PARTNERS IN PLANT EXPLORATION

NACPEC China Expedition Yields New Collections

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Spurred by nineteenth century botanists whose work suggested a relationship between the floras of North America and Asia, the Arnold Arboretum began exploring and collecting the woody plants of China more than a century ago. This activity remains a major part of the Arboretum’s mission and collecting focus, particularly as science has advanced more information about how plant species from each continent share common ancestry and, often, genetic compatibility. The establishment in 1991 of the North America-China Plant Exploration Consortium (NACPEC), an organization of U.S. and Canadian botanical institutions interested in obtaining Chinese plants from the wild for study and distribution, has played a crucial role in enabling the Arboretum to make the most of its collecting efforts in this arena through collaboration.

Arboretum Curator of Living Collections Michael Dosmann participated in NACPEC’s most recent China expedition, gathering plants in Shaanxi, Hebei, and Beijing Provinces last fall. For three weeks beginning in late September, Dosmann documented and collected a number of targeted species from the wild with Tony Aiello of the Morris Arboretum and Kang Wang of the Beijing Botanic Garden. “There are tremendous benefits in visiting wild populations of plants,” observed Dosmann. “For instance, not only does one learn about their natural ecology, but this knowledge in turn is extremely valuable in figuring out cultural requirements and growth patterns once we bring them into cultivation.”

The team amassed more than 40 unique seed and herbarium collections, including Viburnum glomeratum, Styrax hemsleyana, Rhododendron pardiomii, and Stachyurus chinensis. Ashes (Fraxinus spp.) were collected as part of efforts to identify species that may be resistant to emerald ash borer (Agrilus planipennis), a pest that poses a major threat to the genus in America. Also of interest are collections of eight species of maple (Acer spp.), a number of which are new to the Arboretum and, like many of the acquisitions of previous Arboretum plant explorers, may be novel to Western horticulture as well. Due to the dangers that untried exotic species can pose to natural ecosystems, these plants will be grown in the isolation of the participating institutions until their potential for invasiveness has been thoroughly tested.

Since 1991, members of NACPEC have combined forces to explore and document China’s astounding biodiversity. By collecting extensive field documentation, herbarium specimens, and particularly germplasm, NACPEC expeditions enable partner institutions to amass and share significant data about Chinese plants and their ecology. These endeavors are becoming increasingly important, as rapid development and the effects of climate change threaten the survival of Chinese plants and the habitats they populate. By banding together in exploration, subsequent cultivation, and evaluation efforts, NACPEC institutions benefit from combined expertise and a shared vision to address the ecological challenges of our time.