Florida Torreya (Torreya taxifolia) Assisted Migration

Stovers' Sèjour Greensboro, North Carolina

An initial planting of 30 seeds was completed in mid-November, 2013 along the ½-mile Universe Story Walk trail in 5 acres of upland woodland near the Piedmont Triad International Airport in Greensboro, NC. The autumn 2015 photographs in this report show the planting locations of the seeds at that time. Cursory examinations during 2014 showed no indication that any seeds had germinated.

During an inspection tour in November 2015, six plants were noted and reported to Connie Barlow.

In May 2016, Nelson Stover and Michael Dowd conducted an in-depth examination of all planting locations. Three documentable plants were photographed - these are included in this report. The following day, in brighter sunlight, Nelson returned to the two sites in the valley. There he discovered the nubs of three additional plants. These are the ones found in November 2015 but not the following May. It appears as though the leaves of these three plants were eaten by deer or other small animals which are prevalent in the woods.

In late 2015, an additional 20 seeds were planted on the same property. The documentation of these plantings is not detailed in this report. None germinated within the first 9 months.

This report includes photos from November 2013 and May 2016. Some notes about specific disturbances to particular sites are also noted where applicable. In each of the original planting photos, Elaine Stover is holding a small trowel which shows the exact location of the planted seed. The Universe Story Walk consists of 20 markers spaced at 100' intervals through a wooded area - these represent the billion-year history periods of the history of the Universe.

The marker for 14 ¾ billion years lies at the bottom of a small valley. The tree canopy covering this valley was decimated by a tornado in 2008. The stream which has its headwaters at a spring near the marker has been dry since the cut was made for the nearby highway in 1994. However, the fertile ground does collect water from the neighboring higher ground. In this area, two clusters of 5 Torreya seeds each were planted - half had sprouted in two years as noted above. The photos of these areas are shown in the following pages after the 14 ¾ year marker and are labeled "Valley South of the Trail" and "Valley North of the Trail".

For further questions about these plantings, contact Nelson Stover: <u>NStover@EmergingEcology.org</u> or phone (336) 605-0143.

Marker 0 - located near the front of the Stover's house.

Three large pine trees near this planting became infected with pine bark beetles in the fall of 2015. The trees had to be cut down. The area was repurposed as a sitting area and fire pit after the trees were removed and the yard was fenced in for the dog. The exact location where the Torreya seed was planted is still visible (see photo), but not well protected.



Photo left - original planting, Nov. 2013. Photo below: repurposed area, May 2016 (note, log on ground at right is in the center of the original photo.



Marker 1



Note: due to a realignment of the trail this marker was moved 10' south; the tree seed was not adjusted.



Marker 3



Marker 4

Updated: May 3, 2016

Left: Nov. 2013

Below: Sprouting, Nov. 2015, hands of Elaine Stover.





Photo above: Michael Dowd with tree at Marker 4, May, 2016.

Photo right: Tree enlarged, hands of Michael Dowd.





Marker 6





Marker 7









Marker 11



Marker 13





Marker 14 1/4



Marker 14 $\frac{1}{2}$ Note: Behind Elaine the ground slopes into the valley which was hit by a tornado in 2008.



The "valley plantings" are down and to her right.

Marker 14 ¾



Valley North of Trail



Above: Planting area for 5 seedlings Right: Michael Dowd with larger of two trees, May, 2016 Below: Second tree in this cluster, May, 2016.





Valley South of Trail



Above: Planting area for cluster of 5 seeds south of main trail in the valley. Rocks were placed near each seed location around a central pole.

Below: Possible nub of tree, apparently eaten between November 2015 and May 2016.



Marker 14.9



Marker 14.99



Final Marker



The Stover's house is 20' in front of Elaine at this point in the trail.