Michigan Arborist Says California’s Coast Redwoods are a Viable Solution to Climate Change

by Debra Atlas

Could California’s majestic Pacific Coast redwoods reverse climate change? An irreverent, third-generation Michigan tree farmer thinks so and he’s working to make it a reality.

Scientists warn we have twelve years to avert a climate catastrophe. Accelerating plant and animal species extinction, soaring temperatures, devastating wildfires, melting glaciers, more severe hurricanes, and regular flooding in places like Miami and New York City are threats we cannot ignore.

Ideas for solving this crisis are as diverse as snowflakes. But David Milarch - co-founder of Michigan-based 501(c)3 Archangel Ancient Tree Archive, whose mission is to propagate the world’s most important, largest old-growth “Champion” trees to preserve their genetics – believes cloning these giants and using them to reforest our planet is a realizable solution.

Trees are natural storage vats for the carbon we produce and serve as the planet’s lungs. Jim Robbins, author of The Man Who Planted Trees: Lost Groves, Champion Trees, and an Urgent Plant to Save the Planet, says American forests sequester nearly half a billion dollars worth of carbon and remove air pollutants including lung cancer causing particles, benzene, ozone, sulfur dioxide and lead that would cost nearly $4 billion to clean up otherwise. Yet since the 1800’s we’ve cut down 98 percent of our world’s old-growth forests - in California alone 96 percent of old-growth redwoods.

Experts said cloning redwoods couldn’t be done Despite this, ten years ago Milarch and his son traversed the Pacific Northwest – from southern Oregon to Big Sur - searching for “the biggest, badass sequoia redwoods” they could find. Once discovered, climbers gathered the sun needles - the brittle green material that grows straight up at the highest ends of these giant trees. Back in Michigan, they steeped this material in a “special sauce” created by son Jake. This was the breakthrough that finally allowed redwood propagation and cloning.

Milarch’s success is making news. The New York Post, CNN, the BBC and France’s TF1 Network (the French-German tv network serving Europe and Africa) have covered this groundbreaking work.

During the May 14-17, 2019 California Expedition, an NBC crew filmed specially-permitted climbers’ ascent of the 2,000 year old, 270 foot high “Brotherhood Tree” in the Trees of Mystery forest. On the first morning, Milarch spoke to a large group eagerly waiting to learn about the coming adventure.

“There’s good news,” Milarch said. “We have a viable solution to help reverse climate change!”

This solution, however, must be grown. “Super groves” of Archangel seedlings have been planted in Southern Oregon and are part of England’s Eden Project. Twenty-five have been
planted in San Francisco’s Presidio, also in 35 cities across Washington’s Puget Sound, in areas of Australia and Ireland. In late 2018, Eugene, Oregon – where the 2020 World Games will take place – planted 2,020 cloned trees in its parks and public spaces to help offset excess CO\textsuperscript{2} cars and attendees will bring.

Science lagged behind what Milarch intuited about these trees. But it now recognizes forest trees are interconnected, that they “talk” to each other, even warn of impending danger (like clear cutting or wildfires) and that trees feel pain when they’re cut down.

Ten years ago Archangel asked top scientists - including William Libby, PhD, professor emeritus of forestry and genetics at the University of California, Berkeley and Diana Beresford-Kroeger, a well known Canadian author, botanist and scientist - to create a list of the world’s most important 100 trees. Archangel is working its way through the list, having already cloned twenty of them.

According to Archangel Board member Joe Sundri, Archangel is “the world leader. No one else has come close to what they do / have,” he said.

Josh Lehrer, co-founder of the New York City based Seller-Lehrer Family Foundation, Inc., says of the many projects he’s come across that talk about being solutions to climate change, Archangel’s fascinates him most.

Part of the Foundation’s mission is a focus on the environment. “Every model describes a “mere” one degree Fahrenheit increase in ocean temperature, which,” Lehrer said,” would be catastrophic to our planet. They all describe extreme reliance on carbon capture, for which we have no science and no engineering.”

“Sometimes the simplest solution is the one that’s right front of our face,” said Lehrer. “These trees have been (capturing carbon) for billions of years!”

Knowing none of its missions are possible if the planet is inhospitable to humans, the Foundation gave Archangel a multi-year grant to support its work.

“One of the (areas Archangel) can be the most impactful,” said Lehrer, “is reforestation – identifying huge tracts of land that can benefit from thousands of cloned old-growth seedlings and begin the process of reforesting. The entire northern part of this continent was covered by these Pacific Coast redwoods,” he said. “Now the Northwest is the only place left with these.”

Passionate about old-growth trees, Lehrer stewards an approximate one hundred acre forest in northern Westchester County, New York, where he recently planted twenty-five cloned Coast redwoods. Lehrer is also on the Board of the Riverside Park Conservancy, a 6-mile long homestead designed park that rims the west side of Manhattan. He plans to bring Conservancy Board members to his Westchester forest and encourage them to put some of Milarch’s trees in the Park.

“If we start planting Coastal Redwoods (in Riverside Park Conservancy), we’ll differentiate ourselves from Central Park,” he said. This would draw attention to how New York was
leading the way in reforestation and hopefully create a domino effect across the nation, he said.

Of the work Milarch and Archangel are doing, Lehrer says “the science is real.” And, he noted, “we are long past the time of preservation. We’re deep into the time of reforestation.”

Lehrer, a long time Sierra Club member, says “human beings share a deep desire to connect with one another and with Nature. And, he added, “the trees and big open spaces (give us) a big opportunity to do this.”

“We have the most optimistic, hopeful message,” Milarch said.“We’re rebuilding ecosystems. We have solutions!”

For information about Archangel Ancient Tree Archive and its projects, see https://www.ancienttreearchive.org.

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