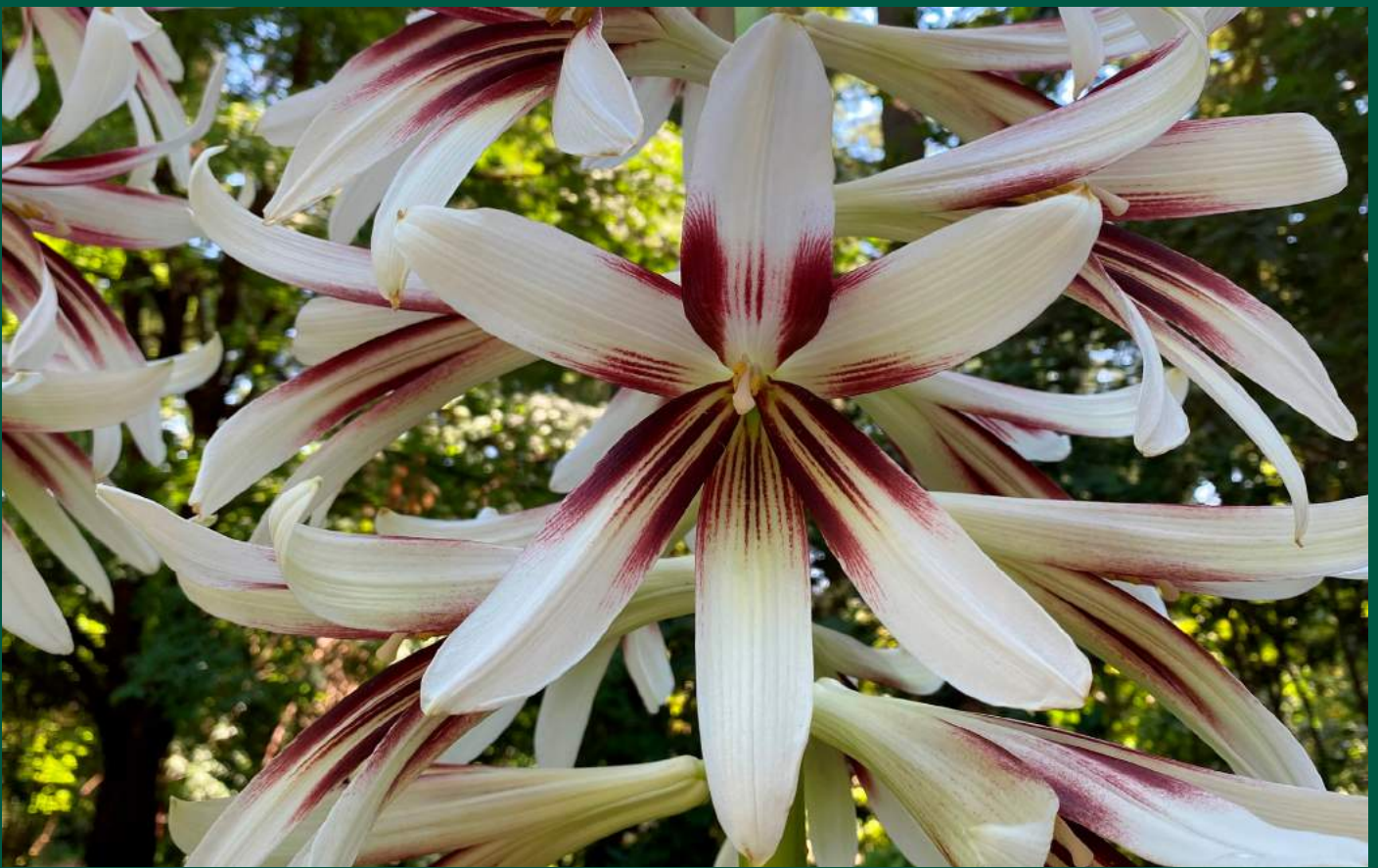

RHODODENDRON

SPECIES BOTANICAL GARDEN

SUMMER NEWSLETTER

VOLUME 46, NUMBER 2



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The President's Corner by Ian Walker

At the 2021 June Meeting of the Board of Directors, I was elected as President of the RSF for the next two years. This is indeed an honor, and I will work hard to live up to expectations.

I would like to thank Sean Rafferty, our President for the past four years, for his leadership and insight. With the issues created by the COVID pandemic, it has been a real challenge to keep things moving forward. This, combined with his work with our landlord to develop a long-term lease for the garden, have been real challenges that Sean has dealt with. His optimism and leadership have been exemplary and real progress has been made.

Also approved at the June meeting was a change in the bylaws to increase the number of Members at Large on the RSF Executive Committee from 3 to 5. The Executive Committee has embraced the Zoom technology which allows us to have a greater variety of experiences represented and increases pool of people available for other Board positions.

The two people elected to the new positions are Peter Norris from Chilmark, Massachusetts, and Chris Southwick from Nanaimo, British Columbia, Canada, both well-known rhody people. We welcome these two and look forward to their participation.

I look forward to getting to know more of our Members, and I ask that you pass along to me your thoughts and ideas for the organization.

Take care and keep on gardening!

Ian Walker, President

ianwalker-rhodyfdn@att.net

Curator's Report by Steve Hootman

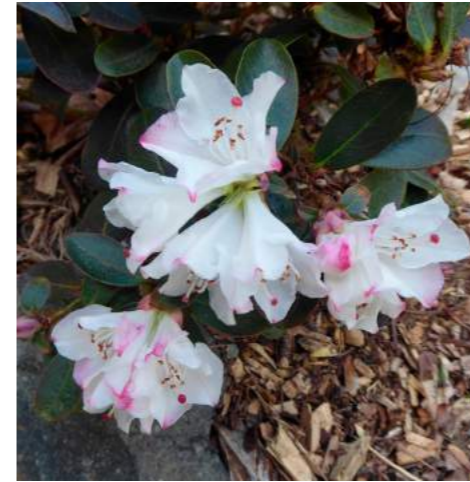
A few notes, updates, and things that I find quite curious

In 1995, on my first expedition to Asia in search of rhododendrons and other interesting plants, I collected a tiny specimen of what I thought to be *R. moupinense*, which we could see growing high overhead on the cliffs. It was growing with several other new introductions including *huanum*, *longipes* and *ochraceum* as well as old favorites *calophytum* and *strigillosum*. A couple of years later, as this plant matured and flowered it was pretty obvious that this was not *moupinense* at all, but rather a very dwarf and compact member of subsection Maddenia. This unknown species featured obovate foliage with tubular-funnel shaped flowers of white flushed pink and seemed to be completely hardy, at least in our climate.



Above: *R. kuomeianum* SEH#171 growing epiphytically on a stump at the RSBG

Curator's Report continued...



Above: *R. kuomeianum* SEH#171

It was widely distributed by the RSBG, Glendoick, etc. under the collection number SEH#171 as "R. species nova" for many years. It was not seen in the wild again until about 20 years later when Jens Nielsen and botanists from the Kunming Institute of Botany managed to relocate it after several attempts in the same location in northeastern Yunnan. They confirmed that it was indeed a new species and just this year, 26 years after it was first collected, they officially described and published this new Maddenia as the species *R. kuomeianum*. Many of you are probably already growing this in your gardens – time to update your label!

As our scope of knowledge in this field is ever changing, there has been another recent name clarification in a very taxonomically confusing group. Scientists have identified the need to change the status of the taxon currently known as *R. valentinianum* var. *oblongilobatum*. This taxon, introduced under the collection number JN#11080 from west-central Yunnan, has a sharply deflexed style, placing it in subsection Boothia rather than as an isolated variety of the species *valentinianum*, a member of subsection Maddenia found on the Yunnan/Burma frontier. Thus, if you are growing this collection the proper name is *R. oblongilobatum*. This is not to be confused with the taxon from northern Vietnam which has also recently been introduced under the name *R. valentinianum* var. *oblongilobatum* but which is an entirely different creature from the true *oblongilobatum* (JN#11080) from west-central Yunnan. The northern Vietnam entity is a Maddenia and is probably best considered a variety of the recently named *R. valentinioides* from adjacent southern Yunnan. For now, until the taxonomy is finally settled, I am calling the Vietnamese plant *R. valentinioides* affinity.

We do our part to try to untangle and explain confusing clines, subsections, and taxonomic uncertainties. If you want to learn more, subscribe to our [YouTube channel](#), where we dive deep into the world of *Rhododendron*

Rhododendron Problems by Atsuko Gibson

Over the last few years, I've been getting an increasing number of inquiries about pest and disease problems on rhododendrons. Our summers in the Pacific Northwest are getting longer, hotter and drier and this is one of the major reasons we are having more issues with our plants. Not only are plants like rhododendrons under more stress but these changing conditions are making it more favorable for pests and diseases to have longer life cycles. For instance, lace bugs were never a huge problem in the Puget Sound region until 10 years ago or so, but now those insects are getting 5-6 generations during the growing season, instead of 1-2. This results in more population of the insects, and hence more damage is noticed. So, what can we do as gardeners to prevent pests and disease? The answer is simple: Keep your plants healthy and water more!

The vast majority of species rhododendrons occur naturally where summer precipitation is a regular event. For those of us in the Pacific Northwest, our climate is very favorable to growing species rhododendrons, except for our dry summer. (For those who live outside the PNW, we normally have very little or no rain between the months of June through September.) Your established rhododendrons, whether species or hybrid, may survive the summer without any irrigation during the growing season, but they will be extremely stressed. This is when the rhododendrons suffer from pests and disease, such as lace bugs, root weevils, and powdery mildew. Irrigating your rhododendrons even once a week would make your plants a bit more resistant to these problems.

What should you do if you have problems with your rhododendrons? Below are my recommendations for solving the common pest and disease problems here in the PNW, based on my experience.

Rhododendron Problems continued...

Rhododendron/Azalea lace bugs: They are very difficult to control organically. You could spray horticultural oil but you must spray on the undersides of the foliage where these pests are present, which can be very challenging. I find it easiest to control by spraying systemic insecticide in late May/early June when the pests start to appear. Depending on the product you use, repeated application might be required. The application should happen when bees are least active (i.e. around sunrise and sunset). Lace bugs will typically not attack rhododendrons with thick indumentum. Determine the cause of the stress of your plant and amend the problem. (Too sunny/shady? Root competition with large trees?, etc.)



Root Weevils: I often see root weevil damage when rhododendrons are planted right under deciduous trees. It's too shady, and they are smothered in the fallen leaves and this provides a hiding place for the insects. Either move your rhododendron or spray insecticide, or you can do what Steve Hootman does at home: go out with flashlight at night and squish them one by one! Root weevils can be a secondary problem to your already stressed plant (i.e. Lace bugs, too much shade, etc.)

Above: Root Weevil damage on *R. roxieanum*
Right: Physiological leaf spots on *R. augustinii*
Below: Powdery Mildew on *R. cardiobasis*

Physiological leaf spots: This is when you see many small black spots on the rhododendron leaves. Leaf spots are caused by several things including fungi and viruses, but cultural/environmental stress could be a reason for this. For example, *R. augustinii* exhibits this symptom some years, especially in container culture, because of the colder-than-normal temperature in winter months. Nothing to be done, just accept the fact that this is how they look. It is unlikely that this will kill the plant.



Powdery Mildew: Some azaleas, especially *R. luteum* and *R. occidentale*, are susceptible to this fungal disease. There is fungicide you could spray, but I would not bother since they will drop the leaves at the end of the season. Rake them up and put them in the garbage. On evergreen rhododendrons, powdery mildew looks like a brownish spots with purple rings. You probably have heard that irrigating in the morning instead of night helps, but I have never seen the problem go away by just doing that. Again, water adequately and limb up your surrounding trees to allow more light. *R. luteum* 'Golden Comet' is an azalea cultivar resistant to powdery mildew.



Root Rot: This is not directly caused by our changing climate, but is a secondary cause. Root rot is caused by poor drainage, and the hotter temperature stresses the plants even more and makes the plants more susceptible. If you see a sudden branch die off, you can suspect it's caused by root rot. The only thing you can do is to increase the drainage by adding well-draining media such as sand. To avoid this problem, plant rhododendrons in a well-drained soil and keep the crown of the plant (the zone where the trunk meets the roots) at the original soil level (do not bury the root ball too deeply!), or even plant your rhododendron high to add extra drainage.

Mystery insect damage: We noticed the girdling type damage on rhododendron bark this year (see the photo.) We have never seen this in the past so we contacted the WSDA. They have been aware of this kind of damage for about 10 years in our region but have yet to identify what is causing this. Let us know if you catch the suspect in action! We think it's some type of hornet. And no, it is not sapsucker.



Above: Mystery insect damage

I could go on and on but I will stop here, as those are the common questions that come up. If you have a problem with your rhododendrons in your region, the best thing is to contact your local extension services to get advice. Just remember, a healthy plant is the best defense for any pest and disease problems. Easier said than done, I know. Water frequently, and mulch your rhododendrons to help prevent the root balls drying out quickly, among many other benefits mulch provides.



Save the date for our first ever Member Appreciation Day! As a way of thanking our loyal Members for their continued support, we hope you'll join the entire staff and fellow Members for:

- Double Discount – 20% off plants and merchandise
- Free food while supplies last – food available between 11am and 2pm
- Mini pruning workshop
- Activities for kids
- Plant advice station
- Access to buy special and rare plants
- Behind-the-scenes garden and nursery tours

RSVP is not required. Please bring your card for proof of Membership. Your Membership must be active on September 12, 2021 to participate.

Species Profile: *Rhododendron pachysanthum* by Will Clausen

Among rhododendrons, there are species known for their flowers and those known for their leaves. *Rhododendron pachysanthum* is certainly one of the leaf species, and in fact it is one of the best in the genus. The new growth emerges in early summer with a fine coating of hair that covers both surfaces of the leaves, the petioles, and the stems. This indumentum is variable in color ranging from powdery silver to bright rusty orange, but it is universally eye-catching. While plenty of other species of *Rhododendron* exhibit a thin layer of indumentum on the upper surface of new leaves, these generally lose their hairs more readily than *R. pachysanthum*. The thin indumentum on the upper surface of the leaf persists through the first year and often beyond into the following summer as a new set of leaves arises. Eventually the adaxial indumentum does fade away to show the true color of the leaf, which is a glossy deep green. In this way the leaves create a gradient of colors and textures, with the fuzzy and brightly colored new growth shining on top, the faded and thinning indumentum of the previous year's growth below, and bare green leaves of several past year's growth underneath it all, giving the plant depth. The undersides of the leaves are also variable but possess a much thicker covering of rusty brown hair which persists through the life of the leaf unlike that of the upper surface. The shape of the leaves is distinct as well, ranging from ovate to ovate-lanceolate with a rounded base and an acute apex. They are leathery and somewhat rugose.

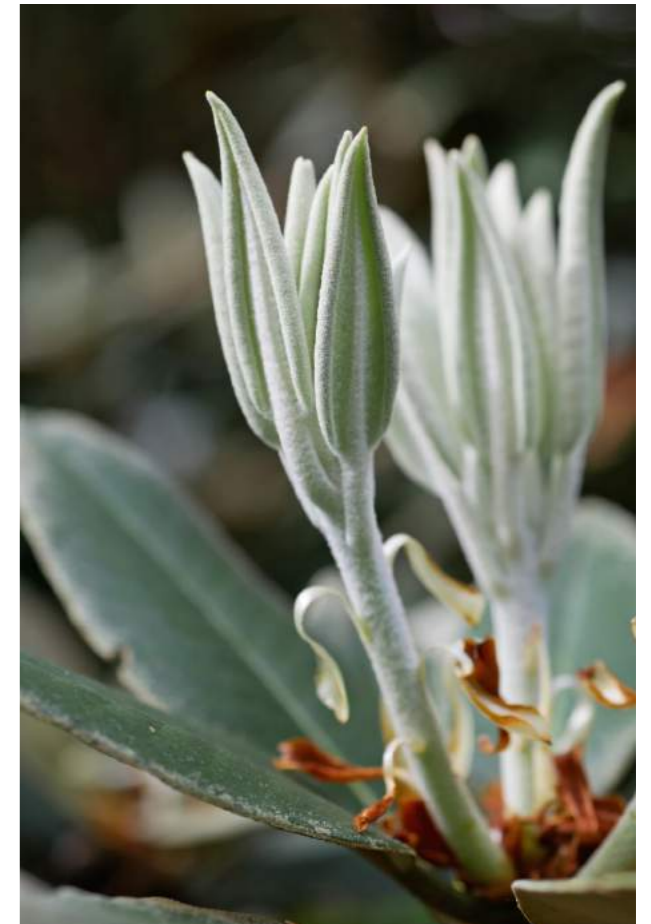
Though this is a leaf species, the flowers are still worth mentioning. As the buds swell in spring, the flowers appear a deep pink. As the flowers develop and open, they generally fade to a light pink or white with faint pink markings. Like the leaves, the flower color varies slightly between individuals. Each inflorescence has from ten to twenty of these campanulate flowers which are somewhat thick textured. The specific epithet "*pachysanthum*" translates to thick flower, though it seems strange to me that a plant with such distinct foliage would have been named for its flowers.



Rhododendron pachysanthum is a member of subsection Maculifera along with some well-known and interesting species such as *R. strigillosum* and *R. pachytrichum*. In the wild it is found over a small range in the mountainous central region of Taiwan above the tree line (its Chinese name translates to "Taiwan Rhododendron"). *Rhododendron pachysanthum* is very closely related to two other species: *R. pseudochrysanthum* which is also found in this same habitat, but is much more common, and *R. morii*, which is found in central Taiwan but at lower elevations below the tree line. Pictures of *R. pachysanthum* in its natural habitat suggest that it is a rather compact and low growing plant, though the specimens we have at the Rhododendron Species Botanical Garden are upwards of 10 feet and are more open in habit, probably because they are growing in part shade and richer soil. On the airy sun-soaked ridgelines that it calls home, the noteworthy indumentum on their new leaves makes a lot of sense as a long-lasting protective covering against solar radiation and desiccating winds.

This species has worked its way through the taxonomic ringer like many others. *Rhododendron pachysanthum* was first described in 1913 in *Icones Plantarum Formosanum* by Bunzō Hayata, a Japanese botanist who worked extensively on the flora of Taiwan in the early 20th century. Unfortunately, his ten-volume work and the herbarium type specimen for *R. pachysanthum* were either not found or disregarded by the authors of some important subsequent works. This was the start of some confusion for the species which was probably compounded by its isolated and rare nature and the relative prevalence of the closely related neighbors *R. pseudochrysanthum* and *R. morii*. In 1930, *The Rhododendron Handbook* did not recognize *R. pachysanthum* as a species and the name was treated merely as a synonym of *R. morii*, a status to which it was held for decades.

Other events further complicated matters. Seed from true *R. pachysanthum* was collected in 1971 (RV#72001) by Dr. Chien Chang Hsu and Mr. Chiang-Sen Kuoh and distributed to growers around the world by John Patrick, but since *R. pachysanthum* was not generally recognized in the available resources and was not known in cultivation, it was originally considered a potentially new species. Elsewhere, seed from *R. pachysanthum* was collected and distributed as *R. nankotaisanense*, a species recognized in the Flora of China as a synonym of *R. pseudochrysanthum*, and a proposed name for the species "*R. venturi*" was mistaken for an accepted name. Both events added to the confusion. Finally in the mid 1970's, the original herbarium specimen had been relocated and the issue began to resolve with *Rhododendron pachysanthum* Hayata reclaiming its position as the accepted name of a distinct species and RV#72001 was realized to be *R. pachysanthum*. However, questions and confusion still haunt this plant. The species seems to be commonly referred to as *R. hyperythrum* in Taiwan, though *R. hyperythrum* is considered a separate and distinct species elsewhere as it is quite different in both foliage and flower. Meanwhile, H.H. Davidian questioned its position in Maculifera, suggesting it belongs in Taliensia instead and that it is closely related to *R. wasonii*. This kind of ongoing confusion is not in any way unique, and the history of this plant and its name illuminates the complexity of plant taxonomy, rules of nomenclature, evolution, and what exactly it means to be a species, among other things.



Here at the Rhododendron Species Botanical Garden, you will find a healthy collection of *Rhododendron pachysanthum* from several different sources. This species grows well in our temperate climate and is relatively easy to keep alive in mostly sunny to partially shaded areas with consistent moisture but well drained soil. In the coming year, we plan to move and expand our display of this species to an area that we have been developing near the center of the garden. The plants will receive a little more sun in this area than they do where they are now, and so we might get them to better mimic the compact growth they achieve in the wild. A new path will run through this area and provide another route between the Alpine Garden and the June Garden, while providing visitors a closer look at some interesting new plantings of species in subsection Taliensia and recently planted magnolias, as well as a better look at some old established plantings including species from subsection Campylocarpa. In the meantime, look for *Rhododendron pachysanthum* in our Fall Catalog. This species makes a great addition to the garden for both rhododendron collectors and general gardeners alike.

Living Accessions at the RSBG

1978/064 Patrick, J., Berg W.
1984/106 Glendoick
1991/039 Berg W.
1993/043 'Pachy Bee' Berg W.
1993/100 Greer, H.
1996/006 RV#72001 Glendoick
1996/010 RV#72001 Glendoick
1997 (seven accessions from ARS 84#603)
2014 (3 accessions from PM#160909 MacDougal, P.)
2015 (6 accessions from PMDT#73 MacDougal, P.)

References

Cox, Peter A. & Cox, Kenneth N.E. 1997. The Encyclopedia of Rhododendron Species. Glendoick Publishing, Perth, Scotland. pg. 102.

Dougan, Dave. "Taiwanese Treasures". Journal American Rhododendron Society Vol.46 Num.3. 1992. <https://www.rhododendron.org/v46n3p175.htm>

Hayata, Bunzō. Icones Plantarum Formosanarum Vol. 3 Pg. 140-141. 1913. <https://tai2.ntu.edu.tw/ebook/ebookpage.php?book=Icon.%20Pl.%20Formos.&volume=3&list=7961>

MacDougal, Philip. "On the Hunt for *Rhododendron pachysanthum*". Rhododendron Species Vol. 6. 2011. Pg 123-132.

Patrick, John. "More on Taiwan Rhododendron". Journal of the American Rhododendron Society Vol. 26 Num. 2. 1972. <https://scholar.lib.vt.edu/ejournals/JARS/v26n2/v26n2-patrick.html>

Patrick, John. "Rhododendron pachysanthum, Hayata". Journal of the American Rhododendron Society Vol. 34 Num. 2. 1980. <https://scholar.lib.vt.edu/ejournals/JARS/v34n2/v34n2-patrick.htm>



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