

Forests Are a Natural Climate Solution



Healthy eco-systems are intrinsically tied to the well-being of humanity and are a natural climate solution. Forests not only beautify an area, but they buffer the effects of extreme weather events and regulate air temperature. According to CT Department of Energy and Environmental Protection (DEEP), “Healthy functioning forests absorb rainwater and slow its above ground movement which is crucial to preserving soil integrity, protecting water quality, and reducing flood intensity.” Whether your forest is a strip of ten eastern hemlock trees along your driveway, or ten acres of hardwood trees, the success of these plant communities is significant but unfortunately not guaranteed. However, you can help steward your forested area on your own property.

The first step is to learn what kind of trees dwell on your property. Download a free app on your mobile phone such as SEEK. Important species like eastern hemlocks are deserving of our attention. Periods of drought may result in wilted looking needles. If so, supplemental

watering may give these trees their ticket to survival. White fuzz on hemlock indicates an infestation of woolly adelgid insects. Safe biological and sustainable control by releasing *ST* beetles has shown to be effective. For more information, go to treesaverspa.com. Consultation with a certified arborist is always a good idea.

Another way to support forested areas is to allow leaf litter and dead branches to remain under the trees. Leaf litter and woody debris reverse soil degradation, maintain soil moisture and promote nutrient cycling. This break-down of plant matter releases nutrients to the soil, benefiting your trees to make them healthier and happier. This enriched top soil also protects plant roots and overwintering pollinators. Downed trees in the woods can be left to enrich the soil while providing for insects and other wildlife. Designated areas for tidy branch piles create wildlife habitat and provide a spot for smaller downed limbs and branches.

Preventing establishment of invasive plant species will promote the success of a diverse forest. Invasive plants such as bittersweet vine and porcelain berry create a tangled mat covering the forest canopy, depriving trees of needed sunlight. Since invasive plant species are foreign to our area, they have no natural controls and outcompete our native species. Invasive vines should be cut at the base of trees as needed. Monitoring will be required to discourage any new sprouts from taking hold.

Invasive plants also inhibit valued native understory plants such as ferns, spring ephemerals and tree saplings. Introduced ornamental shrubs such as Japanese barberry and burning bush have prolific seeds which are spread by birds. They outcompete native species to create monocultures in our forests. Repeated cutting or removing with a weed wrench is an effective control. Avoid purchasing these plants; even sterile cultivars regain viability of seed after a period of a few years. Go to <https://cipwg.uconn.edu/> for a list of Connecticut invasive plants and information on management.

Once invasives have been removed, native understory shrubs can be added to increase diversity. When planting new plants and small trees, place fencing made from hardware cloth around young trees to discourage rabbit and deer browse. Monitor the trees as they grow and move fencing to younger trees as needed.

Foresters at DEEP Forestry Division can provide help for management, legacy, and tax benefits for preserving forests. To request a consultation, go to Deep.forestry@ct.gov or call (860)424-3630.

No matter the type, size or age, forests are a natural climate solution. Good stewardship for forest preservation begins with each property which can provide refuge for wildlife and climate resilience now and for future generations.