



Posted on Sat, Apr. 18, 2009

Old maps give clues where fabled chestnut trees might grow

BY S. HEATHER DUNCAN

FORSYTH — In front of an empty swimming pool and a sign touting free wireless Internet, cars on Interstate 75 barrel past the Day's Inn. It's hard to imagine that somewhere along the stretch between the motel and Ink 1 Tattoos, probably in a spot now under asphalt, one of Georgia's former giants once loomed.

Maps from the state archive show that two centuries ago, an American chestnut tree grew here and served as a landmark. Chestnut trees, some centuries old themselves, towered above their neighbors at a height mimicked today by billboards.

Now, nature enthusiasts are trying to restore American chestnuts, mostly wiped out by an Asian fungus in the 1930s, to their former place in the landscape. Land lottery maps from the early 1880s could enable biologists to find the places where the trees might be most likely to survive.

The American Chestnut Foundation sponsors a breeding program that crosses American and Chinese chestnuts to produce a blight-resistant tree with American characteristics. They use the few surviving wild American chestnuts as "mothers," providing flowers or pollen, and eventually hope to plant hybrids in the wild.

"If you try to put them back in a place where there weren't many, it's probably not going to work in the long run," said biologist Nathan Klaus, who is doing the mapping. "Maybe the soils aren't right or a pollinator isn't there."

Klaus works for the state Department of Natural Resources and cooperates with the chestnut foundation. His research shows that Georgia chestnuts were far more widespread outside the mountains than previously believed.

"That is a big surprise, because folks thought they were all above 1,000 feet," said Martin Cipollini, a Berry College biology professor and board member for the Georgia chapter of the chestnut foundation.

Klaus' maps show that what is now downtown Atlanta was a chestnut hot spot. In Middle Georgia, Lamar, Lamar, Lamar, Lamar and Crawford counties were home to a large number of chestnuts.

There was once an American chestnut tree near the intersection of what is now U.S. 41 and Wadley Road in Monroe County, now an area of pastures and scattered pines where a road scraper recently bared red clay. Another American chestnut grew near modern-day Old Tucker Road in Bibb County.

Klaus has mapped 16,000 points representing the chestnuts on the maps (although there were likely millions more). Next, he plans to add information about elevation, direction of slope and soil types for each record.

Combined, the information should provide the most detailed information available in any state about the conditions needed for chestnut success.

NICE SPOT FOR A HOMESTEAD

Klaus stumbled onto the maps about five years ago at the state archive. Although crumbling, their yellowed pages were decorated with beautiful "scroll-type writing" and covered with the names of tree species on a grid, Klaus said.

From about 1802 to the 1830s, the state hired surveyors to map the land ceded to Georgia by the Creek and Muscogee Indians. The surveyors marked the corners of the lots with trees — five listed for each corner, Klaus explained. Lot numbers blazed on the trees helped settlers find their claims.

The tree species would also have revealed something about the desirability of the lots.

Chestnuts were probably a good indicator of a nice homestead spot, Klaus said. They are associated with rich soils, and they produce highly rot-resistant wood that was great for building cabins, barns and fences.

Klaus teamed with the archive and the University of Georgia to get a grant for digitizing the maps. Research overlaid the old maps with modern roads, county lines and property boundaries.

Klaus' original interest was in using the maps to help restore landscapes for endangered species.

"I don't think people realized all that tree species information was really valuable," he said.

But Klaus was also struck by the distribution of chestnuts across the state. The tree was what biologists call a "keystone species" for Eastern forests. Bringing back a hybrid American chestnut that produces nuts would be a "big step toward restoring ecosystems," Klaus said.

The trees produced nuts, sometimes called mast, that were a major food source for deer, turkey and other mammals, as well as the Indians.

Oaks, on the other hand, have just a two- or three-year mast cycle. Without chestnuts, Georgia has a mast every six years or so, Klaus said.

"So we end up having a boom and bust in wildlife populations like bears, turkey and deer," rodents, and the animals that eat them. "That instability permeates through the whole food chain."

Klaus is already known among chestnut researchers for identifying a previously unknown chestnut stand at Mountain a few years ago. Turns out, some of those chestnuts and others in Georgia might actually be a

