

(1) Evergreen Azaleas: *Sorting Out the Confusion* by Donald W. Hyatt

Azaleas are very popular florist and landscape plants, but most people are unaware they are actually rhododendrons. For the record, taxonomists have placed the evergreen azalea in the genus *Rhododendron*, in a subgenus called *Tsutsusi*, and beneath that in a section also named *Tsutsusi*. [2] I am not sure how often that comes up in daily conversation, but officially that is where evergreen azaleas reside within the plant kingdom hierarchy.

The United States is certainly blessed with many native azaleas, seventeen species at last count, but they are all deciduous plants. Not a single one is evergreen. All of the evergreen azaleas come from regions of western Asia including Japan, China, Korea, Burma, and Thailand. The evergreen azaleas are often referred to as Japanese azaleas, but that may not be an accurate characterization. The geographic center for this section is probably in China, and only 14 of approximately 60 species are Japanese. [2][5] However, the reality is that evergreen azalea hybridizing and selection has been going on in Japan for centuries and most of the plants we grow have come from there. For instance, the familiar soft pink Kurume 'Pink Pearl,' more properly known by its Japanese name, 'Azuma-kagami,' is a hybrid estimated to be at least 300 years old. [4] Even though many thousands of evergreen azaleas have been introduced over the past three centuries, 'Pink Pearl' still ranks high on the list of garden favorites.



'Pink Pearl' - 'Azuma-kagami'

The late Dr. August E. Kehr, or "Augie as most of us knew him, lamented that evergreen azaleas were not well known in most horticultural circles. He maintained that evergreen azaleas were not appreciated nor have they been well classified and that has led to confusion about these wonderful plants. [5] Even though they are probably the most commercially successful members of the genus *Rhododendron*, it is amazing to think their true potential has barely been touched. In that 1989 article, Kehr estimated that 90% of the available azaleas were developed from just 4 of the 60 known evergreen species: *R. simsii*, *R. indicum*, *R. kiusianum*, and *R. kaempferi*. Hybridizers have been actively using other species like *R. yedoense* var. *poukhanense*, *R. nakaharae*, *R. stenopetalum*, and *R. oldhamii* in recent years, but we have no idea what contributions those other species might make. Most of them are not even in cultivation.

Over the years, there has been confusion about many evergreen azaleas and their species of origin. That started way back in the early 1800's with the first Belgian Indian hybrids, the florist azaleas. They were originally known as Belgian Indicas because they were thought to be descendants of the Japanese species, *R. indicum*. Describing them as "Indicas" is inappropriate since they are actually descendants of the tender Chinese species, *R. simsii*. That confusion lasted for more than a century. Some descendants of those early Belgian Indian azaleas became the Southern Indian hybrids, and those have also been inappropriately described as Indicas.

For years, many early evergreen azaleas were incorrectly identified as species including plants like ‘Indica Rosea.’ That plant is certainly not a form of *R. indicum* either, but is more likely a selection of *R. mucronatum* or perhaps a hybrid. Mucronatum var. ‘Sekidera,’ a popular azalea with large frilled white flowers that have a red blotch, has been sold under multiple names including ‘Magifica’ and ‘Damask Rose.’ Often listed as a species, the plant is unknown in the wild and is probably a hybrid. There is even a double flowered form of *mucronatum* imported from China in 1850 by plant explorer Robert Fortune as *Azalea narcissiflorum*. It is not a Chinese species; the plant had been grown in Japan for hundreds of years under the name, ‘Shiryo-manyo Tsutsuji.’ The name ‘Narcissiflorum’ is still used, though, since an tuft of petaloid stamens in the flower center gives the appearance of a white narcissus blossom. To add to the confusion, there is an old Ghent deciduous azalea with double yellow flowers that also goes by the name ‘Narcissiflorum.’



Double Mucronatum ‘Narcissiflorum’



R. yedoense* var. *yedoense

and then they could refer to that double cultivar as *R. poukhanense* var. *yedoense* but I don’t make the rules. I haven’t been able to make myself to write those long names on plant tags either.

Many azaleas like the deep purple ‘Amoenum’ were classified as forms of a species called *R. obtusum* but that species designation is no longer valid. The members of *Obtusum* group are now considered hybrids of two other Japanese species, *R. kiusianum* and *R. kaempferi*. [4][5] In the Kirishima Mountains on Kyushu, Japan, the natural ranges for those species are in close proximity, and researchers have documented hybridization and introgression between the two. [6][7]

Even with many popular hybrids there has been name confusion. There were two early Kurume collections imported from Japan including the famed “Wilson 50” sent to the Arnold Arboretum by E. H. Wilson in 1917, and comparable number of hybrids originally introduced by the Domoto Brothers after the 1915 Panama Pacific Exhibition. Many were the same plants but

Name changes are always confusing. The hardy lavender Korean species we knew by the name *R. poukhanense* is no longer called by that name. Because of the unfortunate application of certain naming conventions, taxonomists recently stripped *poukhanense* of its primary species status and gave that distinction to *yedoense*, a sterile, double flowered form of the plant that is unknown in the wild. The double form is known as *R. yedoense* var. *yedoense* and the typical form of the species found in the wild is now called *R. yedoense* var. *poukhanense*. I would have preferred that they kept *R. poukhanense* as the primary species name,



Domoto's 'Cherryblossom' - 'Takasago'



Beattie's 'Cherryblossom' - 'Ogi-kasane'

were sold under different names. According to the literature, the familiar hose-in-hose 'Coral Bells' is synonymous with the 'Kirin,' a plant introduced by both Wilson (#22) and the Domoto Brothers. 'Kirin' is supposed to be the same as 'Daybreak' but I have seen a single deep pink Kurume marketed under that name. I'm confused!

In 1929, R. Kent Beattie at the U.S. Department of Agriculture introduced another 127 Japanese azaleas including 60 Kurumes. Only 11 of Beattie's Kurumes were considered duplicates of the Wilson or Domoto azaleas. [4][8] The Beattie Kurumes have generally been overlooked, but there has been some confusion about their names, too. For instance, Wilson #11 ('Takasago') was the same plant introduced by the Domoto Brothers and sold in the United States as 'Cherryblossom.' However, a Beattie introduction (PI #77086) was also given the name 'Cherryblossom' but it was the Japanese variety 'Ogi-kasane' and not the same plant. It is a hose-in-hose similar to Wilson #11, but the flowers are pale lavender pink with a yellowish blotch rather than a pale yellowish pink with red spotting in the throat. 'Ogi-kasane' is a favorite in my garden, but rarely seen in the trade.

The popular lavender spider azalea we know as 'Koromo-shikibu' was among the azaleas that Beattie collected in Japan and but there is even a controversy about that plant. Beattie described the original 'Koromo Shikibu' (PI #77142) as a Kurume that had a "white corolla tipped with purple." [4][8] That is certainly not what we grow under 'Koromo-Shikibu' today and sounds more like Wilson #17, 'Osaraku,' which is also known as 'Penelope.' Most people consider the familiar 'Koromo-shikibu' to be a selection of *R. stenopetalum* (*macrosepalum*). Surely Beattie knew the difference and wouldn't have called it a Kurume. He would have certainly mentioned the unique strap petal flowers in his description. Undoubtedly, somewhere along the way, a few Beattie introductions got mixed up and we may never know what really happened.

Even though so many names have been confused, the evergreen azaleas have never lost popularity with gardeners. The small flowered Kurumes were relatively hardy landscape plants but people desired azaleas with larger blossoms



'Koromo-Shikibu' – Not a Kurume!

like the Belgian Indian and Southern Indian hybrids that would succeed in colder climates. A number of hybridizers were trying to develop hardier forms but the sheer number of hybrids introduced has been overwhelming to many. We cannot possibly grow them all so which ones are the best?

In 1929, Benjamin Yoe Morrison began his monumental hybridizing program while at the U.S. Plant Exploration and Introduction Station in Glenn Dale, Maryland. Morrison raised an amazing 75,000 evergreen azalea seedlings and eventually selected 454 Glenn Dale hybrids. [8] As the first Director of the United States National Arboretum in Washington, D.C., he began planting his best seedlings there on a 30-acre hillside called Mount Hamilton. Starting in 1947, he set out an estimated 15,000 plants representing approximately 1,200 selections including all of the named Glenn Dales. [1]

Of course, when the Glenn Dales were introduced, most retail nurseries were confused with so many choices, many of which looked very similar. Typically they only carried a few of the hybrids so the rest have been preserved and promoted by collectors like those of us in the ASA.

At one time, I had a personal goal of being able to tell the pink Glenn Dale Azaleas apart but I haven't achieved that yet. It is not easy to tell the difference between the pinks that came from a cross of 'Mucronatum' and *R. simsii*. Those hybrids include 'Allure', 'Chloe', 'Circe', 'Concordia', 'Dawning', 'Desire', 'Dream', 'Echo', 'Modesty', 'Roselight', 'Serenity', 'Temptation', and 'Vision.' I must admit I cannot tell them all apart yet. Some of you saw 'Dream' in my garden during the 2009 ASA Convention, a robust plant measuring 8 ft tall by 24 ft wide. I don't have room to grow the rest of those pinks in my garden for comparison. If I ever get to the point where I can sort out the pink Glenn Dales, my next goal will be to work on the whites with colored stripes.



'Dream' in the Author's Garden

The reality is that there may be some of the unnamed Glenn Dale seedlings on Mount Hamilton are better than some of named forms now that the plants have had nearly 60 years to show their true worth. Although unlikely to ever be introduced, the wealth of germplasm on that hillside is of great value to hybridizers and the sheer floral effect of those plants each spring remains a National Treasure and a highlight for visitors who come to our Nation's Capital.

The popular clone 'Ben Morrison' is considered a Glenn Dale azalea. However, Morrison did not name that plan for himself and its origin is really unknown. Dr. John L. Creech,



Unnamed Cream Glenn Dale on Mt. Hamilton

one of the later Directors of the Arboretum, saw that azalea among B.Y. Morrison's unnamed plants and named it for the first Director of the National Arboretum. Many have speculated about the parentage of 'Ben Morrison.' [10] Some feel it could be a sister of 'Surprise,' or perhaps an unnamed Glenn Dale seedling. Others believe it is a sport of another Glenn Dale, possibly 'Luna.' Of course, there is some debate about which plant is the real 'Luna,' too.

In 1926, Pennsylvania nurseryman Joe Gable also started hybridizing evergreen azaleas with the goal of improved hardiness. He crossed available cultivars with hardy species like *R. poukhanense* and *R. kaempferi* to create many hardy hybrids. Gable didn't introduce quite so many azaleas so there has been less confusion about those cultivars. Among my favorites is 'Rose Greeley', a hose-in-hose creamy white. Many Gable hybrids have proven valuable in hybridizing, such as the double coral 'Louise Gable' and the double pink, "Gable's Rosebud'.

The late-blooming Satsuki azaleas were derived primarily from *R. indicum* [4]. B.Y. Morrison brought the first major collections of Satsuki azaleas to the U.S. from Japan, including 53 hybrids in 1938 and 1939. Additional Satsukis were introduced in subsequent years, including 387 clones released in 1978 and 1979 by Brookside Gardens in Maryland. Some did not prove to be winter hardy in our area but others are wonderful. The reality is that most gardeners do not have room for another 400 Satsuki cultivars in their gardens. The question is, where we do find permanent repositories for such genetic diversity?

John Creech shared Morrison's admiration for evergreen azaleas, and from 1955 to 1980 made at least 5 collecting trips to Japan. In 1983, the U.S. National Arboretum released 33 of Creech's new Kurumes, but these are only now getting into the trade. The Creech introductions are exquisite. 'Fukihiko' and 'Tokoharu' have striped flowers, and 'Itten' is white with lavender border. There has also been some name confusion about these plants. For instance, the new Kurume 'Wakaebisu' has delicate single white flowers brushed with red. However, there was already a widely grown Satsuki by the same name, and its flowers are entirely different. They are larger, hose-in-hose, and salmon in color.



Creech's New Kurume: 'Wakaebisu'

Although considerable hybridizing in the United States has been conducted at government facilities and commercial nurseries, amateur hobbyists have made significant contributions. Among the most successful was Robert Gartrell, a chemist by profession. He started hybridizing evergreen azaleas in the early 1940's and continued for nearly 30 years. One of his goals was to produce hardier Satsuki-type azaleas that could survive in northern New Jersey. He made nearly 1,500 crosses and raised approximately 25,000 azaleas, finally registering 69 Robin Hill hybrids. [11] Perhaps because the number of registered hybrids was not excessive and the quality of the selections was so high, the Robin Hill Hybrids as a group have experienced success worldwide.

So how can we resolve this confusion? First, we really need to establish permanent repositories for the genetic material that already exists. Many plants have been preserved in private collections in Japan, but we need public places where these plants can be grown and studied by scientists and amateurs alike. We are very fortunate in the Washington, D.C., area to

have the United States National Arboretum with its wealth of evergreen azalea hybrids and species, but there is not room for them to grow them all. We need additional centers that can house extensive collections of evergreen azaleas.

Second, we need to seek sources of the many evergreen azalea species listed in the literature that are not in cultivation. How many of those sixty evergreen azalea species have you seen and how many do you grow? There are many azalea species I have never seen with long names most I don't know how to pronounce and yet I wonder what they look like. Have any of you seen *rhuyuenense*, *huiyangense*, or *sikayoataizanense*, just to name a few? [2]

Third, although azalea hybridizers do show more restraint than breeders in some other plant societies, we need to be more discriminating before deciding to name plants from a cross. A single azalea seedpod can contain hundreds of seeds and every one should be genetically different from all the others. We need to be sure that any new hybrids superior to existing cultivars before introducing them.

Fourth, it is important that people register cultivars with the International Registrar in order to avoid duplication of names. That way, we wouldn't have quite so many varieties that are obviously different but distributed with the same name. For instance, the evergreen azalea 'Pink Pearl' mentioned at the start of this piece is certainly different from the large leaf 'Pink Pearl' rhododendron so common on the West Coast with its basketball-sized trusses of pale rose pink. In fact, there are several other evergreen azaleas called 'Pink Pearl' including the *R. indicum* selection by Wada with its large, light orange flowers, a double deep pink from New Zealand, and the sport of the Belgian Indian 'Vervaenaena.' Which 'Pink Pearl' do you grow?

Finally, I realize I am not a taxonomist but as a former teacher it bothers me that familiar species names that may have been used in the literature for 50 to 100 years or more can be suddenly invalidated for something as trivial as an error with a type specimen in a herbarium sample. Perhaps scientists might consider a statute of limitations or at least a judgment call as to whether a proposed name change due to some technicality will actually improve clarity and understanding before proceeding. Hey, I wouldn't object if taxonomists wanted to go back to *R. poukhanense* as the primary species name for that big purple azalea in my garden, but that is just my personal opinion.

Bibliography

[1] Bullock, Barbara, "The National Arboretum Azaleas – A Four-year Retrospective", The Azalean, Volume 17, No. 3, Fall 1995.

[2] Chamberlain, D.F. & Rae, S.J., "A revision of *Rhododendron* IV. Subgenus *Tsutsusi*", Edinburgh Journal of Botany, Volume 47, Number 2, 1990.

[3] Davidian, H.H., Rhododendron Species, Volume IV Azaleas, Timber Press, 1995.

[4] Galle, Fred C.; Azaleas, Timber Press, 1985.

[5] Kehr, August E.; "An In-Depth Look at Evergreen Azaleas", The Journal of the American Rhododendron Society, Volume 43, Number 2, 1989.

[6] Kobayashi, N., Handa, T., Yoshimura, K., Tsumura, Y., Arisumi, K., and Takayanagi, K.;

“Evidence for Introgressive Hybridization Based on Chloroplast DNA Polymorphisms and Morphological Variation in Wild Evergreen Azalea Populations of the Kirishima Mountains, Japan”, Edinburgh Journal of Botany , Volume 57, No 2, 2000.

[7] Kobayashi, N., Handa, T., Miyajima I., Arisumi, K., and Takayanagi, K.; “Introgressive Hybridization Between *Rhododendron kiusianum* and *R. kaempferi* (*Ericaceae*) in Kyushu, Japan Based on Chloroplast DNA Markers”, Edinburgh Journal of Botany, Volume 64, No 3, 2007.

[8] Lee, Frederick P.; The Azalea Book, Second Edition, Van Nostrand Co. Inc., 1965.

[9] Livingston & West, editors; Hybrids and Hybridizers - Rhododendrons & Azaleas for Eastern North America, Harrowood Press, 1978.

[10] Miller, William C. III; “More on the Evergreen Azalea ‘Ben Morrison’”, The Journal of the American Rhododendron Society, Volume 42, Number 3, Summer 1988.

[11] Voss, Donald H.; “The Robin Hill Story”, The Azalean, Volume 24, No. 2, Spring 2002.

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