Although in some instances we have a good idea of how climate will be different in 50 or 100 years (or sooner), the ball is not truly crystal clear. What we do know is that things will be different. Those shifts in climate—elevated temperatures, altered precipitation patterns, or other changes in seasonality—will undoubtedly influence what and how we cultivate. What happens to a temperate arboretum in Boston will be different from a conservatory in Pittsburgh, or an alpine garden in Vail. It would be fruitless for me to delve into specifics in a general essay, and also inappropriate for me to tell another garden what to do. However, I offer up a perspective that I hope is useful to curators as they prepare their collections for this oncoming maelstrom.

Know your priorities

Whether your collections are threatened due to climate change, novel pathogens, or economic downturns, the best defense is having firm institutional priorities. You should know which collections are most important, which are less so, and how to deploy resources to maintain them under routine or emergency situations. Thus, if you have not done so recently, ask: What about your living collection makes your public garden the unique singularity that it has become, and why? How you choose to define collections value matters less than the fact that you have, indeed, defined it. The goal is to identify the collections, and their functions, that are central to your mission, and distinguish them from those that may serve important, but perhaps lesser roles. High priority collections might be:

• An NAPCC collection that supports research;
• A wild-sourced planting of a recalcitrant-seeded species maintained for conservation;
• A landscape that preserves an historic design;
• A teaching garden that routinely serves students; or
• A woodland walk that emotionally restores your visitors.

Your institution likely possesses several essential collections like these, or others. How committed to those priorities is your garden? Do you suspect those priorities might change, perhaps in anticipation of climate trends? Rankings are malleable, but change should only occur through a deliberate, thoughtful process. Once prioritization is complete, review your strategic plan and collection policy to ensure these collections are appropriately represented. If adjustments are required, now is the time, as these documents become the compass your garden will use to respond to the vagaries of climate change.

Know what you have

Knowledge is power, and I like to make evidence-based decisions. The curatorial decisions we, and our successors, must make about our collections require a firm foundation of information. Because it is easier to build that foundation now, we should get started with the basics. Yes, we can generate plant lists and quote the number of accessions on the website. But, do you really know what is in your collection? When was the last complete inventory conducted, and how confident are you in the results? Ideally, the inventory confirmed the location of each and every plant, and evaluated its well-being using an objective health rating that was not simply a reflection of pretty flowers. Tracking plant health is important,
particularly as we deal with a future when plant performance is expected to vary. Do not forget other documentation, such as passport information on the accession’s origin, or records of how it has been used for teaching or research. Realistically, it might not be feasible to inventory or review the collection all at once. However, because you have already assigned priority in the earlier exercise, you now know where to initially concentrate your efforts. Be sure all of these data and determinations are known and accessible. In the spirit of sustainability, it is imperative that our collections and systems (from planning and process to data management) are well documented and able to transcend that silent, but deadly assailant: staff turnover.

Use the information

Assigning priorities and taking stock of collections allows us to plan ahead. If there are high-priority conservation accessions to be re-propagated or repatriated to other repositories, do it well in advance of their demise while you have the time. Likewise, if some plants within your collections serve key educational roles but are likely to decline in the future, prepare by identifying suitable replacements that convey the same teaching lessons. Do not forget contemplative beauty, either. If established displays might prematurely senesce, all the more reason to think ahead about their substitutions.

Diligent record keeping and analysis will be required to assess collection health and response to the changing environment. Certainly, we must use the information to make internal management decisions about what to cultivate, and where and how to do it. The information also has value outside our garden gates. We may know more about how plants “work” than at any other time in history, but the need has never been greater. In too many cases, our understanding of a species’ biology must stay steps ahead of its extirpation from the wild (or in worse case scenarios, the tree zoo). The raw materials for research, our living collections already do and will continue to generate these necessary data. Provided we have systems in place to study and document them, living collections that may appear random and scattered have profound potential to coalesce and become bellwethers at local, regional, national, and international scales. In fact, the Sentinel Plant Network shows amazing promise in organizing, interpreting, and sharing such information. No doubt, other opportunities exist as well.

This leads me to a final point: collections advocacy. Not only must we practice the basic curatorial tenets above, but we must hone our messaging about the importance of our living collections. Advocacy begins at home, so make sure every member of your garden’s staff, board, and membership is aware of what you uniquely possess—and the importance of preserving it for the future. Those messages must then be amplified. We may not know exactly how climate change will affect our living collections, but through prioritization, documentation, study, and advocacy, we will give our collections the best fighting chance.

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