



RIPARIAN RECOVERY NETWORK NEWS

Riparian: wetlands adjacent to rivers or streams



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Who Are We?

The Riparian Recovery Network is about creating a shared vision for our recovering riparian land that balances our own individual needs with what is required to keep the Wimberley Valley’s waterways clean, healthy, and beautiful. The network is about connections - connections with:

- EXPERTS providing learning through seminars, field trips, personal contact, and more ... ,
- PLANT RESOURCES including plant identification, recommendations, seeds, and more ... ,
- EACH OTHER as together we learn and develop the best plan for our individual properties.

Arundo Donax Workshop

On June 20th, Texas Parks and Wildlife held a very informative Arundo Donax workshop in Wimberley. As of the workshop, a total of 110 landowners with property along the Blanco were participating in the Healthy Creeks Initiative. This effort is designed to provide free help to landowners wanting to rid their property of this “nuisance aquatic vegetation.”

Besides the fact that it grows tall thus getting in the way of river views and blocking access, why is Arundo such a nuisance? Firstly, the plant attracts things we don’t like - feral hogs, nutria, ticks - and hurts things we do, especially fish like the Guadalupe bass. Arundo also has a high wax content making it a fire hazard, particularly during dry summers like the one we are now experiencing.

River banks with Arundo are also more prone to flooding which can increase the impacted area by up to 10%. And Arundo grows rapidly - up to 2 inches per day - crowding out native riparian plants that do a much better job of protecting the Blanco’s banks. So, pass the word to anyone who has Arundo on their property and urge them to join the Healthy Creeks Initiative by visiting tpwd.texas.gov/HealthyCreeks.

ARUNDO DONAX IMPAIRS CREEK HEALTH.

Documented in **136+** Texas counties, with 10 additional in western Hill Country rivers not along the Blanco.

Arundo can grow up to **2 INCHES PER DAY**, crowding out and replacing native plants.

FISHING & BOATING IMPACTS: Arundo blocks the path of fish and boaters, reducing the ability to fish and enjoy the river.

DAMAGE TO RIVER BANKS: Arundo roots are shallow and do not hold soil in place, leading to bank erosion.

DROUGHT & FLOOD RISK: Arundo has high wax content, making it a fire hazard. It also crowds out native plants that do a better job of protecting the Blanco's banks, increasing the impacted area by up to **10%**.

Keep our creeks healthy. Prevent invasives:

- 1 Don't mow, let it grow
- 2 Let woody debris be
- 3 Plant natives

Join the Healthy Creeks Initiative:
tpwd.texas.gov/HealthyCreeks

Roots Matter!



Roots matter, especially in riparian areas subject to the vagaries of both floods and droughts. Pictured on the left is a two foot fragment of *Arundo Donax* root. This massive root is why this invasive is so hard to eradicate. But *Arundo*'s roots aren't deep enough to prevent the undercutting of stream banks. The roots of native riparian/wetland species grow six times deeper thus resisting such undercutting and making them critical to both bank and channel stability.

Many of you have copies of our favorite reference - [Your Remarkable Riparian: Field Guide to Riparian Plants Found Within Most of Texas](#). (If you don't, let us know and we will make sure you get one). On page 5 of the third edition, range conservationist and wildlife biologist, Steve Nelle, observes "In functioning condition, the riparian 'root basket' acts like a cradle, holding the stream in place and protecting the banks."

Even compared to native upland species from the same region, the roots of riparian vegetation are denser and stronger. Typically, the root biomass of riparian-wetland species is 2.5-5 times their above ground leaf and stem biomass. One study found that the root system of a riparian plant called Nebraska sedge consisted of 21 miles of root contained within a cubic foot of soil. By contrast, an upland grass from the same region had 2 miles of roots per cubic foot. Still impressive, but an order of magnitude less so.

It seems counterintuitive, but droughts are actually good for riparian vegetation and, in turn, that is good for the Wimberley Valley's streams. The roots of riparian plants are often connected to a shallow water table. As the water table recedes, such vegetation puts significant energy into root growth in order to remain in contact with the disappearing water. Not only do the roots grow deeper but they also grow laterally. This lateral expansion extends the interwoven roots under the stream reinforcing the channel. Thus the stream becomes more resilient - ready for when the rains returns as they inevitably do - often with a vengeance.



The newly exposed dry channel also serves as a nursery where desirable riparian plants can germinate. All that's required is just enough rainfall for the seedlings to get a start. And not enough rain to create scouring flows that would interrupt its efforts to become established. With time and before being disturbed by rushing waters, the seedlings extend their roots far enough to reach the riparian water table making them resistant to smaller floods. Again this all seems counterintuitive. But careful observation during extended periods between rains has suggested large increases in native species like switchgrass, bushy bluestem and sycamore.

And yes, some trees are lost to drought. But even this loss has a silver lining. Large logs and fallen branches whether the result of droughts or floods are part of the natural processes that keep our streams healthy. Large wood helps dissipate stream energy, stabilize the banks, and trap sediment. Over time, as the wood becomes buried in the new streambank, it becomes an important component of the riparian cradle. So as we wait for the rains to return, remember the stream you love is using this time to heal itself and prepare for the next flood.

Another Great Riparian Grass



Eastern gamagrass, a cousin to corn, is a bunch grass with a root stability rating of 9. Clumps can grow as large as 6 feet across. And this majestic grass is 6 feet tall or more if you count their intriguing seedheads. Eastern gamagrass prefers areas with deep soil rather than barren gravel bars. Because of this preference, clumps of Eastern gamagrass often act as nurseries for trees like pecan and cypress.

Anecdotal evidence suggests that in environments with deep soil this grass can out-compete Johnson grass. But cattle find Eastern gamagrass very palatable and excessive mowing can also be a problem. Light grazing or artificially mimicked grazing by very occasionally cutting the grass back no shorter than six inches may actually be beneficial. But, with continual grazing or shorter/more frequent mowing/weedwacking, Eastern gamagrass will slowly disappear.



Upcoming Events/Opportunities

FERAL HOG WORKSHOP - August 15th — Feral hogs are a scourge in riparian areas where their feeding habits disturb river banks stripping them of native vegetation and making way for invasives. Want to know more about feral hogs? Plan to attend the Hays County Feral Hog Workshop on Wednesday, August 15 at the Dunbar Recreation Center, 801 W MLK Street San Marcos, from 12:30pm to 3:30pm.

There are also lots of events coming up in the fall. Some you might want to mark on your calendar are:

September 30th - “Better Lights of Better Nights” at the Wimberley Community Center

October 6th - The Stream Team Fest at the Meadows Center

October 20th - Rainwater Revival at the Dripping Springs Ranch Park

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. And, if you are not currently on our mailing list, use this same address to request

