

# Tree Threats

Wilcox Park is a special place – a Level II accredited arboretum spanning 15 acres in downtown Westerly. We cherish each and every tree, and mourn each loss. Here are the reasons for a few of the recent tree losses.

## Old Age

Trees, like all living things, have a natural life span. Some trees, like the white oaks, live hundreds of years. The birches are short lived, moving into cleared areas, but being out competed over time by other trees. In 2022, we lost a Rhode Island Champion grey birch (*Betula populifolia*) along the walk near the Comfort Station to old age. Anticipating its decline, a young sapling had been planted next to it. (See right.)



The RI Champion empress tree (*Paulownia tomentosa*) along the walk from High Street to the Barn was a favorite of many, despite its invasive nature. In 2025, a large branch came down, revealing a weak crotch where water had collected and rot moved in. Luckily, an offspring has been growing alongside its parent. (See below.)



## Weather

The Park staff have spared us from loss due to drought. During hot, dry summers, they water all new or stressed trees. Desiccation, caused by frigid air, can cause damage that will not be evident until spring, when it can be pruned out.

Throughout the year the Park staff proactively prune to remove dead branches and weak crotches to mitigate wind and ice damage. In 2020, a micro blast took down several trees, including a Norway spruce (*Picea abies*), and damaged the Comfort Station. Now a grove of five dawn redwoods (*Metasequoia glyptostroboides*) graces this area.

Ice and heavy snow take their toll on branches and trees. A RI Champion river birch (*Betula nigra*) by the Hiker Monument was in decline due to its age, and ice brought down major limbs, warranting the tree's removal. (See right.)

## Compaction

On average, a tree has a root zone that reaches about 120% of the tree's canopy. Excessive weight in the root zone presses the soil particles together, reducing the pore space which holds vital air and water, eventually showing up in decline in branches and foliage.

Events accommodate the Park and reduce compaction by holding events in the Meadow and exclusively using the major sidewalks for parking and driving.



## Diseases and Insects

The native flowering dogwood (*Cornus florida*) was affected by dogwood anthracnose (*discula destructiva*). Kousa dogwoods (*Cornus kousa*) were substituted. Later, a few hybrids of natives and non-natives were planted. And now, disease resistant native varieties have been introduced, but they still require a close watch.

More recently, new plant diseases and insects are affecting the Park's trees. The beeches are a signature tree of the Park, and Rhode Island. They are under attack from multiple diseases and insects, not all of which have effective treatment. Treatment is only practical in managed areas, not forests.



- In 2024, the large beech (*Fagus sylvatica*) behind the Pond succumbed to phytophthora, which kills the bark and outer sapwood tissues, consuming their sugars. This provides an infection site for wood-rotting fungi to invade. (See left.)
- In its weakened state, it was also affected by beech leaf-mining weevils (*Orchestes fagi*). As larva, the weevils feed from within the leaf, creating narrow mines which appear as small brown blotches. As adults, the weevils eat foliage emerging in the spring, peppering leaves with small holes. In early summer, invaded trees will appear defoliated or scorched. After several years of invasion, trees will decline and eventually die.
- Beech trees in our region are being devastated by beech leaf disease (BLD), caused by a nematode, *Litylenchus crenatae mccannii*. In larger trees, disease progression is slow, beginning in the lower branches of the tree and moving upward. But saplings will die within 2-5 years. The Park's beech trees are receiving periodic systemic pesticide injections at their bases.

A large pin oak (*Quercus palustris*) along Grove Street had Hypoxylon canker, caused by a wood decay fungus (*Biscogniauxia*) that most frequently affects oaks, and was removed.

Our native ash trees (*Fraxinus*) are threatened by the emerald ash borer, EAB (*Agrilus planipennis*). The borer tunnels beneath the bark, disrupting sap production and can kill a tree in 2-3 years. The Park's three ash trees are getting systemic pesticide injections at the base of the trunks every 2 years.

We are fortunate to have the Park, and its knowledgeable and attentive staff and volunteers!

By Sandi Carmichael, Park Committee member and Master Gardener