

**BALSAM POPLAR**  
***Populus balsamifera***

Location 270 Main Street (behind house)

Physical Characteristics

Height (ft.)	94.5
Circumference (in.)	148
Spread (ft.)	44
Points	254

Estimated Age 189 yrs. (1831)

Commentary

Nominator:

This Balsam Poplar is highly significant for several reasons. First, as a landscape feature, it stands well above other trees on the crest of the hill on the north side of Main Street above the development below. The tree can be seen from many directions as the tallest tree around. Second, this tree will most likely qualify as a Massachusetts state champion because of its sheer size, given its unusual height and girth. Balsam poplars have been significant forest trees in the northern New England forests, but this tree is a bit unusual in size for our West Newbury climate since we are coastally warmer than other interior towns at the same latitude. Peattie says that these poplars “may tower up to heights of 100 feet, such as it never attains in the southern part of its range.” Of significance is another habitat value feature. Bees are said to smell the sticky gum of the buds from afar, to gather up the gum stuck on their legs, and to use it to seal up crevices of their hives. Beekeepers call this “bee glue.” The buds of this particular tree have been examined and are, in fact, rife with that sticky, fragrant substance. Finally, the age of this tree is estimated to be 189 years (1831), which means that it began just over a decade after West Newbury became a town and pre-dated the Civil War by 30 years.

Committee:

Aside from the observations and information from the nominators, this Balsam Poplar (also known as Tacamahac for its aromatic resins) is quite unusual in two other respects. First, its size may well qualify it as a Massachusetts state champion. The current point value for the current State Champion Poplar (no species listed) is 215. This tree’s point value is around 254, which strongly suggests it could qualify as the state champion for poplars. Second, there is some mystery around the origin of the Balm-of-Gilead Poplar and whether it is the same or different than the Balsam. Most horticulturists cannot say if this is a naturally occurring hybrid of the Balsam Poplar or whether is a horticulturally-created cultivar, and precise identification is quite difficult. In practice, the terms Balsam Poplar and Balm-of-Gilead Poplar are used interchangeably by foresters, but they are in fact slightly different from one another. The Balm-of-Gilead Poplar leaves are darker on the upper surface of the leaf, and downy or hairy on the undersurface of the leaf (Peattie; Sibley; Dwelley). The leaves of the Balm-of-Gilead Poplar are more heart-shaped than the Balsam Poplar. Since these leaf characteristics are currently

unavailable, more precise identification will have to await until spring. However, given the size of this specimen, it is likely to be a state champion whichever species or subspecies of *Populus* it turns out to be.

Other Committee Comments:

No other historical information is currently available about when this tree began to grow, whether intentionally planted or not. Further research on old maps might be useful in helping to determine the age of the tree.

In addition, from the photo, two separate trunks can be seen. While it is unknown whether two separate trees were originally grown, it is equally likely that both trees arose from the same underground stem network and are clones of each other. This type of clonal group is common among trees in the poplar group. It is thought that clonal reproduction aids in survival after a serious disturbance (i.e., fire) that may destroy aboveground growth.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5513237/>

Sibley's Guide to Trees states that balsam poplars are "often 60' tall (maximum 138')."

In addition to pointing out that Balsam Poplars never reach 100 feet in height in the southern part of its range (i.e., here in West Newbury), Peattie, in *A Natural History of Trees of Eastern and Central North America*, writes:

"And, forever twinkling its bright foliage and shaking it in the breeze, it makes music where otherwise all were silence. It gives fuel and shade where none could be expected. The foliage is like a cloak with a lining of another color, the upper leaf surface brilliant and cleanly, contrasted with the white or rusty lower surface. When the wind turns all the blades over, they flash slivery, and then, the breeze falling, the tree once more assumes its dark green and lustrous habit."

Finally, as a member of the willow family, the inner bark of the Balsam Poplar contains salicin, an organic compound that acts as a natural defense mechanism and deters harmful bacteria, fungi, and insects. Salicin from the inner bark of willow family trees has long been used as a pain reliever and is related to salicylic acid, the pain-relieving ingredient in aspirin. According to a 2011 medical journal article, salicin from willow bark has less deleterious effects than aspirin on the human gastrointestinal system. <https://pubmed.ncbi.nlm.nih.gov/21226125/>

Photo(s)





*West Newbury Roster of Significant and Remarkable Trees*



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