

The Castor Aralia, *Kalopanax septemlobus*

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K*alopanax* is a monotypic genus in Araliaceae, the ginseng family. The lone species, *K. septemlobus*, is a dominant tree in northeastern Asia (Japan, China, Korea, the Russian Far East) where it is valued for the ethnopharmacology of its plant parts and its timber quality. Across Korea, overuse has threatened some wild populations and there are now calls to protect the species.

Castor aralia is a large deciduous tree that can grow to nearly 100 feet (about 30 meters) tall and has an average trunk diameter of about 40 inches (about 100 centimeters). Its stems are armed with stout prickles that yield to thick, deeply furrowed bark with age. It has very large (to 14 inches [36 centimeters] in diameter), long-petioled, 5- to 7-lobed leaves that may turn brilliant greenish yellow in autumn. Castor aralia bears large, wide (to 12 inches [31 centimeters] in diameter) inflorescences with numerous small umbels of white flowers that open in August and September here, providing late season nourishment to an assortment of pollinators. Successful pollination yields abundant blue-black fruits that are retained into winter.

A single castor aralia plant was sent to the Arnold Arboretum in January 1881 by Alphonse Lavallée of Segrez, France. This inaugural specimen was accessioned as *Acanthopanax ricinifolium*—the species' accepted name at the time—and its accession card states only that it was "disposed of" in 1890. Intrigued by its characteristics and determined to cultivate specimens in Boston, Arboretum Director Charles Sprague Sargent collected seeds of the species on his first excursion to Japan in 1892. Two plants hailing from this collection thrive in the Arboretum today. Sargent's account of castor aralia in *Forest Flora of Japan* (1894) inspired additional collections, including J. G. Jack's 1905 seed collections at Lake Chuzenji (Chūzenjiko) and Sapporo, Japan. A total of 27 *Kalopanax septemlobus* accessions are documented in our curated databases and three plants currently grow in the permanent collections.

These handsome specimens grow on the eastern bank of Rehder Pond (accession 841-81-A) and near the paved summit path on Peters Hill (accession 12453-A and C). The younger specimen (841-81-A) was received as a seedling in

1981 from the United States National Arboretum, originating from seeds they received from China's Nanjing Botanical Garden. Growing without competition, its relatively uniform spread of 43 feet (13.1 meters) and height of 35.1 feet (10.7 meters) is remarkable. This specimen is marvelously tactile as the prickles around its 19.6 inch (49.8 centimeter) diameter trunk can still be felt when pressed. The two largest and oldest castor aralias on the grounds are those from Sargent's 1892 collection in Japan. Specimen 12453-A is 52 feet (15.8 meters) tall and has an astoundingly broad spread of 77 feet at its widest point; 12453-C is 34.7 feet (10.6 meters) tall and has a spread of 53 feet (16.1 meters).

In the July 19, 1923, issue of the *Bulletin of Popular Information*, Sargent wrote of castor aralia: "It is one of the most interesting trees in the collection and, because it is so unlike other trees of the northern hemisphere it is often said to resemble a tree of the tropics." The Arnold Arboretum subsequently distributed *Kalopanax septemlobus* seeds and plants to scores of researchers, institutions, nurseries, and hobbyists across the globe. Most prominently, it was among 10 taxa offered as a "reverse birthday present" in celebration of the Arboretum's centennial in 1972 and was included in institutional articles and listings of the best ornamental trees for the New England area.

Enthusiasm for castor aralia has since been tempered, however, as it has shown invasive tendencies in some areas, including the Arboretum grounds. Its fruits are readily consumed—and seeds subsequently dispersed—by birds; the Hokkaido Research Center in Japan documented 27 bird species feeding on *Kalopanax septemlobus* fruits across a 22 acre (9 hectare) site. Recognizing that dispersed seeds germinate in high percentages, we removed 7 accessioned castor aralias between 2010 and 2012. In addition, the practice of culling castor aralia seedlings from natural and cultivated areas of the Arboretum was formalized in our 2011 *Landscape Management Plan*. The conservation of taxa reported to be invasive is a topic of ongoing discussion here and at other botanical institutions. For the time being, don't miss the opportunity to study and marvel at a few of North America's oldest castor aralia here on our grounds.

