A Leader Among Conifers
A Profile of 2012 Plant Giveaway Offering *Thujopsis dolabrata*

*Kyle Port, Manager of Plant Records*

Each September, the Members’ Plant Giveaway gives Arboretum staff the opportunity to share some of our favorite plants with our community of supporters. Among the event’s diverse selections of trees, shrubs, and vines this year is *Thujopsis dolabrata* (pronounced “thoo-yop-sis do-lah-brah-ta”), an exotic conifer worthy of a closer look.

A species native to Japan, *T. dolabrata* bears hatchet-shaped leaves that are waxy green with conspicuous white stomatal banding on their abaxial (underside) surface. Stomata (or “mouth” in Greek) are openings on the surface of leaves which regulate gas exchange through minute pores. Winter temperatures lower than -5 to -10 degrees Fahrenheit (USDA Zone 6a) can damage *Thujopsis* leaves, compromising what is arguably the tree’s most ornamental structure. Mature individuals bear cones which have been observed over the past several years on a variety of the species (*T. dolabrata* var. *hondae*, 1163-73*A*) grown in the Leventritt Shrub and Vine Garden.

The living collection provides opportunities to observe how species grow outside of their native range. Although *Thujopsis* is formally described as a tree, four of the seven specimens at the Arboretum have displayed decidedly shrubby habits for decades. Though recently each of these four has produced multiple leaders, the tendency of the species to grow low and layer is an important landscape consideration. Among these, the largest and oldest (635-59*A*, circa 1959) stands 15 feet tall with a spread of 20 feet. The remaining three exhibit an arboreal habit and thrive in the Explorers Garden on Bussey Hill in partial shade. Shade-grown *Thujopsis* leaves are darker green and more lustrous than those bathed in full sun, which tend to display more yellowed hues. New growth across various light levels emerges a delicate lime green.

*T. dolabrata* offered at the 2012 Members’ Plant Giveaway come from cuttings collected from accession 1713-77*B*. One of the historically shrub-like individuals at the Arboretum, this specimen has only recently begun to establish leaders. Grown in a display bed on the perimeter of the Arboretum’s Dana Greenhouse, this vigorous specimen was wild collected on a 1977 expedition to Japan and has long facilitated plant material distributions.

Collections development efforts yielded a new accession of *T. dolabrata* var. *hondae* (272-2008) in 2008. A variety considered harder than the species, this plant was collected by Polly Hill Arboretum staff at the side of a railroad track in Aomori prefecture, Japan. Meticulously cared for by Dana Greenhouse staff, these plants will support research and perhaps inspire the propagation of future introductions. Its collection serendipitously recalls the discovery of *Picea glauca* var. *albertiana* f. *conica* (dwarf alberta spruce) by famed Arnold Arboretum staff members John G. Jack and Alfred Rehder “…while awaiting a train that was behind schedule near Lake Laggen, Alberta, Canada in 1904.” Everything old is new again, and our time-honored tradition of sharing remarkable plant discoveries with the world continues to enrich gardens closer to home.

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