



Tom McDonough started fishing in Lake Livingston shortly after it was completed in the early 1970s. He would always get his limit of white bass, crappie, stripers, and assorted other varieties. He and his wife moved away for several years, but when they decided to retire in 2003, Lake Livingston was their first and only choice. Tom wanted to enjoy the plethora of fish he remembered from his earlier days.

WATER- WILLOW

By Jeff Miller

[Opposite] Each of these floating red baskets can hold about a dozen plants. They are transported to the planting sites by boat.



[Above] The water-willows start out as small plants about 3 to 4 inches tall in the water, and within a matter of months, grow to several feet tall.



[Below] After just a few months, the plants have reached the correct size for planting and are transferred to large floating baskets to be used by the volunteers on planting day.

“When we moved back, one of the first things I did was take my boat out to all the places I used to frequent and I was shocked at the lack of habitat,” McDonough said. “The grass was totally gone, there was no habitat coverage for the fish, there were no more frogs in the lake because the tadpoles couldn’t survive. The water was a lot muddier than it used to be. I used to be able to see a spinner bait coming through the water 20 to 30 inches deep easily. Today, you can’t see more than two inches down.”

So he decided to do something about it.

It became apparent to McDonough, and a handful of others who were deeply interested in preserving the aquatic life in the lake, that part of the reason for the diminishing number of fish was due in part to the fact that over the years as Lake Livingston quickly developed and homes were built, bulkheads were going up at an incredible rate as well. Of the 475 miles of shoreline on the lake, an estimated 45 percent is bulkheaded, much of that in the southern part of the lake in Polk and San Jacinto Counties, where most of the bass fishing takes place.

In 2013, the Trinity River Authority (TRA) and Texas Parks and Wildlife Department (TPWD) approved a plan to foster natural habitat around Texas’ second largest lake. The plan, developed by McDonough, Texas Black Bass Unlimited and the Piney Wood Lakes Chapter of Texas Master Naturalists, created Lake Livingston Friends of Reservoirs (LLFoR) and defined a clear mission to reestablish Lake Livingston as a prime destination for anglers and water enthusiasts by restoring aquatic habitat.

What happened to Lake Livingston over the years is not uncommon for reservoir lakes. It’s typical for lakes to lose

their natural plants and grasses as they age. Over the past 46 years, the once abundant vegetation along the bottom and shores of Lake Livingston has declined to a point of non-existence. The Trinity River, which is the feeding source for the lake, brings in a lot of silt, and with diminished vegetation for “filtering” the water as it flows in, the silt impacts not only the water, but also the very survival of fish, reptiles, amphibians and shore birds, not to mention the enjoyment of fishermen and other water enthusiasts.

LLFoR is working to restore the habitat for fish and wildlife populations, as well as improving fishing and water quality and reducing erosion by planting vegetation in non-bulkhead areas to inhibit silt flow and provide a shelter for the small fish and fingerlings which keep the lake growing. In the process, they did something unexpected.

They built a multi-generational volunteer pool which ranges from local high school students to retirees. The volunteer force includes people in their early teens to octogenarians, and even inmate horticulturalists from Huntsville’s TDC Ellis Unit, who are exploring growth methods to produce larger, healthier plants in less time.

“It became obvious that we needed more than just the members of our organizations to make this 10-year project succeed,” said Ed Parten, with Texas Black Bass Unlimited. “We needed to involve our local high schools to grow, propagate, and plant these water-willows to demonstrate to them the economic and ecological impact of a healthy aquatic habitat. And in the long-term, maybe some of these students will be motivated enough to make it their career.”

To get started, they needed to establish what type of plants would best serve the purpose. Many native Texas water plants

REJUVENATION

are very invasive and could potentially have a negative effect on the program’s goals by multiplying too quickly and literally choking off areas of the lake, which has happened in other, smaller Texas lakes.

After much research, they ended up choosing the American Water-willow (*Justicia Americana*). These plants are non-invasive, fast-growing and very hardy. They are known to colonize up to 10 square feet per plant within two to three years. Once established, they will create vital habitat for fish, birds, and other invertebrates, and improve water quality, adding significant value to the surrounding community.

Since 2014, 17 sites have been planted with more than 10,000 water-willows, including Lake Livingston State Park, Waterwood, Kickapoo Creek and Wolf Creek Park.

So how can they keep the pace of growing these plants as fast as they are planting them? The answer lies with the volunteers.

“When a lake first comes to fruition, plant growth happens naturally,” said Chad Holton, assistant project manager for the TRA. “But as time goes on, these plants die off. Our project has volunteers to build propagation tanks where we can grow thousands of plants at a time. The high school students get involved with not only planting, but also propagating, cutting, transporting, and anything else they can get their hands on.”

The research being done at the Ellis Unit and at Lee College is going to speed up the propagation process so LLFoR can have more plants in less time. They expect to get more plants in the water to get the growth process moving even more quickly.

Students from seven independent school districts—Coldspring-Oakhurst, Corrigan-Camden, Goodrich, Livingston, Onalaska, Shepherd and Trinity High Schools—participate in growing plants on their campuses and in large plantings. LLFoR currently has 22 grow tanks in operation, each one containing between 600 and 700 plants.

“Getting the high schools involved was a real boom to the project,” Holton said. “It not only increased the volunteer base substantially, but it is also making great strides in getting them involved in critical environmental issues at an age where they just might seriously consider doing it for a long time.”

by highlighting innovative projects that are Texan-led, community-organized, and science-based.

But other than reducing erosion and making the lake cleaner, what other benefits do the LLFoR folks want to gain?

“By helping the lake and its fish, birds, and reptiles thrive, we expect to attract larger fishing tournaments, birders, naturalists, and water enthusiasts year-round,” Parten said. “We also want to see improvement of the lake’s shoreline, water quality, filtration, and wildlife habitats to enhance the economic value of Lake Livingston for residents.”

The plantings, which occur several times a year, have a festive atmosphere when all the volunteers show up. Hundreds of people are involved, with a train of school buses and cars bringing in volunteers, as well as a flotilla of boats brought in by volunteers to shuttle the students and other people out to the actual planting sites. There they don knee-high boots and start plugging the plants into the designated planting areas.

The students love it. They not only socialize (and get a day out of school and a delicious lunch), but they also know they are contributing to the long-term maintenance of the lake, where they have spent much of their childhood enjoying all that the lake has to offer. They want to be able to continue to enjoy the lake well into their adulthood.

GROWING VOLUNTEERS

The project also got a big boost this year when they were named a “Conservation Wrangler” by Texan by Nature, a nonprofit founded by former First Lady Laura Bush. The organization aims to align the broad interests of conservation groups with business, healthcare, schools, the scientific community, and faith-based organizations, with a core belief that Texas’ prosperity and quality of life are inextricably linked to the conservation of natural resources.

“Conservation Wrangler is a program highlighting the very best Texan-led conservation projects occurring in Texas that demonstrate tangible returns for people, prosperity, and natural resources,” said Scott Ball, project director for LLFoR. “Our multi-generational volunteer pool, educational outreach, and focus on improving water quality and natural habitat align closely with Conservation Wrangler Program objectives.”

Ball is confident that a partnership with Texan by Nature will help increase awareness of LLFoR’s success and accelerate their efforts to expand beyond Polk, San Jacinto, and Trinity Counties. Working together, the two organizations will bring the message of conservation to new audiences statewide

The adults enjoy it as well. And many of the volunteers who serve on the board have conducted community outreach presentations, which have taken them into local schools, service organizations and even to the State Conference of Texas Master Naturalists. Much of this is not only to promote the planting program, but also to generate funds to keep the program robust. LLFoR is funded solely by small grants and personal and business donations, so getting the word out to the public is critical.

More and more entities are getting involved as they see the results of the volunteers’ work, and see the population of fish and other wildlife increase in Lake Livingston. But as is the case with almost all organizations, help is always needed to keep this aggressive, volunteer program growing.

If you would like to get involved, donate, or become a sponsor, you can visit their website at www.llfor.org or email LLFOR2017@gmail.com for more information.

JEFF MILLER IS AN AWARD-WINNING LIVINGSTON-BASED FREELANCE WRITER WITH MORE THAN 40 YEARS OF EXPERIENCE.



[Background] The plants start out very small, and local high school students carefully place the small plants in trays after trimming off the excess leaves. These small plants then go into the propagation tanks to reach the proper height for planting.

[Right] The baskets must be hand-carried to the actual planting location after being offloaded from the boats.

