

**AGENDA**  
**CITY OF BROOKINGS**  
**PARKS AND RECREATION COMMISSION MEETING**  
**Council Chamber - 898 Elk Drive**  
**August 24, 2017 - 7:00 pm**

**I. CALL TO ORDER**

**II. PLEDGE OF ALLEGIANCE**

**III. ROLL CALL**

**IV. APPROVAL OF MINUTES**

Minutes of June 22, 2017

**V. PUBLIC APPEARANCES**

**VI. REGULAR AGENDA**

A. Champion Redwood Clones

**VII. INFORMATION UPDATES/DISCUSSION ITEMS**

A. Azalea Park Ball Field Reconfiguration Project progress

B. Chetco Point Park Restroom

**VIII. COMMISSIONER REPORTS/COMMENTS**

**IX. ADJOURNMENT**

MINUTES  
BROOKINGS PARKS AND RECREATION COMMISSION  
June 22, 2017

**CALL TO ORDER**

Chair Tom Bozack called the meeting to order at 7:00 pm followed by the Pledge of Allegiance.

**ROLL CALL**

*Present:* Commissioners Patt Brown, Don Vilelle, Jay Trost, Trace Kather, and Chair Tom Bozack

*Also present:* Parks/Tech Services Supervisor Tony Baron

**APPROVAL OF MINUTES**

**Motion made by Commissioner Kather to approve the minutes of April 27, 2017; motion seconded by Commissioner Brown and Commission voted; the motion carried unanimously.**

**PUBLIC APPEARANCES –**

Azam Azaditabla, 1223 Barclay Lane, Brookings, OR – interested in the welfare of the azaleas in Azalea Park. Commission suggested she contact the Azalea Park Foundation to volunteer.

**REGULAR AGENDA**

**A. Adopt a Park – Bankus Fountain** – Tom Bozack recused himself from discussion. Tony Baron presented Adopt a Park request by KCIW Radio, noting that this is similar to the Adopt a Park request by the Lions Club for Oasis Park. Dane Tippman, 580 Fern Ave #1, Brookings, OR spoke on behalf of KCIW Radio and their intentions of maintaining the park. Commission appreciated their willingness to be involved. **Motion made by Commissioner Trost to enter into an MOU with KCIW to maintain Bankus Park; motion seconded by Commissioner Vilelle and the Commission voted with Tom Bazack abstaining; the motion carried unanimously.**

**INFORMATION UPDATES/DISCUSSION ITEMS**

- A.** Youth Work Force Seasonal Employees – Tony Baron updated Commission on seasonal employees that have been hired to assist with maintenance in the parks. Commissioner Trost commended Tony on his ability to find park grants and the hiring and training of youth to work in the parks.
- B.** ORPD Grant for Azalea Park Ball Field Phase Three – Tony Baron updated Commission on the ORPD grant that has been approved at 60% funding. Phase 3 includes picnic area, parking lot lights, scoreboards, ballfield lights and other improvements over the next two years.

**COMMISSIONER REPORTS/COMMENTS**

Commissioner Trost spoke of redwood cloning and the possibility of planting Champion Redwood clone trees in the parks. Tony will schedule as a future agenda item.

Commissioner Brown inquired about the status of Lower Stout Park. Tony advised the group previously involved in improving the area had disbanded and staff is researching options. Commissioner Trost thought the schools might be able to have a landscaping course which could involving students taking care of the area and they might take ownership which could eliminate some of the litter problem.

Chair Bozack commented that the paving of the Chetco Point parking area is a great improvement.

**ADJOURNMENT**

Next meeting scheduled for August 24, 2017. With no further business, meeting adjourned at 7:37 pm.

Respectfully submitted,


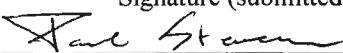
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Tom Bozack, Chair  
(Approved at August 24, 2017 meeting)

**CITY OF BROOKINGS**  
**PARKS & RECREATION COMMISSION**  
**AGENDA REPORT**

Meeting Date: August 24, 2017

Originating Dept: Parks

  
\_\_\_\_\_  
Signature (submitted by)  
  
\_\_\_\_\_  
PW/DS Director Approval

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Subject: Champion Redwood Clones

Motion: to accept the donation of Champion Redwood Clone trees

Background/Discussion:

Commissioner Trost requested the subject of Champion Redwood Clones be placed on the Parks and Recreation Agenda this month. Terry Mock, who is a sustainability consultant with Archangel Tree Archive has committed by donation, as many Champion Redwood Clones to plant in our parks as desired. Location and quantity yet to be determined.

Attachment(s):

- a. Garden Club of America Bulletin



# BULLETIN

PUBLISHED BY THE GARDEN CLUB OF AMERICA SINCE 1913      SPRING 2017

*Saving the Earth*  
America's Hardwood Forests  
Cloning Ancient Trees  
NAL Conference  
P4P's 25th Anniversary

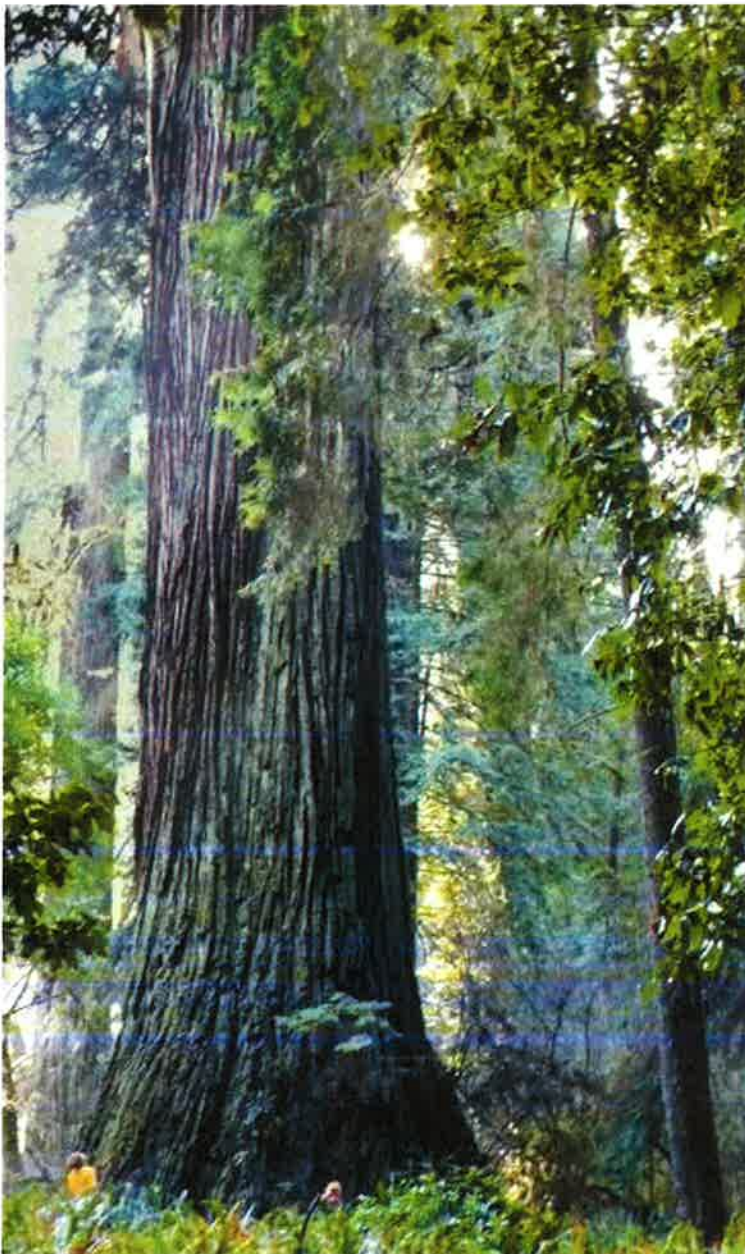
# Save the Redwoods...

## Save the Earth?

by Carolyn Bennett, GCA Vice Chairman

Conservation/NAL committees: Forests/Redwoods,

Hancock Park Garden Club, Zone XII



Coast redwood. Photo courtesy of Archangel Ancient Tree Archive

**T**hree little words, “Save the Redwoods!” became a battle cry for conservation efforts a century ago. Due to over-lumbering, the two million acres once covered by coast redwoods (*Sequoia sempervirens*) on the northern California and southern Oregon coastlines had been reduced to five percent of their original habitat. This emergency spurred the creation of the Save the Redwoods League in 1918 and, ever since, fundraising to save the remaining groves.

Attaining heights equivalent to a 35-story building, and trunk diameters of 30 feet, coast redwoods can live more than 3,000 years. Old-growth redwood forests—those that have sustained little natural or man-made disturbance enabling them to retain ecological features specific to the species—store three times more carbon than non-redwood forests worldwide. Even after an old-growth redwood dies, it can take centuries to decompose and release its stored carbon. A recent study led by the League’s Redwoods and Climate Change Initiative concluded that redwoods continue to produce wood as they age and that a greater proportion of that wood, compared to earlier growth, is converted into decay-resistant heartwood.

Given all this redwood-centered activity, it’s understandable that scientists want to study these fire, drought, and disease-resistant trees to unlock their secrets. But it’s a non-scientist—David Milarch, a nurseryman from Michigan—who has made it his mission to save them and, in the process, he hopes, us. In his words, “We need to reforest the planet; it’s imperative. To do that, it just makes sense to use the largest, oldest, most iconic trees that ever lived.”

For two decades Milarch has been cloning what he calls “champion” trees from around the country, and he’s become particularly focused on redwoods and their cousins, the giant sequoias (*Sequoiadendron giganteum*), because their size adds enormously to their ability to sequester carbon. Milarch’s volunteer arborists risk their lives climbing 20 to 30 stories up into redwood crowns to cut bud wood branches, which are then wrapped in newspaper, put in ice-filled duffels, and flown overnight to his lab in Michigan. There, shoots are cut off and planted in a peat and gel mixture. Milarch’s cuttings have a 90 percent survival rate and are transplanted when they are two to three feet tall. The expected growth is to about 100 feet in approximately 20 years. Some find new homes overseas, but many are now returned to California and Oregon to expand their northern habitat—a process Milarch has termed “assisted migration.” These clones could very well become one of our greatest natural defenses against increasing levels of atmospheric carbon and thus, climate change. By saving these trees now, they may help save us later!

# David Milarch: New Life for Old Growth



David Milarch in his laboratory in Copenmish, Michigan, where he developed a micro-propagation system for replicating old growth genetics

*until it was destroyed during a thunderstorm in 2002). He also has worked extensively at Mount Vernon cloning 13 trees planted by George Washington. Nine saplings of Milarch's national champions were planted at the Pentagon as a monument to the September 11th attacks. To date, Milarch has cloned hundreds of trees. But with 8,000 species worldwide on the endangered list he has no plans to pull back his efforts.*



At Milarch's facility in Michigan thousands of clones are nurtured into saplings. All photos courtesy of Archangel Ancient Tree Archive

## What exactly is cloning?

Cloning has been around since people first stuck a stem of coleus in a glass of water to root. It occurs when living tissue from an organism is taken—in trees, that can be a clipping from a branch—and, under very controlled conditions, grown into an exact replica of that organism.

## And how is that different from a tree that grows when pollinated seeds are dropped into soil?

What you get in that case is not an exact replica, just as you are not an exact replica of your parents. Only half the DNA of a plant grown from seed matches the female ancestor's; the other half is usually unknown, the result, for example, of wind or insect pollination.



Due to unchecked lumbering the vast forests of champion trees were decimated by the early 20th century

## What made the idea of cloning our most exceptional trees catch fire in you?

Well, the problem seemed clear to me: 98 percent of old-growth trees in the US have disappeared, most of them cut down with no real forethought beyond financial gain. My great-grandfather told stories about seeing forests of white pine clear-cut all over northern Michigan. In just a few years entire virgin tracts vanished. In the late 1960s I saw firsthand what had happened to the coast redwood in California. As the science on climate change accumulated, I realized that we had to access and clone the best specimens. And then *let them live*—instead of butchering them. A single mature giant sequoia weighs 2,000 tons, and 40 percent of that dry weight, or 800 tons, is stored carbon! That is our mission. This is why my wife, a college

**David Milarch** received the GCA's Distinguished Service Award in 2004 for "his vision and untiring efforts in founding the Champion Tree Project to identify, preserve, and clone our ancestral trees." This award is not given every year; in fact, it is given only when someone truly deserves such recognition. Milarch received this award because of his extraordinary work to save our ancient trees and uncover the mysteries of their survival.

When Milarch founded the Champion Tree Project in 1996, his goal was to identify the largest, oldest trees and to clone and propagate saplings from these "champion" survivors creating archival living libraries. Among the ancestral giants identified and cloned by Milarch are bristlecone pines, coast redwoods, giant sequoias, 176 species in Florida, and Maryland's Wye Oak (the largest white oak in the US



Coast redwoods are the most iconic tree on earth, engendering a sense of awe and reverence

teacher, has been willing to support our family for years while my sons and I climbed trees! So far we have cloned 70 of the largest coast redwoods and six giant sequoias. Among the sequoias is a seedling that John Muir himself dug up in the Sierra Nevadas and planted on his fruit farm in the Bay Area. Three years ago I got a call asking for help because the tree was dying. I'm happy to say that we have three surviving clones of that tree.

**How have you been able to locate and then work on champions?**

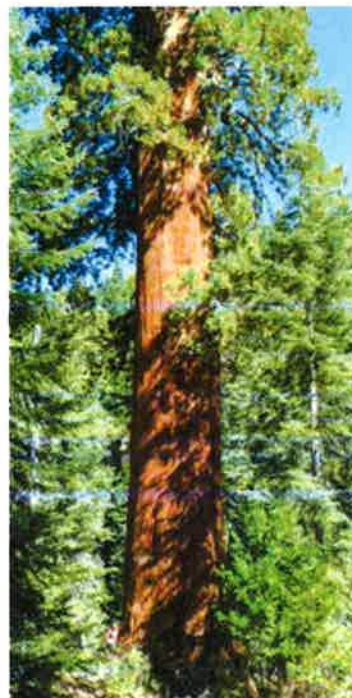
Well, having access to trees on public land is difficult. It literally took an act of Congress for us to be able to clone the 5,000-year-old Methuselah bristlecone pine, and I have US Senators Levin, now retired, and Stabenow to thank for that. So we went to private property owners in the coast redwood's natural range—a



Coast redwood

500-mile stretch from southern Oregon to Big Sur. We broke that down into 100-mile corridors, and from each we took 20-30 samples. We're

halfway through that project, and when it's finished we'll have compiled the most complete living library of arboreal genetic material in history. There's little or no funding now for genetic sequencing, but when there is, we'll have provided the archive.



Giant sequoia

**As you and your sons have scouted trees for cloning purposes, has anything taken you entirely by surprise?**

The most exciting discovery came in 2010, when my son Jake found a "lost grove" of coast redwood stumps in Northern California. Coast redwoods were considered the tallest trees on earth, while giant sequoias had the biggest trunk diameters. What we found were exceptionally tall (400-foot) coast redwoods with diameters eight feet greater than the largest giant sequoias!

**You must have been stunned!**

I almost fainted. Jake said, “Dad, let’s bring these back to life.” And I said, “I don’t know if we’re that good.” But Jake took 20-foot suckers—they snap off at 50 feet anyway, because they have no anchoring roots—and we have cloned four or five, all with 30-foot trunk diameters.

**On your way to restoring the world’s most efficient natural filters of air and water, you’ve probably come across some harrowing stories, too.**

The Fieldbrook stump, near Eureka, California, is a classic story of mindlessness. The



original tree was cut down in 1870 to satisfy a bar bet between an American financier and an English nobleman. The Englishman won, and his prize was a horizontal slab of

California’s iconic redwood. It was a brutal, insane act. The slab is still on display, as a cautionary symbol now, in a London suburb. Jake was allowed to take cuttings from the still-living parts of the stump. Our clones are giving that tree another 3,500 years or more of life.

**Tell us about the Archangel Ancient Tree Archive or AATA. How do you finance such endeavors?**

Our organization, the Archangel Ancient Tree Archive, which we created in 1996, is a nonprofit. Financing is always a challenge. Each cloned tree requires a \$10,000-\$25,000 expenditure for travel, wages for expert climbers, insurance, and such. Land, too, is required to grow our new forests. There’s more interest overseas, and we’re partnering



The Fieldbrook tree cut in a bar bet in 1870 and cloned by Milarch over 140 years later

with the Eden Project in Cornwall, England, for example, to further this form of propagation on six continents. Right now we’re finishing a Mt. Rushmore project.

As I look back, I would say that really important breakthroughs for us came when Jim Robbins first wrote in the *New York Times* “Science Times” a full page on the AATA in 2001; then I was invited to speak before 250 NASA scientists who wanted the lowdown, instead of the runaround, on climate change; and in 2004 the GCA honored my work with its Distinguished Service Award in Washington, DC. It was an incredible honor to receive. I’ll never forget it. GCA ladies are their own forces of nature. Receiving that award was another first for me: the first time I’d worn a tuxedo.

—Lorraine Alexander, Millbrook Garden Club, Zone III



Jake Milarch cuts specimens from high in the canopy that are brought back to the Archangel Ancient Tree Archive laboratory.