



## ***RIPARIAN RECOVERY NETWORK NEWS*** **Riparian:** wetlands adjacent to rivers or streams



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### **Understanding Native Grasses**

Over five decades ago David Bamberger, co-founder and former CEO of Church's Fried Chicken, bought the "sorriest piece of land in Blanco County" - land that had been destroyed by over a century of misuse (overgrazing, fire suppression, poor agricultural practices, etc.) Over time, ancient springs and creek beds had dried up leaving a parched and barren landscape. David and his late wife, Margaret, set out to restore ecological balance to that sorry 5,500 acres. Today, the once dry springs and creek beds are flowing year round. For information on opportunities to visit the Bamberger Ranch, go to <https://bambergeranch.org/frequently-asked-questions/how-do-i-visit-the-bamberger-ranch>.

In *Water from Stone: The Story of Selah, Bamberger Ranch Preserve*, author, Jeffrey Greene, observes that to bring the water back David first restored the native grasses. Bare ground doesn't absorb much water. Ground covered with tall, deep-rooted native grasses does. The above ground vegetation slows the water down and the massive root systems create pathways along which water can travel as it infiltrates the soil and recharges the aquifer. Over time, soil builds on ground protected by native grasses increasing the quantity of water "captured" rather than running off. And in the process, this same soil acts as a filter leading that improves water quality.



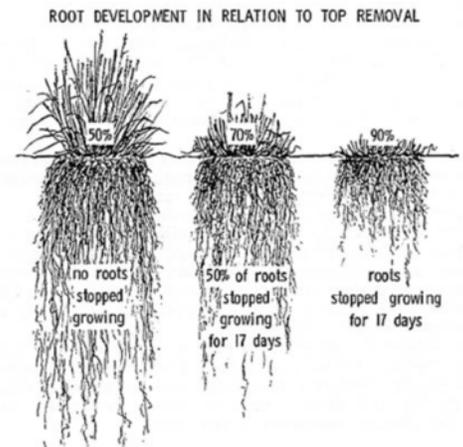
People who know grasses can easily "read" a landscape given that the type of grass growing in a particular spot serves as an indicator of hidden seeps, springs, and deeper soil. One example is Seep Muhly. With its pink flowers (yes grasses have very small almost imperceptible flowers), this native grass looks very much like a smaller version of its more popular cousin, Gulf Muhly. As the name implies, Seep Muhly is often found near seeps. That's because this particular grass like many others in riparian areas is adept at handling soil that alternates between dry and moist.

Another grass tolerant of alternately wet and dry conditions is Eastern Gammagrass. Such a survival strategy depends on root systems that tolerate extreme variations in soil moisture. The roots of Eastern Gamagrass extend deeply into the ground enabling them to reach water during times of scarcity. But that same root system contains aerenchyma (i.e., air-filled passages) that enable the plants to survive in temporarily saturated soils. So Eastern Gamagrass is often found in wet weather creeks and other places subject to occasional inundation by flood waters.



Some riparian grasses are only found in areas where the soil stays mostly moist, primarily alongside rivers or creeks. The most prominent example is Bushy Bluestem which grows as tall as 3-4 feet. Bushy Bluestem is especially striking in the fall when it turns bronze and develops large, fluffy seedheads. Its roots (stability rating of 5) aren't as strong as other riparian grasses. But its fluffy seeds are easily spread by the wind. And fortunately Bushy Bluestem will grow on gravel bars where it catches sediment thus setting up a more favorable environment for plants with higher stability ratings. Seeds can be harvested after the plants have turned bronze and the seeds come off readily in your hand. Landscaper, Shannon Brown, from Ecosystem Regeneration Artisans advises "take only what is given" adding that the most common mistake is collecting seeds too early meaning they are less viable.

Grasses vary in the ways they react to mowing. In general, research shows that grass production is significantly reduced when more than 1/2 the leaf surface is removed by close grazing or mowing. As top growth is removed, grasses self-prune their roots to compensate. Too much grazing or mowing without sufficient time to recover between such events and the plant eventually dies. Most grasses found in both riparian areas and in the uplands are "bunch" grasses which means they grow in clumps. While these clumps get larger over time, the primary means by which bunch grasses spread is seed. Grasses typically used for lawns are "sod" grasses also sometimes referred to as "turf" grasses. Sod grasses, both introduced species like St. Augustine and natives like Buffalo, spread either by underground stems called rhizomes or above-ground stems called stolons. This means in general they are more tolerant of frequent mowing. But, even then, setting your mower to a higher level can stimulate more robust growth. So give it a try and watch what happens.



Bunch grasses can be mowed occasionally and even benefit as removal of old growth by mowing, grazing, or burning encourages new shoots. Frequency of mowing depends on a lot of factors, but generally most native bunch grasses can withstand once a year mowing. Such mowing should however be carefully timed so that it does not interfere with the season in which desirable grasses drop their seeds. In areas mowed more frequently, invasive King Ranch (KR) Bluestem tends to thrive better than native bunch grasses. The manner in which King Ranch responds to frequent "haircuts" is the reason it was introduced into Texas for livestock grazing. When frequently grazed or mowed, KR's growth pattern shifts. It grows parallel to the ground thus protecting stems and giving them a leg up over natives in developing new seedheads.

## Trees for the Blanco Begins Its Final Year



On October 10th, Treefolks began its last year of planting with an event at Five Mile Dam. Over 100 enthusiastic middle and high school students from St. Stephens Episcopal School in Austin participated. As you can see it's not hard work. The seedlings are small and TreeFolks provides the tools and planting instructions. Volunteer plantings are opportunities for lots of fun and a chance to give back. There will be two volunteer plantings in Wimberley this year, on November 10th and February 16th. To sign up, go to <https://www.treefolks.org/volunteer-with-trees-2/#1509461751497-2db1b37d-c4f7>.

## Educational Opportunities

### *Riparian Educational Display*

During the month of November, the library display area will be devoted to information on the riparian areas and why we need to protect them. So next time you visit the library, stop by and check it out. Thanks go to Master Naturalist Deb Bradshaw for her efforts putting the display together.

### *Save These Dates - Living in Harmony - Land, Water, Plants and Wildlife Speaker Series*

On the second Wednesday of the month from January to May of 2019 (that's 1/9, 2/13, 3/13, 4/10, and 5/8) at 6PM, the Wimberley Village Library will be sponsoring a series of talks designed to expand our collective understanding of how we can work together to continue living in harmony with our beloved Wimberley Valley's natural resources. Speakers will include Joseph 'Pete' Van Dyke from Van Dyke Earthworks and Design, Local Master Naturalist LaRay Geist, Blake Hendon from Texas Parks and Wildlife, Michelle Bertelsen from the Wildflower Center, and Daniel Oppenheimer from the Hill Country Alliance. So mark your calendars and watch for more information on each of the five talks.

### *Remarkable Riparian Video Link*

Want to better understand riparian areas. The Remarkable Riparian website has links to a host of videos that cover just about everything you ever wanted to know. To find the links, go to:

<http://texasriparian.org/riparian-education-program/264-2/>

The Riparian Recovery Network News is a periodic Hays County Master Naturalist publication covering topics of interest to the Riparian Recovery Network community. Please share this newsletter with friends and neighbors who would enjoy information on restoring and enjoying their riparian zone. Send any questions you might have or ideas for future topics to [riparian@haysmn.org](mailto:riparian@haysmn.org). And, if you are not currently on our mailing list, use this same address to request your name be added.

