

# Dying giant sequoia planted by Muir is cloned

November 12 2013, by Louis Sahagun

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Horticulturists recently announced that they had successfully cloned a genetic replica of an ailing 130-year-old giant sequoia planted by conservationist John Muir in the 1880s on his ranch in Martinez, Calif.

And many more are apparently on the way, they say.

If all goes according to plan, the first clone nurtured in a Michigan laboratory will be shipped within a year to California for planting at Muir's homestead, which is a national historic site about 35 miles northeast of San Francisco, said David Milarch, co-founder of the nonprofit Archangel Ancient Tree Archive.

"That tree is the last living witness to Muir's life and times," Milarch said. "We expect to ship its clone to the John Muir National Historic Site when it's about 18 inches tall. Once rooted, it'll grow several feet a year."

Muir, regarded as the father of the modern conservation movement, returned from a Sierra Nevada trip with the original seedling wrapped in a damp handkerchief.

He planted the specimen beside a carriage house on his family's Martinez fruit ranch.

Today, the sequoia is 70 feet tall and dying of an airborne fungus.

As part of an effort to preserve at the site a living connection to Muir,

Keith Park, a National Park Service horticulturist, trimmed two dozen cuttings from healthy young branches and shipped them to Archangel, which has successfully cloned trees planted by George Washington at Mount Vernon in Virginia.

Jake Milarch, an archive propagator and David Milarch's son, snipped the cuttings into 400 smaller pieces and treated them with an experimental combination of misters, artificial sunlight, nutrients, four hormones and a temperature of 74 degrees in the nonprofit group's laboratory in Copemish, Mich.

"Critics said it was impossible to clone a [giant sequoia](#) more than 80 years old," Milarch said. "But my son proved it can be done. Right now, we have one clone. But we'll get more, no doubt about it."

Others could be donated to national parks and other areas with the climate and soil to grow them.

"Any organization with a John Muir giant sequoia clone will draw lots of crowds for a long time," Milarch said. "Our own board of directors said that while we cannot sell any tree, we could produce clones for people who financially support our work."

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