





Common name: Sugar Maple Genus Species: Acer saccharum



Photo credit: Celia Cuomo, mohonkpreserve.org

Description: Sugar maple is a deciduous tree growing 50 to 130 feet tall. Its flowers function as either male (delivering pollen) or female (producing fruits/seeds) despite appearing to have both parts within a flower.

Habitats: Sugar maples grow in cool, moist climates. They are common in rich woods but also grow in drier upland woods. They do not make good street trees because they are sensitive to road salt runoff, soil compaction, and pollution.

Phenology highlight: Most trees have either female or male flowers, but sometimes both kinds occur on the same tree, usually on separate branches. Male trees will not produce fruit.

Species facts

- Sugar maple is wind pollinated, but bees and other insects, which visit the flowers laden with early spring pollen, maybe also contribute to pollination.
- Deer, moose, and hare commonly browse sugar maples; squirrels feed on seeds, buds, leaves, and twigs; woodpeckers and other birds may in the trunks.
- Native Americans used maple sugar sap fresh for sweetening, fermented into beer, or soured into vinegar for cooking meat.
- Sugar maple is the only tree used for commercial syrup production today.



Photo credit: Ellen G. Denny, usanpn.org



Why observe this species? Sugar maple is a USA-NPN regional species. Regional species are ecologically or economically important. The NPN integrates these observations to better understand plant responses within the different geographic regions. In addition, this species is an allergen, and phenology observations will provide valuable data to benefit people with allergies and the public health community.

Tip for observing this species: If drought or pest damage seems to be the cause of leaf color or leaf fall for a sugar maple, please note that in the comment section..

Map credit: USDA, NRCS. 2014. The PLANTS Database http://plants.usda.gov, 28 August 2014). National Plant Data Team, Greensboro, NC 27401-4901 US

For more information about phenology and the New York Phenology Project (NYPP), please visit the NYPP website (www.nyphenologyproject.org) and the USA-NPN website (www.usanpn.org).







Sugar Maple (Acer saccharum)

Note: leaf, flower and fruit phenophases are nested so you may need to record more than one phenophase for each; for example, if you record **Y** for "open flowers" you should also record **Y** for "flowers or flower buds."



Breaking leaf buds
One or more breaking
leaf buds are visible. A
leaf bud is "breaking"
once a green leaf tip is
visible at the end of the
bud, but before the first
leaf from the bud has
unfolded to expose the
leaf stalk (petiole).



Leaves One or more live unfolded leaves are visible. A leaf is unfolded once its full length has emerged from the bud so the leaf stalk (petiole) is visible at its point of attachment to the stem. Do not include fully dried or dead leaves.



Increasing leaf size

A majority of leaves have not yet reached their full size and are still growing larger. Do not include new leaves that continue to emerge at the ends of elongating stems through the growing season.



Colored leaves One or more leaves (including any that have recently fallen from the plant) have turned to their late-season colors. Do not include fully dried or dead leaves that remain on the plant.



Flowers or flower buds

One or more fresh open or unopened flowers or flower buds are visible on the plant. Include flower buds that are still developing, but do not include wilted or dried flowers.



Open flowers One or more open, fresh flowers are visible. Flowers are "open" when the reproductive parts (male stamens or female pistils) are visible between open flower parts. Do not include wilted or dried flowers.



Fruits One or more fruits are visible. A sugar maple fruit is two joined seeds in a "V" shape, each seed having a wing, that is green when unripe and yellowish-green or brownish when ripe.



Ripe fruits One or more ripe fruits are visible. A sugar maple fruit is considered ripe when it has turned yellowishgreen or brownish and readily drops from the plant when touched.

Phenophases not pictured: Falling leaves; Pollen release; Recent fruit or seed drop