Curatorial achievements can be measured on varying timescales. During the growing season, days are spent collecting fruit and flower vouchers for the Cultivated Herbarium. Weeks may be devoted to collecting new seeds and seedlings from wild populations in far-away places. Months of meticulous transcription move handwritten archives from the nineteenth and twentieth centuries to the digital realm. And, as we now celebrate, five years of field work yield up-to-date plant inventories—a comprehensive census encompassing the entire living collection of the Arnold Arboretum is just completed.

While our field work is steeped in tradition, the level of scrutiny given to each plant now follows a robust written protocol—a Plant Inventory Operations Manual written in 2010 and updated in 2011. Our goal was to surpass previous high standards, dedicating additional resources to properly assess performance, take new measurements, and coarsely verify every plant in the permanent collection. To accomplish this, we used a live connection to the database for the first time and cataloged observations digitally in the field. Perhaps most impactful has been the appointment of a Curatorial Fellow who assists field-checking duties for the entire year. Revamped methods and new technologies kept our eyes on the collections more over the past five years than ever before. This has led to better label, map, and observational data resources on the surface, while beneath it has led to a more intimate understanding and appreciation for the plant collections and their value.

Beginning with an American beech (Fagus grandifolia #26-80*A) near the southernmost point of the Arboretum and ending with a cucumber tree (Magnolia acuminata #487-40*A) at its northern edge, every one of our nearly 15,000 accessioned plants has been observed through this new approach. We enter the landscape armed with a laptop computer to catalog observations, and tools to adjust plant labels and measure the diameter of each tree stem at breast height. Maps depicting plants, contours, landscape management zones, and hardscape features guide the way and are annotated with follow-up tasks. These may include label needs, the capture or recapture of GPS coordinates, or follow-up for identity verification. After field-checking each area, a walk-about with collections managers and horticulturists often follows to summarize curatorial work and inform next steps.

A total of 10,184 anodized aluminum records labels were twisted around branches or attached by basal screws over the Arboretum’s first five-year inventory cycle (2010–2014). An additional 402 trunk labels (above) and 340 stake mounted labels were deployed within named garden areas.
While curatorial staff lead the formal inventory work, horticulturists and researchers also log important, ad hoc observations to our databases. In addition to an objective health assessment of a plant’s condition, many other types of observational data are collected. These include phenology (e.g., flowering, fruiting, autumn color) as well as notes on habit, structure, injury response, hazards, pests, diseases, ornamental merit, floral fragrant notes, and—in the case of select crabapple specimens—fruit flavor profiles. Remarkably, during this past inventory cycle, more than 38,000 different types of observational data points were catalogued by the field check team. Taken together, these data inform a multitude of collection management decisions and assist researchers in their independent investigations now and well into the future.

Another hallmark of the last half-decade of inventory work has been our documentation of existing, yet unaccessioned plants in our landscape. While many of these “witness plants” are depicted on our various archival map resources, very little if any additional information had been collected on these plants over time. Some were spontaneous since the Arboretum’s founding, many predate it. To ensure a regular cycle of inventory and to increase their value to research, more than 600 previously undocumented plants were officially accessioned.

Five years ago we aspired to change the way we inventory our living collection for the better. We accomplished this, and with the completion of our first comprehensive census, our plants are rendered in finer detail than at any time in our history. We look forward to sharing more of our work and discoveries with you—find us inventorying collections on Peters Hill this spring! 😊

Anatomy of an Arnold Arboretum Plant Label

Ideally, all accessioned plants in the Arboretum’s living collection bear two anodized aluminum record labels, which carry essential identification and inventory information of interest to scientists and visitors alike. From the top, you’ll find the accession number with letter qualifier (denoting individuals of an accession) along with the family name; botanical name of the taxon; an abbreviation denoting the means of propagation (e.g., SD means “seed”), lineage number (for plants descending from historical accessions), and accession year; provenance information including source and collection data; common name if applicable; and the grid location of the plant according to the Arboretum’s mapping system. Look for these tags hanging from a low-lying branch or stem, attached by a basal screw at ground level, or tied to an adjacent stake. If a tag cannot be found or is missing, you can also access this information and additional resources on your smart phone by pinpointing your exact location in the landscape using the Arboretum’s interactive map application, Arboretum Explorer [http://arboretum.harvard.edu/explorer/].