news

Early to Evolve, Early to Flower

Collections Up Close Spotlights the Magnolia Collection

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ew trees in the Arnold Arboretum's collections announce spring's arrival like the magnolias. The genus *Magnolia* is a large and diverse group, with more than 200 deciduous and evergreen species native to temperate, subtropical, and tropical parts of Asia and the Americas. Magnolia growth habits range from large shrubs to small, medium, or large trees. The Arboretum currently has over 150 individual magnolias representing more than 20 species and including nearly 30 cultivars. Most of the magnolias are planted near the Hunnewell Building and along the Arborway on both sides of the main entrance at the Arborway Gate.

Beginning in early to mid April, Arboretum visitors are greeted by a profusion of magnolia flowers blanketing the trees. Magnolias have star- or cup-shaped flowers composed of 9 to 15 (or more) tepals (undifferentiated sepals and petals) in white, pink, rose-purple, or yellow. Many magnolias have pleasantly scented flowers; the white-flowered saucer magnolia (M. × soulangeana 'Candolleana') in front of the Hunnewell Building is especially fragrant. Deciduous, springflowering species like star (M. stellata), Loebner (M. \times loebneri), and saucer (M. × soulangeana) magnolias that bloom before foliage emerges are among the showiest and best known magnolias, but there are also a number of magnolias with more elusive flowers that open after the trees leaf out. Look to eastern North American species like cucumber tree (M. acuminata) and umbrella tree (M. tripetala) for these early-summer-blooming flowers.

Among the Arboretum's magnolias, leaf sizes range from about 3 inches long for star magnolia to an impressive 24 or more inches long for the aptly named bigleaf magnolia (*M. macrophylla*). The great majority of the Arboretum's magnolias are deciduous, but there are a few evergreens in the collection. Southern magnolia (*M. grandiflora*)—an iconic evergreen tree of the southern United States—is generally not hardy in Boston, but the Arboretum does have single specimens of two hardier cultivars, 'Pendarvis' and 'Bracken's Brown Beauty', planted in protected sites. Sweetbay magnolia (M. virginiana) is a native species that is evergreen in the southern part of its range, becoming semi-evergreen or deciduous farther north. Accessions of this species at the Arboretum are mostly deciduous to semi-evergreen, though the cultivars 'Milton' and 'Satellite' are reliably evergreen.

Magnolias are known and loved for their flowers, but they also have an interesting evolutionary history. Long thought to be the earliest angiosperms (flowering plants), magnolias have been bumped out of that position by recent research discoveries, but they are still among the more ancient plant lineages. Magnolia flowers are protogynous, which means that the flowers first open with the female parts of the flower receptive, then close, and reopen with the male parts (stamens) ready to shed pollen. This evolutionary adaptation increases the likelihood of cross-pollination rather than selfpollination, thus widening the gene pool.

We invite you to explore our magnolia collection in depth on Saturday, April 12 as the Arboretum celebrates its next Collections Up Close event, Majestic Magnolias. Enjoy free tours and family activities on the Hunnewell Building lawn to celebrate the flowering of these remarkable trees. \approx

Collections Up Close: Majestic Magnolias

For a special opportunity to explore the magnolia collection, join us for Collections Up Close: Majestic Magnolias on Saturday, April 12 from 1:00-3:00pm. Take a guided tour to enjoy the diversity of magnolias, participate



in a fun science activity for kids, and explore this world-class collection. *Free*.

Learn more about Majestic Magnolias and our other Collections Up Close events, Lilac Sunday on May 11 and Beguiling Birches on May 31, on page 14 and online at arboretum.harvard.edu.











The floral diversity in the Arboretum's magnolia collection is represented here by (*clockwise from top left*): *Magnolia stellata* 'Centennial', a lovely star magnolia introduced by the Arboretum in commemoration of its hundredth anniversary; *M. cylindrica*, a somewhat variable species from China notable for its white and pink flowers; *M. × loebneri* 'Merrill', a hybrid cultivar of *M. kobus* and *M. stellata*, honors former Arboretum director Elmer Drew Merrill; the marginally hardy *M. grandiflora* 'Pendarvis' blooms in a protected spot near the Hunnewell Building; the spectacular yellow flowers of *M.* 'Elizabeth' typically open in early May, often concurrently with the celebration of Lilac Sunday.