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Podophyllum peltatum L. (Berberidaceae, Barberry Family)
Mayapple

Description: Herbs, perennial from extensive rhizomes and contractile roots. Leaves on first year shoots solitary, the petioles attached in the center of the blade (peltate); second year shoots producing two leaves, the blades attached basally to the petiole; blades oval or circular, 5–7 (-9) lobed, the lobes sometimes again parted. Flowers solitary, on short, nodding pedicels at the junction of two leaves (2nd year shoots only); petals usually pure white, waxy, fragrant. Fruit ovoid berries, 3–5.5 cm long. Seeds few to numerous, ovoid, 6–8 mm long, enclosed by a fleshy yellow aril. Flowering in May; fruit ripening in August.

Where Found: Quebec to Minnesota, south to Florida and Texas; moist woods in diverse soil types (tolerates acidity to pH 3.9 (Gargiullo, 2018)). The species was confined to less disturbed or remnant woodlands in New York City, but is becoming widespread through restoration planting in parks and gardens across the City.

Conservation Status: The species is ranked 5 out of 10 in habitat specificity (0 being the least specific) and is ranked S5 in rarity (5 being the least rare) by the New York Natural Heritage Program. The species is endangered in Florida.

Natural History: Mayapple grow in extensive colonies from spreading rhizomes, essentially forming large clonal populations. The plants are mostly self-incompatible and require pollen from a distant (genetically distinct) plant. Native Bumblebees visit the flowers and are stronger fliers and visit more flowers than the imported Honeybee.

The bright orange Mayapple Rust (*Allodus podophylli*) may sometimes infect mature leaves or seedlings. The fungus completes its entire lifecycle on Mayapple and does not require an alternate host as many other rusts do. Mayapple contain podophyllotoxin a powerful chemical toxic to most animals. But Opossum, Raccoon, Squirrel, Fox and Turtles consume the aromatic ripe fruit and disperse the seed. Larvae of the Black-patched Clepsid Moth (*Clepsid melaleucana*) and the Variegated Fritillary (*Euptoieta claudia*), feed on Mayapple leaves, apparently unharmed by toxins in the plant (Gracie, 2012).

Cultural History: Mayapple plants were used medicinally by Native Americans for a variety of ailments. Today the plants are used in restoration plantings where a hardy, native ground cover is desired. They seem to tolerate our heavily mineralized soils well and give a lush, healthy character to any woodland.

Name Notes: The genus name *Podophyllum* is derived from the Greek word for foot (*podos*) and leaf (*phyllon*). The epithet (*peltatum*) is derived from the Latin word meaning shield-shaped for the rounded leaves centrally attached to the petiole.

Species Notes: The Berberidaceae are primitive dicots in the Ranunculales order along with Poppies, Buttercups, Moonseed and Barberries. They share similar anatomical features, chemistry and ancient origin derived from Laurasia-- the ancestral continent that once joined North America to Asia. The genus *Podophyllum* contains two species, the North American species and the Himalayan Mayapple (*Podophyllum hexandrum*), the latter sometimes placed in a separate genus (*Sinopodophyllum*). Various mutations with pink or orange flowers and maroon or even lobed fruit have been described from the North American species.

Links: iNaturalist [observations](#) from New York City. [Specimens](#) from the Mid-Atlantic Herbaria Consortium. Global biotic [interactions](#) from GloBI.

References: Gargiullo, M. 2018. An Ecological Manual of New York City Plants in Natural Areas. <http://nyc.books.plantsofsuburbia.com/podophyllum-peltatummayappleberberidaceae/>. Gracie, C. Spring Wildflowers of the northeast, a natural history. Princeton University Press. 272pp.