

# Massacoe Block Timber Harvest



## DEEP Wildlife Division Findings

July 1, 2020

### Summary

The Massacoe Block of Massacoe State Forest is a section of mature forest in Simsbury Connecticut. It is habitat for common forest species including the state-listed eastern box turtle. The block falls outside of regionally important ecological corridors, but provides local connectivity for wildlife to move between other open spaces. We support properly executed forest management to 1) maintain the health and integrity of the site for wildlife and to 2) ensure it continues to be a useful open space for wildlife habitat and connectivity.

### Methods

- Surveys for reptile and amphibian species (herpetofauna) were conducted on 6/23, 6/24, and 6/25 and included two evening surveys and one morning survey. Field work was timed relative to daily weather and temperature variation to maximize observation potential. Visual encounter surveys were conducted along the full length of straight-line transects evenly spread throughout the entirety of the Massacoe Block of Massacoe State Forest. Transect lengths were oriented nearly North-South, ranged in length from 240 meters to 559 meters, and were spaced an average of 45 meters apart (Figure 1). During surveys, habitat was visually scanned and natural cover objects like rocks and logs were carefully moved and replaced. Any species or important habitat features observed were noted, initial instances of each species were photographed, and GPS coordinates were recorded for all observation instances.

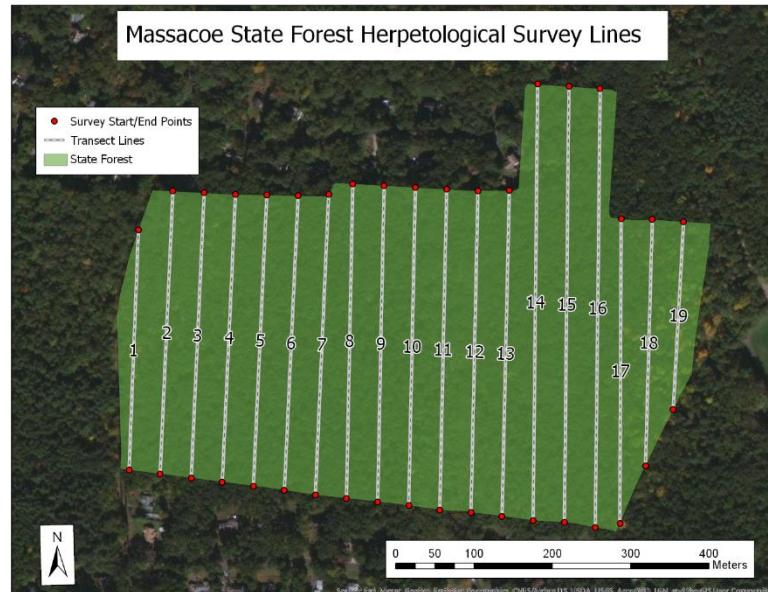


Figure 1: Survey lines for herpetofauna at Massacoe State Forest

- Point counts for birds were performed on 6/23 and 6/25. Throughout the site, 19 regularly spaced points were selected as observation sites (Figure 2). Points were surveyed using a

modified version of the North American Breeding Bird Survey. Points were sequentially visited between 4:45AM (approximately 30 minutes before sunrise) and 8:30AM on days with no rain. The surveyor remained at each point for five minutes, recording all species heard or seen at each location. To ensure coverage throughout the survey window, the Block was surveyed from west to east

on 6/23 and from east to west on 6/25. All other wildlife species were recorded as well, including those seen while moving between points on the site.



Figure 2: Points for bird counts at Massacoe State Forest

- Plant surveys were performed on 6/24 and 6/25. The survey focused on the most likely habitat for American climbing fern, which requires moist soil. Surveys covered the northwest wet area along with the unmapped wetland that runs from north to south through the central portion of the property. The wetland areas plus adjacent upland edge was thoroughly searched. Every herbaceous plant, shrub, vine and tree seedling within this area was identified to genus or species except for certain grasses and sedges. A list of each species encountered was recorded.
- Research was conducted on the connectivity of Massacoe Block. A wildlife biologist reviewed multiple regional plans that identify connectivity and ecological corridors. Massacoe was evaluated at both a local and regional scale using these plans as context.
- Biologists also recorded non-target species encountered during work at the site.

## State listed Species

- An eastern box turtle was found on site. Eastern box turtles are listed as “special concern” under the Connecticut Endangered Species Act. To minimize impacts to box turtles, daily sweeps are conducted to remove turtles from the immediate work area. Forest management takes place during the summer and early fall, when turtles can be safely moved out of the way. Management activities in the fall or winter risk injuring or unearthing hibernating turtles that won’t be able to move to a new overwintering spot. Eastern box turtles use a variety of habitats and will benefit from



Figure 3: Eastern Box Turtle

increased successional growth, thicker understory, and more sunny spots within the site. More diverse forests are beneficial to this species.

- During a plant survey, a broad-winged hawk call was heard. Broad-winged hawks are listed as “special concern.” Because this call was not heard during the bird surveys and there is an active red-tailed hawk territory on the site, it is likely that this individual was transient.

## Species Inventory and Nesting birds

- Surveys conducted by the Wildlife Division found 39 bird species, 5 amphibian species, 1 reptile species, 4 mammal species, and 41 understory plant species. These species are common species found in mature forest habitats throughout the state.
- Connecticut’s State Wildlife Action Plan identifies species of Greatest Conservation Need (GCN). These species have been included on the list for one or more of a variety of reasons including rarity, declining populations, regional responsibility, active threats, data deficiency, or as an indication of environmental quality. Of the species located at Massacoe, 10 birds, 1 reptile, 2 amphibians, and 1 plant species were listed in the state wildlife action plan. Maintaining forest health is an important conservation action for forest-dependent species. While there may be short-term disturbance, these GCN species will ultimately benefit from this forest management action.
- During the bird surveys a red-tailed hawk territory was located. The precise nest location was not identified, but the persistent calling of juveniles and adults during the survey period indicated an active territory. Furthermore, the apparent movement of the source of juvenile vocalizations indicates that chicks from this territory have fledged and are capable of flight.
- First nesting attempts for most birds are complete; but there are active bird nests in this forest block. In late June, it is impossible to predict the stage of these nests. Birds with failed first nests may be well into a second nesting attempt, while birds with successful first nests may have just initiated incubation on a second attempt. Because predicting when nesting will be complete is difficult, management should be timed to benefit other GCN species (like eastern box turtle).

## Wet areas

- The harvest map produced by the forestry division identifies a vernal pool in the north central part of the block and a wet area in the northwest corner of the block. In addition, the site features a linear wet area south of the central vernal pool. Due to the critical importance of forested wetlands for wildlife species, the planned harvest was limited in all three of these areas and uncut buffers were left to protect the integrity of the soils and the shading of the forested wetlands.

## Connectivity

- Active forest management is not prohibited or discouraged by DEEP within ecological corridors. This type of management is an important tool for sustaining the ecological integrity and is a critical part of responsible stewardship. The forest management practices prescribed at the

Massacoe Block are not expected to permanently degrade the site's ability to function as an ecological corridor.

- Several governmental agencies and non-profit organizations have created map products that aim to identify the spatial extent of ecological corridors in Connecticut and beyond. The Wildlands Network does not place the Massacoe Block within a Potential Core Natural Area or a Potential Habitat Corridor; it is located just east of an area labeled as a Potential Core Natural Area (Figure 4). Additionally, The Wildlands Network does not discourage sustainable forest management within labeled areas.
- Though the Massacoe Block is not identified in regional plans for connectivity, it does have local utility for wildlife. The Farmington Valley Biodiversity Project identifies priority conservation areas to help guide municipal planning. The "Ethel Walker" Secondary Conservation Area, is centered around the town-owned Ethel Walker Open Space Property and encompasses the Massacoe Block. The Forestry Division's intention to maintain the Massacoe Block as undeveloped open space and improve forest health allies with the Project's goal of maintaining biodiversity across the landscape of the Farmington Valley.



Figure 4: Wildlands Network's Eastern Wildway with Massacoe Block Noted

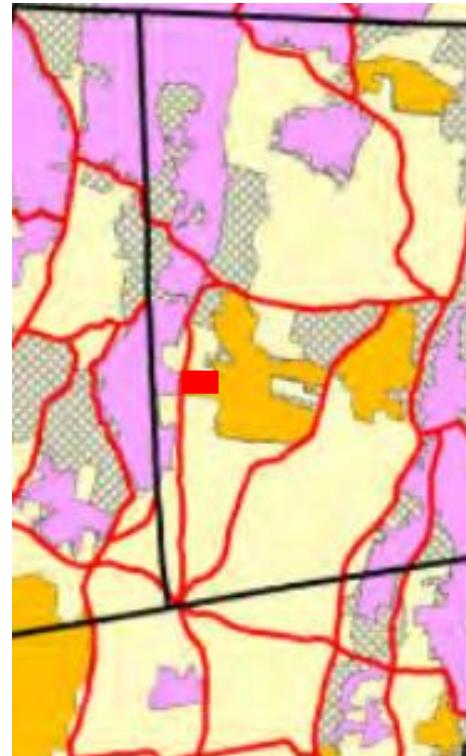


Figure 5: Farmington Valley Biodiversity Report Conservation Areas with Massacoe Block Noted

## List of species encountered

### **Birds:**

American crow  
American goldfinch  
American redstart  
American robin  
Baltimore oriole  
black-capped chickadee  
blue jay  
blue-gray gnatcatcher  
broad-winged hawk  
brown creeper  
chipping sparrow  
dark-eyed junco  
downy woodpecker  
eastern wood-peewee  
eastern phoebe  
European starling  
gray catbird  
great-crested flycatcher  
hairy woodpecker  
hermit thrush  
house finch  
mourning dove  
northern cardinal  
northern flicker  
ovenbird  
pileated woodpecker  
red-bellied woodpecker  
red-shouldered hawk  
red-tailed hawk  
red-eyed vireo  
scarlet tanenger  
tufted titmouse  
veery  
waterthrush (likely northern)  
white-breasted nuthatch  
wood thrush  
yellow-throated vireo  
yellow-warbler  
yellow-bellied sapsucker

### **Plants:**

Oak  
Blueberry  
Club moss  
Cinnamon fern  
Mountain laurel  
Partridgeberry  
Maple-leaved viburnum  
Hemlock  
White pine  
Canada-mayflower  
Black birch  
Red maple  
Poison ivy  
Swamp dewberry  
Shadbush  
Arrow wood  
Spotted wintergreen  
Sassafras  
Greenbrier  
Rosebay rhododendron  
Winterberry  
Violet sp.  
Sensitive fern  
American shinleaf  
Steeplebush  
Grape sp.  
Swamp rose  
Virginia creeper  
American hornbeam  
Hay-scented fern  
Jack in the pulpit  
Whorled loosestrife  
Goldenrod sp. (probably grass-leaved)  
Skunk cabbage  
Dogwood seedlings (probably silky)  
New York fern  
Sallow sedge  
Fringed yellow-loosestrife  
Beggar-ticks (probably devil's)  
Water-horehound  
Various sedges and grasses

### **Mammals:**

white tailed deer  
black bear (scat)  
eastern gray squirrel  
eastern chipmunk

### **Reptile:**

eastern box turtle

### **Amphibians:**

wood frog  
green frog  
eastern newt  
eastern red-backed salamander  
American toad

### **Insects:**

Ebony jewelwing  
Red spotted purple