

JOURNAL

American Rhododendron Society

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American Rhododendron Society

A GUIDE TO THE SOCIETY

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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)

Student (include proof if over 18)	\$10.00
Regular	\$40.00
Commercial	\$90.00
Sustaining	\$75.00
Sponsoring	\$150.00
Life single	\$1,000.00
Life family	\$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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Photo by Bruce Clyburn.



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ARS Digital

Website: <http://www.rhododendron.org>

Office: <http://www.arsoffice.org>

JARS online: <http://www.arsoffice.org/protect/login.asp>

JARS back issues: <http://scholar.lib.vt.edu/ejournals/JARS> [to Vol. 52, 1998]

Archives: <http://www.lib.virginia.edu/small>

ARSStore: <http://www.ARSStore.org>

Blog: <http://www.rhododendron.org/blog/default.asp>

Plant Name Registration: <http://www.rhododendron.org/plantregistry.htm>

Rhododendron & Azalea News: <http://www.rhododendron.org/news/newsindex.htm>

From the President

Bob MacIntyre
Bandon, Oregon

Hello, I'm Bob MacIntyre, the current ARS President. This may or may not be surprising to some of you, but Bruce Feller resigned his position as ARS President in late September for personal reasons. "We Thank You!" Bruce, for your leadership and counsel during your term of office. Ken Webb, District 1 Director and member of the Executive Committee, has now assumed the Western Regional Vice-President position and his position as District 1 Director will now need to be filled. Paul Anderson, Director At Large, has agreed to serve on the Executive Committee in the position vacated by Ken Webb. Toward the end of October Kath Collier, Secretary, resigned her position. "Thank You, Kath!" for your hard work as Secretary over the past six years and for the many innovations you brought to the position. For her replacement, we are very fortunate to have a very qualified person for Secretary, Linda Derkach from District 1. Welcome Aboard Linda! I want to forewarn you that I am not a writer, never have been, and never will be. I prefer to talk to members on a one-on-one basis and not by pushing buttons on a computer and using e-mail. Yes, I do use e-mail but I prefer to talk to each of you directly. I believe e-mail is too open to misinterpretation and misunderstanding.

An ongoing topic of concern with the ARS and many other organizations today, is a declining membership, i.e., which results in declining income. The heart and soul of any organization is its members—each and every one of you. Your time, your talents, and your involvement are all important to the success of an organization.

We are all equal volunteers in the ARS, no matter who we are and where we come from or what we believe. No one person is more important than anyone else. Some may have far more knowledge and information than others, and it is important for these members to try and share that knowledge, ideas and talent with others. Members will find the more they get involved, the more they will get out of our rhododendron family.

Communication is key to the success of any organization. Information is available in your chapter's newsletters, other chapter's newsletters, *JARS* (the Journal of the American Rhododendron Society), ARS websites and individual chapter's websites. Our organization is divided into 13 districts, with the Chapters at Large comprising the 13th District. The working heart of the ARS is the Executive Committee, the District Directors and their alternates. All communication and information both to and from the Board is passed down to the chapters through their District Director. I would like to encourage as much communication and activities between chapters as possible. My hope is that as more activities take place that involve members from multiple chapter and/or districts, this will promote a greater feeling of belonging to the organization as a whole. While it is the individual members that comprise the ARS, it is imperative to maintain strong communication between each director and their chapters to develop effective teamwork. All the parts of the organization should work together toward a common goal. Each individual member of the ARS needs to invest in the future of the organization and maintain a warm and welcoming attitude that says "All are Welcome Here." Our membership is declining, partly because of age, so we need to assess how better to both acquire new members and to meet the interests of existing members so they will remain longer within our society.

This should give you an idea of who I am, what I feel and what I will strive to do!

Happy Gardening!

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From the Executive Director

Laura Grant

Toronto, Ontario, Canada

At the Saturday evening banquet of the Fall ARS Conference in Everett, WA, Dick Cavender did a splendid job of auctioning a cake. Each successful bidder donated the cake back to be auctioned, again and again, and over \$900 was raised toward the General Fund.

At our Board meeting the revised budget was presented with a substantial deficit. Declining membership, mostly due to the aging of our members, is one factor. Raising costs of running the organization and production and mailing of the Journal ARS is another. Our Treasurer, Sam Burd, has a difficult task to come up with balanced budget in the future. One of the immediate measures was to temporarily suspend the Endowment grants for 2015 (see P 28).

We rely on the generosity of our members to donate to the General Fund, so the ARS can continue its mission, which is "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 similar activities."

In the past couple of years, a large proportion of donations went to the cost of mailing a request for funds. This is not what our members want. They donate so that all of their money goes to benefit the ARS. So please, if you have not done so already, consider supporting your Society with extra funds. We will publish all the donor's names in the Journal under the following categories: Under \$150, \$150 - \$499, \$500 - \$999, \$1,000 or more. Tax receipts to Americans for the donations will be issued upon request. Thank you.

We look forward to celebrating our 70th anniversary in May 2015, on Vancouver Island and I hope to see many of you then.

From the Editor

Glen Jamieson

Parksville, British Columbia, Canada

It's been an interesting fall! In late September Dorothy and I attended the ARS Fall Convention in Everett, WA, which as usual was very well organized with some great speakers. A week later we, along with 13 other Canadians and 33 other ARS members, flew to Dunedin, NZ, to attend the 70th Anniversary Spring Convention of the New Zealand Rhododendron Society. It was really nice to experience a second "spring" in the same calendar year, and the Kiwis pulled out all the stops to make the conference as memorable as possible. With few flowering gardens, fall conferences emphasize speakers whereas with spring gardens, garden tours are the highlight. Dunedin did not disappoint, with spectacular public gardens like Tannock Glen (built up by the Dunedin Rhododendron Group), the Dunedin Botanic Garden, Larnach Castle, and Glenfalloch, and numerous spectacular private gardens. The climate there seemed similar to northern coastal California, and the often huge rhododendrons, many of which were maddenii, most in full bloom, were spectacular.

However, this was not all, as the welcoming hospitality and friendliness of the people we met was truly what made the meeting so special for us. In particular, Colin and Noela Knight, whom we had never met before, were kind enough to share their home with us when we visited Christchurch and drove us both to and from Dunedin. New Zealanders are very proud of their country and accomplishments, and being somewhat isolated on the world stage, seemed particularly gracious in meeting new people and helping them as much as possible. We made many new friends and have some wonderful memories!

In that regard, I would be remiss if I didn't point out that the 70th Anniversary of the ARS will be held next May on another relatively isolated Pacific Island, although one not quite so far away as New Zealand is for most ARS members. This meeting will be held in Sidney-by-the-Sea, just outside Victoria on Vancouver Island, British Columbia, Canada (registration info inside this issue). I am on the organizing committee, and we are working hard so that it too will be as welcoming to attendees as was the recent New Zealand conference. Please plan on attending, as I'm confident that our island offerings will be equally memorable and that this convention too will be one not to be missed!

The Siren Song of *Rhododendron* Species

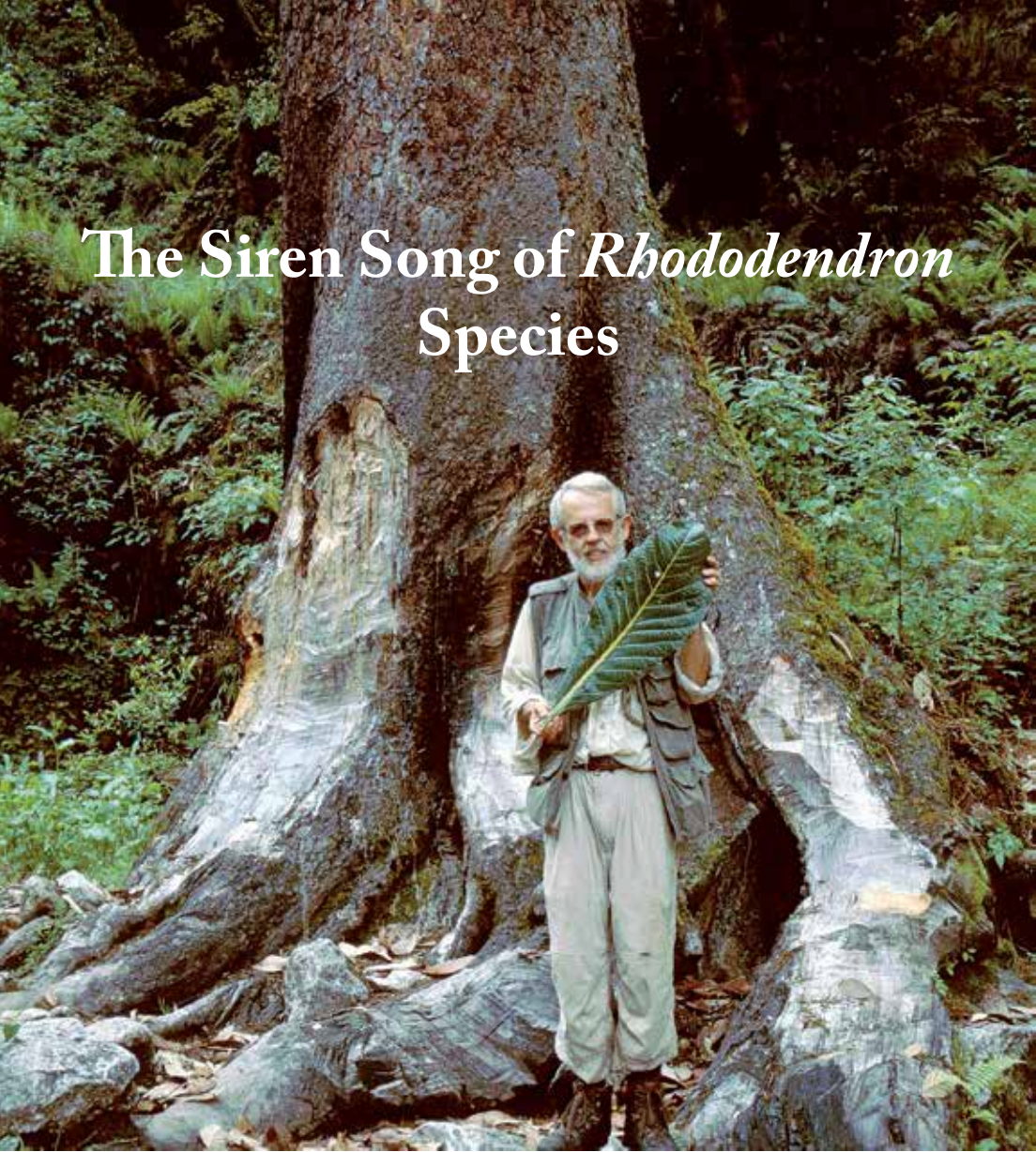


Fig. 1. The author with a leaf of *R. sinogrande* from a plant near Gongshan, Yunnan.

Bob Zimmermann
Port Ludlow,
Washington

Photos by the author



When I first began the garden I named Chimacum Woods in 1976, it was a time when rhododendron enthusiasts were developing a great many hybrids in the Pacific Northwest. Each year there were new introductions of plants with bigger flowers, unique colors, and/or more massive trusses. Occasionally there was the dainty hybrid, demure in its own way, with dainty hanging bells, perhaps a compact habit, but what really mattered was the hybrid's flowers. Gardeners signed up on waiting lists to get the latest introductions, and the hybrids had to put on a show.

Species rhododendrons were hard to come by in those days. They were not popular with the gardening public and sources were generally hard to find. The Rhododendron Species Foundation, now the Rhododendron Species Botanical Garden, had just begun to provide some plants, but they were limited in both variety and supply. Many of the plants I acquired as species in those years have turned out to be hybrids after all. But all that changed in 1982 when the Sino-British Expedition to China (SBEC) returned to the West with a treasure trove of wild-collected rhododendron seed from China—the first in almost 40 years. They were kind enough to share that seed through the American Rhododendron Society Seed Exchange, and suddenly Chimacum Woods began moving in a new direction.

While the Seed Exchange had offered some wild-collected seed from exotic places before, this was an opening into the very heart of Asian rhododendron territory. As my seedlings of *R. rex* ssp. *fictolacteum*, *R. sinogrande*, *R. lacteum*, and *R. spinuliferum* (among many others) began to grow, I was struck by the beauty and diversity of the



Fig. 2. Mt. Everest.

plants themselves without considering their flowers (the *R. sinogrande* did not bloom for 22 years). It turns out that the world of species rhododendrons is about plants, not flowers. No one ever said, “I don’t like *R. sinogrande*—it never blooms.” Instead, it was often “That’s a rhododendron?” as visitors stood in wonder before its two-foot (61 cm) long leaves (Fig. 1. Me with *sinogrande* leaf. Unbeknownst to me, the species had begun to sing their siren song, as if they had their own distinct aura about them beckoning me to enter their world). As more and more wild-collected seed poured out of China, the ever-growing species’ seedlings allured me with their intriguing leaf shapes, indumentum, scales, and distinctive growth habits. The song expanded as the tales of modern-day collectors began to appear in various publications. These rhododendrons were part of a largely unknown culture, mysterious because of its non-western, non-technological characteristics that included a vast system of mountains, plants, animals and people. Above all, it was alluring. I was caught in a web of connections, and so when I was offered an opportunity to join Kenneth Cox and eight other British and American plant explorers in an expedition to SE Tibet, I jumped at the chance. Descending into Katmandu, we flew over a forest of trees in full, red bloom—*R. arboreum* of course. Far from the idyllic mountain village I had imagined, I was plunged into a smog-ridden city of almost one million people. Flying into Gongar, Lhasa’s airport, took us right over Mt. Everest (Fig. 2. Mt. Everest soaring amid an endless array of Himalayan peaks). It was a picture-perfect day, and the memories of reading Hillary and Norgay’s ascent of Mt. Everest in *National Geographic* as a young boy aroused all the old feelings of wonder and awe. We never did descend. Tibet simply rose up to meet us.

The trip had specific botanical goals: to attempt to verify *R. lanatoides* (Fig. 3. One



Fig. 3. *R. lanatoides*.



Fig. 4. The Dashing La with *R. forrestii* ssp. *forrestii* in the foreground. We could hear and see avalanches sliding around us (they were petering out just at our feet).

of the lanatoides pics as a viable species and to explore two passes that had not yet been botanized by westerners: the Su La and the Dashing La). We did indeed establish *R. lanatoides* by finding a large population in the Rong Chu Valley, and we did indeed climb the Dashing La with *R. forrestii* ssp. *forrestii* (then var. *repens*) in blooming abundance (Fig. 4). Our descent was interrupted by our arrest by the Chinese Red Army for lack of “proper” permits. Our permits issued in Lhasa did not count out in the boonies, according to the Red Army Commander. Suddenly we were thrust into the politics of Tibet and visiting the Su La was out of the question.

In addition to the profusion of botanical variety surrounding us and the simmering political tensions between the Tibetans and the Han Chinese, there was another part of the web connecting rhododendrons at this place, the culture and spirituality of a people thoroughly immersed in Buddhism (Fig. 5). Buddhism was all-pervasive and somehow Tibetan rhodies and Tibetan Buddhism seemed inextricably entwined (Fig. 6. One of the slides of the monastery. I think it is no accident that Tibetan Buddhism originated side-by-side with the rhododendrons). Since rhododendrons predate humans, I assume that they influenced Buddhism. I am no Buddhist scholar, much less a practitioner, except as I too learn from these plants. Perhaps I can say I am horticulturally Buddhist (perhaps learning Buddhism this way will keep me from the denominational petrification that in my opinion kills every living god).



Fig. 5. As Dr. Keith White and I were sitting in our tent in SE Tibet, we suddenly realized we had company. Seems we were as interesting to the Tibetans as they were to us.



Fig. 6. A monastery built to replace the larger, older buildings destroyed by the Chinese in the 1950s.

As the species seedlings began filling Chimacum Woods, I realized that a siren song was now the tune for my gardening style. Instead of creating an aesthetic gardening masterpiece, I had a pile of species rhododendrons. Hybrids were converted into firewood; to me they now seemed relatively mundane (and ugly) as plants. I now call Chimacum Woods a “working garden” where I strive to learn the language of species rhododendrons. Their drooping leaves in summer ask for water. Their drooping and curled leaves in winter suggest that they are defending themselves against the cold. Since many of the species growing in Chimacum Woods are fairly new to Western gardens, part of the gardening task is to discover what these plants like and listen to their feedback. In order to do this, I plant some of each seed lot in what I guessed may be too much sun or too much shade or just the right spot. The results often make me readjust my categories, and casualties along the way are commonplace. I try to keep track of temperature extremes and there are a number of mini-maxi thermometers located throughout the garden. There are wetter and dryer areas, and variable soil types, soil amendments, fertilizer types and rates, and so on. The variables are almost endless, but I try to have trial plantings with only two variables.

There are many jokes about gardeners talking to plants, but the wise gardener knows it is really a dialogue. I talk to them because they talked to me first. The language of rhododendrons is the indumentum that needs to be rubbed to be appreciated; the emerging growth in felts of silver, gold, and soft pale green; dazzling displays of red leaf bracts; peeling bark of cinnamon and purple; or a smoothness of trunk that asks to be caressed. There is pattern on a rugose leaf that, like the forehead of Moby Dick, has inscribed upon it the mystery of the universe and the wisdom of the ages. It is as if one could divine with that leaf. Ahab read the whale, I read rhododendrons. Those large leaves of *R. sinogrande* are that size in order to contain that much information. All this I take to be the language of rhododendrons. It is what they speak! I would suggest that what rhodies say is best described as a kind of eco-prayer, a profound contemplation—sitting if you will.

My second trip to China, led by Peter Cox in 2000, took me to Yunnan. This trip gave greater urgency to my growing rhododendron species from wild-collected seed. We saw vast stretches of countryside, denuded by clear-cut logging and abused by subsistence farming, sliding into the nearest river (Fig. 7). Logging landslide rhododendron habitat was (and is) under siege. Suddenly Chimacum Woods had a new mandate: preserve as much of the rhododendron gene pool as possible. We sat with two park rangers who were in charge of the vast, so-called reserve in the midst of a magnificent temperate forest, with blooming *R. nuttallii* dotting the hillsides. “Never mind the subsistence farming. If we can stop the illegal commercial logging, it’s been a good year,” they said. We were later turned back on a road as we hiked along a mountain trail by just such an illegal logging operation. The diversity of species rhododendrons is truly amazing. The day after sitting with the rangers, we found 43 different species, *R. arizelum* to *R.*

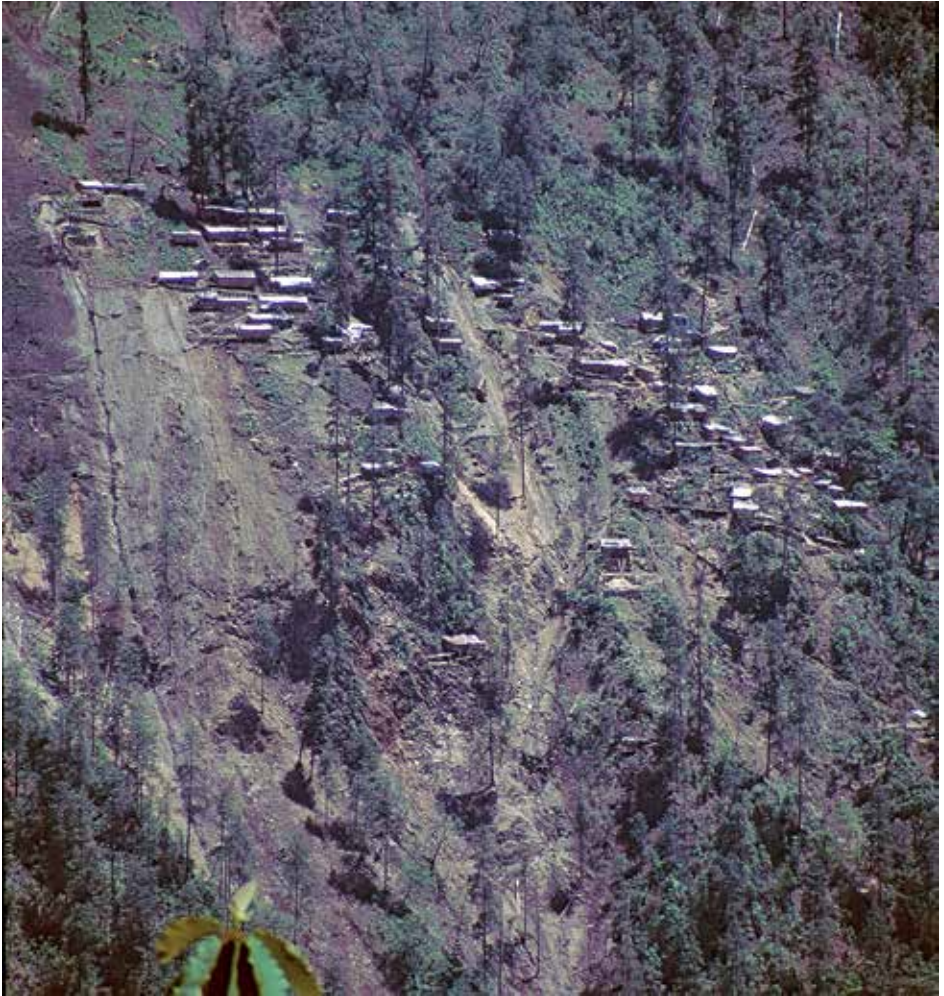


Fig. 7. A logging camp in Yunnan abandoned after part of it slid off the cliff, killing several loggers. The barren land continues to slide.

zaleucum, as we hiked over a pass separating the Salween watershed from the Irrawaddy watershed.

There is another strand to the web of connection in growing species rhododendrons that involves the history of the collection of these plants. The Tibet trip took us into the southeastern part of the country, an area that had been explored by Frank Kingdon-Ward in the 1920s. We explored Tumbatse, one of the villages where he stayed, and then visited a nearby monastery that he also used as a base. The elderly monk remembered that as a boy, he had seen a Westerner, possibly Frank Kingdon-Ward, as Westerners were very, very rare until our arrival. He was thrilled to receive a photograph of the old

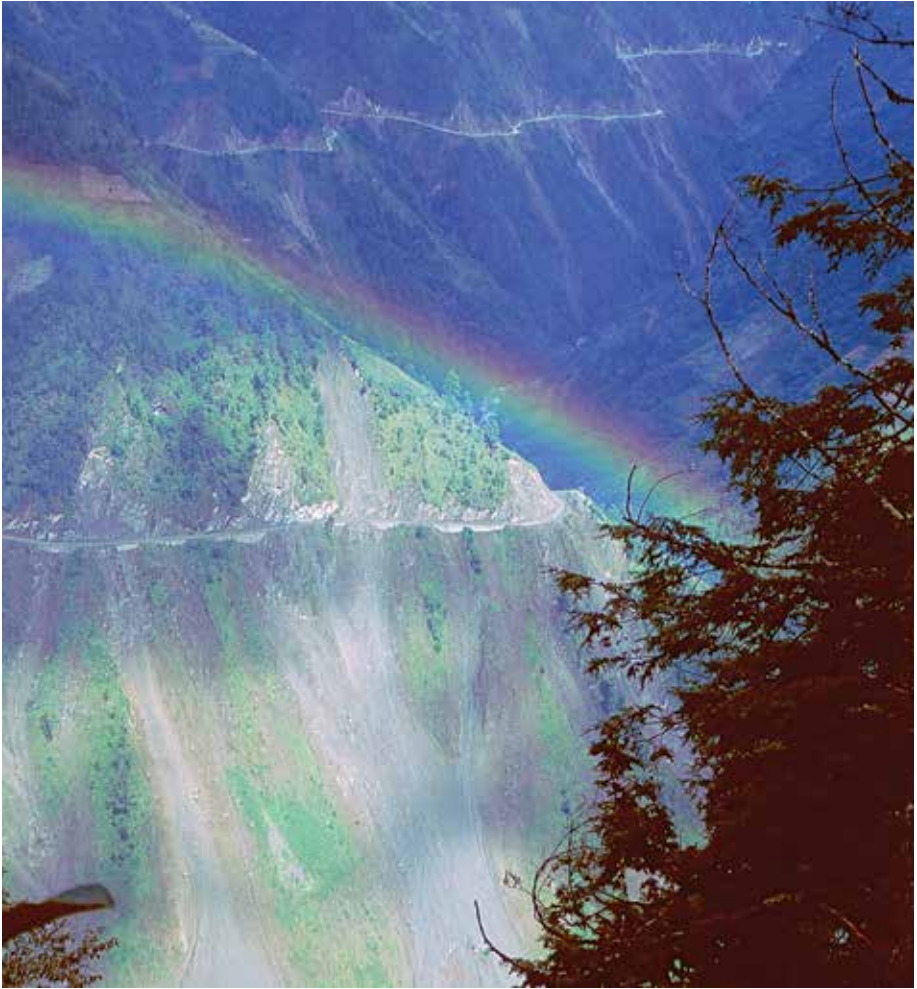


Fig. 8. The new road from Gongshan to the Dulong River under a rainbow. The road required extensive blasting and is often closed by slides.

monastery (now a bombed out shell left over from the 1959 Chinese invasion) taken by Kingdon-Ward. The second trip took me to territory in Yunnan botanized by George Forrest. In the early 1900s, Yunnan had been a dangerous place, and Forrest more than once feared for his life. The lack of decent roads added to his difficulties. Given the somewhat tenuous roads in 2000, what he accomplished is truly amazing. Species rhododendrons thus have a relatively long history with the West, some of it dating to colonial times, back to the days of Hooker and David. There is so much to learn about these plants that even if an Asian trip is not a possibility for most readers, the stories of the plant collector's experiences can add to one's gardening pleasure. Never again will I take a species rhododendron for granted.

My third trip in 2001 was an attempt to make history. With the aid of botanists from the Kunming Institute of Botany, six of us Westerners continued into the territory beyond our 2000 stopping point. There was a new road just opened up into the Dulong River (Fig. 8. Rainbow road slide). We hoped to be able to explore the river and then ascend the nearby mountains. As far as we knew, this was unexplored and unbotanized territory for Westerners and access had been denied to all anthropologists wishing to study the Dulong (Drung) tribal people. Botany got us in, but the rugged and primitive natural landscape kept us from any meaningful ascent into rhododendron territory. Simply following the river upstream proved immensely difficult, with leeches and side tributaries hindering our progress. Instead, we documented what the anthropologists longed to see, a tribal culture relatively untouched by the modern world. However, I have a picture showing five satellite TV dishes in the main town of Kongdang. The older women still had facial tattoos designed to make them unattractive to the Tibetan raiders who in earlier days swooped in to carry off young maidens (Fig. 9). National



Fig. 9. A Dulong woman whose face was tattooed to make her safe from abduction by raiding Tibetans.

Day and the Harvest Moon Festival coincided in 2001, and we were privileged to witness truly native celebrations. The siren song of species rhododendrons connects in truly amazing ways.

Once home or once growing wild seed collected by others, sorting out all the species is sometimes quite confusing, as there is often a great deal of variation within the same species in the wild population. My collection of *R. basilicum* from both 2000 and 2001 comes to mind. Sometimes there is a choice of seed parents from whom to collect seed. Other times, finding seed at all is difficult. If it is a spring trip, flowers may dictate the choice of seed parent provided there are leftover seed capsules from last year. Getting that last bit of seed can prove challenging. I saw very deeply colored *R. rubiginosum* flowers in 2000 and collected accordingly, but in any collection of wild seed, the pollen parent is always unknown. One can only hope that he was of strong character and true to the same species as the seed parent. Growing the resulting plants in the garden becomes a fascinating adventure into what unfolds. Perhaps the plants turn out as expected, but perhaps a particular seedling offers an especially good plant habit or spectacular new growth patterns compared to its peers. Or perhaps the pollen parent was not of the same species and the resulting children are natural hybrids. Much as hybridizers are always looking for the outstanding bloom, so, too, is the species grower looking for the outstanding plant when growing from seed.

In order to preserve the gene pool of species rhododendrons, another of the working aspects of Chimacum Woods is the production of species' seeds. Many a first bloom of one of my species is sacrificed as the corolla is stripped off so that I can hand pollinate the pistil before the bees arrive. If that flower is on a plant grown from wild collected seed, my first choice is to use the pollen from a sister seedling of the same collection. The father is then also the mother's sister! If that is not possible, I may try selfing the flower, although that is often not successful (more experimentation). I also will use the pollen from another plant of the same species that is unrelated to the seed parent. Over the years I have been able to identify certain plants that are consistent good seed parents, producing offspring that are outstanding examples of a particular species. Then there is always the temptation to "improve" on Mother Nature by using the diversity within a species to combine two forms for something "new and better." Finally, the superior forms of the species need to be replicated in cutting grown plants, although some species, especially the larger leaf varieties, are difficult if not impossible to root from cuttings.

The siren song of species rhododendrons keeps extending its reach. A friend's wedding in Switzerland included a drive over St. Bernard Pass, leading to the collection of *R. ferrugineum* seed. Visiting friends in Kyoto, Japan, included a trip into the mountains to the south. Not only did we find seed of *R. degronianum* ssp. *heptamerum* var. *hondoense*, but we also were in the midst of a swarm of deciduous azaleas, all leafless in the late fall coolness. I am still sorting out my find, but I surely am growing *R. quiquefolium* or *R.*



Fig. 10. *R. canadense*.



Fig. 12. *R. erosum*.



Fig. 11. *R. barbatum*.



Fig. 13. *R. pendulum*.

pentaphyllum, and perhaps both. It is still too soon to be sure, but perhaps a bloom or two will help settle the matter. A college reunion on Cape Cod insured *R. viscosum* seed from the White Cedar Swamp. The solitary plant of *R. canadense* (Fig. 10. *R. canadense* had no seed). It seems the siren song has permeated the entire Northern Hemisphere.



Fig. 14. *R. strigillosum*.

The siren song of species rhododendrons always has another verse. China has changed a great deal from my early days of exploration. In 2009 I joined the Scottish Rhododendron Society's trip to Sichuan. For the first time I left my sleeping bag and tent at home. There are now hotels everywhere there are park reserves, and buses take the tourists, now fairly numerous, into the park. Private vehicles are usually not allowed. Visits are limited to day trips, greatly hindering access into the more remote areas. Nevertheless, we did see a wealth of rhododendrons, including *R. rex* in a very pink form, *R. orbiculare*, and *R. bureavioides*, also a very good pink form. Maybe one of those seedlings will bloom in Chimacum Woods.

Then in 2013 I led a trip back to Sichuan and Guizhou, taking three young people on their first trip to China. There were still more changes. The air in Chengdu had become unbreathable. Even moving out into the countryside did not improve the situation. The new system of expressways allowed us to zip from place to place, but the Chinese expressway is a mostly level freeway that spans entire valleys on bridges that rise to dizzying heights, and then tunnels through a mountain on the other side. Unfortunately that eliminates the back road wanderings that often prove rewarding to plant hunters. Politics once again influenced the trip. We almost did not receive permission to enter the Muli Tibetan Autonomous Country because we were perceived as Americans who disapprove of China's treatment of the Tibetan people. We agreed to have our own police minder who was satisfied with our calling in our whereabouts via cell phone. But given the number of police vehicles that drove by as we walked the back roads, we were being closely watched. We were in one of Joseph Rock's favorite collecting areas, and he is still favorably remembered by the local people.

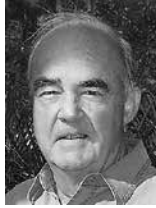
The pace of development in China continues unabated. The expressways need interchanges, often complex as level roads meet a wild countryside. Anything in the way is simply moved as vast areas are bulldozed. Farming is expanding as agribusiness adds efficiencies at the cost of the surrounding environment. Entire mountains are removed for their gravel. Rhododendrons are still under pressure from all this.

Back in Chimacum Woods, the seedlings of *R. roxieanum*, *R. sphaeroblastum* and *R. bureavii* as well as those of many other species (Figs. 11-14) have been moved up into their own two-inch (five cm) pot bands, and I certainly have enough to keep me busy for a long while. Growing them on and seeing them leave for other gardens continues as the mission of Chimacum Woods. But the siren song keeps singing in both my heart and mind, beckoning, beckoning!

Bob Zimmermann is a member of the Kitsap Chapter. He and his wife, Beth Orling, operate Chimacum Woods, a nursery dedicated to the production of species rhododendrons. Most are grown from seed, much of it collected in the wild during his trips to Asia.

Snow Cover ... Who Needs it!

Roger Dunlap
Traverse City,
Michigan



(Modified from the Midwest Chapter's March 2013 newsletter)

If you're like the "average" American Midwesterner, you probably hope that you do not again have the relentless cold and snow that was experienced in the winter of 2013-2014. On average, the Midwest saw precipitation 25% above normal, most of it as snow. "Snow" has established itself in the current lexicon as a "dirty four-letter word." In "my case," S-N-O-W was also responsible for a lack of heat that nearly caused a plumbing catastrophe in my home. More on this later!

Enlightened gardeners know that snow cover is generally beneficial to plants. This article focuses on both some of the "positive benefits" and the "negative costs" of having abundant snow cover, particularly as it pertains to cultivating rhododendrons.

To some people, it may seem "counter-intuitive" that snow cover has any beneficial effects at all! However, even those who have just a superficial knowledge of the physical world know that "substantial" snow cover (above 10", or 25 cm) can actually help plants survive the harsh, winter "elements." Snow cover facilitates the complex interplay of three positive factors on plants

Insofar as INSULATING properties are concerned, it has been documented that fallen snow is comprised of approximately 10% water and 90% air. Much of that air is "trapped," moderating the temperature extremes between the frigid cold above and the warmer temperatures down towards ground level. Granted, the air storage capacity does decrease with the compaction of the snow but the depth of a snowpack of 10" or more somewhat compensates for that compaction. On average, snow has an R-value of "one" per inch (2.5 cm)—about the same as wood. Twelve inches (25 cm) of snow has roughly the same insulating value as a 4" (10 cm) thick wall filled with fiberglass insulation (<http://www.jlconline.com/rooftop-accessories/q-a--does-snow-insulate-.aspx>). Surface ground temperatures underneath a thick blanket of snow will stay fairly constant around 32° F (0° C) even if the outside air above the snow is much lower than that. The resulting "warmer" temperature existing at and below ground level can prevent the plant from going into "full" dormancy, which has both "positive" and "negative" consequences.

On the "positive" side, the "plant," and particularly the roots, can continue to grow. Without adequate replacement moisture, however, the transpiration process "triggered"

by a warmer temperature zone both within and above the snow cover can lead to cell breakdown in the leaves and buds, which is commonly known as “winter burn,” obviously a “negative” consequence. In the upper portion of a “rhody” less covered with snow, the insulating effect is lessened. However, even the slightest shielding by snow on the vulnerable leaves from intense solar radiation (including light reflected off snow) can help. Two “common sense” ways to reduce the impact of wintertime solar radiation problems include planting (situating) a “rhody” under the sun-filtering branches of conifers or avoiding planting in open areas altogether. Planting sites with a south facing exposure tend to receive more of the intense, snow-reflected sunlight.

Another benefit of snow cover is greater ground moisture retention and less moisture movement due to snow’s low thermal conductivity, which occurs when a temperature gradient is relatively constant. This low thermal conductivity can ideally both “retard” the movement of moisture and slow down the plant’s growth metabolism. **[Editor’s note:** The soil moisture in the ground beneath a snow cover in the north-central United States has been observed to increase during the winter season. The maximum prethaw soil moisture frequently is observed immediately prior to the onset of the spring melt. A primary mechanism producing the increase is the upward movement of moisture in both the liquid and vapor phases that may occur with or without the presence of frozen conditions when induced by a temperature gradient. (http://amazon.nws.noaa.gov/articles/HRL_Pubs_PDF_May12_2009/HRL_PUBS_51-100/60_EFFECT_OF_SNOW_COVER.pdf)] This relatively stable moisture environment is good so long as the rate of transpiration is low. A thinner snow cover offers less insulation that in turn encourages the likelihood for transpiration and the active transport of moisture within the plant. This condition is not desirable, particularly during the intensely cold winter months of January and February. It is this “balance” between transpiration activity and moisture movement that affects the degree to which leaves, vegetative buds and, most importantly, the desired flower buds desiccate. A more stable temperature gradient also reduces the chances for root ball upheaval, another damaging consequence caused by the frost/thaw cycle.

There may, however, be negative consequences of having a substantial snow cover. Beneath an established snowpack is a “subnivean climate” (subnivean is Latin: sub = under and nives = snow). This is the relatively mild environment where mice, voles, shrews and other gnawing critters remain active during the winter. Those who have observed the destructive damage done to the bark of trees and shrubs can attest to this. Obviously a deep (higher) snowpack also allows these animals greater access to the upper reaches of a “rhody,” normally only within the reach of hungry deer and rabbits.

On balance, however, the advantages of deep snow cover outweigh the disadvantages for rhody culture. In the final analysis, snow cover may be one of the most significant factors in helping gardeners “push the zone” and allow them to grow less hardy plants successfully. The potential increased “protection” of more tender rhodies by lots of snow

can be significant!

NOW! On to my near catastrophe! How would you like to receive a phone call in sunny Florida on a Sunday morning in February informing you that the heat is “out” in your home? My home is located in Traverse City, MI; it was -10° F (-23° C) outside that fateful morning. The call came from my “house watcher” who had responded to a Central Station alarm and was frantically trying to get the wood-burning boiler going to generate some heat. All this resulted from the lack of propane. Why you ask? It was because the gas utility driver could not find my propane tank buried under 4 FEET (1.2 m) of snow!

Roger Dunlap is a member of the Midwest Chapter.

ARS Photo Contest 2015

The Contest is open only to ARS members in good standing as of the contest closing date. Judges and their immediate family (spouse, parents, siblings, and children) and household members are not eligible. By participating in the Contest, each entrant fully and unconditionally agrees to and accepts these Official Rules and the decisions of the Judges, which are final and binding in all matters related to the Contest. There are no prizes except bragging rights, and the Editor of *JARS* has the right to publish runner up and winning entries.

All entries should prominently feature either rhododendrons, azaleas and/or vireyas in the composition. Competition categories: 1) Flower, truss or spray; 2) Plant in bloom; 3) Landscape or plants in the wild or in gardens; 4) Foliage; 5) People, Insects, or Animals; and 6) Other, for creative or artistic effects of any kind that involves these plants. This could involve the use of software products like PhotoShop.

Photo Guidelines: 1) The Photo must be in .jpg, .jpeg, or .gif; 2) Images submitted should be sent by email and be of modest size, about 1024 to 1280 pixels in length and 480 to 768 in width, which would correspond to a dpi of at least 300 for a 3 x 5 in (7.6 x 12.7 cm) photo; 3) Cropping of digital images and minor adjustments to exposure and color balance is permitted for entries in all categories. Advanced image editing features available in software products like Photoshop should not be used except for entries in category six; 4) The Photo caption and/or description must not exceed 200 characters in length. Provision of some details about the camera and settings for each entry is also required, and for submissions in category 6, include a brief explanation of how the image was created; 5) all photos submitted must have been taken between January 1, 2015, to July 31, 2015; and 6) the number of entries by any individual per category is restricted to two.

ARS Photo Contest Winners 2014

Best in Contest



Best in Contest: Dave Eckerdt (Willamette Chapter): Azalea Path Portland Japanese Garden. Canon 1D-X, 50 mm (EF 28-300), F5, 1/60, 6400 ISO.

1) Flower, truss or spray



Category Winner: Susan Lightburn (Nanaimo Chapter): *R. yunnanense*. Nikon D300, 17-55 mm, F6.3, 1/80, 200 ISO.



Category Runner-up: Susan Lightburn (Nanaimo Chapter): *R. spinuliferum*. Nikon D300, 17-55 mm, F6.3, 1/100, 200 ISO.

2) Plant in bloom



Category Winner: Marc Colombel (Scottish Chapter): 'Horizon Lakeside' Canon 5D Mark II, 70/200 mm + Extender EF 1.4X at 240 mm, F7, 1/1600, 400 ISO.



Category Runner-up: Susan Lightburn (Nanaimo Chapter): 'Phyllis Korn'. Nikon D300, 17-55 mm, F7.1, 1/80, 200 ISO.

3) Landscape or plants in the wild or in gardens

Category Winner: Dave Eckerdt (Willamette Chapter): Azalea Path Portland Japanese Garden. Canon 1D-X, 50 mm (EF 28-300), F5, 1/60, 6400 ISO. Also selected for Best in Contest. See photo on page 20.



Category Runner-up: Kristian Theqvist (Finnish Chapter): Finnish hybrids in my arboretum (from left to right 'Eino', 'Helsinki University' and 'Pohjola's Daughter' (white, past flowers), and in back 'Pekka' (behind Sorbus leaves), 'Haaga' (behind the bridge) and high growing 'Mikkeli'. Canon PowerShot SX20 IS, F2.8, 1/40 80 ISO, Exposure Bias = -0.33.

4) Foliage



Category Winner, Tied: Don Hyatt (Potomac Valley Chapter): Azalea Ice Sculpture. Nikon D7000, F6.3, 1/160.



Category Winner, Tied: Marc Colombel (Scottish Chapter): *R. dendrocharis*. Canon 5D Mark II, 100 mm macro, F29, 1/25, 400 ISO.

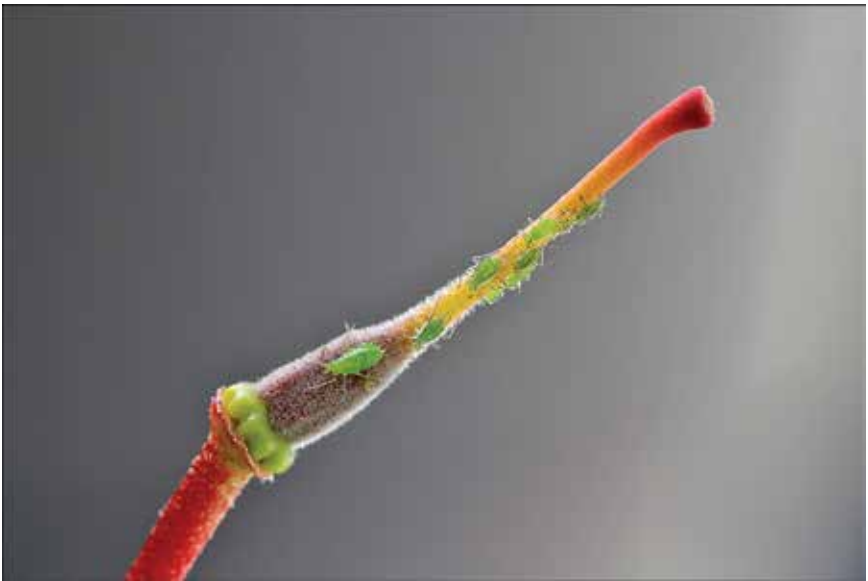


Category Runner-up: Susan Lightburn (Nanaimo Chapter): *R. calophytum*. Nikon D 300, 17-55 mm, F6.3, 1/80, 200 ISO.

5) *People, insects or animals*



Category winner, Tied: Marc Colombel (Scottish Chapter): *Stephanitis rhododendron*. Canon 7D MP-E, 65 mm, magnification 2X, F14. 1/5, 400 ISO.



Category winner, Tied: Marc Colombel (Scottish Chapter): Aphids on vireya. Canon 7D, 100 mm macro, F7, 1/50, 400 ISO.

5) People, insects or animals continued



Category Runner-up, Tied: Kristian Theqvist (Finnish Chapter): Rhododendron Whitefly (*Dialeurodes chittendeni*). Rhododendron whiteflies especially favour the new growth of some old hybrids such as 'Catawbiense Grandiflorum' and 'Cunningham's White'. A spray with Finnish Pine Soap ('Mäntysuopa') effectively kills the pests. Canon PowerShot SX20 IS, F2.8, 1/400, 80 ISO, Exposure Bias = -0.33.



Category Runner-up, Tied: Linda Derkach (Mount Arrowsmith Chapter): 'Double Besse' and bumble bee.

The Three 2014 ARS Photo Contest Judges

Doreen Wynja (McMinnville, OR), principle photographer for Monrovia Growers, has worked on the last two books from *Sunset* magazine, and is just finishing up the soon to be released book *Easy Care*. She has been photographing 30 years, with her primary work being commercially driven. Her imagery graces the pages of *This Old House* and *Fine Gardening* among other horticulture magazines. To contact Doreen or see her imagery, go to www.EyefoftheLady.com where you'll find an ever-growing Horticultural Library of her images.

Ken Beattie (Victoria, BC, Canada) is an award-winning photographer who specialises in exploring the techniques of digital artistry, with creations ranging from high quality photos, painting with light, and the blending of reality and fantasy. He currently leads the Digital Camera Special Interest Group at the Big Blue and Cousins (BB&C) Computer Club, where he organizes and directs photoshoots throughout the year. He teaches Basic Photography, Advanced Digital Photography, and Photo Editing.

Glen Jamieson, JARS Editor and keen photographer.

6) Other, for creative or artistic effects of any kind that involves these plants



Category Winner: Marc Colombel (Scottish Chapter): Southern Cloud_1. Canon 7D, 100 mm macro, F9, 1/125, 400 ISO.



Category Runner-up: Irving Snyder (Portland Chapter): The lady is Linda Rungay, our very competent Flower Show Chair. A picture of her in another photo was digitally cut out and was placed with her sitting on an unknown potted azalea in front of a very large 'Cynthia'.

Botanizing Azaleas with a Smartphone

Ron Miller
Pensacola,
Florida



Recent advances linking digital photography to GPS location services can reform the exploration, identification, and documentation of azaleas. By using technology that most of us already have at hand, amateurs can pave the way toward a transformation in the ways in which azaleas are discussed, described, and ultimately classified. Wide-ranging, highly populated, and publicly accessible digital photo and location databases (collectively, an azalea wiki) could overcome the limitations of traditional documentation and lessen the gap between speciation as seen by taxonomy and by evolutionary and molecular biology. The use of modern tools can put the life back into a life science.

The joy of GPS. Anyone who finds an azalea in the boonies and dreams of revisiting it for a photo or a few cuttings knows that getting back is seldom easy. Of late, your short term memory has failed you. Your notes, if you can find them, are incomplete or illegible. Locked gates now block back roads. Landmarks have been bulldozed or burned or overgrown. The flagging that you fastened ever so discreetly to a bush nearby was all too discreet or has been removed by another plantsman or (shhh!) maybe by the landowner.

Things are far worse if you wish to find plants described by a herbarium sheet or a friend. At what point do you begin inside greater Hooterville to reach a site 5 miles to its east? Does that mean due east or somewhere between northeast and southeast? Are those road miles or linear measurements? Nothing this side of a politician's promise is more hollow than being told which county an azalea was found in. I wish I had minimum wage for every hour wasted staring at topo maps or consulting deaf old men at country stores while trying to find the Ebenezer Holiness Church or Suggs Pond or Coon Dog Hill or wherever the one and only, probably nonexistent, patch of *R. calendulaceum* in Alabama hides.

The obvious answer for at least revisiting your own finds is the handheld GPS, or simply the "handheld." Record a spot on site by creating a pin or else by entering coordinates from notes to create a waypoint. Return while glancing at the screen. If you wish to revisit more than a few locations or to exploit a list of coordinates from other sources, however, you will need a handheld that can store and recall categories of waypoints in separate databases. That is to say, you should have a device with a file server. Since geocaching has become popular, the market will oblige. Plant finding with a handheld is simply geocaching for flower geeks. My DeLorme PN-40 holds a

32 gigabyte SDHC card with digital maps and over 60 database files, some with ~700 entries. Its screen displays either detailed road maps for getting to the general area or, after coming close enough to zoom in to follow the landscape, USGS 1:24,000 topos.

Wonderful gizmo, a giant leap forward in convenience and accuracy that would surely have made the great plant hunters of yesteryear weep with joy. However, the handiest way to exploit GPS technology is to equip yourself with a digital camera that records the location of each shot. The metadata in the photo file itself (the “EXIF” of the jpeg) retains a fix accurate to seven to ten feet (two to three meters), depending on conditions. A few years ago such features were available only as add-ons for pricey cameras; today they are built into many midrange point-and-shoots and are universal on smartphones. Check your purse or pocket. You are likely to be carrying a state-of-the-art botanical instrument right now.

Whenever I wish to document some azalea, I click the GPS dongle onto my Nikon D-90 or pull out my iPhone to snap away at the plant and its context from many angles and distances. The Nikon is the more versatile camera that prevents false location fixes with a flashing LED. The light, pocketable, multifunction smartphone is handier when clambering across steep terrain or bushwhacking through tangled vegetation; but it is less reliable in its fixes. At times, better a bother in the pocket than a millstone around the neck. In a pop-up, the free Picasa photo organizer on my PC shows the metadata of a jpeg from either camera when Alt-Enter is pressed. Better yet, Picasa, at the click of a button, throws up a “geotag” sidebar that displays a Google street or a satellite view of the area, with a pin at the photo site. When revisiting a location, I look up the photos in their folder and open the sidebar to remind myself where to travel. My handheld, loaded with the waypoint(s), offers standard “turn right here, turn left two miles later” highway directions that steer me to a parking spot where I can walk, boat, climb, or crawl the final leg of the journey. Beforehand, in my office, Picasa’s satellite view zooms down to reveal the very limbs of the trees, the patches of bare ground, and the cow paths near my quarry. And if there is cell reception at the site, a satellite app on my iPhone can often get me there by showing a clearing or a trail. Azaleas may run, but they cannot hide.

After any field trip, photos are uploaded from the Nikon card and from the smartphone memory. The new waypoints from the photos are merged into the appropriate location databases before the shots themselves are culled, cropped, and distributed to the photodatabase tree. Thank heavens, there is no longer need for a notebook, since the habitats and the companion plants can be photographed, too. The photos tell the tale from various perspectives and offer a virtual return when—as always happens the next day, or the next week, often while mowing grass or buying groceries or stepping out of the shower—it finally dawns on me (duh) what should have caught my attention out there in the first place. My multifaceted jpegs keep down fuel consumption for return visits and may well have, singlehandedly, Saved the Planet.

Digicams in action. At present, I am using my GPS digicams to investigate the categories, or perhaps the lack thereof, within the *R. viscosum* alliance. If you want to experience existentially what is wrong with azalea taxonomy, try slogging through the many “viscosum” subsections in Wilson and Redher’s *A Monograph of Azaleas* (1921, 157-166). This mind-numbing prodigy of splitting has been superseded by an equally heroic act of lumping (Kron 1993, 329-333). These polar strategies both result from the kinds of evidence offered and not offered by herbarium vouchers. Surely there must be some middle ground that better matches ordinary experience.

The diversity in the habits and habitats within the viscosum clan is evident in any comprehensive body of photos taken out of doors. Some cousins flourish in fire-prone dry sites and others in bogs; some have slick flower buds and others velvety; some send forth a few offsets and others are wildly rhizomatous; some reside primarily under ground with expendable emergent parts and others rise above with standard-issue azalea bushes; some bloom midseason and others quite late. All have white to pinkish, tubular, occasionally yellow-blotched flowers. Scarcely any of these dichotomies would be evident if you lopped off flowering branch ends from the various sorts, tossed the fragments together into a sack, shook them up, and tried to guess at home which is which. The habits and habitats and companion plants documented by the camera offer what seem to be the best clues to the ways by which natural selection has variously exploited the general potentials, the so-called “bauplan” (German: “body plan”), of the fundamental viscosum design.

Home from the field, I move to another system of technology by using software to extract the viscosum locations from the photos while sipping a cup of fresh-brewed coffee from my Keurig. Once added to their tentative varietal databases, these fixes can be viewed using (a) gpx files in my DeLorme map program, (b) kml files in Google Earth, or (c) the updated databases on the SD card of my handheld. Moreover, before I finish my coffee or the cat settles back down onto the keyboard again (Fig. 1), my other databases can be updated for additional noteworthy species, ericaceous and otherwise, photographed along the way.

The viscosum photos themselves are then culled and filed by variety, perhaps to be renamed or refiled later by dragging and dropping as the evidence from subsequent field trips filters in. So far, this ongoing, leisurely feedback process suggests that flowers and leaves will prove to be the least useful of discriminants, growth forms linked to bud scale surfaces the most. Contrast Skinner’s long evenings dutifully pressing, drying, and annotating sheets for shipment at flowering time, all the while huddled in a cabin in Possum Bend, Mississippi, while it rained. His ability to repeat the ordeal for 25,000 miles (40,000 km) in one season offers as unapproachable a record as Joe DiMaggio’s hitting streak of 56 games. “There were giants in the earth in those days.”

If only I could have obtained multifaceted GPS photodocumentation years ago. While wrestling with the differences between *R. alabamense* and *R. colemanii*, I spent



Fig. 1. Two computers locked up by a serious error in pet programming.

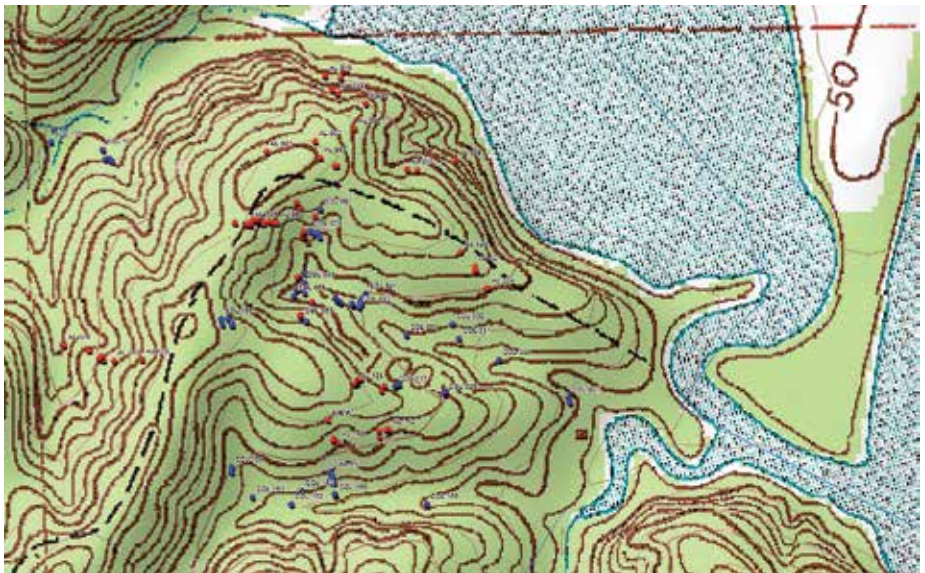


Fig. 2. Silver Creek Recreation Area, Clarke County, Alabama. *R. colemanii*=blue, *R. alabamense*=red

many days sleuthing vague herbarium references to “alabamense” in the Red Hills in Alabama and Georgia (Miller and Yeatts, 2007). We needed to be certain that the differences between the azaleas revealed by molecular means were mirrored in the field. The knowledge of habitats gained then can now be taken in at a glance in a map such as Fig. 2, which shows a portion of a recreation area in southwestern Alabama. Pins from my *R. alabamense* database are red; *R. colemanii* pins, blue. The red pins cluster along the ridges and the upper edges of bluffs, blue in moist ravines and at the bases of steep slopes with seepage. Correlate these patterns with the bloom times, growth forms, DNA sequences, and ploidies, and you can assure yourself that these are not just two cytotypes of a single species.

The way to a wiki. What if visual and spatial databases like my own, merged with those from other enthusiasts with GPS digicams, were made public? Above all, azalea studies need fresh evidence concerning living azaleas in the field, lots and lots of it, from godforsaken places. Using web-based records created by the azalea community itself, the data within an azalea wiki, any enthusiast wishing to investigate something unrecognized or unexpected could set up an itinerary as precisely and efficiently as someone planning a two-week tour of points of interest in Rome and Tuscany.

The primary operational challenge for building such a wiki will be making the transfer of data from individuals to communal resources as accurate and effortless as possible. Anything requiring physical transcription of coordinates is tedious and error-prone and off-putting. A workable system will therefore require software capable of processing photo metadata with a minimum of effort, a maximum of speed. That could be some variant of the custom software on my own PC. Since the programming details are inevitably nerdy, the nuts and bolts have been relegated to the appendix (p. 22). Field protocols can be worked out in the give-and-take of group projects.

For website range maps and for downloadable material, the kml/kmz format is surely best, since almost everyone with a desktop or laptop can access Google Earth, with its ability to show multiple waypoints, its constant updates of field details, and its ability to zoom down to treetop level. For individual photos on the web, links to the superb Acme Mapper (<http://mapper.acme.com>) would be even better, since that utility shows pins in maps that can be switched from USGS topo to Google satellite to Google road to hybrid. Someone skilled at website design should be able to set things up so that doubleclicking a photo activates a command of the form:

```
goto browser http://mapper.acme.com/?ll=LAT,LON&z=15&t=T&marker0=LAT,LON
```

—where LAT and LON are the decimal degree coordinates for the shot, out to five or six decimal places. To get a feel for this resource, type that url into your browser goto bar with the degree coordinates for some uneven terrain (perhaps 36.0, -87.0).

Yes, publishing locations to a few yards or meters is heresy. I rather scandalized myself reaching this conclusion, which cannot apply to truly vulnerable herbaceous plants such as rare orchids or trilliums. On purely practical grounds, however, precision is indispensable for genuinely replicated field study and essential for understanding how species distribute themselves across the terrain. How many times have I stared at a reference to a plant at some vague location, wishing to visit that exact site to see which species the azalea actually was and how it was growing? No doubt we might round the available numbers to two decimal places (± 0.3 mi, ± 0.5 km) for azalea clones of tempting horticultural potential. Moreover, landowners understandably may not wish to invite trespassing, and various landholding institutions do have their rules. Precision can be easily decreased with a parameter in a “print” command.

However, for ordinary *Pentanthera*, what is there to lose besides a few cuttings? The useful botanical find is not the extraordinary clone that begs to be collected, since it is too often an aberration that will end up being mislabeled, anyhow. I learned years ago to put no confidence in the identification of anything from a nursery, arboretum, or research collection. In the long run, horticultural cuttings may well be a plus for germplasm conservation in an environment where habitat destruction exceeds every other risk to azaleas by several orders of magnitude. For our own finds, at least, let us sin boldly by providing honest data. Ten minutes of bushwhacking through brush, briars, stream crossings, and guardian pit vipers will do more to sequester endangered plants than a fog bank of gatekeepers, regulations, and regulators.

The ease of creating accurate, universally accessible photodocumentation on the fly, as occasions arise, can certainly counteract the geographical bias of herbarium collections. As someone who explores backwaters, often quite literally by boat, I repeatedly muse whether anyone has ever botanized there before. Why, for example, has so little note been taken of the many July-to-September blooming *R. arborescens* along the waterways and drowned reservoir inlets in the lower piedmont of Georgia and Alabama? That’s easy: visualize hauling materials for the plant press around in a small, dirty, leaky rented boat during the South’s showery late summer weather. That is, if you can find a boat livery at all. Those remote “late arbs” are off the radar because they are inconvenient.

Go to any university herbarium website and check the records for some widely distributed species. Vouchers that are not over 60 years old (i.e., before botany turned molecular and air conditioning became universal) will come from areas half a day’s drive or less from the institution, again and again from the same spots that can be visited by a class field trip during the comfortable times of year. Hard to reach and distant areas will be sparsely represented, if at all. In a few weekends, three or four azalea fanciers from middle Alabama with smartphones, a fishing boat, and sunscreen could begin to revise what has been pronounced again and again about the “smooth azalea” in the empty echo chamber of publication.

Physical impediments also explain the scarcity of vouchers that can be offset by



Fig. 3. Low growing *R. viscosum* in northern Louisiana in a moist but not wet, frequently burned habitat. 1: *Symplocos tinctora* , 2: *Osmunda regalis*, 3: *Ilex glabra*, 4: *Acer rubrum*, 5: *Quercus alba*.

photodocumentation. Often I come home with three or four dozen shots from a newfound azalea colony. The marginal cost of an extra digital photo is very close to zero. What masochist would haul back material for more than a few vouchers? What herbarium would want them all? Consequently, studying azaleas using traditional materials is not unlike reviewing a movie by looking at stills lifted every five minutes or so. Even at a single location, a species does not have traits but a range of traits, not a habitat but a range of habitats, depending on its ancestral bauplan and on how broad a niche a species has evolved to occupy.

Last fall, on a tip, some friends and I visited a low-growing, highly rhizomatous, velvet-budded *R. viscosum* spreading in wide swaths across the repeatedly burned-over lower slopes and flats of the pinelands of Kisatchie National Forest in northern Louisiana. Afterward, I checked the Louisiana State University online herbarium site, only to find exactly one voucher from that entire area labeled either *R. viscosum* or a variety thereof. That particular voucher had not even been photographed. A folder on my PC now holds some thirty culled and spatially documented shots of these low-growing azaleas, their cohorts, and their habitat. See Fig. 3 for viscosum runners amid charred stems of *Ilex glabra* on a moist flat, with keys to other regrowth. Fig. 4 is a USGS topo with a coordinate flag derived from the metadata of Fig. 3.

Cursory Googling reveals that other herbariums hold vouchers from northern Louisiana labeled *R. viscosum* and/or *R. oblongifolium*. Because all varieties were



Fig. 4. Location of the Louisiana *R. viscosum* colony from Fig. 3 metadata.

collapsed into *R. viscosum* proper in the revision of the Pentanthera in 1993, the significance of distinguishing these two is hard to fathom. In all likelihood, in some collections, “*R. viscosum*” signifies some viscosum different from *R. oblongifolium* and unspecified alternatives; in others, it is a catchall for all viscosums; and in some that have not been updated, it is both. Examine next Fig. 5, an *R. viscosum* voucher which is labeled *R. viscosum* var. *serrulatum* but from the bloom time and the location in Mississippi almost certainly represents the Kisatchie variety. The contrast between Figs. 3 and 5 says just about everything that this essay tries to say. Could there be a more inflexible, cumbersome, and unreliable way of keeping records?

Will something like the proposed wiki replace herbariums? In time, yes. Suppose that the present taxonomic dispensation had begun not during the era of the sextant but during that of the GPS. Can anyone suggest that documentation would now be anything other than digital? Since we have quite an investment in antiquarian resources, methods, and above all, personnel, photolocation records must become supplements before they become substitutes. The richness of sampling, the ability to include photomicrographs, the direct link between records and maps, the ease of documenting habit and habitat, and the instant internet access by researchers and amateurs alike

should eventually shift practice away from physical records.

The medium and the message. So far, I have touted GPS digicams as a means for doing more efficiently, accurately, and copiously that which is done by legacy techniques. Contemporary means, conventional ends. But significant changes in usage are never value-neutral. Collecting and pressing material, describing species by a prescribed ritual, and writing either/or identification keys—all these elevate some kinds of evidence to the exclusion of others. What was once a vibrant species sending out runners, reaching for the light, blooming in sync with pollinators, opening capsules to the wind, and muscling out competitors along a sandy creek bank is reduced conceptually to a list of leaf shapes, pedicel lengths, hairs along mid-veins, leaf margins, seed shapes, and other details persisting when material is



Fig. 5. Voucher, probably the same *R. viscosum* variety as in Figs. 3 and 4. <http://images.cyberfloralouisiana.com/images/specimensheets/lsu/0/8/53/94/LSU00085394.jpg>

filed away in a cabinet. Everyone knows of course that plants are living things, but what we study is dried material, in the same way that medieval schoolmen knew that there was a physical world out there, but what they studied was Aristotle.

A long-forgotten slogan from the 1960s informs us that “the medium is the message.” Like all wisdom of the moment, it quickly became passé; but a core of insight remains. A medium of communication, by what it highlights and by its style, often speaks louder than the explicit content. A wedding invitation by email just does not say what an engraved calligraphic card delivered by the postman would. The warm, cozy, one-to-one ambiance of television is more important to a vote-for-me commercial than any platitudes that might be uttered. TV itself whispers, “We are just plain folks like you.” With such subtexts in mind, go read (yes, read) a dozen random vouchers from the web, which often have brief annotations about the habit or the habitat of the plant from which it was plucked. The rhetoric of the layout itself assures us about what is important and what is pro forma. The clear message from vouchers is that a species can be condensed into a single plant that is, in everything that truly matters, dead.

That seems a bit narrow and certainly premature. I get to know a species in something approaching the biblical sense not when coming upon a bush for the first time and

guessing its name by some minor trait but when that discovery leads, with increasing ease and frequency, to a second, third, fourth, and fifth, almost always in groups. From a chance encounter to an intimate familiarity with an active and reactive association. Every one of the misrepresentations that I have tried to correct since my first botanical paper on deciduous magnolias in the 1970s was the result of discovering that crucial evidence not present in filing cabinets was evidence not seen. No doubt a fragment of *R. colemanii* might well key out to *R. alabamense*; but take a number of photos of where and how both azaleas grow and what they grow with, and the scales will drop from your eyes.

In practice, rich photodocumentation made possible by digital technology offers a more varied and far more robust way of characterizing azalea species than do lists of up-close physical traits. Suites of photos do not spotlight morphology so much as the nexus between adaptation and form; that is, they portray a species as a broadly recognizable process in real time, an evolutionary event, a biological phenomenon that has been, and perhaps continues to be, shaped and channeled by natural selection. Photo portfolios reveal what might be called “species lifestyle”: the interaction of the species in general with its physical environment and with the biosphere. Again, the medium is the message, which in this case is that the species itself is continuously alive, physically diverse, and dynamically unified.

Once we free ourselves from an obsession with minute physical details, an azalea species becomes something that cannot be embodied in a lone plant, much less in a dried snippet of one. A species is an adaptive *population* whose collective nature is often more distinct than the morphology of the single plant. Indeed, the assumption that the whole is the arithmetic sum of uniform parts is the primary cause of the extraordinary unreliability in azalea identifications in vouchers, maps, and arboretums. The individual members of an azalea species are far from identical and are often the very devil to distinguish from isolated members of other species. In mathematical jargon, why must species be crisp sets as opposed to fuzzy sets? We deal every day with aggregates that exist as recognizable wholes but resist either/or distinctions in fine detail. Try dividing the individual minutes of dawn or dusk neatly into night and day. The compatible Pentanthera might be usefully compared to a pointillist painting whose shapes cannot be detected when your nose is pressed too close to the canvas.

Since physical form and overall lifestyle are both genetically encoded, what makes second-class citizens of the genes concerned with the latter? We could use a little genomic justice. Zoos nowadays recognize that a lone lion in a narrow cage with a concrete floor and bars offers a very poor representation of *Panthera leo*. Therefore they display lions interacting in groups in moated compounds with props made up to suggest the Serengeti. Why then do botanical institutions plant an azalea bush near a sidewalk beside a Japanese evergreen and a bed of tulips, place a plastic sign before it, and tell themselves that they have *Rhododendron eastmanii* in captivity? As for the truly

radical part-of-a-part myopia of vouchers, just let me recycle an analogy from an earlier paper of mine. An Athenian wag with a house for sale carried a brick around to show to prospective buyers. A brick is to a work of architecture as a dried branch is to a work of natural selection.

The deepest issue here is a pitfall inherent in what Aristotle calls *mimesis*, the use of forms in one medium to imitate the forms of another. Images, diagrams, samples, maps, enactments, mathematical models, taxonomies, and verbal or numerical descriptions are all mimetic modes that selectively mirror phenomena in the experiential world. Such indirection is necessary because we cannot intellectually engage things-in-themselves. Science in general is *mimesis* policed by falsification. The inherent risk is that we become so comfortable in our accustomed mimetic practices that we forget that the map is not the territory. Think of economists and their multipliers, physicists and their strings, climate modelers and their projections, journalists and their narratives, or politicians and their talking points, and then contemplate the strange fixation of specialists upon the preserved undersides of leaves.

One can understand the historical origin of this odd predilection—most often, what else did the earliest taxonomists have to represent the plants besides dried leaves and flowers—but the practice easily leads to distinctions driven more by the way that *we* do things than by the way that *nature* does. What does it say about us that without the least sense of absurdity we separate Species A from Species B principally by the presence or absence of glandular hairs on the abaxial surfaces of leaves? Oliver Cromwell had a wart upon his forehead, but that is hardly where any sober person would begin when describing him.

The cure for institutionalized myopia is a more distant point of view. If primatologists can devote careers to noting and photographing the behavior of chimps and gorillas rather than to dissecting their anatomy, why cannot authors publishing a new plant species or revising a genus illustrate profusely with photos and locations how species survive and compete and reproduce in characteristic ways? Is the behavior of a dwarf *R. viscosum* thrusting underground in fire zones toward favorable moist sites any less worthy of recording than the well known trait of honeybees to dance to inform the hive where food can be found? Plant lifestyle or behavior is surely far more crucial to the centripetal, consolidating, equilibrating dynamics that individuate a species than the fact that the leaves happen to be alternate, 6-9 cm long, and obovate.

Nonetheless, the telltale traits of the single organism must not be slighted in photographic records. Certainly close-ups of the smooth green stems of *R. arborescens* reveal a handy field mark. However, that azalea's schtick outside the highest mountains is in its securing a firm, moist root hold between the rocks along a sunny mountain stream. That is the basis of its economy, its excuse for being. A portfolio portrait of a sweet azalea colony can survive a few quirks in hairiness, leaf surface, bud shape, bloom time, flower color, or even in its distance from the edge of a creek. A wrong turn

in a decision tree will not lead the user irreversibly astray. After all, botanical keys are not the design specs for some supernatural assembly line but attempts to impose order upon the disorder within our often fuzzy categories. The fact that we call *R. calendulaceum* a species probably tells us more about *Homo sapiens* than about those bewilderingly diverse, probably highly polyphyletic tetraploid plants that have found ways to compete on our hardscrabble mountaintops.

Field marks narrow our choices; photos of lifestyle close the sale. Most of the time, the field-marks-to-lifestyle sequence is self correcting. Think of this as botanical profiling by keeping an eye out for suspicious behavior. Consider one glaringly suspicious record, that of *R. arborescens* in a county in far southern

Mississippi (Fig. 6, Forrest County, black). This ID was likely the result of a collector's not knowing that the red styles and filaments used to key the upland azalea are also occasionally present in coastal *R. viscosum* var. *serrulatum*. This wrong turn could have been corrected at the herbarium with a few accompanying shots of the habitat, which was surely not a rocky, high-gradient stream amazingly transported onto the loose Miocene or later deposits of that county. A GPS fix from the metadata would also have disclosed the mismatch, courtesy of an online geological map. The putative "arb" must have been growing on the Hattiesburg Formation's "[g]reen and bluish-green clay, sandy clay, and sand; gray siltstone and sand" (<http://mrddata.usgs.gov/geology/state/sgmc-unit.php?unit=MSMIph;0>). Maybe there really is a wandering "arb" in Forrest County, a stranger in a strange land; but as Clarence Towe likes to say, except on Appalachian balds, *R. arborescens* grows only where it can hear the sound of water.

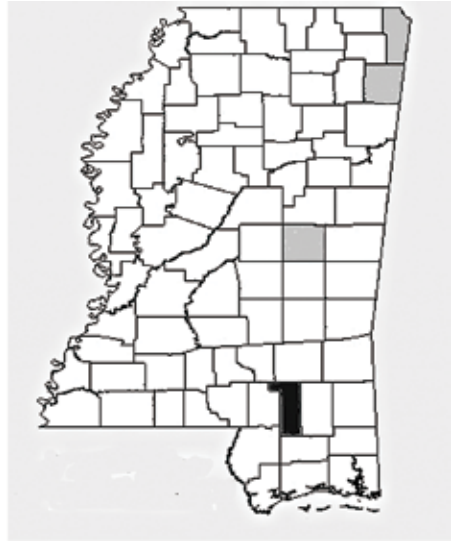


Fig. 6. Southern Mississippi county site for *R. arborescens* (in black) at <http://www.plants.usda.gov/core/profile?symbol=RHAR3>

Through a lens, darkly. In sum, photos of functioning azalea colonies keep our feet on the ground and our heads clear of Platonic Ideas. We can ponder the uncertain boundaries of what W.V.O. Quine calls "natural kinds" by examining GPS digicam photos that reflect living things in all their polymorphous perversity and facilitate efficient, extensive, and replicable field study. Such documentation would move taxonomy and molecular biology closer together because photos can reveal not only the morphological diversity—indeed, at times, the indeterminacy—within the azaleas

but, crucially, the adaptive unity encoded in their genes. Molecular biology, for all its pride in objectivity, is ancillary to and parasitic upon subjective methods. How else can researchers select the very materials that they test or sequence? Numbers can be no more accurate than the tag saying what they refer to. From examining web photos and from the surprising cytometric results reported by colleagues, I would wager that a broadly divergent phylogenetic tree could be generated from a blind set of plants labeled *R. calendulaceum* from the Species Foundation and from the Arnold, Morris, and National Arboretums.

Perhaps best of all, photos with their identifying GPS stamps could systematically document azaleas that do not conform to the current roster of species and varieties. Freed from our deep-seated conviction that things can be mastered if we can only utter their right names—what might be called our culture’s Rumpelstiltskin Complex—photos tagged by GPS location alone could legitimize unclassifiable plants and thereby make them proper subjects for study. Though such azaleas are as invisible to taxonomy as the homeless are to US Census, these, perhaps more so than taggable plants, offer insight into the Pentanthera as a whole. Re-read Skinner’s “In Search” (1955) and notice how many broad populations of inchoate azaleas he sidesteps by dismissing them as mixtures of accepted species, each time without offering evidence that the proposed parental species are no more than a butterfly’s flight away.

The word “hybrid” implies that all the genetic material was once part of prior, fully-formed species. Considering that most of the azaleas must have acquired their present niches and genetic states at most 10,000 years ago, after the Holocene catastrophic warmup, in what scenario except that of the most obdurate biblical literalism does that seem likely? Did once neatly segregated species dissolve into a matrix or did an enduring matrix precipitate the current species? Perhaps those photogenic swarms that we enthusiasts visit in pilgrimages each year as though they were Lourdes are the vital center of the azaleas and what we call the species themselves are the evolutionary dead ends.

With the advent of GPS digicams, multifaceted documentation that once would have been impractical is now as easy as pointing a point-and-shoot or touching a touchscreen. One final habit to overcome is the easy assumption that an azalea can be represented by a few glamour shots of showy flowers. To this temptation, we all succumb, though it is a bit like using an airbrushed centerfold to represent *Homo sapiens*. Why not a steam engine or the Chartres Cathedral or a photo of the ravaged landscape after the Battle of the Somme? Surely these four taken together characterize us more faithfully as an active species than would delightful Miss April alone. A successful azalea species is a tribe of scrappy, far from identical competitors for nesting sites with an appropriate range of physiology, reproductive strategies, roots, leaves, stems, rhizomes, seed, growth form, and, yes, sometimes stipitate glands on the veins of the leaves and rather nice flowers evolved to attract pollinators, not us. The task of analytical photography, like that of

serious painting, is not so much to delight the eye as it is to enable us see things in a new way.

APPENDIX: Loading camera data into location databases. Imagine that it is mid April and that you and I have spent a long weekend crisscrossing the remainder of the recreation area shown in Fig. 2, taking hundreds of shots of the blooming *R. alabamense* and the still tightly-budded *R. colemanii*. Getting home, we connect our cameras to my PC and transfer the photos to a special holding folder.

Each of the jpegs in the folder is then named descriptively, or we might just tell the software to tag and number them all. The *R. alabamense* shots are copied to a second processing folder. When a custom computer script (*cam2db.bat/sh*) is initiated, the screen asks which location database is to be updated with the coordinates in the photos. Reply: "ALABAMENSE." What name tag, if any? "AL." A freeware program from the web named "jhead" then strips the metadata out of all jpeg files in the processing folder, streams ("pipes") the information to special program files which create, name, and tentatively number the waypoints that are added to the *ALABAMENSE.gpx* file in the gpx folder. Since most of the shots are inevitably replicates, a second script (*purge.bat/sh*) merges all sites within 4 metres of each other into a single averaged location, sorts the waypoints to check for duplicate names, and renumbers them if necessary. Finally, the corresponding kml file is created and sent to replace the current Google Earth file within the kml folder. With a hundred photos and my largest database, complete processing takes less than a second. We then replace the *R. alabamense* files in the processing folder with *R. colemanii* shots and initiate the process over again, this time answering "COLEMANII" and "COL." Fig. 7 is a screenshot of a session on my PC.

My handheld and my DeLorme map program both use gpx files; Google Earth employs kml. Actually, Google Earth will read most GPS formats, too. Before any foray, the handheld is linked to the PC and another script is run to update all altered databases on the portable device. Unfortunately, there is no way to automate the human-intensive step of culling and filing the *R. colemanii* and *R. alabamense* photos into the folders within the tree structure of the photodatabase. Elaborate captions can be avoided if the folder names are descriptive and if the metadata remain intact within the jpegs.

I would be willing, in fact eager, to share any scripts, C program codes, or binary files with anyone. The scripts have been written so that the names of source and destination folders can be changed with a text editor. The only programs binary coded are those that carry out the actual transformation of the EXIF data stream into the gpx and kml waypoint formats and the cleanup of the database. Since my programming is done both in Linux (primarily) and in Windows (under duress), binaries are already compiled for these platforms. Porting the C code and scripts to a Mac should be easy,

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AEMULANS.gpx      COLEMANII.gpx      HAWTHORNE.gpx     PANAX.gpx
AESCULUS.gpx      CORNUS.gpx          HOME.gpx            PIERIS.gpx
ALABAMENSE.gpx    CORYLUS.gpx         HYMENOCALLIS.gpx  PINCKNEYA.gpx
ARBORESCENS.gpx  CUMBERLANDENSE.gpx ILEX.gpx            PRINOPHYLLUM.gpx
AR_PRINO.gpx      CYRILLA.gpx         ILLICIUM.gpx      PRUNIFOLIUM.gpx
ASHEI.gpx         DIRCA.gpx           IRIS.gpx           qtewty.gpx
ATLANTICUM.gpx   EASTMANII.gpx      KALMIA.gpx        QUERCUS.gpx
BEJARIA.gpx       EAST_TX.gpx        KITTY.gpx          SARRACENIA.gpx
blank.gpx         EPIDENDRUM.gpx     LILIU.M.gpx        SERRULATUM.gpx
CALAMINTHA.gpx   ERYTHRINA.gpx     LINDERA.gpx       SPHAGNUM.gpx
CALENDULACEUM.gpx FERN.S.gpx         LYONIA.gpx        STEWARTIA.gpx
CALYCANTHUS.gpx  FLAMMEUM.gpx      MAGNOLIA.gpx      STYRAX.gpx
CANESCENS.gpx    FOTHERGILLA_2.gpx MAXIMUM.gpx        TETRAPLOIDS.gpx
CARYA.gpx         FOTHERGILLA_4.gpx MINUS.gpx          TX_RAMPS.gpx
CASTANEA.gpx     FOTHERGILLA_6.gpx MONTANUM.gpx      VASEYI.gpx
CATAWBIENSE.gpx  GORDONIA.gpx      MORELLA.gpx       VISCOSUM_UNKNOWN.gpx
CERATIOLA.gpx    HALESTIA.gpx      ne_bogs.gpx       WISTERIA.gpx
CHAPMANII.gpx    HAMAMELIS.gpx     OBLONGIFOLIUM.gpx
CLADRASTIS.gpx   HAM_VERNALIS.gpx  PALMS.gpx

Name of file to add exif info to? ALABAMENSE
Enter tag for naming added points. Just Enter to retain photo names. AL
#ALABAMENSE.gpx =====> PURGED
::=> ALABAMENSE.gpx RENUMBERED
Original waypoints = 168 ; New = 1 ; Purged = 1
Net waypoints sent to gpx and kml databases = 168
Strike Enter to close

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Figure 7. Screenshot of custom software sending EXIF metadata to waypoint databases.

because systems since OS/X have had a Unix base. Garmin waypoints have defeated me because their format is proprietary and binary. There is, however, a delightfully named, albeit klunky, freeware program called “GPSBabel” (<http://www.gpsbabel.org>), which converts between all conceivable waypoint formats, including Garmin’s.

Ron Miller is an azalea chaser, a specialist in 17th century English religious poetry, and the author of previous articles on rhododendrons, azaleas, magnolias, and computer languages. Many thanks to Don Voss for a good, swift kick in the seat of the pants.

References

- Kron, K.A. 1993. A revision of *Rhododendron* section *Pentanthera*. *Edinburgh J. Bot.* 50(3): 249-364.
- Miller, R. and S. Yeatts. 2007. *Rhododendron colemanii*: a detective story. *J. Amer. Rhododendron Soc.* 62: 79-85.
- Skinner, H. T. 1955. In search of native azaleas. *Morris Arboretum Bulletin* 6: 1-2.
- Wilson, E. H., and A. Rehder. 1921. A monograph of azaleas. *Pub. Arnold Arboretum* 9: 1-219.

Society News

Awards

DISTRICT 2

Special Honor: Fir and Merlin Butler

District 2 of the ARS honors Fir and Merlin Butler in recognition of, and appreciation for, the time, effort and inspiration required to create Rhodo Ridge Arboretum and the selfless generosity to preserve the garden treasure for all posterity.

CASCADE CHAPTER

Bronze Medal: David Sherbrooke

The Cascade Chapter is proud to award David Sherbrooke the highest honor that any chapter can bestow upon a chapter member, the Bronze Medal. This medal is awarded to David to show the chapter's great respect and its gratitude for his service to both the Cascade Chapter and the rhododendron community.

Over the past few years David has had a lot to do with the success of the Cascade Chapter of the American Rhododendron Society. He has served on the Board as a Director for several terms and is currently in his second term as Secretary. More importantly he is a consistent volunteer at many of the chapter's activities including helping to organize tours and especially during our annual plant sales events.

As a volunteer for the plant sales over the years he has helped with selecting, hauling and storing plants at his house. He is always available to help set-up and take-down the various equipment—tents, tables, racks, etc. He has never



District 2 Director Richard Fairfield and Fir Butler at the ARS Fall 2014 Conference.

shirked from his self-imposed duties to aid our Chapter in its success.

As a board member he is forward looking, knowledgeable, and enthusiastic. He and Elaine have also opened their home for our Board meeting for the past couple of years.

Clearly we must recognize his contribution to our chapter and present him with this Bronze Medal as a token of our appreciation on this 10th day of June, 2014.

Society News

In Memoriam

Dalen Dwayne Bayes

Dalen Bayes of Sumas, Washington, passed away August 18, 2014, at the age of 73. He was a graduate of Lynden High School in Lynden, WA, and worked at Georgia Pacific in Bellingham, WA, for 40 years.

Dalen was a member of the ARS Komo Kulshan and South Fraser chapters. Over his many active years, he served as president in each chapter. He received the Bronze Medal from the Komo Kulshan and Fraser South chapters.

He and his wife, Lori Bayes, avidly collected rhododendrons, especially species, for their classic Northwest woodland garden on Sumas Mountain. A wide assortment of woodland companions enhanced the garden with its over 400 hybrid and species rhododendrons. The Bayes often opened their garden for tours and visits by other rhododendron aficionados.

As an avid naturalist and photographer, Dalen, along with Lori, traveled to remote areas to observe and enjoy the wonders of nature, canoeing in the Canadian North, climbing in the Rocky Mountains, and hiking in the Southwest US. They were members of the Rhododendron Species Foundation botanical trip to Yunnan, China, in 2005. Closer to home, they spent many hours exploring the North Cascade mountain range, virtually at their doorstep.

One of Dalen's favorite sayings was, "If you're lucky enough to be in the mountains, then you're lucky enough."

Dalen contributed more than his share to our chapter meetings. Along with his extensive knowledge of rhododendrons he brought a sense of fun and camaraderie. He will be sorely missed.

Dalen is survived by his wife, Lori; two sons, David and Dwayne; two brothers, Donald and Marlin; and four grandchildren.

Reader's Question

A reader asked for an explanation about the use of "β" by Voss. (Vol. 68: 85-89). Don states that "many years ago, authors of plant names sometimes distinguished varieties from species by using Greek letters (beta, gamma, etc.), not ranked names. In the International Code of Nomenclature, these are considered to be unranked taxa. In modern practice, these are usually considered to be varieties and are given names at that rank." Since Voss was referring to an 1815 article that used β, it was used by him in his article.

Society News

Summary ARS Board Meeting Minutes for Sept. 26, 2014

CERTIFICATION OF THE MAY 2014 MEETING MINUTES: Changes and Clarifications:

Nominations: MOTION to allow Kath Collier to run for a 4th term, *if the nominating committee was not able to find another candidate*. (Unanimous). MOTION to strike the motion nominating Kath Collier as secretary (which was unclear by those who attended the May meeting). (Unanimous). MOTION to accept the nomination of Ken Webb as Western Vice President (which was also unclear at the May meeting). (Unanimous).

Budget & Finance: MOTION to change appendix 1, page 1 of the minutes to say "budget as modified" (Unanimous).

MOTION to accept the May minutes as amended (Unanimous).

CONVENTION ADVERTISING GUIDELINES: Glen Jamieson clarified that four pages of advertising space would be available for conventions/conferences and that any additional pages beyond that number would be available at cost. Bob Weissman reminded the Board that; there are other ways of communicating to members. He requested more authors for the ARS BLOG.

BYLAWS & POB COMMITTEE: Fred Whitney, addressed the ARS store draft POB and explained the purpose of the preamble, and where this new policy would fit into the overall POB structure. MOTION to accept Fred's recommendations-(Unanimous). The new Bylaws/POB Committee will be chaired by Gordon Wylie and Bud Gehrlich. MOTION to refer POBs 5.9 through 5.11, and 10.0 through 10.4.2 to the Bylaws/POB Committee for review and recommendations to the next Board meeting; and suspend these POBs from use by the Society. (Majority in favor; Two opposed). These POBs primarily refer to questions in Section B Policies on the IRS 990 tax form related to business practices. Some of these POBs provide ARS procedures related to specific Oregon Revised Statutes (ORS) or Federal laws-

BUDGET & FINANCE: Dave Collier introduced the new Committee Lead, Dave Banks, and other committee members. He provided a short introduction and reviewed our 2014 performance. Sam Burd, Treasurer, detailed expected 2015 shortfalls and beyond, short- and long-term perspectives, and potential reduction models. A PowerPoint presentation outlining \$19,500 in budget cuts was made. MOTION to accept the recommendations for budget. Result: Majority in favor and Two opposed. MOTION to increase membership dues by \$5 (Failed 6 to 5).

ASSIGNMENT: Robert Ramik agreed to check on possible grant sources and get back to Don Smart (Fund Raising Committee lead).

NEW BUSINESS: Laura Grant and Don Smart received a note from Bruce Feller who submitted his resignation as ARS president. MOTION to accept resignation. (Unanimous). There was a suggestion that we recognize Bruce Feller's long involvement with the Board. ASSIGNMENT: Ann Mangels will provide something for the Journal. (Offered as a MOTION; Unanimous). There were procedural questions regarding the

Society News

Summary ARS Board Meeting continued

process of filling the affected positions. **Bob MacIntyre** would be 'pro tem' president for the next meeting, **Ken Webb** would move into Bob's position as Western Vice President, and **Don Smart** would remain as the Past President.

CONVENTION & CONFERENCE SCHEDULE: **Ann Mangels** reviewed the recommended schedule from the ad hoc committee (formed at the May Ohio meeting), and explained the changes. (Note: this was precipitated by the Portland Chapter's request to hold the 75th ARS anniversary convention in Portland in 2020.) She suggested a potential 2019 offshore meeting. MOTION to accept the ad hoc committee change on dates in east and west years.

DISTRICT REPORTS & ADDITIONS:

District 1: **Ken Webb** reported there was nothing to add to his report.

DISTRICT 2 – Richard Fairfield discussed his concerns related to the cost of participation and that involvement in the Board may become an elite-only activity.

DISTRICT 3 – No Director or Alternate Director. There was concern about the future of this District.

DISTRICT 4 – Director **Anne Gross** distributed a summary of **Gordon Wylie's** Hinsdale Garden report.

DISTRICT 5 – Director **Tim Walsh** indicated that they may finally have a hotel in Eureka that can be used for a conference or convention.

DISTRICT 6 – No Director or Alternate Director. **Don Hyatt** will be talking to those Chapters and encouraging folks to step up.

DISTRICT 8 – Director **Steve Henning** described the symbiotic relationship with flower shows and how they have been able to highlight the ARS in two events and involve Master Gardeners.

DISTRICT 9 –**Don Hyatt** briefly touched on the 2016 convention and referred folks to their website. Come to Williamsburg.

DISTRICT 12 – **Robert Ramik** provided a paper copy of his report to the Board. He described some of the activities they have been doing in their shows such as helping kids learn how to pot the plants. **Bob MacIntyre** encouraged all chapters to reach out to kids in various activities.

DIRECTOR AT LARGE – Director **Paul Anderson** indicated he had a report from all of the off-shore chapters except the Dutch Chapter. He talked about the successful May 2014 post convention tour to Germany-Denmark.

COMMITTEE AND STAFF ADDITIONS ARS STORE: **Steve Henning**, store manager, discussed some of the new products that are available on the site. He provided posters, a display, and flyers for this project. There are new programs on how to use the store, and descriptions of some of the products.

DIGITAL PUBLICATIONS: **Bob Weissman** reviewed the number of Journals now online, the remaining Journals to scan, and the timelines for making journals available online. They are currently reassessing their strategies, which range from 3 to 15 years. MOTION to set the time threshold on JARS archive at OARS to 5 years from the current year (Majority in favor, 1 opposed).

ENDOWMENT FUNDS: **Sam Burd** and **Bill Mangels** discussed the endowment grant

Society News

Summary ARS Board Meeting continued

program (which is temporarily suspended). Bill will write a Journal article.

FUND RAISING: Don Smart indicated that the committee is trying to gather more information on needed projects. They are currently looking at updating two brochures with new ARS contact and website information, and updated sketches.

RESEARCH FOUNDATION: The foundation received 7 research requests for 2015 and have approved funding for 4 of these. Don Hyatt discussed the support of scientific research and how the Research Grants have supported some of those efforts.

EDITORIAL STAFF: Glen Jamieson and Sonja Nelson indicated that they will be working with the Editorial Committee on ideas to reduce costs. They would like to get more advertisers to run colored ads:

NOMINATING COMMITTEE: The nominating committee has been seeking a candidate for ARS Secretary for the past 2 years. Earlier this year Linda Derkach from the Mt. Arrowsmith Chapter volunteered for this position. The committee is recommending Linda as candidate to take office at the end of the Sidney, BC, annual meeting. Don Smart introduced Linda who also introduced herself to the Board. MOTION to accept the nomination for Linda Derkach as Secretary (Unanimous). Adjournment at 4:35 pm

EXECUTIVE COMMITTEE MEETING SUMMARY: There were three Executive Committee meetings over the weekend. Two were 'Executive Only' with no notes being taken. The third meeting discussed the filling of the Officer vacancies, reported above and required by Article V, Section F of the Bylaws. The EC vote was unanimous.

ANNUAL MEETING: \$960 was earned in the Cake Auction.

Change in ARS Executive

Resignation of Bruce Feller, President

On behalf of the Board of Directors we want to thank Bruce Feller for the considerable amount of time he has given, the sharing of his leadership talents, and the organizational skills he demonstrated as President of the American Rhododendron Society.

We sincerely appreciate his leadership as President, and many other dedicated responsibilities he has assumed over the years. He has been a friend to many of us, and we look forward to working with him in the future.

Our very best wishes go out to him as he continues his association with the ARS.

Resignation of Kath Collier, Secretary

On behalf of the ARS Board of Directors, we thank you for your service over the past years as ARS Secretary and appreciate your efforts in keeping our records and timely response with Minutes of our meetings. You have made the BOD meetings comfortable with your planning and have brought new ideas for smooth running. All the best to you in the future.

Ann W. Mangels
ARS Eastern Vice President

ARS Research Foundation Grants

Karel F. Bernady
Research Foundation Chair

The following four research proposals were funded by the Research Foundation in 2014:
#14-1 Assessing and Increasing the Genetic Diversity in Cultivation of Three Red-Listed North American Rhododendrons: *R. eastmanii*, *flammeum* & *vaseyi*. (Funding in the amount of \$2,450)

Thomas E. Clark
Polly Hill Arboretum
West Tisbury, MA

Summary of proposal: The *Red List of Rhododendrons* (2011) published by Botanic Gardens Conservation International (BGCI) indicates that approximately 25% of all *Rhododendron* taxa in the world are under threat of extinction in the wild. The objectives of this two-year project is assess these three species under cultivation in botanical gardens, organize two collaborative collecting trips to various parts of the species ranges to collect broad genetic variation and to establish ex-situ conservation collections. An additional goal is to make seed available to a wider audience through the ARS Seed Exchange and prepare distributions for cooperating botanical gardens and arboreta.

#14-2 Counting Chromosomes of Species of *Rhododendron* subgenus *Rhododendron* section *Schistanthe* (*Vireya*) Having Flow Cytometry Scores Well Above the Range Normally Expected for Diploid Species in *Rhododendron* Subgenus *Rhododendron*. (Funding in the amount of \$1,000)

Dr. Ryan Contreras
Ornamental Plant Breeding
Department of Horticulture
Oregon State University
Corvallis, OR

Sally and John Perkins
Salem, NH

Dr. Joao Loureiro
Plant Ecology and Evolution Group
Center for Functional Biology
Department of Life Sciences
University of Coimbra, Coimbra, Portugal

Summary of Proposal: This research is a further continuation of a previously funded project by the Research Foundation of the ARS. In the past decade, much has been learned about the ploidy (chromosome number) of species in the genus *Rhododendron* by combing flow cytometry (estimating genome size by measuring relative DNA amounts in individual cells) and chromosome counting. Tetraploids or double the normal chromosome number was observed several native azalea species. Previous studies of *Schistanthe* (*Vireya*) species showed they had high flow cytometry scores suggesting polyploidy. The goal of this research is to determine if the increase in cytometry scores is due to an increase in number of chromosomes and/or the size of chromosomes. The significance would be valuable to hybridizers in production of *Vireya* hybrids and to the understanding of relationships between related species.

Society News

#14-3 Identification of Reference Genes for Expression Analysis of Cold Acclimation Genes in Rhododendrons Using Real-Time PCR. (Funding in the amount of \$4,150)

Dr. Malgorzata Czernicka

Unit of Genetics, Plant Breeding and Seed Science

Institute of Plant Biology and Biotechnology

University of Agriculture in Krakow, Krakow, Poland

Summary of proposal: Freezing temperature is one of the main and deciding environmental factors limiting growth and development of rhododendrons. For extremely low temperature acclimation ability in rhododendrons, dehydrins and the early light-induced proteins are responsible and these proteins are known genetic markers for cold hardiness. This study will analyze the expression of cold-related genes using real-time PCR. PCR stands for polymerase chain reaction, which is technique for rapidly replicating small amounts of DNA for further analysis. The main objective of this study is to select the most reliable reference genes for PCR analysis under cold stress conditions. The expected results may help in the selection of the most cold hardy individuals for breeding strategies in order to produce decorative and frost resistant rhododendrons.

#14-4 Linking plants to soils: Are novel soils contributing to native *Rhododendron* persistence and spread under environmental change? (Funding in the amount of \$4,150)

Alix Pfennigwerth & Jennifer Schweitzer

University of Tennessee

Knoxville, TN

Summary of proposal: This research proposes to study how genetic variation in *Rhododendron* species influences physiological performance under a changing climate, including increasingly fluctuating temperatures, moisture regimes, soil nutrient cycling, and interactions with pathogens, herbivores, and beneficial microbes. Results of this study would directly benefit horticulturists by providing information on selecting *Rhododendron* varieties best adapted to particular environmental conditions, as well as potential areas of natural hybridization under range specific scenarios. *Rhododendron maximum* (Rosebay Rhododendron) is an important ecological component of southern Appalachian forests and will be the focus of this study. The objective is to see if different populations in Virginia, Tennessee and North Carolina vary phenotypically and/or genetically across environmental gradients. One goal would be to inform and improve rhododendron cultivation practices by examining genetic variation and plant-soil linkages across these gradients.

This year, 2014, the Research Committee received seven proposals from researchers in the United States, India, Poland and Czech Republic. The Research Committee reviewed the proposals and assigned ranking based on several established criteria. The Research Committee recommended funding or partial funding of four proposals from the Research Foundation of the ARS. The Trustees of the Foundation met by conference call and approved funding levels based on the Committee recommendations.

On behalf of members of the Committee, I would like to give an important thank you to the Trustees of the Research Foundation for their stewardship of the Trust which has allowed for uninterrupted research funding of an average of three grants per year over these many years.

Committee Members: Harold Sweetman (Chair), Karel Bernady (Vice-chair), Robert Stamper, Bill O'Neill, Sandra McDonald, Norman Beaudry, Donald Voss, Ben Hall, and Bruce Feller (President, ARS).

Society News

Election of District Directors

In accordance with Article IX, Section E of the Bylaws, the chapter presidents in ARS Districts 4, 5, 8 and 9 served as their Districts' nominating committees. These committees have proposed the following nominees. The nominees are automatically certified as having been elected. The three-year terms of all who are elected will commence at the adjournment of the Society's 2015 annual meeting.

DISTRICT 4

District Director

Anne Gross (re-elected)

Anne is originally from Berkley, California, and has a degree in economics from University of California. She has been a member of the Willamette Chapter since the mid 1980s. She is a past Willamette Chapter President .

She has been ARS Secretary and past and present District 4 Director. She is also serving on the RSF Board of Directors.

District Director Alternate

Maria Stewart

Writing an autobiography is not a favorite activity of mine, but here it is, despite that fact. I love hearing about, learning about, taking care of, sharing and growing plants. The genus *Rhododendron* ranks high on my list of treasured genera. My husband Mike and I own the Dover Nursery in Sandy, Oregon, where we grow over 1,000 varieties of rhododendrons. It is our passion to supply garden centers, landscape companies and a few ARS chapter plant sales.

I also taught elementary school for 31 years and thoroughly enjoyed that career, also. Nurturing students is somewhat like nurturing plants, I suppose.

If my memory is correct, I believe that we joined the Portland Chapter of the ARS in 1980. I served as the Secretary of the Chapter in the 1990s. In 2010, I became the Vice-President of the Chapter in charge of programs for two years. Starting in 2012, I served as President for two years. Now, in 2014, I am the Past President for two more years.

Additionally, I have been part of the organizing and running of several Western Regionals and Conventions. In 1995, I was a Co-chair with Mike for the 50th Anniversary Celebration of the ARS. In 2011, I organized and ran the plant sale for the Annual Convention in Vancouver, Washington. I was a member of the organizing committee for three Western Regionals with Mike, Harold and Nancy Greer. In 1995, I was a Co-chair with Mike for the 50th Anniversary Celebration of the ARS. In 2011, I organized and ran the plant sale for the Spring Convention in Vancouver, Washington.

DISTRICT 5

District Director

Tim Walsh (re-elected)

District Director Alternate

Richard Jones (re-elected)

Society News

Election of District Directors continued

DISTRICT 8

District Director

Steve Henning (re-elected)

Steve joined the Valley Forge Chapter of the ARS in 1972 after learning about it at a Philadelphia Flower Show exhibit by the Greater Philadelphia Chapter.

Steve started the online site, Henning's Rhododendron & Azalea Pages, in 1996 to provide, in one place, a reference on the genus *Rhododendron* and explain many terms that rhododendron people take for granted. Steve served as the Valley Forge Chapter President from 2009 to 2012. Since 2012, Steve has served as District 8 Director for the ARS.

On Nov. 9, 2010, the National Arboretum announced it was destroying its Glenn Dale Azalea Collection. Steve discussed this with Don Hyatt. While Don lead an education campaign, Steve created the website SaveTheAzaleas.org. The campaign went viral. On April 25, 2012, the National Arboretum announced a reversal in its plans and declared the Glenn Dale Azaleas a heritage collection which should be preserved. Over 1 million dollars were raised to insure continuing care of azalea, boxwood and perennial collections.

In 2012, Steve was awarded the ARS Silver Medal, in part, for the various rhododendron related websites he created. In 2013, the ARS Board of Directors was looking for funds to make up for lagging revenue and increasing expenses. Steve volunteered to create ARSStore.org. This store is alive and well and is bringing in a modest cash stream to the ARS through referral fees from online purchases. Everyone is encourage to go to ARSStore.org before making any online purchase, and, in so doing, support the ARS at no increased cost to themselves.

Steve was a physicist for Bell Labs for 27 years and then a Boy Scout executive for 13 years. Now retired, his activities include Scouting, gardening, traveling, photography and Rotary.

District Director Alternate

vacant

DISTRICT 9

District Director

Dave Banks

Living in Williamsburg since 2002. Semi-retired consultant. Married to Virginia Banks. One son (b.1972). Prior and current service as treasurer of church groups and Master Gardeners. Served as President of Master Gardener Association. Treasurer, Webmaster, and Board Member of Williamsburg Botanical Garden. Webmaster of multiple organizations including MACARS Chapter and ASA.

ARS member since 1970s, member Potomac Valley Chapter until 1998, Dutch Chapter 1998-2002, MAC 2002-present. Member of MAC Board and MAC Finance Committee.

Serving on Steering Committee for 2016 Joint ARS/ASA National Convention, will

Society News

Election of District Directors continued

serve as convention registrar, currently keeping convention website.

Serving as Alternate Director of District IX 2013-2015. Appointed Chair of ARS Budget and Finance Committee 2014.

Hobbies are reading, gardening, quilting, website development.

Holds a PhD in Chemistry (Kansas, 1963).

District Director Alternate

William Meyers II

William Meyers II (Bill) is Owner and President of Meyers + Affiliates, Inc., Architects + Planners, in Baltimore, MD, designing commercial projects of all types. He has been a member of the Mason Dixon Chapter of the ARS since 1990 and has participated on the following Chapter and National activities:

- As Vice President, Chaired the Annual Truss Show and Sale for two years.
- Was Chapter President for two, consecutive, 2-year terms.
- Collected funds for the Plant Sale of the ARS Annual Convention that was held in Rockville, MD, incorporating the use of credit cards for the first time that allowed increased income.
- Participated in organizing the District 9 Meeting which was held in Westminster, MD.
- Served on the Chapter Board of Directors and chaired the development and maintenance of a Deciduous Rhododendron Display Garden at Bear Branch Nature Center in Westminster, MD adjacent to where the Chapter has its meetings.
- Continues to serve the Chapter as the current Membership Chair.
- Participated as a member of the ARS Endowment Committee for the past 3 years.
- Represented the ARS at a meeting of the Coalition of American Plant Societies (CAPS) at Mt. Vernon in spring 2014, and will do so again in 2015 in Cleveland.
- He and his wife were awarded the Mason Dixon Chapter Bronze Medal in 2009.

Bill maintains membership in the Ben Morrison Chapter of the Azalea Society of America, the Iris Society, the Daffodil Society, Cylburn Arboretum, Ladew Gardens, the Horticultural Society of Maryland, and is a member of both the Maryland Historical Society and the Friends of the American Wing of the Baltimore Museum of Art.

Rhododendron Calendar

- | | |
|-------------|--|
| 2015 | ARS Annual Convention, 70th Anniversary, Sidney, BC, May 6-10, Board Meeting |
| 2015 | ARS Fall Regional Conference, Long Island, NY, Oct. 16-18, Board Meeting |
| 2016 | ARS/ASA Annual Convention, Williamsburg, VA, April 20-24, Board Meeting |

Society News

70th Jubilee International NZ Rhododendron Conference Observations

This meeting organized by the NZ Rhododendron Association was held in Dunedin, South Island, and was attended by about 230 people from NZ, Australia (6), Canada (15), USA (11), Germany (6), Japan (12), the UK (2) and South Africa (1), of which 34 were ARS members. Dunedin, the second largest city in South Island, is a beautiful hilly city of about 120,000. Its climate is somewhat similar to northern coastal California/southern Oregon (but without the fog!) and it being spring there in October, the weather was mild and occasionally damp. The gardens toured were outstanding, and the rhododendrons stunning, both for their variety (many NZ hybrids are not well known in America) and ages (many 60+ years old), and the uniqueness of the native NZ vegetation gave all the gardens an exotic feel to visitors. The meeting was very well organized, and all attendees were able to visit every garden. Congratulations to our sister rhododendron society for a really great event!

Glen Jamieson



ARS members at the 2014 NZ Conference, Dunedin, NZ

Back row: Brian Coker, Robert Ramik, ?, Fred Whitney, ?, Dorothy Jamieson, Garth Wedemire, Laura Grant, Sue Davies/Gardiner, Ali Sarlak, Norma Senn, Lindsay Davies, Linda Derkach, Steve Hootman, Harold Fearing, Karen Swenson, Rex Smith, Masaru Hatori, Maria Stewart, Mike Stewart.

Front row: Helen Coker, Ginny Fearing, Diane Bell, Ann Whitney, Alison Alyling, Gloria Sarlak, Glen Jamieson, Elaine Derkach, Sue Grant, Jeanine Smith, Margaret Charlton, Charles Sale.
Photo by Martin Wilkie.

Society News

Endowment Grant Program Update

Bill Mangels
Endowment Fund Committee Co-chair

At its fall 2014 meeting in Everett Washington, the ARS Board approved a revised Society budget for 2014-15, including reducing funds from both publishing the journal and in the administration expenses of the Society. These were difficult steps to take, but the Board realized that it needed to take drastic action in order to bring expenditures in line with income. Part of the action taken included the elimination of the Endowment Grant Program and to use endowment income to support the operation of the Society. This was deemed necessary, and our awarding of grants for the foreseeable future has thus been suspended to allow endowment funds to be available for other uses.

The grant program was established in 2002 at a time when the ARS received a \$320,000 bequest from Dr. John Swisher. His bequest was unrestricted but was directed "to the benefit of mankind and the quality of life on our planet." The Board gratefully received this gift and elected to place it in our endowment fund. With the increased size of the endowment fund, the Board considered uses of the resulting income and decided to establish the Grant program. We began accepting applications in 2003 and this continued for every year thereafter, except for 2009, when there were no awards given due to insufficient income generated that year. Since the program's inception, the Society has awarded a total of 27 grants totaling \$68,184. The following is a listing of awards by date:

2003

- Hawaii Chapter – creation of a vireya rhododendron garden - \$3,500
- Tacoma Chapter – improvement of the chapter's display garden in Pt. Defiance Park - \$1,800
- Milner Gardens and Woodland – printing of a rhododendron information booklet - \$3,500
- Meerkerk Rhododendron Gardens – continuation of the test garden project - \$4,000

2004

- Tacoma Chapter – improvement of the chapter's display garden in Pt. Defiance Park - \$4,600

2005

- Halls Road Garden Society – preparation and development of a rhododendron garden - \$2,514
- Descanso Gardens – enlargement of the vireya collection - \$3,486

2006

- Middle Atlantic Chapter Species Study Group – brush mower to reclaim overgrown areas of Gregory Bald in the Great Smokey Mountains National Park - \$2,963
- Humboldt Botanical Gardens Foundation – acquisition of big leaf rhododendrons for its temperate wood garden - \$1,873

Society News

Endowment Grant Program Update continued

Tyler Arboretum – support propagation significant rhododendron taxa in the Wister collection - \$1873

2007

Humboldt Botanical Garden Foundation - acquisition of big leaf rhododendrons for its temperate wood garden - \$3,000

2008

Humboldt Botanical Garden Foundation – completion of planting beds in the Woodland Garden - \$3,000

O. Howard Hinsdale Rhododendron Garden – purchase rhododendrons that had been lost from the Hinsdale Collection - \$3,000

District 1 - Propagation house at Milner Gardens and Woodland - \$1,500

Cowichan Chapter – Rhododendron Garden project – footbridge and educational signage - \$1,500

2009

No grants were awarded due to insufficient endowment income

2010

Niagara Parks Botanical Gardens and School of Horticulture – acquisition of rhododendrons and azaleas for their collection - \$3,500

2011

Humboldt Botanical Garden Foundation – acquisition of labeling of equipment and supplies - \$3,000

Friends of the National Arboretum – gift to the ‘Save the Azaleas’ campaign Amount?

2012

Norfolk Botanical Garden – educational and interpretive signage for McDonald and Glenn Dale hybrids - \$2,000

Georgia Mountain Fair – restoration of the Hamilton Garden - \$1,750

Portland Parks and Recreation – purchase of species rhododendrons - \$2,000

Holden Arboretum – support for the Rhododendron Exploration - \$2,750

Bayard Cutting Arboretum – purchase of rhododendrons and signage - \$1,500

2013

Montreal Botanical Garden – purchase of plants from the Rhododendron Species Foundation - \$2,250

Planting Fields Arboretum – replacement of storm damaged rhododendrons - \$1,575

Mason Dixon Chapter – assist in propagation house construction - \$750

2014

No applications were received or accepted.

As you will note, grants have been awarded to a variety of projects—large and small. The program has helped the Society carry out its mission of informing and creating interest in rhododendrons and azaleas. Hopefully when finances are in order the grant program will resume.

Society News

Early Chapter Shows

Chapter shows from April to May 1, 2015. Shows during May 2015 will be listed in the Spring Journal. No admission charge unless noted.

CALIFORNIA - Rhododendron Show & Plant Sale; Show times: Noon to 4 p.m.; Plant Sales: 10 a.m. to 4 p.m., Sat., April 18; Lakeside Park Garden Center, 666 Bellevue Ave, Oakland (enter park from Grand Ave.). Judging will commence at 10 a.m. Free admission. The city charges a fee for parking inside the park.

COWICHAN VALLEY - The Cowichan Valley Garden Fair; 10 a.m. - 2 p.m., Sat., May 2; Cowichan Exhibition. For further information go to www.CowichanValleyGardenFair.com.

FRASER SOUTH - Fraser South Plant Sale: Sat., April 18; Langley United Church, 5673 200th Street, Langley, BC.

MOUNT ARROWSMITH - The Mount Arrowsmith Truss Show and Plant Sale; 10 a.m. - 2 p.m., April 25; Parksville Curling Rink.

NANAIMO - The Nanaimo Spring Show and Sale; 9 a.m. - 2 p.m.; Sun., May 3; Centennial Building at Beban Park.

NORTH ISLAND - Annual Rhododendron Show and Sale; 10 a.m. - 1 p.m., April 26; K'omoks Band Hall on Comox Road.

VANCOUVER - Vancouver Rhododendron Society Show and Sale; 10 a.m. - 3 p.m., Sat., May 2, 2015; Park & Tilford Gardens, 333 Brooksbank Avenue and Main Street, North Vancouver.

Chapter/District/Special Donations

8/16/2014 through 11/20/2014

Donor	Amount	Source
<u>Endowment Fund</u>		
Middle Atlantic Chapter	\$100.00	In memory of Sharon Allender
Middle Atlantic Chapter	\$100.00	In memory of Bob Stelloh
RSC Atlantic Chapter	\$262.17	Steve Krebs honorarium
Greater Philadelphia Chapter	\$400.00	Chapter donation
Tappan Zee Chapter	\$200.00	In honor of Steve Henning

Society News



These fine people in a succession of cake auction biddings collectively raised \$891.74 for the ARS (auctioneer Dick Cavender holds the cake): Steve Henning, Linda Derkach, Bob Ramik, Diane Thompson, Laura Kentala, Karen Cavender and Ken Webb, Photo by Glen Jamieson.

WWW.ARSStore.org - The New ARS Online Store

Every purchase benefits the ARS. The store has three divisions:

Merchandise: featuring knit, woven and denim shirts, caps, visors, and computer briefcases.

Amazon Merchandise: featuring Rhododendron & Azalea Books, Garden Books, Garden Tools, and any other item sold on Amazon.

Participating Merchants: featuring other merchants who agree to give referral fees to the ARS for each purchase when you mention ARSStore.org .

To access each division, just go to ARSStore.org and from there select what interests you. If you don't see an item, just use the Amazon search feature. Amazon sells just about everything. You get the same low Amazon prices from the ARS store, but by using it, the ARS gets a fee for referring you. As long as you go to Amazon from ARSStore.org before making any purchase, the ARS gets a referral fee.

Selected Vancouver Island Public and Private Gardens

Bill McMillan
Victoria, BC
Canada



Photos by the author

British Columbia is larger in area than California, Oregon and Washington State combined. Its largest island is Vancouver Island, which is 460 kilometres (290 mi) in length, 80 kilometres (50 mi) in width at its widest point, and 32,134 km² (12,407 sq mi) in area, which makes it the largest island in the eastern Pacific Ocean. Greater Victoria, which includes the location, Sidney-By-The-Sea, where the 2015 ARS Spring convention will be held, is the capital city of the Province of British Columbia and has a population of about 345,000. The island has a varied climate that allows for diverse activities no matter the season. In fact, the island's weather is a microcosm of the province in general: influenced by mountains and ocean, mild along the south coast and more extreme as you move inland, in elevation and northwards. The climate of

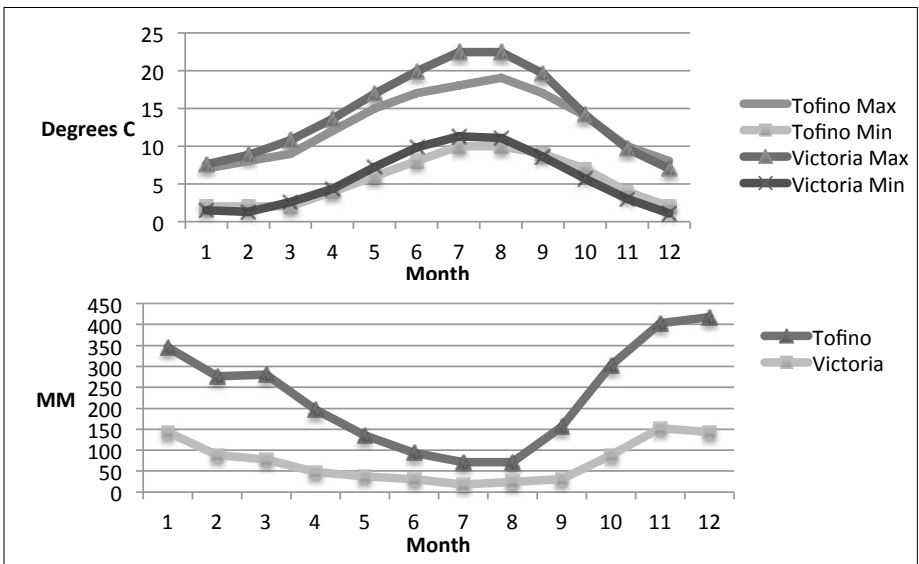


Fig. 1: Average monthly temperature and rainfall for Tofino and Victoria, BC.

southeastern Vancouver Island is characterized by warm to hot, dry summers and mild to cool, wet winters. This pattern resembles that of a typical Mediterranean climate, and allows gardeners here to grow an amazing variety of plants. As you can see from the charts in Fig. 1, precipitation and both high and low temperatures vary considerably on the Island. Victoria is situated at the southern tip of the island, Parksville and Qualicum Beach are located on the central east coast, and Tofino is found on the central west coast.

Victoria, sometimes called the “city of gardens,” boasts the mildest winter in Canada and the lowest rainfall on Canada’s west coast (Fig. 1). The southeastern coast of Vancouver Island, much of which is below the 49th parallel, is beautiful year-round. Like the northwestern USA, spring arrives there early, with hundreds of thousands of trees and bulbs blooming by late February. Rhododendrons can be found in bloom from November most years until August. In 2014, there were even a number of confused plants in relatively full bloom through September and October! Spring is always a wonderful time to visit Vancouver Island and the average min-max temperature in mid-May in Victoria is 7-15° C (45-59° F). Gardens are typically in their prime in early May and rhododendron and spring flower displays then are spectacular.

Precipitation is just 700-800 mm (28-32 in) per year on the southeastern side of Vancouver Island; in contrast Tofino, on the western side of the island’s mountains, is exposed to the moisture-packed westerly winds blowing off the Pacific Ocean and receives copious amounts of precipitation from October to March (prime storm watching season), although summers there are also fairly dry. The island’s relatively small population allows for a delightful blend of urban and rural settings; the island boasts a number of excellent public gardens and numerous interesting private gardens, some of which are described in more detail following.

Butchart Gardens, Brentwood Bay

Robert Butchart, a pioneer in the thriving North American cement industry, was attracted from Owen Sound, Ontario, to Canada’s West Coast by rich limestone deposits. In 1904, he developed a quarry and built a cement plant at Tod Inlet north of Victoria to satisfy demand for Portland Cement from Victoria to San Francisco. Jennie Butchart became the company’s chemist. Close to the quarry, the Butcharts established the family home complete with sweet peas and rose bushes.

When mining exhausted the limestone deposits over a century ago, his enterprising wife Jennie decided to create a place of beauty in the gigantic mined-out pit. From farmland nearby, she had tonnes of top soil brought in by horse and cart to line the floor of the abandoned quarry. Little by little, the quarry blossomed into today’s spectacular Sunken Garden. The only surviving portion of the original cement factory is the tall chimney of a long vanished kiln seen from the Sunken Garden lookout. The plant stopped manufacturing cement in 1916, but continued to make drain tiles and flower

pots until 1950.

Between 1906 and 1929, the Butcharts also created a Japanese Garden near the sea, an Italian Garden on their former tennis court and a beautiful Rose Garden. Mr. Butchart took great pride in his wife's remarkable work. Grandson Ian Ross was given The Gardens on his 21st birthday. After service in WW II, he worked hard to make his grandmother's garden self-sustaining, transforming the then mostly neglected home and gardens into an internationally famous destination. For 50 years he was completely involved in its operation and development. In the summer months, he added outdoor symphony concerts (1953-1967) and the Ross Fountain (1964) for the Gardens' 60th anniversary. In 1987 he initiated The Magic of Christmas display. His son Christopher assisted from 1977 until his untimely death in 2000, and during the summer months, he designed, produced and executed intricate Saturday night firework shows choreographed to music. Each year was a new and more exciting show with a unique repertoire that continues to the present.

Late in 2009, his sister Robin-Lee Clarke, great granddaughter of Jennie Butchart and the current garden owner, added a Children's Pavilion complete with a large Menagerie Carousel.

Each year over a million bedding plants of some 900 varieties provide an uninterrupted blooming from March through October. Almost a million people visit annually to see the spring's colourful flowering bulbs; the summer's riot of colour, entertainment and Saturday fireworks; the fall's russets and golds; and the Magic of Christmas' decorations and winter's peacefulness. What a wonderful mine reclamation project this has been!

The Horticulture Centre of the Pacific, Saanich

The Horticulture Centre of the Pacific (HCP) began as an ambitious dream: to create a Centre of Excellence for Horticultural training with both theoretical and practical aspects, to develop a Pacific demonstration garden to promote education, and to become an international forum for cultural exchange. In 1979, the HCP was granted a certificate of incorporation and registered as a not-for-profit society. Funding looked promising but the dream met reality. Recession arrived in 1981 and no government funds were available. This also led to the loss of a grant from the Alberta Devonian Foundation. Consequently, the master plan featuring Canada Hall as a cultural centerpiece for international cooperation had to be put on indefinite hold. However, short term funding from job creation grants enabled the HCP to start developing demonstration gardens in 1983.

In 1982 the board had recruited Bill Kempster, a retired contractor, dahlia and gladiola grower, and exhibitor and judge at flower shows across the continent. Having Bill on board was a godsend! He and Al McMinn cut grid lines through the undergrowth and clearing began in preparation for work parties. The garden development committee worked with architect Richard Pavelek to develop a basic plan for a small demonstration



Horticulture Centre of the Pacific.

garden. The crew of twenty, and the ever-present Bill Kempster, made an impressive start toward the realization of one part of the HCP dream. Despite many trials and tribulations and a constant struggle for funding, highlighted by ongoing support from the municipality of Saanich, development continued apace and we now have thriving gardens and a long-term lease on the 42.5 ha (105 acre) property.

The developed gardens occupy 3.6 ha (9 acres) and the rest is woodland where native plants are being reintroduced and invasive plants removed. The HCP has many sub-gardens including heather, native plant, winter, Takata (Japanese), Zen and a recently added Bonsai collection. Staff at the HCP are few and volunteers with local garden clubs, including the Victoria Rhododendron Society (VRS) and the Hardy Plant Group, develop and maintain specific gardens. The importance of volunteer labour, and donated services and funds from HCP members and industry cannot be overstated. The focus of the rhododendron and hosta garden is to provide year round interest through plant selection and addition of companion plants, and this garden features both hybrids and species.

The rhododendron garden was started in 1985 with 150 plants. Unfortunately, root rot caused by poor drainage caused problems and so in 1994, Victoria Rhododendron Society member Ted Irving, who had just joined the Board of the HCP, undertook the task of renovating the garden. A plan was developed and, with funding from the VRS and immense volunteer effort, raised beds were built, drainage was improved, the soil was amended and new pathways were established. Plants were relocated and many

new plants were added to demonstrate the wide range of growth habit, leaf size, disease resistance, fragrance, time of blooming and colour available to rhododendron fanciers. Hostas were also added at that time, and today there are about 75 kinds of hosta species and hybrids.

The rhododendron collection now consists of about 375 plants, with both species and well known and modern hybrids, including some developed locally. There is also a wide variety of understory companion plants, now numbering more than 200 kinds, as well as katsura, stewartia, and dogwood trees and both species and hybrid magnolias. As this is a demonstration garden, identification labels are on most plant types. The peak blooming in the Rhododendron and Hosta Garden is in early May.

Royal Roads University Gardens, Colwood

A National Historic Site, Hatley “Castle” and the Royal Roads University Gardens comprise 228.6 ha (565 acres) of wooded glens, wild places and gardens. Hatley Castle was built for coal baron James Dunsmuir who commissioned Samuel Maclure, a Victorian architect, to design the building and Messrs. Brett and Hall, landscape artists of Boston, Massachusetts, to plan the gardens and surroundings. Local stone, trimmed with Valdez and Saturna Islands sandstone, was used in the building’s construction. Its impressive exterior is matched only by the lavishness of the interior appointments. James is quoted as saying: “Money doesn’t matter, just build what I want.” The building is 61 m (200 ft) long and 26 m (86 ft) wide, with a turret 25 m (82 ft) high. Ten km



Royal Roads University Gardens.



University of Victoria's Finnerty Gardens.

(six miles) of road interlace the estate, and a hundred men were once employed in the gardens after the Castle was completed in 1908.

In November 1940, the property was purchased by the Canadian Government as a Naval Training Establishment for reservists. In time it expanded to include all three forces and became known as the Canadian Services College Royal Roads, but in 1968, this was changed to Royal Roads Military College.

Royal Roads Military College closed in 1994, but the Province of British Columbia now leases the site and established Royal Roads University there in 1995.

The University continues to maintain and develop the gardens with a small gardening staff. The gardens are readily accessible for walking and some paths are wheel chair accessible. There is an extensive woodland garden and three formal gardens: an Italian garden near the castle, the walled Rose garden and the Japanese garden with its delightful pond, statuary and reflections. The site also features hundreds of heritage trees significant for their size, rarity and diversity, including 250-year-old Douglas-fir.

The University of Victoria's Finnerty Gardens, Victoria

One of Canada's best collections of rhododendrons is on display at Finnerty Gardens at the University of Victoria. The garden contains over 4000 different trees and shrubs, including more than 1500 rhododendron and azalea plants, with 200 rhododendron species. Some plants are over six m (20 ft) in height. These and a spectacular range of companion plants are artistically displayed on a 2.6 ha (6.5 acre) site at the southwest

corner of UVic's campus. Complementing the plants are three tranquil ponds, an inviting network of winding paths and dozens of benches, each with its own distinctive view of the ever-changing gardens.

The gardens provide a rich and varying array of colour, scent, form and texture all year round. In April and May, you will see the rhododendrons at their best. The garden is tended by the Finnerty Garden Friends, a special group of UVic alumni and community members who advise on the planning and development of the year-round garden.

Government House Gardens, Victoria

Government House is the home of the Lieutenant Governor, the Queen's representative in British Columbia, and its gardens were originally designed in 1911 by G.K. Maclean, a landscape architect from Vancouver. During rebuilding following a fire in 1957 that destroyed the residence, Robert Savery, a British-born and educated landscaper, updated the design of the gardens in a traditional English garden style. Initially up to 17 gardeners worked on the property, but in the 1980s, government austerity programs reduced the number of staff gardeners to one. Even with maintenance by contractors, the gardens began to deteriorate until, in 1991, Lieutenant Governor David Lam initiated the Garden Volunteer Program to enhance the existing gardens, create new gardens, and improve maintenance of the Government House grounds for public use and enjoyment. The Friends of the Government House



Government House Gardens.

Gardens Society now maintains the gardens, raises funds and ensures the continuation of interest and support of the grounds. New pathways now make the grounds more accessible to wheelchairs, the Terrace Garden is now open to the public, and there is a public access path through the Woodlands. The Caledonia Cascade, a small waterfall and pond located on the east cliff of the Terraces, was also created.

Government House's 14.6 ha (36 acre) property is a publicly accessible area and is used frequently by the surrounding community, except when increased security for official events is needed. The site is divided into a number of zones according to plant life and/or garden style; for instance, the British Columbia native plant garden contains species unique to the province, and the informal Cottage Garden has a mixture of ornamental and edible plants. There are also gardens to supply cut flowers and herbs; an orchard with apple, plum, and quince trees; a rock garden tended by the Heather Society of Victoria; iris, lily, rhododendron, and rose gardens (including a formal Victorian rose garden based on the plan of that at Warwick Castle in England); and water features such as the fountain pond and the duck pond. There is also 8.9 ha (22 acre) of the endangered Garry Oak ecosystem.

Abkhazi Garden, Victoria

In the 1920s in Paris, the young Marjorie (Peggy) Pemberton-Carter first met the exiled Georgian Prince Nicholas Abkhazi. They established a strong friendship that was nurtured by correspondence and occasional meetings whenever Peggy visited Paris. During World War II, both were interned, Nicholas in Germany and Peggy in Shanghai. After their release, Nicholas contacted Peggy and their reunion in New York turned into an engagement. They married and settled in Victoria where Peggy owned property.

This land, now known as the Abkhazi Garden, features both an exquisite heritage home and the garden. Prince and Princess Abkhazi began creating their garden the year they married and continued to maintain and improve the garden throughout their lives together. More information can be found in Abkhazi (2003) and Gordon (2002).

From the street there are only hints of the garden beyond the hornbeam (*Carpinus*) hedge. The visitor finds a garden that embraces a natural landscape with dramatic glaciated rocky slopes, magnificent native Garry oaks and gorgeous vistas. The house is situated on a rock knoll and the garden flows around the rock, taking advantage of deeper pockets of soil for conifers, Japanese maples and rhododendrons that over the last 50 years have grown to an impressive maturity. Carpets of naturalized bulbs, choice alpines and woodland companions provide interest throughout the year, but it is the overall design that leaves the greatest impression.

The Abkhazis worked together on their creation for over 40 years, referring to it as "their child." After their deaths, the Garden changed hands, and in February 2000, The Land Conservancy purchased the property to save it from becoming a townhouse



Abkhazi Garden.

development. The garden is now maintained by volunteers known as the Friends of Abkhazi Garden.

Dominion Brook Park, Saanich

Dominion Brook Park is a 4.45 ha (11 acre) park on the Saanich Peninsula originally created by the Canadian Department of Agriculture as a public demonstration arboretum and ornamental garden. The land was cleared in 1912 and W.T. Macoun, Dominion Horticulturist, and son of the world famous botanist, John Macoun, immediately ordered it readied for planting.

Plant material was ordered from established nurseries in Britain, France, Holland, Germany, Japan and the USA. Documents show that the Arnold Arboretum at Harvard University shipped 60 different rhododendrons and ornamentals, which included rhododendrons and other species grown from seed collected in Western China by renowned plant hunter, Ernest “Chinese” Wilson. A few survivors from this original planting remain from the original planting.

Of the hundreds of species planted over the last 97 years, many have died but a heartening number have grown to maturity. Their pride and joy is the collection of mature conifers, and detailed records including the original 1913-14 invoices have revealed fascinating details about individual trees and shrubs.



Dominion Brook Park.

The layout of the park was masterly landscaped around Dominion Brook to showcase the exciting plant selections in the varied terrain, which features glades, dells and vistas, a pond and pools. During the years when Dominion Brook Park was meticulously maintained by Experimental Farm staff, the park was a popular place for family and community events and as such played an important role in the social history of the Saanich Peninsula. When federal funding for maintenance ceased in the early 1980s, the unique plantings began to disappear under invasive English ivy and blackberry.

Fortunately, in the late 1990s a citizens group formed a volunteer non-profit Friends of Dominion Brook Park Society that now has over 200 members. A grant from the Provincial Capital Commission through its former Greenways Program allowed the park to be fenced for public use. This in turn enabled the District of North Saanich to negotiate a Stewardship Agreement with the Federal Government and in July 2009, a lease for 25 years, with an option for a further 25 years, was signed.

This cooperative effort between citizens, municipality and federal governments led to an extraordinary rebirth of the old park. Volunteers have contributed over 5000 hours of clean up and rehabilitation work since 2001 and the District of North Saanich and the Centre for Plant Health (formerly the Dominion Experimental Farm) have assisted. The volunteer work has progressed to the point of allowing the Society to begin planting programs and plans include the restoration of the formerly magnificent Rhodo Ravine where the Dominion Brook meanders through the park.

Milner Gardens and Woodland, Qualicum Beach

Most of the 28 ha (70 acre) Milner estate is woodlands. Nestled in the privacy of the gardens is the Milner residence. It is a fabulous but simple house overlooking a wide lawn and the Salish Sea. The gardens were intentionally designed in a “natural” arrangement, and are focused on rhododendrons.

Horatio “Ray” Milner, a lawyer who became Kings Counsel, had an exceptional career, and was a renowned philanthropist and businessperson. His estate at Qualicum Beach was his retreat from his busy business life and he began work on the garden in 1937 with his first wife, Rina, who passed in 1952. After Ray’s marriage to his second wife, Veronica in 1954, more extensive work on the four ha (ten acre) garden portion of the estate began. Veronica named the estate “Long Distance”; in her words, “We called this house this name because it was so far away from my old home, and because the telephone was always ringing for him.” Veronica was an artist, and her elegant pastel botanicals and rich oils cover the walls of the residence. Her artist’s eye and horticultural expertise combined to shape the garden, and she acquired many of the trees and shrubs when she accompanied her husband on his frequent business trips abroad.

Veronica was the widow of Desmond Fitzgerald, 28th Knight of Glin, County Limerick, Ireland, and her mother was a cousin of British Prime Minister Winston Churchill. Both Churchill and Veronica were descended from the First Duke of Marlborough, and thus were related to Diana, Princess of Wales. The Prince and Princess of Wales visited the garden in 1986, and Queen Elizabeth and Prince Philip stayed at the estate in 1987.

After Veronica’s passing, the estate was acquired by Vancouver Island University (VIU) in 1996, and has since been dedicated as “The Milner Gardens” in recognition of Ray and Veronica Milner. VIU’s goal is to maintain the garden in perpetuity for education and the community’s benefit in Ray Milner’s memory. A recent initiative by the five island chapters of the ARS in collaboration with VIU and the support of the Rhododendron Species Foundation is to establish a rhododendron species garden within Milner Gardens.

Ken Gibson’s “Rhododendron Hill”, Tofino

Ken Gibson’s home is on a small hill overlooking Tofino that is quite exposed to the many storms that lash the west coast of Vancouver Island. However, the area is ideal for growing rhododendrons. Ken’s first rhodo was an *R. ponticum* that he found on the old George Fraser property in Ucluelet when it was being subdivided. The plant thrived and a rhodoholic was born. Now more than 30 years later, Ken has collected and planted about 2000 rhododendrons on his 0.4 ha (one acre) property, including about 600 species. Thanks to the mild climate and fogs in summer, watering is seldom needed. Blooming starts in late winter and peaks in mid spring.

Ken has been called “Canada’s Recognized Rhodo Ambassador” and he received an



Ken Gibson's Rhododendron Hill.



Clayoquot Preserve Garden.

ARS Silver Medal in 1997 for his enthusiastic encouragement to others to take up the hobby. Many a propagator has benefitted from plants grown from cuttings from his garden, and rhododendrons are now seen throughout the village of Tofino.

Clayoquot Preserve, Stubbs Island, Clayoquot Sound

The Land Conservancy registered a conservation covenant on 70% of Stubbs Island near Tofino in December 2007. As the largest single private landowner covenant in the Vancouver Island Region to date, Clayoquot Preserve is approximately 101 ha (250 acres) and supports a mature old growth Coastal Hemlock forest as well as areas of new forest, beaches, sand dunes, forest boardwalks and extensive gardens consisting of ponds, walkways, and many varieties of native and ornamental plants (including rhododendrons), shrubs and trees.

Once a year the Clayoquot Preserve is opened up to visitors. It's a very special experience to get to spend an afternoon wandering the beaches, forest boardwalks and the extensive gardens of this jewel. The island's pioneer gardens have been extensively restored and enhanced from their early beginnings with the loving care of gardener Sharon Whalen, and a walk through the gardens of the island is a walk through history.

References

- Abkhazi, P. 2003. *A Curious Cage: Life in a Japanese Internment Camp 1943-1945*. Sono Nis Press: 176 pp.; 212 pp.
- Gordon, K. 2002. *A Curious Life: The Biography of Princess Peggy Abkhazi*. Sono Nis Press: 240 pp.

Bill McMillan is a member of the Victoria Chapter.

Extending the Season

Carol and Tim Beall
Myersville, Maryland



Carol and Tim Beall

(From the Summer 2014 Mason-Dixon Chapter newsletter)

Most people think of azaleas and rhododendrons as spring blooming plants that can pretty much be ignored for the rest of the year. Well, if all you want is a month or so of blooms, that's probably a fair conclusion. But if you are looking for more for your money—or perhaps even more for little or no money—that's far from reality. If you choose the right plants, you can have azaleas and rhododendrons showing color in your garden year-round. You'll note I said "showing color." There are parts of the world where you can have these flowers in bloom throughout the year, but our area isn't one of them. [Meerkerk Gardens in Greenbank, Washington, even has a list of "Twelve Months of Flowering Rhododendrons" (www.meerkerkgardens.org/r12months.pdf), but that won't do us in eastern North America much good.] But, in a normal year (whatever that is nowadays), you can have plants in bloom from mid-to late March until frost and colorful foliage. Many of these season-extenders, both early and late, were developed by Ed Mezitt of Weston Nurseries, just outside Boston.

But what are these mysterious plants and where do you find them? Lepidote (or small-leaved) rhododendrons such as *R. dauricum*, 'Sonny's Love', and 'Weston's Pink Diamond' usually start blooming around the middle of March. The blooms of 'Sonny's Love' in particular are pretty tough. Mine have survived a low of 23° F (-5° C), but it was that second night of 23° F that got them. Other lepidotes also bloom early in the season and many will highlight your fall and winter gardens with shiny leaves in various shades of red and purple. Perhaps the best for both seasons are 'Olga Mezitt' and 'Landmark'. The various forms of PJM Group are good in general, but they often seem to get hit by a late frost. One of the showiest fall/winter foliage plants is PJM Group 'Black Satin', with its nearly black leaves making quite a show with the spring blooms.

After the six weeks or so of a mass of blooms in the spring, some of the later rhododendrons start blooming along with a number of evergreen and deciduous azaleas. Among the rhododendrons that are late bloomers are the American species *R. maximum*, and a number of hybrids such as ‘Crystal Glo’, ‘Delayed Surprise’*, ‘Independence Day’, and ‘Midsummer’. A number of the Robin Hill azaleas are late bloomers, along with most of the Satsuki azaleas. Many of the deciduous hybrids that bloom in the heat of the summer are Weston hybrids such as ‘Millennium’, ‘Nectar’, ‘Pink and Sweet’, ‘Ribbon Candy’, and ‘Weston’s Firecracker’*. Another summer bloomer is ‘Jeff’* (also known as ‘Summer Lyric’), a Beasley cross of the natives *R. arborescens* and *R. prunifolium*. Many of the native deciduous azaleas also bloom in June and July and even into August, among them *R. calendulaceum*, *R. arborescens*, and *R. cumberlandense*. One of the last to bloom is *R. prunifolium*, sometimes lasting into September. Many of these deciduous azaleas also have very colorful fall foliage, the leaves putting on a nice show before they fall off for the winter.

A number of azaleas and rhododendrons will put out a few blooms in the fall, but in general they don’t really put on much of a show. Two of the better azaleas are ‘Opal’ and ‘Indian Summer’, a Gable selection of *R. kaempferi*. Two plants that concentrate their blooms at this time are the azalea ‘August to Frost’ (there is also a purple version of this, but it doesn’t seem to do as well as the normal white variety) and the rhododendron ‘Ed’s Fall Frolic’. The latter is a newly developed plant that has its full bloom in the fall but is not yet widely available. While they are widely advertised and available in many locations locally, the Encore azaleas generally do not do well in our region. In the right situation, they might put out some fall flowers, but a hard winter may well kill the plant.

Extending the season sounds pretty neat, but where can I get these plants? Many of them can be obtained through various nurseries around the country, but local sources are the best. White’s Nursery, Germantown, MD, has some of the plants listed. The Mason-Dixon Chapter’s Plant Development Committee also has many of the varieties noted, included most of the Weston hybrids, and if they don’t have the plants, they may be able to track them down. Even better, and this is where the little or no money comes in, ask some of your fellow ARS members where you might be able to get desired cuttings.

* = not registered.

Tim and Carol Beall are co-editors of the Mason-Dixon Chapter newsletter.

2015 Rhododendrons of the Year

by Ray Smith

NORTHEASTERN REGION

Elepidote Rhododendron: 'Minas Grand Pré' (*R. catawbiense* var. *compactum* (s) × *R. williamsianum*). A dense and compact low-grower, wider than tall, reaching 2-3' by 3-4' in ten years; loose clusters of attractive bell-shaped pink flowers with a tinge of lilac, held in trusses of 10 flowers on a midseason bloomer; foliage similar to *williamsianum*, with small attractive roundish leaves showing a copper color when new; one of the tougher *williamsianum* hybrids, hardy to -10 to -15° F, does well in northern Europe; a George Swain hybrid, developed at the Kentville Research Station in Nova Scotia; excellent as a foreground or rock garden plant.



'Minas Grand Pré'. Photo by B. Clyburn.

Lepidote Rhododendron: 'Lavender Frost' ('Laurie' × white-flowered *R. dauricum*). Early flowering with fully double, broadly funnel-shaped blooms, with wavy-edged lobes, about four held in a dome-shaped truss; prolific 1½" blooms of very pale purple to almost white with light purple margins, flushed pale greenish-yellow, cover the plant; wide and compact growing when young, becoming more upright with age, eventually attaining 4' in ten years; the small bright green leaves are well-retained during winter; hardy to -20° F, maybe even lower, this 1977 cross by Ed Mezitt of Weston Nurseries is sometimes referred to as 'Lilac Crest.'



'Lavender Frost'. Photo by S. Perkins.

Deciduous Azalea: 'Pink and Sweet' (*R. arborescens* × *R. arborescens* hybrid). Covered with masses of flowers in mid-June into July, an excellent plant to extend the blooming season; 7 open funnel-shaped, wavy-edged 1½" flowers in a domed truss, deep purplish pink maturing to strong purplish pink and paler; the dorsal lobe has a dark pink central stripe edged on each side with a brilliant yellow flare; the aroma is rich and spicy, often lingering in the garden; the outstanding fall color extends the point of interest in the landscape even after the blooms fade away as the glossy green mildew resistant foliage turns bronze in summer and then purple-red, yellow and orange in the fall; has an upright habit, about 4' x 3-4' and is very hardy, perhaps as low as -29° F; propagates well; often misidentified as a *R. viscosum* selection or hybrid; another great Ed Mezitt/Weston Nurseries plant.



'Pink and Sweet'. Photo by H. Greer.

Evergreen Azalea: *R. yedoense* var. *poukhanense*.

Known as the Korean azalea; introduced to the west by John George Jack of the Arnold Arboretum in 1905, and from there, spreading to England; first described by the French botanist H. Lévillé in 1908, from specimens collected on Mount Poukhan outside Seoul by French missionary Péré Urban Faurie; grows in dense masses on the open grassy slopes of the Korean Peninsula from Seoul south and on several islands off the coast, including the Japanese islands of Tsushima; an early midseason bloomer with a delicate scent; funnel-shaped 2" rose to pale lilac flowers with a reddish blotch, 2-4 in a truss; has two distinct leaf forms, with the summer leaves being thicker and narrower than the spring leaves; beautiful fall foliage, reddish-orange to red-purple or burgundy; sparse winter foliage with leaf drop increasing as it moves from south to north, becoming deciduous in the northern-most range; compact and relatively slow growing to a height of 4-5' in ten years, with a spreading habit; very hardy (to -15° F or below) compared to most other evergreen azaleas, especially in selected forms; *poukhanense* and its offspring do well throughout the United States and played a vital role in adding hardiness to azalea hybrids both in the United States and Europe; Joe Gable felt that he didn't "see how the 'Gable' azaleas would have been possible without its ever present help . . ."; the same could be said for Peter Girard and Tony Shamarello.



R. yedoense var. *poukhanense*.
Photo by H. Greer.

MID ATLANTIC REGION

Elepidote Rhododendron: 'John C. White' (*Vulcan* × *R. fortunei*). An early midseason bloomer, deep purplish-pink in bud, opening strong purplish pink at margin, and shading to pale purplish pink, to light and strong yellowish pink in throat; a dozen of the openly funnel-shaped flowers with 6 wavy-edged lobes are held in a ball truss; a broad, upright plant, well-branched, with olive-green leaves with light tan indumentum; reaches 5' x 5' in ten years and hardy to -10° F; a George Ring hybrid grown and registered by Jane and Ray Goodrich and named for a long-time member of the Potomac Valley Chapter. (The *R. makinoi* 'Margaret White' is a selection by Jack Ayres named for John C. White's wife. The Whites donated their property to Fairfax County, Virginia, as The John C. and Margaret K. White Horticultural Center.)



'John C. White'. Photo by D. Hyatt.

Lepidote Rhododendron: 'Southland' (*R. minus* var. *chapmanii* (s) × prostrate form of *R. keiskei*). An early midseason bloomer with a mild fragrance, forming a low



'Southland'. Photo by R. Rabideau.

dense mound of glossy medium green leaves, reaching 2' x 3' in ten years; free-flowering, with apricot buds, opening light yellowish-pink or salmon with brown speckles in the throat, held in ball-shaped trusses of 10; an Augie Kehr hybrid that combines heat, drought, and sun tolerance with a good degree of cold tolerance as well; hardy to -10° F.

Deciduous Azalea: 'My Mary' ('Nacoochee' × *R. austrinum*). Excellent dark green foliage on a multi-stemmed stoloniferous shrub, rounded in shape; large, strongly fragrant, brilliant yellow funnel-shaped flowers (2½" across) with orange tubes; the wavy-edged flowers, with up to 25 in a ball-shaped truss, bloom in the early midseason; hardy to -10°F and possibly lower, and grows to 4' x 4' in 10 years; Transplant Nursery founder George Beasley's tribute to his wife, Mary, who passed away in the summer of 2010.



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

Evergreen Azalea: 'Ashley Ruth' ('Asahi-sakigaki' (s) × 'Margaret Douglas'). Wavy-edged 3" semi-double white flowers shading to a broad border of deep purplish pink, 2-3 in a truss; heavy midseason bloomer, hardy to 0° F and probably below, reaching about 3' x 3' in ten years; hybridized by Bob Stewart of Springfield, Virginia, and named for one of his granddaughters.



'Ashley Ruth'. Photo by T. Huisman.

SOUTHEASTERN REGION

Elepidote Rhododendron: 'Tom Everett' (unknown, presumably *R. fortunei* hybrid). A midseason bloomer with moderate fragrance, growing wider than tall with a compact, rounded growth habit; slow growing when young expanding to 4-5' x 4-5' in ten years; frilly flowers, strong purplish-red in bud, opening deep purplish-pink to near white in throat with faint greenish-yellow spotting on dorsal lobes, held in a dome-shaped truss of 11 flowers; hardy to -10° F and often considered one of the better Dexter hybrids.



'Tom Everett'. Photo by H Greer.

Lepidote Rhododendron: 'Pioneer Silvery Pink' ('Gable's Pioneer' (s) × unknown). Blooms early to early midseason, about two weeks later than parent 'Gable's Pioneer,' with 17 flowers, 2" across, in a multi-budded, ball shaped truss; funnel-shaped, wavy-edged flowers, moderate purplish-pink in bud, opening pale purplish-pink with shades of deep purplish-pink, and moderate



'Pioneer Silvery Pink'. Photo by H. Greer.

purple-red speckled upper lobes; grows 4-5' in ten years, forming a wide, upright growing and vigorous plant, heat tolerant and hardy to -20° F, with long semi-glossy, moderate olive green leaves that turn to an attractive mahogany to bright red fall foliage; raised by Hoogendoorn Nurseries, Newport, Rhode Island.

Deciduous Azalea: 'Aromi Sunrise' ('Hiawatha' (Knap Hill) (s) × *R. austrinum*). Early to early-midseason bloomer with up to 14 highly scented, funnel-shaped flowers in a flat truss; red orange buds open to 2" wavy-edged yellow orange blooms with darker shading in the center; an upright and bushy plant habit, growing 5-6' tall and 3' wide in ten years, eventually growing quite large, to well over 10' tall and 5-8' in width; hardy to at least -10° F and very heat tolerant as well; developed by Dr. Gene Aromi and his wife Jane in Mobile, Alabama, as part of their program to improve sun and heat tolerance in large flowered, fragrant, deciduous azaleas.



'Aromi Sunrise'. Photo by M. Creel.

Evergreen Azalea: 'Venus' Baby' [(Forcing azalea by Henson × 'Girard's Hot Shot'), where the seed parent is known in the trade by the illegitimate name 'Venus']. Openly funnel-shaped, slightly fragrant flowers of heavy substance, light to pale purplish pink with a white blotch and light green spotting; large wavy-edged blooms of 4" or more and very floriferous; a vigorous midseason bloomer with an upright and spreading habit, about 3' x 3' in ten years; hardy to about 0° F, although the buds may be a little more tender; hybridized by Sandra McDonald in Hampton, Virginia.



'Venus' Baby'. Photo by D. Hyatt.

GREAT LAKES REGION

Elepidote Rhododendron: 'Cadis' ('Caroline' (s) × *fortunei* ssp. *discolor*). A heavy, late-midseason bloomer, with scented ruffled flowers, light pink with a yellow flush, 9-11 flowers held in a large flat truss; sun tolerant and cold hardy to -15° F with an excellent dense, spreading habit with long narrow leaves, growing to a 5-6' x 5-6' mound in ten years, eventually getting much larger; hybridized by Joe Gable, of Stewartstown, Pennsylvania, in 1938; a tough plant often termed one of his best and a plant Gable referred to as "one of our very best hybrids so far"; name results from Gable's habit of naming plants by combining the first few letters of its parents' names, in this case, 'Caroline' and *discolor*.



'Cadis'. Photo by H. Greer.

Lepidote Rhododendron: ‘Coral Glow’ (*R. mucronulatum* ‘Cornell Pink’ × *R. lutescens*). A free-flowering plant with a broad upright habit, 4-5’ x 2½’ in ten years, and hardy to at least -20° F; an early bloomer with widely funnel-shaped, slightly fragrant flowers, vivid reddish orange to strong yellowish pink; the leaves turn a mahogany color in autumn on this hybrid by Gustav Mehlquist, of Storrs, Connecticut. (Not to be confused with the *R. prunifolium* selection ‘Coral Glow,’ a midsummer bloomer with pinkish-orange flowers.)



‘Coral Glow’. Photo by H. Greer.

Deciduous Azalea: ‘Gibraltar’ (unknown). Has a large full truss of 10-12 frilled 2½” vivid orange flowers with a red flush, coming from deep crimson buds; compact growing habit, to 6’ in 10 years; a midseason bloomer, hardy to -20°F and heat tolerant; free-flowering and mildew resistant Knap Hill hybrid; very popular and one of the best and most reliable deciduous hybrids; has been a Rhododendron of the Year selection for all the regions involved.



‘Gibraltar’. Photo by H. Greer.

Evergreen Azalea: ‘Delaware Valley White’ (*R. mucronatum* seedling). One of the standards in white azaleas, with funnel-shaped, pure white flowers, 2½” across, usually single, on a large, dense, wide spreading plant, 4’ tall in ten years; blooms early to midseason; similar to *R. mucronatum* (often called ‘Indica Alba’) but hardier, perhaps as low as -10° F; the glossy green leaves turn a dazzling yellow in the fall before dropping off; one of the azalea varieties least susceptible to dieback; selected by the Delaware Valley Nursery, often mistakenly called a Glenn Dale.



‘Delaware Valley White’ . Photo by H. Greer.

SOUTH CENTRAL REGION

Elepidote Rhododendron: ‘Todmorden’ (parentage involves ‘Pygmalion,’ *R. haematodes*, and ‘Wellfleet’). A vigorous Dexter hybrid, with an upright, rounded habit, reaching 5-6’ in ten years, eventually growing a good deal larger; strong purplish-red buds, opening to funnel-shaped flowers with wavy edges, 3½” across, deep purplish-pink shading to light purplish-pink in the middle of the petals and throat, fading to almost white,



‘Todmorden’ Photo by H. Greer.

held in ball-shaped trusses of 8 to 15; hardy to -15° F and flowers better with more sun; a late midseason bloomer selected by John Wister from the Dexter collection at Swarthmore College outside Philadelphia.

Lepidote Rhododendron: 'Windbeam' ('Conestoga' hybrid). Very hardy (-25° F) and reliable early midseason bloomer with wavy-edged, funnel shaped, white flowers, tinged pale apricot, ageing to white, then becoming light purplish-pink in 3-4 days, held in ball shaped trusses of eight flowers; grows to 3' x 3' in ten years with small, round aromatic foliage that turns bronze-green in winter; a sun and heat tolerant Guy Nearing hybrid; received the ARS Award of Excellence in 1973.



'Windbeam' Photo by E. Philp.

Deciduous Azalea: *Rhododendron prinophyllum*.

Extremely cold tolerant and one of the hardiest deciduous azaleas in North America, growing in the wild as far north as Quebec and ranging southward to Virginia and then westward into Arkansas, Missouri, Texas, and Oklahoma, with scattered populations elsewhere in the eastern United States; hardy to -25° F and even to -40° F in areas of northern New England and Quebec; first mentioned in 1787 as a variety of *R. nudiflorum* (now *R. perichlymenoides*) from New York; grown in Europe (as *A. rosea*) since 1812 and described as a distinct species in 1914; formerly known as *Rhododendron roseum* and known by many common names: rose or roshell azalea, early azalea, downy or woolly azalea, Mayflower Azalea, mountain azalea, June Pink, and Texas Honeysuckle being the most common; the strong cinnamon- or clove-scented flowers, normally pink or purplish-pink, and occasionally white, appear in clusters of 5-9 as the leaves open in midseason; grows most prolifically in open hillsides and woods, often near a swamp, stream bank, or pond; the plants are heat sensitive and are found only in the Appalachian Mountains in the more southern parts of the eastern range; generally a smaller plant than most native azaleas, typically growing slowly into an upright, rounded shrub 2-8' tall (rarely to 15') and as wide, with bright green foliage turning bronze in the fall; rather thin and spindly with sparse flowers when competing for light in the woods, reaching its true beauty in more light or even in full sun, producing a plant with a mass of flowers; a good landscape plant for northeastern gardens, but may be more difficult in the south, where some shade would be appreciated because of summer heat; more tolerant of high pH than most azaleas; valued in hybridizing for its hardiness and strong fragrance, playing a key role both in North America and the colder areas of Europe; used in the hybrids developed in Vermont by Frank Abbott and, most importantly, in the development of the Northern Lights Series at the University of Minnesota.



R. prinophyllum. Photo by H. Greer.

Evergreen Azalea: 'Autumn Royalty' ('Georgia Giant' (s) × *R. oldhamii* 'Fourth of July'). Blooms in early midseason with flowering resuming in late July and continuing sporadically until frost, this "second season" attracting numerous butterflies; has a ball-shaped truss of large, openly funnel-shaped, single flowers, 3½-4" wide, strong purplish red with wavy petal margins; a vigorous grower, with an upright, rounded shape, adding 10-12" of new growth a year, becoming 6-8' tall x 4-5' wide in ten years; hardiness ranges from 0° to 10° F, somewhat hardier than most Encore azaleas; said to have some resistance to lace bug; the selection 'Fourth of July,' from the Taiwanese species *R. oldhamii*, blooms more profusely later in the season than the species and is responsible for the continuing bloom; part of the Encore series hybridized by Buddy Lee, in Independence, Louisiana.



'Autumn Royalty' Photo by H. Greer.

NORTHWESTERN REGION

Elepidote Rhododendron: 'Taurus' ('The Honourable Jean Marie de Montague' × *R. strigillosum*). A large plant with impressive displays of ball-shaped trusses of 16 dark red, 3½", bell-shaped flowers with black spotting on the upper petal; blooms early midseason; the large deep green leaves are held for three years, giving the plant a truly full appearance; adorned with prominent and showy deep red buds in winter; a vigorous plant, upright and spreading, growing to 5-6' x 5-6' in ten years; does best if protected from afternoon sun; hardy to -5° F; a hybrid by Dr. Frank Mossman, Vancouver, Washington.



'Taurus'. Photo by D. Irish-Hosler.

Lepidote Rhododendron: PJM group (*R. minus* Carolinianum Group × *R. dauricum* Sempervirens Group). Group of early-blooming plants that is cold hardy (-25° F) as well as heat and sun tolerant; upright growers, reaching 4-6' x 4' in ten years; small glossy green leaves turn bronze-mahogany in the winter; funnel-shaped, wavy-edged, lilac purple to violet flowers, 10-15 in a ball-shaped truss, really glow against the dark winter foliage; numerous forms of this Ed Mezitt/Weston Nurseries hybrid are available.



PJM Group. Photo by H. Greer.

Deciduous Azalea: 'Strawberry Ice' (unknown). Heavily veined peach pink flowers with deep orange-yellow flare, almost 3" across, held in a compact ball-shaped truss of as many as 23 funnel-shaped flowers with



'Strawberry Ice'. Photo by H. Greer

slightly wavy edges; midseason to late midseason blooms on an upright, bushy shrub with bronzy young foliage and a somewhat open habit, becoming 4' x 4' in ten years; Rothschild hybrid, hardy as low as -25° F, and winner of an Award of Merit in a Royal Horticultural Society trial in 1962.

Evergreen Azalea: 'Everest' (*R. mucronatum* × 'Shinnyo-no-tsuki'). Often considered one of the best low-growing whites; openly funnel-shaped, single white flowers, 2" across, with a pale greenish-yellow blotch, held in a compact truss of 3-4 flowers; a midseason bloomer with a broad, spreading habit, growing wider than tall, sometimes reaching 5' but often much less, hardy to -5° F; a Glenn Dale hybrid developed by Benjamin Y. Morrison



'Everest'. Photo by H. Greer.

SOUTHWESTERN REGION

Elepidote Rhododendron: 'Noyo Dream' (*R. degronianum* ssp. *yakushimanum* × *R. arboretum*). A very early bloomer, often in bloom by early February in some areas, and good for both flowers and foliage; frilly edged blooms held in almost perfect round trusses of 19 flowers, vivid purplish red in bud, opening deep purplish-pink then fading to a lighter pink, showing a two-toned effect; attractive dark-green leaves with dark grayish yellow indumentum on a compact plant, growing into a 3-4' mound in ten years and hardy to -5° F, hybridized by Bill Moyles in Oakland; grown and named in Fort Bragg, California.



'Noyo Dream'. Photo by H. Greer.

Lepidote Rhododendron: 'Egret' (*R. campylogynum* (white-flowered form) × *R. racemosum* 'White Lace'). Very compact plant, with the flowers standing high above the glossy foliage; tiny, dark green leaves less than an inch long; masses of dainty, bell-shaped blooms, slightly tinged pale green toward the throat, held in loose trusses of 2-6 waxy flowers; blooms early to early-midseason, and hardy to -5° F; a great plant for the rock or Alpine garden, flowering best in a good bit of sun; this Peter Cox hybrid from Glendoick, Scotland, makes an attractive little bush, reaching 1-2' in height in ten years; winner of an Award of Merit in a Royal Horticultural Society trial in 1987.



'Egret'. Photo by H. Greer.

Deciduous Azalea: 'Totally Awesome' (unnamed seedling × another unnamed seedling). Deep reddish orange in bud, opening in shades of yellow with strong reddish

orange edges and a blotch of vivid yellow on the dorsal lobe; openly funnel-shaped flowers with 5-8 wavy lobes, held in dome-shaped trusses of 7; midseason blooms on an upright, well-branched plant growing to about 5' x 5' in ten years; brilliant gold and red fall colors and hardy to -5° F; aptly named by hybridizer J. O. Bunnell, of Olympia, Washington.

Evergreen Azalea: 'Koromo-shikibu' (possibly *R. macrosepalum* hybrid). A real attention getter with its unusual, narrow purplish-pink strap-like petals, 1/2" wide by 1 1/2" long, with darker tips and dark spots at the base; a midseason bloomer with hairy, light green leaves; low-growing into a spreading mound-like shape; grows to 4' in ten years and hardy to -15°F, probably a Japanese hybrid from centuries ago.



'Totally Awesome'. Photo by H. Greer.



'Koromo-shikibu'. Photo by H. Greer.

VIREYA/SWISHER AWARD

'Sunset Gold 50' (*R. aurigeranum* × unknown). An eye-catching, heavy bloomer, with round trusses of twelve to fifty orange-gold flowers with yellow throats; as with many vireyas, the colors of the blooms may vary depending on growing conditions; an early and repeat bloomer and an upright bushy grower, reaching 4'; hardy to 35° F. Hybridized by the late Graham Snell of Australia, and named for the fifty flowers in a full truss.



'Sunset Gold 50' . Photo by S. Bertelmann.

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Tips for Beginners: Mechanics of Basic Hybridizing

Albert J. Muller

Brookville, New York

(Reprinted from Winter 1995 "Rhodora," a publication of the New York Chapter, and in 1996, JARS 50(1): 36-37)

Hybridizing is easy, right? Bees do it all the time without even trying. Well, if we are willing to go with whatever seed pods that develop in nature, we need not read any further. However, the challenge of hybridizing bites most if us at some time. Since I well remember questions, problems, and failures I had in my first attempts, I was determined to do some research to find out what I should do and why. The result—my version of Hybridizing 101A.

The following material is presented only as a guide for the newcomer to the world of hybridizing; it is structured to supply the background of plant physiology and the rudimentary steps in the process of hybridizing. It also, hopefully, will help you cope with some of the bugaboos of hybridizing—the possible disappointment in the seedlings you produce not meeting expectations; the chances of the duplications of the efforts of other hybridizers; coping with space requirements for growing on a reasonable number of seedlings from which to choose the ones worth saving.

First, a few basic definitions: *Hybridizing* is the process of creating new varieties from already established plants. It is achieved by combining the attributes of one plant with those of another; this is done by fertilizing one plant with pollen taken from another. This action is called *crossing*, and the hybrid is called a *cross*. The notation identifying a cross is written as: *Plant A* × *Plant B*, in which *Plant A* is the “mother” of the new plant, i.e., the receiver of the pollen, also called the *seed parent*; and *Plant B* is the plant from which the pollen is taken, the “father” or *pollen parent*. The resulting *hybrid* is the product of the seed produced in the seed-bearing (mother) plant and will contain varying degrees of the attributes of both parents, yet is recognizably different from each.

Now we need to know the basic parts of the flower that are involved in fertilization. Each flower contains male and female sex organs. However, in most instances the pollen is obtained from a separate plant (the exception is in rare cases where self-pollination is contemplated).

The female reproductive organ is a single slender structure growing out of the center of the flower and is called the *pistil*. The pistil consists of three parts, namely, the stigma, ovary and style. The *stigma* is the knob at the end of the pistil that accepts the pollen; the *ovary* at the base of the flower is where the seed is produced; and the connecting tube is known as the *style*.

The male reproductive organ is known as the *stamen*. The stamen consists of the *anther*, which has two chambers, each with a hole through which the pollen is dispensed. The chambers are called *lobes* or pollen sacs and contain masses of pollen grains. Anthers are carried on tubes called *filaments*. Rhododendrons normally have 10 stamens surrounding the pistil. (Notable exceptions are Asiatic species which have eight to 20, and American azaleas with five.)

Let's pause for a moment to consider when will be the optimum time and environment to make the cross. Much study has gone into defining ideal conditions for producing seeds from your crosses. Experimentation has established that a greenhouse environment, with enhanced temperature and humidity control, is most desirable for the greatest chance for success. Paraphrasing Weldon E. Delp, a long-time hybridizer and pioneer in this field, it has been established that fertilization is achieved in a much shorter time and more effectively with increased heat and humidity. Short of being able to create such conditions, one must use his best judgment in trying to come as close as possible to setting up such an environment.

We now have to consider harvesting the pollen. Pollen is not a dust as in many plants, but rather long, irregular (tacky) stringy masses. The pollen ripens before the flower opens. After the flower opens, the pollen may soon be lost. Some varieties have great amounts and virtually "drip" pollen (such as the *Fortunea* subsection, 'Janet Blair', 'Susan Everitt' and virtually all deciduous azaleas), and some varieties such as the species *R. metternichii* (now called *R. degronianum* ssp. *heptamerum*) are almost impossible to use as a seed parent because of the copious pollen contaminating the pistil prior to the flower opening. Conversely, some are pollen sterile (such as 'Scintillation', and some are very difficult to obtain pollen from (such as my yak). Therefore, just as the buds start to show



R. spinuliferum

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color before opening, carefully remove the anthers with a pair of tweezers and place the pollen in a paper envelope. If pollen is not visible protruding from the anther holes, hold an anther by the filament (stem) and gently shake it or flick it with your middle finger snapping gently off your thumb, carefully observing whether the pollen moves out of the anther hole. On some difficult varieties, it may be necessary to try different anthers from different buds. If no pollen is present, try the following day. If unsuccessful for over several days, you probably have a sterile pollen plant. Some varieties are very stingy pollen producers, so have patience. If you are using a plant that drips pollen, you have a much better chance of success.

It is important to note that prior to making the cross, the buds chosen to receive the cross must be emasculated, that is, the petals are all carefully cut off with a pair of cuticle scissors, and the anthers all carefully picked off and discarded. Also, all the flower buds around the target truss are to be removed to discourage bees from entering the area. The next step is to present the pollen to the seed parent, the mother plant. When to do this? The text book time is “when the stigma ripens and is sticky.” However, the stigma doesn’t always run up a flag when this happens—my experience is that it isn’t always very obvious, or you may not be available when it happens. In any event, check other flowers on the seed parent plant. About three days after the flowers open, the stigmas should be receptive and should stay receptive for three to five days, so you should cover the entire stigma with pollen at this time. (I have found that fresh pollen adheres to the stigma anyway, and have been successful in my limited experience in having this work whether or not I was sure if the pistil was completely receptive. I theorize that pollen easily remains viable for the several days it may take for the stigma to fully ripen. Therefore, when the stigma ripens the pollen is already there, provided it has been covered to prevent it was-

ARS SEED EXCHANGE

The 2015 ARS Rhododendron seedlist and ordering form will be available in early January at
(www.rhododendron.org/seedexchange.htm)
or alternately at the Danish web page
www.rhododendron.dk/ARS-seed.html.

Printed hardcopy seedlists are available upon request.

Seed sales will be open to ARS members and seed donors at this time and to non-members after March 15th. Send your request to the seed exchange address below.

The price of domestic or donated seed is \$3.00 per packet. Special seed collections \$4.00 per package. A \$3. (US) and \$4. (outside US) shipping and handling fee will be added to each order. Seed Exchange users from outside the US are encouraged to use PayPal.

Norman Beaudry, Chairman
ARS Seed Exchange

hing away in the rain.) At least six to eight flowers should be pollinated to give the best chance of getting some seed pods. If you make just a couple that don't "take," you have to wait until next year.

After a flower is pollinated you break off all the other flowers on that truss and cover the remaining hybridized truss with a plastic bag tied loosely at the base to protect from the wind and rain, but allowing for some air movement. Bees should not be a problem on the emasculated buds since no color is present to attract them.

Another method of covering used by Jack Rosenthal is to make a short aluminum foil tube using a pencil as a mandrel, bend one end and slide the open end over each pistil. Then tie groups of these together for support as convenient, and carefully label the cross, seed parent (mother) first x pollen parent (father), and date.

Now let's understand the fertilization process, as outlined by Dr. Clement Bowers (1960). Once the stigma ripens, a critical process must take place whereby the stigma excretes a thin syrup and furnishes nourishment to the pollen which then forms a sprout-like process called a pollen tube. The style (stem) portion of the pistil has a channel running down its center from the stigma to the ovary configured with loosely formed cells through which materials easily pass. The pollen tube grows, heading down this canal. The pollen tube develops into a long slender threadlike structure as it grows down the style canal toward the ovary. At its lower end, the pollen tube contains the male cells and vegetative nucleus. In the ovary, the female (egg) cells are present. After a minimum of 24 hours at approximately 68°F, the pollen tube enters the ovule; the male nucleus is discharged and fuses with the egg nucleus to form a new seed. A separate ovule and a separate pollen cell are required to produce each seed. Dr. Bowers further writes that "up to several hundred pollen tubes may pass down the style at any one time and these not be of the same variety or species." Therefore, it is entirely possible in open pollinated flowers for one rhododendron flower to be successfully pollinated by several different sources of pollen at once. The implication is, therefore, that based on all the above, one open pollinated seed pod could produce seed with several different crosses. (This information on open pollinated flowers is added here as food for thought.) If you have been at all successful, you should observe a swelling or elongation of the ovary starting well within a month. This is no guarantee of complete success, however. Observe the pods periodically through the developing cycle—June through September—and start watching for ripening, i.e., turning brown in or by late September and certainly after the first frost. The seed pods may be harvested now. Wait too long and the pods can break open and lose seeds. The remaining husbandry is obvious—label and store your seed carefully, and donate generously to the ARS Seed Exchange or your chapter's seed exchange.

Reference

Bowers, C.G. 1960. *Rhododendrons and Azaleas*, New York: The Macmillan Company: 525 pp.

Albert Muller is still a member of the New York Chapter.

Rhododendron 'Pink Ribbons' Benefits Breast Cancer Foundation

Chris Trautmann
Florence, Oregon

In March 2014, Dr. Richard Flavell, purchased the home and rhododendron garden of 89-year-old Gene Cockeram of Florence, Oregon. This magnificent garden has had years and years of the finest hybrid and species rhododendron growing in the Siltcoos lake area of Oregon, and that endeavor will not end. Richard has hired me to bring the garden back into focus and plant new and interesting plants to the landscape along with the maintenance and work that goes along with maintaining a world-class arboretum.



R. 'Pink Ribbons'.

Flavell Gardens West (as we call it) is also the home to the 'The Pink Ribbons' rhododendron. This plant was raised by Gene with the parents being: 'Paprika Spiced' × 'Jezebel', and is a delightful shell-pink with nice foliage. The plant is rated hardiness zone H 2-3, and should grow well in all but the harshest climates.

This plant was released a couple of years ago at the Western Regional Conference in Florence, Oregon, in 2010, and the proceeds from the sale benefited the Susan G. Komen Breast Cancer Foundation and the local Peace Harbor Hospital.

This early spring, I was able to get 80 small plants propagated, and now they are bushy and well budded, and will be available to the entire ARS this coming spring through Mowbray Gardens of Florence, Oregon. Terry Henderson, Log Cabin Nursery, Springfield, Oregon, did the master job on propagating these plants.

The plants are \$29.50 each, with shipping included and will be mailed out in early spring 2015. If you would like to contribute to a very worthy cause, with all profits going to the Breast Cancer Foundation, mail a cheque made out to:

Chris Trautmann
P.O. Box 720
Florence, Oregon 97439

Or you can visit the nursery at 88010 Woodlands Drive, Florence, Oregon, and pick up plants @ \$25.00 each. Then in fall 2015 'The Purple Ribbons' rhododendron will be released. It is a dwarf lepidote with dark violet flowers and is rated H-1, and it will represent the rhody for male prostate cancer.

Chris Trautmann owns and operates Mowbray Gardens along with hybridizing lepidotes and is Manager and Horticulturist of Flavell Gardens West. Both are on the coast in beautiful Florence, Oregon.

Newly Registered Rhododendron Cultivar Names

Michael Martin Mills
North American Registrar of Plant Names
Philadelphia, Pennsylvania

The following rhododendron and azalea names were approved and added to the International Rhododendron Register before July 22, 2014, by the Royal Horticultural Society, which serves as the International Cultivar Registration Authority for the genus *Rhododendron*. (Information on the registration process follows the descriptions of cultivars.)

Key

(a) – deciduous or evergreen azalea

(r) – elepidote or lepidote rhododendron

(v) – vireya rhododendron

(z) – azaleodendron

X – primary cross

(s) – seed parent of cross, if known

x – cross of an unnamed parent

* – not registered

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

Royal Horticultural Society color numbers in parentheses, unless another system is noted

(r) ‘Ann’s Canary’

Elepidote rhododendron: ‘Vinecrest’ (s) X ‘TT187’*. H (2007), G (2012), N (2014), REG (2014): Allan Glassman, Allentown, PA. Flrs 7-9/ball truss, funnel campanulate, 3 inches (76mm) long x 3.5 inches (88mm) wide with 6 somewhat wavy lobes. Bud: light yellowish pink. Inside of flower: light greenish yellow (8B) with apricot spots on upper lobe. Outside: light greenish yellow (8C). Truss 4.5 inches (114mm) high x 6.5 inches (165mm) wide. Flowers have heavy substance and withstand rain. Lvs 4.5 x 2.5 inches (114 x 64mm), elliptic, cuneate base, acute apex, flat margins, moderate olive green, matte. Shrub 3 feet (0.9m) high x 4 feet (1.2m) wide in 7 years; intermediate habit, leaves held 2 years. Plant and bud hardy to -7°F (-22°C). Flowering late midseason (late May in eastern Pennsylvania). Etymology: named after Ann Glassman, wife of the hybridizer.



‘Ann’s Canary’. Photo by Allan Glassman

* ‘TT187’ – not registered. ‘TT187’ is a Richard Murcott cross, consisting of his ‘TT105’ X ‘TT104’. ‘TT105’ (also numbered 81-4 by Murcott) is (‘Scintillation’ x ‘Inamorata’ x ‘Hardgrove Yellow’) x ‘Phipps Yellow’. ‘Hardgrove Yellow’ is probably hardy *R. fortunei* x (*R. dichroanthum* x *R. wardii*). ‘TT104’ is ‘Schlajker Yellow’ x ‘Phipps Yellow’. ‘Schlajker Yellow’ is a synonym for ‘Hardgrove’s Deepest Yellow’, which according to Murcott is another hardy *R. fortunei* x (*R. dichroanthum* x *R. wardii*). Source: www.murcottgarden.com.

(r) ‘Banana Pudding’

Elepidote rhododendron: ‘Mavis Davis’ (s) X ‘Second Honeymoon’. H (1998), G (2003), N (2012), REG (2014): Catherine Weeks, Eureka, CA; I (2012): Westgate Garden Nursery, Eureka, CA. Flrs 12/ball truss, open funnel, 3.5 inches (89mm) long x 3.75 inches (95mm) wide with 7 wavy lobes. Bud: brilliant greenish yellow (1A). Inside of corolla: brilliant greenish yellow (1A) with reddish brown blotch centered on top three lobes. Outside: brilliant greenish yellow (1A). Lvs 3.5 x 1.75 inches (89 x 44mm), elliptic, cuneate base, broadly acute apex, flat margins, moderate olive green (147A), semiglossy. Shrub 2.5 feet (0.8m) high x 3.3 feet (1m) wide in 12 years; intermediate habit, lvs held 2 years. Plant and bud hardy to 20°F (-7°C). Flowering midseason (early May in coastal northern California).

(r) ‘Briar Cook’

Elepidote rhododendron: *R. hemsleyanum* X ‘Mrs. Lammot Copeland’. H (1984), N (2014), REG (2014): Alleyne Cook, North Vancouver, British Columbia; G (1989) Francisca and Edwin Darts, Surrey, British Columbia. Flrs 8/lax truss, funnel campanulate, 4 inches (102mm) long x 4 inches (102mm) wide with 7 wavy lobes. Bud: pale pink, with prominent pink and white ridges. Inside: white with pale pink margins on opening, fading to all white with pale yellow throat. Outside: pale pink on opening, fading to all white. Slightly scented. Truss 10 inches (254mm) high x 12 inches (305mm) wide. Lvs 7 x 3 inches (178 x 76mm), oblong, cordate base, obtuse apex, wavy margins, medium green, semiglossy. Shrub 10 x 10 feet (3 x 3m) in 10 years; intermediate habit, lvs held 2 years. Flowering late season (early June in Vancouver area).
Etymology: named for the hybridizer’s daughter.



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(r) 'Catherine's Spanish Dancer'

Elepidote rhododendron: 'Naselle' (s) X 'Mavis Davis'. H (1998), G (2008), N (2014), REG (2014): Catherine Weeks, Eureka, CA; I (2014): Westgate Garden Nursery, Eureka, CA. Flrs 13/ball truss, funnel campanulate, 2.5 inches (64mm) long x 3.5 inches (89mm) wide with 6 wavy lobes. Bud: strong red (46A). Inside: deep pink (48A) with strong red (46A) spotted blotch on upper lobe extending into adjacent lobes. Outside: deep yellowish pink (46D). Lvs 4 x 1.75 inches (102 x 44mm), elliptic, rounded base, broadly acute apex, downcurved margins; dark yellowish green (139A), matte. Shrub 3 x 3 feet (0.9 x 0.9m) in 12 years; intermediate habit, lvs held 2 years. Plant and bud hardy to 24°F (-4°C). Flowering early midseason (mid-April in northern coastal California).

(r) 'Coralie Janell'

Elepidote rhododendron: 'Woody Peach' (s) X 'Tropicana' or 'Brandt's Tropicana' (see note). H (c. 2004): Fred Minch, Puyallup, WA; G (2013), N (2014), REG (2014): Roy Praeger, Olympia, WA. Flrs 8/flat truss, broad funnel, 2.5 inches (64mm) long x c. 3 inches (c. 75mm) wide with 5 recurved, wavy lobes. Bud: vivid reddish orange (41A). Inside: vivid reddish orange (41A), with deep red (60A) central basal circle, highlights of strong reddish orange (40C) in centers of lobes and strong reddish orange (169A) speckling on upper lobe. Outside: vivid reddish orange (41A). Calyx: 1 inch (25mm), strong reddish orange (40C) with deep red (60A) spotting. Truss 5 inches (127mm) high x 7 inches (178mm) wide. Lvs 5.5 x 2 inches (140 x 51mm), elliptic, rounded



'Coralie Janell'. Photo by R. Praeger.



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base, broadly acute apex, flat margins, strong yellow green (143B), matte. Shrub 2 feet (0.6m) high x 1 foot (0.3m) wide in 4 years; intermediate habit, lvs held 3 years. Plant hardy to 0°F (-18°C), bud hardy to 5°F (-15°C). Flowering midseason (May in Seattle area). Etymology: named for the registrant's wife.

Note: Seeds were labeled by the hybridizer, Fred Minch, with the pollen parent as 'Tropicana'; they were obtained by the registrant via a mutual friend. Since the death of Minch in 2010, no records are available. Before it was registered, 'Brandt's Tropicana' was known as 'Tropicana' and has been used often in hybridization. Both cultivars have origins in the Seattle-Tacoma area, where Minch lived and hybridized. Either may be the pollen parent.

(r) 'Fred Jennings'

Elepidote rhododendron: 'Blue Ensign' (s) X ('Tina's Picture'* x *R. hyperythrum*). H (2000), G (2006), N (2012), REG (2014): Stan B. Southerland, Chapel Hill, NC. Flrs: as many as 14/dome truss, open funnel, 2 inches (52mm) long x 2.75 inches (70mm) wide with 5 wavy lobes. Bud: vivid reddish purple (74B). Inside: very light purple (76B) with blotch of vivid yellow (12A) spots in upper lobe. Outside: deep purplish pink (N74C). Truss 4 inches (102mm) high x 5.5 inches (140mm) wide. Lvs 6.5 x 2.5 inches (163 x 65mm), elliptic, rounded base, acute apex, wavy margins, moderate olive green (137A), semiglossy, turning an attractive yellow before dropping. Shrub 4.25 x 4.25 feet (1.3 x 1.3m) in 9 years; intermediate habit, leaves held 2 years; extended bloom period, up to two weeks. Plant and bud hardy to -5°F (-21°C). Flowering early (mid-April in central North Carolina). Etymology: named for the father of the hybridizer.

* 'Tina's Picture' – not registered. Hybridized c. 1980 by Robert Means, Winston-Salem, NC; parentage records lost. Light pink with dark pink throat. Named, by Means, because it is



'Fred Jennings'. Photo by S. Southerland.

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in the background of a wedding photograph of his daughter Tina Means Hughes.

(r) 'Golden One'

Elepidote rhododendron: 'Mavis Davis' (s) X 'Sunspray'. H (2003), G (2008), N (2014), REG (2014): Catherine Weeks, Eureka, CA; I (2014): Westgate Garden Nursery, Eureka, CA. Flrs 10-11/dome truss, open funnel, 2.5 inches (64mm) long x 4 inches (102mm) wide with 6 way

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lobes. Bud: brilliant orange (29A). Inside and outside of corolla: brilliant greenish yellow (2B), no spots or blotch. Calyx: 1.5 inches (38mm), brilliant yellow (7A) with a touch of bronze. Truss 6.5 inches (165mm) high x 7.5 inches (190mm) wide. Lvs 6 x 2.25 inches (152 x 57mm), elliptic, oblique base, broadly acute apex, flat margins; dark yellowish green (139A), matte. Shrub 3.75 feet (1.1m) high x 4 feet (1.2m) wide in 11 years; intermediate habit, lvs held 2 years. Plant and bud hardy to 24°F (-4°C). Flowering early (early April in northern coastal California).

(a) ‘Hampton Jazz’

Evergreen azalea: ([‘Ripples’ x ‘Girard’s Hot Shot’] x ‘Girard’s Hot Shot’) (s) X ‘Karafune’. H (1992), G (1995), N (2014), REG (2014): Sandra F. McDonald, Hampton, VA. Flrs 3/terminal, open funnel, double, 1 inch (25mm) long x 1.5 inches (38mm) wide with 15 wavy lobes (commonly 3 whorls of 5-5-5). Bud, and inside and outside of corolla: vivid red (45A), with very faint, slightly darker spotting inside and occasional green or white streaks on outside. Calyx: 0.2 inch (4mm), moderate olive green. Lvs 1 x 0.5 inch (25 x 13mm), obovate, cuneate base, apiculate apex, flat margins; moderate yellow green, with dark reddish tinge in winter. Indumentum: hairs on upper and lower surfaces, very pale beige. Shrub 3 feet (0.9m) high x 2.25 feet (0.7m) wide in 20 years; dense habit, lvs held 1 year. Plant and bud hardy to 15°F (-9°C). Flowering early midseason (late April at the south end of Chesapeake bay). Etymology: named in recognition of the Hampton Jazz Festival, an annual event in the hybridizer’s hometown.



‘Hampton Jazz’. Photo by S. McDonald.

(r) ‘James Michael’

Elepidote rhododendron: ‘Vivacious’ (s) X *R. hyperythrum*. H (2000), G (2004), N (2004),



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REG (2014): Stan B. Southerland, Chapel Hill, NC. Flrs 11/conical truss, open funnel to broad funnel, 1.75 inches (45mm) long x 2.5 inches (65mm) wide with 5 wavy lobes. Bud: strong purplish red (63B). Inside: deep purplish pink (64D) shading to moderate purplish pink in center, with medium-size blotch of reddish spots in the upper lobe. Outside: strong purplish red (63B). Truss 4 inches



'James Michael'. Photo by S. Southerland.

(102mm) high x 5 inches (127mm) wide.

Lvs 8.5 x 3 inches (215 x 76mm), elliptic, oblique base, broadly acute apex, downcurved, slightly wavy margins, moderate yellow green (137C), matte. Shrub 6.7 feet (2m) high x 3.6 feet (1.1m) wide in 13 years, intermediate habit, leaves held 2-3 years. Plant and bud hardy to -5°F (-21°C). Flowering early (early April in central North Carolina). Etymology: named for the late brother of the hybridizer. Note: Pollen parent grown from ARS Seed Exchange lot 223-92.

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Edition (2009). Color names are from A Contribution Toward Standardization of Color Names in Horticulture, R.D. Huse and K. L. Kelly; D. H. Voss, editor (ARS, 1984).

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Errata

The photo of Werner Brack and his daughter Pippa Brack that appeared in the Fall 2014 issue, page 172, was taken by Cathy Bird (not the author) near the Swiss Air Memorial at Peggy's Cove, at the Halifax, Nova Scotia conference on Oct 10, 2013. We apologize for the error.

In the article "If it is not 'Onsloweanum' what is it?" in the Fall 2014 issue, p. 188, Joan Gibb notes that she did not root 'Onsloweanum'. Don Whittle of the Victoria Rhododendron Society did.

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