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Spearfishing for conservation

Tournament aims to remove invasive species from San Marcos River

By Liz Teitz
STAFF WRITER

SAN MARCOS — Stephen Davis drifted along the bank of the San Marcos River, only the top of his head and a green snorkel poking through the surface, barely visible above the vegetation floating on the water.

He moved back and forth, his diving fins occasionally fluttering, then emerged triumphantly a moment later: A large silver and white tilapia flapped on the tip of his 6-foot-long, three-pronged spear.

It was 10:22 a.m., and Davis had just caught his second fish, precisely 22 minutes after entering the river at Rio Vista park. The catch boded well for his chances to defend his title as the top tilapia catcher in the Spring Polespear Tournament.

Twice a year, hunters head to the river, armed with wetsuits, spears and, in Davis' case, a supply of Gatorade and snacks. Their prey are tilapia and suckermouth catfish, two invasive species that threaten the San Marcos River ecosystem. The winners take home $300 for catching the most weight, and $50 each for removing the most tilapia and catfish, among other prizes.

The competition motivates people while they're on the water — but the goal is more than

Spearfishing continues on A12

just awards and bragging rights, said event organizer Nick Menchaca, who owns Atlas Environmental, a company the city of San Marcos hires to remove invasive species.

"They're passionate about what they're doing, removing these fish," he said. The event is really about river stewardship, and doing their part to help the endangered species that live in the spring-fed system, who struggle to compete with the hardier invasive species, he said.

"I think it makes a difference," said Davis, who works as an aquatic biologist and has been competing in the tournaments since 2019. "This is all about management," he said. The goal isn't eradication, but to keep chipping away to keep the populations manageable."

The catfish — typically known as "plecos," which is shorthand for their scientific name *Hypostomus plecostomus* — are popular aquarium fish. They got into the San Marcos River by being dumped there when people no longer wanted them, Menchaca said. Nobody is certain how the tilapia got into the river, he said.

The plecos burrow into and undercut the river's banks, using tiny spikes on their bodies that can even wear down concrete. That contributes to erosion and destabilization, harming the sensitive river environment. The invasive fish also affect the food chain, often out-competing native species. The problem is exacerbated in drought conditions, when the native species are under additional pressure.

Menchaca's company, Atlas Environmental, works to remove not just the two fish species but also certain snails, trash and nutria, a type of rodent.

Since 2013, Atlas has removed more than 32,000 pounds of invasive organisms from the San Marcos and Comal rivers, Menchaca said.

That work is funded through the Edwards Aquifer Habitat Conservation Plan, a federally mandated program to protect the endangered species in the river, which springs from the aquifer. Seven species listed as endangered call the spring-fed system home: the Texas blind salamander, San Marcos salamander, Comal Springs dryopid beetle and riffle beetle, Peck's Cave amhipod, the fountain darter and Texas wild-rice, a type of aquatic grass that exists nowhere else in the world.

The conservation plan is made up of several components, including programs that reduce the use of water from the aquifer in times of drought to protect springflows. It also calls for habitat protection measures, including bank stabilization to prevent erosion, removing invasive plants and replacing them with native vegetation and the work that Atlas does to remove invasive species.

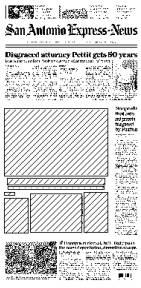
'Wee hours'

Twice a year, Menchaca opens that effort up to the public, inviting them to get in the river and loaning out spears and other equipment. The tournaments, usually held in November and February, run for two weeks, and contestants can each register for three five-hour slots. Some of the competitors are in the water from midnight to 5 a.m., which can be the best time to catch the plecos.

"They wake up in the wee hours of the morning and get out there before sunrise," he said. "And no matter the weather, as long as there's still visibility in the river, they're getting out there."

More than 40 people signed up for the spring tournament, which is capped at 60 participants, split up across three sections of the river. The times and locations for contestants are limited to ensure safety, Menchaca said: "it's close quarters on the river," and he doesn't want people spearing too close to each other.

The contestants are a mix of repeat competitors and begin-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ners trying their hand at it for the first time. "It's really cool to show them the ropes and how to spearfish ethically," Menchaca said.

Davis started as a beginner in 2019, when a co-worker suggested they try it out.

"We went down and dove together for our time slots and had no idea what we were doing," he said. He speared maybe two tilapia, and thought "well, I learned a few things, better luck next time." Then he got an email from Menchaca, announcing he'd won the category. From then on, he said, "there was no turning back, now that I have a title to defend."

The spearfishing concept is simple: The spears have elastic bands, which the hunters pull back and then release to shoot. Longer spears are often preferred for open water, because they can be shot from farther away without scaring off the fish, while shorter spears allow for more control and are easier to maneuver in tighter areas.

Menchaca said it's an efficient method of fish removal, because the polespears are easy to reload quickly, and because the fish they're targeting typically won't bite on bait. It also makes a sport out of the activity, he said.

Over time, Davis has learned his favorite locations, usually the darker, shadier spots where the fish like to hide out. And he's developed secrets of his own (no, he won't share them) that have helped him win the tilapia title every tournament since — though it helps that most of the contestants target the plecos. It's easier to catch a large number of them, Davis said; in November, the top catfish-hunter speared 143, while he won the tilapia category with 13. In that tournament, the contestants pulled in a total of 505 catfish, weighing more than 148 pounds, and 16 tilapia, according to Atlas.

The biggest tip Davis will offer up is to relax. "Whether you see a fish and you're freaking out, or you're swimming through the water and get tangled, you have to just stay calm. It helps you shoot more fish and stay safe," he said. When adrenaline takes over, the fish can sense it.

"When your heart rate is up and you're real tense, they know something's up," he said.

He stores his bounty in a blue mesh bag, attached to a borrowed diveboard — picture half of a paddleboard, or an open-topped kayak — that he uses to carry his supplies, towing it behind him on a rope attached to his belt.

'How ecosystem functions'

At the end of their catching shifts, all competitors turn in their fish to Menchaca so they can be weighed and tallied. They don't go to waste: The tilapia are turned into fish tacos, handed out to the public at a fish fry at the end of the tournament. The catfish and any tilapia that aren't eaten are taken to a compost business, where they become a fish emulsion fertilizer.

The fish fry is a chance to not just celebrate the competition, but invite new people in to learn more, Menchaca said. It also gives competitors a chance to swap stories and share "honey holes," or favorite spots for catching fish.

This year's event will be held on Sunday, Feb. 25, in the beer garden at Ivar's River Pub. The restaurant sits across from Rio Vista Park, not far from where Davis was swimming.

By 3 p.m., the end of his competition slot, he'd caught 10 tilapia, bringing his total for the week to 20, a new personal record.

But while he likes to win, what keeps him coming back is the experience, he said. Sometimes, he'll spend 20 minutes just following around a snapping turtle, and he likes when the largemouth bass swim up and stare at him, seemingly knowing that he can't spear them.

"Obviously, spearing fish is the goal," Davis said. "But just being able to snorkel in this spring-fed system is really fun, just to be a fly on the wall and watch how the ecosystem functions."

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Photos by Jessica Phelps/Staff photographer

Stephen Davis pulls a tilapia out of the San Marcos River as part of a spearfishing competition to save the river's fragile ecosystem.

Davis, who works as an aquatic biologist, has been competing in the tournaments since 2019.

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Jessica Phelps/Staff photographer

Stephen Davis uses a spear to pull a tilapia out of the San Marcos River. Davis was participating in a fishing competition aimed at removing invasive species from the river's ecosystem.