



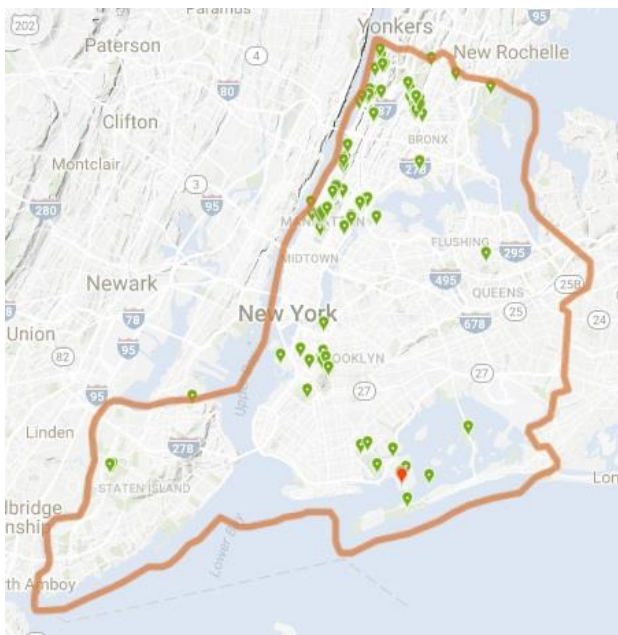
American Pokeweed plant
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Phytolacca americana L.
 American Pokeweed
 Family: Phytolaccaceae

Key Characters: Robust, but non-woody plant to 9 feet tall; stems green or purplish-red; leaves up to 1 foot long, ovate, with smooth or wavy margins; flowers several in elongate clusters, white or pinkish; fruiting spikes drooping, the fruit with 10 seeds, turning from green to purple starting in mid to late summer and continuing until frost.

Where Found: Native to North America from southern Maine to central Wisconsin, south to Texas, Mexico, and Florida, with scattered occurrences in the Southwest and Pacific states; introduced to Europe and now widely distributed throughout the world.

Natural History: Fruit production coincides with fall migration. At least 29 species of birds, including Robins, Cedar-waxwings, Warblers, and many others feed on the berries to fuel their long flights. It was the favorite food of the extinct American Passenger Pigeon. Mammals eat them too, including White-footed Mice, Squirrels, Raccoons, Possums, and even Bears. The plants grow quickly and are highly productive. Rutgers University scientists found that 100% of flowers set seed, and seed germination rates averaged 80%—characteristic for species that do not require cross-fertilization (autogamous). The researchers found that one plant could produce up to 7,000 seeds, although the average was 1,500. Seeds are viable in the soil for up to 50 years. The rich purple pigment evident in the stems, flowers, and fruits of Pokeweed is produced by a unique class of compounds called betalains, related to, but different from, the more common anthocyanins, which give blueberries their coloring (and antioxidant power). The betalains are restricted to the group of plants (order Caryophyllales) that includes Beets and Amaranth.



American Pokeweed observations in New York City (as of September 1, 2017). Green pins represent plant observations; red pins represent animals. Note that only one American Pokeweed observation has been made in Queens.

Cultural History: During the Civil War, soldiers wrote letters using ink from American Pokeweed berries, and the pigment is still used occasionally to dye fabrics. Very young stems and leaves are sometimes boiled in two changes of water and eaten. Resembling canned spinach, "Poke Salad" or "Poke Sallet" was once available commercially and still inspires "Poke" festivals across Appalachia and the Deep South. See Tony Joe White sing the 1969 classic "Poke Salad Annie" [here](#). Compounds derived from the plant have potent antiviral properties and are being studied for treatment of cancer and other diseases. A closely related African plant, *Phytolacca dodecandra*, is widely used to kill the snail host of Schistosomiasis parasites. Pigments from American Pokeweed are [promoted](#) for their potential to boost the energy output from new solar power generators.

Name Notes: The genus name, *Phytolacca*, is derived from the Greek words "phyton" meaning plant and "lac" referring to the scale insect *Kerria lacca* that yields a scarlet dye. The words "lacquer" and "shellac" are derived from the same source, as is one definition of the word "lake," for an organic pigment derived from plants or animals. The specific epithet, "*americana*," refers of course to the provenance of the species. The common name, "poke," is a contraction of the Native American Algonquin word "puccon," applied to plants used for staining.

Species Notes: This distinctive species was known to Europeans long before Swedish botanist Carl Linnaeus formally named it in 1753. The genus contains about 25 species, including the Argentinian *Phytolacca dioica*, a tree to 60 feet tall. Our species may be derived from montane elements that migrated north from Mexico. A form with erect fruiting clusters and short flower stalks was named *Phytolacca rigida*. Intermediate plants with rigid clusters but longer flower stalks are not uncommon, blurring the distinction between the two species. *Phytolacca rigida* is sometimes treated as the variety *Phytolacca americana* var. *rigida*.

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