very five years we celebrate the completion of a comprehensive inventory of our living collections. Beginning in 2015 on the crabapple slopes of Peters Hill and ending in 2019 among willows across from the Hunnewell Building, each plant in our collections has been closely scrutinized by curatorial staff. Over fifteen thousand plants comprise the permanent collections and over the course of our inventory work, tens of thousands of observations are logged to characterize plant performance.

Our ability to track the living collections is greatly enhanced by technology. Laptop computers are worn in the landscape. Databases are updated in real-time and archives (e.g., hand drawn maps) are accessed directly in the field. For over a decade, in partnership with information technology staff, digital solutions have replaced many paper systems of the past. Our day-to-day inventory work includes measurements (e.g., diameter at breast height), observations (e.g., phenology, pest and disease symptoms), label assessments, and map refinements. Little known activities such as identity verification are also routine and ensure our plants are relevant to the broadest audience.

Arboretum staff at all levels ensure plants are true to type, or correctly named. From seed to seedling, juvenile to mature plant, name changes are not uncommon. Taxonomy drives many nomenclatural changes. Alternatively, a plant’s identity may be incorrect or confused. A nursery or collector in the wild may send misidentified material whose true identity may not be known for a period of time. The regularity of our curatorial field work often provides unique opportunities to confirm or refute identity.

The Bradley Rosaceous Collection is idyllic in late May. Advancing day length initiates flowering in roses collected from across the globe. Birds build nests and tend broods. Visitors lay open books and easels. And schoolchildren, guided by Arboretum educators, covey discoveries with enlightened voices. Against this backdrop of public garden activities in 2018, curatorial intern Conor Heffer and I settled into routine inventory work in the Bradley Garden.

Twenty beds filled with shrubs, herbaceous perennials, and trees comprise the Bradley Rosaceous Collection. More than 870 plants are found in the garden and a summer passes before inventory work concludes. Field checks in bed five advanced at a comfortable pace. Observations of species roses dominated the morning and we moved in order to Rosa spinosissima ‘Williams’ Double Yellow’ 795-39*A—a noble English cultivar. But something was wrong. The flowers didn’t look right. Instead of a double flower form, implicated by its name, single form flowers were held in abundance. Convinced a label was in error we turned to nearby plants, but these were all correctly labeled and mapped. An online description was read aloud. Only “heavy scent” (albeit subjective) matched the plant before us. Petals in pale yellow hues fell short of the bright yellow cultivated standard. A database entry was logged: not true to name. We retreated for lunch. The sundrenched specimen with incorrect traits blazoned in our minds.

The next day, we began our research of the rose, delving into the raft of documentation that supports each accessioned plant gracing the landscape. We pulled herbarium specimens, consulted hand-drawn maps, and interrogated our database of record (BG-BASE). The Horticultural Library supplied additional plant descriptions, and the curatorial team discussed findings and their meaning. The story that emerged is not uncommon in a garden—transplant puzzlement.

Rosa spinosissima ‘Williams’ Double Yellow’ was acquired in 1939 from Bobbink & Atkins nursery in Rutherford, New Jersey. Grown in and around our present-day Bradley Rosaceous Collection, it was transplanted a remarkable seven times. Declining health, division, and two major rose garden renovations moved the shrub from nursery to grounds regularly. We know the plant was true to type as evidenced by herbarium specimens
collected in 1964 and 1981. Detailed field notes recorded in 1982 by Gary Koller, then Supervisor of Living Collections, bolster its identity. An herbarium specimen collected in 2009, during the most recent garden renovation, supports our observations of identity confusion. And while the direct cause may never be determined, theories emerge. Perhaps a label was hung in error and the wrong plant dug and transplanted. Or simpler still, the plant died and nobody noticed. A sucker from a nearby specimen may have outcompeted the true specimen. In a garden where so much is known, the value of a plant with lost identity is greatly diminished. In the case of the masquerading *R. spinosissima* ‘Williams’ Double Yellow’, it was removed.

At a highly-collaborative institution like the Arnold Arboretum, a growing number of people contribute to our formal inventory work. Curatorial staff have shared best practices and field work techniques with Isabella Welles Hunnewell horticultural interns, Norfolk County Agricultural High School interns, and The Green Team (a student environmental club sponsored by the Massachusetts Executive Office of Energy & Environmental Affairs). Beyond raising curatorial awareness, the perspectives and ideas of these students invigorate our program. We extend a note of gratitude to each person who advanced inventory work over the last five-year cycle.

On a personal level, I relish the work we do to inventory the living collections. It offers intimate contact with storied plants hailing from habitats both near and far. It fosters meticulous collaboration in the documentation of how our plants perform in our landscape, and in the resolution of baffling mysteries. It affords chance encounters with wildlife, and compelling interactions with curious visitors eager to learn and support our mission. As we initiate the next half-decade inventory cycle in 2020, new wonderments will emerge. We look forward to sharing these with you.