## The United States National Arboretum and Its Azaleas: The Last Ten Years

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## INTRODUCTION

The United States National Arboretum (USNA) azalea collection is a reference collection of documented new and old varieties, species, and cultivars. Within the collection is the group of Glenn Dale azaleas that were planted between 1946 and 1947 on the south face of Mt. Hamilton by the Arboretum's first director, Benjamin Y. Morrison, and breeder of the Glenn Dale azaleas. In late May 2011, a very generous donor provided the Friends of the National Arboretum with \$1 million to support the staffing needed to address routine maintenance of these azaleas, thus preserving these plants for the public and for the historical significance of their role in Benjamin Y. Morrison's breeding work. In 2013, the Agricultural Research Service provided funds to rejuvenate the 67-year-old planting and to remove excess saplings and invasive weeds. The process of rejuvenating azaleas will be discussed further in this paper.

One of the main visitor attractions at the USNA in the spring, is the Glenn Dale hybrid azaleas, introduced by the Arboretum's first director, Benjamin Y. Morrison (1891-1966) (Figure 1). The USNA may have the most complete collection found in the United States. USDA Agriculture Monograph No. 20, The Glenn Dale Azaleas, issued in October 1953 and authored by Morrison, provides some of the background story behind the Glenn Dale azalea breeding program. The actual story is longer and more complex.



Figure 1. Benjamin Yeo Morrison (1891-1966) speaking at the Morrison Azalea Garden dedication, May 3, 1954.

While weeding and restoring the Glenn Dale azaleas, over 190 labels with Glenn Dale (Bell Station) accession numbers, also known as Bell numbers, scratched on them were discovered. These reveal more information about the Glenn Dale azaleas that were planted there between 1946 and 1947. The author, her volunteers and staff found, mapped, and researched these labels, revealing new facts about the azaleas and the and selection program breeding produced them. For more information, a detailed account of the author's findings was published in The Azalean, the Journal of the Azalea Society of America, in two parts: Glenn Dale Azaleas on Mt. Hamilton—The Long and Winding Road to Today, Parts I & II, in Spring and Summer 2017 issues; Vol. 39, Nos. 1 and 2 (Figure 2).



Figure 2. Two-part article in The *Azalean*, Journal of the Azalea Society of America, Vol.39.

Growing within the azalea collection today is one of the most diverse and comprehensive documented collections of azalea hybrids, species, and cultivars to be found anywhere. Our collection of Glenn Dale azaleas is centered around the Morrison Azalea Garden. Located to the northeast of the Morrison Garden on Mt. Hamilton is the area we refer to as the "Loop", a network of trails and beds in a woodland setting that

features the Henry Mitchell Cultivar Walk. Within this area are planted extensive collections of Kurume, Robin Hill, Back Acre, Satsuki, Pericat, Harris, Aromi, and North Tisbury cultivars. These are mainly arranged as sub-collections in group-themed beds within the azalea collection.

Other azalea hybrids that are not as well-represented in the collection are often planted within beds of similarly colored cultivars for comparison purposes. These include the Encore® azaleas, Beltsville, Linwood, Matlack, Marshy Point, Mauritsen, Hirado, Holly Springs, Knap Hill, Belgian-Glenn Dale, Pride, Pryor, Vuyk, Sander, Southern Indian, Weston, and Henry T. Skinner hybrids. Many of these were widely distributed in the 20<sup>th</sup> century, but are not so common now, as newer cultivars make their way into the market. If a cultivar is lost in the trade, it may still be growing at the USNA. Propagators may request cuttings for reintroduction to the trade, for breeding, or for research if they cannot be found elsewhere.

After the dedication of the Morrison Garden in 1952, and Morrison's subsequent retirement in 1954, the azalea collection began to take on its present-day arrangement, and by the mid-1970s the position of curator was created. Beginning in 1958, the USNA actively sought to collect all azaleas that would grow in the mid-Atlantic region. (Incidentally, this was also the year Azaleas by Frederic P. Lee was published by The American Horticultural Society.) And so, beginning in 1958, azalea cultivars began being planted into the collection by their color. The color groups currently found within the azalea collection are the reds, pinks, salmons (orange-pinks, yellowishpinks), purples, whites and bicolors.

For example, within our salmon (yellowish-pink) bed, we have planted several salmon-colored Glenn Dales such as Coralie, Ambrosia, Colleen, Jubilee, Lullaby,

Opera with over one hundred other cultivars of similar color of various groupings and flanked them with low-growing azaleas raised from wild collected seed we brought back from Japan, *Rhododendron indicum*. Arranging the plantings this way enables the staff to educate the public on the range of forms, breadth of colors, flower shapes and sizes, time of bloom and heights found within a single-color palette.

In April 1971, the Frederic P. Lee Garden was dedicated to author and devoted friend of the National Arboretum. Following a suggestion of Lee's, The Lee Azalea Garden features mostly late-blooming Satsuki hybrids that grow in our mid-Atlantic region in hardiness Zone 7B. Over 130 cultivars of Satsuki can be found growing in the garden. Other late blooming hybrid groups planted adjacent to the Lee Garden are the North Tisbury, Back Acres, and the Encore® azaleas.



Figure 3. A sample of Glenn Dale azalea hybrids.

There are only a few Hirado group azaleas due to their lack of hardiness. We have seven cultivars and among these 'Shirokujaku' stands out with its white, four-inch diameter, single flowers and dark

evergreen foliage. We have interplanted these with the late blooming North Tisbury hybrids, and scattered specimens of the Kyushu azalea, *R. kiusianum*.

All of these sub-collections are tied together and nicely interpreted through signage made possible by the friends of the late Henry Mitchell, garden writer and another friend of the National Arboretum. Currently within the azalea collection of over 1,990 living accessions, over 1,560 accessions are *Rhododendron*. We have 530 accessions of Glenn Dales with 388 different cultivars represented (Figure 3 shows a sample of Glenn Dale hybrids).

Our next largest grouping after the Glenn Dale and Satsuki groupings are the Kurumes with 121 accessions representing 106 different cultivars.

Rejuvenating azaleas begins with removing the largest oldest canes, about one third, from each plant (Figure 4).



The most optimal time to do this is in March (or early spring) before the new growth begins to emerge. After completely removing entire branches to the ground, remove all leaf litter that has been building up so that new growth is not suppressed. This should be done again after the following autumn season until new growth has become well-established. In less than three years, the azaleas will be full and vigorous.

Since the renovation of the Glenn Dale Hillside, we have begun replanting the bare areas with Glenn Dale cultivars which we raise from cuttings taken from the Morrison Azalea Garden. Work is accomplished by group projects with help from staff, volunteers, volunteer work groups, and interns funded by the Friends of the National Arboretum.



Figure 4. One year after rejuvenation (left image); three years after rejuvenation (right image).

A pair of Bald Eagles has set up residence in a tulip poplar on Mt. Hamilton high above the Glenn Dale azaleas since 2015 which means a portion of the Glenn Dale Azalea Hillside is closed when the eagles are raising their young (late December to mid-July). To view the eagles, live go to www.dceaglecam.org.

Visit www.usna.usda.gov/abe (Arboretum Botanical Explorer) a plant search/finder for information on mapped inventoried USNA plants. The USNA mobile app is now working for both Apple iOs and Android phones. Search "National Arboretum" in iTunes for our Mobile App to find plants while you're visiting the USNA.

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