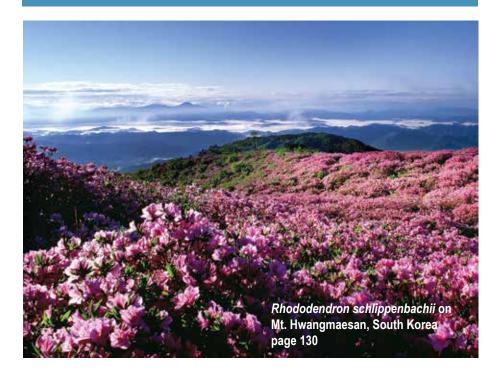


American Rhododendión Society

Vol. 69 Number 3 Summer 2015



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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 vear (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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R. 'Minas Grand Pré'. Photo by Bruce Clyburn.



R. schlippenbachii. Photo by Dae Wook Kim.

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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

What comprises the governing body of the ARS and how do I make my voice heard?

Bob MacIntyre Bandon, Oregon



District Directors are the elected or selected representatives of the 13 ARS Districts. They

are persons who have agreed to volunteer to serve on the ARS Board of Directors for a specific term, usually three years. They may serve a second term, but must step down after the second term. Each District also has an Alternate District Director who serves as back-up to the District Director and may serve on the Board of Directors if requested by the District Director. Both the District Director and the Alternate are members of the ARS who have volunteered their time and service. Every year four new District Directors are voted into office.

If you have any questions, comments or suggestions regarding the functioning of the ARS, your point of contact is your District Director. Your District Director and their Alternate need to maintain an open and constructively productive relationship with all the ARS members in their District. The District Director is the main conduit for passing information between the members and the ARS Board. Do you know who your District Director is? How would you find out? If you do not know who your District Director is, ask your Chapter President or look on the ARS website http://www.arsoffice.org/

Did you know that once you have created your personal login in the ARS Office website there is a wealth of information available to you pertaining to the ARS organization from individual chapters to the national office?

The Board of Directors of the ARS consists of 18 members—President, Eastern Regional Vice President, Western Regional Vice President, Secretary, Treasurer, all District Directors, Director at Large and the Past President

The Executive Committee consists of eight members: President, Eastern Regional Vice President, Western Regional Vice President, Secretary, Treasurer, and three District Directors.

These are your governing officers—volunteers. Each position is filled by a member of the ARS who has agreed to volunteer and serve in a governing capacity.

Rhododendron Organization Support for Nepal following its Devastating Earthquakes

Recent earthquakes have killed thousands and have significantly damaged the infrastructure and economy of Nepal. *Rhododendron arboreum* (lali guransh) is the national flower of Nepal, and this is the perfect opportunity for the ARS to help their fellow rhododendron friends in Nepal and to advance support for the rhododendron world in general by contributing funds in support of rebuilding Nepal.

Ken Cox has suggested some principals that might be followed:

1. Donations should be given to specific accountable projects, rather than in some huge "fund," so that contributors can see exactly what they are helping with.

2. Support for specific projects should ideally directly help those people in Nepal who host/porter/ guide people who go there to trek amongst wild rhodo-dendrons. Examples could be activities in the Milke Dande and Langtang areas, as these are the most popular trekking areas where you can see wild rhododendrons.

I encourage individuals, chapters and businesses associated with the ARS to consider fundraising for Nepal over the next 12 months or so in whatever manner they prefer at this critical time.

> Glen Jamieson, JARS Editor

From the Executive Director

Laura Grant Toronto, Ontario Canada



At our May meeting held in Sidney, BC, we celebrated the 70th anniversary of the founding of our Society. The list of speakers was most impressive: Harold Greer (USA), Marc Columbel (France), Lionel de Rothschild (England), Kenneth Cox (Scotland), Guan Kaiyun (China), Hartwig Schepker (Germany) and Jim Barlup (USA). There was no shortage of fabulous gardens and warm Canadian hospitality by the garden hosts and Conference organizers.

We welcomed four new members to the Board. Maria Stewart (District 4 Alternate Director), J.C. Patterson (District 6 Director), Linda Hartnett (District 8 Alternate Director) and Bill Meyers (District 9 Alternate Director).

Our Budget & Finance chair presented a new balanced budget which necessitated several cuts in our spending. One, directly affecting a service offered to our US chapters, is the supply of free return membership renewal envelopes. This service has ended; however, the renewal forms and membership labels are all available at www.arsoffice. org.

Our newly designed website, www.arsoffice.org is very user friendly and colour coded in three categories: **Membership, Chapters** and **Society**.

Each section is accessible by using either chapter-specific or personal user name and password. There are also items on this page that do not require a password.

To access the electronic Journal, you will have to set up your password using your ARS membership number (found on your mailing label of the Journal). Your password will be valid as long as you maintain your membership.

The chapter-specific user names and passwords are intended for use by Chapter Board members only and can be obtained through our office. Likewise, the ARS District Directors and Alternates can obtain the user name and a password to access the information on the chapters in their District.

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Exploring for Rhododendrons in Western Yunnan, China

Part 1: The Gorge of the Dulong

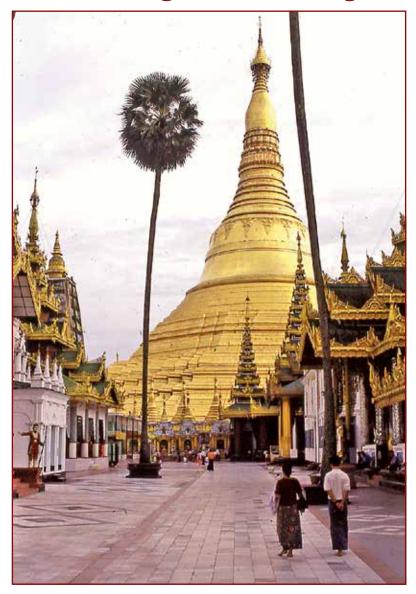


Fig. 1. The Shwedagon Paya (Pagoda), the most famous temple in Myanmar.

Steve Hootman Seattle, Washington

Photos by the author



(*Modified from an article in* Rhododendron Species 2007, *Vol. 2, the yearbook from the Rhododendron Species Foundation, Federal Way, WA*)

[Editor's note: Although the expedition described here was undertaken 14 years ago, it is unfamiliar to most ARS members as it has not previously been published in *JARS*. It describes exploration into one of the least travelled rhododendron habitats and as such, I feel should be communicated to rhododendron enthusiasts more widely. I was personally fortunate to be able to travel with Steve in 2005 up the Salween River to Gongshan and see many of the areas and peoples described in the following article, although with our large group, we did not go over the pass into the Irrawaddy watershed as he describes here. This corner of China is truly a magnificent area and is just as Steve describes it!]

Dackground

DFortunately for plant fanatics like me, an area exists in the world that contains an almost unbelievable assortment of rare, beautiful and scientifically interesting plants. Unfortunately for plant fanatics like me, this region, which, for the purpose of this article I will call the Tsangpo/Irrawaddy Flora, spans the borders of extreme northwestern Yunnan, southeastern Tibet, northern Myanmar (Burma) and northeastern India (in the state of Arunachal Pradesh), all relatively difficult if not nearly impossible to access. Here, at the very eastern end of the Himalaya Mountains, where the floristic regions of China, the Himalayas, and south-eastern Asia merge, a virtual maelstrom of evolution has taken place. The diversity here is due to a combination of factors, including the convergence of these floristic regions, the incredible topography due to the uplifting of the Himalaya and adjacent mountains, and a monsoonal climate. Five major rivers drain through and around the eastern terminus of the Himalayas. From east to west, they are the Yangtze, the Mekong, the Salween, the Irrawaddy and the Tsangpo (Brahmaputra). The easternmost three are all relatively accessible from Yunnan Province in China. The westernmost two are much less accessible for a variety of reasons, with the Irrawaddy running through Myanmar and the Tsangpo draining SE Tibet and portions of NE India. The Tsangpo/Irrawaddy region has a flora that differs substantially from the three

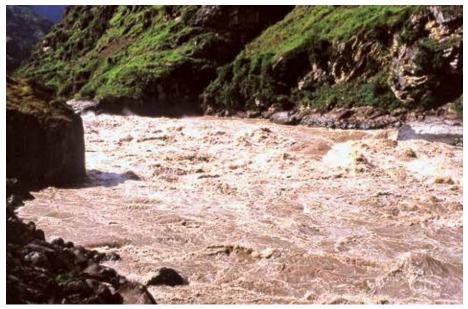


Fig. 2. The mighty Salween River.

progressively drier watersheds to the east, and its flora is more similar to that of the Himalayas than to those drier watersheds to the east lying completely within China, at least in its floristically relevant northern portions.

The most "accessible" portion of the northern portion of the Tsangpo/Irrawaddy region still remains the Gorge of the Dulong River, a tributary of the Irrawaddy that runs through the remote northwestern corner of Yunnan. This isolated and mountainous frontier is bordered on the west by northern Myanmar and on the north by the virtually unexplored southeastern corner of Tibet. The eastern border of Arunachal Pradesh lies less than 50 mi (80 km) to the west across the narrow northern tip of Myanmar. For political reasons, and due to the sheer difficulty of traveling in northern Myanmar and Arunachal Pradesh, these two regions have remained largely unexplored in the modern era of plant hunting. Tibet, although politically a part of China, remains a very difficult and extremely expensive place in which to travel freely. This is especially true of the rugged rain-soaked mountains of southeastern Tibet, adjacent to the Yunnan border. This leaves the Dulong Valley of northwestern Yunnan as the relatively easiest of these regions to explore, despite its remoteness.

The Dulong Gorge is one of those almost sacred regions for plant hunters, a holy place in the world of rhododendrons and their relatives if you will. The deep canyon of the wild and little explored Dulong Valley is smaller than, but similar to, the nearby and more famous Gorge of the Tsangpo River. It is the very center of the zone where the flora of the Himalaya merges with that of the mountains of southwestern China.



Fig. 3. Old-growth forest along the Dulong Road.



Fig. 4. The precipitous narrow Dulong road.

Unexplored even during the early part of the twentieth century when men such as Frank Kingdon Ward and Heinrich Handel-Mazzetti were active in the region, it still has un-trodden trails awaiting western feet and new species undoubtedly awaiting discovery.

They say the third time is a charm and, after two unsuccessful attempts (1997 and 2000), I was determined to make it into the gorge of the Dulong River in 2001. It is a difficult region to access, both politically and physically. The upper Irrawaddy drainage is a wilderness of high mountains, tremendous rainfall, very few people and an incredible assortment of rhododendrons. On my two previous expeditions with Peter Cox, David Chamberlain, and several other intrepid plant explorers, I had been able to see a tremendous variety of rhododendrons and other plants. The actual gorge of the Dulong, however, remained elusive as we explored the mountains up and down both banks of the adjacent Salween River, itself a remote and difficult region. Various factors contributed to our inability to reach the actual gorge of the Dulong, including bad roads, horrible weather and difficult trails. I hoped for better luck and greater success on my third attempt.

Trip Planning

After sixteen months of planning and preparation, I was set to lead the first plant hunting expedition into Asia ever organized by the Rhododendron Species Foundation. Four of us from the States were set to fly into Taipei en route to a pre-expedition survey of Myanmar prior to meeting the rest of our party in Kunming, the capital city of the province of Yunnan, China. While in Myanmar, I wanted to do a bit of exploratory preparation in the capital city of Yangon (Rangoon). If I could make the proper contacts, I hoped to set up a future expedition into the currently closed northern part of that country should the opportunity arise. With me were my friends George Latchford, a geographer; Don Selcer, the trip's physician; and the owner of a small nursery in the Seattle region.

Our evening arrival at the Yangon airport was similar to any other airport experience in southeastern Asia, loud, crowded and seemingly ruled only by chaos. As we oriented ourselves (we had been on planes and in airports for most of the previous two days), a young fellow began speaking to me in English. He was a student named Than, working for a tourism company, and he quickly verified that, yes, he could provide transportation for our group to the hotel I had booked prior to our departure.

We ended up hiring Than as our guide and primary source of transportation for the duration of our short stay in Myanmar before flying into Kunming on Sunday afternoon. The southern portion of Myanmar is well south of the Tropic of Cancer and the weather was quite hot and humid. During the day, I met with local tour operators in hopes of gaining access to northern Myanmar on a future expedition. We also spent time wandering the city, seeing the sights and acclimating ourselves to the major time

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change. One afternoon we visited the Shwedagon Paya (Pagoda), the most famous temple in Myanmar and one of the most famous of all temples in the Buddhist world (Fig. 1). This impressive stupa sits atop the tallest hill just outside of the city, providing fantastic views of Yangon and the surrounding areas. The Shwedagon was originally constructed more than 2500 years ago but has been rebuilt and expanded many times since then. It now stands an imposing 321 ft (98 m) high and is completely covered with approximately 60 US tons (54 mt) of gold leaf. The structure literally glows in the light, beckoning followers of Buddhism from all over the globe. It is a custom of Burmese to visit the Shwedagon before an important journey, so we hoped that good luck would follow us as we began our journey into the wilderness.

Although we had enjoyed our brief stay in Myanmar, we were very happy to be leaving the corruption and bribing so rampant in the city of Yangon. After a last early morning walk through the local street markets on Sunday morning, we were driven to the airport by Than to make the short flight to Kunming. Of course, we would not be allowed simply to leave with all of our obvious riches! As we checked in, I was informed that we would not be allowed to board the flight due to our excessive baggage weight. However, after extensive discussion with an official in full military regalia, where necessary forms were signed and my own small monetary contribution was added to his impressively large roll of American bills, I was quickly guided back to the check-in counter; we were now free to go, and our bags would be coming with us.

Upon our arrival at the Kunming airport, we were met by the Director of the Kunming Institute of Botany, Guan Kaiyun. Botanists from the Institute would be hosting our expedition and had made all of the preliminary arrangements for our traveling into the mountains along the Myanmar frontier. Dr. Zhou Zhekun was my primary contact and the Chinese leader for the trip, and as he too had never been to the Dulong, was as eager to explore the gorge as we were. At our hotel, I met Peter Wharton, the curator of the Asian collection at the University of British Columbia Botanic Garden in Vancouver, Canada, and a young botanist, Jens Nielsen, the propagator at Glendoick, the nursery in Scotland owned and managed by the Cox family. With our four Chinese botanists, our team was complete.

The Salween River Valley

We started our expedition by flying to Baoshan, a large city in southwestern Yunnan near the frontier with Myanmar. The next morning we began by driving north for a full day to the city of Liuku on the Salween River. At about the halfway point of this scenic drive, a low-elevation pass of around 8200 ft (2600 m) near the town of Caojian at the base of Ziben Shan (Shan is the Chinese term for mountain) is a "famous" stop for plant hunters. We had a brief botanical stop here and made our first plant collections, including *Vaccinium, Ilex, Styrax, Hydrangea, Cinnamomum, Machilus, Lindera* and *Magnolia*.

Liuku is the capital of the Nu Jiang (Salween) Prefecture, an area set aside by the central government as an autonomous region managed by the Lissu ethnic minority who dominate the local region. Like much of modern China, it is rapidly growing with new buildings under construction almost constantly. The mountains rising abruptly from the city on either side of the river are, of course, full of great plants and it is always exciting to sit in the subtropical breeze alongside this huge Asian river imagining the floral richness just waiting to be explored as one moves north from this Salween starting point (Fig. 2).

The following day was another full day's drive north along the Salween to the end of the road in the far northwestern corner of the province, to the small town of Gongshan. The drive along the river is spectacular, with the lofty and incredibly vertical mountains along both banks forming an immense, deep canyon-like valley. Although the mountains along some sections of the Salween rise up to 14,000 ft (4250 m) or more in height, these higher peaks are rarely observed from the low elevation of the river due to the incredible steepness of the slopes. Deep narrow canyons split these massive walls with some regularity, the long cascading waterfalls within rivaling their famous counterparts in the Yosemite Valley of California. We were lucky to have a beautiful clear and sunny day for the entire drive north. Our spirits were high as we made our way ever further into the frontier.

I had spent a great deal of time in Gongshan (5300 ft; 1600 m) during my first two expeditions to the region and had very fond feelings for it. It is populated primarily by members of the local ethnic Chinese minorities, including Lissu, Tibetan, and even a few Drung (also known as the Dulong people), a small-statured people and little-known group that is slowly disappearing. There are reported to be only around 3,300 Drung people left, the vast majority of them inhabiting the isolated Dulong valley that we were anxious to explore. Most of the shops are owned and managed by ethnic Han Chinese, by far the dominant ethnic group in China who had emigrated south from the extremely crowed Red Basin of Sichuan.

We arrived in Gongshan early that evening and after checking in to the local hotel, we were treated to a large feast by the local government officials on the open roof of the best local restaurant. As is typical with such functions, the local firewater soon appeared and we even sacrificed one of our few precious bottles of Scotch. A great deal of toasting took place through the course of the evening and we enjoyed the open views of the surrounding verdant mountains. The next day was spent packing and procuring supplies for our planned six-day hike into the Dulong Gorge. Once in the gorge, we hoped to spend the next week or two, depending upon access, exploring the high mountains on either side of the deep chasm. Since the Chinese handled most of the necessary work of hiring ponies and purchasing supplies, the rest of us took a short driving day trip up the newly built Dulong Road to look for plants and see the mountains. This "road" had been built in 1997-98 and we had observed much of the

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destruction and blasting during our first trip to the region in 1997. The steepness and incessant heavy rains caused much of the road to collapse almost immediately upon its completion. Subsequent and almost continuous landslides had rendered it basically useless for transportation since that time. As expected, during our visit, the road was closed due to landslides higher up. Still, we were eager to get to work and managed to drive to a point high enough to find many interesting plants and make further collections including *Rhododendron floccigerum*, *glischrum*, and even the rare big-leaf *coriaceum*. We returned to Gongshan late in the afternoon to finalize our preparations.

Into the Irrawaddy River Watershed

After a mellow dinner and planning session, all was set for what we hoped would be our successful trek when, late that evening, Dr. Zhou knocked on my door with the good news that the road into the Dulong had just been reopened and that we could rent some lorries (specifically the ubiquitous large blue trucks of China that anyone who has ever been there would recognize in an instant) and drive into the valley the next morning. We changed our plans accordingly and the following day, after a rather scary eight-hour drive up and over the mountains outside of Gongshan, we entered the valley of the Dulong River, five days ahead of schedule. The drive up wound its way through the mountains, past deep valleys and rich forests which in this part of Asia in many ways resemble the forests of the Pacific Northwest with its many varieties of large conifers including spruce (Picea), larch (Larix), true fir (Abies) and Douglasfir (Pseudotsuga) (Fig. 3). Of course in these Asian forests, unlike our own coniferous forests, it is possible to observe 30 or 40 different species of Rhododendron growing in the wild. Many good plants were observed along the road, including several species of maple (Acer), various mountain ash (Sorbus spp.), massive evergreen oaks, orchids, and dozens of different ferns. Among the rhododendrons that stand out in my memory were R. arizelum, coriaceum, megacalyx, floccigerum (here seeming to merge completely with neriiflorum subsp. phaedropum), anthosphaerum, protistum, brachyanthum subsp. hypolepidotum, and megeratum, which grew only high up in the trees.

Remarkably, while still on the Salween side of the pass in the Gaoligong mountain region, Dr. Zhou received a call on his cell phone (even here we could not get away from the annoying, though admittedly useful things; the Dulong side had no service however). After a few minutes of discussion with his phone contact, he was obviously shaken. He asked if I knew a certain scientist from the U.S. but I did not recognize the name. Zhou's call had been from his co-workers in the Institute working with an international team of biologists who were documenting other aspects of the incredible biodiversity in the Gaoligong Shan, who at that moment were apparently somewhere over the ridge above us. He reported the sad and shocking news that the senior herpetologist (a reptile and amphibian specialist) had just died from the bite of a poisonous snake. This is always a concern in this region with its tremendous diversity of poisonous snakes

including kraits, cobras and many kinds of vipers, several of the latter no more than a foot (30 cm) in length. Needless to say we were all a bit thrown off by this horrible news and I, at least, became much more tentative about thrashing around in the brush.

We continued on our way along the precipitous narrow road (Fig. 4), stopping occasionally to observe the wide range of plants along the road. We slowly gained elevation until we reached the pass over the divide separating the drainage of the Salween River from that of the Irrawaddy. The actual crossing of the pass was a tunnel that had been hand-hewn through the ridge at around 10,000



Fig. 5. *R. martinianum*, the first flower from our 2001 collection DGEY#042.

ft (3050 m). The tunnel measured one quarter of a mile (400 m) long and was only large enough for the smaller version of the common Chinese lorry. After pulling in our side mirrors, the drivers slowly drove into the gloom, the headlights illuminating the rough rock walls slick with water. The support timbers jammed into various niches did little to ease our trepidation as we crept towards the distant spot of light. As we exited the tunnel we stopped for photos and our first look into the Irrawaddy watershed. As far as I knew, we were the first plant hunters in the modern era to gain access to the rich, diverse and distinct flora of this major watershed. It was a great feeling to have made it so far in so little time. My long elusive objective was finally before me.

Once we crossed the pass into the Irrawaddy watershed, Jens quickly spotted what appeared to be the rare *R. martinianum* (Fig. 5) and *R. sanguineum* subsp. *didymum* (Fig. 6.). A brief stop and inspection revealed that his sharp eyes were correct once



Fig. 6. R. sanguineum subsp. didymum DGEY#043.

again. Both species in the wild were new for me and to the others. As we continued down into the valley we drove through some stunning scenery, including fine forests of Chinese hemlock (*Tsuga dumosa*) that contained many large understory trees of *R. hylaeum*, a relative of *R. thomsonii* that remains very rare in cultivation. This species has rose to pink bell-shaped flowers (Fig. 7) in very early spring and stunning pinkish-gray bark that remains completely smooth from the tips of its new branches to the sinewy curving trunks rising through the dense undergrowth of ferns and wildflowers (Fig. 8). Until recently, it was represented in cultivation by only one clone grown from seed collected by Frank Kingdon Ward (KW#9322).

The temperature began to climb as we continued to drive down from the pass into the valley. At this latitude, the river itself lies at about 5250 ft (1600 m) and the weather was quite hot and muggy as we approached the village of Kongdan. Our primary objective for the day was to reach Kongdan in the valley, from whence we would begin our trek north. Kongdan is the largest village in the valley but still quite small and primitive. We heard occasional blasts of dynamite thunder off of the surrounding cliffs as the local villagers blasted the river, attempting to kill or stun any nearby fish. This is an incredibly wasteful and destructive method of fishing and we protested to our Chinese hosts, but to little avail. We were in the "wild west" as it were, and there was



Fig. 7. R. hylaeum, a relative of R. thomsonii.

little if any government oversight for such infractions. Walking around the village, I imagined myself in a frontier town in the old American west, full of shanties, small shops and lots of mud (Fig. 9). Massive puddles of muddy water filled the main street and piles of livestock manure lay everywhere. Still, we had been saved from camping in a nearby leech-infested cornfield and for that we were most grateful. Our "hotel" even had a small porch above the mud with a few old chairs and empty diesel barrels to sit upon. We had a splendid evening drinking beer on the veranda and toasting our success and luck.

That evening we had dinner in a local house in company with two local government officials. They asked many questions and we talked about our plans. We received their blessing and were told that they would be accompanying us for the duration of our stay in the valley. They would act as liaisons for us in the villages as we worked our way upriver and would facilitate our mission in any way possible. It was fortunate that I had arranged this expedition as a scientific co-venture with our Chinese hosts, as otherwise we would have had a difficult time making any collections under the sharp eyes of our "guides." Chickens scratched around the dirt floor as we ate and the occasional local, semi-tame monkey climbed in through the open eaves, obviously accustomed to receiving handouts. In this remote, rugged wilderness there are still good populations of the larger fau-

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na of the Sino-Himalaya. Although Asian elephants, rhinoceros and most likely, Bengal tigers had all been extirpated from the local forests for decades, biologists still find signs of such rare animals as the Gaur (Bos gaurus), a 2,000 lb (907 kg) animal also called Indian bison; Red goral (Naemorhedus bailevi); Musk deer (Moschus spp.); Asian black bear (Ursus thibetanus), Moon Bear: or Asian Wild dog (Cuon alpinus), or Dhole; Leopard cat (Prionailurus bengalensis); Chinese serow (Capricornis milneedwardsi); Red panda (Ailurus *fulgens*) and the Takin (Budorcas taxicolor), also called

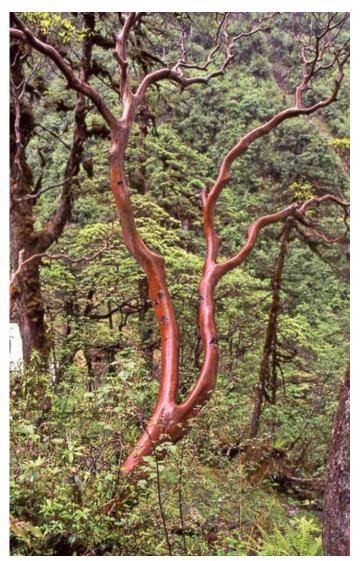


Fig 8. R. hylaeum's stunning pinkish-gray bark.

Cattle chamois or Gnu goat. In addition to several species of monkey and langur, the largest primate in the region, the Hoolock gibbon (*Hoolock hoolock*) still inhabits the mountain forests. The bird life is tremendous of course, with a multitude of hornbills, parrots, woodpeckers, and so on.

As darkness descended we noted that in an incredible stroke of luck, we had arrived on the day of the Moon Festival, which just happened to be taking place in conjunction with National Day that year. In the evening, we enjoyed traditional dancing and

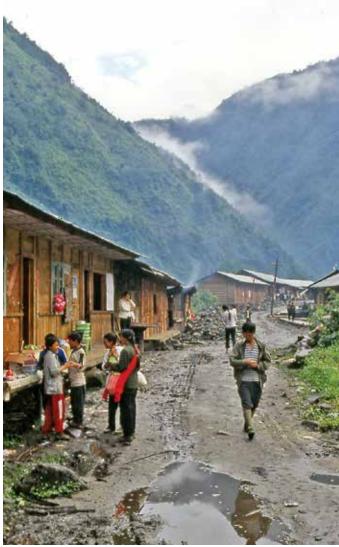


Fig. 9. The village of Kongdan.

singing, with colorful costumes flashing in the exposed light from the naked bulbs suspended overhead. The next day we had a late morning start, following the customary arranging of baggage on the 15 or so ponies we had hired to transport our gear and food.

Up the Dulong River Gorge

We were told that we were among the first westerners to make it into the Dulong Valley, and most of the small number of more recent visitors had been scientists studying the mysterious Dulong people. As if to demonstrate the point, we were somewhat shocked to see a small group

of young people, Israelis or possibly Europeans, arriving with their backpacks. They seemed equally shocked to see us. They had no permission to be there, however, and were quickly summoned to the local political office and given a ride right back over the pass to Gongshan, their Chinese travel agent being duly reprimanded. Things were being ruined already thanks to the new road and I knew the Dulong Gorge would soon be swarming (relatively speaking) with tourists.

We started off along a rough trail set with large stones. Leeches soon made themselves



Fig. 10. A giant blueberry named Vaccinium gaultheriifolium

evident and we would be plagued with them for the duration of our stay in the gorge. We hoped to travel north along the river for a day or two, looking for access into the incredibly steep forest-covered slopes. The trail followed the river more or less, climbing up and over ridges as we climbed along the narrow and deep gorge. As we hiked, we made herbarium collections of many interesting low elevation plants including various Aeschynanthus species that hung in sheets from the wet cliffs and trees. This genus, a member of the Gesneriaceae (African violet family), is related to the lipstick plant that is commonly grown as a houseplant. Many species inhabit the lower elevations of the Sino-Himalaya regions and I find them quite beautiful and fascinating. We also observed and collected several interesting trees and shrubs, many of them of Himalayan origin and not known from any other part of China outside of Tibet. As I have mentioned, the Dulong, as a branch of the Irrawaddy River, is at the very eastern end of the Himalayan flora. One surprise was the beautiful Pinus bhutanica, a common enough species in Bhutan and adjacent regions of the eastern Himalaya but never before recorded this far east. This pine is quite rare in cultivation and a bit tender for most climates, coming from fairly low elevations throughout its range. It is one of the white, or five-needled, pines, with long pendulous needles typically bright glaucous blue-green in color. Several Rhododendron relatives share a similar interesting range, the populations ending just inside China in this extreme northwestern corner of Yunnan,

i.e., in the gorge of the Dulong. Two of these, both of which are common species in the eastern Himalaya, are *Vaccinium nummularia*, which I had observed growing wild as an epiphyte in Sikkim, and *Gaultheria wardii*, a shrubby wintergreen with remarkable hairy stems that I had never seen before. While the former is well established in cultivation, the latter is still quite rare. A close relative of *Vaccinium nummularia* which also occurs only in this northwestern corner is the choice *V. chaetothrix*, a diminutive version of *V. nummularia*, with tiny rounded and convex leaves lining the dangling stems like green pearls on a string.

The best of these rhododendron relatives, however, was a plant that I knew in cultivation only from a collection made in Nepal. This was another widespread species of the eastern Himalaya, a giant blueberry named *V. gaultheriifolium* (Fig. 10). It is a stunning evergreen shrub with beautiful glaucous blue-green smooth leaves and the undersides of the leaves, flowers and its blueberries are all covered with a thick layer of white wax. It was the main plant on my "hit list," and I was happy to find it in abundance on our very first day in the field. It is in my opinion one of the most beautiful of all shrubs and although rare in cultivation is well worth growing in mild maritime climates such as in northern California, the western coast of Scotland or New Zealand. In Seattle, I grow it in a container where it does quite well with plenty of water and an occasional trim.

Growing on steep exposed cliffs at around 5000 ft (1525 m) was *R. dendricola*, here in the form previously known as *R. taronense* (Fig. 11). This member of subsection *Maddenia* varies quite a bit over the wide range in which it occurs. It is generally a plant



Fig. 11. *R. dendricola*, here in the form previously known as *R. taronense*, the only plant to result from this collection but one with dark pink stripes when it first emerges—here growing in the Rutherford Conservatory.



Fig. 12. R. moulmainense, formerly R. stenaulum.

of the temperate rainforest where it typically grows epiphytically in the tops of tall trees, its presence detected only in the litter of the forest floor beneath. This species has large funnel-shaped white flowers, often with a pink flush and/or yellow, orange or green blotch, and is fragrant. It makes a fine plant in a container or the greenhouse but is a bit tender for growing outside in most regions. The unusual *R. moulmainense* also grew in the low elevation forests along the river. This species can eventually form a large tree with striking smooth and peeling reddish to purple-brown bark. The large, fragrant, orchid-like flowers of the local variety, formerly *R. stenaulum*, are a lovely soft pink (Fig. 12). We also observed our first colonies of the lovely Hedychium villosum, a perennial ginger relative. This large monocot, with leaves like a giant orchid or corn plant, has large showy and colorful, often fragrant flowers in either late summer or fall, depending upon the species. The flowers on this species were pure white and on red pedicels, quite striking. In fact, plants grown from our collection of seed in the Dulong are blooming beautifully in my own Seattle garden as I write this essay in early September. Members of Hedychium make fine garden plants, easily grown in a sunny or partly shady position with any decent soil. They can be dug and stored like dahlia tubers in the fall in colder regions. I leave them in the ground year-round in Seattle, and also grow several species in large containers.

It was a very hot and humid day of hard hiking up and down the rough track and we were glad to reach the village where we would camp for the first night. As in Kongdan

the night before, we met with the headmen of the village in order to seek information and plan the following day's trek. We had hoped to be able to access the surrounding high mountains, but were told that the trails had mostly fallen into disrepair since the government had placed strict controls on the border in an effort to slow down drug trafficking across the Myanmar border. This resulted in many of the old trade routes, in reality simply rough, but well-used trails, up and over the mountain passes, being more or less abandoned. Moreover, the area had a very small population base to begin with and most hunting had been outlawed with the intention of setting aside much of the area as national parks. So we were forced to face the reality of a true wilderness ahead of us, with little or no access into the mountains. While we were happy that this region was being preserved in its natural state, we were frustrated at the possibility that we would not be able to find any camping locations, let alone tracks usable for a group as large as ours in the relatively short time we had available. All this became more and more apparent as my Chinese partners and I met with the local village elders each subsequent evening as we slowly worked our way up the river. Each night the decision was made to proceed further up the river to the next village in the hope of finding trekking access and camping.

On our second full day in the Dulong Gorge, we awoke to steady rain. Unfortunately, it was not to end anytime soon. Late that second afternoon we arrived in the next village. Here we were taken to visit some older Dulong women who still had the distinctive facial tattooing that used to mark the majority of women in this ethnic group. Very few of these older women remain, and the practice has now fallen out of favor. We were told that it was done in the past to prevent the more aggressive Tibetans from capturing women as slaves during their frequent raids to the south. Apparently, the Tibetan raiders, and their clients, found the tattooing so unattractive that the women became unmarketable. It was a rare treat to meet these people, remnants of a bygone day. In a rather ironic twist, we were asked for money to take photographs of the tattooed women, as were our Chinese hosts, all of whom were as enthralled with the spectacle as we were.

Something that I can now look back on with a bit of a smile but which at the time I remember as being very annoying was that, after all of the time we would spend each evening scraping mud off of everything and picking leeches from every nook and cranny, the ponies carrying our gear would show up. All of the bags would be covered with mud and literally crawling with leeches and we would have to start all over again as we tried to set up for the evening. The poor ponies would have huge leeches hanging from all over their already thin and scruffy bodies. Their heads and faces were especially vulnerable since they picked up new leeches each time they lowered their heads to graze.

The following morning, the first day of October, we were again in pouring rain. Our ponchos were virtually useless, serving merely as a conduit for leech access to our heads



Fig. 13. R. chrysodoron.

and upper bodies. The small and poorly made umbrellas that we had purchased in Kunming were useful but difficult to maneuver through the dense growth of ferns and vines hanging over the usually very narrow path hugging the cliffs along the river. As we continued north, the gorge narrowed and became steeper, our elevation increasing slowly but steadily. Long ribbon waterfalls cascaded down from the steep cliffs overhead. Dr. Zhou noted that the Dulong Gorge was very similar both in appearance and floristically to the famous Tsangpo Gorge of southeastern Tibet just to the north and west of us. Zhou mentioned that although the leeches were bad in the Dulong, they did not compare to what they endured in crossing the passes into and out of the Tsangpo. He noted that the local pony men there would not take them over the passes during the high monsoon of the summer because the huge number of blood-sucking leeches around at that time would literally drain the life from their ponies. I'm not sure if his story of relatively even worse conditions made us feel better, or not.

We made it to the "last" village in the early afternoon. By this point, we felt that we were well into one of the few "unexplored" regions left in the Sino-Himalaya and were

feeling quite isolated from the western world. Needless to say, we were quite surprised to walk into this last village, the incessant rain still pouring down, and find a large crowd of people cheering on a game of basketball. The game was taking place on an actual paved court, complete with hoops (no nets) and a makeshift basketball. The reason for the ball game this particular day was because this village too was celebrating both the Moon Festival and, to a lesser degree, National Day. In discussion with the locals, Dr. Zhou learned of a possible trail up into the mountains and, since we had plenty of daylight left, we decided to excuse ourselves from the festivities to check it out. The trail wound for a short distance through the large boulders lining the river, and we found many interesting plants along here including the fantastic R. nuttallii (also known as R. sinonuttallii). This large-growing member of subsection Maddenia has the largest flowers of any non-vireya species in the genus Rhododendron. These huge fragrant flowers can be up to six inches (15 cm) long and equally wide at the mouth, white in color with a yellow flush or blotch. The equally impressive leaves emerge a vivid and very attractive purple color beset with silver scales. The upper surface of the leaves is deeply bullate and the reddish brown bark is smooth and peeling. However, the most exciting plant of the trip so far was a strange rhododendron growing beside what was obviously the rare R. chrysodoron in the shade of a large boulder. The rarely



Fig. 14. A new species similar to R. chrysodoron, called "species nova subsection Boothia".

collected R. chrysodoron itself was a special find (Fig. 13), as it is a member of the small subsection Boothia and is reminiscent of its more widely grown close relative R. sulfureum, sharing with that species small flattened bright yellow flowers, deep green leaves and smooth dark brown bark. Our newly discovered unknown plant was similar to *R. chrysodoron* but obviously quite distinct, and neither Jens nor I could put a name to it. We called it "species nova subsection Boothia," and collected specimens and a few seeds. A few years later, one of the plants resulting from this collection of seed flowered at Glendoick in Scotland (Fig. 14). I was not surprised but was extremely happy to hear from Peter Cox that it had bloomed yellow and that it was indeed a new species, clearly not matching anything that had previously been described. From this discovery I surmised that undiscovered species still remained to be found because the earlier plant hunters such as Frank Kingdon Ward and Handel Mazzetti, both of whom had gone through this area in the early part of the twentieth century, had been able to access the tops of the ridges. They had traveled above, and thereby missed, plants to be found in the thick rainforest through which we, unable to reach the high ridges, were being forced to trudge. Thus, there were probably many plants growing in the lower elevations of the numerous valleys throughout the region yet to be documented and described. This was an exciting prospect indeed.

We were soon climbing up and over giant boulders along a side stream. The boulders were covered with interesting vegetation but the combination made for very difficult and dangerous hiking as we could not even see where to put our feet as we pushed through the stinging nettles. Without a machete man out front, as all the locals had stayed in the village for the party, it became more and more difficult to push our way through the dense vinous growth. We were making very little progress and so gaining little elevation, and so we started back and found the celebration was now in full swing. Being the first group from the west through these villages, we generated a great deal of attention, especially from the children, all of whom gathered around to watch in amazement as we pulled one strange article after another from our bags. Our Chinese botanists and I shortly left to confer with the village elders regarding our expedition, sitting cross-legged on the dirt floor around a small fire. We spent the next couple of hours poring over our limited maps and discussing possible routes into the mountains, everything having to be interpreted at least once with Mandarin, Dulong and English speakers all struggling to communicate. We drank many toasts as we sat coughing and squinting in the smoke-filled room. The celebratory sounds outside continued unabated, sneaking in to disturb our discussion each time the door was opened. I felt at that moment and in that situation more affinity with the famous plant hunters of the early twentieth century than I have ever felt. I could imagine Frank Kingdon Ward or George Forrest in exactly the same situation, meeting with the locals in a remote village, planning the next stage of his expedition.

I began to feel a bit positive about our predicament as it seemed as if we had finally

found some people with a wide knowledge of the region. Distances and marching times were bandied back and forth between the Dulong elders, the Chinese and me. I had a difficult time in explaining that what they considered a simple half-day march for them equaled a probable one and one half or even two full days' march for my people. Our varying concepts of time and distance forced us to reevaluate and then evaluate again every idea proposed, and my positive mood began to wane, especially after I was told that even if we could manage to clamber our way up the steep cliffs and densely vegetated slopes, our ponies and gear would certainly not be able to come along. We would thus not be able to set up any sort of camp on the almost vertical slopes. It all seemed hopeless and I despaired of ever climbing out of this infernal valley.

Then, just as serious pessimism was setting in, I was told of a small campsite that had been hacked out of the jungle high up the mountain at around 10,000 ft (3050 m) on the way to one of the passes into Myanmar, which would be a perfect place for a base camp from which to make forays onto the surrounding peaks. I decided we would head upstream in the morning to attempt what seemed to be our last and only hope of success in getting up above the Dulong Gorge.

I emerged from the hut to raucous cheers, toasts, and a myriad of questions from my now quite jolly compatriots. I explained the situation and our options, and everyone agreed to continue on together. As the celebration continued into the night we enjoyed performances of singing and dancing in native costumes, handmade native instrument recitals and even karaoke. The celebration began to wind down as a ritualistic dance began to form in the square. I have observed this many times in my travels and these communal dances are often very similar. The participants gather in a large circle and hold hands, singing or chanting as they rotate around in an intricate pattern of rhythmic dance steps.

The following morning we continued north toward the small village of Ba, following the course of the river. It was still pouring down rain but we made good progress along the almost non-existent track, which included several small stream crossings that soaked us even more thoroughly than the rain. However, at a steep side stream in full flood, only a small tree trunk had been dropped across the raging waters, and a slip off of this small treacherous log would be most dangerous, if not deadly. There was no way that our ponies and gear would be able to follow us even if we could make it across, and so we would have to leave them behind for the time being. We were debating our alternatives when, almost miraculously, a young Chinese man appeared on the far bank, beckoning us forth and promising shelter from the rain and cold. He held out a long pole to steady us as we took turns slowly crossing the log. Once we had all gathered on the opposite shore we learned that our new Chinese friend had only recently been stationed in Ba, and was the new teacher for the dozen or so kids in the tiny settlement. In the cold wet air there at 8000 ft (2438 m) after four days' hard trekking, we were glad to shelter in the school house beneath the jagged snow-covered peaks on either side of

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our deep canyon, occasionally visible even in the dense rainy gloom.

The tiny "village" of Ba was the last human habitation in the valley and the trail effectively ended at that point. It was one of the saddest, most destitute and primitive human habitations I had ever seen. The Dulong people are considered the pygmy people of Asia with their own distinct culture and language. They were considered by early anthropologists as being almost stone-age in their customs and knowledge. We were shocked to see many of the children running around naked in the freezing rain, and we watched in amazement as one of the mothers, with absolutely nothing on above her hand-made skirt, climbed an apple tree to pick some ripe fruit. It seemed a miserable existence to us in the constant rain and harsh conditions but the people there seemed to be relatively happy. They were eager to help us, and Dr. Zhou hired virtually the entire village to go back down the trail to gather our gear from the stranded ponies and pack it back to the village. Late that afternoon, they all reappeared, each person, including the children, with a bag or large metal box on his or her back. They had crossed the raging stream with no difficulty, heavy load and all. I insisted to Dr. Zhou that he double whatever wage he had arranged along with all of the food we had agreed to leave with them. This brought their total fee to around \$50 for which they were very grateful. They also brought back news that the pony men were dropping trees to build a makeshift bridge over the swollen tributary. They estimated that they would arrive with the rest of our equipment the following morning. I was also told that the trail we were planning to take into the mountains was extremely difficult and now mostly grown over from disuse.

As the weather conditions continued to degrade, Dr. Zhou and I decided that we would wait one day in the village to see if it would clear up even a little. We were told not to go out after dark unless absolutely necessary because of the abundance of vipers in the area, so I immediately downed two Imodium tablets. After struggling with a vicious head cold for several days, I awoke the next morning completely congested and with my eyes swollen almost shut. After days of stress, an unrelenting sinus infection, and constant smoke in my eyes, my system had finally had enough. However, the good news was that the hard rain had abated, and we were approached by a local hunter who had agreed to guide us up the infamous trail. Seeing the condition of my group, as well as that of the Chinese botanists, he suggested taking a quick reconnoiter of the trail and our possible campsite himself, along with a couple of friends, returning that evening to make a report. Dr. Zhou and I discussed this at some length and finally decided that it was probably a good idea, but that we would send along one person to ensure that the report was as accurate as possible. We decided to send Jens, by far the youngest member of our group and a strong hiker who did not seem to be suffering at all from our tribulations. While he prepared for the hike, I had second thoughts about sending Jens alone on such a dangerous mission and so asked my friend George, also a strong hiker, to accompany Jens so that they would have each other in case of an emergency.

They were given strict instructions to resist all temptation to stop and collect plants or take photos since they had a long and extremely difficult distance to cover in a very short time, and would have to keep up with the rapid pace of the guides. They were also instructed to turn around promptly at 2:00 PM whether or not they had reached the possible campsite. I felt guilty for sending them to do what I felt I should have done myself, but I was not physically up to the task at that point in the expedition. Although it was only a recon mission. I think deep down we all thought they would not be bringing back good news, and that in the end, Jens and George would be the only ones to make it into the mountains above the Dulong.

Late that afternoon, Jens, George and the guides emerged from the forest, completely soaked and obviously tired but with huge grins and great enthusiasm for what they had just accomplished. They reported that there was basically no trail, and that they had bushwhacked most of the way up to the campsite. It had been an amazing hike, literally scaling cliffs and hanging on to roots and stems above perilous streams, always at a very rapid pace. They had managed to keep up with the guides but did not think that several members of our large party would be able to make it. They did find the old campsite, located at around 9200 ft (2804 m). Of course, like the old trails, it had grown over with brush and small trees. In addition, it would only hold a few tents. I was forced to make a decision that I deeply dreaded making, namely to turn around and leave the valley as quickly as possible in order to explore various other nearby mountains that I knew we could access along the Salween. In this way, we could, with any luck, salvage the expedition and find some decent material to bring back to both the RSF and Glendoick. To this day, although I know I made the right decision and that while the others agreed that turning around was our only viable option, I continue to wonder, what if . . .

Summary

We realized that the only way anybody was going to access the mountains above the Dulong Gorge from the gorge itself was as a one or two-person team with a guide. The terrain is just too steep and difficult and there is very little, if any, space to set up a camp for groups larger than this. Our ten-man group, with all of its attendant ponies and support staff, was just too big for this portion of the expedition. Nobody was happy with the decision but we all knew it was for the best. Of course the rain had returned and we were all quite dejected. It was a quiet and somber group for the next few days as we plodded back through the same mud and leeches we had struggled through a few days earlier. We were happy to have reached the Dulong but rather dejected in having accomplished relatively little once we got there.

Nevertheless, our time in the Dulong Gorge had been amazing in many ways. It is a rare thing today to be able to travel through a region where westerners have not been in decades, if at all, to a place where people still live much as they have for centuries, relatively untouched by modern society. From my notes upon leaving the valley: "The people in the valley live very primitively. More so than anywhere I have seen. Especially in the north it is day-to-day survival. Everywhere is filth, mud, leeches and poverty. It is very difficult to conceive that people actually have to live like this when we have so much excess."

Part 2 of this expedition will be presented in a following *JARS* issue and will describe the challenges of exploration into another of the least travelled rhododendron habitats—the Upper Salween River valley.

Steve Hootman is a member of the Seattle Chapter and is Executive Director of the Rhododendron Species Foundation in Federal Way, WA. He is a world-recognised expert on the genus Rhododendron and has led many botanical trips to prime rhododendron habitats.

ARS Photo Contest 2015

Note: The duration in which photos must have been taken has been extended to be a calendar year, from Aug 1, 2014 to July 31, 2015. This allows Southern hemisphere members to enter photos taken in their spring.

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 August 1, 2014, to July 31, 2015; and 6) the number of entries by any individual per category is restricted to two.

The Use of QR Codes in Plant Labelling

Marc Colombel Fouesnant, France

Photos by the author



This article anticipates that everybody has or will have a smartphone soon. You know that smartphones are like small computers and they can have apps that read what is called a QR code. A QR code is a small square black and white picture of a series of small blocks that can present a lot of informations, mainly words but you can also include an **uniform resource locator** (**URL**), which is a reference to a resource that specifies the location of the resource on a computer network (e.g., www.**hirsutum**. info). Here, I propose that QR codes be considered as part of your plant labels.

What the Owner of a Garden Needs to Add QR Codes

Firstly, you need a QR code generator. There are many available on the web and the good news is that they are free. I use the french version of the English QR generator (http://goqr.me/en/). All you have to do is write the text you want in the box shown, choose the size of your QR code with the cursor, click on Download, and then save that QR code image on your computer.

In the example in Fig. 1, I used 178 text characters but up to 300 text characters can be used; however, some older readers work best with fewer than 300 characters. I repeat, it is free to make your own QR code.

Once made, you can print your QR code on a label or some other format that will withstand both rain and sunlight. I used labels made for outside weather conditions (waterproof, oil proof, etc.); mine were from http://www.europeetquettes. fr/recherche?controller=search&orderby=position&orderway=desc&search_query=petbm6338ar&submit_search=, and I chose PETBM6338AR (63,5 mm by 38,1 mm), 21 labels on an A4 (8.5 x 11") sheet. I covered them with a strong 2 in (48 mm) adhesive tape for added protection (such as clear 3M Tartan™ Box Sealing Tape 3690).

QR Codes created on goQR.me are completely free of charge (commercial and print usage allowed). If you want to recommend us, we are happy to see <u>Tweets</u>. <u>Facebook updates</u> and links to http://goqr.me/ - Thank you!

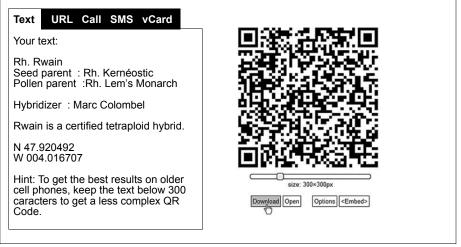


Fig. 1.

[Editor's note: Finding a suitable and convenient labeller and long-lasting labels may be the biggest problem. I currently use a Brother's P-Touch labeller, with an Extra Strength Adhesive Tape label (1/2 in, TZ_S231) for standard text labels. I called up Brother, and the only labellers they have that will print a QR code are either a QL720NW or a QL-710W. However, neither of these labellers has tapes that are waterproof and have Extra Strength Adhesives, like the P-Touch labeller has. Thus, as Marc does, the general Brother paper labels currently available with these machines will have to be covered over with some protective coating, and I do not know what would be best for this! It's also more work than using the P-touch system! If anyone has some suggestions here, please let me know.]

You can put the label at the foot of the plant (Fig. 2) but I do not think that is the best place. It's too vulnerable to being hit, so I suggest putting it on the plant itself (Fig. 3), but make it easy to find and aesthetic. I prefer to use sections of the blades of a Venetian blind—colour doesn't matter. They can be in plastic or aluminium, 2 in (5 cm) wide, and I cut them in sections 4-5 in (10-13 cm) long.

Avantages of QR Codes for Gardeners

They are relatively easy to put in place, they are of a standard size, there is no additional cost for one or many words, they are increasingly common and to minimise theft, you can add to the wording something like «Made for (your address)» or more simply «your address».



Fig. 2.

What a Visitor to your Garden Needs to Read a QR Label

All that is needed is a smartphone and an app to read QR codes, which are free from Itunes. If it is not present on the smartphone at the time of the visit, the QR reader can perhaps be downloaded while visiting the garden.

After the app is installed (it takes a few seconds), the smartphone app can be used to take a picture of the code (Fig. 4) and it will then translate all the information on it instantly to text. One doesn't have to take the picture from just in front of the QR code, as your smartphone can to some extent be angled, and the QR code can even be



Fig. 3.



Fig. 4.

photographed upside down—that works too! The final advantage is that apart from being easy and fast, a great deal of information about the plant being observed can be provided (e.g. parent cross, hybridizer and year of introduction if a hybrid; source; natural habitat location and elevation if a species; and so on), much more than just its name, which is all that's on most existing plant labels.

Marc Colombel is a member of the Scottish Chapter and a frequent contributor of innovative gardening ideas to JARS.

Korean Rhodos Make an Impressive Mountain Landscape



Rhododendron schlippenbachii on Mt. Hwangmaesan in South Korea. Photo by Dae Wook Kim.

(Modified from http://twistedsifter.com/2014/07/royal-azaleas-on-hwangmaesan/ Jul 29, 2014; and the Sept 2014 issue of "The Rhodoholic," the Cowichan Valley newsletter)

[Editor's note: The recent article by Kristian Theqvist (*JARS* 69(2): 59-66) on rhodo hunting in South Korea was conducted in September, so unfortunately he did not see flowering rhodos. This photograph illustrates what some on the mainland mountains look like in the spring!]

In these beautiful South Korean landscape photos (see issue cover too)by Dae Wook Kim, there are fields of *Rhododendron schlippenbachii* (Royal Azaleas) on Mt. Hwangmaesan during the Hapcheon Hwangmaesan Royal Azalea Festival which runs from May 3–16 each year. The 1108 m (3365 ft) high Mt. Hwangmaesan encompasses the three peaks of Habong, Jungbong and Sangbong. Since the reflection of the mountain is also mirrored on the water of Hapcheon Lake, the mountain is also called "Sujungmae" (literally meaning "ume (Japanese apricot) blossom under water"). In spring, azalea and rhododendron blossoms dominate on the mountain; in summer, people enjoy the refreshing valley areas; in the fall, the sound of singing birds are everywhere; and in the winter, harsh winds swirl around the snow-capped Dongnipbong Peak. The area is a popular year round destination for hiking and enjoying the stunning landscape.

What's on a Label: A Lesson for the New Collector

Richard W. Chaikin Boston, Massachusetts

(Modified from Vol. 46 (2), Spring 1992: 80-81.)

[Editor's note: I have had a number of requests to include more "Tips for Beginners" in *JARS*, and with the current ARS effort to bring in new members, it is timely to ensure that relevant information is made available to them. Over the past decades, a great amount of basic culture information has been published in *JARS*, and so I will be drawing on this wealth of

knowledge and reprinting articles I feel are still applicable.]

Recently, a customer of Cape Cod Vireyas called me to report that he had a particularly desirable named and registered Australian vireya cultivar. Since at Cape Code Vireyas we have a collection of Australian and New Zealand named hybrids, of which we are most proud, and since we have been trying to obtain that particular clone for some time, we jumped at the opportunity of getting a cutting. I had spoken with this customer at one of the ARS functions at which I gave a slide presentation, and he seemed very genuine in the desire to become a knowledgeable collector of rhododendrons, and vireyas in particular.

We continued our phone conversation, and I can tell you, it was most fortunate that we did! I asked how it was that he, a beginner, had happened to be able to get such a rare and newly registered plant. That is when the nightmare started! He replied that he had been looking through a recently published list of plant registrations and he saw a plant with the cross "A" by "B." Now, the label on his plant was "B" by "A" and so he knew that the registrar or the publisher has simply gotten the cross mixed up. Since he had the "B" by "A," he just connected the name on his plant, for they preferred to have the plant by name rather than a label merely listing the parentage. He did not think that he had made any mistake. If any mistake was made, it was the plant registrar for having the "wrong" cross listed for that name.

When a rhodoholic enters his or her terminal stage, that of hybridizing, there are certain rules one **must** follow. Of course, there are the obvious things such as selecting the best seedlings to grow on. The not-so-good ones are usually destroyed, or left to wither. There are those hybridizers who are looking for "perfect ones," which will match their goals in every respect. They register very few. There are also those who must for

one reason or another, register as many hybrids as possible. I have seen a 16-foot (4.9 m) long wall absolutely completely covered with registration certificates of rhododendrons, none of which were available to anyone except himself. I have seen hybridizers who must register at least one seedling out of each and every seed lot, even when the plant has flowered for only one time previous to the registration. Some register under the "publish or perish" principle of higher education. Then there are those who name a plant without bothering to register it.

Very rarely, do hybridizers find more than one gem in a seed lot. Dexter, in all his hybridizing, I think, only found one cross that yielded many plants worthy of being named. And these were selected and registered by a group of ARS members very knowledgeable in what makes a plant worthy of being named. The Australian vireya hybridizers seem to be a lot luckier than Dexter, for they frequently name multiples, as well as unnamed imported cuttings and seedlings.

However, throughout all these areas, there are principles that are inviolate! One is, that the name should be correct. If ever there is any doubt, then the registrar is the Law. There can be no law and order if the governing body, the registrar, is not taken very, very seriously. Another important principle is that the first name cited in the parentage listing is "always," repeat "always," cited as the seed parent. The second listing is always the pollen parent: $A \times B$. If one of the parents is a hybrid, then that cross is listed, if not named, and is enclosed in parentheses: $(A \times A') \times B$. Further, if the hybrid parent is a cross of three or four, then that parent is enclosed with a bracket: $[(A \times A') \times AA] \times [(B \times B') \times (BB \times BBB)]$.

These parentage listings must be absolutely exact. There must be no possibility of confusion. Thus, one can see that the vireya *R. zoelleri* is different from *R. zoelleri* #10. Each has to be listed and properly identified by the registrar. It should be considered poor taste, unethical, improper, against the law, plus whatever else, for me to have a *R. zoelleri*, cross it, and then label it as a #8 on my own, when that plant has already been identified and registered. Although I formerly marketed an unnamed cultivar: $[(R. javanicum \times `Triumphans') \times R. zoelleri] \times (R. aurigeranum \times R. zoelleri)$ as 'Clone 4', I listed the hybridizer for proper identification, so as to make no mistake exactly which plant it was. On the other hand, 'Cape Cod Sunshine', a recent introduction, is a cross of two species, *R. aurigeranum* by *R. laetum*. It is presumed that species are all the same within a certain name. Thus, each *R. laetum* is considered the same. However, sometimes there are some variations. In that case, I could have called it *R. laetum* 'Jones Rd' to further identify and register that particular plant. This means, again, that each parent has to be identified as much as possible.

Having said all this, I hope to have conveyed everything that was wrong with that simple act of attaching an already registered name to what was actually a reverse cross. Even if the cross was not reversed, there is nothing that says that his plant was similar to that registered. I have a brilliant bright yellow vireya next to a fantastic yellow/orange bicolor in my Boston area apartment. They are both from the same seed pod! They are very, very different in flower as well as growth habit. How can they each bear the same registered name, when they are so different? That would be contrary to the entire logic of the registration system.

Now, what would have happened if I had taken my friend's offer, propagated that plant, and sold it to the public as that particular named plant? Don't think that selling a wrongly labeled plant hasn't happened before, for it has. There are even some incidents of a group propagating various plants, mixing up the labels (not on purpose), and then selling them. It is always a surprise when that beautiful pink tricolor you bought turns out to be white with a green blotch. Years ago, one nursery started selling plants of a named cultivar, which were all produced by seed. When the obvious variations in the plants were noticed, that nursery stopped propagating it by seed, and turned to cutting propagation. When tissue culture became useful, the propagation swiftly changed to that method. Yet, again, variation occurred and propagation was returned once more to that of cuttings. All this, to get the plant to be exactly as labeled.

Hybridizers, serious collectors, nurseries, all have to be very exact about the names and parentages. The casual collector, who may never get closer to the plant than 20 yards (18 m), does not have to be so exact. Labels are important. Parentage is important. Most of all, getting the proper parents listed on the proper label is more important. Think about that.

Richard Chaikin was owner of Cape Cod Vireyas, a member of the Cape Cod Chapter and a frequent contributor to the Journal.

"We come from the earth. We return to the earth. And in between we garden." Author Unknown

The Word: Sand

Bruce Palmer Cutten, California



It's summertime and many of us have been enjoying the beach, so what better word for the summer issue of *JARS* than SAND?

The word **SAND** has survived intact from old German through Old and Middle English to modern times. Technically it's a verb meaning to rub off or pulverize, as in sanding a piece of wood. As a noun in modern usage it refers to relatively large particles of soil, roughly between 5/100 of a millimeter to two millimeters in diameter, those particles that feel gritty when you rub soil between your fingers and which are generally, if only barely, visible to the unaided eye. One millimeter is roughly 1/25 of an inch The other two soil particle categories are **SILT** and **CLAY**. Silt particles are not visible to the naked eye, ranging between 5/100 and 2/1000 of a millimeter in size. They do not feel gritty between the fingers. Silt particles tend to settle out in water slightly slower than does sand. Particles less than 2/1000 of a millimeter in size are called clay. Clay particles stay suspended in water much longer than either silt or sand does and feel slimy between the fingers.

Soils are classified by what percentage of each particle they contain. The accompanying soil triangle helps to define the categories. The soil triangle was first used by the U.S. Department of Agriculture in the 1930s and has since been adopted internationally. The defined size of the three particles varies slightly from one country to another, but the basic system is uniform. The names of the twelve categories are self-explanatory. We know that the best soils for agriculture are loams. Loam is the dirt-colored pentagon below the center of the triangle. Note that soils near the center of the loam area have 40% sand, 40% silt and 20% clay. That means that soils need all three categories to support agriculture effectively, but less clay than sand or silt. Sand particles, being relatively large, allow air, water and nutrients to travel freely through soil so plants have access to them. Silt slows this movement so that plants can take them up more easily. Clay tends to stop movement of air, water and nutrients and in addition attracts nutrient particles, especially phosphorus, and holds them so tightly that plants can't take them up easily. Excess clay makes soils more acid; excess sand makes it more alkaline. Most plants grow best if the pH is slightly on the acid side, about 6.5 where 7.0 is neutral,

higher is alkaline and lower is acidic. Most rhododendrons like the soil to be a bit more acidic, closer to 5.5.

One of the methods soil professionals use to determine the classification of soils is interesting. In this age of mechanization, soil type determination is often still done by feel. The "feel method," sometime called the "spit method," is done in the following manner. Dig down no more than a few inches and scoop approximately a heaping out tablespoonful of soil. Roll the soil in your hands into a ball about an inch in diameter. Put a dent in the center and add a few drops of

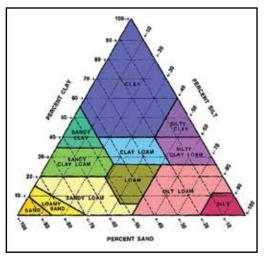


Figure: **Soil Textural Triangle.** Estimating Soil Texture: Sand, Silt or Clayey. Based on the triangle, a loamy soil has 40% sand, 20% clay and 4% silt. A sandy loam has 60% sand, 10% clay and 30% silt. [Source: U.S.D.A.]

water or spit in the dent. Work the soil, adding more water as needed until it is the consistency of putty. If it won't stick together it is sand. If it sticks together, form it into a ribbon and push it slowly out of your hand. Based on how long the ribbon holds together, it is determined to have increasing amounts of clay. Next, rub the soil sample between your fingers to judge the degree of grittiness. With experience it is possible to determine the category: Sandy Clay Loam, Silty Clay Loam and so forth. Some agronomists then place a very small sample in their mouth and chew on it to get a final estimate of grittiness. Can you imagine what those folks' molars must look like in retirement?

Back to sand. Not all sands are created equal. Sand particles do much more than facilitate drainage and often contain important plant nutrients. The green sand that we sometimes add to our soils is a good example. It contains significant amounts of potassium, one of the three primary plant nutrients. Most of us think of sand as the stuff from which glass is made. That's accurate for many of the sands on continents that are derived from quartz. If you've been to Hawaii recently and wiggled your toes in the fine, warm sand there, you realize that most tropical sands are much finer and whiter than inland sands around North America. That's because most sands in the tropics are derived from the shells and skeletons of ocean-dwelling critters, and are organic sands. If you plan to go to the beach one more time before the end of summer, perhaps you will have a new appreciation for SAND.

History of the Founding of the ARS and Major Awards

Stephen Henning Fleetwood, Pennsylvania





As early as 1931 Guy Nearing wrote to Joe Gable: "We really need a rhododendron society in this country" (Livingston and West 1978). World War II helped bring the ARS into the world, because it interrupted most British rhododendron activities, on which the founders of the ARS were quite dependent. In September, 1940, Guy complained to Joe Gable that his letter to the British Rhododendron Association took so long to get there that the seeds he had hoped to purchase were all sold and the yearbook no longer available: "Under the circumstances, it might be worthwhile to launch an American Rhododendron Association, and try to keep up the interest until the British one resumes" (Livingston and West 1978).

George Grace and John Henny travelled up and down the coast of the Pacific Northwest in 1942 and 1943 talking to rhododendron growers trying to kindle interest in a rhododendron society. As ARS Editor Rudolph Henny recalled it, "The founding members had met on the day of the great invasion of Europe (June 6, 1944)" (Henny 1955). Those in attendance were: E.R. Peterson, George Grace, W.G. Tucker, H.H. Harms, John Bacher, John Henny, and Rudolph Henny. All of these men had outstanding collections of rhododendrons.

It was agreed at this meeting that this newly formed group be known as "The Rhododendron Society." It was agreed to meet only four times a year, and the officers elected on this date were: John Henny, President; George Grace, Secretary; and E. R. Peterson, Treasurer. John Bacher declined the vice presidency, but declared "A day to be remembered in horticultural history" (Henny 1955). W. G. Tucker was extended the honor of having membership card number one. It was also agreed that evening to have the first public meeting in September. In the meantime both large Portland dailies, the *Oregonian* and the *Journal*, were given the story of the new organization and articles appeared in the Garden Sections of both. In September of that year about 40 persons attended the first meeting in the auditorium of the Public Service Building in Portland.

The two great national gardening magazines, *The Flower Grower* on the East Coast, and *Sunset* on the West Coast mentioned the formation of the Rhododendron Society

and almost immediately applications for membership were received from many States (Henny 1955). In a few months after this first public meeting the membership was well over 150 members. The name "The American Rhododendron Society" was adopted.

At the fall meeting some other details were discussed:

- Registration, naming and control of new hybrids.
- Judges to be experts and permanently appointed. Eventually to make awards for exceptional plants.
- To have a test garden and to promote an annual show.
- The Constitution.
- Election of Officers.
- Membership fees were \$5.
- Dates of Meetings.
- That the president appoints an editorial committee to publish a monthly bulletin and a yearly outline.

On January 9, 1945, the articles of incorporation of the American Rhododendron Society were signed. *The Oregon Journal* underwrote the cost of incorporating the new group. All board members were from Oregon and Washington. The first annual meeting was held in Portland, Oregon, and featured an extensive collection of blossoming plants and cut trusses.

Within six months the ARS began the tradition of an annual Rhododendron Show with a non-competitive exhibition of blossoming plants on Park Avenue in front of the art museum in downtown Portland. The exhibition included collections of cut trusses from as far away as Bremerton, WA, and Eureka, CA. Twenty to twenty-five thousand persons visited the grounds. Each variety was clearly labeled. Soon the membership grew to over 1,700 including members from many foreign countries.

The ARS published a series of informative yearbooks on Hybrids (1945), Species (1946), Stud Book (1947) Azaleas (1948), and Hybrids again in 1949. It started a quarterly bulletin in 1947 and in 1949 the membership chose to focus the ARS's efforts on the quarterly *Bulletin*, edited by Rudolph Henny.

The 1948 Rhododendron Show held in the old armoury in downtown Portland was truly an extravaganza. A 30-foot waterfall cascaded from the balcony to the lower floor, where it meandered in a stream before being pumped again to the balcony. Hybrid and species rhododendrons were artistically placed along the banks. The show was aesthetically beautiful, but it was a financial failure and that plunged the ARS into debt. The \$1,000 deficit was made up by contributions from the show exhibitors. In January 1949 new leadership was voted into office, with Claude I. Sersanous the new president.

When the ARS was created, all members were members-at-large of the society. The meetings were held in Portland, Oregon. 75 members and prospective members from the east coast attended a meeting at the Essex House in New York on Oct. 30, 1949, to form the "Eastern Division of the ARS" (Hardgrove 1950). Donald L. Hardgrove was

elected secretary. This development led to a proposal for local chapters for members too far from Portland. In 1951, the by-laws were revised to include local chapters. The next year the society approved affiliation of the Eugene, Middle Atlantic (Virginia), New York, Seattle, and Tacoma chapters.

In 1952, at the request of the board, C. T. Hansen designed a medal to be awarded to individuals for their outstanding contributions to the genus *Rhododendron* in its various phases. The first recipient of this Gold Medal was President Sersanous "for outstanding meritorious service" (Hansen 1953). Early in 1953 Joseph B. Gable received the second, "in grateful acknowledgment of 30 years of accomplishment in the investigation and hybridization of the *Rhododendron* genus." Joseph F. Rock was the third recipient in April 1954 "in grateful acknowledgment of his horticultural work as a plant explorer and achievement in the discovery of new and valuable species of the genus *Rhododendron*" (West 1994).

With the growth of the organization it became necessary to establish chapters where increased membership was centralized. With the constantly increasing interest in rhododendrons more chapters were added as needed. In 1952, the centers of interest were along a narrow strip of the West Coast from British Columbia to Southern California, and along the East Coast from Massachusetts to Georgia, with a good representation of states in between. Some 23 states were represented in the membership as well as Canada, England, Holland, and New Zealand.

In early 1952, chapters were approved in Seattle, Tacoma, and Eugene. By mid-1952, chapters were approved in New York and Richmond. The directors suggested that Portland, which was the home to all previous ARS meetings, form its own chapter. Portland was not fully recognized as a chapter until 1955: in the interim it was "the ARS." Its leaders did double duty as chapter and national officers. In addition they oversaw the national test garden at Crystal Springs Lake Island, which was later turned over to the Chapter to manage. However, the Portland Chapter did not exist until 1955 when it finally drew up bylaws. Then in 1955, the members in Portland formed the Portland Chapter.

By 1964, the ARS had nearly 1,000 members with chapters at Portland, Seattle, Tacoma, Eugene, Northern California, New York and Virginia (called Middle Atlantic). A plant-name registry was established (coordinated with the RHS), standards for plant ratings and awards were adopted, rules for flower shows were promulgated, and two plant explorers (J. F. Rock and F. Kingdon-Ward) were funded and their seed collections distributed.

By the 20th anniversary in 1964 there were 2,500 members, and 15 more chapters had been added (including Vancouver, BC). A salaried post of Executive Secretary and Editor was created following the unexpected death of the Editor, Rudolph Henny, in 1963. J. Harold Clarke was appointed and the only individual to have held all three offices of President, Editor, and Executive Secretary. The Vice-President, Edward B.

Dunn, became the fourth ARS President. He served a five-year term.

For the first 25 years, the ARS had always been centered in the Pacific Northwest. The four presidents were from Oregon and Washington. Starting in 1969 the President's term of office was two years. The board changed the bylaws to provide for two vice presidents, one from the East and one from the West. The immediate past president was made an automatic member of the board. The board adopted this on Sept. 14, 1969. The first Silver Medal Award, a new regional award, was presented to Rocco Cappelli, owner of Hillside Nursery, for his work in helping to organize Portland Chapter shows and for his interest in growing rhododendrons.

Besides the officers and directors of the ARS, each chapter president was also on the board. The great expansion of chapters and membership had not been foreseen. The Board of Directors (six officers and 12 elected Directors) was increased when the new Chapter Presidents were made Directors. By 1974, with 38 chapters, the Board with 56 members was unwieldy. Decisions of meetings, held alternately on West and East coasts, tended to be inconsistent. New by-laws, approved in 1981, reduced the board to 19. Chapters were grouped together geographically and were represented by a District Director. In 1979, the full-time position of executive secretary was created. Esther Berry became the first executive secretary.

In 1981, ARS President George Ring announced a new ARS award, the Pioneer Achievement Award. The award was for pioneering and original achievement in the advancement of rhododendrons. The award was made to a person in any country who made a significant contribution toward growing rhododendrons in America. Since the award could not be made more often than once in every two years, only those persons with the highest achievements were to be selected by a panel of international experts. In 1983, the Pioneer Achievement Award was awarded to Joe Gable who had died in 1972. The citation was very long, but mentioned Joe's dedication to the genus *Rhododendron*.

In 1991, an agreement was reached with the Rhododendron Society of Canada and its three chapters: Atlantic, Niagara, and Toronto. The RSC became a new district of the ARS, and the three RSC chapters became ARS chapters. At the same meeting, the J. D. Hooker Chapter in Sikkim and the Tennessee Valley Chapter were welcomed.

By 1994, the 50th anniversary of the ARS, there were 72 Chapters, some of them overseas (represented by a Director at Large), and 5,600 members. Dues were \$25. An Executive Director was responsible for the smooth running of this considerable organization.

Now, in the spring of 2015, there are 62 chapters and a non-chapter membership, but membership has declined significantly to just over 3,100 in 2014. Lists of past Presidents, Executive Secretaries, Executive Director, Chapters, and recipients of Gold Medal Awards, Silver Medal Award, and Pioneering Achievement Medal Awards can be found at http://www.rhododendron.org/awards.htm

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The ARS 50th Anniversary Celebration Portland, Oregon, May 10-14, 1995



View of Portland, Oregon, and Mt. Hood. Portland was the site of the 1995 50th Anniversay Celebration. Photo by Ernie Metcalfe. Cecil and Molly Smith of Newberg, OR, were two of 14 members who received ARS Founding Members Awards in 1995.



Crystal Springs Rhododendron Garden and Fred Paddison Memorial Fountain. Crystal Springs was one of many gardens visited during the Celebration. Photo by William Robinson.

The ARS 75th Anniversary Celebration will be held in Portland, Oregon, in the year 2020.

On Various Types of Soils and the Use of Perlite in Them

George E. Klump La Crescenta, California



(Edited from a program given by Greg Moore to the Southern California Chapter)

Judging from all of the commentary which takes place online, the question of how best to handle the growing of certain popular Ericaceae, in particular rhododendrons, both lepidote and elepidote, and azaleas, in different parts of these United States seems to be a perennial question. Taking into account the many different soil amendments available in different parts of this large geographical area, there remains, nonetheless, a degree of commonality which seems to be best summed up by two general descriptions: 1)soil acidity and 2) soil drainage. Without these two conditions, culture problems for the rhododendron family seem to increase almost exponentially.

There are, of course, other factors as well, such as too much sun exposure or too little. The former can cause severe, if not fatal, leaf burn, while the latter tends to discourage the flowering of the plant. From this it would appear that rhododendrons can be fussy characters which must be treated in just a certain manner, else they will withhold their beauty from us until they get their way. Fortunately, such is not quite the case, though there is no denying that requirements for success with rhododendrons frequently do take a little more preparation than just digging a hole in the ground, setting the plant in it and, then, filling up the hole with dirt and walking away.

As of 2007, the Southern California ARS chapter acquired the status of a dual chapter, i.e., it is now the Southern California Chapter of both the American Rhododendron Society and the Azalea Society of America. Many members have been growing azaleas along with rhododendrons for decades. However, given our geographical spread and the number of different soils with which our members must contend, not to even mention the multiplicity of microclimates, growing Ericaceae can be a challenge. Nevertheless, we have been wildly successful growing these plants here in Southern California, especially in the face of the received wisdom from all sides that it cannot be done. The support we have gotten from the nursery trade has been distinguished by its

absence. Therefore we have been forced to strike out on our own, exploring methods of cultivation where, even now, many professionals in the business fear to tread.

In general terms soil exists in many forms. There is the heavy adobe clay, the lighter desert sand, decomposed granite (DG) and many other combinations and types. On top of this there is the problem of water, not so much the supply of it, but rather its quality, such as the amount of total dissolved solids (TDS) in it and/or its basic pH over a year. A higher TDS reading tends to mean alkalinity, i.e., a pH above 7.0. While rhododendrons and azaleas will tolerate a pH of 7.0 or even 7.5, a higher water alkalinity signals possible problems which these plants do not appreciate. This usually leads to chlorosis or some other diseases which may even result in the eventual death of the plant.

Given that there are many types of soils and soil mixtures, a few are cited here. Clay soil consists of tiny particles which tend to stick together so tightly that water cannot effectively percolate down through it. Water will therefore tend to run over the soil surface and drain away in whatever direction gravity demands. A corollary observation to this would be that, if water cannot penetrate the soil to any extent, it is a safe bet that neither oxygen nor rhododendron feeder roots will either.

Second, we note that desert soils are normally sandy and light, which is good, but the lack of rain leads to a build up of salts in those soils. Only a few plants will survive those conditions, such as cactus, ocotillo, mesquite, sage, saguaro and other plants of a similar nature.

Third, another common soil type is decomposed granite (DG). This type of soil is usually quite porous because, unlike clay soil, it consists of relatively larger and irregular particles which have spaces between them. This means the particles do not cluster together. When DG is mixed with sand, which is also a soil type with larger particles, it makes for a good soil base which permits water to penetrate well and drain away. If water can penetrate the soil and drain away efficiently, oxygen can too, and then natural microbial and bacterial activity will flourish. If natural microbial and bacterial activity can flourish in the soil, then, the natural nutrients in the soil will be turned into a water soluble form which the small feeder roots of rhododendrons and azaleas can use.

With respect to different soil additives, a common question asked about perlite is how it differs from vermiculite. Perlite is a light weight volcanic mineral (a subgroup of Rhyolite) that is composed primarily of silicon dioxide (c.73%) and various amorphous silicates, such as aluminum, calcium and potassium silicates. It has essentially no crystalline silica as opposed to sand which is about 99% crystalline silica.

Perlite in rock form has a bulk density of about 63 lb/ft³ (1009 g/l). Because water is bound up in this rock, it expands when heated and yields a frothy light product. When it is heated in furnaces to about $1,600^{\circ}-1750^{\circ}$ F ($870^{\circ}-980^{\circ}$ C), it becomes very light weight with a bulk density of 2.5–10 lb/ft³ (40 -160 g/l). Chemically, it's inert with a neutral pH. It is also sterile and is available in a variety of sizes ranging from flour

consistency to ¹/2-inch (13 mm) particles.

What makes this so helpful to the soil? For one thing it is inherently sharp with many points per particle. This angularity creates particle interference in media and thus generates voids which provide dimensional stability in a soil, meaning that the soil resists the tendency to fall prey to interstitial marrying of the fine and coarse particles which in turn can clog up interstitial macropore space. Perlite acts as a physical wedge creating macropore space between particles, while possessing multiple deeply fractured surface cavities which can and do trap and hold both air and water.

Other materials include pumice and scoria, the latter an extremely vesicular basaltic lava with very small vesicles (< 0.04 inches or 1.0 mm.) which can also provide macropore and micropore space while maintaining a long lasting physical wedge action. However, both of these additives are abrasive and have much higher bulk densities (c. 30 and 40 lb/ft³ {480 g/l and 640 g/l} respectively). As soil additives these are not as widely used as perlite in plant propagation because they tend to pack down which can create conditions for rot and can also damage delicate transplant roots. In addition to this, some pumice sources have a high salt content.

Vermiculite was mentioned earlier as a possible soil additive. Vermiculite is an hydrous silicate mineral which expands on heating as does perlite. However, vermiculite is little used in horticulture now for many reasons. One reason is its inherent accordion-like molecular structure which flexes mechanically under cycles of hydration/desiccation. Of itself there is nothing wrong with this. However, over time the mica plates separate as the molecular bonds break with an attendant loss of airspace between them as they collapse. A second reason vermiculite is not used much now is the expense of it, though when it is intact, it will hold about twice as much water as perlite will at the same volume, grade for grade. Beyond this the mine in Libby, Montana, a major source of vermiculite, is now closed due to the detection of asbestos there. Nevertheless, vermiculite does possess some Cation Exchange Capacity (CEC), e.g., magnesium, potassium and iron, so that this capability does exist to some extent.

There are a number of soilless plant propagation mixtures available, such as coarse peat/perlite blends with various permutations of the two ingredients or with different grades of perlite. These mixtures may be tailored to a wide variety of propagation needs, such as adjusting the pH with calcium carbonate (fine grind lime for a quick reaction) and dolomite. Wetting agents are sometimes used for an easier and more reliable wetting of the peat moss. These come in many forms and flavors and may focus on the material to be wetted (organic or inorganic) and/or whether or not a cationic, anionic or nonionic agent is to be used. Ether-based agents provide early (but low residual) wetting, while ester-based agents provide less initial wetting but have better residual effects.

A further consideration is surface tension, a tendency of similar molecules of a compound to adhere to one another. Lowering the surface tension of a liquid can assist

it in penetrating the hydrophobic surface of peat or wood residual products. **[Klump's note:** This is why we use coarse peat moss rather than the finely milled peat moss, since the hydrophobic penetration is far better with coarse peat than with the finely milled peat moss, which eventually can become almost as impenetrable to water as cement.]

There were a number of professional growers among the avocado/citrus people and outdoor ornamental propagators. The former group typically used a 67–80% perlite and a 33–20% peat mixture. Outdoor ornamental growers used either the 33–67% perlite/peat mixture or a 90%–10% perlite/peat mixture which latter became known as the Saratoga Horticultural mixture and which brought forth good results.

There is a uniform intermediate grade of perlite (1/16th-1/8th inch {1.6-2.2 mm}) which is used both in growing plugs and as a seed mulch for selected plant varieties. This is Provosil 31-T. As a seed mulch, it has several advantages over vermiculite. One is that it holds less water and therefore discourages root bridging from one plug hole to another across the top. It also discourages root rot and reflects light around the seedlings, which promotes stockier seedlings.

Most of the soilless propagation mixtures today are variants of the old Cornell University or University of California mixes which included different permutations of sand, bark, peat, vermiculite and perlite. Today the most common bedding plant mix is comprised of peat and perlite, usually 20–50% perlite or peat and perlite with shredded redwood bark or orchid bark (Douglas-fir bark).

[Klump's note: The Southern California Chapter of the ARS/ASA has utilized a mixture of coarse peat moss, perlite and shredded redwood bark in equal parts by volume for about 35 years. This may be backfilled with perhaps 15% to 20% native soil for hydration purposes, if desired. If orchid bark (essentially Douglas-fir bark) is substituted for shredded redwood bark, then, instead of the proportions being equal, i.e., 1 - 1 - 1, they become 1 - 1 - 2, the orchid bark being doubled by volume. We have found that redwood bark breaks down more slowly than just about any other bark available. In addition to the tannic acid it emits, different enzymes in the bark seem to deter diseases and fungi and, further, unwanted bugs appear to be quite willing to stay away from the plants in droves.]

In addition there are plant growth regulators (PGR's) which are commonly used in the propagation of bedding plants. These can be used at emergence or earlier to control "neckiness" which can appear at the cotyledon stage and thus become a permanent condition. "A-Rests' and "Bonzi" are just two PGR products which might be used. However, care needs to be exercised here, since an overuse of a PGR can pygmatize plants.

There are ways of handling water retention problems other than using coarse peat moss, perlite and a shredded bark. Polyacrylamide gels represent another way of dealing with water retention, but it does not seem to be a real solution either. These gels disintegrate under ultraviolet light and we in Southern California are blessed with an abundance of it. We should note here that ultraviolet light will not affect gels down at the root level. In addition these gels are rather expensive and they can push soil up and out of a pot or the ground, when the soil is fully hydrated. Perhaps more importantly these polyacrylamide gels can be dangerous because their basic monomer constituent is a powerful neurotoxin. Nonetheless, in the application of these gels, some of them will end up on the soil surface and some may end up on the leaves of the plant thereby exposing it to ultraviolet light.

Along with the foregoing some nursery tests show that a combination of potassium salts of indole butyric acid (IBA-K), a prime ingredient of "Dip 'N' Grow," and naphthalene acetic acid (NAA) may achieve the best rooting results for ornamental plant propagation by promoting both root initiation and subsequent root growth.

Observing, as we did early on, the role of soil alkalinity with respect to rhododendrons and azaleas, especially where soil sodium is involved, irrigation can sometimes promote alkaline drift unless treated. Alkalinity in water is primarily a function of the presence of carbonates and bicarbonates. As these increase in concentration, they tend to tie up calcium and magnesium which in turn magnifies the sodium problem. This is measured in a higher sodium adsorption ratio (SAR). This refers to the tendency of sodium to be dominant at the nutrient exchange sites in the medium, hindering the uptake of important nutrients, such as calcium, magnesium and potassium. Over the long haul sodium will adversely affect the soil mineral structure. This in turn will affect soil aeration and drainage, points alluded to initially, which are definite requirements for Ericaceae. At the same time phosphorous can increase, while available iron will decrease. Such effects on soilless media are less important.

Now what can we say about soil alkalinity or acidity and effective drainage in relation to the growing of rhododendrons and azaleas? First, the soil chemistry must be effectively acidic, not a whole lot, but at least around a pH of 6.5. If the soil is not acidic to any significant degree, then there is the distinct possibility of alkaline drift in the soil, especially if the water tends to be even slightly alkaline, say, a pH of 7.5. Ammonium sulphate or soil sulphur promote more soil acidity, the former working more quickly but not lasting as long as the latter. A typical interior Ventura County water analysis could show a pH of 8.5 to 9.5 with 150 ppm (TDS) and sodium (Na) at 90 ppm. This amount of alkalinity requires treatment for any plants of the Ericaceae family.

Acid buffering is one way to offset the alkaline problem and the use of acid-forming fertilizers and/or an acid itself may be helpful. Sometimes sulphuric acid can be used on the soil for general irrigation, but achieving a pH of 6.5 with sulphuric acid alone is about as good as it gets. Acid forming fertilizers may need to be used, fertilizers which would free up the hydrogen ion to work freely among the natural soil nutrients. Just as an aside, ferrous sulphate (FeSO₄) has very little value in increasing acidity, when added to a dry soil mixture.

In areas where there is a higher degree of alkalinity and in high sodic areas (not

necessarily the same areas), faster results come from the use of sulphuric acid. This improves the electrical conductivity in the soil as well as the SAR values in the leachate. That produces a more rapid water infiltration of the soil. However, we find gypsum, calcium sulphate ($CaSO_4$) easier to handle and over the longer term is very effective in improving the desired parameters, i.e., proper water retention and drainage. Gypsum will flocculate the soil. The calcium in gypsum aggregates clay micelles, while the sulphate ion (SO_4) will readily combine with sodium (Na) to form sodium sulphate (Na_2SO_4) which is water soluble. Sodium sulphate will easily leach out of the more flocculated soil. The pH of gypsum is neutral unlike lime which is used to flocculate clay soil where too much acidity is the problem.

All of this is most beneficial for rhododendrons and azaleas, as sodium is bad news in any soil, since it damages not only the soil but also the plants. First, it corrodes plant roots. Second, it burns plant leaves which is seen first at the leaf margins. Third, it smears or disperses (sodizes) soil. This creates crusting which creates low infiltration rates (low permeability), in effect, unusable soil. Then, we have a high SAR which ties up our calcium, magnesium and potassium usually through bicarbonates resulting in an alkaline soil condition. That prevents any of those three elements, calcium magnesium or potassium, from chemically combining to wash out the excess sodium through water soluble salts. The Ericaceae family often prefers the soil to have a high calcium magnesium ratio close to 4:1 whereas a typical 2:1 ratio will work for most other plants.

A further note can be made here as we observe the competitive effect in all of this. Namely, the Hoffmeister or lyotropic series denotes a hierarchy of ion adsorption to clay colloids in which the higher valent cations are more tightly adsorbed than are the lower valent cations at the same concentrations (meq/l). For example, trivalent aluminum (A⁺⁺⁺) and/or divalent calcium (Ca⁺⁺) are more tightly adsorbed than is either monovalent potassium (K⁺) or sodium (Na⁺). Both aluminum and calcium will displace sodium or potassium ions, if they are available. Ergo, we see the importance of soil treatment/amendment to free up calcium and magnesium to do their work in displacing sodium.

Those of us growing rhododendrons and azaleas in Southern California have benefited from Greg Moore's suggestions here. Some of us have been using the coarse peat-perlite and shredded redwood bark mixture for at least 35 years and have yet to experience any plant failure because of it. In fact we have found that the faster the drainage, the better the rhododendrons and azaleas like it, since it reduces the tendency for plant diseases such as phytophthora getting started. In addition perlite along with wood chips permits cavities in the media which allows both water and oxygen to make their way down to the root zone. Simultaneously, this makes for an excellent organic mulch which decomposes very slowly over time and contributes to the stability of the pH. Finally, the drainage factor is the other part of this two-part equation: 1) acidity of the soil and 2) rapid drainage. Perlite makes a powerful contribution to all of the foregoing: friability of the soil which allows the uninhibited percolation of water and at the same time provides spaces for oxygen to penetrate the soil down to the root zone level making conditions possible for favorable microbial and bacterial populations so essential to growing healthy rhododendrons and azaleas. A corollary to this might be that we could say that rhododendrons and azaleas will take all the water they can get so long as it drains away about as fast as it comes in. Among other things perlite makes this possible.

George E. Klump is president of the Southern California Chapter, ARS division,

Tips for Beginners: Pruning Large-leaved Rhododendrons

(From the Sept 2014 The Rhodoholic, the Cowichan Valley newsletter.)

Warren Baldsiefen

The article appeared in the Rhodieview, Vol. III, No. 3/1991 and was reprinted from the Baldsiefen Nursery catalog. Also reprinted from the NRS Newsletter January 2015 and JARS 1993 47(2)

Any rhododendron is suitable for woodland or informal use where a reasonable amount of space is available. Here it is only necessary to arrange the planting so that the robust growers do not over-crowd those of relatively restricted growth. It is around the foundations of the home, spots of limited area or the rockery that the choice is limited to the smaller-leaved and dwarfed types. Wise selection in the beginning will eliminate the need for most of the pruning. There are, however, times when pruning is justified and essential.

Large-leaved rhododendrons are the most difficult to prune but only for the lack of understanding. These plants put out their first growth in a flush that terminates with a rosette of leaves. Generally in the colder areas of eastern and northern North America, the flush varies from 4-10 inches (10-25 cm), but more often around six inches (15 cm). On young plants, two flushes per year are the rule. On older plants that set flowers freely, it is the rule that one flush is made followed by a flower bud. This latter is due to both a natural reduction in vitality after the juvenile stage is passed and the use of tremendous energy in blooming which delays the commencement of growth.

Large-leaved rhododendrons may be pruned anytime without harming the plant, but there are times that are more expedient. These plants, with few exceptions, retain their leaves two years. This means that on young plants there will be four rosettes of leaves and fewer on older plants. It is permissible to prune back to any of these rosettes, depending on how drastically it is desired to prune. Always make the cut about a quarter of an inch (6 mm) above the rosette. The flush of growth will burst out from the auxiliary buds of the rosette.

The most favorable time to prune when there are no flower buds is in the early spring just before growth begins. If done at this time, the growth cycle is least disturbed, and bud set the same season will be uninhibited. In so pruning, it is important to cut back every terminal or watch when growth begins.

The terminals left uncut commence growth earlier, usually with a long single shoot. These single shoots should be pinched off when the new growing tips are about an inch long. This will encourage multiple branching from that terminal. This step is important in shaping or reshaping a plant. Cutting back develops a heavily branches, sturdy shrub. If this is done when the plant is about three feet (91 cm) or less, it can eliminate future need for pruning.

Pruning old rhododendrons presents a different problem. When old rhododendrons become unthrifty in appearance, the cells in the vascular bundles have become hardened or plugged and no longer function normally. Any revitalizing to be accomplished must be done on new wood, supplied by drastic pruning. This is best done in the spring or early summer but spring preferred, right after flowering when new growth is beginning. One method is to cut the plant down to several inches (5+ cm) above the ground. This is more successful with those having multiple stems coming up from the ground. In hybrids, which often have only one stem, they may sometimes die from this. A less drastic means is to reach down into the shrub and cut out about one-third of the old wood. Do this annually for a period of about three years. In this way, there always remains sufficient leaf surface to supply nutrients for reestablishment of new shrubs.

> And forget not that the earth delights to feel your bare feet and the winds long to play with your hair."

Khalil Gibran

Awards

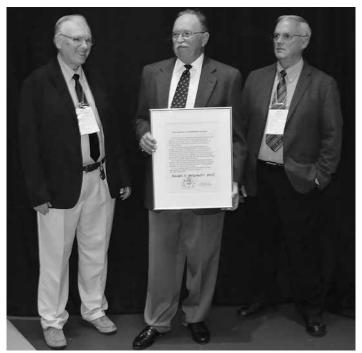
Gold Medal Award: Karel F. Bernady, Ph. D.

Over the course of more than three decades you have distinguished yourself in countless ways as a member of the American Rhododendron Society. You have contributed time, talent, and boundless energy to scores of projects which have educated and informed others.

You have served as President of the Greater Philadelphia ARS Chapter; Chairman of "Plants for Members"; District 8 Director; Co-Chairman of the 2004 ARS International Convention; Chairman of the 2009 Eastern Regional Conference; and Chairman of the Board of ARS Research Foundation. You also served on the ARS Native Azalea Committee; the ARS Endowment Committee; and the ARS *Journal* Editorial Board.

In 2006 you received the Greater Philadelphia Bronze Award. You are now teaching grafting techniques to members. You have also created a valuable electronic rooting/ grafting database as a resource tool for ARS.

For your outstanding work and tireless efforts, the American Rhododendron Society is pleased to award the Gold Medal to Karel F. Bernady, Ph.D. May 9, 2015, Sidney, B C Canada.



District 8 Director Steve Henning,Karel Bernady and District 9 Director Don Hyatt. Photo by Glen Jamieson.

Gold Medal Award: Bruce Palmer

We have all enjoyed reading the *Word* column in the *Journal of the American Rhododendron Society* and have become more familiar with the biology of Rhododendrons. The scope of the *Word* is international in reach as the *Journal* goes to members worldwide and is now available through the web.

You have written grant applications specific to Rhododendrons and educated the public about Rhododendrons. Through your efforts, grants have been awarded to purchase Rhododendrons and companion plants from the Rhododendron Species Botanical Garden, signs and brochures, a modern labeling machine and supplies for creating identifying plaques in Humboldt Botanical Garden's Temperate Woodland Garden.

For these significant and lasting contributions, the American Rhododendron Society is proud to award the Gold Medal to Bruce Palmer. May 9, 2015 Sidney BC Canada.



President Bob MacIntyre, Bruce Palmer and District 5 Director Tim Walsh. Photo by Glen Jamieson.



Silver Medal Award: Terry Richmond

For more than 30 years you have been a stalwart devotee of the American Rhododendron Society, in particular District One. As a founding member of Mount Arrowsmith Rhododendron Society and affiliate of many chapters, you have spent countless hours at workshops, truss shows and meetings in the interests of the genus. As a speaker, educator and author you have enthusiastically imparted information on the culture of rhododendrons. Your willingness to hold office, research, donate plants and work with colleagues from many chapters has contributed to the healthy growth of interest in rhododendrons.

In recognition of this outstanding contribution to the genus *Rhododendron*, the American Rhododendron Society is proud to award the Silver Medal to Terry Richmond. May 9, 2015 Sidney, B. C. Canada.



Western Vice President Ken Webb, Terry Richmond and President Bob MacIntyre. Photo by Glen Jamieson.





A crystal paperweight was presented to ARS Past President Bruce Feller (center) by President Bob McIntyre (left) and Western Vice President Ken Webb (right) in recognition of his outstanding work and extraordinary contribution as President, 2013-2014. Photo by Glen Jamieson.



A crystal paperweight was presented to ARS webmaster Bob Weissman (right) by Executive Director Laura Grant in recognition of his ongoing outstanding contribution since 2003. Photo by Glen Jamieson.

DE ANZA CHAPTER Bronze Medal: Bee Brown

The De Anza Chapter of the American Rhododendron Society was very pleased to give the Bronze Medal to Bee Brown. Bee has been a long-time member and very supportive of our chapter. She has been president, vice president, and show chairman. Her garden was open for touring during the last San Francisco convention and she has been more than generous with her house and garden for our meetings and picnics.

Bee is a constant supporter of our activities plus always promoting our favorite species. Many of our speakers have been hosted by Bee and her husband Paul over the years because they love her beautiful English garden and wide variety of plants. So the De Anza Chapter clearly is delighted to recognize Bee by awarding her the Bronze Medal.

SCOTTISH CHAPTER Bronze Medal: Peter Cox

You are Internationally renowned as a second-generation nurseryman, author, planthunter and hybridiser residing at the famous Glendoick Gardens. You are a long-time Member of the ARS, having as long ago as 1971 considered the Pacific Northwest as a "second home," and in many, many ways have supported the activities of Scottish Chapter since its founding in 1983.

You have been a Committee Member since the early days of the Chapter, and the S.R.S. rightly put aside the complications arising from your having been made an ARS. Life Member by the Seattle Chapter in Washington State, prior to the founding of the Scottish Chapter. This was eventually resolved to everyone's satisfaction at our A.G.M. in 2001 when you became an Honorary Vice-President of the Scottish Rhododendron Society.

You were relatively young when you came under the spell of the Himalaya and became an intrepid plant-hunter following in your father's footsteps. You have been on many expeditions to the Himalayas, often accompanied by Sir Peter Hutchison, a duo perhaps better known as the "Two Peter's" and whose escapades grace the pages of the widely read publication *Seeds of Adventure*. Over the past 43 years, in partnership with Sir Peter Hutchison and Cpt. Lorne & Gillian Mackie-Campbell, you have created on the shores of West Loch, Tarbert, an historic botanic garden, known to many as the Baravalla Secret Garden. Set in natural woodland, edged by a glen with a fast-running burn, you have opened the garden on many occasions for members to visit.

You have been an active member of the Tours Sub-committee since its formation, and have consistently supported our Shows with competitive entries that ensure the standard of the Society's National Rhododendron Shows is up-kept. You have freely shared your wise counsel, knowledge, enthusiasm, and plant material raised from wild–collected seed, from which we all benefit.

The Directors are delighted to present Peter A. Cox with the Scottish Rhododendron's Society's highest award, the Bronze Medal of the American Rhododendron Society, our parent body.

Given at Garelochhead, Argyll, this day 2nd May, 2015.

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Bronze Medal: Sir Peter Hutchison

You are a long-time member of the Scottish Chapter and have supported its activities in many ways. As an intrepid plant-hunter you have been on many expeditions to the Himalayas, being the "other half" of the "Two Peter's" and your escapades with Peter Cox grace the pages of the widely read *Seeds of Adventure*, published in 2008.

Over the past forty-three years on the shores of West Loch, Tarbert, in partnership with Peter Cox and Cpt. Lorne & Gillian Mackie-Campbell, you have created an historic botanic garden, known to many as Baravalla Secret Garden, which you have opened on many occasions for S.R.S. & ARS members to enjoy.

As a Committee Member of the Scottish Chapter you willingly stepped-up and took on the role of preliminary Tours Manager for the 1996 A.R.S. Annual National Convention held in Oban, Scotland. You took forward some difficult negotiations with Parks of Hamilton and Caledonian MacBrayne that enabled a record total of 42 garden tours to be run during the week-long event, which is still fondly remembered by ARS members all over the World.

You have opened your garden at Broich on many occasions over the years and led conducted tours to enable our members to see the progress of plants raised from your many expeditions to the Himalayas, together with the restoration work and replanting being taken forward, particularly in regard to the Walled Garden that has undergone major changes in recent years. You have consistently supported our Shows with competitive entries that help to upkeep the standard of the Society's National Rhododendron Show; and freely shared your knowledge, wise-counsel, and wildcollected plant material, from which we all benefit.

The Directors are delighted to present Sir Peter Hutchison with the Scottish Rhododendron's Society's highest award, the Bronze Medal of the American Rhododendron Society, our parent body.

Given at Garelochhead, Argyll, this day 2nd May, 2015.

Bronze Medal: William J. Campbell

You have been an active member of the Scottish Chapter for around fifteen years and have supported its activities in many ways. As a relatively new Committee Member of the Scottish Chapter at the time, you willingly stepped-up and took on the role of Secretary & Treasurer for around ten years, which initially was a major learning curve in terms of organising Committee Meetings, Annual General Meetings, together with generating the Society's accounts and interfacing with the Charities Section of the Inland Revenue.

You are an active member of the Shows Sub-committee and have been the key organiser of the S.R.S. National Rhododendron Show, held at the Community Hall in Gargunnock Village, for the past five years, and have consistently supported our Shows with competitive entries. You have also provided the liaison between the Society and the "Gardening Scotland Show," held each year at the Royal Highland Centre at Ingliston in Edinburgh, where the Chapter has provided a display and information stand since the event was originally founded.

You have a wide experience as a professional horticulturalist on the Gargunnock Estate where you care for a collection of rhododendrons, as well as many other

specimen plants and trees. You have arranged for Gargunnock Garden to be opened for the benefit of members on many occasions, and you freely share your knowledge, expertise and enthusiasm. You have been plant-hunting in the Himalayas, raised plants from wild-collected seed, and have been Chair of the Seed Exchange for several years.

The Directors are delighted to present William J. Campbell with the Scottish Rhododendron's Society's highest award, the Bronze Medal of the American Rhododendron Society, our parent body.

Given at Garelochhead, Argyll, this day 2nd May, 2015.

Bronze Medal: Matthew T. Heasman

You are a long-time member of the Scottish Chapter and have unstintingly given of your time and supported its activities in many ways. As an ardent plantsman you have been on many expeditions to Bhutan, have supported the Bhutan Society, and have entertained our members with presentations of your adventures.

As a Committee Member of the Scottish Chapter, some years ago you willingly stepped-up and took on the role of Editor & Publisher of the Society's Newsletter and Yearbook, which at the time was major learning curve in terms of handling early versions of publications software. More recently you took-up the role of Publications Manager and helped a new Editor to get started in the role. Over the years you have continued to make changes that have significantly enhanced the quality and content of these publications. More recently you have taken on-board the role of the Web-Master and are gradually constructing a comprehensive Website for the Society.

You are an active member of the Shows Sub-committee, having found a home for the vases and other equipment needed for staging the Society's National Rhododendron Show, and have consistently helped other members to set-up their competitive entries. You are a key organiser of the small group who set-up and man the S.R.S. display stand at Scotland's Gardening Show held annually at Ingliston in Edinburgh.

You have consistently supported the activities of the Chapter over many years and have freely shared your knowledge, enthusiasm and plant material from which we all benefit.

The Directors are delighted to present Matthew T. Heasman with the Scottish Rhododendron's Society's highest award, the Bronze Medal of the American Rhododendron Society, our parent body.

Given at Garelochhead, Argyll, this day 2nd May, 2015.

VICTORIA CHAPTER

Bronze Medal: Calvin Parsons

The Victoria Chapter of the American Rhododendron Society is pleased to bestow the Bronze Medal to Calvin Parsons for his outstanding contributions to this organization. Calvin has served as director, president, membership chair, website co-ordinator and photography contest organizer for many years. As co-chair and registrar for the 2015 A.R.S. Convention, his expertise and willingness to serve makes him a valued and highly regarded member of the Chapter. We are pleased to honour Calvin for his outstanding service with the Bronze Medal. March, 2015.

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In Memoriam

Catherine Weeks

Catherine Weeks died suddenly of a massive heart attack on January 12, 2015. Catherine was well known in Humboldt County as a "rhody expert." She started Westgate Gardens Nursery in 1966, and operated it until the day she died.

She loved rhododendrons, maples and azaleas but her favorite plant was the rhododendron. Catherine was a founding member of the Dr. Richard Anderson Rhododendron Club, which later became the Eureka Chapter of the American Rhododendron Society, and served as President and Vice President. Through years of study, and trial and error, Catherine learned how to hybridize rhododendrons, and had registered 56 new hybrids with the American Rhododendron Society before her passing.

Catherine was preceded in death by her husband Melvin Weeks, and is survived by her children and their families: Frank and Alice Pires of North Carolina, Dan and Pat Pires of Eureka, Rod and Lerma Pires of Georgia, Cindy and Dan Lovett of Eureka, Robert and Stella Pires of Tennessee, and Melvin and Joanne Weeks of Oregon. She is also survived by numerous grandchildren, and great grandchildren.

Rhododendron Calendar

- 2015 ARS Fall Regional Conference, Long Island, NY, Oct. 16-18, Board Meeting
- **2015** New Zealand Rhododendron Association Annual Conference, Oct. 16-19, Wellington, New Zealand
- 2016 ARS/ASA Annual Convention, Williamsburg, VA, April 20-24, Board Meeting
- **2020** ARS 75th Anniversary Convention, Portland, Oregon. Dates to be announced.

Society News

Brief Report on the ARS Board of Directors Meeting, Wednesday, May 6, 2015

1. ARS Executive Committee Appointments

The pro tem appointments of Bob MacIntyre as President, Ken Webb as Western Vice-President and Linda Derkach as Secretary were confirmed. As well, the nomination of Bruce Feller as Past President was approved.

Bylaws and Policies 2.

A number of Bylaws were amended to provide clarification and consistency with related policies.

Motion: Moved by Don Hyatt and seconded by Ann Mangels that POB 5.9 and its subsections. POB 5.9.1 - 5.9.5: POB 5.10 and its subsections 5.10.1 – 5.10.5: POB 5.11; and POB 10.0 and its subsections 10.1 – 10.4.2 be deleted. Carried

Motion: Moved by Don Smart and seconded by Richard Fairfield that POB 9.17 be amended as follows: (Amendments are in *italics*)

"The Board shall annually elect from its own membership an Executive Committee consisting of the officers and at least three directors. It shall not have authority to alter dues, elect officers except to fill vacancies on the Board occurring between regularly scheduled meetings, create financial obligations for non-budgeted items in excess of \$500, or change the policies of the Board. Election of officers by the Executive Committee shall be reviewed and confirmed or modified as the board determines at its next full board meeting."

Carried

As well, an ad hoc committee will consider the spending limit of the Board.

Motion: Moved by Don Smart and seconded by Richard Fairfield that Gordon Wylie, Richard Fairfield, Don Smart and Dave Banks form an ad hoc committee to consider increasing the limit of \$500 in POB 9.17 to \$1,000 or more. Carried

Honors Committee 3.

A clarification was made to accommodate applications by email.

Motion: The Director must forward the nomination to the Honors Committee Chair by November 15 of the year preceding the award year. Nominations and seconding letters must be signed by the author(s). If delivered to the Honors Committee Chair electronically, the same must be in the form of scans showing the signatures.

Carried

4. **Research Foundation**

Percival Moser and Harold Greer have been appointed to the Research Foundation.

Society News

5. Treasurer's Report

In order to provide for the long term financial health of the society, the Board will consider how the Front Office can be restructured to make it more efficient and less labour intensive. There was considerable discussion on this issue.

Motion: Moved by Ken Webb and seconded by Don Smart that the Treasurer and Budget Committee Chair form a task force to investigate, evaluate and make recommendations on how to restructure and improve the operation of the Executive Director function in order to increase efficiency and reduce costs. The Executive Director will be an integral part of the task force in order to provide knowledge of current systems and operations as well as to suggest future improvements. **Carried**

6. Report of the Budget and Finance Committee

A budget for 2015-2016 was approved that will reduce the operational costs of the ARS. **Motion:** Moved by Dave Banks and seconded by Hale Booth that we adopt an annual budget of \$136,600 effective September 1, 2015 as detailed in the report of the Budget and Finance Committee of May 6, 2015 that reduces the cost per member of the administrative component by 6% and the cost per member by \$6.00.

Carried

In light of the budget that will come into force on September 1, 2015, and considering the desire of the Executive Director to retire at the end of the AGM of May 2016, the President and the two Vice-Presidents will discuss with the Executive Director the renegotiation of her contract.

Motion: Moved by Richard Fairfield and seconded by Marianne Feller that the President and two Vice-Presidents review the Executive Director's duties and compensation in light of the new budget effective September 1, 2015.

Carried

In addition, the Executive Committee is empowered to negotiate a new contract if needed. Dave Banks stated that the Society has enough funds to leave the ED's contract in place until May 2016. The Board would then have the next 12 months to recruit a new ED while the administrative functions are also under review for updating and cost reduction.

7. Membership Renewal

As a cost-saving measure, the US Chapters will not receive their customized renewal package as in the past. Renewal information is available on the website.

8. Directors and Officers Insurance

Quotes for the cost of D&O Insurance for ARS Board members will be obtained.

9. Issues Raised by ARS Board Members and Committee Chairs

 There is a concern that some Executive members of Canadian Chapters are not members of the ARS which is a requirement. In order to accommodate local

differences and situations, we will allow the local chapters to resolve this issue themselves.

- The JARS Editor put forward an idea to create "Rhododendrons International" an online publication inviting articles from rhododendron lovers world-wide.
- The ARS Blog needs short articles no more than two paragraphs focusing on national events.
- The diminishing number of members was raised as a concern, as well as chapters that are struggling to remain viable, or closing down.
- Some specialist rhododendron nurseries are also closing.
- Bob Weissman is working on a revitalized, updated and more user-friendly website for the ARS emphasizing the people, friendships and rhododendrons.
- Ray Smith, Chair of the Plant Awards Committee has resigned after many years of dedicated service.
- The Fundraising Committee will increase its focus on looking for grants and other funding that might assist the society.
- The ARS History Project is well underway with Steve Henning at the helm.
- We were reminded of Ken Cox's idea to ask chapters and members to donate to the Nepal Earthquake Relief. Many species rhododendrons are found in Nepal, and it is the national flower of that country which has welcomed plant hunters, past and present.

Linda Derkach ARS Secretary



Photo of the ARS Executive Committee and Board of Directors at the 2015 ARS Annual Convention in Sidney, BC: Chris Hodgson, Steve Henning, Samuel Burd, Don Hyatt, Laura Grant, Tim Walsh, Linda Derkach, Ken Webb, Bob MacIntyre, Lynne Melnyk, Don Smart. Marianne Feller, Glen Jamieson, Ann Mangels, Paul Anderson, Anne Gross, Gordon Wylie, Dave Banks. Photo by Bob Ramik.

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Fig. 1. Tour participants: 1st row - Bill Heller, Norma Senn, Marilyn Jorgensen, Mary Ann Young, Dee Daneri, Joanne Turner, Karen Cavender, Erika Enos, Marty Anderson; 2nd row - Svend Aage Askjaer (hand to mouth), Peter Guerthier, Antje Guerthier, Dennis Bottemiller, Carl Adam Lehmann (tallest in back), Rosa McWhorter, Robert McWhorter, Earl Daneluk, Paul Anderson, Steven Henning, Ann Mangels, Bill Mangels, Richard Cavender. Photo by Paul Anderson.

Tour of Outstanding Danish Gardens, May 2014

Paul Anderson Napa, California



Photos by Bill Heller unless otherwise noted

A group of 20 ARS members (Fig. 1) from North America enjoyed a great garden tour organized by William Heller and Clint Smith as a post convention rhododendron garden tour of Germany and Denmark from May 20–June 1, 2014.

We were fortunate to have two Danish Chapter ARS members who assisted in the planning, Carl Adam Lehmann and Svend Askjaer, who joined the tour at its beginning in Hamburg, Germany. They were wonderful personal guides who introduced us to great gardens and their gardeners. They also provided interesting cultural information and responded to questions from tour members about what they were experiencing. The tour started with an impressive five day tour in Germany with a visit to Westerstede and its Rhodo 2014 Exhibition (Figs. 2, 3). The displays by over 70 nurseries filling the city streets are amazing and certainly worth a trip to enjoy



Fig. 2. Rhodo 2014 in Westerstede, Germany.



Fig. 3. Hobbie Nursery display at Rhodo 2014 in Westerstede, Germany.

the colorful, beautiful plants and excellent designs on display.

The tour in Germany also visited the spectacular Hobbie Rhododendron Park and the huge Schlosspark in Luetetsburg, as well as the incredible Bruns Nursery, which employs over 300 persons; the beautiful Park of Gardens in Bad Zwischenahn; the out-



Fig. 4. The Bremen Rhododendron Park, Germany, with *R*. 'Golden Everest'*.



Fig. 5. New foliage at the Bremen Rhododendron Park. Photo by Paul Anderson.

standing Bremen Rhododendron Park (Figs. 4-6; one of the largest rhododendron collections in the world) with its excellent rhododendron expert, Scientific Director, Hartwig Schepker; Hamburg Botanical Gardens; and the spectacular Hachmann's Nursery (Figs. 7, 8) at Barmstedt with Holger Hachmann owner and director since 1989. The nursery has been one of the most successful rhododendron hybridizers, with approximately 500 introductions over 50 years.

We were delighted to have our first stop in Denmark at Sonderborg, a beautiful harbor on the Baltic, with its harbor guarded by a castle from the 1100s. Our first Danish garden visited was Inge and Harry Frolich's garden, where we were warmly greeted and welcomed to their impressive garden filled with a wide variety of plants. They had

many plant gems in all areas and corners of their well-designed garden.

The next garden visited was that of Haje and Aksel Hoejgaard in Skaerback. What an impressive garden they had!. It was easy to understand that Haje had worked in a nursery for a number of years and that Aksel had been park director for Skaerback. They had a wide variety of plants including a beautiful peony collection.

We then had a delightful lunch at a scenic riverside restaurant in historic Ribe, before going north to be welcomed at the lovely garden of Ulla and Svend Aage Askjaer's (Figs.

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9, 10) near Spottrup. Their large garden was filled with many choice mature rhododendrons, with most of them in peak bloom. A raised area in the garden with table and chairs surrounded by beautiful blooming plants looked inviting for a relaxing break from gardening.

After staying in Viborg and visiting the historic town center and cathedral, we were privileged to visit Rhododendron Haven in Torring, the largest rhododendron nursery in Denmark. We were welcomed by Helle and Claus Erik Jorgensen, and provided information about their extensive garden, with an excellent collection of plants in their display areas. We were impressed with the over 600 varieties of rhododendrons they had in their large sales area.

We were privileged to visit the beautiful garden of Jorgen and Gitte Halse on Funen. This delightful garden has been developed over 30 years by the Halse's,



Fig. 6. *R. pachysanthum* 'Silver Dane'* at the Bremen Rhododendron Park.



Fig. 7. 'Monique', a deciduous azalea, at Hachmann's Nursery.

who are both nurses. Gitte is the successful community mental health nurse and Jorgen is an ER nurse in the Odense hospital. They are excellent gardeners and have a beautiful collection of plants, including plants other than rhododendrons and azaleas—magnolias, a colorful collection of Japanese maples, and a productive vegetable garden.

Our tour then went to Copenhagen where we spent five days taking tours to gardens,

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Fig. 8. The display garden at Hachmann's Nursery; the purple rhododendron is 'Gunter Dinger'.



Fig. 9. Ulla and Svend Aage Askjaer's garden.

castles. museums, and parks in the area around Copenhagen. We were impressed with a tour to the large and historic garden of Gammel Koegegaard's Manor House (Fig. 11). The original rhododendron plants from 1946 were in good display as well as were some of the ARS study garden plants, including both species and hybrids.

We surprised were with the large and extensive garden of Peter Hansen near Nakskov. Peter was most hospitable and provided an excellent informational tour about the many horticultural gems he has. There are a number of sections in his large garden, including a woodland garden, a bog garden, a pond and a hillside setting. His wife welcomed our group inside for a tea break from the blustery weather outside, which was readily accepted and appreciated.

Our visit to Svend Hansen's Kaernehuset Nursery and gardens was

most memorable (Fig. 12), with the opportunity to meet Svend with his warm and engaging personality and appreciate his enthusiastic and knowledgeable promoting of horticulture, and especially the genus *Rhododendron*. His 20,000 seedlings from his China and Scottish collecting provided a wide variety of interesting plants for him to make selection from and introduce for others to enjoy. We were also privileged to tour

the Nivaagaard Museum and its very extensive beautiful garden. The garden was planted with 200–300 plants by Svend Hansen about four to five years ago and it has an interesting design with water and mounds to enhance the setting for plant display.

We enjoyed an excellent walk through the grounds of Frederiksborg Castle and its baroque garden. It was a pleasure to meet Henning Christensen, Danish chapter ARS treasurer, and Jens Holger Hansen, Danish Chapter ARS President, who came to meet our group during the castle visit. Carl Adam Lehmann graciously invited our group to visit his summerhouse at Dronningmoelle. He has an outstanding collection of species and hybrids that surround his restful summerhouse.

Our group was next hosted by Torben Stein during a visit to his beautiful garden at Espergaerde. The garden is filled with choice



Fig. 10. Gammer Kogegaard's Manor House garden.



Fig. 11. Svend Hansen's Kaernehuset garden.

plants and was a delight to visit. It has matured a lot since I last had the privilege of visiting Torben in 1995. Our group posed for a photo in his lovely garden. We also enjoyed a visit to Rosenborg Castle and viewed the opulence of what King Christian IV built and the collections on display, including the Danish crowns. We were next privileged to visit Carl Adam Lehmann's home in Klampenborg and meet his lovely wife, Charlotte (Fig. 13). Their garden was immaculate with well placed plants that were happy and

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Fig. 12. Carl Adam Lehmann's garden in Copenhagen.



Fig. 13. Carl Adam Lehmann's *R. pseudochrythanthum* "silver rim form."

healthy in their beautiful garden. Carl Adam advised us that we had missed the peak garden bloom, but he had a video running in their living room that showed how the peak bloom appeared three weeks earlier.

Our last garden visited was that of Ole Rolf Jacobsen in Hoersholm. His garden was as exciting and interesting as any we had the privilege of visiting before. The spectacular garden surrounding his home had excellent rock mounds with attractive species and companion plants. This beautiful setting invited close attention to recognize and enjoy the beautiful gems he had.

All in our tour group enjoyed this memorable tour to both meet and view fellow ARS member's gardens in Denmark. We are indebted to all the Danish members who shared their beautiful gardens in perfect condition with us. Many thanks from all the members of our most appreciative tour group.

* name is not registered

Paul Anderson was a tour member and is the ARS Chapters at Large Director.

Azaleas Part 1: Evergreen Azaleas

Don Wallace McKinleyville, California



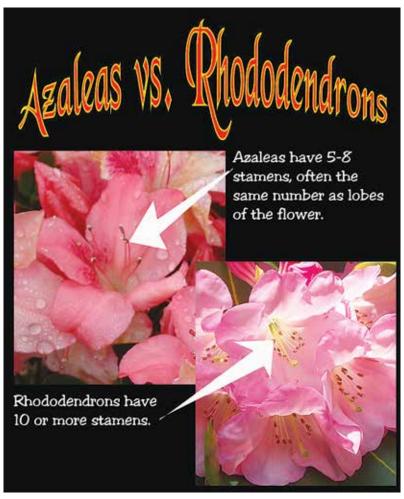
(Modified from the Singing Tree Gardens July 2013 newsletter)

Originating from plants native to Japan, these flowering shrubs are a valuable addition to any landscape. Some of the evergreen cultivars flower more than once a year in mild climates, and can be shaped and pruned to fit into a defined space. Here we will focus on these beautiful flowering plants and how they can be used.

For centuries, evergreen azaleas have been collected and planted around the world to decorate gardens. Most all evergreen azaleas species and hybrids originate in Japan and were described in 1681 in the first horticulture book written in Japan. In this book, 317 varieties and 15 species were descri-



Azaleas in the garden.



Tips on how to distinguish an azalea from a rhododendron. Illustration by Don Wallace.

bed. The Japanese put all evergreen azaleas into two groups, Tsutsuji and Satsuki. Most all evergreen azaleas seen in gardens today will have originated from one of these two groups.

In general the Tsutsuji azaleas are all of the early flowering azaleas, flowering before or with their new leaves, and within 30 days of the spring equinox. The Satsuki, meaning "fifth month," azaleas bloom about one month after the Tsutsuji azaleas. Over time, these plants were introduced across China, then later to Europe. Most came to Europe in the late 1700s and early 1800s, and because of the language difficulty, were assigned Western names. *R. simsii* was one of the first to be introduced into Europe, and thus it figures into some of the early breeding that was being done at that time.

Evergreen Azaleas Come to America

It is likely that most of the plants that were brought from Japan to Europe in the early 1800s came from Japanese gardens.

In the mid to late 1800s, evergreen azaleas became popular as greenhouse and indoor plants. It was at that time the Belgian hybrids were developed, mostly from *R. indicum* and *R. simsii*, and these were exported to Boston, New York and Philadelphia, where they were introduced through the nurseries of these eastern US cities. Many azaleas were planted by the plant enthusiast's of the day, and they can still be seen in these cities as old plants today.

Kurume Azaleas

The Kurume Hybrids, as they are known today, were created by the Japanese in the mid 1600s and were grown widely in their gardens. They were first seen in large numbers in European Gardens when, in the mid 1800s, E.H. Wilson introduced 50 of the over 250 cultivars grown by Mr. Kijiro Akashi of Kurume, Japan. The Kurume Hybrids have small leaves and flower so heavily, the leaves are invisible at this time. These types can be sheared, and are the signature plants of most Japanese Gardens today.

What is the Difference between a Rhododendron and an Azalea?

Most people will look at the size of the leaf to make the call. A small leaved shrub will be called an azalea, while the larger, broad-leafed plant will be identified as a rhododendron. However, this is not the way to tell these two types of plants apart. First of all, all azaleas are actually rhododendrons, falling in either the subgenus *Pentanthera* or the subgenus *Tsutsusi*. Many are evergreen, while others are deciduous. Some identifying characteristics of evergreen azaleas are:

1. Azalea flowers tend to have five stamens and five lobes, while rhododendrons will usually have ten or more stamens.

2. Azaleas usually have adpressed hairs that grow parallel to the midrib on the undersurface of the leaf. These hairs will never be found on rhododendrons.

- 3. Many azaleas are deciduous, while rhododendrons are evergreen.
- 4. The color yellow is never found in evergreen azalea flowers.

Growing Evergreen Azaleas

Azaleas are found growing happily in Zones 6 to 8. They like slightly acid soil, with a pH between 5.5 and 6. In areas with hot summers, azaleas prefer the protection of light shade, such as under deciduous trees. When using azaleas for your landscaping, planting in groups of three to five creates a nicer effect than using five individual strong colors. When selecting azaleas, make certain that the desired varieties will survive in your climatic zone, then think of color and season of bloom, ultimate size and form of the plant, texture and type of foliage, and whether evergreen or deciduous. Good plan-

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Azalea 'Early Beni'. Photo by Don Wallace.



Azaleas in the garden. Photo by Don Wallace

ning will result in pleasing color groupings blooming at the same time.

So, what varieties of evergreen azaleas are recommended? There are more registered azalea hybrids than one could ever grow, so selecting from a list of good doers makes it easier. I know some will say that our list leaves out some of the best, but this is just what we love to grow in northern California.

Our Favorite Evergreen Azaleas

Most often, one's favorite azaleas are just among the group that you have had experience with, and have performed well for you. This is probably the same case for us here at Singing Tree Gardens. We have been introduced to many evergreen azalea cultivars over the years, some from friends' gardens, others from nurseries. We have taken cuttings and planted them in our gardens over the years. Evaluation takes time, and when one is easy, with few problems, it goes on the "good doer" list. Varieties that have to be pampered,

get diseases easily, or just die no matter how you take care of them go on the "bad doer" list and are not propagated. So, over time a list of "Our Favorites" is based on the above criteria.

Some of Our Favorite Evergreen Azaleas

Two exceptional evergreen azaleas that we love are 'Hino Crimson' and 'Silver Sword'. These two are tough and can grow well even with little care and some abuse.

I have seen 'Hino Crimson' planted next to apartment buildings, getting no care, yet blooming profusely every spring. This is a Kurume hybrid, and can be sheared for more prolific blooming.

'Silver Sword' is a *R. simsii* hybrid and is a winner. Add the bright variegation to a shady spot, and then enjoy the red flower contrast in the spring. A low spreader that will only grow to $3 \ge 3$ ft (0.9 ≥ 0.9 m).

The Robin Hill Azaleas

Starting in 1937, Robert Gartrell started hybridizing azaleas, and by the mid-1960s had made over 1000 crosses and grown over 25,000 seedlings. Of the 69 he selected to be his "Robin Hill" azaleas, 29



Azalea 'Gisha Girl'. Photo by Don Wallace.



Azalea 'Hino Crimson'. Photo by Tim Walsh.

have been registered. These are the cream of the crop. Three we like and grow are 'Betty Anne Voss', 'Early Beni', and 'Sarah Holden'. Blooming in mid-May and into early June, these hybrids are hardy to zones 6b-9b. Also, most are medium sized shrubs, growing to three to five feet (0.9-1.5 m) in height.



R. indicum 'Roseum'. Photo by Don Wallace.

Satsuki Azaleas

This group of evergreen azaleas have been around for over 500 years, being one of the first to be hybridized for new forms and colors. Initially, they were probably a natural hybrid of R. indicum and R. tamurae, but over time Japanese gardeners made crosses, adding to the cultivars. In 1997, a Satsuki Azalea Dictionary Color Plate Index was released, showing 1012 entries. This is evidence that there are more cultivars than can be grown by anyone in a garden. Many of the best, and most unique varieties have been brought to the USA for dispersion. We only grow a few, and I am sure there are many outstanding cultivars that are unavailable. The flower colors range from white to pink

to red, and color patterns include solids, and stripes, flakes, lines, sectors and margins of color on a lighter background. The Satsuki's claim to fame is that often *one* plant will display many colors and patterns, and this can change year to year. This is a prized feature, with the Japanese working to produce plants that display the most number of colors and patterns. Most, however, will have single flowers, hose-in-hose, semi-double, and even double flowers of one color, and many have picotee edges. One cultivar we like is 'Aikoku', which means "patriotic" in Japanese. It will display flowers with white, pink, or white with pink stripes, all on a single plant.

Azalea Leaf Gall

These galls cause leaves and flowers to become swollen, curled, waxy and fleshy. This abnormal plant tissue occurs commonly on some evergreen azaleas, and can spread

as the season progresses. This is seen more in the Southeastern USA than in other areas due to its humid climate. The fungus that causes this condition, Exobasidium vaccinii, looks worse that it really is. It will not kill the plant, but is ugly. Cool, wet humid weather in late spring and early summer offer perfect conditions for the spores to spread and infect other plants. It is important to pick and bury or burn the galls before the white spore layer is formed. This will prevent the spread of the disease, and will usually end the problem. However, be on the lookout for more galls, picking them when they are first seen to rid your garden of the disease.

Don Wallace is a member of the Eureka Chapter and owner of the Singing Tree Gardens Nursery.



Azalea 'Koromo Shikibu'. Photo by Don Wallace.



Azalea mass planting. Photo by Tim Walsh.

Hardy Fuchsias in the Pacific Northwest

Shirley A. Rock Marysville, Washington



Photos by the author

What is a "hardy" fuchsia? Where did they come from? Why would I want to include them in my garden? How do I plant them? When is the best time to fertilize them? Do they need winter preparation? Do they need pruning? Do they have pests? How do I select a fuchsia for my garden? Lots of questions, but first you now know how to spell "fuchsia." Before we go any further, please note that this article is based on my own experience with growing fuchsias and my personal opinions about them.

Hardy fuchsias in the Pacific Northwest are "perennials," i.e., they typically die back to the ground in the winter and grow back in the spring. The majority of fuchsia species were found in mountain areas in South America back in the 1700s and in New Zealand.

Fuchsia magellanica is one of the hardiest of fuchsias. It was used to develop many of the hardy hybrids in our gardens today. Other hardy fuchsia species that may be grown in the garden are *F. spendens, encliandra, ayavacensis, boliviana, denticulata, depends, hartwegii, sanctae-rosae, lycioides, coccinea, brevilobis, camposportoi, glazioviana, hatschbachii, regia* subsp. regia, regia subsp. reitzii, regia subsp. serrae and excorticate, to name a few. Obtaining these species is somewhat difficult, but not impossible.

Why would you want to include them in your garden? Well, they complement rhododendrons beautifully (Figs. 1, 2). Rhododendrons generally bloom in milder areas of the northern hemisphere from February through June and can provide a spectacular show in our gardens (my husband and I personally enjoy about 3,000 rhododendrons in our gardens). Hardy fuchsias extend a garden's blooming period, as hardy fuchsias bloom, depending on the harshness of winter, from mid-May until frost, and hardy fuchsias enjoy the same basic environment as rhododendrons. Our display gardens show approximately 500 varieties of hardy fuchsias (Fig. 3-5).

We have found that the best time to fertilize fuchsias in our area is mid-March. The rhodies and fuchsias all receive the same time-released fertilizer with an NPK of 14-



Fig. 1. 'Windchime' with *R. bathyphyllum* to the right.



Fig. 2. 'Chickenhouse' with Japanese grass to the left.



Fig. 3. 'Billy'.



Fig. 5. 'Falklands'.



Fig. 4. 'Blacky'.

14-14. We use Apex, but any balanced time-released fertilizer will work.

[Editor's note: Unlike Apex, another time-released fertilizer, Osmocote, is very much influenced by temperature and releases faster at higher temperatures, such as in a greenhouse or during the summer.]

Fuchsias are best planted in the spring after the danger of frost is past but unlike rhodies, you want to plant fuchsias deep. Additional roots will form on the buried stems. Mulch the new plants in the fall for the first winter, but once established, mulching isn't necessary unless a harsh winter is predicted. Maple leaves make a good temporary mulch and for the



Fig. 6. Mulching system.



Fig. 8. *F. procumbens*, a ground cover, with yellow blossoms.



Fig. 7. 'Lechlade Magician' grows to 15 ft (4.6 m) in one season and has blue pollen.

first year in the garden, and I put a small fence around each plant to hold the mulch leaves in place (Fig. 6).

Prune fuchsias in the spring, not in the fall, since if you prune them in the fall, water may seep down the stems to the roots and cause them to die of root rot. Fuchsias should be planted in a well draining soil, and while they like moisture, the soil should not be soggy. Fuchsias do have pests like white fly, aphids, and spider mite but generally these pests don't bother hardy fuchsias significantly when planted in the ground. If kept in a greenhouse, the environment is ripe for pests such as fuchsia gall mite,



Fig. 9. 'Army Nurse'.



Fig. 10. 'Rosea'.

which is from South America and is carried by birds and bees. However, our winter weather kills these mites, unless they have become established in a greenhouse.

If you decide to select a fuchsia for your garden, consider that fuchsias like morning sunlight, well drained humus-rich soil, and the growth size of the plant. They have extensive roots, so don't plant them too close to a tree, shrub, or vines.

Northwest Fuchsia Society members test fuchsias for hardiness for a minimum of three years. Fuchsias listed on the hardy list on www. nwfuchsiasociety.com have all passed this test. Note that not all fuchsias sold in nurseries are hardy, and hardiness is



Fig. 11. 'Sleigh Bells'.

indicated by H1 = not hardy, H2 = needs protection, and H3 = very hardy. To start your adventure with hardy fuchsias, be sure to select a plant that is rated very hardy. The height of varieties needs to be considered too, since some fuchsias can grow to 15 feet (4.6 m) in one season, such as 'Lechlade Magician' (Fig. 7), which has blue pollen. Some varieties are prostrate or ground crawlers like *F. procumbens* from New Zealand (Fig. 8), which has a yellow blossom.

Finally, fuchsias are edible! The blossoms can be used as a garnish in salads and their berries can be eaten as a snack or made into jelly. Hummingbirds also love feeding from fuchsias. These cheerful little fairy dancers come in many sizes, colors, and shapes, as shown in Figs. 9 to 11: 'Army Nurse', 'Rosea', and 'Sleigh Bells'.

The Eastside Fuchsia Society has published a booklet titled *Fuchsia Growing Guide for the Pacific Northwest.* The booklet may be purchased at most regional northwest nurseries that sell fuchsias. I recommend buying this booklet if you are considering fuchsias for your gardens and want to see a list of recommended plants.

Shirley Rock is a member of the Pilchuck Chapter and a commercial fuchsia grower.

Two Summer Stars

Ken Gohring Marietta, Georgia



(From the Sept 2014 Azalea Chapter newsletter.)

In Georgia, by August, most azaleas and rhododendrons have finished blooming and are setting seeds and developing flower buds for next year. There are exceptions, such as late blooming *R. prunifolium*, the highly variable *R. viscosum* in all its varieties, some of the Weston hybrids and others. In some years, the dual season Encore Azaleas start in the late summer.

Lagerstroemia indica - crape myrtle

There are other plants that bloom in summer. Everywhere throughout the South, *Lagerstroemia indica*, crape myrtle, is found and it blooms over a relatively long period. 2014 was an exceptionally good year for crape myrtle, with many plants exhibiting



Lagerstroemia indica - crape myrtle. Photo by Ken Gohring.

large numbers of blooms. Granted, they are overplanted like Bradford pear and its variants, but they do come in a variety of pleasing colors. Crape myrtles have a long history, having been introduced around 1790 by the famous French botanist, Andre Michaux. There are over 50 species of *Lagerstroemia*. Native lilies, such as *Lilium michauxii*, the Carolina lily, are also summer bloomers, as is the lovely *Hymenocallis caroliniana*, or spider lily. However, two trees in particular stand out, and these I call Stars!

The First Star - Franklinia alatamaha

When I first arrived in Georgia several years ago, I was attracted to the state's

diverse populations of native plants as well as the multitude of evergreen azaleas planted in people's yards. I proceeded to plant evergreen azaleas around my home and spent some time studying other plants. One of the plants that grabbed my attention was *Franklinia alatamaha*, commonly called the Ben Franklin tree. One cannot help but be attracted to the tree after reading the story of its discovery. While the story is well known, it is worth repeating.

John Bartram and his son, William, discovered a 2-3 acre (0.8-1.2 ha) grove of the trees near Darien, Georgia, along the Altamaha River in 1765, while undertaking explorations of the native plants of the Southeast. This population was quite hardy and William gathered seeds in later years. These seeds were sown in his father's garden near Philadelphia. The population originally found by the Bartrams became extinct and the species was never found anywhere else in the wild. All plants currently living have their origin in the plants grown in the Bartram garden. A prominent horticulturist, John Lyon, claimed to have found about a half dozen specimens in 1803, but his claim was never substantiated. Many searches have been conducted but the last known sighting of Franklinia in the wild was in 1790. This sighting was at the site found by the Bartram's.



Hymenocallis caroliniana - spider lily. Photo by Karl Betz.



Franklinia alatamaha - Ben Franklin tree. Photo by Earl Sommerville.

The story of this "lost Gordonia," as the species is sometimes known, is interesting enough to cause people to want to grow it. Personally, I did not know much about the plant's characteristics, but I wanted to try it. I ordered a specimen from a mail order nursery in Ohio and planted the 14 inch (36 cm) plant in the back yard of my home near Smyrna. After several years, it had grown large enough to flower. The small tree bloomed in the mid to late summer and produced white, fragrant flowers about

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Gordonia lasianthus - loblolly-bay. Photo by Ken Gohring.



Franklinia alatamaha in the garden of Earl Sommerville. Photo by Ken Gohring.

2.5 inches (6.4 cm) across with a bright yellow center. It produced spherical shaped seeds after a development period of 11 to 12 months. I had no problem with it and it was doing well in the late '70s when I moved to another location. One attractive feature is its leaves, which turn orange-red in the fall.

The disappearance of Franklinia from the wild has produced several theories concerning its demise. The theory that receives the most attention is the increase of cotton farming in the South. There is a fungal disease of cotton that is fatal to Franklinia. It is theorized that the fungus was carried down the Altamaha River, reaching the Bartram population and resulting in the death of the trees. There are other theories, but perhaps the most imaginative one is that the population that the Bartrams found was not native, but planted in the 1700s, when the English were importing plants to England and the American colonies from a variety of places, including China. This theory suggests that the

plants came from China, as *Franklinia* is a member of the *Theaceae* or tea family, which is quite prominent in China. Further, the theory implies the plant did not survive in the United States because the environment did not replicate the conditions and climate of China. If this theory holds water, one wonders whether there are *Franklinia* plants still in existence somewhere in China.

Southern gardeners seem to have a difficult time growing *Franklinia*. However, a nonformal survey taken a few years ago indicated there were over 50 locations in Georgia where it was growing. The number is quite small compared to more northerly states, where it seems to grow better. The primary reason given is the cotton fungus. A recent article in the newsletter of the Georgia Native Plant Society by Marshall Adams tells of his *Franklinia* experience. He has been successful in his efforts, he states, because he uses generous portions of chicken manure when he plants the trees. Chapter member Earl Sommerville has an adult specimen of *Franklinia* in his back yard. That tree shown in the picture, is about 15 feet (4.6 m) tall. He says that one thing that he did when he planted his tree was to use sand from a nearby creek in his soil mixture.

The Second Star - Gordonia lasianthus

As indicated above, *Franklinia* was called the "lost Gordonia." It is very much like an evergreen tree that is found generally in the coastal areas of the Southeast, *Gordonia lasianthus*. At first *Franklinia* was designated as *Gordonia pubescens* because of this similarity. Later, when designated as a different species, it was named *Franklinia alatamaha* by William Bartram in honor of the Bartram's friend Ben Franklin and the river Altamaha (a somewhat different spelling) nearby to where it was first found. One can still find references to *Gordonia pubescens* on the Internet.

Gordonia lasianthus is a medium sized shrub to small tree and is usually called loblollybay. It is found mostly in the swampy soils of pinelands near bays of the Atlantic and Gulf coast plains. Its range extends from southern Virginia south to the mid south of Florida and west in disparate groups to Louisiana. In the areas where it grows near the coast, it is found in flat or depressed areas with little or no slope and poor drainage. In areas away from the coast, it is usually found along the edges of bays and flat woodlands.

Its flowers are fragrant, white, five-petaled and are shaped like a cup with a gold colored center. It has finely serrated evergreen leaves, three to six inches in length, which are a lustrous green with a leathery texture. The flower buds appear at the time that new leaves form. They appear in late June and bloom to mid August and later, depending on locale. They remain open 1 to 2 days and are pollinated by various species such as bumblebees, flies and hummingbirds. Mature seed capsules appear in September and October up to December. The seed germinate well within 10 days in controlled environments but do not do well in the field. In the wild, the tree reproduces frequently from stolons.

The tree is usually relatively small in the wild, but can reach 60 feet (18.3 m) in height. It is particularly desirable as a landscape tree because of its attractive conical shape, abundant flowers and shiny foliage. It does not require a boggy environment to survive. The tree's fine-grained wood has been used in making cabinets and its bark has some usage as a tanning agent, but perhaps its best commercial usage is as a source of pulpwood because of its ability to grow in wet areas where common pulpwood trees like pine cannot grow.

Both of these plants are truly stars, providing attractive, fragrant blooms when there aren't a whole lot of other plants doing likewise.

Ken Gohring is a member of the Azalea Chapter.

Book Review

A Garden for Life: Mary Greig & the Royston Rhododendrons, Judith Walker; editor Clive Justice; Vancouver: BC Bigleaf Maple Book. Softcover. 164 pages. \$22.50

"We have to tell the stories of people who make our lives joyous and our landscapes memorable," writes author Judith Walker in her acknowledgement to Mary Greig whose story she tells in her lovingly written book *A Garden for Life: Mary Greig & the Royston Rhododendrons.*

Walker met Mary Greig in 1982 when she began weeding at the Royston Nursery a few hours a week when Mary was 85 years old. During the next eight years Mary became a mentor, colleague, and friend as they shared their interest in plants at the nursery. The book's story line is shaped by conversations between the two and Walker's own considerable research. The heart of the book, Mary Greig herself, is revealed step by step as each important factor in her life is described childhood in England, move to Canada, marriage to Ted Greig, home at Royston, Vancouver Island, BC, children, friends, and the nursery.

Mary Greig's early years were spent in Weybridge, England, where her father Charles Sillence worked as a photographer. In 1911, in response to a deteriorating English economy, Charles decided to move the family to Canada—to Duncan, BC, on the east coast of Vancouver Island.

Mary met Ted Greig through her church. They were married in 1919 and moved to Royston, BC, on Comox Bay. At this time, Royston was an outback summer cottages with few amenities. Ted worked at odd jobs in the area, and Mary's life took on the trappings of a pioneer woman on the frontier, tending house and caring for a growing family of four children. Frugality became a way of life. Nevertheless, they managed a social life in the community, including various musical events.

Besides their family, Mary and Ted shared an abiding interest in the world of nature surrounding them, with a special interest in alpine plants and their own garden. Ted's interest in alpines was life-long, and he became a respected expert on these plants. Their interest in plants led them to the nursery of Suzanne and Buchanan Simpson at Cowichan Lake. When the Simpson decided to close the nursery they convinced Mary and Ted to purchase the nursery stock and start their own nursery, which they did by selling insurance policies and borrowing the rest. The stock included alpines and some *Rhododendron* species. In 1936 the Royston Nursery was born.

The labor required to grow alpines by turning the natural environment to an artificial one through raised beds, greenhouses, and pot culture proved to be so

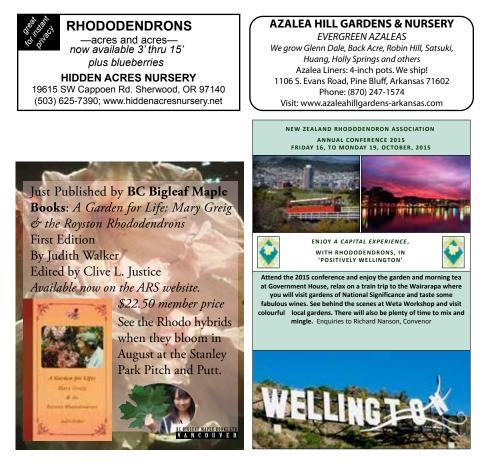
great that finally they decided to focus on the collection of rhododendrons which liked their coastal climate better. Mary began to focus on the identification of *Rhododendron* species, which led her to acquaintance with experts worldwide. Through rigorous study she began to solve the problem at the time of separating true species from hybrids and became an expert. As a result the Royston Nursery gained the reputation of offering some of the best species rhododendrons.

After Ted suffered a heart attack in 1964 and they could no longer care for the nursery, the plants were sold to the Vancouver Parks Board. The Greig's friend Alleyne Cook helped immensely in the moving of plants and became a supervisor of the plantings in their new urban setting. Mary died in 1990 at the age of 93 at her home in Royston.

Mary's Greig's story is worth telling, and Judith Walker has told it well. I highly recommend this book.

Sonja Nelson

See ad for book on this page.



AMERICAN RHODODENDRON SOCIETY STATEMENT of FINANCIAL POSITION AUGUST 31, 2014 and 2013 SEE ACCOUNTANT'S REVIEW REPORT

ASSETS

ASSETS				
Current assets:	_	2014		2013
Cash and cash equivalents	\$	25,270	S	22,871
Money markets accounts		88,161		64,119
Accounts receivable- Chapters		6,679		10,567
Inventories		4,179		755
Prepaid expenses		4,257		-
Investments in Mutual Funds		914,065		860,034
	_			
Total Current Assets		1,042,611		958,346
Property and equipment:				
Office equipment		15,240		15,240
Less: Accumulated depreciation	_	15,240		15,188
Net Property and Equipment			-	52
	_			
Total Assets	S	1,042,611	S	958,398
			_	
LIABILITIES and NET ASSETS	_			
Current liabilities:	-			
Accounts payable	S	669	\$	2,219
Accounts payable - Chapters		-		3,309
Deferred dues 2011 - 2020		36,190		36,807
Total Current Liabilities		36,859		42,335
	_		-	
Net Assets:				
Unrestricted - General Fund		(35,702)		(27,713)
Unrestricted - Designated Life Member Fund		128,076		113,190
Unrestricted - Designated Endowment Fund		665,527		587,323
Unrestricted - Designated Seed Exchange Fund		26,696		26,821
Total Unrestricted Net Assets	_	784,597	_	699,621
	_			
Temporarily Restricted - RDC Start-Up Fund		7,117		7,117
Total Temporarily restricted Net Assets	_	7,117		7,117
Permanently Restricted - Endowment Publications		102,417		102,417
Permanently Restricted - Endowment Other		111,621		106,908
Total Permanently Restricted Net Assets	_	214,038		209,325
Total Net Assets		1,005,752		916,063
Total Liabilities and Net Assets	S	1,042,611	S	958,398
			-	and the lot of the same

See Accompanying Notes and Accountant's Review Report

Newly Registered 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 May 15, 2015, 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

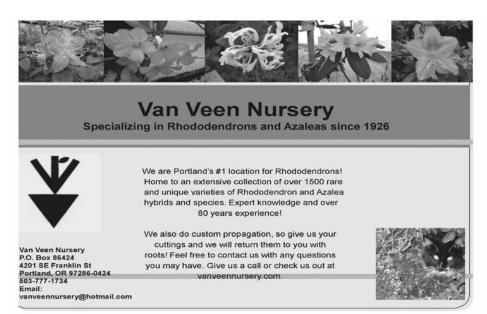
(r) 'Barb Blankenship'

Elepidote rhododendron: 'Independence Day' (s) X 'Peach Charm'. H (1996), G (2002), N (2012), REG (2015): Jim Barlup, Bellevue, WA. Flrs 19/ball truss, broad funnel, 1.8 inches (48mm) long x 3 inches (76mm) wide with 6 wavy lobes. Bud: deep purplish pink (66D). Inside: strong yellow (153D) with a 0.25-inch (6mm) strong purplish pink (68D) marginal band on all lobes, and strong purplish red (60B) twin dorsal



'Barb Blankenship'. Photo by Jim Barlup.

flares extending 0.37 inch (9mm) from base, surmounted by similarly colored spots for 0.75 inch (19mm). Outside: strong yellow (153D) with a 6mm deep purplish pink



(68A) marginal band on all lobes, each lobe with a deep purplish pink (68A) central vein. Calyx: 0.75 inch (19mm), strong yellow (153D) with strong purplish red (60B) spots and moderate purplish pink (68B) margins. Truss 6 x 6 inches (152 x 152mm). Lvs 5 x 2 inches (127 x 51mm), elliptic, rounded base, broadly acute apex, flat margins, slightly up-angled from center vein, Moderate olive green (147A), matte. Shrub 6.5 feet (2m) high x 8 feet (2.4m) wide in 18 years; intermediate habit, leaves held two years. Hardy to 0°F (-18°C). Flowering midseason (late May in Seattle area). Etymology of name: a friend of the hybridizer/registrant, a nurserywoman in Arlington, WA.

(r) 'Evening Breeze'

Elepidote rhododendron: ('Bambi' x *R. proteoides*) (s) X 'Plum Passion'. H (2005), G (2009), N (2014), REG (2015): Jim Barlup, Bellevue, WA. Flrs 13/dome truss, broad funnel, 2 inches (51mm) long x 2.75 inches (70mm) wide with 5 wavy lobes. Bud: deep red (60A). Inside: strong purplish pink (63C) blending to strong purplish red (63B) at margins, with strong purplish red (60C) midveins from base to tip and a moderate red



'Evening Breeze'. Photo by Jim Barlup.

(181A) dorsal flare extending 1.5 inches (38mm) from base; strong purplish red (60D) nectaries. Outside: as inside, without flare. Calyx: 0.5 inch (13mm), strong purplish



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pink (63C) with moderate red (181A) spotting on tips. Truss 4.5 inches (114mm) high x 5 inches (127mm) wide. Lvs 4 x 1.5 inches (102 x 38mm), elliptic, rounded base, broadly acute apex, flat margins; moderate olive green (147A), semiglossy. Shrub 2 feet (0.6m) high x 3 feet (0.9m) wide in 9 years; dense, leaves held 2 years. Hardy to 0° F (-18°C). Flowering midseason (May in Seattle area).

(r) 'Farrah Parker'

Elepidote rhododendron: 'Hearthside Beauty'* (s) X (*R. lukiangense* x August Moon). H (2001), G (2011), N (2013), REG (2015): Parker Smith, Santa Rosa, CA. Flrs 9-11/ dome truss, open funnel, 2×2 inches (51 x 51mm) with 5-7 frilly lobes. Bud: strong purplish pink (55B). Inside: white with light purplish pink (55C) mid-lobe veins and lobe tips and a pale yellow (18C) blotch with a few darker spots in upper lobe; fading to all white. Outside: light purplish pink



'Farrah Parker'. Photo by Parker Smith.

(55C); fading to white with light purplish pink (55C) mid-lobe veins. Calyx: 0.1 inch (2mm), green. Truss 4 inches (102mm) high x 6 inches (152mm) wide. Lvs 4.5 x 2 inches (114 x 51mm), obovate, cuneate base, broadly acute apex, flat margins; dark

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www.chimacumwoods.com robtrhododendron@gmail.com yellowish green (141B), matte. Shrub 2.5 feet (0.8m) high x 3 feet (0.9m) wide in 10 years; dense habit, leaves held 3 years. Hardy to 18°F (-8°C). Flowering early season (February-March in northern California) with consistent, notable fall blossoming (September-November). Etymology of name: a granddaughter of the hybridizer.

[* 'Hearthside Beauty' – not registered; white flowers, listed in *Greer's Guidebook to Available Rhododendrons* as a *R. caucasicum* hybrid.]

(r) 'Golden Radiance'

Elepidote rhododendron: ('Scintillation' x 'Phipps Yellow') (s) X 'Bud's Yellow'. H (2004), G (2011), N (2014), REG (2015): Herman Gehnrich, Huntington, NY. Flrs 14/ball truss, open funnel, 2 inches (51mm) long x 2.5 inches (64mm) wide with 7 wavy lobes. Bud, inside and outside of corolla: light greenish yellow (4B). Truss 6 x 6 inches (152 x 152mm). Lvs 5 x 1.9 inches (127 x 48mm), oblong, rounded base, obtuse apex, flat margin; moderate olive green



'Golden Radiance'. Photo by Bud Gehnrich.

(147A), glossy. Shrub 6 feet (1.7m) high x 4 feet (1.2m) wide in 3 years; intermediate habit, leaves held 3 years. Hardy to 0°F (-18°C). Flowering midseason (May on Long Island, NY).



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(r) 'Lemon Sun'

Elepidote rhododendron: 'Recital' (s) X ('Fortune' x ['Berg's Yellow' x *R. proteoides*]). H (2003), G (2008), N (2014), REG (2015): Jim Barlup, Bellevue, WA. Flrs 21/ball truss, funnel campanulate, 2 inches (51mm) long x 2.75 inches (70mm) wide with 6 wavy lobes. Bud: moderate red (47A). Inside: pale yellow green (4D) with light greenish yellow (4C) ridges and lobe edges; strong red (53D) dorsal flare extending 0.4 inch (9mm) from base. Outside: as inside,



'Lemon Sun'. Photo by Jim Barlup.

without flare. Calyx: 1 inch (25mm) long, pale yellow green (4D) with strong red flare (53D). Orange-red anthers. Truss 5.5 inches (140mm) high x 6 inches (152mm) wide. Lvs 2.1 x 6.1 inches (54 x 157mm), elliptic, rounded base, broadly acute apex, flat margins, moderate olive green (147A), matte. Shrub 4 feet (1.2m) high x 6 feet (1.7m) wide in 10 years; intermediate habit, lvs held 2 years. Hardy to 5°F (-15°C). Flowering midseason (late April in Seattle area).

(r) 'Lori's Love'

Elepidote rhododendron: ('Hotei' x *R. degronianum ssp. yakushimanum*) (s) X 'Recital'. H (1997), G (2003), N (2014), REG (2015): Jim Barlup, Bellevue, WA. Flrs 19/



ball truss, broad funnel, 1.75 inches (44mm) long x 2.5 inches (64mm) wide with 5 wavy lobes. Bud: deep pink (52B). Inside: pale yellow green (4D) blending to light greenish yellow (4C) at throat; twin dorsal flares base, deep pink. Outside: pale yellow green (4D) blending to light greenish yellow (4C) at base, with prominent light yellowish pink (36B) areas along each midvein. Calyx: 0.75 inch (19mm) long, pale yellow green (4D) blending to light greenish yellow (4C) at base. Truss 5 x

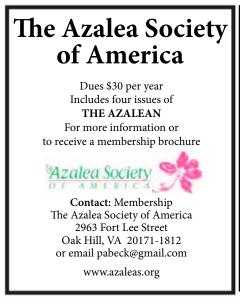


'Lori's Love'. Photo by Jim Barlup.

5 inches (127 x 127mm). Lvs 3.5 x 1.75 inches (90 x 44mm), elliptic, rounded base, broadly acute apex, flat margins, moderate olive green (147A), semiglossy. Shrub 2 feet (0.6m) high x 2.5 feet (0.8m) wide in 6 years; intermediate habit, lvs held 2 years. Hardy to 0°F (-18°C). Flowering midseason (mid May in Seattle area). Etymology: Lori Taylor of Medina, WA, a co-worker of the hybridizer.

(r) 'Mrs. Carolina Lago'

Elepidote rhododendron: 'Maverick' (s) X 'Crimson Constellation'. H (2005), G (2010), N (2014), REG (2015): Jim Barlup, Bellevue, WA. Flrs 17/ball truss, broad funnel, 1.75 inches (44mm) long x 3 inches (76mm) wide with 5 frilly lobes. Bud:



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Clematis Dogwoods Magnolias Hostas 7 acres of display gardens Catalog available on our Web www.sonomahort.com -Sorry, we don't ship-3970 Azalea Avenue Sebastopol, CA 95472 (707) 823-6832 strong red (53D). Inside: yellowish white (155D) blending through pale purplish pink (55D) to deep pink (55A) at margins, with strong red (53C) dorsal spotting and strong red (53C) nectaries. Outside: yellowish white (155D) blending through pale purplish pink (55D) to deep pink (55A) at margins. Calyx: 1 inch (25mm) long, pale yellow green (155D), strong red (53C) spotting, deep pink (55A) margins. Truss 4.75 inches (121mm) high x 5 inches (127mm) wide. Lvs 4.25 x 0.9 inches



'Mrs. Carolina Lago'. Photo by Jim Barlup.

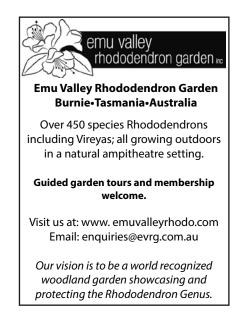
(108 x 22mm), elliptic, rounded base, broadly acute apex, flat margins, moderate olive green (147A), matte. Shrub 3 feet (0.9m) high x 4 feet (1.2m) wide in 8 years; intermediate habit, lvs held 2 years. Hardy to 0°F (-18°C). Flowering midseason (early May in Seattle area). Etymology of name: Carolina Lago of Alexandria, VA, a friend of the hybridizer.

(r) 'Onica'

Elepidote rhododendron: 'Sumner's Orange' (s) X 'Double Eagle' (Korth). H (2001), G (2011), N (2014), REG (2015): Parker Smith, Santa Rosa, CA. Flrs 16-18/dome truss, open funnel, 2 inches (51mm) long x 3 inches (76mm) wide with 5-7 wavy lobes.

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Bud: strong purplish red (54A). Inside: blending from light yellowish pink (36B) at margin through pale orange yellow (16D) to vivid yellow (16A) with 1-inch (25mm) diameter throat of moderate red (47A). Outside: primarily light yellowish pink (36A); light orange yellow (16B) at base. Calyx: 0.1 inch (3mm), green. Truss 6 inches (152mm) high x 7 inches (178mm) wide. Lvs 4.5 x 1.5 inches (114 x 38mm), oblong, rounded base, broadly acute apex, flat margins, dark yellowish green (139A), matte. Shrub 4 feet (1.2m) high x 3 feet (0.9m) wide in 10 years; intermediate

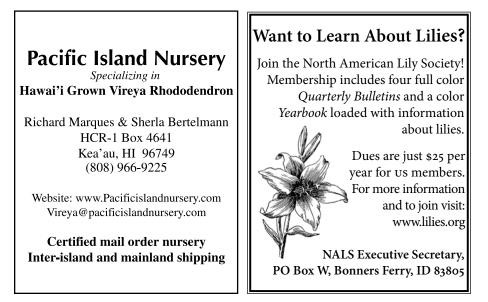


'Onica'. Photo by Parker Smith.

habit, lvs held 2 years. Hardy to 18°F (-8°C). Flowering midseason (March-April in northern California). Etymology of name: a daughter of the hybridizer.

(r) 'Rio Carnival'

Elepidote rhododendron: 'Seaview Sunset' (s) X ('Autumn Gold' x Orange Marmalade'). H (1998), G (2005), N (2015), REG (2015): Frank Fujioka, Freeland, Whidbey Island, WA. Flrs 20/dome truss, funnel campanulate, 2.5 inches (64mm) long x 3 inches (76mm) wide with 5 flat-margin lobes. Bud: moderate reddish orange (35A)



at tip, shading through strong yellowish pink (35C) to moderate pink (36D) at base. Inside: light yellowish pink (19B) shading to a 0.5-inch (13mm) marginal band of strong yellowish pink (37A); insignificant spots. Outside: strong yellowish pink (37A) at margins shading to light orange yellow (22B). Calyx: 1.5 inches (38mm) long, strong yellowish pink (37B). Truss 4 inches (102mm) high x 6 inches (152mm) wide. Lvs 5 x 2 inches (127 x 51mm), elliptic, rounded



'Rio Carnival'. Photo by Frank Fujioka.

base, obtuse apex, downcurved margins, dark bluish green (133A), semiglossy. Shrub 3.3 feet (1m) high x 4.2 feet (1.3m) wide in 12 years; dense, lvs held 2 years. Hardy to 10°F (-12°C). Flowering late season (late May in Puget Sound, WA).

(r) 'Tamera'

Elepidote rhododendron: *R. degronianum ssp. yakushimanum* 'North Island' * (s) X *R. grande*. H (2001), G (2012), N (2013), REG (2015): Parker Smith, Santa Rosa, CA. Flrs 22-28/dome truss, funnel campanulate, 2 inches (51mm) long x 51 inches (51mm) wide with 7 wavy lobes.





'Tamera'. Photo by Parker Smith.

Bud: pinkish white. Inside: white with moderate pink (49B) veins and a strong yellowish pink (37B) flare extending 0.5 inch (13mm) from base into upper three lobes. Outside: white. Calyx: 0.1 inch (2mm), green. Truss 5 inches

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(127mm) high x 7 inches (178mm) wide. Lvs 6 x 2.25 inches (152 x 57mm), elliptic, cuneate base, broadly acute apex, downcurved margins, dark green (136A), glossy. Indumentum: hairs below, white aging to beige; tomentose above when young. Shrub 4.5 feet (1.4m) high x 3 feet (0.9m) wide in 10 years; dense, lvs held 2 years. Hardy to 18°F (-8°C). Flowering early season (March in northern California). Etymology of name: a daughter of the hybridizer.

[* 'North Island' - not registered. No further information has been found.]

(r) 'Watermelon Sky'

Elepidote rhododendron: 'Sumner's Orange' (s) X 'Double Eagle' (Korth). H (2001), G (2012), N (2013), REG (2015): Parker Smith, Santa Rosa, CA. Flrs 6-8/flat truss, funnel campanulate, 2 inches (51mm) long x 3.5 inches (89mm) wide with 5-6 flat-margin lobes. Bud: strong red (46A). Inside: deep pink (51B), at margins strong red (51A), with a strong red (53B) 0.5-inch (13mm) spot at base surmounted by vivid orange (28B) blotch extending



Watermelon Sky'. Photo by Parker Smith.

into each lobe. Outside: deep pink (51B). Calyx: to 0.5 inch (13mm) long, deep pink (50B). Truss 5 inches (127mm) high x 7 inches (178mm) wide. Lvs 5 x 2.5 inches (127 x 64mm), elliptic, rounded base, broadly acute apex, flat margins, moderate olive green (146A), matte. Shrub 3 x 3 feet (0.9 x 0.9m) in 10 years; intermediate habit, lvs held 2 years. Hardy to 18°F (-8°C). Flowering early season (February-March in northern California).

(r) 'Whisper White'

Elepidote rhododendron: ('Nancy Evans' x *R. bureavii*) (s) X (*R. degronianum ssp. yakushimanum* 'Koichiro Wada' x *R. pachysanthum*). H (2003), G (2008), N (2014), REG (2015): Frank Fujioka, Freeland, Whidbey Island, WA. Flrs 18/ ball truss, funnel campanulate, 2 inches (51mm) long x 2.5 inches (64mm) wide with 5 wavy lobes. Bud: light pink (49C). Inside: yellowish white (155D)



'Whisper White'. Photo by Frank Fujioka.

with vivid red (44A) basal flare and spots, extending 0.75 inch (19mm) into upper lobe, less in other lobes. Outside: yellowish white (155D) with 0.5 inch (13mm)

of pale pink (49D) at base. Calyx: insignificant. Truss 5 inches (127mm) high x 6 inches (152mm) wide. Lvs 5.5 x 2.5 inches (140 x 64mm), elliptic, rounded base, broadly acute apex, flat margins; dark yellowish green (139A), matte. Indumentum: hairs below and slightly above; greenish white (157D) aging to moderate orange yellow (165C) below; yellowish pink (159D) above. Shrub 3 x 3 feet (0.9 x 0.9m) in 10 years; intermediate habit, lvs held 2 years. Hardy to 10°F (-12°C). Flowering midseason (late April in Puget Sound, WA).

Corrections

'Heritage Snow Ruby' – JARS 65:3, p171 (2011). Now a synonym for 'The Morning After'. Sandwich Club and related code numbers corrected to: HP 20-2003; EC [Ed Collins] 40-85.

'The Morning After' – International Rhododendron Register and Checklist, Second Edition, p1357 (2004). Append to entry: Synonym: 'Heritage Snow Ruby'; Sandwich Club and related code numbers: HP 20-2003; EC [Ed Collins] 40-85.

References

Names conform to the rules and recommendations of the *International Code of Nomenclature for Cultivated Plants, Eighth 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).

To register a rhododendron or azalea name

North Americans: Electronic registration may be submitted at www.rhododendron. org/plantregistry.htm. The site also provides instructions and forms for downloading and completing manually. Those submitting paper applications should use only the current form (revised 2015). The quickest way to obtain paper forms is to ask a friend with Internet access to go to the ARS website and print the form and instructions. Questions, completed paper forms, all photographs and requests for paper forms should be directed to Michael Martin Mills, North American Registrar. There is no fee.

All others: Please direct inquiries to Alan C. Leslie, International Rhododendron Registrar.

New Members from 2/25/2015 through 5/27/2015

AZALEA

Roadley Archer Brian Armour Lou Boos John Brooks. Todd Fibus Peter Calabrese Shirley Etheridge Michael Knee **Diane Liebeskind** Alicia Long Edward McDowell Jennifer McGehee Mitchel Mortvedt Nikole Sothers Craig Thomas Kristi Westhoven Val Wolpe Thomas Wright ANN ARBOR Steve Lyskawa Scott & Robin Staelgraeve Cathy Swan CASCADE Gail Round CONNECTICUT Gary & Nancy Johnson DANISH Bruce Campbell EUGENE Ed & Grace Gore EUREKA David Anderson Bob & Mary Anne Buckles Christine Cole Christina Gillen. John Radtke Linda & Blaine Griesbach Judie Hinman Steven Lemke

Martin (Sands) Sanderson Morgan Richard (Dick) Percell Stephen Plant Liz Ziganti FRASER SOUTH Carol Stewart **GREAT LAKES** Juliana Medeiros Samuel C. Webb MIDDLE ATLANTIC John Larsen MT ARROWSMITH Jo Graham Jack & Alic Holt Una LeDrew, Davi Ratcliffe Deirdre & Richard Lott Joanne & Bill Marble NANAIMO Elaine Fell Beth Walrond NON-CHAPTER Koichi Kudo Hideo & Kimiyo Matsuawa 07ARK Char Roush Elsie Wallingsford PORTLAND Tina Bissett POTOMAC VALLEY Fred Anderson Donna Bernero Svlvia Diss Ray Gustin Susan Miller, Edward Justice Susan Voss

RSC NIAGARA REGION Iva & Jan Trcka RSC TORONTO REGION Liliana Petrovic SCOTTISH Jens Nielsen SEATTLE Arlen Hill Giao Kaplan Karen Wheeler, Stephen Meier SIUSLAW Lee Goodenough, Fred Buettler Steven Price SOUTHEASTERN Thomas G. MacLennan SOUTHWESTERN OREGON Debbie Daniels Jay Dow Caroline McKemy SWEDISH Per Anders Delshammar Magnus Simonsen TENNESSEE VALLEY David Wedge VALLEY FORGE John & Elisa Barbis VANCOUVER Carol Walker VICTORIA Ian Back Joan Gowan Maureen Hoole WHIDBEY ISLAND Marcia & Brian High

Deceased Members from 1/1/2015 through 5/04/15

Bump, Forrest Derthick, Martha A. Fluharty, David G. Kauffman, Joel Petch, Isabel

Chapter/District/Special Donations 2/25/2015 through 5/27/2015

Donor	Amount	Source	
General Fund			
Agnew, Mr. & Mrs.	\$30.00	In memory of Jim Browning	
Cascade Chapter	\$35.00	Chapter donation from conference	
Campen, Mr. & Mrs.	\$100.00	In memory of G. & R. Mayne	
Hickey, Mrs. Robert	\$50.00	In memory of Jim Browning	
Luppenlatz, John	\$100.00	In memory of Yvonne Luppenlatz	
Mixter family	\$100.00	In memory of G. & R. Mayne	
Piedmont Chapter	\$25.00	In memory of G. Mayne	
Valley Forge Chapter	\$50.00	Chapter donation	
Endowment Fund			
English Language Institute	\$69.00	In memory of Jim Browning	
Levine, S.	\$50.00	In memory of Jim Browning	
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Mezitt, R. Wayne & Beth	\$250.00	In memory of Wally Mezitt	
Middle Atlantic Chapter	\$100.00	Chapter donation in memory of	
		Martha Derthick	
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		Charles McComb	
Snow, Rosalia and Eric	\$100.00	In memory of Forrest E. Bump	
		Erroto	

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Send copy or inquiry to: Sonja Nelson, Assistant Editor Journal American Rhododendron Society

Errata

On the front cover of the Spring 2015 issue of *JARS*, readers were alerted to an article on a new *Rhododendron* species. However, *R. mekongense* is not a new species. The article discusses a new species **record** from Sikkim Himalaya, India. We regret the error.

DEADLINES FOR AUTHORS/ PHOTOGRAPHERS

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