NYBG



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Phragmites australis (Cav.) Trin. ex Steud. subsp. *australis* Common Reed, Old World Reed Grass

Description: Robust herb, 2–3 m tall; colonial from durable rhizomes; stems erect or decumbent, under leaf sheaths mostly green, ridged and dull textured; leaves olive green, flat, leathery, $15-60 \times 2-4$ cm wide, the sheaths persistent; ligule < 1 mm long; inflorescences ovoid, brown, 20–40 cm long and about 20 cm wide; spikelets 3–7 flowered, the first glumes < 4 mm long, the second glumes < 6 mm long, hairs of the rachilla exceeding the florets. Where Found: Subsp. australis is native to Eurasia; now present across most of North America; disturbed brackish and fresh water wetlands, industrial sites and roadsides, salt tolerant and largely shade intolerant; seed set is low and spread of the species is primarily by movement of contaminated soil; throughout New York City, especially in degraded marshes. NYS Prohibited. Natural History: The subspecies *australis* is very aggressive in disturbed sites and forms extensive monospecific stands (e.g. New Jersey Meadowlands). Estuaries and marshes are some of the most productive ecosystems on earth and their transformation to monocultural stands of one non-native species degrades their dynamic structure and diversity. Some of the many native, estuary plants displaced by Common Reed include Wild Rice (Zizania aquatica), Cord grasses (Spartina spp.), Marsh Elder (Iva frutescens), Groundsel Tree (Baccharis halimifolia), Spatterdock (Nuphar spp.), Pickerelweed or Tuckahoe (Pontederia cordata), Arrowleaf (Peltandra virginica) and Seaside Lavender (Limonium carolinianum).

Cultural History: Introduced to the northeastern US in the 18th or 19th century. The species is used for thatching in Europe.

Name Notes: The genus name is derived from the Greek word for hedges,

phragma. The epithet australis means southern.

Concept Notes: This cosmopolitan species may be divided into two or more subspecific taxa. The North American form of the species (subsp. *americanus* Saltonst., P. M. Peterson & Soreng) can be distinguished by the deciduous leaf sheaths revealing shiny, smooth, maroon stems (culms); ligules > 1 mm long; and longer glumes (first glume > 4 mm long, second glume > 6 mm long). The native plants do not form large, monospecific stands. Only recently recognized as distinct from the Old World form, its distribution in North America (and New York City) is still not well-known.

Links: iNaturalist <u>observations</u> from New York City. <u>Specimens</u> from the Mid-Atlantic Herbaria Consortium. Global biotic <u>interactions</u> from GloBI.

New York City EcoFlora



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Arum italicum Mill. Italian Arum

Description: Herbs; stems erect from deeply buried rhizomes and tubers; plants dividing by production of ovoid bud-tubers ca 1 cm diam; leaves sagittate, fleshy, usually variegated, the basal lobes obtuse to rounded; inflorescences emerging in spring after the leaves die back, the spathe greenish-yellow, the fruit bright red or orange.

Where Found: Native to Europe, North Africa, and western Asia; spreading from cultivation in a few locations in the Mid-Atlantic, southeast, Midwest and Pacific coast; wild plants known in New York City from Bronx and Manhattan. **Natural History**: The plants are poisonous to mammals. Birds are apparently unharmed by the berries and readily feed on them--especially ground-feeding birds--and other than humans are thought to be the primary seed dispersal agents. In Europe, birds reported to feed on *Arum* fruit include Mistle Thrush, Song Thrush, European Blackbird, Starlings, Pheasant, Common Wood Pigeons, Finches, Sparrows, and Yellowhammers. In Seattle, Quail and American Robins are reported to eat the fruit and disperse the seed. The plants become more deeply buried in the soil by the action of contractile roots on the buried stems.

Cultural History: Italian Arum could not be grown outdoors in our region until very recently. They are spread by movement of soil contaminated with the rhizomes, tubers, seed. Once established, the plants form dense colonies that crowd out other species and are very difficult to eradicate. Early Detection and Rapid Response (EDRR) will prevent this species from becoming the next Japanese Knotweed. For more information on the species in New York City,

see the paper by Atha, Daniel, Brian Boom, Adam Thornbrough, Joseph Kurtz, Leslie McIntyre, Michael Hagen, Jessica A. Schuler, Linda Rohleder, Susan J. Hewitt and John Kelly, "*Arum italicum* (Araceae) is invasive in New York", <u>Phytoneuron 2017-31: 1–18. 2017</u>. **Name Notes**: The genus name, *Arum* is derived from the Greek name for the plants, Aron. The species was first named from Mediterranean specimens imported to northern Europe.

Concept Notes: The genus *Arum* contains about 30 species all native to the Old World. The fruiting spike with its dense cluster of red-orange berries somewhat resembles our native, Jack-in-the-Pulpit, *Arisaema triphyllum*, in the same family, Araceae. The leaves are somewhat like those of Green Arrow-Arum or Tuckahoe, *Peltandra virginica*, also in the Araceae family.

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New York City EcoFlora



Ampelopsis glandulosa (Wall.) Momiy. Porcelain-berry

Description: Liana from dense, tangled roots, climbing by tendrils; bark smooth, not shredding; stems densely pubescent when young; tendrils produced at most nodes; leaves simple, merely toothed or crenate to deeply lobed; abaxial veins webbed, especially the basal veins; inflorescences in axillary cymose clusters; berries blue, purple or whitish, often marbled.

Where Found: Native to eastern Asia; spreading throughout the northeastern US and into the southeast; forest edges, roadsides, lakeshores and other, open disturbed areas with high light. Widespread in New York City. NYS Prohibited. Natural History: The species is one of our most destructive invasives. It climbs over other vegetation, forming dense masses that shade the canopy. The added weight causes tree limb breakage in wind and ice storms, eventually forming a dense monoculture with dry, sterile soil underneath.

Cultural History: The species was once cultivated for its attractive, iridescent fruit.

Name Notes: The well-known name *Ampelopsis brevipedunculata* was published after *Ampelopsis glandulosa* and is therefore a synonym.

Concept Notes: The leaves of this species are exceedingly variable in shape and pubescence, even on the same plant. Subdivision into subspecies or varieties based on these characters is untenable. The species can be distinguished from our native grapes by the smooth bark, abundant tendrils and webbed vein axils

(see inset). Ampelopsis cordata Michx., is native to the southeastern US. It is reported from Kings county by Michael Feder, but not yet documented.

Links: iNaturalist <u>observations</u> from New York City. <u>Specimens</u> from the Mid-Atlantic Herbaria Consortium. Global biotic <u>interactions</u> from GLoBI.

New York City EcoFlora



Aralia elata (Miq.) Seem. Japanese Angelica Tree

Description: Shrub or small tree to several m tall, armed with stout prickles, the trunk straight and slender, pale brown; leaves 2–3 -pinnately compound, sometimes exceeding 1 m in length and width, the leaflets ovate, with serrate margins; inflorescences terminal in large, compound umbels; flowers white; fruit black.

Where Found: Native to eastern Asia; spreading from cultivation through the northeast and Mid-Atlantic; prefers partial shade in loamy soil. Isolated populations occur in all five boroughs. NYS Prohibited.

Natural History: Birds eat the fruit and disperse the seeds.

Cultural History: The species was introduced to North America about 1830. **Name Notes**: Like many members of the Apiaceae (Carrot Family), including the genus *Angelica*, the species shares a basic morphology of compound leaves and umbellate flowers. The specific epithet *elata* means tall.

Concept Notes: The species is closely related to the North American Devil's Walking Stick (*Aralia spinosa*) but can be distinguished by leaflets with straight primary veins and minor veins pubescent below (vs primary veins curved and minor veins glabrous below in the native) and inflorescences on short basal stalks, less than 12 cm long (stalk > 12 cm long in the native), usually overtopped by foliage (foliage below inflorescence in native). The native range

for Aralia spinosa extends north to Philadelphia and western Pennsylvania, but

does not reach New York City (Moore, Gerry, Steven D. Glenn, and Jinshuang Ma, "Distribution of the native *Aralia spinosa* and nonnative *Aralia elata* (Araliaceae) n the Northeastern United States", <u>Rhodora 111: 145–54. 2009</u>). **Links**: iNaturalist <u>observations</u> from New York City. <u>Specimens</u> from the Mid-Atlantic Herbaria Consortium. Global biotic <u>interactions</u> from GloBI.