



“Currents” April 2024

Native Trees are Resilient

If I asked you to describe the Guadalupe River in Kerr County, chances are your response would include something about towering cypress trees lining the banks. Bald cypress are a quintessential feature of Hill Country rivers and streams.

Bald cypress are conifers which means they have cones and needle-like leaves. Unlike evergreen conifers such as cedar, bald cypress are deciduous because the needles turn brown and fall off each autumn leaving the branches of the tree “bald” during winter. Cypress are adapted to grow in naturally wet conditions and are the largest and most characteristic riparian tree on the Guadalupe River.

In 2019, the dam on Lake Dunlap near New Braunfels had a spillway failure which caused the lake to drain and remain at a significantly lower level than usual for 4 years until it was repaired. With the dam compromised, lake levels dropped 8-10 ft. exposing the roots of the cypress trees along the bank. This drop in water level coupled with multiple years of extreme drought put an incredible amount of stress on the trees in the riparian area. Despite the unfortunate circumstances, it provided the Texas A&M Forest Service with an opportunity to survey and observe the effects of this extreme stress on the bald cypress.

Along the stretch of bank that the Forest Service surveyed, 88% of the cypress trees were alive at the end of the 4 years. This shows a tremendous amount of resiliency for the species. Drought puts stress on wildlife, plants, and humans alike, but native plant species are better equipped to handle drought than we might expect. During drought, cypress trees enter a semidormant state and drop their leaves earlier in the year. They hold on to water internally and wait for the rain to come back before they leaf out again.

We saw this happen around Kerr County last summer when flow in the river was down over 90% and it appeared as if some of the cypress trees had entered fall in August. We will likely see these low flows again this summer. For the last two years Kerr County received significantly lower annual rainfall than average, and while we’re on par with average rainfall so far in 2024, the National Oceanic and Atmospheric Administration’s seasonal outlook predicts a hot and dry summer. Even with the rain we’ve received this spring, most of the county is still in a severe to extreme drought, river flow in Kerrville is even lower than this time last year, and Trinity Aquifer levels have not recovered from the last couple of years. This summer it will be important to pay close attention to the City of Kerrville and Headwater Groundwater Conservation District’s drought stages as conditions change.

Native plants like the bald cypress will always have the best shot at surviving drought, but low river flow is stressful for any riparian plant. During times of drought, we can work together and conserve water to provide the rivers and aquifers with the best shot at recovery. You can learn more about native plants and water conservation by visiting our website at www.ugra.org/major-initiatives/eduscape.

Let’s Keep Our River Clean

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