

## Efforts made to restore the American chestnut tree

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DERRY — A once-endangered tree is growing back thanks to efforts from supporters and volunteers hoping to keep its branches strong.

The nonprofit American Chestnut Foundation (TACF) sent workers to the Ballard State Forest recently to conduct controlled pollinations on American chestnut trees growing there.

TACF scientists merge the blight-resistant Chinese chestnuts with pure American trees, resulting in a highly resistant tree with the classic appearance of the American chestnut.

The process is a long one, though, requiring about six generations or more of trees to make the experiment successful.

On a cool morning earlier this month, experts arrived in East Derry to work their scientific magic on chestnut trees in the Ballard area in the hopes of continuing work to bring the trees back in larger numbers.

Kendra Gurney of the TACF New England Regional Breeding Program organized the trip to this area, working on controlled pollinations of some trees growing here. Working with other volunteers and experts, she harvested flowers from a particular tree she is trying to pollinate in the Ballard Forest.

The American chestnut was once the dominant hardwood from Maine to Georgia. Trees could grow to be giants, with some mature chestnuts averaging up to 5 feet in diameter and up to 100 feet tall. Loggers loved the tree for its timber strength, and the tree's nuts were a popular food for wildlife and people. When the blight struck in the early part of the 20th century, billions of trees on millions of acres in the eastern part of the country were wiped out. Approximately 4 billion trees were gone by the 1950s.

By working on breeding a few of the trees remaining, experts hope to create a blight-resistant tree that will survive better in the forest.

Gurney collected about 20 bags of flowers that will be put into cold storage for future cross-pollination work. The seeds from the pollinations are then planted in the spring and grown in orchards until they are large enough to infect with blight. Scientists then rate the trees' resistance to the disease.

"This work is guided by a staff of scientists but conducted through the help of a large volunteer base," Gurney said.

Those volunteers conduct surveys of sites in the eastern portion of the United States to find trees to serve as "mother" trees

for the research.

Those trees are then crossed with those grown at TACF's research farm, and the nuts produced are then used in seed and breeding orchards throughout the eastern part of the country.

Volunteers include college students from Yale and Penn State University, and TACF also has 15 chapters representing 17 states.

And getting the word out about the American chestnut and where it still grows helps a lot, Gurney said.

"We're always looking for more trees to include in the breeding program," she said.

The chestnut trees played an integral part of this area's history, welcoming the earliest settlers to its fields, along with neighboring butternut and walnut trees, and forging the territory known as "Nutfield."

Gurney invites anyone with information on an American chestnut tree they know of in this area to contact her through the TACF New England Regional Breeding Program, 705 Spear St., South Burlington, VT 05403.

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## Photos



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