Phone Conversation with **A. J. Bullard** (by Connie Barlow) on the

2 Large Torreya Taxifolia Trees in Clinton NC and the 75 seedlings they produced

A. J. Bullard wrote the Letter to the Editor on the Torreyas in Clinton NC, reprinted in the Comments page of TorreyaGuardians.org, listing of November 18, 2009. The editor of North Carolina Wildlife reported:

"Mount Olive botanist A. J. Bullard called to inform us that some information was missing from our story "Rewilding a Native" by Sidney Cruze in the Aug 2009 issue. When we asked what was missing, Bullard blew our minds by revealing that there is another living Torreya taxifolia tree in North Carolina that is well over a century old. This tree was one of the two that were planted in Clinton in the 1850s, around the same time that it is estimated the state champion tree in Norlina was planted. A storm in the late 1990s knocked down one of the Clinton Torreyas, but the other survives today. Bullard also explained that the researchers had traced the Norlina and Clinton trees to a single source. Pomaria Nurseries, an antebellum outfit near Columbia, SC, sold a tremendous variety of native and exotic fruit trees, ornamental trees, shrubs and flowers during that era. Scientists made the connection because Osage orange trees were planted near both Torreya sites, and Pomaria sold both types of trees. Bullard and his late cousin, Bob Melvin, verified the identity of the Clinton trees in 1995 and collected 5,000 seeds from the trees, which they distributed to botanists across the state for attempted propagation. Seeds were planted at sites from Meredith College in Raleigh to Western Carolina University in Cullowhee. Perhaps the most surprising fact Bullard provided was that, contrary to botany textbooks, Torreya is not dioecious — that is, having male and female reproductive structures on separate plants. Rather, it is monoecious, because both the Norlina and Clinton trees are producing viable seeds with no other Torreya around. Bullard knows this firsthand because he ha two Torreya trees on his own property both bearing fruit."

A. J. Bullard (70 years old) is a retired dentist and avocational botanist, who lives in Mount Olive NC, rurally, which is 18 miles from the **2 famous old Torreya taxifolia trees in Clinton** (SE of Raleigh). Phone: 919-658-4424. He and his cousin came upon the trees as part of a **1995 botany field trip**. The two trees, each about 30 to 40 feet from the sidewalk, were spotted on this trip and they interviewed the home owner, Mrs. Kennedy. She is the widow of Mr. Kennedy, who was mayor of Clinton for some 20 years. The **Kennedy home is at 613 College St in Clinton**.

The broader, full-sun tree was knocked down by a Longleaf pine that fell in the hurricane of 1998, but the more columnar tree shaded on one side by a big American Linden and the other by a Swamp Chestnut Oak is still there, and producing seeds.

After the 1995 botany trip, A. J. and his group identified the 2 Torreyas, as Mrs. Kennedy didn't know what they were. Later, **Sharon Hermann of Tall Timbers Research Station in FL and Mark Schwartz** (Torreya project scientist) visited the Clinton trees and

confirmed them as Torreya taxifolia. The history of the trees has been accurately traced to **Pomaria Nursery** near Newbury SC, which began in 1841, had a hiatus during the Civil War, and then restarted in the 1880s in Columbia SC. (Sharon Hermann researched this part of the history.) The records indicate that Pomaria sold Florida Torreya then, along with other native and exotic trees (and probably also the old osage orange located a block away from the Clinton Torreya trees). Both Torreya trees were traced to have probably been planted around 1850.

Jim Kibbler is a local historian who showed A. J. the original Pomaria Plantation home and what little remains of the original nursery (I presume he also had the records of what Pomaria stocked and sold in th 1800s).

STATUS OF TREES IN THE 1995 - 1997 site visits. A. J. Bullard reports that he and his cousin (who died 2 years ago) revisited the trees after their initial botany field trip. They collected a total of **5,000 seeds** that first year from both trees combined. His experience is that they are **ripe when they are purplish and will fall if you touch them**. Basically, you wait till they fall to the ground to ensure they are ripe. If they are not ripe and you pick them too early, they will not germinate. The only problem is the **squirrels** who will eat some immediately and plant others. Obviously, if you have a crop of 5,000 seeds the local squirrels are not going to take them all. The fate of the 5,000 seeds: the duo traded them to Bob McCartey at Woodlanders Nursery in SC.

But **SQUIRRELS** also made it possible for A. J. and his cousin to **collect 75 seedlings**. The seedlings were growing in flower beds and hedges and in vacant lots. The Bed and Breakfast next door was planning on ripping them out, so the duo dug them up and potted them immediately. He said they potted well, no problem.

Connie was curious as to how far away the **SQUIRRELS** would plant seeds and he said **the farthest seedlings were about 200 to 250 feet distant** from either tree. He observed that they **survive the kind of off-year mowing** that happens in vacant lots because one of the seedlings dug up from a vacant lot (this one was 4 feet tall) that was soon going to be mowed again showed clear evidence of having resprouted from a previous mowing.

TORREYA AS DIOECIOUS

Both Clinton trees produced abundant (5,000 total) seeds in 1995, and these were fertile. Thus they had to also be producing **males cones with pollen**. The literature describes Torreya taxifolia as monoecious, but he disagrees. In fact, on another visit he spied **staminate cones** on the remaining tree (the tree that was not blown down in the 1998 hurricane), and that single tree has kept producing seed, so **it must be capable of self-pollinating**. (He suggested that, as with the viable seeds from the lone, isolated Norlina champion T. taxifolia, if Torreya can't get pollen from elsewhere, nature seems to encourage the species to make its own.)

DISTRIBUTION OF THE 75 CLINTON POTTED SEEDLINGS

2 in Mount Olive: These have been planted in A. J. Bullard's own garden since 2001. He estimates their full age as 10-12 years old as of December 2009. **Autumn 2008 the first year that one of them produced seed, but the squirrels got all the seeds. His address**: 264 Farrior Rd., Mt Olive NC 28365 (which is 18 miles NE or Clinton). His phone: 919-658-4424. He has planted lots of different North American native trees on his property, which is 5 acres. He has no personal plans for any of the seeds that his trees might grow and seems amenable to someone else collecting any that the squirrels might not take.

Half dozen at Meredith College, Raleigh NC: The sister of the cousin A. J. did all his Torreya rescue with used to be vice-president of Meredith College (her PhD is in chemistry), and so 6 potted seedlings went there around 1998. Her name is Dr. Sally Horner. A. J. thinks they would be planted in the western part of the campus and that the Biology Dept would know.

Half dozen with Dr. Sally Horner, in pots, now at Myrtle Beach SC: A.J.'s cousin retired and now lives in Myrtle Beach. Last he knew she still had the trees in pots. From Meredith College she then went to be V.P. of Coastal Carolina University, and then retired from there. She may also remember (or have her brother's papers) of where more of the 75 seedlings went. Her address: 608 D 35th Ave. North, Myrtle Beach SC 29577. 834-448-5243.

J. C. Raulston Arboretum, University North Carolina Raleigh: Bullard believes some of the 1998 seedlings went to this location. When Barlow googled it, she discovered that Raulston's compilation of existing specimens there as of 1987 included 2 Torreya taxifolia, each 1 foot tall. So even if T. taxifolia is found there today, we'd have to distinguish those specimens (Raulston collection shows slides of his visit to the Biltmore's Torreya taxifolia) from the pre-existing ones. The url of that 1987 list is:

http://www.ncsu.edu/jcraulstonarboretum/publications/newsletters/ncsu_arboretum_newsletters/News17_87-12.html

Dan Pattillo of Cullowhee NC: 1 potted seedling of 1998 went to Dan, who is professor emeritus of Western Carolina University in Cullowhee.

END OF BARLOW REPORT