2020 Clinton and Mt. Olive North Carolina Torreya Seed Collecting Report by Joe Facendola, collector

Collection date: October 31st 2020
Total amount of seed collected: 2,443
TorreyaGuardians.org

Clinton NC Collection - 1,383 seeds

Seeds of the Clinton tree were primarily collected from beneath the southern side (sunny side) of the tree. However, approximately 15% of all collected seeds were found under the side of the tree shaded by the adjacent magnolia and oak. Unlike collection efforts made here on 2 November 2019, most of the seeds were already on the ground with little left hanging in the tree. The lowermost branches of the tree were shaken and the majority of seed remaining in the accessible parts of the tree fell for collection. Some very dried out seeds remained on the branches and were not collected. Some "fresh" seed with moist sarcotesta were collected, however the majority of the seed 2020 collected was in a relatively dry state, with the sarcotesta appearing like a dried fig or raisin (unlike the 2019 collection efforts). Some seeds were present with the sarcotesta completely dry with the texture of leather, and the seeds could be heard audibly ratting in the shells when shaken. These were not collected and left below the tree. The very large oak trees in the yard appeared to have a mast year, and acorns which are a similar size to the mature torreya seed cones, were in great abundance everywhere. There was a very small amount evidence of squirrel feeding on the torreya seed in 2020, however there appeared to be much less cracked seed below the tree when compared to 2019. Approximately 1383 seeds were collected from the Clinton tree.

Only 3 small torreya seedlings were found growing under the adjacent magnolia, however the rest of the yard was not searched. These three seedlings were carefully dug up, and have been potted. Also, Mrs. Kennedy suggested that I dig up and take a larger seedling (approx. 4ft in height) which she had growing behind her house. A very large root ball was excavated (~3ft in diameter and to a depth of 2ft). Even digging to that depth, an approximately 1in diameter tap root was severed in order to remove the tree. The soil was heavy and clayish, so the removed root ball stayed intact. The root ball was wrapped in a tarp and secured with tape for transport.

The sprouts which apical cuttings were taken from in 2019, showed new growth that also showed apical dominance. Three new cuttings were taken from this growth for rooting.

On October 29, 2020 tropical storm Zeta impacted SE NC, with gusts to 45mph recorded in at the Fayetteville regional airport. This wind event may have knocked the majority of the seeds from the tree in Clinton. Other factors such as temperature or precipitation in the month of October likely also contributed to the dry condition of the seed when compared to collection efforts made in 2019.

Clinton and Mt. Olive NC Torreya seed collecting - 2020

Note by Editor: This report on the Clinton NC tree and its photos will be posted on and attached in pdf to the existing Torreya webpage on the history and seed production of this mature Torreya tree in Clinton NC.



A 5 gallon bucket of female cones collected from the Clinton NC tree (1,383 seeds), on 31 October 2020. Note the dry and split sarcotesta on the majority of the cones collected on the ground below the tree.



Dry female cones still firmly attached to the branches of the Clinton NC tree, 31, October 2020.



Apically dominant re-growth in 2020 on basal sprouts where cuttings were previously taken in 2019.



Juvenile tree (approx. 4') dug from behind the house with a large root ball secured with tarp and tape. Oct 2020

Mt. Olive Collection - 1,060 seeds

Both trees had grown considerably since the photos taken in 2013 by Connie Barlow and posted on the Torreya Guardians website. The tree on the left appeared to still have a dominant leader, while the tree on the right is assuming more of a large multi-stem shrub shape. No trimming or pruning had been done to date on either tree as far as Mrs. Bullard or her landscaper John (who was there) knew. Mrs. Bullard expressed her concern with the branches of the trees both encroaching her paved driveway as well as the trees themselves blocking her view of who may be approaching up the long gravel road to the house. Her goal was to have the trees trimmed back to the size they were in 2013, to facilitate mowing around the trees as well as "shape them up". Trimming the trees back to these dimensions would have resulted in many limbs needing to be removed, and leaving many bare stumps of branches. Mrs. Bullard agreed to just having the larger branches next to the driveway removed. The major trimming efforts were focused on the driveway side of the trees, where they are shaded by a large Darlington Oak. Both the loppers and saw that were used on the torreya (which came from off site) were sterilized using a blow torch and also sprayed in a bleach solution earlier that day, to avoid bringing in any possible outside disease. However, the same tools were used on both of the adjacent Mt. Olive trees without being cleaned between each tree. John also used a gas hedge trimmer which was already on the property to "give some shape to" both of the trees. Mrs. Bullard was pleased with the outcome, and would like John to lightly shear the trees with the hedge trimmer after the flush of foliage in the spring, to keep the trees from growing back into the driveway. The alternative would be total removal.

Both trees were producing seed, however the smaller tree on the right produced much more seed than the one on the left (approximately 3:1). Seed was produced both on the shady (driveway) and exposed sides of both trees. Both trees still had female cones hanging on the branches, however the majority of the seed was already on the ground. The sarcotesta of the female cones collected from the Mt. Olive trees was in a similar state of dryness as those from the Clinton site. The Mt. Olive trees did have some green cones that were not fully mature, as well as dried out cones hanging in the branches. The female cones still hanging in the tree seemed to be mostly in the lower half and interior of each tree. Both trees displayed buds that will develop into both male and female reproductive structures the following year.

The tree on the right did have some areas of yellow needles, as well as areas where the needles were yellowed and fallen. This yellowing was primarily on the left side of the tree (on the sunnier exposed side facing the other torreya, and next to a smaller deciduous shrub). The landscaper John did mention that he had earlier in the summer heavily trimmed back the deciduous shrub between the two torreya in order to ride a mower through. The removal of some of the deciduous shrub may have possibly exposed this section of the torreya to stronger sun, or there is another cause for the yellowing and loss of needles in this section of tree.

Three seedlings were found growing directly beneath the Mt. Olive trees, but they were not collected and are still on site.

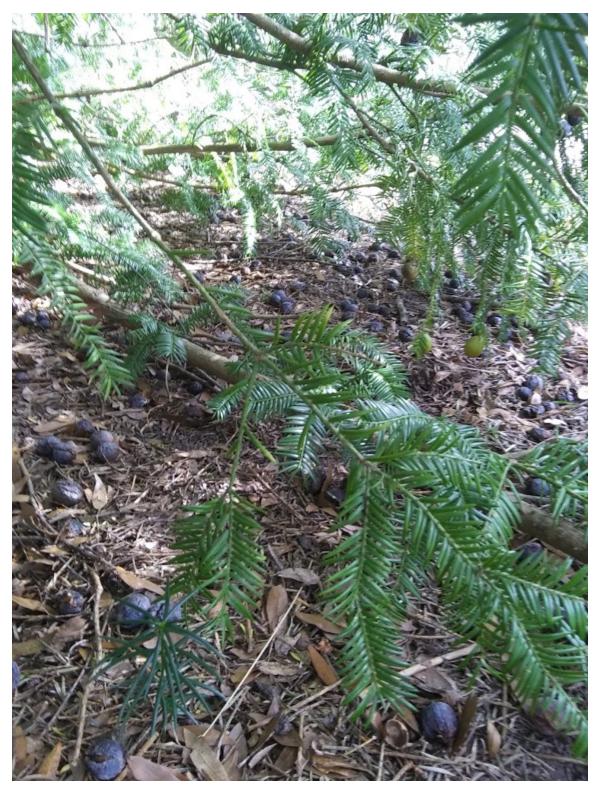
Note by Editor: This report on the Mt. Olive NC pair of seed-producing trees will be posted on and attached in pdf to the existing Torreya webpage on the history and seed production at the combined sites of Mt. Olive and (the parent tree) at Clinton NC.



The two Mt. Olive torreyas at the Bullard residence. The tree on the left still has a central leader, while the tree on the right is assuming more of a multi stemmed shrub form. October 31, 2020



The Mt. Olive torreya after having many limbs removed (by Joe Facendola, as directed by the property owner Mrs. Bullard) to prevent them from blocking the paved drive.



A view of underneath the smaller torreya on the right, and the amount of seed on the ground. Notice a little seedling in the lower left corner. It has darker and longer leaves whorling around a single vertical stem. This indicates the first above-ground growth flush, as second ground growth produces from 1 to 4 lateral branchlets.



Examples of some of the very dry seed on the ground at Mt. Olive. Seeds which audibly rattled were not collected.



Branch from the smaller Mt. Olive torreya showing nearly mature female cones, as well as buds which will form female structres in the following year.



Branch also from the smaller Mt. Olive torreya showing buds which will form male structures in the following year.



A close of up some of the yellowing and needle loss occurring on the smaller Mt. Olive tree.



A view of the sunnier side of the smaller torreya after limb removal and a "shape up" with the hedge trimmers.