

# EAHCP STEWARD

News from the Edwards Aquifer Habitat Conservation Plan - May 2019

## Tip of the Spear

*Atlas Environmental Leads the Way on Nonnative Fish Removal*



You've probably had a friend or family member tell you a great fishing story about the giant fish they almost landed. Well, when Nick Menchaca catches fish, they don't get away.

"We are working under contract with the City of San Marcos and City of New Braunfels to remove the nonnative fish found there in order to protect the endangered species that are native to those waters," Menchaca explained. "Our program is just one of many that are part of the Edwards Aquifer Habitat Conservation Plan (EAHCP) which is designed to restore the native habitats of the Comal and San Marcos spring and river systems."

When the EAHCP formally began in 2013, Menchaca's company, Atlas Environmental, was hired by the City of San Marcos to remove invasive fish species from Spring Lake and the upper San Marcos River. This year, the City of New Braunfels brought the company on to continue removal efforts within the Comal Springs and river, including Landa Lake.

"We've been very successful so far. Since 2013, we've removed nearly 8,000 nonnative armored catfish from the San Marcos River. We recently reached a total of 10,000 pounds of invasive biomass removed from Spring Lake and the upper San Marcos River. In just three months of working in New Braunfels, we've speared over 1,000 tilapia for removal," Menchaca explained. "We have used nets before, but freediving with spear guns has proved to be most efficient. Nets capture other types of fish, debris and vegetation. Spearfishing is the most selective type of fishing and allows for minimal disturbance to all native species and habitats."

The targeted nonnative species include the suckermouth catfish, sailfin catfish, tilapia, red rimmed melania snails, ramshorn snails, and nutria. These animals compete for food and habitat with the native and endangered species that the EAHCP is designed to protect. Nutria are aquatic rodents that can grow larger than 20 pounds and can severely damage a river environment because they chomp on riverine plants and roots. They also burrow into river banks making the waterway susceptible to significant erosion during flooding. It is thought that nutria were originally from South America and were not found in the U.S. until about 200 years ago. Today, they are disrupting river environments across the Southwest and in California.

"We trap the nutria. In addition to harm these nonnative animals bring to the endangered species and habitat, they can make a mess of a river bank. Nutria excessively gnaw on bark and end up killing cypress trees and other native trees." Menchaca said. "The armored catfish, like the nutria, will also burrow into the sides of river and lake banks when they nest. As for the tilapia, we have best results in colder months, early in the mornings and even at night, especially with a full moon. We pick the ramshorn snails by hand from the river bottom. Over the last few years, we've been able to identify the hotspots and have become familiar with the best times to maximize removal efforts."

Menchaca stated that there are some definite differences between the Comal and San Marcos ecosystems, such as depth, current, vegetation, native species and public recreation. Most importantly, Landa Lake offers year-round successful spearfishing conditions. For the majority of the year in Spring Lake, the tilapia reside in a tributary known as Sink Creek with zero visibility. The tilapia only seek thermal refuge near the clearer, spring fed water on the coldest days and nights.

Throughout the entire year, spearfishing is dependent on the weather, fish activity, visibility and fluctuating numbers of people recreating in the river. During the summer months, they plan spear outings early in the mornings to avoid the busy afternoons of river recreation.

While spear fishing is off limits to the public in city limits, Atlas Environmental puts on two polespear fishing tournaments a year. Each tournament happens over the course of three weeks and entrants can win prizes in any of the 14 tournament categories. The competition has drawn some very proficient fishermen from around the region and has continued to grow each year.

"While we want the tournaments to be fun, they are actually part of the overall nonnative species removal program. This is also a way that our company can recruit volunteers to help us throughout the year," Menchaca said. "One of the winners of a couple of the tournaments has agreed to work with us from time to time and so he gets to fulfill his spearfishing passion and we get some excellent help. That's definitely a win-win for our program, the EAHCP and our overall community awareness efforts."

*Editor's Note: See Short Takes below for organizations you can get volunteer with to help EAHCP.*

## Short Takes

### **EAHCP Implementing/Stakeholder Committees Meeting Set for May 23-New Braunfels**

A joint meeting of the Edwards Aquifer Habitat Conservation Plan (EAHCP) Implementing Committee and Stakeholder Committee will be held Thursday, May 23, 2019, 10 AM, at the City of New Braunfels City Hall.

## Many Thanks to the EAHCP Science Committee Chairs

Science Committee Chairs Jacquelyn Duke and Chad Norris agreed to pose for an *EAHCP Steward* photo at the last Science Committee meeting in San Marcos. Thanks guys for your support and leadership.

The next Science Committee meeting is scheduled for Thursday, June 27, 10 am, at the San Marcos Aquatic Resources Center.



## Volunteer Opportunities

We hope you enjoyed the article on Atlas Environmental above. As Nick Menchaca mentioned, there will be a spear fishing tournament coming up in November, which are like volunteer opportunities to help remove nonnative fish from Landa Lake.

Here are some other groups you might consider contacting to volunteer to help the EAHCP keep the Comal and San Marcos Springs and Rivers clean.

### New Braunfels

Headwaters at the Comal Springs - [www.headwatersatthecomal.com](http://www.headwatersatthecomal.com)

Comal County Master Gardeners - [www.txmg.org/comal](http://www.txmg.org/comal)

Comal County Master Naturalists - [www.comal.agrilife.org/master-naturalists](http://www.comal.agrilife.org/master-naturalists)

Comal Trails Alliance - [www.comaltrails.org](http://www.comaltrails.org)

Native Plant Society of Texas-New Braunfels Chapter - [www.npsot.org/wp/newbraunfels](http://www.npsot.org/wp/newbraunfels)

Native Plant Society of Texas - Lindheimer Chapter - [www.npsot.org/wp/lindheimer/](http://www.npsot.org/wp/lindheimer/)

Comal County Conservation Association - [www.comalconservation.org](http://www.comalconservation.org)

### San Marcos

San Marcos River Foundation - [www.sanmarcosriver.org](http://www.sanmarcosriver.org)

San Marcos Greenbelt Alliance - [www.smgreenbelt.org](http://www.smgreenbelt.org)

Hays County Master Naturalists - [www.haysmn.org](http://www.haysmn.org)

Hays County Master Gardeners - [www.txmg.org/hays](http://www.txmg.org/hays)

Discovery Center - [www.sanmarcostx.gov/873/Discovery-Center](http://www.sanmarcostx.gov/873/Discovery-Center)

Conservation Crew - Email Eric Weeks at [EWeeks@sanmarcostx.gov](mailto:EWeeks@sanmarcostx.gov)

## EAHCP Steward YouTube Channel

Last month, we posted an underwater video pointing out some nonnative vegetation in the Comal and San Marcos Rivers. Here is the link to the EAHCP Steward YouTube Channel if you want to view that video again or download it. [www.youtube.com/channel/UCeTnpcj35ZIC8JNF8I\\_7NgQ](http://www.youtube.com/channel/UCeTnpcj35ZIC8JNF8I_7NgQ)