

## The 4.6 Billion Year History of Chocorua Lake Conservancy

[Talk originally given to the Friends of the Cook Memorial Library Annual Meeting, September 2023.]

*by Juno Lamb*

Chocorua Lake. You've been there, haven't you, maybe on an autumn day, standing on the cedar-railed Narrows Bridge between Chocorua and Little Lake? To the north, the foothills are aflame beneath the granite point of Mount Chocorua. Closer in, bright maples bend their bows toward the water and tall evergreens crowd the shore. In the circle of their embrace the lake contains a perfect reflection, upside down, of vivid trees, mountain, sky, and clouds.

It's not here by chance, this view across a shallow lake with wooded shores, to the famous mountain tipped in bare rock. These shores remain undeveloped, the water of the lake oligotrophic—pristine, ideal for swimming and fishing—the land and trails around the lake cared for, and 40 percent of the shoreline accessible to the public at no cost to visitors or taxpayers—because of a small, hardworking land trust, Chocorua Lake Conservancy, or CLC. “Land and water stewards since 1968,” the tagline says, and now, in 2023, CLC stewards more than 800 acres, including much of the shoreline, and holds conservation covenants and easements on 2500 more, comprising nearly all of the Lake Basin as well as land along the river that feeds into the lake. “In perpetuity” is what those easements say, a legal term meaning “forever.”

Chocorua Lake, and the Lake Basin, are beloved and iconic. A view of the lake and mountain graces the US quarter honoring the White Mountains. Thousands of people from all over visit the lake each year, taking in the view from the Basin View Lot, the Narrows Bridge, or the Grove, site of many marriages and celebrations. In summer, locals and visitors swim, kayak, fish, listen for loons, and catch glimpses of the eagles that sometimes nest on the lake's northern edge. Birders, wildflower enthusiasts, and mycophiles explore the trails, fields, and wetlands, as do others who seek the solace of the noisy quiet we find in wild places—bird song, buzzing bees, wind in the trees. In the winter ice fishermen come, and skaters, and cross-country skiers. Someone has even been known to sleep out in the middle of the lake on a winter night.

The two parent organizations that merged to become CLC in 2014 were formed in 1968 to fulfill the vision of earlier generations: that human activities should not alter the natural beauty and splendor of the Chocorua Lake Basin. By the 1950s and '60s it became clear that tradition and intention alone were not enough to protect the lake from development. Landowners realized that longstanding practices needed to be formalized into binding

agreements, and over a handful of years they worked together to voluntarily place much of the land in the Lake Basin under conservation covenant—all in a time before email.

Without the particular beauty of Chocorua Lake and the Lake Basin, without its location at the foot of Mount Chocorua, without its ecological importance in the Ossipee Lake Watershed that sits above the Ossipee Aquifer, the largest aquifer in what today is called New Hampshire, and its importance to residents and to generations of summer folks coming north from Boston and its environs, without the efforts of many, many people over many decades, and possibly if one hot-headed farmer hadn't murdered a young man who just wanted to cool off after a sweltering morning of haying, Chocorua Lake Conservancy would not exist, and we can only guess what the Lake Basin would look like today.

In perpetuity... Close your eyes, if you like. Take a deep breath, and another, and travel back in time. How far shall we go? In his 2004 book *A Time Before New Hampshire: The Story of a Land and Native Peoples*, Michael Caduto tells us that "...some 4.6 billion years ago, a universal explosion created a vast nebula..." Scientists now suggest the Big Bang happened 13.8 billion years ago, so let's just give or take a few years... Either way, Caduto's next paragraph begins, "Hundreds of millions of years passed."

That might be too far back. The oldest rocks in what today we call New Hampshire are but 650 million years old, which is starting to sound imaginable, right? Though maybe not—there still wasn't much of what we call life on earth, save for cyanobacteria and other algae.

It took a long time for the continents to settle into their current locations. They spun around the globe, crashed together, separated. The continent that became North America used to be south of the equator. The bedrock beneath our feet here in Chocorua may have been attached to the proto-African continent.

Life did emerge, doing its best to evolve, with setbacks—a mass extinction here, the Great Dying there....

236 million years ago (more or less—this date is also up for debate): Ancestral magnolias. Primitive beetles. "Thus," Caduto says, "pollination begins: a mutual exchange that is destined to evolve into one of the most intricate and essential of all interrelationships between plants and animals."

Dang, another meteorite, "a prolonged period of icy darkness" and the loss of nearly half the species on earth.

But then, dinosaurs! And volcanoes! We hear their echoes in the ring-dike of the Ossipee Mountains and in the igneous rock of Mount Chocorua and other hills and peaks in the White Mountains.

65 million years ago, an “asteroid up to 10 miles wide”! This bodes fatally ill for the dinosaurs, and for entire ecosystems. “Not all life is wiped out, however,” Caduto tells us. “Flowering plants, insects, birds, mammals, and marsupials are among those that somehow survive and will one day reign across the land and in the water of this new world.” Then, far more recently, our ancestors became *Homo sapiens*.

Meanwhile, four times over the last couple of million years, the future Northeast is covered with ice a mile deep, the last of these the Wisconsinan glaciation we see intimately inscribed across our landscape today. By 14,000 years ago the glacier has receded northward leaving distinct markings and deposits across the land. Proto-Chocorua Lake, geologist Rick Allmendinger speculates, is twice as large and twice as deep, flanked by another long lake to its west.

In the wake of the glacier, megafauna and smaller fauna roam an arid grassland steppe that in time becomes forest, and then increasingly diverse forest. It’s warm for a stretch of 5,000 years or so. “During this period of time,” Caduto says, “plants and animals form communities that are similar to those found in Virginia today. The diversity of life in this region is far greater than it is at the present time.” Then, over the last 4,000 years—until quite recently, anyway—the climate slowly cools and the land and ecosystem come to look much as they have in our lifetimes.

Archeological evidence shows that post-glacier, people have inhabited this region for more than 12,000 years, transporting different kinds of rocks useful for different purposes across a broad region, moving seasonally in smaller groups, traveling to the coast to visit and gather nourishing seaweed, fish, and shellfish, entangled and interdependent with the other-than-human world that provided their food and medicine, clothing and shelter. In time they cultivated crops and more actively managed and cared for the land that cared for them. They made tools, and art, they sang and danced and prayed and passed down stories and knowledge from one generation to the next, they evolved ways of being and knowing that their descendants still work to pass on today, after nearly 400 years of colonization, displacement, and genocide.

In time, early colonists landed along the coast of what is now New Hampshire, Maine, Massachusetts, and made their way north to take possession of this land. Some came to make a buck, some left persecution or poverty, hoping for more viable lives. They clear-cut dense forests to make fields, and, as they attempted to farm these rocky hills, built stone walls that recent LiDAR imagery shows us run dead straight and dead parallel across land that is anything but regular.

By the mid-19th century, most of the land here was open—you could stand at the top of any of our many hills and see a great distance. After the Civil War, word got out that in the Midwest a farmer might find 10 feet of loam with nary a pebble, whereas here the stonewall-enclosed fields, too small for the turning radius of newer farming machinery, were still producing healthy spring crops of rock. Farmers headed west, abandoning their farms. Forests began to grow back in, and in the latter part of the 19th century, as vacations and leisure activities became available to workers and not just wealthy people, and burgeoning rail service made Chocorua and the White Mountains accessible to residents of the Boston area, New Hampshire began to be the popular tourist destination it remains to this day. The Chocorua House, later the Chocorua Inn, opened in the 1860s, providing many future Basin landowners and summer folks their first glimpse of Chocorua Lake and the mountain. By 1897, at a dedication of the first Runnells Hall, the philosopher William James could say, “Once this was an agricultural town, but in its new history it has become a summer resort for businessmen and teachers who come here for their long vacation.”

While we know today that the Chocorua Legend is a fictional tale of murder, or suicide, this one actually happened:

A sweltering day, August, 1876, the sun pulsing in a bleached-blue sky. Two sets of brothers, sticky with sweat and itchy with hay dust after a morning of haymaking, stop to rinse off in the lake on their way home. Sylvester Cone, who owns 100 acres on the shore, has a temper—his neighbors don’t like or trust him—and a bee in his bonnet about skinny dipping. He warns the boys off, and then shoots and kills the poor fellow left tending the horses by the road, who hasn’t even had a chance to shed his clothing and bathe in Chocorua’s restorative waters. In prison for his crime, Cone defaults on his mortgage, and the property is bought by two Bostonians whose impulses toward conservation inspire, ultimately, the formation of CLC.

One of these men was Charles Pickering Bowditch, a Boston financier, archeologist, cryptographer, and linguist. In 1879, with a friend, Bowditch bought the defaulted-on Cone Farm on the eastern shore of Chocorua Lake, and went on to purchase several other parcels,

including Stratton Farm on the western shore. Toward the end of the 19th century and early in the 20th, badly-executed lumbering operations and forest fires were wreaking havoc in forests across northern New Hampshire. When the Lake Basin itself was threatened by a large lumber company, Bowditch and others started buying up land to protect it. By 1907, Bowditch owned 350 acres, including 85 percent of the lakeshore, and others had major holdings around the lake, as well.

Among their early accomplishments, these men—and we trust that their spouses, mothers, and daughters were involved, as well—brought suit against a lumber company and stopped the construction of a major dam above Chocorua Lake that would have flooded the wetlands north of the lake and risked polluting the lake’s water. Bowditch built the predecessor to today’s dam at the southern end of Little Lake to raise the water level of the lake and allow easy boat passage under the Narrows Bridge, functions that the current dam still serves today. In 1909, Bowditch and John Sumner Runnells protested the expansion of the road north to Conway. Later, they donated land to the State of New Hampshire in what is now Bowditch-Runnells State Forest, planted pine trees north of the lake at the advice of foresters, and bought other land to protect it from timber harvesting and an old mill to protect the brook and lake from pollution.

When he died in 1921, Bowditch left his land in a trust, the first attempt to form some sort of community organization among Lake Basin landowners, and you may know some of Bowditch’s descendants today. Many of them have devoted countless hours to CLC and its two predecessor organizations, honoring these words from their grandfather and great-grandfather’s will: “To insure in the future, as I have attempted in the past, the keeping of the shores of the Chocorua ponds in as natural and wild a state as possible.”

Time passed. Route 16 was straightened and relocated farther east of the lake in the early ‘50s, creating what is now known as the “Island”—far more room for visitors to park and enjoy the lake, which increased use of the beaches along the eastern lakeshore. Rising property taxes made it harder to imagine keeping large land holdings intact. People started talking about creating a lake association to manage projects that were overdue: rebuilding the dam, fixing the bridge railings, and supporting the Chocorua Lake Patrol and the Chocorua Mountain Club.

It didn’t quite happen, though...not for another 15 years. In 1966, the State of New Hampshire threatened to acquire and develop “outstanding natural areas at prime recreation sites,” including Chocorua Lake. Meanwhile, local landowners were concerned about overcrowding at the beaches, deteriorating water quality caused by motor boats, runoff into

the lake from Rt. 16, and shoreline erosion, as well as the subdivision of large tracts of land and haphazard timber operations. Regional concerns arose, as well—the State was contemplating an east-west highway, with one possible route across the head of Chocorua Lake, and they were considering widening 16. To quote *Timeless Chocorua*, a comprehensive history of CLC and the Lake Basin published in 2018, “The preservation challenges were becoming obvious, but the means and methods to protect this special place were not.”

In 1967, with support from the Tamworth Foundation and others, a group of Basin landowners hired a conservation planning team, and of the subsequent report’s several suggestions, the one that stuck was the establishment of conservation covenants and the formal incorporation of an organization “[whose] purposes...are to conserve the natural beauty of the lake shores, the freedom from pollution of its waters, and aesthetic and recreational assets of its slopes, including Mount Chocorua, for the benefit of all.”

And this is what happened. Not one but two organizations were created: the Chocorua Lake Association (CLA), a membership and community group that through the decades worked to strengthen the community of the Basin and beyond in ways that might sound familiar today—newsletters, cookouts and picnics, educational programs, and an annual meeting each August—and the Chocorua Lake Conservation Foundation (CLCF), a charitable trust whose responsibility would include holding land and interests in land in the Lake Basin to preserve the area in as natural a state as possible, promotion of research and education to the same end; and establishing and maintaining sanctuaries for wild animals and birds and preserves for growth and development of native flowers, ferns, mosses, lichens, aquatic plants, trees, and shrubs—all for the benefit of the public. These two organizations worked hand in hand until the merger that resulted in Chocorua Lake Conservancy.

A word about these conservation covenants. The concept was forward-looking. Not only were conservation easements not a recognized part of New Hampshire law, it was in fact the use of covenants in the Chocorua Basin that provided momentum for easement legislation at the state level. “Conservation covenant” has an official sound, but what it means is that neighbors got together, talked about what they wanted the Lake Basin to look like in the near- and far-term, and chose to give up the right to do whatever they wanted on their own land to protect each other’s land, to protect the area—and the value of each property—and to protect the lake for future generations. Among other things, they agreed that their properties would be for residential use only, with no commercial billboards or removal of sand and gravel, and no clear cutting within 150 feet of Chocorua Lake. No one was asked to act alone—not until at least half the properties in the Basin were signed off on would the scheme become official. Once it was, collective care was required to ensure that everyone

was honoring these agreements—which is to say, part of what keeps the covenants in place is that to protect all the properties in the common scheme, each property is monitored annually, and infractions are addressed.

In time, conservation easements were written into state law, and easements, rather than covenants, could be purchased or donated to CLCF and then CLC. CLC's public access areas at Chocorua Lake, land north of the lake that protects the Chocorua River, much of the beautiful CLC conservation land on Washington Hill Road, and the Chocorua Lake Basin View Lot are some of the results of these processes. These places are sanctuaries and preserves, home to flora and fauna both common and rare.

Just as I had to speed through billions of years of geology, I have to speed up now, because so much work has been done by so many people to get us to where we are today—these few notes don't even scratch the surface. The CLCF and CLA lobbied not once but twice to ban motor boats on Chocorua Lake, accomplished the prize-winning Berms & Swales project along Rt. 16, resulting in a marked improvement of water quality in Chocorua Lake, got the Chocorua Lake Basin designated as a National Historic District, and undertook periodic fundraising and capital campaigns to support the work of both organizations. In 2014, after years of effort and planning, the CLCF and CLA merged to become Chocorua Lake Conservancy, with this approved mission: “to protect the scenic and natural resources of the Chocorua Lake Basin and surrounding area through conservation practices, land protection, easements, maintenance of lands for public access, and the development of a community of support.”

From the time when conservation easements were first voted into law, standards of land trust practice and record keeping have evolved. With the holding of covenants and easements comes the responsibility—the ethical, and increasingly legal, obligation to steward these covenants and easements in perpetuity, which, as we learned in our geology lesson, could be a long time. As well as caring for the land it owns, CLC is responsible for coordinating with property owners to monitor close to 100 easements and covenants annually, with paperwork attached to each one! After the merger, it was clear that all this work could no longer be done by volunteers only, and in 2016 CLC hired a full-time Stewardship Director, in 2018 a part-time Programming and Outreach Director, and in 2022, a full-time Executive Director.

While the core work of CLC is monitoring covenants and easements, stewarding the land CLC owns, and conserving additional land around the Basin, it is also part of its mission to develop a “community of support.” As longtime board member Peg Wheeler says,

“Community engagement is a tool for land protection and it’s an essential tool—you cannot sustain the work over time unless the broader community is engaged in the effort. ...It’s essential, it’s heartwarming, and it’s gratifying to see the community be part of this effort.”

Members buoy every part of CLC, and even with paid staff the organization remains too small to do its work without volunteers. Stewardship days from spring to fall are an opportunity for locals and visitors to help sustain a place they love, and to work together in community, and outdoors in nature, while doing so. Volunteers help in myriad other ways as well, from board and committee service to event planning to sharing gorgeous photographs with us. Education programs aim to deepen our connection to the other-than-human world—to develop a community of support for the land itself and all its inhabitants. CLC is unusual in that it is a land trust formed from the merger of a legal environmental organization, and a social and cultural advocacy organization. We honor all of our roots.

Now it is today, already the third decade of the 21st century. The climate is changing in ways that are already affecting the land and water we care for, and our way of life in this region, perhaps not as quickly or dramatically as the lives of people in island nations or areas of rapid desertification, but in ways we can’t predict. According to climate models, and what we are already experiencing, this region will experience hotter summers, warmer winters, more heavy rain events, and longer periods of drought in between, all of which have implications for lake water quality, for the possibility that non-native plants will impact native ecosystems, for the spread of insects damaging to native trees, for trail sustainability, and more. And those pollinators...the ones that first appeared 236 million years ago? They too are struggling, and in decline—they need habitat to move and breathe in, native plants, earth, water, and air that is free of poisons, just as we do.

While we can’t see the future, we can do our best to anticipate these changes and to support the resilience of the land, the water systems the land contains, and the communities—human and other-than-human—that form the ecosystem of this place.

CLC has two large projects in the offing. The dam needs major repairs after a recent winter of much freezing and thawing, and the eastern shoreline of the lake needs attention. Increased human use and the intense rainstorms that come with climate change are eroding the shoreline, exposing tree roots, and adversely affecting some of the large trees. Work in this area will stabilize the shore, offer protection for trees in the form of dedicated paths and the planting of many more native trees and shrubs, and protect lake water quality by preventing toxic runoff from the highway during heavy rain events. As time goes by, other



needs will arise, and we will respond as best we can, as a community, in perpetuity, or for as long as we are able.

It is heartwarming, and a pleasure, to get to work alongside so many wonderful volunteers from different parts of the community, to hear from both new and longtime CLC members how much this place means to them and their families, and to see people from all over the country and the world stopping to take in the astonishing view of Mount Chocorua rising up behind the wide shallow waters of the lake.

Chocorua Lake and the Basin hold so many stories, so many moments and memories, only a few of which were captured in the 2018 Chocorua Lake Crankie. When a group of amazing local artists gathered to make that masterpiece in CLC's 50th anniversary year, we didn't know that the origins of the Annual Picnic lay in the picnics the maids from the big houses near the lake would have on Sunday afternoons. After serving Sunday lunch, and leaving a cold supper for their employers, they would have the rest of the afternoon and evening off and would gather together in what is now the Grove. I didn't have the image in my head from something Neely Lanou, another longtime board member, said, about how all the early houses were built set far back, invisible from the water, and people had to trek down to the lake to swim in their long black wool swimming costumes. I hadn't heard the story of a couple who married at the cabin of one of their parents in the '40s, and instead of going to the reception, borrowed a neighbor's boat and rowed out into the middle of the lake to eat wedding cake and drink ginger ale, just the two of them. You might have your own stories and memories, as I do. Certainly I enjoyed many nighttime swims after breaking down the set at the Barnstormers on a Saturday night, or contra dancing, or waitressing at Stafford's-in-the-Field. I also have a vivid memory of a summer evening at the Tamworth Residents Beach when my kids were young. We'd brought supper, and stayed on as night fell, and the air above us was suddenly thick with bats, swooping and dancing, eating up the mosquitoes that like the stars filled the night sky above us. Pure magic.

Human eyes have borne witness to these hills and waters for thousands of years. In our brief moment, the large community that comprises CLC strives to honor this magical place, to protect and maintain it so that generations to come will be able to find beauty and respite here, as we have.