

EAHCP STEWARD

News from the Edwards Aquifer Habitat Conservation Plan - July-August 2024



Team Works

*US Fish and Wildlife Service Edwards Aquifer Refugia
Team Named "Team of the Year"*

Teamwork makes the dream work.

That's a nice, catchy phrase, but when those words come to life, a team can truly excel in its endeavors. And that is exactly what happened for the Edwards Aquifer Refugia Program (EARP) team as they were selected as the U.S. Fish and Wildlife Service (USFWS) Region 2 Team of the Year. These 16 USFWS scientists are dedicated to ensuring the Edwards Aquifer Habitat Conservation Plan's (EAHCP) refugia program succeeds.

Team Works - Continued



Dr. Katie Bockrath at the Edwards Aquifer Refugia in Uvalde, Texas.

The USFWS has eight different geographic regions with its national headquarters located in Washington, D.C. Each region is dedicated to conserving the nation's fish and wildlife resources and fostering an environmental stewardship ethic based on ecological principles, scientific knowledge and a sense of moral responsibility. USFWS Region 2, known as the Southwest Region, consists of Texas, Oklahoma, New Mexico and Arizona.

"The Edwards Aquifer Refugia Program is a shining example of what can be achieved through exceptional teamwork," said Amy Lueders, the Service's Southwest Regional Director. "Their ability to seamlessly collaborate across multiple dedicated refugia facilities and with diverse partners, coupled with their innovative approach to conservation, has yielded remarkable results for endangered species and helps ensure the future of a vital resource for millions."

"The refugia program is a key component of the Edwards Aquifer Habitat Conservation Plan (EAHCP) and our team is responsible for caring for the captive endangered species populations we have in the refugia facilities located in San Marcos and Uvalde," said Dr. Katie Bockrath, the EARP team leader. "The purpose for holding these species in a refugia is so that if something catastrophic happened to the Edwards Aquifer or the rivers the Aquifer feeds, we will have a safe population of those species to reintroduce into the environment once it is deemed okay to do so."

Bockrath noted that even though their team was acknowledged for its work, they work very closely with many other public and private organizations to get their work done. She named the EAHCP team members who are responsible for the managing entire program, BIOWEST, a private company responsible for gathering field data associated with the endangered species and their habitats, various city habitat conservation plan staffers, and university teams from Texas State University and UT Austin.

Team Works - Continued

The USFWS has eight different geographic regions with its national headquarters located in Washington, D.C. Each region is dedicated to conserving the nation's fish and wildlife resources and fostering an environmental stewardship ethic based on ecological principles, scientific knowledge and a sense of moral responsibility. USFWS Region 2, known as the Southwest Region, consists of Texas, Oklahoma, New Mexico and Arizona.

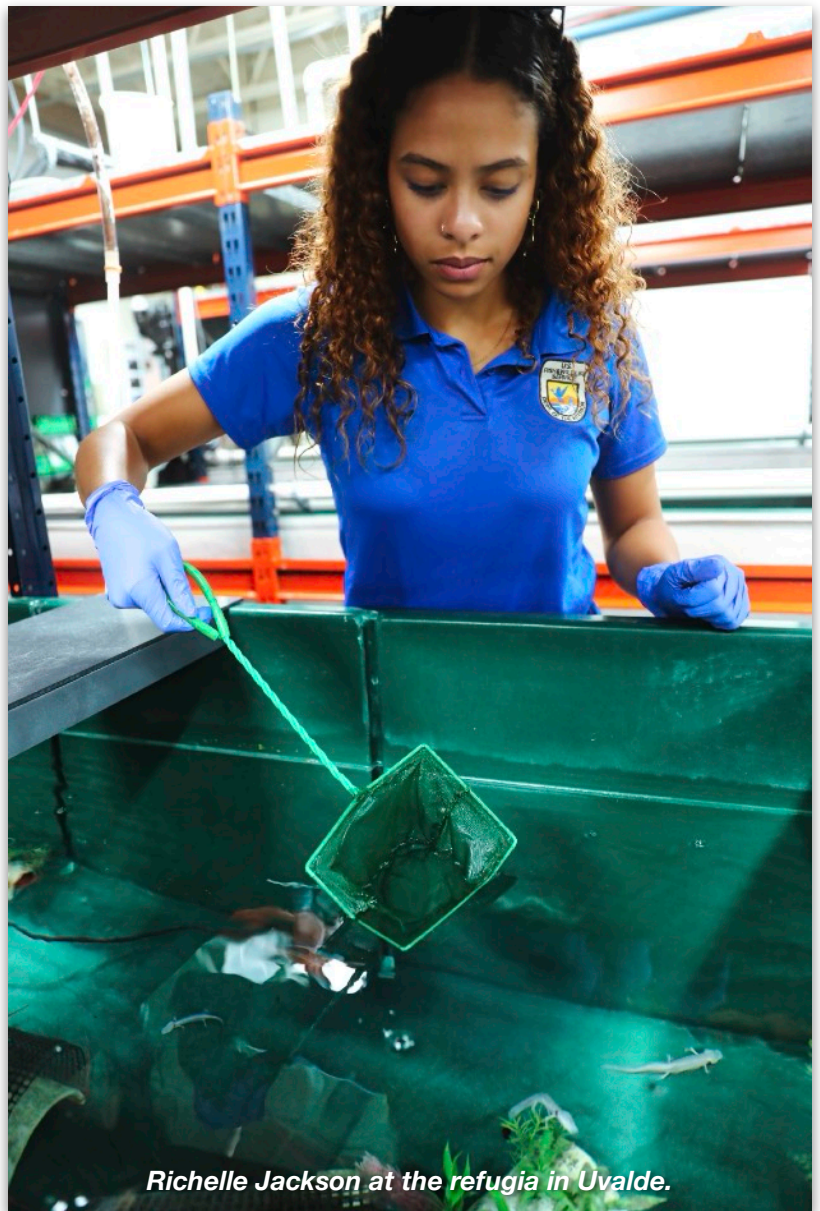
"The Edwards Aquifer Refugia Program is a shining example of what can be achieved through exceptional teamwork," said Amy Lueders, the Service's Southwest Regional Director. "Their ability to seamlessly collaborate across multiple dedicated refugia facilities and with diverse partners, coupled with their innovative approach to conservation, has yielded remarkable results for endangered species and helps ensure the future of a vital resource for millions."

"The refugia program is a key component of the Edwards Aquifer Habitat Conservation Plan (EAHCP) and our team is responsible for caring for the captive endangered species populations we have in the refugia facilities located in San Marcos and Uvalde," said Dr. Katie Bockrath, the EARP team leader. "The purpose for holding these species in a refugia is so that if something catastrophic happened to the Edwards Aquifer or the rivers the Aquifer feeds, we will have a safe population of those species to reintroduce into the environment once it is deemed okay to do so."

Bockrath noted that even though their team was acknowledged for its work, they work very closely with many other public and private organizations to get their work done. She named the EAHCP team members who are responsible for the managing entire program, BIOWEST, a private company responsible for gathering field data associated with the endangered species and their habitats, various city habitat conservation plan staffers, and university teams from Texas State University and UT Austin.

The USFWS refugia team was primarily focused on six research programs over the past year. Bockrath explained that those research efforts are based on five pillars that give their work a solid foundation.

"First, we have to know where the organisms are and how to safely collect them and we have to know how to keep them alive in a refugia," Bockrath outlined. "Once we have a population of species in captivity we're learning how to propagate them. Also, we are studying the genetics of the captive population to make sure they represent the species currently living in the wild. And ultimately, we need to know how to reintroduce a captive population into the current habitats if those habitats ever experienced major problems."



Richelle Jackson at the refugia in Uvalde.

Team Works - Continued



EAHCP's Dr. Chad Furl and Kristy Kollaus congratulate USFWS' Desiree Moore, left, on the Team of the Year Award and her new position in Nevada. EAHCP Steward has featured Moore's working in tagging/tracking endangered species in their habitat.

As far as the research work goes, the team has been building on the genetic assessments previously accomplished to track any changes that might be occurring over time, especially in the species with short lifespans. The team also ramped up its tagging and tracking studies to gain greater insights into movements of the species in their habitats. That knowledge will in turn inform the team on the best locations for responsible reintroduction if that was ever needed. Studying disease treatment and prevention was another priority for biologists on the team. They've looked at treating salamanders for fungal infections and fountain darters with parasite infections which sometimes occur seasonally.

"We are also digging into our husbandry research on propagating the San Marcos salamander at the refugia in San Marcos," Bockrath said. "The Texas blind salamander has been a little easier to reproduce in the captivity while the San Marcos salamander has been a challenge. We have improved our husbandry techniques and have been studying egg development and tracking survival rates. And that has given us a much better idea of how many San Marcos salamanders we could produce in any given year if we had to."

While the research work is the cornerstone of the EARP team, there is always a great deal of paperwork and public accountability that occurs with public-funded programs like the EAHCP.

"Transparency is of the highest importance to us," said David Britton, San Marcos Aquatic Resources Center Director. "The EAHCP involves local, state and federal agencies and all have specific reporting requirements so we absolutely have to track and justify every dollar we spend for the EAHCP. We also are very aware that the dollars we invest come from ratepayers and taxpayers and so that's another level of respect we bring to our budgeting and accounting. In working with the State of Texas, they have rules in

Team Works - Continued



place that dictate that we must use USFWS dollars to purchase what we need and then apply for reimbursement. So, overall we were pleased to be rated very well for how we handle our public accountability in the program.”

“We were very happy to hear that the refugia team overseeing the EAHCP’s two refugia sites in San Marcos and Uvalde won the Team of the Year award,” said Dr. Chad Furl, Chief Science Officer for the EAHCP. “Their challenge of safeguarding the seven endangered species through field and lab research, creating new populations of the species in captivity and identifying threats to the species in the wild is no easy task. And the fact that they’ve created such a cohesive and dedicated team gives all involved with the EAHCP great confidence in knowing that these tiny creatures are in very good hands.”

Region 2 Team of the Year

Dominique Alvear – Fisheries and Aquatic Conservation

Dr. Katie Bockrath - Fisheries and Aquatic Conservation

David Britton, Ph.D. - Fisheries and Aquatic Conservation

Adam Daw - NOAA

Jonathan Donahey - Fisheries and Aquatic Conservation

Marta Estrada - Fisheries and Aquatic Conservation

Lisa Griego-Lyon - Fisheries and Aquatic Conservation

Jennifer Howeth - Fisheries and Aquatic Conservation

Richelle Jackson - Fisheries and Aquatic Conservation

Heidi Meador - Fisheries and Aquatic Conservation

Desiree Moore - Fisheries and Aquatic Conservation

Shawn Moore - Fisheries and Aquatic Conservation

Robert Quinones - Fisheries and Aquatic Conservation

Scott J. Walker Ph.D. - Fisheries and Aquatic Conservation

Braden West - Fisheries and Aquatic Conservation

Nicholas Yvon - Fisheries and Aquatic Conservation

EAHCP STEWARD SHORT TAKES

[Listen to this month's EAHCP Steward Podcast by clicking here.](#)

EAHCP Happenings

- Mark your calendars! The City of New Braunfels 2024 Dos Rios Watershed Cleanup will be held on October 12, 2024, at Prince Solms Park. More information coming soon!
- The National HCP Coalition is seeking abstracts for the 10th annual meeting. Interesting in participating in this year's event? Please visit www.nhcpcoalition.org to learn more.
- 2024 EAHCP Calendar: <https://www.edwardsaquifer.org/habitat-conservation-plan/eahcp-calendar/>

How to Access EAHCP Committee Documents

The EAHCP Committee documents are available at this link: www.dropbox.com/scl/fi/r1ku53l7gz446edghx91l/How-To-Access-EAHCP-Committee-Meeting-Documents-on-EAA-Legistar_v3.mp4?rlkey=gr0gg4hodp47w47ekcnsep1r&dl=0

