognition of her hard work, diligence and leadership in our chapter. Ann has served as president, vice president and board member for our chapter numerous times. She has interacted with local and national garden clubs providing us with internationally renowned speakers as well as local speakers from our area and other rhododendron chapters. Thanks to her interaction with these diverse clubs, rhododendron information and enthusiasm has been disseminated to many gardeners. Ann has been "propagating" interest in rhododendrons for a long time so it's now time she be acknowledged for her efforts and contributions to our favorite genus.

NEW YORK CHAPTER

Bronze Medal: Mary and Howard Phipps

Mary and Howard have lent their generous support to the New York Chapter for many years. Among their many contributions to the genus *Rhododendron* are:

preservation of the historical hybridization work of Howard Phipps Senior at the family estate, Erchless, through ongoing support of a breeding program enriching the genetic envelope of the *Rhododendron* genus; allowing the International ARS Seed Exchange to be run from Erchless for six years; enthusiastic support of the New York Chapter in hosting the 2010 Annual Convention by donating the hospitality of their home, Erchless, for a garden tour of this estate and providing a magnificent luncheon for all convention attendees; and receiving and caring for the plants for the Annual Plant Sale on the estate for many years.

Through their generosity, Mary and Howard have maintained a garden which continues to be a major resource for rhododendrons hardy on the Eastern sea coast.

VANCOUVER CHAPTER

Bronze Medal : Dr. Michael Bale

For ongoing service well beyond the ordinary in so many different ways—for organizing garden tours in Tofino, on Vancouver Island, in Washington and in Oregon, for organizing species study days at the Rhododendron Species Botanical Garden on at least six occasions, for hosting many tours by many different groups through your own garden Lu Zhu, and for doing all this with exceptional grace and generosity, for chairing the 2006 fall Western Regional Conference of the ARS in Harrison Hot Springs, for being Vice President and then President of the Fraser South Chapter of the ARS while always maintaining an active membership in the Vancouver Chapter, for extreme generosity in donating many plants to various ARS chapters as raffle offerings and prizes even when it was not possible for you to attend the meetings, and for creating one of the most beautiful and important private gardens in British Columbia through tireless work and creativity while at the same time maintaining an active medical practice—the Vancouver Chapter is pleased and proud to present Dr. Michael Bale with the American Rhododendron Society Bronze Medal.

In Memoriam

Mary Beasley

Mary Beasley of Lavonia, GA, passed away on August 26, 2010, of natural causes. Mary was born in Concordia, Kansas. She graduated from Kansas State University with a degree in Home Economics. She met her future husband, George Beasley, on a blind date. George was a soldier stationed at Fort Riley, KA. After George's service in Japan, they were married in Kansas and shortly thereafter moved to Georgia. The move from the Midwest to the Deep South was a big adjustment, but she quickly adapted to the new life style. Her graceful and kind personality resulted in new friendships and wide acceptance in her new home. Mary reached out to the less fortunate in her community, and long before governmental school lunch programs she helped provide meals for children of poor families.

Three sons, George, John and Jeff, daughter Martha and seven grandchildren survive Mary. She was a longtime member of the Azalea Chapter of ARS, ASA and the Lavonia, GA, garden club. She and George were awarded a Bronze Medal in 1980 and later Mary served as ARS District 10 Director.

When she first moved to Georgia, she and her husband ran a successful farm. George was an avid native plant person and plant collector. He brought plants home from many places, including the area near his north Georgia home. He soon became involved in native azalea hybridization. Mary was a significant part of these horticultural efforts, helping in selecting the plants for the crosses and evaluating the results. They started Transplant Nursery, which became a successful retail/mail order enterprise. In addition to helping in the hybridization program, Mary handled the nursery's record keeping and accounting. The nursery is currently operating as a wholesale nursery under the leadership of son Jeff and his wife Lisa. After George's death, Mary continued to work with Jeff and Lisa in the operation of the business.

George Beasley is recognized as an outstanding native azalea hybridizer and many of the Beasley hybrids are still popular today. Many are sold under Transplant's "Maid in the Shade" series in many large-scale retail stores. Probably the most famous of the Beasley hybrids is a cross of three native azalea species. He could think of no name more fitting than his wife's and

named the azalea 'My Mary'. 'My Mary' is a cross of the cultivar 'Nacoochee' and *R. austrinum*. 'Nacoochee' is cross of *R. periclymenoides* and *R. atlanticum*. The azalea has beautiful 2 ½ inch soft yellow blossoms, which frequently form ball trusses. The blooms have a sweet, spicy fragrance. Other noted Beasley hybrids include 'Camilla's Blush'; a fragrant blushing pink (*R. canescens*); 'Lavender Girl', which has pale lavender blooms (*R. periclymenoides*); 'Kelsey's Flame', an orange and yellow bicolor *R. calendulaceum*; 'Lisa's Gold', a fragrant bright gold *R. austrinum* and numerous others. 'Summer Lyric', a fragrant, late blooming pink is a cross of *R. arborescens* var. *georgiana* and *R. prunifolium*.

That 'My Mary' is one of the most popular native azaleas is a testimony to Mary's radiant personality, her gracious interactions with others and her part in the development of the Beasley hybrids.

Ken Gohring

Gwendolyn Dorothy (Dot) Gibson

Born October 13th, 1936, in New Westminster, B.C., Dot Gibson passed away peacefully at the Nanaimo General Hospital on June 7th, 2010.

She was predeceased by two sons Rodney (1959), Roger (1972) and her parents Spencer and Juliet Pallot.

She is survived by her loving husband Ken, son Brad and his wife Joanne, daughter Lana and her husband Jim, grandsons Connor Maxwell, Trevor and Kyle Gibson and their mother Gillian Gibson, granddaughter Brianna Maxwell, great granddaughter Emily Beattie-Gibson, two brothers Dave Pallot, Ernie Pallot and three sisters, Billie Jo Imlach, Jacquelyn Hansen, Kay Ladoucer, numerous nieces and nephews. Dot will be greatly missed by her extended family and many dear friends.

A Celebration of Life was held Wednesday, June 16th, 2010 at 2 p.m. at the Royal Canadian Legion, Tofino, B.C.

Donations may be made to the Canadian Diabetes Association or the Pacific Rim Communities Seniors Care Society or a charity of your choice.

Peter M. Musumeci

In July the Pine Barrens Chapter lost one of its long time and devoted members, Peter M. Musumeci. Pete was a grower of rhododendrons and azaleas. He was always experimenting with new varieties that he would grow in his nursery to see how they would grow and prove their worthiness. He was generous with his plants and he always donated many of his plants to the chapter for gifts or door prizes. His favorite rhododendron among others was 'Solidarity'. He felt that this rhododendron should be made available to the public and he worked with local commercial nurseries to make this happen.

Pete volunteered to help out local chapters if they needed help with doing a project. To this extent, he and his wife Mary hosted a picnic at their home for many years for all the chapter members in District 8 and their friends. At the picnic there was a cutting exchange and P4M's where plants and cuttings of unique plants could be picked up. Propagation techniques were given to all. In the 1970s he volunteered to help with planning and setting up the Greater Philadelphia Chapter's exhibit in the annual Philadelphia Flower Show. After this Pete volunteered to be an "exhibit watcher" at their exhibit, answering questions and signing up new members. He held this position for many years. Pete received the Bronze Medal from both the Pine Barrens and Greater Philadelphia chapters for his extreme devotion to the genus and generosity to both chapters.

Do you need a speaker for your chapter meetings or an ARS convention?

The ARS Speakers' Bureau is designed to help.

Log onto www.arsoffice.org, select "Speakers' Bureau Database."

You will need to enter your chapter user name and password.

Then you can search the database or add your name.

Try it! It is just that easy!

Summary of the Board of Directors' Meeting, October 8, 2010, Florence, Oregon

The Board of Directors' meeting held on October 8, 2010, in Florence, Oregon, was very productive. A total of ten motions were made and all of them, except one, received unanimous approval. One motion was rescinded as described below. A summary of motions is:

Pavers for Rutherford Conservatory
Don Smart proposed that the ARS sponsor a \$300 paver for the Rutherford Conservatory, at the Rhododendron Species Botanical Garden, in Federal Way, Washington.

TASK: Don Smart and Fred Whitney will work with Laura Grant on the wording.

Hybrids and Hybridizers Book

Dr. West authored a book on hybrids and hybridizers and his widow is donating the remaining 300 copies to the society. These books will be sent to Harold Greer and offered to members at a reduced cost.

TASKS: Provide a book review in the journal and determine how relevant the book is today. Karel Bernady will make sure that the book is reviewed for relevancy. Glen Jamieson will research getting a book review.

Advancing Funds for Annual Conventions (MOTION RESCINDED)

It was determined that the policies were already in place to take care of this type of request.

Online Journal Pilot Project Presentation

Dave Collier suggested that the Board be presented with a pilot project at the May

meeting. There was general agreement that the format of choice be PDF (portable document format) and that members be given options for how they might want to receive the information.

Updated Secretary's Position Description

As provided in the prework.

TASK: Other board members were asked to review their position descriptions and come forward with updates as well.

Treasurer's Position Extension

Fred Whitney moved that the Board approve the consecutive third term for the Treasurer's position.

Rewrite of POB 9.22

An update of the Long-Term Investment Committee as provided in the meeting prework.

Roster of Nominations

Fred Whitney motioned that we accept the roster of nominations.

Newsletter Contest

Shirley Rock proposed a Newsletter Contest. Several folks volunteered to assist. Participation is optional.

There were also nearly 20 action items assigned at this meeting for follow-up by Board and Committee members, which included budget clarifications (Director at Large budget clarification, tracking donated costs and time, and following up on a replacement accountant), partnership activities (such as the potential partnership with the National Garden Club, Inc.),

organizational documentation (review of a new organizational chart, updating Chapter Bylaws, clarification on the nomination process, insurance, rosters, elections, taxes, and finding a Resource Development Committee lead), future events (speakers, attendance, etc.), and communications (journal articles, member awards, follow-up on the rhododendron database, newsletter distribution, what is available on the OARS website, and public education). Several members were asked or volunteered to put articles together for the journal.

This meeting employed a different agenda strategy. Items requiring decisions or actions were discussed prior to informational items. Meeting participants were able to cover all of the topics with time to spare. Meeting participants were invited to review the meeting format and make suggestions and comments on how to improve future meetings. There were concerns that several groups did not submit reports, or submitted them verbally at the meeting which limited discussion opportunities. A few ideas on how to address this problem were offered and more ideas on how to improve communications are welcome. After some brief conversations regarding getting reports in, the meeting officially ended at 4:10 p.m.

Kath Collier
ARS Secretary

ARS Board of Directors Meeting

The ARS Board of Directors will meet from 9:00 a.m. to 5:00 p.m., Wednesday, May 11, 2011, at the ARS Annual Convention in Vancouver, WA, in the convention hotel.

See the convention insert for full details of the convention.

Rhododendron Calendar

- | | |
|-------------|---|
| 2011 | ARS Annual Convention, Vancouver, Washington, May 11-15. Board meeting. Heathman Lodge (http://www.heathmanlodge.com). |
| 2011 | ARS Eastern Regional Conference, Mid-Atlantic Chapter, Oct. 21-23, Sandstone, Virginia. Board meeting. |
| 2012 | ARS Annual Convention, District 10, Southeastern Chapter, Asheville, North Carolina. Joint convention with Azalea Society of America, May 4-8. Board meeting. |
| 2012 | ARS Western Regional Conference, Nanaimo Chapter, British Columbia, Canada. (dates and place to be announced). Board meeting. |
| 2013 | ARS Eastern Regional Conference, District 12, Fall (Dates and places to be announced). |

See page 56 for Election of District Director and Alternate for ARS District 12.

Help Wanted - Chairperson for Resource Development Committee

The ARS has as part of its goals education of the public about the genus *Rhododendron*, and support for the building and maintenance of rhododendron gardens for the public to enjoy. Education efforts can be printed pamphlets such as "Growing and Maintaining Rhododendrons," "Guide to Planting and Care of Vireyas," "Pests and Diseases of Rhododendrons," or "A Guide to Public Rhododendron Gardens." The possibilities are endless! There are many public gardens around the US and Canada, for instance, that are either devoted to rhododendrons and azaleas or have areas specifically for this genus. An example is the Bellevue Botanical Garden in Bellevue, WA, which has a new area called the "Rhododendron Glen." These are all initiatives the ARS could provide or sponsor, but it takes money. With more money, the ARS could do more things, and this in turn could help the ARS grow.

How does a non-profit organization make money? In the case of the ARS, most of our operating funds come from membership dues and a smaller portion comes from donations. Folks involved in chapter activities know that dues do not cover the cost of all activities provided to your members, so you organize fund raisers such as sales, raffles, plant

sales, auctions, garden tours, etc. The ARS cannot do these kinds of activities, as being an umbrella organization for many local societies, it's too spread out geographically. In order to support national and international ARS outreach initiatives, sources of money beyond a portion of local chapter dues needs to be found for the ARS. That's the task of the Resource Development Committee, and why its such an important ARS committee.

At present, this committee needs a person to chair it, and until such a person steps forward, actions by this committee are stalled. Specific committee objectives are to:

- Gain a better understanding of grant application processes,
- Work with the ARS Board to identify projects needing funding,
- Identify a process or individuals appropriate to the determination of potential funding sources,
- Coordinate the submission of grant proposals to these sources, and
- Effectively guide grant application and post-award management processes.

My vision is that this committee should identify appropriate professionals in the field of grant solicitation and work

with them to raise money for the ARS. There are many organizations and freelance groups that do this kind of fund-raising work. The committee would need to negotiate costs for these services and work with the ARS Budget and Finance Committee to identify sufficient resources in the annual ARS budget to allow these experts to pursue grants for the ARS.

There are fund sources that can support projects relevant to the ARS. In 2008, there were billions of dollars granted to organizations in the USA alone; \$12.5 billion for arts, culture, and humanities, and \$6.6 billion for environmental and animal projects. Potential ARS projects will qualify for funding, and the challenge here is to work with national and international organizations such as USA Grant Applications (<http://www.usagrantsapplications.org/>) to identify potential sources of funding and to apply successfully for funding.

Don Smart
ARS Western Vice President

ARS Program Library

The ARS Program Library provides programs on DVDs that chapters can purchase for use at their meetings. These DVDs are viewed with the digital projector, with a computer or DVD player, or viewed on a television set with the DVD player.

Chapter members may borrow from their chapter library, and make a copy, or purchase personal copies.

The DVDs currently available:

Garden Walks 2006 - Gardens visited during the joint convention of the ARS and

Azalea Society of America in Rockville, Maryland.

Frank Fujioka's Program - May 2006 Societe Bretonne Du Rhododendron in France
Elepidote Hybrids in Central New Jersey - Hybrids selected by the Princeton Chapter Study Group. Narration by Jerry van de Sande.

Arunachal Pradesh, India - Ron Rabideau's trip, narration by Ron Rabideau.

The Zurich Garden - A narration by the garden's creator, Dr. William M. Zurich.

Rhododendrons at the Golden Gate - 2007 Annual Convention with narration.

Rhododendrons in the Wild West - 2008 Annual Convention in Tulsa with narration

A Spring Walk in Walters' Woods - Spike & Kay Walters' garden in Western PA.

Nepal: Our Ultimate Rhodo Flowering Experience! - Narration by Ian Chalk, Australia.

Oban, Scotland ARS 1996 Convention Revisited - Narration by Win Howe.

Lendonwood Garden - Len Miller's garden in Grove, Oklahoma. DVD produced by Oklahoma State University Cooperative Extension Service. Available on VHS and DVD for \$15 each.

Growing Chapters Win Awards from Briggs Nursery

Congratulations are in order to nine chapters who grew by ten percent or more. The following chapters will receive 36 quart size rhododendrons from Briggs Nursery in Elma, WA, as a reward for their success: Nanaimo, Fraser South, Eureka, Mt. Arrowsmith, Tappen Zee, Atlantic, Monterey Bay, Fraser Valley, and Peninsula.

At the Annual Convention in 2009, held in Everett, WA., Dan Meier, Production Manager, challenged all ARS chapters to grow by at least ten percent. The contest started on September 1, 2009, and ended August 31, 2010. There are approximately 70 chapters in the American Rhododendron Society. Dan Meier has offered the same challenge again beginning September 1, 2010, and ending August 31, 2011. We can do it!

Shirley Rock
ARS Membership Chair

Announcement of ARS Research Grants

Dr. Harold Sweetman, Chairman
ARS Research Committee
Devon, Pennsylvania

The Research Committee of the American Rhododendron Society wishes to announce an annual award competition for research on rhododendrons and azaleas. The deadline for receiving submitted applications is March 1, 2011, and awards will be made by August 1, 2011, for those applications deemed to be most deserving of support. ARS research grants are awarded to support projects that either yield practical benefits for growing and enjoying rhododendrons or yield new insights into the biology, geographical distribution or history of species and hybrid rhododendrons.

The Research Committee will consider grant application requests for amounts up to \$5,000. The funds may be used over a period of one to three years, at the discretion of the recipient, except that funds may not be used for institutional overhead.

Information about the format for applications and a list of research topics of interest to the American Rhododendron Society can be obtained at the website: <http://www.rhododendron.org/researchgrants.htm> or directly from Dr. Sweetman.

Grant funding is provided by the Research Foundation of the American Rhododendron Society with the understanding that research results will be published in the *Journal American Rhododendron Society*, a refereed publication. Guidelines for Authors of Research Papers and a sample article may be obtained from Dr. Glen Jamieson, Editor.

Those applicants unfamiliar with research already reported in the *Journal* may also benefit from reviewing back issues of the *Journal*, which is available in many horticultural libraries.

Proposals are evaluated by the ARS Research Committee as regards their

potential interest to the membership of the Society and the probability of successfully accomplishing the goals of the project.

Research Grants Awarded in 2010

The Research Committee recommended and the Research Foundation of the American Rhododendron Society provided funding for the following three proposals:

#10-1 Cellular mechanism of thermonasty in Rhododendron: Are membrane water channel proteins (aquaporins) involved? \$5,000

Dr. Rajeev Arora
Department of Horticulture
Iowa State University
Ames, IA 50011

Summary of Proposal

One of the goals of this investigation is to gain fundamental insight into the mechanism of cold tolerance in rhododendrons. Thermonasty is the term applied to the leaf drooping and curling phenomenon observed in many, but not all, evergreen rhododendrons. This research will study the cellular mechanisms of thermonasty as water moves across leaf cell membranes which then control leaf movement. It has been proposed that water movement across membranes is likely regulated by water channel proteins called aquaporins. This study will attempt to isolate the genes associated with seasonal cold hardening. A specific objective will be to investigate whether there are changes in gene expression, in a predicted pattern, with temperature-induced leaf curling and uncurling. The two species to be studied, *R. catawbiense* and *R. ponticum*, have different behavior with regard to leaf curling in winter.

#10-2 Nonanoic Acid and Trichoderma Isolates for Management of Botrytis and Ovipositor Petal Blight in Azalea. \$5,000

Dr. Thomas Gianfagna
Plant Biology and Pathology Department
Rutgers University
New Brunswick, NJ 08901

Summary of Proposal

This research project investigates the use of isolated compounds from specific bacteria (*Trichoderma species*) that may

have antifungal properties against *Botrytis* and *Ovipositor* petal blight in azaleas. Biocontrol would be an alternative to synthetic pesticides. Evergreen azalea cultivars of 'Hino Crimson' and 'Gumpo Pink' will be used in the experimental model under controlled greenhouse conditions. If research proves a beneficial effect, the anticipated benefits of a biofungicide, which is more environmentally friendly than conventional fungicides, would be welcomed by azalea growers where petal blight is a major problem.

#10-3 Functional Significance of Leaf Idioblasts in Vireya Leaves to Water Relations and Photosynthesis. \$5,250

Dr. Erik Nilsen
Biology Department
Virginia Tech
Blacksburg, VA 24061

Summary of Proposal

The overall goal of this research in *Vireya* rhododendrons is to learn the functional significance of leaf attributes to improve understanding of *Vireya* ecology and thereby promote the conservation of *Vireya* diversity. Specifically, the research will focus on the functional significance of idioblasts to leaf water relations and photosynthesis. Idioblasts are very large cells found to be present in the leaves of all *Vireya* species but not other rhododendrons. Research with other plant groups suggests that idioblasts may be important for water balance, photosynthesis, temperature balance, chemical storage, oxalate crystal synthesis, and defense against herbivores. This research will focus on water balance and photosynthesis.

The Committee Chair would like to thank all members of the Committee for their time, expertise and thoughtful comments in the careful review of proposals. An additional important thank you goes to the Trustees of the Research Foundation for their stewardship of the Trust which has allowed for uninterrupted research funding over these many years.

Respectfully submitted,
Harold E. Sweetman, Ph.D.
Chair, Research Committee

SOCIETYNEWS

Early Chapter Shows

Chapter shows from April to May 1, 2011. Shows during May 2011 will be listed in the spring issue.

No admission charge unless noted

EUGENE – Spring Rhododendron Show; Sat., April 9; Mookie's Northwest Grill, 400 International Way, Springfield, OR; Flower show, no-host dinner, speaker, plant auction. Ted Hewitt.

FRASER VALLEY - FVRS Plant Sale; 11 a.m. to 3 p.m., Sun., April 17; Laity Farms, 21145 128th, Maple Ridge, BC; rhododendrons and a variety of plants including a large selection of perennials; Rosemary Pruffer.

KOMO KULSHAN - Chapter Flower Show; 10 a.m. to 4 p.m., Sat., April 30; Christian's Nursery, 15806 Best Rd., Mount Vernon, WA; Sonja Nelson.

MOUNT ARROWSMITH – Rhodo Show and Sale; 10 a.m. to 2 p.m., Sat. April 16; Parksville Curling Club, Hwy. 19A and Corfield, Parksville, BC; Marilyn Dawson.

NEW YORK – Early Flower Show; 3 to 5 p.m., Sat., April 16; Planting Fields Arboretum, Oyster Bay, NY; Bruce Feller.

NORTH ISLAND – NIRS Truss Show and Rhododendron Sale; 10 a.m. to 1 p.m., Sun., May 1; Komox Band Hall, 3320 Comox Road, Comox, BC; Nadine Boudreau.

NOYO – 34th Annual John Druecker Memorial Show & Plant Sale; Sat., April 30, and Sun., May 1; Dana Gray Elementary School, 1197 Chestnut St., Fort Bragg, CA; Nannette Giomi.

SIUSLAW - Early Flower Show and Plant Sale; open to public 1 to 5 p.m., Sat., April 9, and 10 a.m. to 5 p.m., Sun., April 10; Florence Events Center, 715 Quince,

Florence, OR; plant sales open to public outside Events Center on April 9 & 10 from 10 a.m. to 5 p.m. The public may bring flower trusses for judging 7 to 9 a.m., Sat. Ribbons and trophies will be awarded. A great time to ask questions, find books and information and enjoy azalea and rhododendron blooms; Bill Hennig.

GREATER PHILADELPHIA - Chapter Flower Show at the Philadelphia International Flower Show; 8 a.m. to 6 pm., Sun., March 6; 10 a.m. to 9:30 p.m., Mon.-Fri., March 7-11, 8 a.m. to 9:30 p.m., Sat., March 12, and 8 a.m. to 6 p.m., Sun. March 13; Pennsylvania Convention Center, 12th & Arch Street, Philadelphia, PA. For tickets and prices see www.theflowershow.com Chapter exhibit is titled "Place des Rhododendrons," a square in Paris filled with rhododendrons, azaleas, and companion plants.

'The Pink Ribbons' Update

It has previously been reported that 'The Pink Ribbons' rhododendron hybridized by Gene Cockeram of Florence, Oregon, was offered for sale for the first time at the American Rhododendron Society Western Regional Convention held at Three Rivers Casino during the 10/10/10 weekend, and the money from the sales would be donated for breast cancer research.

Gene is happy to report that most of the plants offered were sold, and on October 21, he was able to present a check of \$1,155 to Di Lacey, Executive Director of Peace Harbor Hospital Foundation. There was a small ceremony for the presentation. Present were Di Lacey and Peggy Arnold, who is Foundation Relations Specialist for the Peace Harbor Hospital Foundation. Also present was Gene's daughter, Janet. She is an employee at Peace Harbor Hospital and very proud of her father. This donated money will be used for the digital mammography suite. Di said that there is a 95% survival rate after five years for patients when cancer is detected early by digital imaging. Di presented Gene with a memorial sterling silver key chain in appreciation of his donation.

Gene is planning to continue selling 'The Pink Ribbons' and he hopes this is



Peggy Arnold, Di Lacey, and Gene Cockeram

only the first of many donations that he will be able to make. Gene shared that Terry Henderson of Log Cabin Nursery in Springfield, Oregon, which is a wholesale rhododendron nursery, agreed to propagate the plants free of charge for this

project.

We are counting on having more news to report in the future about Gene Cockeram and "The Pink Ribbons" rhododendron donations.

50 Years of the National Rhododendron Garden of Australia



Diane and Bob Weissman
Mountain View, California

Last year the world watched as devastating fires burned throughout Victoria, Australia. Imagine if they'd ripped through your newly planted garden. That's exactly what happened in 1962 when fires whipped through the Dandenong Ranges, east of Melbourne. But a small group of dedicated horticulturalists were not going to be beaten—they started over and created a garden that now spans 100 acres (40.5 ha) and displays an impressive collection of plantings and proudly bears the title of National Rhododendron Garden of Australia.

This past October the Australian Rhododendron Society marked its Golden Jubilee by unveiling a commemorative plaque and inviting rhododendron enthusiasts worldwide to join them for their 50th anniversary conference. The conference began with Peter Damman, one of those early pioneers, now in his 80s, reflecting upon the challenges of creating the garden and the amount of planning, hard labor and ingenuity involved to build the hard landscaping and irrigation infrastructure. Supporting the gardens in those days didn't mean simply writing a check—it meant bringing your backhoe or mechanical digger and getting to work.

Today the garden is under the management of Parks Victoria, a branch of the local state government and, from 1st July 2010, is open free of charge to the public. This coincided with more funds being made available for improved infrastructure and updated irrigation but, so far, no additional gardening staff

beyond the existing three. The 250% increase in attendance has brought a whole new set of challenges in balancing the goal of entertaining the general public whilst preserving the botanical integrity of the garden. It's all a matter of perspective—guest speaker Ken Cox referred to the recently added red phone booths as iconic, but not everyone agreed.

Fifty years ago obtaining plant material was relatively easy—there were no restrictions as to what could be shipped from overseas. Enthusiasts built collections from correspondence friendships around the world and even foraging trips to places such as Papua New Guinea, where vireyas are found in the wild. Today it's a different story, and with biohazard restrictions [concentrated on potential weediness] strongly enforced at all points of entry to the country, the main opportunity for development of new varieties is local hybridization. Andrew Rouse gave an interesting presentation arguing that plenty of room remained for future vireya hybridization as the vast majority of registered New Zealand hybrids came from less than ten parent species.

Native vireyas are generally found in equatorial climates but two species (*R. lochia* and *virosum*) are claimed by Australia—both originating in northern Queensland. They bear considerable similarity leading to some debate amongst taxonomists as to whether they are truly different. Sue Gardiner, a molecular biologist at the New Zealand Institute for Plant & Food Research, presented recent

DNA research and referred to Townsville University researcher, Mary Gandini's (2002) paper indicating that the genetic variability within one of these species is greater than the difference between the species, heightening the doubt.

Graham Simpson from the Emu Valley Branch in Tasmania and Robert Hatcher from the Mt. Lofty Botanic Garden near Adelaide updated delegates as to the development history of their gardens. Mt. Lofty is run by the Adelaide Botanic Garden. Emu Valley Rhododendron Garden, where the local Branch runs the garden, has recently hired an apprentice gardener to assist the Curator, Maurice Kupsch, and (the aging) volunteers. Comments were similar throughout the chapters that active membership is dwindling and the ability of chapters to complete projects rests upon the bequests received.

As we visited local gardens, we learned what wonderful growing conditions the Dandenongs provide. Volcanic in origin, these mountains provide sufficient elevation to create a frequent temperature differential of 5° C (9° F) from the plains of Melbourne which lie to the west. Cool air and rich soil leads to a “plant it and it will grow” situation. Along with rhododendrons and azaleas, *Waratah* (the local protea) were spectacular and the beds of bluebells and even angled onion weed were eye-catching. Eucalyptus trees, which can reach 61 m (200 feet) in less than 50 years, provide a light canopy and a background of almost white bark as

background against which lush tree ferns provide patches of deep green dense shade.

Every garden we visited was located on a steep slope, often with native bush at the bottom of the hill. We learned that this was important not so much for drainage but for frost protection. Vireyas planted north of a protective wall (i.e., facing the equator) are less likely to get frosted if cold air can run downhill. The proximity of Melbourne also helps with the “urban heat island” effect. In addition, water actually travels uphill because the sponge like nature of the soil pulls water up from the water table below (assisted of course by plentiful rain.)

With so many gardens in a relatively limited area, one of the concerns of the Australian Rhododendron Society for the future is how to protect hybrids from New Zealand and species against potential

loss due to destruction—either by loss of knowledge with changing management or by bush fire. Their solution is to spread these hybrids and species as widely as possible geographically by establishing collections in multiple locations. Parts of South Australia, New South Wales and Queensland are suitable for rhododendron growing, as is much of Tasmania.

If you’ve never attended an Australian Rhododendron convention, you are missing out on a treat. The warmth of the hospitality quickly overwhelmed the frosty temperatures of early spring and the clear sunny days made the gardens just sparkle. A typical conference attracts around 100 people, which means that by the end of four days, you’ve just about talked to everyone in attendance. Local catering includes a BBQ on the last day, an evening banquet—in this case with a

fabulous view of all of Melbourne—and a constant stream of the most delicious home baked goodies you’ve ever seen since your grandmother baked for you. Ginger and date crispy bars, shortbread with cream cheese and apricots, scones with thick cream, etc.—are you ready to sign up for next year yet?

www.ausrhodo.asn.au

Reference

Gandini, M. 2002. An investigation of *Rhododendron lochiaie* F. Muell. its taxonomy, distribution and genetic variance. *Austral. Syst. Bot. Soc. Newsl.* no.111(5).

Diane and Bob Weissman are members of the De Anza ARS Chapter. Bob Weissman is the ARS webmaster.



Tips for Beginners



Noni Godfrey
Courtenay, BC
Canada

(From the Nov., 2010, Rhodoteller, the newsletter of the North Island Chapter)

Coffee Grounds & Fish Compost for Rhodos

The Fall 2007 *Gardenwise* magazine has a good article regarding a good recipe for a mulch for rhodos, camellias and azaleas. In an article aimed at organic gardeners, Sheena Adams has interesting suggestions.

Rhodos use a lot of energy when blooming and then immediately begin producing new growth for the following year’s bloom. So it’s no surprise that many rhodos show signs of yellowing

leaves at this time. A malnourished plant is not only unattractive; it’s also susceptible to pests and diseases.

An easy way to treat—better yet, prevent—this problem is to fertilize rhodos twice yearly, immediately blooming ends, and again in early summer. A controlled-release organic fertilizer is best, since these plants are shallow-rooted, and a high powered chemical fertilizer can easily burn the roots, perhaps even killing the plant.

Rhodos must have acidic soil in order to access and absorb the nutrients, so if your rhodo is in sweet soil, feeding it will be a waste of time and fertilizer. Here is an easy way to mulch, acidify the soil, recycle your coffee grounds and nourish your rhodo, azalea or camellia.

Rhodo Mulch

- * 32-litre or 8 qt. bag of fish compost, such as “sea soil”.
- * 1 cup (250 ml) organic all-purpose fertilizer.
- * ¼ cup (60 ml) Epsom salts.
- * 8 cups (2 l) used coffee grounds

Blend all ingredients and apply a 2” (5 cm) layer to the drip line twice a year, in early spring and early fall.

Another school of thought on Rhododendron Feeding: Feed rhodos four times a year (4-12-20). Once before they flower, once right after flowering, six weeks after that and another six weeks after that. Usually that works out to March, May, July and September. These feedings supply enough nourishment for the entire year and will increase next year’s show and the overall health of the plant. The same is true for camellias.

Regional Musings: District 1



Linda Derkach
Qualicum Beach,
BC, Canada

(From the Nov. 2010 Rhodovine (Mount Arrowsmith Chapter newsletter))

I love the garden at this time of year! In fact, our whole countryside is performing the most magical transformation—taking us from summer into winter with wind and sun and rain and swirling leaves of gold and orange and red!

I am grateful for the tiny but tough *Cyclamen hederifolium* in colours of pink, white and magenta—huge clusters of blooms peaking out from beneath my rhododendrons and delighting all who take the time to look. If you don't have any cyclamen in your garden, look for pots in the spring at plant sales and nurseries—plant under the drip line of your rhodies and you will be delighted by fall. And magically, they keep growing and spreading over the years—but are never invasive. Also delightful in the garden—still—are the many varieties of *Hydrangea*. These wonderful shrubs bloom year after year with little attention except for correct pruning. They begin blooming soon after their rhododendron companions have quit—and provide fabulous colour well into November.

But the piece de resistance is the brilliant performance of many deciduous plants. Especially thrilling are Japanese maples—*Acer palmatum* 'Osakasuki', 'Sango kaku' (Coral Bark Maple), 'Sekka yatsubusa' and 'Shigitatsu sawa'; and *A. palmatum dissectum* 'Waterfall', to name a few. The stunning gold, orange, pink, maroon and red of these leaves are set off beautifully by the dark green evergreen leaves of our rhododendrons. Also exceptional are the golden leaves of hostas—just before they turn to mush. *Hydrangea petiolaris* (climbing hydrangea) is a glowing yellow climbing the fence, and I love the lime-golden leaves of *Cotinus* 'Golden

Spirit'. And if you have a free moment, the drive through [our local forests] is stunning thanks to our native *Acer macrophyllum*, the broadleaf maple.

Nadine Boudreau
Comox,
BC, Canada



(From the Oct. 2010 Rhodoteller (North Island Chapter newsletter))

This year, with the early rain in September, I was able to get a jump on fall clean-up. Many people feel fall marks the end of the season, but to me it is the start for next year. While 'taming the jungle', I move and divide plants that have out grown their spot or did poorly in the heat of summer. I can be ruthless at this time of year, out with any plants that have not lived up to expectations, have become unruly, or are planning a take-over. If left for the spring, with their new growth and freshness, these plants are often given a pardon for another season. Not now, with their bad behavior fresh in my mind, armed with a shovel, order will be restored!

When all is back in order, I usually have to go shopping for a few new additions as well as bulbs. Now is the time to get some new varieties, and there should still be some bulbs available. After planting these new additions, a bit of fish compost is spread around plants that seem to need a bit more nitrogen; then a layer of bark mulch goes over everything.

My garden, as all gardens, is always in a state of transformation. I have been focusing on shrubs, small trees and shade perennials. My love for the old English herbaceous perennials such as phlox, *Solidago*, aster, and the tall Shasta daisies has swayed to the ease of rhododendrons, Japanese maples, ferns, hostas, heucheras and new varieties of perennials that don't require staking and so much dividing. And with these I can overhead water! I don't think I will ever achieve my dream of just going out with a rake and my hand pruners for

my fall clean-up, but I have to have some vision to keep me going.

I am still waiting with anticipation for the many deciduous trees and shrubs to display their fall glory in the garden. I have seen some plants around town showing some nice red and gold leaf colour. These were probably under quite a bit of stress from the hot August weather. I can see a change starting in my Japanese maples and the leaves of my *Viburnum trilobum* 'Compactum' are turning purple-red. Still a bit early and the temperatures are still quite warm.

Two shrubs that are really striking right now, not for their leaf colour, but for their berries are *Skimmia japonica* and *Mahonia nervosa*. *Mahonia nervosa* is a native plant of ours; it grows to two feet (0.6 m) high and up to three feet (0.9 m) wide. The stems can be up to 18 inches (46 cm) long with leaflets branching off. They are glossy green with small spines on the tips. They have a fern look to them. Right now they are producing clusters of vibrant metallic blue berries. These plants make a great woodland ground cover. They are excellent for dry shade. I have some at the base of Douglas-fir trees where I can't seem to grow much else.

The *Skimmia japonica* are loaded with red berries. In the spring I purchased some of these plants (you need both male and female plants for berry production). At that time they were in full flower, and the males are the most beautiful and very fragrant. I remember the blossoms being covered by mason bees. I have them to thank for the large red berries on the female plants. Skimmias make great companion plants for rhododendrons. They like semi-shade with soil on the acidic side. They are compact evergreens, with rich dark glossy leaves. The deer don't seem to like them much and can be quite drought tolerant. Most varieties can grow to five feet (1.5 m), but there are smaller varieties available. These two are great additions for that easy care, but interesting, garden that I am aspiring to!

Rhododendrons in the Current Age

Richard Murcott
East Norwich,
New York



Now that we are ending the first decade of the 21st century, I thought it might be useful to step back a little and try to look at rhododendrons and how they fit in to current society. In 2012 I will celebrate (?) my 50th year anniversary of joining the ARS and growing rhododendrons, so I thought it would be useful personally for me too.

We should start by looking to see how things have changed in society over these last 50 or so years. There have been remarkable changes in the way we live, in rhododendrons and in how people interact with these plants.

The most significant changes in how we live are in electronics. Black and white television gave way to color and now high definition screens. Magnificent color pictures are displayed on 102 x 76 cm (40 by 30 inch) screens with the clarity of a perfectly printed color photograph. Cable and satellite connections allow the viewer to choose from hundreds of stations or to select from a catalog of movies to view “on demand” in their home.

The personal computer started out as a semi-toy not able to do much, but now with its enormous storage capacity and speed they are almost a requirement for the home. Of course connection to the internet is the enormous benefit of the PC. It allows a user to communicate with people all over the world and to access information on any subject almost instantly.

Immediacy is an apt description for current society. No one wants to wait for anything. People have done without an item for years but now when they suddenly want something, they must have

it NOW. At fast food restaurants, you can have a complete meal delivered in two minutes.

Cell phones, a miracle ten years ago, have become blackberries, I-Pods and I-phones. All of these devices have become common place and are now a part of daily living. No one now even considers how miraculous they are!

Well how do all these electronic features of our current way of living affect rhododendrons? Remarkably! To put it succinctly, rhododendrons must compete with these modern electronic devices for the attention of people, and most of the time the plants lose. The desire for immediacy finds itself in rhododendrons too. No one wants small plants that you will have to wait three or so years for to see a flower. Everyone wants to buy plants with flower buds.

Around 1970, membership in the New York Chapter skyrocketed. We used to have an information booth and display garden at the International Flower Show held each year at the Coliseum on Columbus Circle in New York City. One year alone, we took in 150 new members, and we had 450 members in our chapter. And we were not alone in having large active memberships! All plant societies, clubs and civic groups were loaded with members. Most had waiting lists for membership.

This was 25 years after the end of WW II. Returning veterans who had purchased homes in 1944 and 1945 now found themselves with spare time and an improved financial situation. Children had left the home, mortgages were paid off or were so small to be inconsequential

and they had progressed in their jobs and careers. There was very little competition for their spare time, so hobbies abounded, especially horticultural hobbies.

But by 1990, things started to change. All those people who joined the ARS back in 1970 were now retiring. That home that cost them \$5,000 or \$6,000 back in 1945 was now worth \$250,000–\$300,000. Taxes on the home had gone from about \$100 in 1945 to \$5,000 to \$6,000. With fixed incomes, those taxes looked threatening and the house value looked inviting. They began to cash out, selling the home and moving to Florida, Arizona, North Carolina or somewhere where living was easy and inexpensive. ARS chapter memberships began to fall.

The people who moved into these homes had life styles completely different from those who moved out. They were electronically sophisticated with all the electronic gadgets, the PC, I-phone, Blackberry, HD TV, etc. A big mortgage on the home together with the high taxes added to their requirements for income. In order to afford this life style, both husband and wife had to work. Their days and evenings were filled with all sorts of things that had to be done. What little free time they had was devoted to the internet or television. After working all day and not getting home until 6:30 or 7 p.m., they had very little time for meetings of any sort, including an ARS meeting.

But there was something else holding them back from joining any plant society. You see the seemingly simple life of growing rhododendrons is completely alien to their speedy, sophisticated life style, so that they just could not comprehend themselves

getting involved in a horticultural club, any horticultural club.

So that is what we are facing now, a culture that is very busy and super sophisticated using all kinds of gadgets to occupy all of what little spare time they have.

So as you can see, society has changed, but so too have rhododendrons. Just about 50 years ago, nurseryman started experimenting by growing rhododendrons in containers. That has progressed to the point now where virtually all commercially produced rhododendrons are sold as containerized plants. This mode of production has enormous advantages for the nurseryman. By selecting suitable cultivars he is able to produce in two years a plant that would have taken five years to grow in the ground the old fashioned way. Costco was selling rhododendrons in 11 l (three gallon) pots for \$US 19.95 this spring. I counted 40 flower buds on one of the plants. The cultivars being offered were 'Roseum Elegans', 'English Roseum', 'Catawbiense Boursault' and 'Nova Zembla'.

I have written in the past of my opinion of these containerized plants, so I will not revisit my concern with them (Murcott 1997). Someone in the rhododendron group chat room on the internet called these "plants on steroids," which I think is a good description. These plants, purchased in the spring, must be watered every week until late fall and it wouldn't hurt to watch them next year for any signs of desiccation and to respond appropriately. The problem is that the purchaser is not told of the weekly watering requirement of these plants. But I am told that without containerization, there would be no rhododendrons available to the general public, which I guess is true. This means that hybridizers now must not only have unique, hardy hybrids but the plants also must have to respond perfectly to container growing.

The other new feature for rhododendrons, at least in Northeast America, is the increase in the number of

deer. Bambi might be a beautiful animal but she can really destroy rhododendrons. Nature kept the deer population in check with bears and wolves, both of which are gone, at least where I live. Hunting, which is really the only way to keep the numbers down, is not permitted anywhere near homes. You can not grow rhododendrons where there are deer unless you erect a three metre (10') high fence all around the property or have a large dog stationed outdoors at night. Stores sell deer repellents, but I am told they are not very effective.

Probably the most exciting new feature with rhododendrons, which fits right in to modern society and electronic gadgetry, is the internet group or chat room (go to www.yahoo.com, to group, and then type in "rhodo"). It is extremely valuable and using it, you will learn a lot and be able to help others with questions or problems.

The situation with hybridizing the genus is terrific. There are several active hybridizers in the East, all with many beautiful hybrids in their gardens. I know I'll get many people angry with me to say this, but it is really easy to hybridize rhododendrons and get beautiful seedlings. Just cross two Dexter hybrids, such as 'Janet Blair' with any good hybrid and you will get plants with beautiful flowers. They probably won't be too different from those already available, but you will be the proud parent of some great plants. Of course you will have to wait five or six years to see flowers, which flies in the face of the desire to see immediate results.

But few are propagating these great plants from hybridizer's gardens. There are very few rhododendron specialty nurseries, so many hybridizers now simply propagate their own plants and either give them to friends or offer them for sale at chapter plant sales. There is no easy source for purchasing new hybrids from hybridizers who are in different chapters. Many hybridizers hold back their plants, concerned that their name might be associated with a hybrid that,

in the long run, turns out not to be too good. They first want to test the plant in their own garden for several decades. I do respect that thought, but I fear many good plants will be lost upon the death of the hybridizer. I personally don't name plants, I just number them to identify them and make them available to anyone who wants to grow them. If sometime in the future someone wants to name and register the plant, they are welcome to do so.

Also thrown into the mix is the "no more room" factor. Many of our members have now been growing rhododendrons for a long time and have an extensive collection of cultivars. They have run out of room in their gardens for more plants. To add a new plant requires that an existing plant be removed and it can be difficult to decide which plant must go. I know of a garden where its owner had collected all the newest, best hybrids back in the 60s and 70s and had a fabulous garden, a must see on any garden tour. He stopped collecting because he had no more room and couldn't get rid of any of "his children." Over time, some of those newest, best hybrids didn't turn out so well, but remembering the effort he put into acquiring the plants, he just couldn't get rid of any. So he ended up with a collection of overgrown, ho-hum plants that didn't compare with what is available now in the 21st century. The garden became old, outdated and uninteresting.

I can remember back in the late 1960s of a new plant that was named 'Ben Mosely'. Everyone wanted it. It had a flawless reputation—beautiful, large truss, great foliage and leaf retention that gave the plant a dense, full appearance. I was able to beg a cutting of it. I rooted it and after a few years, took cuttings of it and ended up with five or six plants. Well after 35 years, the plants were enormous and took up a third of my front garden. The cultivar that was at one time so revered and desired had lost its glow. Last spring I cut all but one down to make room for new cultivars.

In the good old days, people sought

out and found the nearest ARS chapter and became members. Now things have changed 180 degrees. Chapters must go out and find new members. Even though I have written in the past of my “unease” with rhododendron flower shows, the show is an easy and direct way to attract members (Murcott 2006). Visitors who seem very interested in the entries, or who ask a lot of questions at an information booth should be approached and asked about membership. An offer to visit the garden of someone who is having a problem with their rhododendrons is a

great way to break the ice and get them interested in membership.

Giving talks to garden clubs and civic meetings is another way to introduce the gardening public to rhododendrons. The important thing is that we must do something! Sitting back and doing nothing is inviting slow death.

There is one thing that the ARS offers members that is not found on the internet, television, the blackberry or I-phone. That is interaction with real people, nice knowledgeable people, in person with no electronics between them. And this

is what we must stress. Our goal should be to integrate the study and growing of rhododendrons into our sophisticated society so that people can see that there is as much challenge and satisfaction in being successful with these plants as there is in most other activities they encounter.

References

- Murcott, R. 1997. Containers are murder!. *J. American Rhodo. Soc.* 51(3): 156-157.
- Murcott, R. 2006. Commentary: The species look. *J. American Rhodo. Soc.* 60(2): 70-71.

Neem Oil

(Modified from the B.C. Council of Garden Clubs "The Bulletin," Sept/Oct 2010)

Neem oil Is a vegetable oil pressed from the fruits and seeds of neem (*Azadirachta indica*), an evergreen tree which is native to India but has since been introduced to many other areas of the tropics. Neem oil is generally light to dark brown, bitter and has a rather strong odour that is said to combine the odours of peanut and garlic. It is comprised of mainly tricyclerides and large amounts of triterpenoid compounds which are responsible for its bitter taste.

Neem oil is not used for cooking purposes but is used for preparing cosmetics (soap, hair products, body hygiene creams, hand creams, etc.). It has also been used in traditional

medicine for the treatment of tetanus, urticarial, eczema, scrofula and erysipelas.

Formulations made of neem oil also find wide usage as a biopesticide for organic farming as it repels a wide variety of pests including mealy-bug, beet armyworm, aphids, cabbage worms, thrips, whitefly, mites, fungus gnats, beetles, morth larvae, mushroom flies, leafminers, caterpillars, nematodes and Japanese beetle. It can be used as a household pesticide for ants, bedbugs, cockroaches, houseflies, sand flies, termites and mosquitoes both as a repellent and larvacide. Neem oil also controls black spot, powdery mildew, anthracnose and rust fungus.

Studies done when azadirachtin (the primary active ingredient in neem oil) was approved as a pesticide showed that when neem leaves were fed to male albino rats for 11 weeks, 100% (reversible) infertility resulted. Neem oil and other

neem products such as neem leaves and neem tea should not be consumed by pregnant women, women trying to conceive, or children. Long term use can cause liver damage.

Azadirachtin acts by deterring certain insects from feeding and interferes with the normal life cycle of an insect—feeding, molting, mating and egg laying. Using neem oil allows you to target pests that eat your plants and only kills insects that ingest the sprayed foliage, hence leaving honey bees and lady bugs alive.

Unless consumed, neem oil is not known to be harmful to mammals, birds, earthworms and insects. When applied as a preventative, neem oil should be applied on a seven to 14 day schedule. To control pest or disease already present, it is recommended to apply neem oil on a seven day schedule.

The World in Your Garden, Rhododendrons 2011

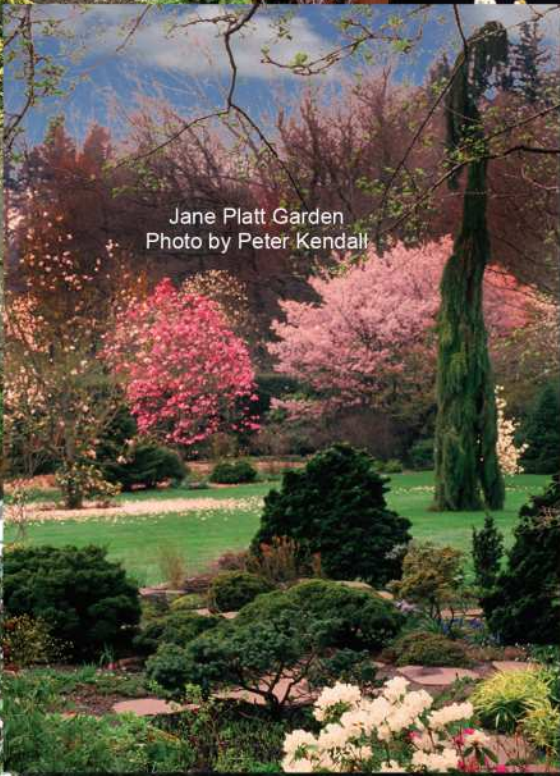
ARS Annual Convention, May 11-15, 2011



Porterhose Arboretum
Photo by Mike Stewart



Heathman Lodge - Photo by Harold Greer



Jane Platt Garden
Photo by Peter Kendall



Dover Nursery
Photo by Mike Stewart



Cecil & Molly Smith Garden
Photo by Donna Sell



Crystal Springs Rhododendron Garden
Photo by Ernie Metcalfe



Maria Stewart
Sandy, Oregon

ARS Annual Convention

Part One - The Venue

Where will you spend part of spring 2011? We know you will want it to be in the Portland/Vancouver area.

Let us eliminate a little confusion. There are two cities named Vancouver in the Northwest. One is in British Columbia, Canada, and the second, though smaller, is a beautiful city in Washington, just across the mighty Columbia River from Portland, Oregon. Vancouver, Washington, is where our host hotel is located. The hotel is only five miles from the Portland International Airport with direct and easy access to all of the Portland, Oregon, metropolitan area, the coast, the mountains and the Columbia River Gorge.

The Oregon chapters of District 4 are hosting this exceptional convention with speakers from around the world. This international convention is designed to educate and entertain while extending your interest in those wonderful plants we so love, rhododendrons and azaleas. The prices are reasonable, the food and companionship are outstanding.

What more could you want? Well maybe a great hotel! The Heathman Lodge could only be described as the ultimate in luxury. This outstanding new hotel is built in the tradition of the Grand Lodges of yesteryear, but with all the amenities of the most exceptional hotel. The Heathman Lodge, where we will host this convention, is a locally owned, one of a kind hotel, managed by the ownership, so it is not just one of a huge corporate chain who counts its customers as just numbers. The personal touch shows in the care they give their guests. You will see the difference the minute you walk through the beautiful front entry. Then you will relax in your

outstanding hotel room! This is not your average hotel!

Why should you attend this convention? The room rates the hotel is offering are some of the lowest in years and we have worked at keeping all other costs reasonable while at the same time offering you exceptional speakers and a wonderful, educational time. Parking at the hotel is also free.

Please refer to the insert in this Journal for complete information about the programs, tours and speakers. You will find some exceptionally enjoyable and educational programs that will make this experience something you will remember for years to come. We will promise good weather as we have a direct line to "Mother Nature," but then again, you never know about "Mother Nature." More often than not, however, she is a friend to the Northwest and rhododendrons!

So get in a plane, get in a train, get in your car, or get on a bus and put the blame on us, as you justify coming to Portland in the beautiful Northwest. This is a "once in a lifetime" event, so reserve your hotel now and send in your convention registration. While this conference is held in a large hotel, and the entire hotel is committed to our group, reserve your room immediately as we expect a complete sellout. A large number of rooms are already sold, but there are still rooms for our friends, so we still suggest making a reservation as soon as you read this article.

Part Two - Gardens to Capture Your Imagination

Come to the Portland area in May 2011 to celebrate "the world in your garden!" During the convention you will have the opportunity to tour many fine gardens. The world class gardens of Crystal Springs Rhododendron Garden, The Cecil and Molly Smith Garden and The Arboretum at Porterhowse along with Dover Nursery are among those that await your visit.

Located on approximately seven acres in a beautiful woodland setting of southeast Portland, the pathways of Crystal Springs Rhododendron Garden wind through more than 2,000 rhododendrons, azaleas and companion plants. The garden offers extraordinary vistas of mature rhododendrons, magnolias and other related plants. Surrounded almost completely by water, supporting a towering grove of trees, featuring three spectacular waterfalls and a high fountain, the site provides a delightful oasis in the city.

The founders of the ARS dreamed of a public rhododendron garden. With the assistance of the Portland Parks Department, Crystal Springs Rhododendron Garden was established in 1950 as a test area for rhododendrons, azaleas and ericaceous plants. The testing was subject to the rules of the American Rhododendron Society and awards were granted to worthy varieties. Thus, while conducting a scientific project, the public was educated as well.

Today, Crystal Springs continues to be planted, structurally improved and maintained by the Portland Chapter and many volunteers. It is no longer used for testing, but it provides a serene venue for thousands of visitors each year. Addition-

ally, the Portland Chapter holds two truss shows and plant sales there each year. The first show and plant sale of the spring is on the first Saturday in April and the second show and plant sale is on Mother's Day weekend. The rhododendrons are in bloom from early March through the middle of June with the peak bloom coinciding with Mother's Day weekend through the following weekend when you will visit.

More visual treats await your visit to the Cecil and Molly Smith Garden. A canopy of native Douglas firs creates an ideal environment for a natural woodland garden of rare beauty, featuring superior forms of species and hybrid rhododendrons. Complimenting the rhododendron collection are choice trees, shrubs, wildflowers and bulbs. Each pathway reveals its own treasure: a moss covered log with plants tucked into bark crevices, a fern garden, and drifts of wildflowers. Masses of cyclamen, narcissus, erythronium and trillium flourish here, all perfect companions to a rare collection of rhododendrons. Volunteers from the Portland, Tualatin Valley and Willamette Chapters keep the garden maintained and beautiful.

The Cecil and Molly Smith Garden positively reflects the lives of a couple who generously left a rhododendron legacy for future generations to enjoy. Cecil and Molly were the founders and developers of what has become an internationally renowned garden. Cecil started collecting rhododendrons in the late 1940s and he became an early member of the ARS in 1947. In his hybridizing, Cecil directed his efforts to creating plants with fine foliage and great flowers.

Rhododendrons are the garden's featured plants. Cecil was among the first to grow *R. yakushimanum* and *R. bureavii* and to use them in his hybridizing. He combined these two species and produced 'Cinnamon Bear', the signature plant of the garden. A number of his crosses are still found in the trade, including 'Noyo Brave' and 'Yellow Saucer.'

The Jane Platt Garden is a gem of a

private garden. Containing more than two acres of special plants, this well cared for garden has flowing lawns and a magnificent rock garden. Jane Platt insisted her husband John hire a crane and trucks to haul the rocks in for the garden from a quarry somewhere around Mount Hood, (the local rock would not do) so you know that in this garden there is attention to every detail.

One exceptional horticulture tour for those loving special rhododendrons and conifers will be the tour to Dover Nursery and the Arboretum at Porterhowse. For rhododendrons, at Dover Nursery you will be charmed by one of the most exceptional collections of rhododendrons in the country. Acres of perfectly planted and cared for plants will delight you. At the same time, you will see the newest hybrids from hybridizers on both the East and West Coast along with one of the largest collections of commercially grown species anywhere. There is also a delightful display garden with many mature plants under a canopy of native fir trees with a outstanding view of Mount Hood in the background. With beautiful Mount Hood as a backdrop, this is the perfect setting for this wonderful garden and nursery. This is a most extraordinary location with fabulous rhododendrons.

The Arboretum at Porterhowse reflects 25 years of plant collecting by self-proclaimed "plant addict," Don Howse. More than 2,000 conifer species and varieties are represented in his five-acre garden and arboretum near majestic Mt. Hood. The conifers are complimented with a wide array of companion plants that include: Many unusual succulents, exotic broad leaf trees, shrubs, colorful perennials, annuals, flowering bulbs, ornamental grasses, bamboo, alpine and rock garden gems, and aquatic and bog plants. Connecting trails wind among mature specimen trees, beds of dwarfs and miniatures, through woodland settings, past springs and ponds and on to a steep rocky hillside giving the visitor the opportunity to see maturing conifers and companion plants

in a variety of surroundings.

In addition to the gardens at Porterhowse, there are display benches with bonsai plants, potted specimen plants and alpine cushions to see. Visitors are welcome to stroll through the gardens in and around the residence and among the greenhouses.

Many other public and private gardens and nurseries will be included in a variety of exciting tours. District 4 and Portland, the Garden City of the Northwest, look forward to seeing you in May for the ARS Annual Convention.

For more information, see
www.rhodies.org
www.porterhowse.com

Convention Registration Form at Centerfold of this Issue

Rhododendron of the Year Awards, 2011

Northeastern Region



'Janet Blair'. Photo by C. White.



'Ginny Gee'. Photo by R. Knight.



R. cumberlandense. Photo by K. Bernady.



'Rosebud'. Photo by H. Greer.

Mid Atlantic Region



'Brown Eyes'. Photo by G. Cerini.



'Molly Fordham'. Photo by H. Greer.



R. prunifolium. Photo by D. Hyatt.



'Tina's Whorled'. Photo by B. Clagett.

Southeastern Region



'Solidarity'. Photo by D. Hyatt.



'Mary Fleming'. Photo by J. Bouchard.



'My Mary'. Photo by D.C. Royster.



'Mary Ann Egan'. Photo by H. Greer.

Great Lakes Region



'Rona Pink'. Photo by H. Kline.



'Mary Fleming'. Photo by J. Bouchard.



'Mount Saint Helens'. Photo by H. Greer.



'Helen Curtis'. Photo by E. Reiley.

South Central Region



'Brown Eyes'. Photo by G. Cerini.



'Landmark'. Photo by R.W. Mezitt.



R. austrinum. Photo by S. Krebs.



'Martha Hitchcock'. Photo by P. Littlefield.

Northwestern Region



'Lem's Cameo'. Photo by H. Greer.



'Bob's Blue'. Photo by H. Greer.



R. luteum. Photo by E. Philp.



'Girard's Fuchsia'. Photo by H. Greer.

Rhododendron of the Year Selections, 2011

Ray Smith

ARS Plant Awards Committee Chair

Glenwood, Maryland

The ARS Plant Awards Committee has selected the Rhododendron of the Year awards for 2011. Because of climate differences, the committee selects plants for seven regions: an elipidote, a lepidote, a deciduous azalea and an evergreen azalea. The Vireya/Swisher Award is given to a vireya rhododendron.

The first criterion is that the plant performs well in the region, even for a novice. The plant has to exhibit good form, foliage and flowers, to prove itself cold and heat hardy for the region, and to show resistance to pests and diseases. In addition, the plant must be available in the nursery trade and the name registered by the International Cultivar Registration Authority.

NORTHEASTERN REGION

'Janet Blair': Elepidote Rhododendron (Dexter hybrid × Unknown). A vigorous and good-looking plant having frilled, light pink flowers with a golden bronze flare on the upper petal; cold hardy (-15° F) (-26° C) and heat tolerant and an excellent parent plant; well-branched, with a mounding habit and glossy green foliage, growing to 6' (1.8 m) in ten years; a Leach introduction of a Dexter hybrid formerly known as 'John Wister.'

'Ginny Gee': Lepidote Rhododendron [*R. keiskei* (prostrate form) × *R. racemosum* (Forrest 19404)]. Two-toned pink and white flowers, changing in color daily as they fade to white, totally cover this dense, compact plant in the early spring; heat and drought tolerant with small dark green leaves turning a lovely dark maroon in the winter; dwarf, growing to 2' (0.6 m) in ten years, hardy to -10° F (-23° C), Warren Berg hybrid, recipient of the ARS Superior Plant Award (Northwest) in 1985.

***R. cumberlandense*:** Deciduous Azalea. Often still referred to as *R. bakeri*, the

Cumberland azalea starts blooming as spring turns to summer, after the 3" long leaves have developed; funnel shaped flowers about 1½" (3.8 cm) or a little larger, yellowish orange to deep red, with an occasional yellow, held in a truss of 4–7; upright and spreading plant with a large variation in height, ranging from 1–2' (0.3–.6 m) to 5–6' (1.5–1.6 m) and sometimes even taller; hardy to -15° F (-26° C), preferring full sun in the north but partial shade in the south; a bushy shrub that can be spectacular in the landscape; native to the open wooded slopes of the hardwood forests of the Appalachian Mountains, from extreme southwest Virginia, into the Cumberland Plateau in Kentucky and Tennessee, south through the mountains of North Carolina, Georgia, and Alabama; hybridizes easily with *R. arborescens* and *R. viscosum*, producing beautiful hybrids in a broad range of colors, most notably on Gregory Bald, on the Tennessee-North Carolina border.

'Rosebud': Evergreen Azalea ('Louise Gable' × 'Caroline Gable'). This Joe Gable hybrid derives its name from the opening buds' resemblance to rosebuds; deep purplish pink, double hose-in-hose flowers in late midseason; a slow grower, with a dense, spreading habit, reaching 4' (1.2 m) in 25 years; glossy green leaves and hardy to -10° F (-23° C); received the Award of Merit in 1972 and the First Class Certificate in 1975 from the RHS; often confused with the taller and faster growing 'Lorna', a Gable hybrid from the same cross.

MID ATLANTIC REGION

'Brown Eyes': Elepidote Rhododendron (possibly a *R. fortunei* hybrid). Excellent, all-around plant with wavy-edged, funnel-shaped pink flowers with a golden brown or bronze flare on the upper lobes; an

upright grower with a spreading habit and deep green foliage; heat tolerant and hardy to -20° F (-29° C), blooms mid-season; a large growing plant like most of Dexter's, reaching 6' (1.8 m) or more in ten years; a Dexter hybrid named by Paul Bosley.

'Molly Fordham': Lepidote Rhododendron ('Balta' (s) × white flowered *R. minus* Carolinianum Group). Beautiful white rain-resistant trusses nearly cover the plant, blooming a little later than the PJM Group; may have a slightly pink tone in a cold spring or a shady location; glossy dark green foliage on an upright and relatively compact plant reaching 3–4' (0.9–1.2 m) in ten years, growing nearly as wide as tall; hardy to -20° F (-29° C); another great Ed Mezitt/Weston Nurseries hybrid.

***R. prunifolium*:** Deciduous Azalea. The Plum Leaf Azalea is one of the last native azaleas to bloom, opening in late summer when the flower buds for the next season are already formed; funnel shaped flowers varying in color, primarily orange to vivid red, 2" (5.1 cm) across, held in clusters of 5–8, with very long stamens; flowers attractive to hummingbirds; completely hairless, dark green oval leaves up to 5" (13 cm) long; a large plant, growing up to 15' (4.6 m) tall and spreading 6–8' (1.6–2.4 m) in the wild, usually smaller in cultivation; one of the easier native azaleas to propagate by cuttings; hardy perhaps as low as -15° F (-26° C), certainly into Zone 5; afternoon shade or a semi-shady woodland situation is best, the shade prolonging the flowers during hot summer months; the rarest eastern native azalea, first collected by R.M. Harper near Cuthbert, Georgia, in 1913; has a limited, vulnerable range in the wild, growing along the southern Alabama-Georgia border in the densely wooded ravines and steep stream banks of the Chattahoochee River Valley; in danger of extinction in the

wild and listed as threatened by the state of Georgia; perhaps the best natural stand is in Providence Canyon near Lumpkin, Georgia; easier to reach are the fine stands at Callaway Gardens in Pine Mountain, Georgia, which considers *R. prunifolium* its “floral emblem.”

‘Tina’s Whorled’: Evergreen Azalea (‘Koromo-shikibu’ (s) × *R. indicum* hybrid). Strikingly different with strong reddish-purple strap-like petals held in a whorl; grows about as wide as tall, reaching 2–3’ (0.6-0.9 m) in ten years; blooms in mid-season and hardy to -10° F (-23° C); one of the best of Buck Claggett’s Bowie Mill hybrids, named for his wife.

SOUTHEASTERN REGION

‘Solidarity’: Elepidote Rhododendron (*R. yakushmanum* × ‘The Honourable Jean Marie de Montague’). A heavy, midseason bloomer whose red buds turn into 3” flowers of red, pink, and white, changing as they mature; has large dome-shaped trusses of wavy-edged flowers and excellent dark green foliage with a very light tan indumentum; a heat and sun tolerant plant hardy to -15° F (-26° C), growing to 5–6’ (1.5-1.6 m) in ten years, perhaps a little wider than tall; named by hybridizer Hank Schannen’s mother for the Polish labor movement, turning down the opportunity to have it named for herself, saying “No one will buy a rhododendron called Wanda Pipchinski.”

‘Mary Fleming’: Lepidote Rhododendron [*(R. racemosum* × *R. keiskei*) × *R. keiskei*]. Generally a low and spreading compact plant, reaching perhaps 3’ x 5’ (0.9 x 1.5 m) in ten years; wavy-edged light tan flowers with blotches and streaks of salmon, tending more toward the pinkish coloration if the plant receives more sun; tolerates both sun and heat, blooms early midseason, and hardy to -15° F (-26° C); small dark green leaves, with a bronze color when new and returning to this shade in the fall; named for a very active ARS member in the New York-New Jersey area and a close friend of hybridizer Guy Nearing; 1973 ARS Award of Excellence.

‘My Mary’: Deciduous Azalea (‘Nacoochee’ × *R. austrinum*). Excellent dark green foliage on a multi-stemmed stoloniferous shrub, rounded in shape; large, strongly fragrant brilliant yellow, funnel-shaped flowers (2 ½” (6.4 cm) across) with orange tubes; the wavy-edged flowers, with up to 25 in a truss, bloom in the early midseason; hardy to -10° F (-23° C) and perhaps lower, and grows to 3–5’ (0.9 x 1.5 m) in ten years; Transplant Nursery founder George Beasley’s tribute to his wife, Mary, who passed away in the summer of 2010.

‘Mary Ann Egan’: Evergreen Azalea (‘Amagas’ (s) × ‘Grace Freeman No. 2’). Funnel-shaped, single white flowers, with wavy lobes edged with a solid reddish-orange band; ¾” (8.3 cm) flowers in early mid-season; has a dense habit, reaching about 2’ x 3’ (0.6 x 0.9 m) in ten years; moderate olive green leaves turning a mix of colors in the fall and hardy to -5° F (-21° C); has been available for many years, but has only recently been registered; one of many hybrids by the recently deceased James Harris of Lawrenceville, Georgia.

GREAT LAKES REGION

‘Rona Pink’: Elepidote Rhododendron (unknown parentage). Very floriferous, with fragrant, dome-shaped trusses of 12–14 funnel shaped flowers 3” (7.6 cm) wide covering the plant in midseason; wavy-edged purplish-pink blossoms with lighter shading on midribs and sparse yellow-green spotting on dorsal lobe; has a spreading habit, growing wider than tall, to 6’ x 9’ (1.8 x 2.7 m) in 20 years; dark green foliage and hardy to -15° F (-26° C); a Dexter hybrid selected by Tom Koenig of New Jersey in the 1960s from a group of unlabeled Dexter cuttings.

‘Mary Fleming’: Lepidote Rhododendron [*(R. racemosum* × *R. keiskei*) × *R. keiskei*]. Generally a low and spreading compact plant, reaching perhaps 3’ x 5’ (0.9 x 1.5 m) in ten years; wavy-edged light tan flowers with blotches and streaks of salmon, tending more toward the pinkish coloration if the plant receives more sun;

tolerates both sun and heat, blooms early midseason, and hardy to -15° F (-26° C); small dark green leaves, with a bronze color when new and returning to this shade in the fall; named for a very active ARS member in the New York-New Jersey area and a close friend of hybridizer Guy Nearing; 1973 ARS Award of Excellence.

‘Mount Saint Helens’: Deciduous Azalea (‘Cecile’ × unnamed Knap Hill azalea). Large ball-shaped trusses open from rose-colored buds; bright pink flowers have upper petals with large yellow-orange flares gradually deepening to bright red-orange, giving the flower a tri-color appearance; the ½” (6.4 cm) flowers are widely funnel-shaped, with wavy lobes; moderate yellowish-green leaves turn a beautiful orange-yellow in the fall; hardy to -25° F (-32° C); a well-branching, upright plant growing to 6’ (1.8 m) that is both showy and fragrant; a Peter Girard hybrid.

‘Helen Curtis’: Evergreen Azalea (‘Desiree’ × ‘Rosebud’). One of many Tony Shammarello hybrids from the shore of Lake Erie near Cleveland, Ohio; blooms in the late-midseason with frilly, semi-double white flowers, ½” (6.4 cm) across; glossy, yellow-green leaves retained for two years on a dwarf plant with a mounded habit, wider than tall and reaching 2’ (0.6 m) in ten years; hardy to -20° F (-29° C).

SOUTH CENTRAL REGION

‘Brown Eyes’: Elepidote Rhododendron (possibly a *R. fortunei* hybrid). Excellent, all-around plant with wavy-edged, funnel-shaped pink flowers with a golden brown or bronze flare on the upper lobes; an upright grower with a spreading habit and deep green foliage; heat tolerant and hardy to -20° F (-29° C), blooms mid-season; a large growing plant like most of Dexter’s, reaching 6’ (1.8 m) or more in ten years; a Dexter hybrid named by Paul Bosley.

‘Landmark’: Lepidote Rhododendron (‘Counterpoint’ × Carolina Rose Group). Seen from afar, this is the elusive red lepidote; closer observation shows the compact, dome-shaped trusses of wavy-

Rhododendron of the Year (continued)

Southwestern Region



'Fort Bragg Glow'. Photo by D. McKiver.



'Fragrantissimum'. Photo by D. McKiver.



'Hotspur'. Photo by H. Greer.



'Hino-Crimson'. Photo by D. Hyatt.

Vireya/Swisher Award



'First Light'. Photo by S. Bertelmann.

edged flowers to be purplish-red; a vigorous upright grower (4' (1.2 m) in ten years), covered with flowers in the early spring and excellent bronze- mahogany color in winter; hardy to -20° F (-29° C) and very sun-tolerant; among the last of Ed Mezitt's crosses from Weston Nurseries.

R. austrinum: Deciduous Azalea. Known variously as the Flame Azalea, Florida Azalea, or the Florida Flame Azalea; native to the Florida panhandle and nearby areas of Georgia, Alabama and Mississippi; discovered by Dr. A. W. Chapman before 1865 and now listed as endangered in Florida; similar to *R. canescens* in many ways, but differing in flower color, being in the yellow-orange range rather than pink and white; very fragrant blooms attractive to butterflies and hummingbirds appear in shades of yellow, gold, and orange in the early spring, about the same time as the leaves appear; has medium green leaves covered with a soft fuzz on both the top and bottom; drought resistant once established, and one of the easiest of the native azaleas to grow; widely used as an excellent landscape plant; has an open growth habit, with a spread about half its height; reaches 10' (3 m) in the wild, but will often remain smaller in the garden; hardy to -15° F (-26° C), yet the most heat tolerant of the native azaleas; this tolerance of a wide temperature range makes it valuable for hybridizers, and it is

often crossed with other deciduous azaleas to increase their heat tolerance.

'Martha Hitchcock': Evergreen Azalea (*R. mucronatum* × 'Shinnyo-no-tsuki'). Midseason 3" (7.5 cm) white flowers edged strong purplish red; younger plants or shoots may produce variant flowers, often purplish-pink solids; hairy, dark dull green leaves on a plant with a broad and spreading habit, growing to 4' (1.2 m) in ten years; hardy to -15° F (-26° C), a Ben Morrison/Glenn Dale hybrid introduced in 1948; Award of Merit in 1972 and First Class Certificate in 1976 from the RHS.

NORTHWESTERN REGION

'Lem's Cameo': Elepidote Rhododendron (Dido Group × 'Anna'). A prolific mid-season bloomer from a young age, with excellent bright, bronzy red or mahogany new foliage maturing to a deep shiny green in summer; deep purplish-pink buds, opening to ruffled flowers, strong purplish-pink at edges with a light yellow-pink throat and a small vivid red blotch at the base of the dorsal lobe; a well-branched plant with stout branches holding the large dome-shaped trusses of up to 20 flowers upright; grows to 5' (1.5 m) in ten years and hardy to 0° F (-18° C); an excellent parent, but difficult to propagate, perhaps limiting its distribution; a multiple award winner [Superior Plant Award (Northwest) 1971 from the ARS, Award of Merit 1987 and First Class Certificate in 1991 from the RHS] and one of the best of Halfdan Lem's many outstanding hybrids.

'Bob's Blue': Lepidote Rhododendron ('Ilam Violet' (s) × Blue Diamond Group). Compact and upright plant sometimes described as having an "electric blue" flower; very floriferous, early-midseason blooms with trusses of funnel-shaped, light violet flowers; the small dark green leaves turn to maroon or bronze in the fall; grows to 3' (0.9 m) in ten years, hardy to 0° F (-18° C); hybridized by Bob Rhodes of British Columbia.

R. luteum: Deciduous Azalea. Europe's only native azalea, occurring from southern

Poland and Austria, south through the Balkans and east to southern Russia and the Caucasus; can be a difficult weed in its native range, spreading with underground runners, invading and reducing the productivity of pastures; very popular throughout Europe and has naturalized in much of Great Britain, especially in wet heaths and bogs; not reported to be the problem that *R. ponticum* has become; strongly fragrant, 2" (5.1 cm) bright yellow tubular-shaped flowers with a darker yellow blotch open before the leaves; a vigorous, open, upright shrub, reaching 4' (1.2 m) in ten years, hardy to -10 F° (-23° C); the oblong leaves up to 5" (12.7 cm) in length turn gorgeous shades of yellow, orange, red, and even purple for a month or two in autumn; likely source of the honey that sickened 10,000 Greek soldiers on their return journey from Persia in the 4th Century BC, as reported by Xenophon in his *Anabasis*; sometimes called the honeysuckle azalea or azalea pontica.

'Girard's Fuchsia': Evergreen Azalea [(‘Herbert’ × ‘Girard’s Hot Shot’) × ‘Sandra Ann’ (s) × ‘Sandra Ann’]. An attractive, bushy plant covered with deep reddish-purple, ruffled flowers 3" (7.6 cm) across in midseason; a compact grower, reaching 3' (0.9 m) in ten years; shiny, dark green foliage turning a gorgeous dark red adds interest in the winter; hardy to -15° F (-26° C); Peter Girard hybrid from the lake shore of northeast Ohio.

SOUTHWESTERN REGION

'Fort Bragg Glow': Elepidote Rhododendron (‘Ruby Bowman’ × *R. elliotii*). An early midseason bloomer with wavy-edged, strong purplish-red flowers, becoming dark red deep in the throat with dark red spotting on all lobes; the funnel-shaped flowers, 5" (12.7 cm) across, are held in a ball-shaped truss of 11–14; has a rounded habit with 6" (15.2 cm) long olive green leaves; grows to 7' x 9' (2.1 x 2.7 m) in 15 years and hardy to 15° F (-9° C); hybridized by John S. Druecker of Fort Bragg, California.

'Fragrantissimum': Lepidote Rhododen-

dron (*R. edgeworthii* (s) × *R. formosum*). Pink-tinged buds open to funnel-shaped white flowers up to 4" (10.1 cm) across with a hint of pink and a greenish throat with wavy-edges; very leggy plant that benefits from pruning and is perhaps best when trained as an espalier; quite tender, being hardy only to 15° F (-9° C); one of the most fragrant of shrubs and the spicy fragrance of its early mid-season blooms makes it worthy of a place in the garden; in cooler climates, said to do well in a conservatory or cool greenhouse or kept in a container and moved inside for the winter and brought out when the weather warms up; mid-19th century Rollisson hybrid from England; awarded the First Class Certificate by the Royal Horticultural Society in 1868.

'Hotspur': Deciduous Azalea (unknown parentage). Large 4" (10.1 cm) wide deep orange-red flowers with frilly edges and a yellowish blotch in the throat held in a ball-shaped truss; blooms late midseason and has proven to be hardy to -15° F (-26° C); reddish or bronzy new foliage on an upright grower, reaching 6' (1.8 m) or more in 10 years; part of the Hotspur Group that covers a wide range of colors; Rothschild hybrid from early 20th century, received the Award of Merit from the RHS in 1934.

'Hino-crimson': Evergreen Azalea (‘Amoenum’ (s) × ‘Hinodegiri’). Kurume hybrid widely planted throughout the United States; sun tolerant plant, compact and low to medium growing, often with a mounded habit; the small, vivid red flowers in a lax globular truss hold their color well; has glossy green leaves becoming dark red in autumn; blooms early mid-season and is hardy to -10° F (-23° C); a Vermeulen hybrid from New Jersey that received the Award of Merit from the Royal Horticultural Society in 1974.

VIREYA/SWISHER

'First Light': (Unknown × *R. jasminiflorum*). A compact lepidote with a bushy growth habit, growing to 4' x 3' (1.2 x

0.9 m) in ten years; strong purplish pink flowers with a lighter tube and central line down each lobe; fragrant ruffled flowers held in a truss of 10-16; shiny dark green mature leaves, with greyish brown scales on both surfaces when young; a very good repeat bloomer that handles all conditions of shade or sun and needs little care; hybridized by Tom Lelliott, one of the early breeders of vireyas in Australia.

Nursery Sources for ROY Plants

The nurseries that advertise in this issue of the journal carry many of the Rhododendron of the Year plants. See their advertisements in the back pages of this issue of the journal.

Once A Coveted Shrub, Now an Invasive Weed...

Marilyn Holt and Wikipedia

(Reprinted from the Victoria ARS Newsletter, and with permission from The Bulletin, B.C. Council of Garden Clubs, January/February 2010 edition)

Recognize this shrub? Think red stems, jointed like bamboo but with wide green leaves. I have heard this referred to as 'wide leaf bamboo' but in actual fact it is Japanese knotweed. Notice the last four letters of the name, WEED! The Latin name for this plant is *Fallopia japonica*, syn. *Polygonum cuspidatum*. This is a large herbaceous plant native to eastern Asia—namely Japan, China and Korea. Japanese knotweed has hollow stems with distinct raised nodes that give it the appearance of bamboo, though it is not closely related. While stems may reach a maximum height of 3–4 m each growing season, it is typical to see much smaller plants in places where they sprout through cracks in the pavement or are repeatedly cut down. The leaves are broad oval with a truncated base, 7–14 cm (2.8–5.5 ") long and 5–12 cm (2–4.7 ") broad, with an entire margin. The flowers are small, creamy white, produced in erect racemes 6–15 cm (2.4–5.9 ") long in late summer and early autumn.

Japanese knotweed is closely related to giant knotweed (*Fallopia sachalinensis*), and is of the same family as rhubarb, sorrel and buckwheat. It is an "introduced species," being brought to Europe from Asia in the 19th century as an ornamental exotic plant for animal feed and, not surprisingly because of its ease to colonize, to prevent erosion of soil. When introduced as a garden plant, it was granted awards for being an excellent specimen, but soon lost favour when its thuggish behaviour was realized. Other names for Japanese knotweed include Mexican bamboo, American bamboo, Japanese bamboo, fleece flower, sally

rhubarb, donkey rhubarb, pea shooters, elephant ears, monkey weed, Hancock's curse, Huzhang, crimson beauty and wild rhubarb.

No matter what it is called, this shrub has become invasive in more countries than Canada. In the U.S.A. and Europe, Japanese knotweed is widely considered an invasive species or weed. It is listed by the World Conservation Union as one of the world's 100 worst invasive species. It is a frequent colonizer of temperate riparian (land adjacent to streams) ecosystems, roadsides and waste places. It forms thick, dense colonies that completely crowd out any other herbaceous species and is now considered one of the worst invasive exotics in parts of the eastern United States. It can be found in 39 of the 50 United States and in six provinces in Canada. It is listed as an invasive weed in Ohio, Vermont, Virginia, New York, Alaska, Pennsylvania region and Washington State. The species is also common in Europe.

In the UK it was made illegal to spread Japanese knotweed by the Wildlife and Countryside Act 1981. It is also classed as "controlled waste" in Britain under the Environmental Protection Act 1990. This requires disposal at licensed landfill sites. The speed at which Japanese knotweed has spread throughout Britain has been nothing less than spectacular. It thrives in Britain's mild climate and has caused major damage to commercial and domestic sites. It now occupies a site in every ten square kilometres of England and Wales and is also present to a lesser extent in Scotland, Ireland and other parts of Europe.

It has successfully invaded the Canadian countryside, partially because of its tolerance to a very wide range of soil types, pH and salinity. Its rhizomes can survive temperatures of -35°C (-30 degrees F) and can extend seven metres (23 ft)

horizontally and three metres (9.8 ft) deep, making removal by excavation extremely difficult. If sprayed with herbicide, the rhizomes can remain dormant for upwards of twenty years until threat of extinction is past, then will resume growing. The plant is also resilient to cutting, vigorously re-sprouting from the roots. The aggressive growth pattern is capable of invading engineered structures such as concrete, tarmac, brick walls and foundations. Soil and waste containing Japanese knotweed is deemed to have the potential to cause ecological harm and is a threat to native plants and has impacts on landscape, wildlife and natural vegetation. Small sections of knotweed rhizomes can break off and be carried by water downstream to start a new infestation. So far only commercial developments have realized the commercial and environmental significance of this invasive weed, but it is only a matter of time before even the grass in your garden is affected.

Eradication

Trying to get rid of Japanese knotweed has become a global quest and many different eradication methods have been tried. Here are a few:

- Herbicide application close to the flowering stage in late summer or autumn. In some cases it is possible to eradicate Japanese knotweed in one growing season using only herbicides (tilting at windmills here I think).
- Trials in Haida Gwaii [previously the Queen Charlotte Islands] of British Columbia using sea water sprayed on the foliage have demonstrated promising results, which may prove to be a viable option for eradication where concerns over herbicide application are too great.
- Two biological pest control agents that show promise in the control of

the plant are the psyllid *Aphalara itadori* and a leaf spot fungus from genus *Mycosphaerella*.

- Cutting back the stems and then placing heavy mulch in the form of carpeting and heavy plastic over the entire site will discourage growth. As previously mentioned, the rhizomes can remain dormant for upwards of 20 years before initiating regrowth when the mulch is removed.

The method easily available to us is to use a herbicide. I know, many of you do not like to use herbicides but I believe in this case, and in the method I describe below, you may deem it acceptable.

First the herbicide of choice is one that is high in glyphosate, as it is the best herbicide to use for Japanese knotweed because it is a “systemic” (penetrates the plants and goes down to the root system). Glyphosate is available under several trade names—all label the product as a “weed and grass killer,” i.e., Roundup. Commercial glyphosate concentrates contain approximately 20%–40% glyphosate; the balance is mostly water. Such concentrates need to be diluted in water. The most effective spraying solution contains about 5%–10% glyphosate in water. (To make a 5% solution from a 40% concentrate, mix 1 part concentrate with 7 parts water.) Ready-to-use solutions that contain less than 5% glyphosate are too weak and do not work.

Now, here is where I tell you NOT TO SPRAY the plants. My method takes a little more time, but is less likely to damage any other plant or the environment. I will explain. I have read numerous articles on how to get rid of this major weed and in one they mentioned using a herbicide “injector” to feed the killing agent straight to the rhizomes. Unfortunately this injector is approximately \$300.

I guess the injector idea really took hold in my mind. About a week later as I was walking through the Buckerfield’s Country store in Abbotsford, BC, I noticed a huge syringe that is sold for use on cattle. Nearby was a huge needle,

also used to go through the tough hides of cows. An idea was born! A home-made herbicide injector. I bought a package of syringes (they only came in three to the package, not in singles) and a needle (they came separately). My total expense not quite \$5.00.

Now, I don’t have Japanese knotweed on my property but I do have the next worst thing—blackberries [Editor’s note: in Victoria, the huge invasive, non-native blackberry plants (*Rubus armeniacus* (syn. *Rubus discolor*)) are usually called Himalayan blackberries] which are just as hard to eradicate. Applying the principal of the injector, I mixed up Roundup Super Concentrate to slightly higher than the recommended spray strength—15%, cut back the blackberry canes to about 15 cm (six inches) off the ground, then injected the herbicide right into the canes. This was in mid August. What was left of the canes turned brown, then black. No new growth came back up and it actually looks like this method worked. It has been sixteen weeks and I do not see any green shoots emerging. Of course, I can’t be totally sure until spring but if I have to repeat the process again, I will do so.

Principle to Eradicating Weeds

The main principle to eradicating stubborn weeds is not to allow them to feed their root system. This means not letting them make any new growth. Be diligent about this! When spraying with a herbicide, it is always recommended to

repeat the spraying process in three weeks, again knocking back any new growth and to repeat this process as long as you see regrowth. This should also be done when injecting the herbicide into the stems of plants. From everything I have read, the best time to try and control these plants is in the fall when they are trying to build up their food stores for spring.

Since I have tried this method, I have mentioned it to several Buckerfield’s customers trying to eradicate blackberries and others have had the same positive results. Hopefully in the spring there will be minimal, and if I am lucky, no regrowth of those nasty blackberry canes in the three spots in my yard. Remember, as with Japanese knotweed, blackberries are just as stubborn, so you must remain vigilant to any regrowth and knock it back fast.

[Editor’s note: Apparently in a previous life, I foolishly established knotweed near one of my ponds, and it is now aggressively spreading widely. I have decided to eliminate it, and tried the injection method described above. Knotweed has a hollow stem, like bamboo, so I squirted a liberal doze of Roundup into the hollow centre of each of a number of cut stems. I could get much more into them than into some of the solid core blackberry stems invading from outside my property, which I also injected. A month later, the injected stems I believe have died, although I am not sure how far the underground rhizomes have died back. I guess only time will tell!]

**See knotweed photos
on page 58.**



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NALS Executive Secretary, PO Box W, Bonners Ferry, ID 83805

Book Review

Hybrids and Hybridizers, Rhododendrons and Azaleas for Eastern North America
Edited by Philip A. Livingston and Franklin H. West, 1978, \$10.

Margot West, wife of Franklin H. West, generously contributed to the ARS a number of mint copies of the book *Hybrids and Hybridizers, Rhododendrons and Azaleas for Eastern North America* in honor of her late husband. Dr. West co-edited the book along with Philip A. Livingston and helped author chapters within it. Molly Grothaus reviewed the book in the year of its publication and her review article follows. This book has been a treasure of information on Eastern North American rhododendron pioneers and a must read for anyone embarking on a hybridization program. It is at times the only resource for descriptions of rare hybrids, which one encounters occasionally in exploring gardens and arboreta.

In his introduction to *Hybrids and Hybridizers*, David G. Leach wrote, "This book constitutes a unique record of hybridizing rhododendrons in the eastern United States. Its like is not to be found for this or any other genus, at any other time, in any other place, in the history of horticulture. In the scope of its concept and the comprehensiveness of its execution, it stands alone. It is an enduring account of an American revolution in garden rhododendrons designed to replace the mid-nineteenth century hybrids of the British, and of the evolution of hybrid azaleas which more fully reflect the best qualities of their wild forebears." David's words still ring true today.

The book and Dr. West have had an even larger impact on North American rhododendrons. Mike Stewart relates that after publication of *Hybrids and Hybridizers*, Franklin West challenged West Coast rhodophiles to produce a

book celebrating the accomplishments of the western pioneers. That challenge was met with publication of *The Pacific Coast Rhododendron Story, The Hybridizers, Collectors and Gardens* in 2001. When Mike called to let him know the book was completed, Franklin gave his generous financial support to publication of the book.

We thank Margot for her support of the ARS with her generous donation.

Karel Bernady

Book Review by Molly Grothaus, Lake Oswego, Oregon 1978
Quarterly Bulletin of the American Rhododendron Society 32 (4): 245-246.

Hybrids And Hybridizers, Rhododendrons and Azaleas for Eastern North America
Edited by Philip A. Livingston and Franklin H. West, Harrowood Books, Newtown Square, Penn.

Few people, including rhododendron enthusiasts, realize the extent of the potential gardening adventure open to them with the tremendous advances which have been made in the development of rhododendrons and azaleas hardy on the East Coast. Here is the guide to that adventure and the map (zone hardiness).

The better part of fifty years ago five men began their separate and lonely quests in search of those rhododendron and azalea parents capable of producing big flowered, brighter colored offspring which, most important of all, would be hardy in winters that might range from zero [-17.7° C] to 20 or 30 [-28 to -34° C] degrees below.

A diverse group these men were. Charles O. Dexter, the New Bedford textile manufacturer, cultivated hundreds of hybrids at his Shawme Farm. The farm has since become the Heritage Plantation of Sandwich and many of the Dexter hybrids, long dispersed, have come home again.

After the family farm at Stewartstown, Pennsylvania, was inherited by Joseph B. Gable, he gradually changed it from diversified farming to a rhododendron nursery. The multi-talented Benjamin Y. Morrison developed the Glenn Dale azaleas while director of the National Arboretum in Washington, D.C., and after his retirement produced the Back Acres azaleas. G. Guy Nearing, working at his nursery in Ramsay, New Jersey, took an intellectual and creative approach to hybridizing. Many of the propagating methods he devised are widely used. Coming on the scene a little later than the others, Anthony M. Shammarello, the Cleveland nurseryman, developed rhododendrons hardy in northern Ohio.

Biographical sketches by ARS members who knew the five well, their own correspondence, and excerpts from their notebooks draw a vivid picture of each and his struggles to achieve his goal.

The book is replete with lists, charts, descriptions, hardiness ratings and evaluations. Sponsored by the ARS, *Hybrids and Hybridizers* is good reading and an important addition to rhododendron literature. With this guide to the multitude of new rhododendrons and azaleas developed by the Big Five in hand, follow Ben Morrison's advice. "Frankly, I cannot see why any person who wants any plant and does not know in advance its behavior in his own area, does not do what I do: buy it and find out." At that point, all this information becomes a personal adventure.

**See the Publications List
inside the back cover of this
issue for ordering
information.
Also see the back cover for
additional information.**

American Rhododendron Society

Register of Plant Names and Checklist—Winter 2011 Supplement

Jay W Murray

North American Registrar of Plant Names
Colts Neck, New Jersey

Questions from **North Americans** concerning name registration, the availability of particular names, and requests for forms (no fee) should be directed to the Regional Registrar, **Jay W. Murray**. Forms also may be downloaded from the ARS web site: <http://www.rhododendron.org> or completed on-line for automatic emailing to J.W. Murray. **Non-North Americans** should direct questions to the International Rhododendron Registrar **Dr A.C. Leslie**.

Introduction: The following rhododendron and azalea names were approved and added to the International Rhododendron Register prior to November 15, 2010 by the Royal Horticultural Society, International Cultivar Registration Authority for the genus *Rhododendron*. The North American Registrar assisted the RHS by providing data for plants originating in North America.

References: Names conform to the rules and recommendations of the *International Code of Nomenclature for Cultivated Plants – 8th Edition* (2009). Color numbers refer to the RHS Colour Chart unless noted otherwise. Accompanying color names are taken from *A Contribution toward Standardization of Color Names in Horticulture*, R.D. Huse and K.L. Kelly, edited by D.H. Voss (ARS, 1984). Format: Parentage lists the seed parent first, followed by an "(s)" if the direction of the cross is known; this is followed by an upper case "X" and then the name of

the pollen parent. If either parent is itself a cross, the individual components within that cross are separated by a lower case "x". Parentheses are used only in describing the more complex crosses. Abbreviations are used where appropriate: (a) = azalea, (r) = rhododendron, (v) = vireya rhododendron, (z) = azaleodendron; H = hybridized by, G = grown to first flower by, R = raised by, S = selected by, N = named by, I = introduced commercially by, REG = registered by; dates are enclosed in parentheses immediately following the activity. Metric conversions of dimensions are reported in 5mm (0.2") increments for dimensions greater than 1" (25mm).

ATTENTION: Non-North American Members of ARS

The International Rhododendron Registrar, Dr A.C. Leslie, accepts registration applications from all areas of the world. Where there is a Regional Registrar, applications may be preprocessed locally and then forwarded to the IRR. ARS members living outside North America who register directly with the IRR, or through other Regional Registrars may have their registrations published by the ARS if they notify the North American Regional Registrar of the plant name and the official registration date. The entry will appear in an early Supplement in the *JARS*.

(a) 'Al Holm'

Evergreen azalea: Parentage unknown. H (1999): Doris Griswold, Kirkland, WA; G (2003), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls solitary, elongated tubular funnel-shaped, 1.5" (40mm) long x 0.5" (15mm) wide, with 5 wavy-edged lobes. Color moderate red (160A) in bud, opening strong red (39A) throughout, with speckles of deep yellowish pink (43C) on the dorsal lobe.

Lvs 1" x 0.5" (25 x 15mm), oblong, obtuse apex, cuneate base, upcurved margins; dull and moderate olive green (137B) above; hairless. Shrub 4.5' (1.4m) high x 4' (1.2m) wide in 11 years; intermediate habit. Plant and bud hardy to at least 10°F (-12°C). Flowering mid May.

(a) 'Babara Tozzi'

Evergreen azalea: 'Mrs Nancy Dippel' (s) X 'Florence Waldman' *. H (2000), G (2002), N (2010), and REG (2010): Joseph Klimavicz, Vienna, VA. Fls 2/ terminal, saucer-shaped, hose-in-hose, semi-double and double; corolla 2" (50mm) long x 2.5" (65mm) wide, with 18 wavy-edged lobes. Color very pale purple (69A) in bud, opening inside very pale purple (69A), fading to white in center with the base strong to light yellow green (145A-D), with flecks and a few stripes of deep to strong purplish pink (67C-D); outside very pale purple (69A). An occasional purplish pink bud appears among the much paler flowers. Lvs 4.5" x 2" (115x50mm), elliptic, broadly acute apex, cuneate base, flat margins; glossy and moderate olive green (146A) above. Shrub 1.5' (0.5m) tall x 1.5' (0.5m) wide in 5 years, dense habit. Plant and bud hardy to 0°F (-18°C). Mid May.

(r) 'Cheryl Renee Jonnson'

Elepidote rhododendron: Parentage unknown. H (1969): Doris Griswold, Kirkland, WA; G (1985), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 14/conical truss, broadly funnel-shaped, c2" (50mm) long x c3" (75mm) wide, with 5 wavy-edged lobes. Color light purplish pink (62C) in bud, opening pure white (close to greenish white (155C) throughout); unmarked. Truss 6.5" (165mm) high x 7" (175mm) wide. Lvs held 2 years; 3" x 1.5" (75 x 40mm), oblong, broadly acute apex, cuneate base, downcurved margins; dull

and dark yellowish green (139D) above; hairless. Shrub 5' (1.5m) high x 3' (0.9m) wide in 41 years; open habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(r) 'Donna Mae Eagle'

Elepidote Rhododendron: ('Lem's Goal' x 'Goldsworth Orange') (s) X 'Whitney's Orange'. H (1969): Doris Griswold, Kirkland, WA; G (1982), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 10/lax truss, funnel-campanulate, c2" (50mm) long x c2" (50mm) wide, with 5 wavy-edged lobes. Color vivid reddish orange (43B) in bud, opening inside pale yellow (18C) in center, tinged pink, with vivid reddish orange (34B) dorsal spots and occasional randomly distributed spots of the same color on other lobes; outside light yellowish pink (38C). Calyx lobes c0.25" (6mm) long, vivid reddish orange (43B). Truss 3.5" (90mm) high x 5.6" (140mm) wide. Lvs held 1 year; 4" x 2" (100 x 50mm), lanceolate, broadly acute apex, cuneate base, downcurved margins; dull and moderate yellow green (147B) above; hairless. Shrub 5.5' (1.7m) high x 6' (1.8m) wide in 41 years; open habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(r) 'Grace Sweeney'

Elepidote rhododendron: 'Scintillation' (s) X unknown. H (1969): Doris Griswold, Kirkland, WA; G (1980), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 14/conical truss, broadly funnel-shaped, 2" (50mm) long x c2.5" (65mm) wide, with 5 frilly-edged lobes. Color deep purplish pink (73A) in bud, opening inside pale purplish pink (62D) at margins, shading paler towards center, and with sparse, slightly darker pink spots on dorsal lobe; outside, strong purplish pink (55B). Truss 4" (100mm) high x 5" (125mm) wide. Lvs held 2 years; 3.5" x 1.8" (90 x 45mm), oblong, broadly acute apex, cuneate base, downcurved margins; dull and moderate olive green (137A) above; hairless. Shrub 5' (1.5m) high x 4.6' (1.4m) wide in 41 years; dense habit.

Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering early June.

(r) 'John Addison Shiel'

Elepidote rhododendron: 'Crest' (s) X 'Odee Wright'. H (1969): Doris Griswold, Kirkland, WA; G (1980), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 13/lax truss, openly funnel-shaped, 2" (50mm) long x 3" (75mm) wide, with 5 wavy-edged lobes. Color vivid reddish orange (33A) in bud, opening inside light yellowish pink (29C) with randomly distributed pale pink markings on lobes; outside light yellow (11B); bright green ovary and stigma; dark reddish brown anthers. Truss 3.5" (90mm) high x 7" (175mm) wide. Lvs held 1 year; 3" x 1.5" (75 x 40mm), elliptic, broadly acute apex, cuneate base, flat margins; dull and moderate yellowish green (137D) above; hairless. Shrub 6' (1.8m) high x 7' (2.1m) wide in 41 years; intermediate habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(r) 'Julie N. Firth'

Elepidote rhododendron: 'Scintillation' (s) X 'Lem's Cameo'. H (1969): Doris Griswold, Kirkland, WA; G (1980), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 6/conical truss, openly funnel-shaped, c2.5" (65mm) long x c3" (75mm) wide, with 5 wavy-edged lobes. Color strong purplish pink (62A) in bud, opening pale greenish yellow (2D) throughout, tinged pink, and with moderate reddish orange (35B) spotting on three dorsal lobes; outside strong purplish pink (62A) at margins. Calyx lobes c0.25" (6mm) long, light yellowish pink (19B). Truss 5" (125mm) high x 4.5" (115mm) wide. Lvs held 2 years; 5" x 2" (125 x 50mm), oblong, obtuse apex, cuneate base; dull and moderate yellow green (148A) above; hairless. Shrub 4' (1.2m) high x 8' (2.4m) wide in 41 years; intermediate habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(r) 'Laura Shiel'

Elepidote rhododendron: Parentage unknown. H (1969): Doris Griswold, Kirkland, WA; G (1980), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 17/ball truss, saucer-shaped/broadly funnel-shaped, 2" (50mm) long x 2" (50mm) wide, with 5 flat-edged lobes. Color vivid purplish red (61C) in bud, opening strong purplish pink (68B) inside and out, with lighter pink areas on all lobes; unmarked. Truss 3.5" (90mm) high x 5" (125mm) wide. Lvs held 3 years; 3" x 1.5" (75 x 40mm), oblong, broadly acute apex, cuneate base, downcurved margins; dull and dark bluish green (133A) above; hairless. Shrub 4.6' (1.4m) high x 4' (1.2m) wide in 41 years; dense habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(r) 'Linda Malland'

Elepidote rhododendron: 'Scintillation' (s) X unknown. H (1969): Doris Griswold, Kirkland, WA; G (1980), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 5/flat truss, openly funnel-shaped, c2.5" (65mm) long x c2.5" (65mm) wide, with 5 wavy-edged lobes. Color moderate purplish pink (65A) in bud, opening inside pale purplish pink (65D) with discrete spots of strong red (39A) on dorsal lobe and adjacent portions of contiguous lobes; outside, pale purplish pink (65D) or paler, with pale purplish pink (65D) midribs. Calyx lobes 1" (25mm) long, light yellow (18B), spotted. Truss 3.5" (90mm) high x 4.5" (115mm) wide. Lvs held 2 years; 6" x 1.5" (150 x 40mm), elliptic, broadly acute apex, cuneate base, downcurved margins; dull and moderate yellowish green (138A) above; hairless. Shrub 4.6' (1.4m) high x 4.6' (1.4m) wide in 41 years; intermediate habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(r) 'Robert Hale'

Elepidote rhododendron: 'Van Nes Sensation' (s) X *R. falconeri*. H (c1969): Karl L. Sifferman, Seattle, WA; G (1980),

N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 5/ ball truss, funnel-campanulate, c2" (50mm) long x c3" (75mm) wide, with 5 wavy-edged lobes. Color light purplish pink (73C) in bud, opening greenish white (155C) throughout, with a moderate purplish red (184C) blotch at the base of the dorsal lobe, and tiny markings of the same color extending upwards in straight lines from the edge of the blotch; anthers are very dark red. Truss 3.5" (90mm) high x 4" (100mm) wide. Lvs 5.6" x 2.8" (140 x 70mm), oblong, broadly acute apex, rounded base, upcurved margins; semi-glossy and dark green above, with moderate yellow (161A) hairy indumentum on underside of lvs. Shrub 11' (3.4m) high x 11' (3.4m) wide in 41 years; open habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(r) **'Silver Frost'**

Elepidote rhododendron: Selection from *R. degronianum* ssp. *heptamerum* var. *kyomaruense*. G (1972), S (1995), I (1995): N (2010), and REG (2010): Harold Greer, Eugene, OR. Grown from seed obtained from Koichiro Wada under the species name *R. metternianum*. Fls 15/ ball truss, funnel-campanulate, 1.5" (40mm) long x 2" (50mm) wide, with 5 wavy-edged lobes. Color white in bud, very lightly tinged paler than yellowish pink (36D), opening white inside with very light yellow green spotting on dorsal lobe; outside white; bud scales: bronze green. Calyx lobes minute, white. Truss 4" (100mm) high x 5" (125mm) wide. Lvs held 2 years; 6" x 1.8" (150 x 45mm), ovate, acuminate apex, rounded base, slightly downcurved margins; dull and deep green above; covered above with short, silvery white hairs (persisting into summer), and covered below with agglutinated light tan hairy indumentum. Shrub 5' (1.5m) high x 8' (2.4m) wide in 25 years; dense habit. Plant hardy to at least -20°F (-29°C); buds, -15°F (-26°C). Flowering mid May.

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Members can place their seed orders either electronically or by mail. A printed copy and order form of the seed list will be available on January 15th, 2011 and will be mailed only to members who ordered seed last year or those requesting a copy from me at the address below. The price of seed this year will be \$3.00 per packet. We expect to start distribution on February 1st.

Norman Beaudry, Chairman
ARS Seed Exchange

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(r) 'Tony Magallon'

Elepidote rhododendron: 'Odee Wright' (s) X 'Crest'. H (1969); Doris Griswold, Kirkland, WA; G (1980), N (2010), I, and REG (2010): Griswold Nursery, Kirkland, WA. Fls 5/lax truss, funnel-campanulate, c2" (50mm) long x c2.5" (65mm) wide, with 5 wavy-edged lobes. Color brilliant orange yellow (21B) in bud, opening light yellow green (2C) throughout; anthers brown. Truss 3" (75mm) high x 4" (100mm) wide. Lvs held 1 year; 2.5" x 1.5" (65 x 40mm), oblong, broadly acute apex, cordate base, upcurved margins; dull and moderate olive green (137B) above; hairless. Shrub 7' (2.1m) high x 6' (1.8m) wide in 41 years; open habit. Plant hardy to at least 0°F (-18°C); buds, 10° F (-12° C). Flowering mid May.

(v) 'Yoshi and Marge'

Vireya (lepidote) rhododendron: [*R. bellwigii* x (*R. javanicum* x 'Duchess of Edinburgh')] (s) X *R. christii*. H (1997), G (2004), N (2010), and REG (2010); R.A. "Mitch" Mitchell, Volcano, HI. Fls 7/lax truss, elongated tubular funnel-shaped, 3" (75mm) long x 2.7" (c70mm) wide, with 5 flat-edged lobes. Color of flowers opening inside and out vivid reddish orange (43A); unmarked; stigma: dark red; style: red; anther: black with white tip; filament: pink. Truss is a flat whorl of flowers 8.8" (220mm) wide. Lvs 5.5" x 2.4" (140 x 60mm); elliptic, acuminate apex, cuneate base, slightly upcurved margins; glossy and dark green (135A) above; dull and moderate yellow green (146C) below; center vein light reddish purple; no indumentum visible. Shrub 2.3' (0.7m) high x 1.5' (0.5m) wide in 13 years; intermediate habit. Plant and bud hardy to at least 38°F (3°C). Flowering in March and July.

The following unregistered name appears as a parent in one of the above descriptions:

(a) 'Florence Waldman': Evergreen azalea. Parentage: ('Glacier' x 'Eri') X 'Anna Kehr'; G: Roslyn Nursery



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Register of Plant Names—Newly Registered



'Barbara Tozzi'. See page 51 for description. Photo by Joseph Klimavicz.



'Yoshi and Marge'. See page 54 for description. Photo by Richard Kruppa.



'Linda Malland'. See page 52 for description. Photo by Linda Malland.



'Donna Mae Eagle'. See page 52 for description. Photo by Linda Malland.



'John Addison Shiel'. See page 52 for description. Photo by Linda Malland.



'Robert Hale'. See page 52 for description. Photo by Linda Malland.



'Silver Frost', new growth. See page 53 for description. Photo by Harold Greer.



'Silver Frost', mature foliage. See page 53 for description. Photo by Harold Greer.



'Silver Frost', flower truss. See page 53 for description. Photo by Harold Greer.

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Election of District Director for District 12

ARS District 12 has nominated the following District Director and Alternate.

District Director

Nick Yarmochuk

Nick Yarmoshuk is a retired educator, management consultant and market researcher who, with his wife, Wanda, has grown a collection of 350 rhododendrons and azaleas in St. Catharines, Ontario, Canada for 36 years.

1977: Member, Niagara Region Chapter, Rhododendron Society of Canada.

1982-84: President, Niagara Region Chapter, Rhododendron Society of Canada.

1984-85: President, Rhododendron Society of Canada.

1998: Co-Chair with Lillie Haworth, Annual Convention, American Rhododendron Society, Niagara Falls, Ontario, Canada.

1998: Recipient of the Leslie Hancock Memorial Award. Presented at the Niagara Falls Convention.

1996: Initiated Niagara Region Chapter www site; <http://www.rhodoniagara.org>
Continued as webmaster to present.

2006 to Present: Elected Secretary, Niagara Region Chapter, Rhododendron Society of Canada. Became Niagara Chapter Newsletter editor and writer.

2009 to Present: Member American Azaleas Association

2009: Appointed Chair, American Rhododendron Society, Test and Demonstration Garden Committee.

2010: Chair, Brueckner Test Garden subcommittee of Niagara Region Chapter.

District Director Alternate

Sondra Meis

Sondra Meis is a Business Advisor with the Ontario Government, with role of assisting manufacturing companies to increase investment, expand exports, and create jobs. Gardening is a weekend past time. Sondra and her husband, Ric Simpson, have two properties: their main residence, located on the Niagara River, and a getaway home on Lake Erie. This second property, located in a Carolinian forest, has sandy soil and towering oak trees, which is conducive to growing Rhodos.

•Currently serving as President of the Niagara Chapter. Has held the position for a number of years.

•Prior to that, served as Treasurer for the Niagara Chapter for a couple of years.

•Joined in 1998 to participate in the ARS Annual Convention which was held in Niagara Falls, Ontario, Canada

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(Continued from page 49.)

Photos by
Dr. Glen Jamieson



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Leaves of Japanese knotweed.



Stems of Japanese knotweed.



Dying stems of Japanese knotweed.



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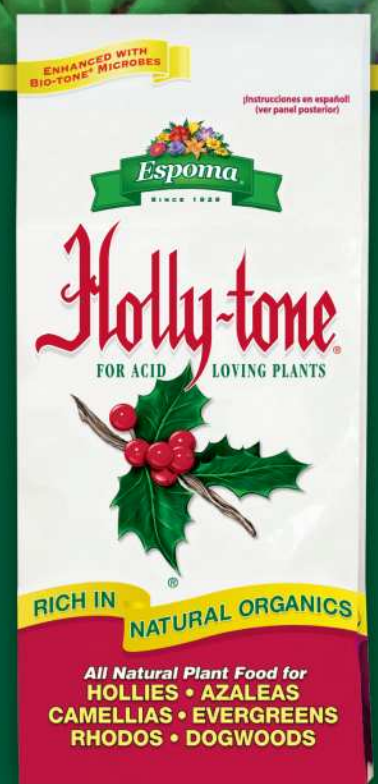
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Errata:

In the article on "Kurume Azaleas" in *JARS* 64 (4), p. 183-189, "names in parentheses are corrected Japanese spellings" should be changed to "Names in parentheses are alternative transcriptions of Japanese spellings supplied by the author. The American Rhododendron Society recommends the acceptance and use of spellings published by the International Registrar for Rhododendron in the *International Rhododendron Register and Check-list (IRRC)*, 2nd ed., and in supplements thereto." The IRRC is the accepted single international point of reference for rhododendron names, unless and until there is agreement to change it.

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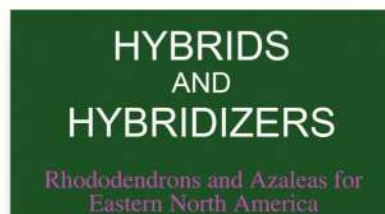
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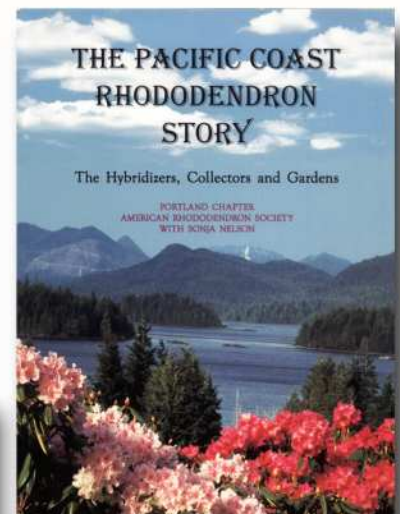
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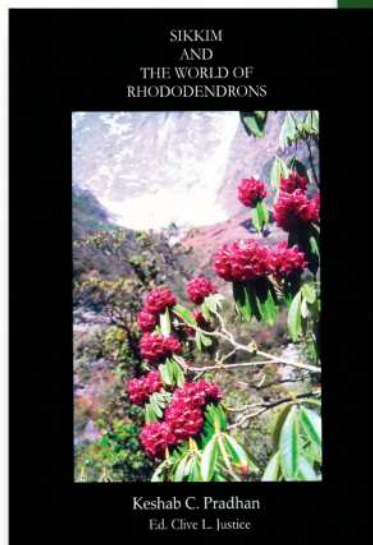
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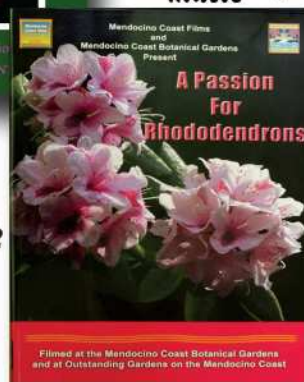


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