

New York City EcoFlora



Hedera helix L.
English Ivy
Araliaceae (Aralia family)

Description: Evergreen woody vine, young shoots and inflorescences covered with stellate hairs or peltate scales; juvenile stems creeping and forming extensive mats, the mature stems up to 25 centimeters diameter, climbing by abundant, adventitious roots with adhesive pads. Leaves simple, alternate, dimorphic, 4–10 cm long; juvenile leaves palmately lobed with 3 or 5 triangular lobes, glabrous, the base cordate, the apex acute or acuminate, the upper surface shining and dark green with whitened veins, sometimes tinged purple in winter, the lower surface pale green; mature leaves ovate or rhombic, entire, otherwise like juveniles. Flowers in axillary umbels; sepals 5, very short; petals 5, fleshy, green; stamens 5; ovary inferior. Fruit a drupe with 2–3 pyrenes, turning black at maturity.

Where Found: *Hedera helix* is native to Europe from Ireland and Norway to the Caucasus. In New York City, the species is most abundant near home sites and gardens where there is a history of cultivation, especially in suburban areas.

Natural History: In its native Europe, bees and other insects obtain nectar from the flowers and birds disperse the fruit. The adventitious climbing roots secrete an adhesive polymer composed of nanoparticles. Root hairs shrink and curl as they dry, pulling the stem closer to the surface. These forces enable the plant to climb very high and accumulate great mass. When a tree is so encumbered,

its photosynthetic potential is diminished and the tree is vulnerable to breakage in wind and ice storms. The ground covering impedes absorption from rainfall and creates desert-like conditions dominated by one species.

Cultural History: The plant was used to counteract the effects of alcohol consumption and figures in depictions of Bacchus and taverns. The species has been cultivated in New York City since the 1820s.

Name Notes: *Hedera* is the Latin name for the plants. The epithet, *helix* means twining. The plant grows throughout the British Isles, hence the common name.

Species Notes: The classification of Ivies (the genus *Hedera*) is far from settled. The number of species ranges from one to six and there are hundreds of cultivars recognized in the horticulture trade. Plants escaped into natural areas in the New York City region may in fact be of two genotypes. Genetic studies of chromosomes and their DNA describe two forms, one a diploid (*Hedera helix* or *Hedera helix* subsp. *helix*) and a tetraploid known as Irish Ivy (*Hedera hibernica* or *Hedera helix* subsp. *hibernica*). One character that has been suggested for distinguishing the two genotypes is the nature of the trichomes on leaf undersides of vigorous shoots. In *Hedera helix*, the stellate hairs are reported to be somewhat stalked with rays diverging in many directions. In *Hedera hibernica*, the trichomes are appressed and scale-like with the rays laying flat. A 20x hand lens and strong light should be adequate for examining the trichomes.

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