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# The Reverchon Naturalist

Recognizing the work of French botanist Julien Reverchon, who began collecting throughout the North-Central Texas area in 1876, and all the botanists/naturalists who have followed ...

## Dallas' Reverchon Park and Iris Bowl History

Steve Houser

Reverchon Park (Figures 1 & 2) is known to be the “Crown Jewel” of the Dallas, Texas park system and was once called the “Central Park” of Dallas. Located just north of downtown, the park offers open grasslands, older, more mature trees, rocky outcroppings, historic stonework, and, the Iris Bowl.

In 1915, the City of Dallas purchased 36 acres for what was known as a “far north Dallas” park. The term is amusing today because the park is actually within walking distance of downtown. First named Turtle Creek Park, the park was renamed Reverchon Park after botanist Julien Reverchon, who was born in France in 1840 and arrived at La Reunion colony, across the Trinity River from the young Dallas, with his father in 1856.



Reverchon collected samples from over 2,600 species of plants, four of which are named after him. He also collected more than 20,000 specimens of Texas plants prior to his death in 1905. More information on Julien Reverchon can be found online or in the book *Naturalists of the Frontier*, by Samuel Wood Geiser.

The park’s baseball field was officially dedicated in 1920. The grandstand was erected in 1924, and the ballpark soon gained the reputation as the best baseball field in the city. That same year, water fountains were installed to provide well water to local residents. People from across Texas were known to travel to Reverchon Park to experience the mythical healing powers of the water from Gill Well.



Figure 1 (above). Stonework paths meander throughout Reverchon Park.

Figure 2 (left). The Iris Bowl in Reverchon Park today.

Photos credit: Steve Houser

(Continued on page 5)

# See You Down the Road

By Ricky Linex  
NRCS Wildlife Biologist

This seems like it has been a long winter though not as severe as areas of the northeast have experienced. The repeated dry northers have not given much moisture over the past few months which may be leading us into another year of below normal precipitation. However, perennial grasses and forbs don't check the weather sites and will not let the lack of rainfall to date influence their initial resurgence this spring. These plants rely upon reserves stored in the roots for that first green-up and growth. Think of these root reserves as a fully-charged battery on your vehicle. The energy stored in this battery will provide the spark to ignite the fuel and air enabling the vehicle to start. As you drive, your battery receives a charge to replace the energy initially used. It can be said that plants work much the same way with the root reserves initiating the emergence of green leaves which enables the plant to begin photosynthesis leading to growth, flowering, reproduction, seed production and recharge of the root reserves. This is a very efficient process of plants to use sunlight and carbon dioxide from the atmosphere, and moisture and minerals brought up through the roots to produce green growth for the plants.

This efficient process can be interrupted with actions both of and beyond the actions of man. Overgrazing, rather than proper grazing by livestock and wildlife, removes excessive amounts of the green leaves needed for photosynthesis to occur. This can be prevented by man, though for the past 150 years, we have not always practiced good grazing management. Prior to 1900, the early settlers likely thought the native range grasses that were stirrup-high to a horse would always be around. Ignorance of how plants grow could be an excuse for grazing in that time but there can be no excuse in the present.

Drought, the enemy of farmers, ranchers, landscapers and others who depend upon moisture to grow plants, causes the "battery" to be constantly drained as new leaves are put forth to kick start the engine. When moisture remains lacking for long periods, many native plants will begin to conserve the root reserves and drop any green or dying leaves to conserve moisture. Wolfberry is a woody shrub that will drop leaves in the summer looking for all the world to be dead, but with rains in early fall, will begin growth of new leaves and produce a crop of small red berries. Buffalograss will turn a tan color during a hot, dry August to conserve moisture, but green back up when the moisture returns.

## **MARK YOUR CALENDAR**

QuailMasters is an intensive, 4-part workshop focusing on quail biology, habitat needs and management considerations. Each session builds on the previous to provide attendees with a thorough knowledge of quail, and ways they can improve management. This year's workshops will focus primarily in North Texas with the first session being held in Roby on April 27-29. To register online, visit <http://www.texas-wildlife.org/resources/events/quailmasters-2014>, or for more information, contact Clint Faas at [cfaas@texas-wildlife.org](mailto:cfaas@texas-wildlife.org) or (979) 541-9803 or Dr. Dale Rollins at [d-rollins@tamu.edu](mailto:d-rollins@tamu.edu).

The Texas Deer Study Group is a 1.5 day workshop focusing on white-tailed deer management and research. This year's event, to be held in Columbus, TX on April 10-11, is directed towards optimizing deer management in the Post Oak Savannah and Gulf Coast Prairies Ecoregions. Topics include habitat management and harvest considerations on smaller acreages, breeding information and buck movement, and an overview of research and things to consider when making management decisions. For more information, contact Clint Faas at [cfaas@texas-wildlife.org](mailto:cfaas@texas-wildlife.org) or (979) 541-9803, or visit <http://www.texas-wildlife.org/resources/events/texas-deer-study-group> to register online.

Send your calendar items to Ricky Linex at [ricky.linex@tx.usda.gov](mailto:ricky.linex@tx.usda.gov) and Melissa Sturdivant, at [melissa.sturdivant@tx.usda.gov](mailto:melissa.sturdivant@tx.usda.gov).

## Sand Shinnery Oak—*Literally*, More Than Meets the Eye

*Dr. Russ Pettit*

Sand shinnery oak (*Quercus havardii*) is a dominant shrub on several million acres of sandy soils in West Texas, Eastern New Mexico and Western Oklahoma.

The root (rhizome) system is very extensive and of large volume. In 1971, the late Dr. Don Deering assisted me in doing a study to see how extensive the roots were. We chose an area 9.5 miles north of Plains, Texas. The soil type was a Patricia Fine Sand and the sand was approximately 16 inches deep over a sandy clay loam subsoil. A pit was



*Figure 1. (above). 30 x 40' area "cleaned and washed" to reveal the massive root system of a Shin oak mott in Plains, Texas. Photo credit: Texas Tech University.*

dug to about three feet deep. A small rhizome was cut in multiple places in the pit, and each cut was then immersed in a large container of purple dye. Immediately, oak leaves began turning purple. More than 60 stems of the rhizomatous root structure that were cut had taken up the dye in an area about 20 by 30 feet.

Yoakum County Commissioners assisted us by digging a trench around the area. They also provided water so that we could wash the sand from the roots. We power-washed the roots, and the sandy soil easily washed away from the roots and into the adjacent trench system (Figure 1). After all the soil was removed from the root system, we began processing and measuring the massive root system. We discovered that over 90% of the oak's mass was below the soil surface! We also discovered that rhizomes were occasionally fused to one another, and there was prolific insect damage to the roots by a borer insect. The dye moved through the rhizomes in a helical pattern and only in narrow bands.

This research helped us to study the potential movement of herbicides in an oak's root system. Also, we learned that this oak species can store massive amounts of water in the rhizomes which allows it to grow when herbaceous plants can't and to tolerate a more arid climate compared with other woody species. Related research showed that Sand shinnery oak establishes slowly into new areas because the acorns occur occasionally, and when they do, they rarely germinate and begin a new oak mott. In a related study done in Bailey County, aerial photos showed only an occasional new oak mott since that seen on an original 1940 aerial photo.

*Dr. Russ Pettit is a retired professor of range management at Texas Tech University. Dr. Pettit retired from Texas Tech in 1989, and he lives with his wife in Lubbock, Texas.*

(Editor's note – Dr. Pettit coached collegiate range plant identification teams, and during his tenure at Texas Tech, these teams won six national range plant identification contests.)

## An Interesting Observation on Seeds of Bumelia

Ricky Linex

In mid-October, 2013, I was driving last in a seven-vehicle caravan winding our way down several miles of ranch road with our ultimate goal of the historic Lambshead Ranch in Shackelford and Throckmorton counties. A group of volunteers were meeting to introduce the 3<sup>rd</sup> and 4<sup>th</sup> grade classes of Albany Elementary to “Kids on the Land.”\* This interactive, day-long event is tailored for each grade level and reinforces in an outdoor setting, math, science, and proper land management practices. It is hands-on, fast-paced, and exciting for all involved.

But, how does all this tie in with Bumelia seeds? On the way in and while driving through Collins Creek Ranch, I noticed a single tree about 30 yards off the road that looked very dark in color. As I passed by, I noticed it was a Bumelia loaded with ripe, bluish-black fruits (Figure 1). Opportunity was knocking since Bumelia does not seem to consistently produce a crop of fruit every October. My supply of Bumelia seeds has dwindled to just a couple of tablespoons from use as one of ten or so forb and woody seed varieties in simulated crop contents of bobwhite quail. These simulated crops are used at the annual Rolling Plains Bobwhite Brigade camps as well as QuailMasters, and for training with NRCS employees.

After gaining permission from Paul Ivey, Collin Creek Ranch Manager and instructor at the “Kids on the Land” event, I stopped on the way out to collect some fruit. Gloves would have been a nice touch as the short-pointed branchlets (Figure 2), which resemble thorns, were quite sharp.



I collected quite a few fruits and after arriving back at the office, I put the sack of fruit in the freezer for a few days to prevent any bug damage to the seeds. After removing it from the freezer, I left the paper sack of fruits in an aluminum pan sitting in my office. After a few days, the sweet smell of fermentation was starting, so I went ahead and squeezed the seeds from the wrinkled skins.

Seeds of Gum bumelia, *Sideroxylon lanuginosum*, have always reminded me of an engorged tick that has fallen from some animal which has donated its blood. The seeds are oval, slick, and shiny with tan to dark brown base colors and often with streaks or spots on the seed coat (Figure 3).

*Figure 1. (above). A bumper crop of ripe Bumelia fruits shines in the October skies over Shackelford County.*

*Figure 2 (above inset). Branchlet of Bumelia. Photo credit: Melissa Sturdivant, USDA-NRCS.*

*Figure 3 (left). This view of numerous Bumelia seeds shows the half seeds in relation to the regularly encountered seeds.*

*Photos credit: Ricky Linex, USDA-NRCS.*

*(Continued on page 8)*

(Continued from page 1— Dallas' Reverchon Park and Iris Bowl History)

During the 1920s and 1930s, improvements such as the Iris Bowl, landscaping, picnic areas, baseball diamond, playground equipment, and tennis courts transformed the park into a site of many celebrations, including Fourth of July and Juneteenth. For years, the Iris Bowl hosted Greek pageants, dance performances, and other celebrations.

The official Iris Bowl dedication took place on April 20, 1938, with many prominent Dallas Iris Society members present. Among those known to be associated with the group was Marie Caillet, who co-wrote two books on irises and has five iris varieties named after her. As the great niece of Julien Reverchon, she continued the family's interest in botany.

The park expanded to 46 acres in 1951. In 1975, the Reverchon Recreation Center opened, offering a variety of indoor recreational activities. During the 1970s, the Dallas Park and Recreation system was recognized as being the very best in the nation. Although the parks were a source of great pride, a downturn in the economy in the mid 1980s and 1990s led to ongoing reductions in the department's annual budgets. As a result, the park became a haven for crime and the homeless.



In 1998, the park's primary neighbor, Texas Scottish Rite Hospital for Children, gathered community support to clean up the park and restore its reputation. Under the leadership of hospital president, J.C. Montgomery, hospital staff, and a core group of supporters, almost 500 volunteers in total, removed over 40 tons of trash and debris.

In 2002, the American Academy of Orthopedic Surgeons, Texas Scottish Rite Hospital for Children, and the City of Dallas, built a

state-of-the-art playground accessible to children of all levels of ability. At some point afterward, a Reverchon Hawthorn, *Crataegus reverchonii*, was planted near the playground in honor of Julien Reverchon and to reconnect the restored park to its namesake.

In 2005, the Friends of Reverchon Park was established as a nonprofit entity, and the group drafted a master plan for the park ([www.reverchonparkfriends.com](http://www.reverchonparkfriends.com)). Another Reverchon Hawthorne was planted in the park in honor of retiring President Linda White, and Board Member Alexia Griffin (Figure 3). The group successfully lobbied for 3.5 million dollars in bond funds to renovate the park and restore its historic stonework.

Figure 3 (left).  
Second planting of  
Reverchon  
Hawthorn planted  
in the park.

Figure 4 (right).  
Reverchon Park in  
full bloom. Photos  
credit: Steve Houser



During the early days of the cleanup efforts, the Iris Bowl was often mistakenly called an "amphitheater" and it became clear there was a need to consider its renovation. The Dallas Iris Society, Dallas Park Department officials, and the Friends of Reverchon board members studied the options, and landscape plans were developed. The primary renovations were completed during the 2010 annual cleanup effort. A subsequent effort to plant the irises followed with Iris Society members and other volunteers, and irises were planted on the ends of all the beds. Other plants were planted and included: *Salvia greggii*; Iris (Beard and Louisiana); Lantana "New Gold;" Dwarf Fountain Grass; Rock Rose; Mexican Marigold; Karl Foerster Grass; Knock Out® Rose; Fall Asters; Coneflower; and, Red Yucca (Figure 4).

It is indeed an honor and a privilege to restore the historic park and its unique Iris Bowl for future generations to enjoy.

*This article originally appeared in "Irises, The Bulletin of the American Iris Society," Vol. 94, No. 3, July/August 2013, and permission to reprint was granted by the author and the publisher.*

*Steve Houser is a Friends of Reverchon Park board member, an ISA Certified Arborist®, Certified Texas Master Gardener, and Certified Texas Mater Naturalist.*

## When Two Roads Converged in a Wood, I Took the Allelopath

Jessica Manley

*Allelopathy*, I discovered yesterday—is the effect one species has upon the growth, survival and reproduction of another species by chemical, biological or ecological processes (Figure 1). For instance, a tree that grows to be tall and wide benefits the humans beneath it by providing shade where they may have a picnic, make sweet love, and carve their initials into the pliable bark, marking the first moment of their life-long commitment to benefit each other and their future children. The same tree does not allow any other species to thrive beneath it because of the very shade that benefits the humans.

I also discovered that plants aren't the only ones with allelopathic tendencies.

It was a typical Tuesday morning eradication session at the Leon Creek Greenway where the “Invaders” volunteer their time to eradicate non-native invasive species (i.e., kill things, record how and when they were killed, pinpoint a GPS location of the slaying, and record it in a national database.) It's satisfying work because you can see the difference you are making in a landscape right away. Where once there was a monoculture of invasive species, you can see the potential for new, native growth almost immediately. Kind of like getting a haircut: It always makes you feel better about your future somehow.

This day was going along par for the course. I had my first kill and a fat one at that—around six inches in diameter. I had to use my Gomboy or folding handsaw. Felt good to get a big one under my belt first thing. I called out my count and the code for the loathed Chinaberry Tree. Most of the trees we eradicated that morning were big Chinas. We had a crew of about 10 and it only took two to do the work of even the biggest tree. So the rest of us just sort of milled about watching or looking for our own pre-flagged specimen to fell.

I've been on several of these expeditions before but this one was different in so many ways; it really made me stop and think. The work we did at Rancho Diana seemed much more unobtrusive. We weren't felling large trees, but we were pulling, chopping and spraying hundreds of Nandinas every week. There was the “Nandina

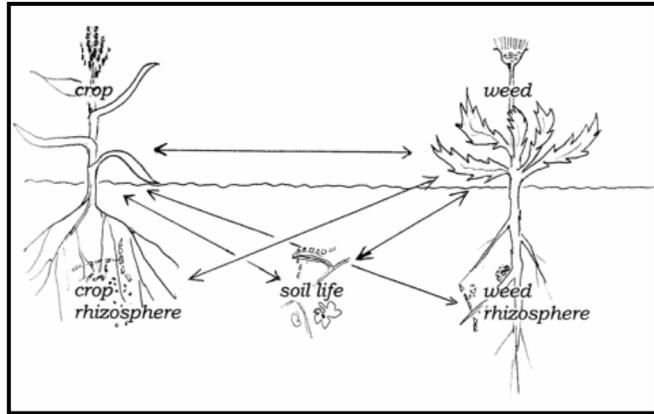


Figure 1. Illustration of an allelopathic response — plants give off a variety of natural substances that can directly inhibit or stimulate the growth of other plants and/or influence microorganisms in their own root zone (rhizosphere), in the bulk soil, or in other plants' rhizospheres. Source: [www.extension.org](http://www.extension.org)

Forest” where the bamboo-like plant had taken over an entire area of underbrush. That week, I learned how to identify Nandina in every stage of life from a newly formed sprig to a mature bush with berries. Somehow, it seemed not only physically easier to hand-pluck the babies from the lush fertile forest floor but cognitively, I didn't suffer other decisions. Like, which weapon (to use) to most effectively destroy the thing. I didn't have to spend a lot of time with the same plant sawing or even break a sweat. All I had to do was seek, identify and destroy. Now look out honey, 'cause I'm usin' tech-knowledgey...Somebody come and help me please...Somebody better save my soul! Wha? Oh, sorry Iggy Pop sideline. Happens every time.

So, the other thing is that something gets me out there in the civilized wild. A trail runs through it, but nature remains in control. Very early in our first effort to girdle a hug-sized Ligustrum, we were verbally accosted by a few well-intentioned tree evangelists who proclaimed us “black-hearted sinners” for our defiant act of ecological restoration. “We're all invasive species,” she exclaimed passionately.

I see her point. So who decides? If nature or her G-d for that matter saw fit for this plant to grow and thrive, who are we to destroy it?

My rebuttal was weak. “But it will KILL all the other plants.”

Interesting perspective. Not true though. It, in fact, does nothing actively to kill anything. It only exists for the sole purpose of existing.

(Continued on next page)

## Some Weed “Believe It or Not’s”

Excerpt printed from *Weeds and Weed Seeds, Common, Noxious, and Poisonous with Commonly Used Crop Seed*, Ohio Department of Agriculture, 1942

*(Editor’s note – this publication identifies numerous weeds and summarizes the dangers posed by the weeds to agriculture. A title in the pamphlet is “Today is the Time to Become Weed Conscious” may reveal they were reaping the results of increased mechanical farming and plowing of the prairies. It seems there is no time in our history that agriculture hasn’t had to deal with many adversities.)*

- It is estimated that there are 1½ tons of weed seeds in the soil of an acre of average farm land.
- In five years, a botanist pulled 37,639 weeds from a plot of land 10 feet square.
- Crab grass produces 90,000 seeds per plant; button-weed 30,000; ragweed 25,000; pigweed 1,000,000; dock 30,000; and, red clover 500.
- In 1879, Dr. W. J. Beal buried weed seeds in the soil. After 40 years, some species grew.
- Weed seeds which ripened when McKinley was President of the United States (1897-1901) may be producing plants in 1940.
- One healthy dock per acre will produce enough seed to make a bushel of red clover seed “unsaleable” in Illinois. The farmer may earn \$2.00 or \$3.00 by cutting the plant before it matures seed.

- Whole communities sometimes have bad reputations because a few farmers produce “dirty” seed.
- The dockage in wheat, principally weed seeds, produced in four Northwestern states each year will load a train of grain cars 14 miles long.
- Screenings and dockage are often used in poultry feeds. This is the reason that new weeds are usually found in chicken yards.
- Wild onion, garlic, and French weed, spoil thousands of dollars’ worth of dairy products annually.
- Hairs from certain plants form wads as large as baseballs in the stomachs of cattle, causing serious injury, sometimes death.
- Some weed seeds “bum” rides as hitchhikers.
- Some weed seeds are equipped with parachutes that enable them to float in the air for many miles.
- Some weeds produce pods which burst when ripe, hurling seed for several feet.
- Tumbleweeds pile up against fences, sometimes breaking them down.
- Bindweed roots sometimes go to a depth of 20 feet.
- Hay, grain and bedding in stock trucks are usually carriers of weed seeds.
- Weed seeds in “bargain” seed usually grow better than the crop seed.
- Common weeds are a nuisance; noxious weeds a menace to profitable agriculture.

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*(Continued from previous page — When Two Roads Converged in a Wood, I Took the Allelopath)*

Sure, its leaves drop and make the soil beneath it more alkaline insuring its own survival and the survival of other plants whose tastes agree. Sure, its canopy is large and dense to the detriment of many beneath it, earning it its nickname, the Umbrella Tree. Sure, its prolific berries fall and turn to seeds and take their turns growing where they are unsurreptitiously planted. But, if blame is due, it might just as well rest on the wings of that ill-fated bird who eats—gorges itself actually—becomes drunk on the toxic berries, flies downstream and deposits the seed at the mouth of another river where Chinaberry has never grown before and then dies. But, not before making another even less desirable deposit of bloody seed-encrusted feces on your freshly washed but unfortunately, unwaxed clear coat, instantly lowering your resale value.

Ultimately, we are the ones responsible for introducing the plant here in the first place. It’s a beautiful tree. Resilient. Hardy. Fast-growing. Deciduous and flowering; it provides a brilliant,

if not common display of something in every season. It only becomes ugly when you see it choke out every other species or block a river from flowing freely. If you never saw a snake strike, you could assume it had no fangs. In these woods, the Chinaberry are sparse but large. They aren’t showing their fangs here. But as anyone who has ever been bitten by a snake knows: Size does matter.

Somewhere downstream or over the next hill or around the far bend, the effects of these and several other non-native invasives that you can buy and are often touted as best use landscaping plants because of their tolerance for neglect and extreme weather. And that’s our justification for killing. G-d save our black-hearted souls! Funny thing though, they always seem to sprout back up in threes for each individual we take down to a stump. Some say it’s a futile effort. We call it job security. Makes ya kinda wonder though, doesn’t it.

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(Continued from page 4— An Interesting Observation on Seeds of Bumelia)

As I ran my hand over the seeds in the pan, one of the seeds wouldn't roll, and I looked closer at this seed, and it was just half of a seed but with a full seed coat (Figure 4). Looking closer at the rest of the seeds, I could see three more of the half seeds in the pan. Were these seeds two pairs of twins? This was indeed strange! Bumelia has only one seed per fruit, doesn't it? I started going through my reference books and after searching through six guides, the answer of how many seeds per fruit is shown in these brief descriptions:

- "1-seeded" Correll & Johnston<sup>1</sup>
- "seed solitary" Robert A. Vines<sup>2</sup>
- "pistil 1" Shinnery & Mahler's<sup>3</sup>
- "single brown seed" Jan Wrede<sup>4</sup>
- "fruit a drupe" Elray S. Nixon<sup>5</sup>
- "drupe containing a solitary seed" Jill Nokes<sup>6</sup>

All six of these great references show Bumelia to be a single-seeded fruit. That's pretty much undeniable confirmation that Bumelia should be sporting one seed per fruit. But I guess Mother Nature doesn't read the guides and likes to throw us a curve every so often.

These two-paired or related, but separated seeds, were part of a total of 445 seeds, cleaned and dried. While statistics was never one of my strong suits and the sample size here could be considered small, the fact that two out of 445 seeds were twins is interesting. This can be discussed as one out of every 222.5 seeds or two seeds representing 0.004 percent of the total. This is indeed a very small percentage meaning you might have to look at a lot of Bumelia seeds to ever again notice any doubles.

I'll plant two of these seeds and see if they germinate and grow as a normal seedling. I'll keep the other two in my seed collection as a reminder that nature is not always as forthcoming as we might have long imagined. It also reinforces the need to be outdoors and observant, always searching, always wondering why. This quest to explore for knowledge is what drove the old naturalists to fan out over Texas in the early 1800's and for those of us almost 200 years later



Figure 4. Seeds appearing to be twins compared to a regular bumelia seed. Photo credit: Ricky Linex, USDA-NRCS.

still desiring to learn. These seeds just go to show there is still more out there to discover. Happy hunting.

<sup>1</sup>Correll, D.S., and Marshall Johnston. *Manual of the Vascular Plants of Texas*.

<sup>2</sup>Vines, Robert A. *Trees, Shrubs and Woody Vines of the Southwest*.

<sup>3</sup>Diggs, George M., Jr., Barney J. Lipscomb, and Robert J. O'Kennon. *Shinnery and Mahler's Illustrated Flora of North Central Texas*.

<sup>4</sup>Wrede, Jan. *Trees, Shrubs, and Vines of the Texas Hill Country*.

<sup>5</sup>Nixon, Elray S. *Trees, Shrubs, & Woody Vines of East Texas*.

<sup>6</sup>Nokes, Jill. *How to Grow Native Plants of Texas and the Southwest*.

\* For more information on how to get involved with the "Kids on the Land" program, contact Kids On the Land, Inc., Director, Peggy Maddox, at P.O. Box 694, Ozona, Texas, 76943, email: westgift@hughes.net, or visit [www.kidsontheland.org](http://www.kidsontheland.org).

Ricky Linex is a Wildlife Biologist for the USDA-NRCS in Weatherford, Texas, and serves as the Co-Editor of the *Reverchon Naturalist*.

"In every walk with nature,  
one receives far more  
than he seeks." - John Muir

## Giant Reed *Arundo donax*

Kelli McClelland

When driving around, have you ever wondered what that tall cane-like grass is—the one that occupies most of the ditches? Giant reed, *Arundo donax*, is a member of the Poaceae (Grass) family. It is a perennial, cane-like grass that can reach 20 to 30 feet tall in monotypic stands. Giant reed has hollow, segmented culms (Figure 1), and stems that produce roots and shoots near the tips of the branches. The leaf of *Arundo donax* can grow up to 3 foot in length, and 2 to 3 inches wide. They are smooth and rounded at the base, and taper to a long point.

A characteristic that helps differentiate between native, Common reed, *Phragmites australis*, and that of the introduced *Arundo donax*, is that Common reed has smooth lemmas and hairy rachillas, and Giant reed has hairy lemmas and smooth rachillas.



Giant reed has plume-like panicles that can grow up to 2 foot long (Figure 2), and they are dense, feathery, and whitish to brown in color. Spikelets are stalked, and have a solitary flower with long silky hairs (awns).

Figure 1 (top right). Leaf and stem of Giant reed. Photo credit: Bonnie Million, National Park Service, [www.invasives.org/www.bugwood.org](http://www.invasives.org/www.bugwood.org).

Figure 2. (below left). Plume-like panicle of Giant reed. Photo credit: David J. Moorehead, University of Georgia, [www.invasives.org/www.bugwood.org](http://www.invasives.org/www.bugwood.org).

Figure 3 (below right). Giant reed vegetatively reproducing from a stem fragment. Photo credit: Joseph M. DiTomaso, University of California--Davis, [www.invasives.org/www.bugwood.org](http://www.invasives.org/www.bugwood.org).



Giant reed has a clonal, rhizomatous root system that is very thick, and can cover several acres in a continuous mat-like structure. The rhizomes can root and sprout (Figure 3).

Optimum growth occurs between February and October, growing well when the water table is close. Giant reed becomes established in moist places such as ditches, and along streams and riverbanks, but grows best in well-drained soils where abundant moisture is available.

(Continued on Page 10)

## What's *Bloomin'* in Your Region?

*Melissa Sturdivant*

You have probably noticed the blooms of this woody shrub, or probably smelled its sweet fragrance while out on the land recently. Often called “Spring Herald” because it is usually amongst the first plants to bloom in the spring. It has definitely heralded in the spring season this year!

You probably best know this plant as Elbow bush or Stretchberry, *Forestiera pubescens*. I took these photos during the last week of February. Even with the unusually frigid temperatures we've had in recent months, I was surprised to find Elbow bush in full bloom in Coleman County, especially considering that this particular shrub receives only morning sun and dappled light the rest of the day. This native is doing well as an understory shrub.

What is really interesting about Elbow bush is that it is a plant that flowers before it puts on its leaves. This is a term known as a “precocious flowering.” The flower structures as seen in Figures 1 & 2 are the flowers of Elbow bush; there are no petals. As you can see, the delicate blooms occur at the axils of last year's stem growth. Do you see the pollen on the stigmas? These are male flowers. Elbow bush is dioecious with flowering occurring on separate male and female plants. It is on the female plant that fruiting occurs, and Elbow bush produces a bluish-black drupe.

Elbow bush is a fair browse plant for white-tailed deer. However, the fruit is highly valued by many small mammals, songbirds and upland game birds to include Bobwhite quail and dove. The shrub with its arching branches and an open understory provide excellent protective cover from predators for small mammals and birds.

See anything happening on your Texas rangeland? Articles and photos related to the flora and fauna of our native landscape are welcome. We'd really like to hear from you; please share what's happening in your part of the state.

Send your 300 to 500-word essay to Ricky Linex at [ricky.linex@tx.usda.gov](mailto:ricky.linex@tx.usda.gov) and Melissa Sturdivant at [melissa.sturdivant@tx.usda.gov](mailto:melissa.sturdivant@tx.usda.gov).

*Melissa Sturdivant*

*Melissa Sturdivant is a Soil Conservationist for the USDA-NRCS in Goldthwaite, Texas, and serves as the Co-Editor for the Reverchon Naturalist.*



*Figure 1 (above). Blooms at the axils on last year's stems.*

*Figure 2 (inset). Macro photo of male flower on Elbow bush.*

*Photos credit: Melissa Sturdivant, USDA-NRCS.*

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*(Continued from page 9— Giant Reed)*

Giant reed tolerates a wide variety of conditions, including high salinity, and this plant flourishes in many soil types from heavy clays to sandy sands. Drought has little effect on this plant because of its extensive rhizomatous root structure.

Giant reed is a noxious plant that can be weedy or invasive. One of the main purposes for it being brought to the US from Asia was to help with erosion control. However, it has since been determined to be a nuisance species as it competes with our riparian plants and tends to out-compete most of our native species. It eventually chokes our riparian corridors and reduces native wildlife habitat. It also is a fire hazard. If there is a positive note—once established, it does provide habitat to wildlife species to include roosting for blackbirds, and forage for rodents. Young growth can be used for forage for livestock, but once the plant matures, it is no longer palatable.

Management options are limited, but a combination approach of burning and then treatment of the re-sprouts with a herbicide is very effective. Mechanical treatment can be difficult because of the regrowth which occurs from any remnants of its extensive root system.

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