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## Plant hunters

### Once-exotic species were trophies of perilous expeditions

By VALERIE [SUDOL](#)

STAR-LEDGER STAFF

Chances are your garden includes many favorite and familiar plants of the modern American landscape — wisteria, old-fashioned bleeding heart, tiger lily and maybe balloon flower or the ubiquitous Ailanthus, the tree that grew in Brooklyn.

Perhaps you believe that these are native plants; you might guess that where these plants came from is a spot no farther away than a nearby garden center or nursery. Yet every one originally was collected from a remote region of far-off Asia, and was found only after arduous travels fraught with real peril.

Trophies of often miserable and lonely expeditions, many of our commonest plants were actually introduced into Western cultivation through the efforts of a small but determined band of plant hunters. Especially during the 19th and early 20th centuries, hardy men like Joseph Hooker, Reginald Farrer, David Douglas, Robert Fortune and E. H. “Chinese” Wilson plodded over high mountain passes, hacked their way through primeval forests and faced bloodthirsty leeches and jaguars, all in the name of science.

Some were the agents of great botanical institutions, such as Kew Gardens outside of London or the Arnold Arboretum in Boston. Some were in the hire of commercial nurserymen eager to whet public appetite for new and exotic species. Few were unchanged by their experiences in Japan and China, Tibet and Burma, the American Northwest and the Pacific islands — and some never made it home.

“What these explorers were after was something new, something no one else had, or species of a known plant with a different form, color or growth habit,” says [Fred Spicer](#), horticultural superintendent for the Morris County Park Commission. “New, better, different — that’s what drives the marketplace.”

[Spicer](#) can’t avoid a lively interest in the romance of “botanizing,” since he is headquartered at Willowood Arboretum in Chester, which has a special connection with Wilson, celebrated by many as the most intrepid plant hunter of them all. The arboretum occupies the 140-acre “Paradise Farm” purchased early in the century by Robert and Henry Tubbs, New York City businessmen (originally from Pennsylvania) and avid horticultural enthusiasts. They filled their new gardens with a wealth of plant treasures, including some solicited in the late ‘20s directly from Wilson, who by then was “keeper” of the Arnold Arboretum.

## LIVING SOUVENIRS

Today, Willowood's Wilson collection includes living souvenirs of the plant hunter's travels, such as the paperbark maple, the dove tree, two species of magnolia and the dawn redwood, a deciduous conifer once believed extinct. The conservatory shelters specimens of the Chinese house lemon, which Wilson is said to have discovered in a remote province, where natives grew it in containers as a winter-bearing fruit tree.

But the legacy of Wilson and his rivals lives on in more than the leaves and stems of extraordinary trees, shrubs and perennials. Since the late '70s and early '80s, a new wave of modern plant hunters has fanned out across the globe, and Willowood is among the institutions back in the expedition business.

[Spicer](#) himself leads volunteers on field trips through the Pine Barrens and Morris County parklands to collect seeds from native plants that are distributed to horticultural institutions worldwide through the Index Seminum (literally, seed list). Among species collected are deciduous native azaleas, American and winterberry holly, the spotted wintergreen and — surprisingly — poison ivy, which is a prized specimen in European collections of medicinal and toxic plants.

“The lists and the seed are freely exchanged, and free,” says [Spicer](#). “It's one way small organizations with small budgets can access wild-collected materials.”

Another way is through more formal cooperative ventures. The Willowood Foundation is supporter of the North America-China Plant Expedition Consortium, created in 1981.

## COOPERATIVE VENTURES

Cooperating institutions are the Arnold Arboretum; the Morton Arboretum in Chicago; Longwood Gardens in Kennett Square, Pa.; the National Arboretum in Washington, D.C.; the Holden Arboretum in Cleveland; the University of British Columbia Botanic Garden in Vancouver, and the Morris Arboretum of the University of Pennsylvania in Chestnut Hill, Pa., where NACPEC founder Paul Meyer is director. Also crucial are participating Chinese botanists, who scout likely locations and provide travel and translation services to the visiting explorers.

“I had done an internship in England with Roy Lancaster, perhaps the most noted of the modern-day plant explorers, went with him on a trip to Nepal ( or china?), and later worked with him at Longwood,” says Meyer. “When I arrived at the Morris Arboretum, I found the core of the collection came from the turn of the century — the great era of the plant collectors. But living things get old and die, and botanic gardens like to have plants of documented wild origin to replace old specimens and renew the vigor of the gene pool.”

Today, plant hunters often are not looking for new and unknown plants — although sometimes, with unbridled glee, they do find them. More commonly, they are seeking out variations on a known theme: plants with different foliage than the species grown in the West, or with taller or shorter mature heights, different blossom colors or greater resistance to disease, cold temperatures or browsers like deer.

Armed with Global Positioning Satellite technology and laptops, rather than unreliable maps and frayed notebooks, traveling in minivans, rather than by mule train or strictly on foot, these plant hunters are revisiting the scenes made famous by the accounts of their pioneering counterparts.

“Computers are crucial to record-keeping and retrieval, and GPS allows us to pinpoint the location of a plant — its longitude and latitude — literally within a few feet,” says Meyer. “Let’s say one of the plants we’ve collected turns out 75 or 100 years from now to have an alkaloid that cures cancer. Our successors will know exactly where we collected it, what its habitat was and what plants were associated with it.”

Then, too, today’s plant hunters are often looking to expand the gene pool or germplasm of cultivated species, points out Meyer’s colleague, Anthony Aiello, curator and director of horticulture at the Morris Arboretum.

“Because nearly all of certain plants in Western cultivation are derived from a few imported specimens, genetic bottlenecks form and plants can become inbred, losing vigor,” says Aiello. “The paperbark maple, *Acer griseum*, is one good example: It’s a beautiful plant with great fall color and lovely exfoliating bark, but it tends not to produce viable seed. With new, wild-collected genetic material, we can cross-pollinate with our existing stocks and maybe improve the species.”

## **HYBRIDIZING SPECIMENS**

[Spicer](#) mentions other sought-after developments that might, through cross-breeding, restore some of our most beloved plants.

“It would be great to have a hemlock resistant to the woolly adelgid that’s decimating our native stands, a new American chestnut with the blight resistance of the Chinese form, a hardier white birch, a hydrangea that flowers on new wood and is less likely to have buds destroyed by frost damage,” he says. “Often this takes years of hybridizing, though, and the lag time between discoveries and a direct benefit to the homeowner sometimes is quite long.”

Sometimes, but not always. Very much a part of the modern plant hunting phenomenon are individuals who seek out new and different species that they can offer pretty directly to the public. These “micronurseries,” like 21st-century microbreweries, often are capitalizing on the appeal to connoisseurs and collectors of limited but select wares.

Plant hunters of this ilk, eager to see American gardeners expand the range and diversity of their gardens, include Daniel Hinkley of Heronswood Nursery in Washington, Tony Avent of Plant Delights Nursery in North Carolina, Barry Yinger of Asiatica in Pennsylvania (who is right now in Japan), and Robert Popham of Fairweather Gardens in Greenwich, an 18th-century town in New Jersey’s Cumberland County.

“I started this nursery with Robert Hoffman about nine years ago when we simply could not find the rare and unusual things we had read about and wanted to grow,” says Popham. “We get some things through arboretums that are willing to share with professionals who can help evaluate new plants. And we do quite a lot of exploration on our own, logging about 20,000 miles a year between the two of us.”

On a recent trip to Argentina, Popham located species of *Eryngium*, best known to gardeners here as sea holly. With larger, spinnier leaves and brown or greenish-yellow flower stalks, the new varieties are suited to cultivation in the Western states. The nursery also offers plants that are not necessarily new but are relatively unknown: cold-hardy camellias that can be grown in Zone 6 (most of New Jersey), varieties of redbud, a spring-blooming tree, in new colors and a weeping form; carnivorous pitcher plants that make good bog or water garden subjects and hellebores not only bred in England and Germany, but the exceptional *Helleborus tibetiana*, native to Tibet.

“China is a never-ending source,” says Popham, who scoffs at skeptics who believe everything there has already been discovered. “Much of China lies in temperate zones like ours, and because the glaciers never penetrate deep into the south, there’s a great deal more speciation there than in, say, Europe, where so many plants perished during the Ice Ages.”

Experts estimate that China alone has some 30,000 species of vascular plants, compared to about 10,000 species for all of the United States and Canada. Some of those plants enjoy conditions that can be duplicated here and hold potential as new and valuable landscape subjects.

Popham points out that New Jersey, lying at the cusp of northern and southern plant ranges, can support many more plants than the average gardener might think. He offers many plants native to Mid-Atlantic states like Delaware, Maryland and Virginia, as well as species from central Florida that can tolerate our winter temperatures.

“When I first encountered the Florida anise, *Illicium floridanum*, at a rest stop on the Georgia-Florida line, I thought it was the most beautiful thing I ever saw,” says Popham. “It gets red or white star-shaped flowers in spring. Two other great finds are *Cyrilla* species, shrubs known commonly as weatherwood or scrub titi, that bloom in summer with fragrant white flowers — perfectly hardy in Zones 6 and 7.”

Unfamiliar corners of our own continent and the wider world beckon with a seemingly unending variety of botanica. Modern plant hunters, like those of the past, want to bring it all home.

“I once heard it said that, in this country, people grow about 50 kinds of plants, using the same things over and over,” Popham comments. “But if you have a garden with lots of diversity, it’s not only interesting to look at but attracts interesting wildlife, too.”

There’s something to think about the next time you reach for the same old flat of petunias or impatiens. Through the Internet, mail order and specialty nurseries, you can explore new species without leaving the neighborhood.

“Meanwhile, the hunt continues,” as Popham says, “and the travel is always exciting.”