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## Your chance to find rare chestnuts

By GLYNIS HART reporter@eagletimes.com 11 hrs ago



This American chestnut seedling is along a trail at Smith Pond Shaker Forest. The forest comprises almost 1,000 acres and includes a five-mile loop trail and Smith Pond. It is at the northern limit of the range of the American chestnut.

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**ENFIELD** — If you take a hike in Smith Pond Shaker Forest, not far from the Route 4A entrance on the way to Mascoma Lake, there's an old spillway. Part of a system of dams left by the original Shaker community, the spillway contains planks made of chestnut wood.

"When we saw the chestnut wood, we knew there had to be chestnuts in the forest," said Alison Marchione, program director at Upper Valley Land Trust (UVLT).

Sure enough, stewardship staff at UVLT found chestnut saplings along the five-mile trail that loops around the 995-acre woods. Although American chestnut trees were wiped out by disease almost a century ago, the old stumps still produce sprouts that become saplings.

Even rarer than the saplings, the UVLT staff found a mature chestnut producing nuts.

"It's about one foot in diameter," said Marchione.

When pioneers settled the New England forests, one in every four trees was a chestnut. The stately nut-bearing tree was a backbone of the forest ecosystem from Maine to Georgia, providing food for humans, livestock and wildlife, until the early 1900s. Then a fungus accidentally imported from Asia began to spread, until it seemed the trees were all doomed.

The airborne fungus, or chestnut blight, attacks once a tree is old enough for its smooth bark to thicken and form cracks where the fungus can grow. Asian chestnuts are immune to the blight, and most European trees, cultivated for nut production, are crossed with the Asian varieties for immunity.

However, the straight-splitting, rot-resistant lumber produced by American chestnuts has yet to be replicated. While researchers continue to work on producing an American tree resistant to the blight, it's also possible a tree in the wild might have natural immunity.

Marchione said maybe 1 percent of wild trees might have resistance, but, "If I were to guess, I'd say this is a lucky one."

New Hampshire forests are near the northern limit of the American chestnut's range, as well as being near the limit of the chestnut blight's range. "The chestnut blight likes really hot and wet conditions," said Marchione. "Normally, we don't have really prolonged periods of heat and damp, like we're having this summer."

The UVLT bought the property in 2015, and the chestnut trees came as a pleasant surprise. They guess the mature one to be around 40 years old.

"We don't truly know how long stumps or shoots survive in the Northeast," said Marchione. "In the south, where chestnuts were more prevalent, shoots only last a few years before becoming blighted and dying."

Researchers suspect something in the soil protects the chestnut roots from the blight. In the South, very large stumps have been known to send up shoots 120 years after dying.

"In the Northeast we never had chestnuts that large and don't have the same large stumps, so it's hard to know how long they would survive here. One of the things we would like to do is continue to monitor the trees we know of on our Smith Pond land to find out what kind of lifespan they have and maybe get some answers to these questions," said Marchione.

Although hikers and amateur naturalists can look for chestnuts on their own, UVLT is offering a Chestnut Challenge for visitors to the Smith Pond forest: The person who documents the most chestnut observations before October 8 will win an Octane 8+ Camelbak — a backpack-like device that carries up to 70 ounces of water.

On Tuesday the UVLT had a teaching session for citizens interested in hunting for chestnuts. "We taught people what to look for and why these trees are important," said Marchione.

UVLT Vice President of Stewardship and Strategic Initiatives John Roe also introduced the audience to a tracking app: iNaturalist, an application that works on most iPhones, allowing the user to take a photo and post it to the iNaturalist site where the identity can be verified.

For instance, an iNaturalist user could photograph a butterfly, upload it to the site, and find out what it's called. The app also allows for time, place and date to be recorded, so multiple sitings of the same tree won't get counted as many trees.

However, if you're not a smartphone user, you can also take a picture and send it to UVLT at 19 Buck Road, Hanover, N.H. 603-643-6626 or email it to: <a href="mailto:ContactUs@uvlt.org">ContactUs@uvlt.org</a>

You can also just take a hike and see what a chestnut tree looks like. The five-mile trail loop has two trailheads, one on Smith Pond Road, and one on 4A.

"Chestnut trees don't care where the trail is," said Marchione. "We encourage people to get out there and get off trail, if they are comfortable doing that. All the ones we've found are by the trail."