



United States Department of Agriculture
Natural Resources Conservation Service

Helping People Help The Land
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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 ...

SANGUISORBA MINOR

(Small Burnet)

*Story by Brandon Carr, Soil Conservationist
James E. "Bud" Smith Plant Materials Center
Knox City, Texas*

Small burnet (*Sanguisorba minor*) is a relatively long-lived, evergreen introduced perennial forb. This species is native to Eurasia and has been cultivated in Europe for many years. The only current release called *Delar* comes from the Aberdeen Plant Materials Center in Idaho. While the origin of *Delar* is unknown, the parent material can be traced back to 1957 from a seed purchase from a private seed company in Paducah, Kentucky, and only small populations can be found in Texas.

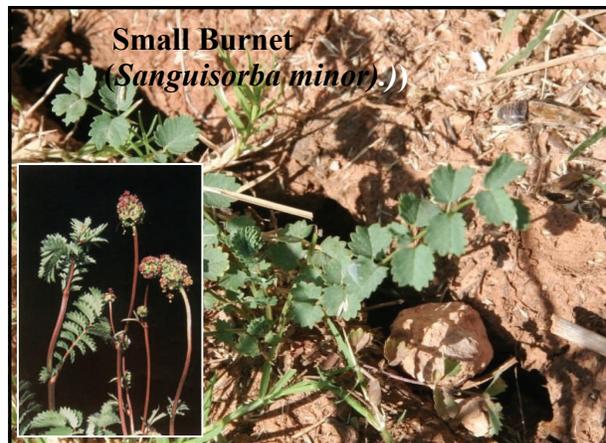
These plantings have resulted from direct sowing of seed by landowners. Small burnet is not listed on the USDA/NRCS Plants Database as being distributed in Texas. In most cases, farmers and landowners have obtained seed from other states and brought it to be planted in Texas. The James E. "Bud" Smith Plant Materials Center (PMC) in Knox City, Texas, obtained a sample of seed that is growing in a rod row at the PMC. It appears to be hardy enough to withstand the hot dry conditions of the area, but at this time no further testing is being conducted. Certified seed is readily available through commercial seed producers, and breeder seed is maintained by the Aberdeen Plant Materials Center.

Small burnet has significant conservation benefits. It is considered very desirable as forage for elk, deer, antelope, and birds. The evergreen leaves provide good to excellent forage value for both livestock and wildlife. It can be added to seed mixes for pastures as well as food plots. Also, the seed provides food for many different species of game and song birds, and

provides cover for small mammals and birds. The flowers of small burnet attract different species of bees, butterflies, and other pollinators.

Small burnet will grow to a height between 6-25 inches depending on the amount of rainfall. A thick base of stems erect from a prominent taproot, and the plants have pinnately compound leaves with 9-17 coarsely serrate leaflets. The leaves grow up to 4-inches long and have an oval to oblong shape. The flowers are red to purplish color and grow 3-8 inches in length. Plus, the flowers are imperfect with the male on the lower portion, and the female on the upper part. The female portion of the flower has no petals and about 12 stamens. The seed of small burnet is oblong, measuring about 4-5 mm in length, and has a woody or warty appearance.

Small burnet prefers open, full-sun areas, but will tolerate minor semi-shaded conditions as well. It grows best on well-drained soils that receive at least 14 inches of rainfall. Small burnet is a hardy plant that can survive cold winters and severe droughts. It provides excellent diversity to seeded plant communities.



Inset Photo Credit: USDA-NRCS Plants Database

See You Down the Road

By Ricky Linex
NRCS Wildlife Biologist

People who are tied to the soil are eternal optimists; think of the faith of a farmer who puts seed in the soil hoping for the right amount of rain, but not too much wind or heat and hopefully no hail to ruin the crop. Discussion of an introduced perennial forb in a newsletter that prides itself on touting native plants might seem odd, but optimism springs forth with the hope of a beneficial plant to try in Texas.

Brandon Carr, NRCS Texas soil conservationist at the James E. "Bud" Smith Plant Material Center (PMC), describes Small burnet that may prove to be a valuable plant for wildlife food plots and forage. I first saw it growing in Haskell County way back in October of 2007. The landowner had seen the plant growing in a park in Colorado and gathered some seed and asked the park ranger to identify the plant. The landowner planted those seeds in a red, scalded clay wash where few other plants were growing, and the Small burnet began to grow and was healthy when seen last year. At that point, the Knox City PMC became involved and evaluated the plant.

In the September/October issue of *The Reverchon Naturalist*, two native Texas trees are discussed by new contributors to the newsletter. Gregory Huber, Pecos Valley RC&D coordinator, is also a renowned range conservationist and scholar of early Texas history. He has written an interesting story about the spread of mesquite across Texas. Plus, Ed Schwille, a retired NRCS Texas wildlife biologist and well-respected ecologist, discusses the lesser known Flatwood plum in this newest issue of our newsletter.

NRCS Texas Summer 2010 Student Trainee and New Hire Experiences ... *In Their Own Words*

Since interning with the NRCS this summer, the experience was very fulfilling. I learned much about hydrology, agronomy, wildlife biology, and equipment used for surveying and farming. In terms of hydrology, I was exposed to designing ponds, embankments, waterways, terraces, and culverts as well as computing watershed slopes, runoff acreage, runoff curve number, and total drainage area.

From the agronomy and wildlife biology training, I learned about plants, soils, livestock, habitats and endangered species. Agronomy covers a huge portion of agriculture. It ranges from crop rotation to soil properties and plant fertilizations. Biology is also interconnected with nature, for biologists have dealt with brush management, endanger species' habitats, and grass planting issues. Lastly, working with Chuck, I got to go out to the field very often. We surveyed many lands, and provided assistance to landowners on ponds, terraces, embankments, erosion, and waterways among others. I learned much on Trimble, total station, and laser levels. Looking back, I enjoyed each day I was with NRCS, and I truly feel that I gained valuable experience.

What I like most about my summer experience is the process of learning. I was able to take on real world problems, and apply my understanding to assist other people with my knowledge.



Tiffany Chiu, Senior Major: Civil Engineering Univ. of Texas at Austin

I have enjoyed going to the field with Mandy Martin and Brad Clark for resource inventories, checking range plantings, walking brush transects, shooting and certifying pipelines. I had training in Tool Kit to learn how to make maps and especially enjoyed seeing the results of all the hard work we performed in the field, but I think the thing I still enjoy the most is the field work in spite of the heat. I really liked learning some about determining watersheds.

I especially enjoyed all the trainings this summer, including the following:

- Identifying and collecting forage inventory with Charles Kneuper, district conservationist in Meridian, from range data to determine stocking rate to make a grazing plan;
- Intermediate soils training with Nathan Haile, zone soil scientist in Weatherford, to determine Land Capability Classes;
- Engineering trainings and the equipment for staking and checking out ponds with David Beyers and Charles Clarey, also solving an erosion problem;
- Making a grid with the GPS and staking terraces with Chuck Tonn, soil conservation technician in Belton; and
- Learning to recognize endangered species habitat with Ricky Linex, zone wildlife biologist in Weatherford.



Cordelia Redman, Sr.
Major: Agronomy
Tarleton State Univ.

This summer I was an intern at the Albany Field Office in Zone 5. I learned a great amount about agriculture and farming techniques, as well as tools used in conservation. Being from El Paso, I am not exposed to too much agriculture, so it was definitely a nice change of pace to see it first hand. I really enjoyed going out into the field over the summer, mostly looking at mesquites, checking for spraying conditions, or examining pond sites or actual tanks. This first hand field experience really made me feel like I was a part of something, and helped me learn about conservation.

I also felt that everyone I had the pleasure of meeting associated with the USDA- Natural Resources Conservation Service (NRCS) was very nice and friendly. This helped make my summer a memorable experience. Even while sitting in the office at my computer, I was able to learn a good amount from different USDA-NRCS Web sites and applications. Overall, I had a great summer with NRCS.



Aaron Cano, Junior
Univ. of Texas at El Paso

My employment with the Natural Resources Conservation Service (NRCS) these few summer months have been far more enlightening than I would have ever fathomed. My intentions of working with the NRCS at the beginning of the summer were that of seeing if I would even enjoy my summer employment. However, it turned out that I was looking forward to waking up early just to see what I would be doing that day.

What I enjoyed most was going out into the field with the district conservationist to help get GPS points and to collect plants. It would be 100 degrees, but there was no stopping me from finding a new plant. I also liked seeing the different conservation aspects and techniques of the landowners. Each landowner had different thoughts and goals for their property, and it was interesting to see their position as to why they did certain conservation programs.

I learned so much in just the few months from my time here, and I owe a great deal to Rodney Duus, district conservationist at Goldthwaite and the Lampasas team. They took their time to train and put up with me. I had a great time and I would definitely consider a career with the NRCS in the future.



Brenda Gibson, Junior
Major: Agronomy
& Range Management
Tarleton State Univ.

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Passing On the Passion

Story by Tyson Hart, NRCS Soil Conservationist
Henrietta, Texas

If you are subscribed to this newsletter, more than likely you have an interest in some aspect of natural resources. Whether plants, deer, warblers, rangeland, soils, or general ecology fuel your fire, that interest has been piqued enough to spend time reading. Now, let us exercise our minds by taking a moment to think, why do you have a love for the environment? I am willing to bet an experience with a passionate nature enthusiast early in your life came to mind. And no, it was probably not Aldo Leopold or Gifford Pinchot, and your experience was not discovering a new species or finding the endangered ivory-billed woodpecker. Once again, I am going to gamble and guess a close relative or mentor took you into their world, and gave you some of their insight on the complexity, yet beautiful simplicity of nature.

As for myself, I love it all. My parents, grandparents, and uncles are completely responsible for my passion about nature. In the beginning my dad and I loved to hunt, so neither of us could wait until opening season. As I got older I was taught about vegetation, habitat management, feeding ecology, population dynamics, and everything else my natural resources support group knew. By the way, they consist of two USDA-Natural Resources Conservation Service (NRCS) conservationists, a county extension agent, a Federal Land Bank loan officer and a veterinarian, so I have some wonderful tutors. These experiences propelled me towards two degrees in wildlife ecology and a career dedicated towards conservation. Whatever the case, something in your life has called you to learn and explore.

Now that you are in a nostalgic coma feeling warm and happy, who have YOU inspired lately? Who have YOU passed your inspiration to? We have all heard the grim statistics of species and habitats in decline, so I strongly feel the reversal of that trend is linked to outreach with the public and especially children. My outreach starts in my home. I have been blessed with children that love being outside. A perfect day for us is walking down a county road looking at flowers, animal tracks, and birds. Motivation does not require a formal setting and a scheduled event. For those who do not have kids, or they have moved out try to inspire other people's kids. If you cannot relate to children try your own peer group.

Where might I find opportunities? Glad you asked, because a plethora of opportunities exist at the local level within several federal organizations, such as Texas Parks and Wildlife Department, NRCS, Texas Brigades, Texas AgriLife Extension Service, The Nature Conservancy, U.S. Fish and Wildlife Service, or your local schools are a good place to start. If you have trouble speaking to groups or finding people to encourage, use the Internet. A recent trend I have noticed is the amount of organizations and individuals using Facebook. You would be surprised how many people have created a simple Web page devoted to pictures, local discoveries, and current topics in their local area. Pictures of birds and plants can inspire more people than you can imagine. This form of outreach may be foreign to you, but whatever your passion may be, please pass it on.

Botanical Glossary Six Pack

*Introducing a few descriptive words
needed to understand plant talk*

Leaf Shapes and Arrangements

Simple Leaf: Single-bladed leaf, not divided into individual leaflets.

Palmately Compound: With the leaflets attached at one point at the axis of the petiole, like the fingers all attached to the palm of the hand. (*Palm-leaf Scurf-pea, Virginia-creeper*)

Pinnately Compound: A compound leaf with leaflets distributed along both sides of an elongate axis; feather-like. (*Pecan, Western soapberry*)

Bipinnately Compound: (Twice-pinnate) A compound leaf with leaflets pinnately arranged on lateral axes that are themselves pinnately arranged at the main axis; with the primary divisions themselves pinnate. (*Catclaw sensitive-briar, China-berry*)

Alternate: Bearing one leaf or other structure at a node; having only one attached at a given point. (*Snow-on-the-mountain, Mustang grape*)

Opposite: Leaves arranged two at each node, on opposite sides of the axis. (*Frogfruit, Beebalm*)

Source: *Shinners and Mahler's Flora of North Central Texas* Web site: <http://www.brit.org>



Tyson Hart, NRCS Soil Conservationist in Henrietta, Texas, shows his daughter Taylor Hart, right, a Differential Grasshopper while passing on the passion of nature.

Scrambled Eggs (*Corydalis curvisiliqua*)

Story by Znobla Wooten, Native American Seed

Photos Courtesy of Native American Seed

I would like to encourage everyone to throw out some Scrambled Eggs (*Corydalis curvisiliqua*) into their native landscapes. If you are a native of Texas, you more than likely know what I am talking about. It is one of the first flowers to bloom in the spring, and the bright yellow flowers are a welcome sight after the dreary days of February. *Corydalis* is derived from the Greek word for crested lark because of the arched spur on the flower. With last year's adequate amount of rainfall, we were blessed with beautiful landscapes of Scrambled Eggs in early March. In contrast to the bright yellow blooms, the leaf structure has an almost fernlike appearance.

Scrambled Eggs prefer a prairie like habitat and will grow in open pastures and roadsides, ranging from Mexico and heading north to Kansas. It grows in the sun or shade, and in some cases it has been reported that this delicate dish has a tendency to be invasive. I have never thought this to be a problem since as soon as the temperatures begin to rise; Scrambled Eggs will set its seed for next year's show and begin to die back. This early batch of seeds, are some of the first seeds of the season ready for our seed-eating feathered friends.

As with most native plants, the Native Americans had a medicinal use for *Corydalis*. *Corydalis* contains alkaloids, and these toxic chemicals can be carefully managed to treat pain and inflammation. The Ojibwas often would breathe the smoke from roasted *Corydalis* roots to calm emotional upsets. Some other applications included a *Corydalis* tea that was used for women who had just gone through child birth, and another was a treatment for nervous trembling.

This fall add some Scrambled Eggs to your property, and in the spring amongst all the early yellow color you can honestly say that by throwing out some Scrambled Eggs in the fall, you can have beautiful yellow spring blooms. It really is almost like magic.



The Scrambled Egg (*Corydalis curvisiliqua*) bloom, far left, is a welcomed sight after the dreary days of February. A new fall seedling, above, will produce springtime flowers, as well as a hollow stem, inset left, supports a fernlike foliage of the plant.



For more information, please contact the following:

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Atrium (www.atrrium-biodiversity.org) is a technology platform for revolutionizing biodiversity information management by enabling researchers and organizations to share, synthesize, manage, and publish biodiversity data in a collaborative, online environment. Atrium provides an unparalleled, open-source framework based on industry standards, which facilitates the development of powerful applications and tools for research and the biodiversity community. BRIT is available online at www.brit.org, so visit us soon.

A Natural History of Mesquite

*Story by Gregory Huber, Pecos Valley RC&D Coordinator
Monahans, Texas*

In 1856, United States Senate Executive Document 60 was published by the Government Printing Office. Captain Randolph Barnes Marcy, Company D, U.S Army 5th Infantry, was the author and one of the better known writers of his time. Marcy had written, with Lt. James Simpson, U.S. House of Representatives Executive Document 45 in 1850 where he detailed a journey to Santa Fe, New Mexico Territory from Fort Smith, Arkansas, returning by way of Hueco Tanks and Preston in Texas. In 1852, he explored the Red River to its headwaters with George McClellan, a topographic engineer who later would become his son-in-law. The resulting report, which was published by the U.S. Senate in 1854, was the equivalent of a best seller.

The 1856 report details his 1854 exploration of the Wichita and Brazos River watersheds, located west of Fort Belknap and near present day Graham, Texas. By 1856 he had explored more of Texas north of the current I-20 corridor than any other U.S. Army officer, and had certainly written more about that region than anyone. He had travelled and explored in the Rio Grande, Colorado, Brazos, Red, Canadian, and Trinity River watersheds. Of interest to the subject of this article is a three-page excerpt regarding Marcy's experience with honey mesquite (*Prosopis glandulosa*).

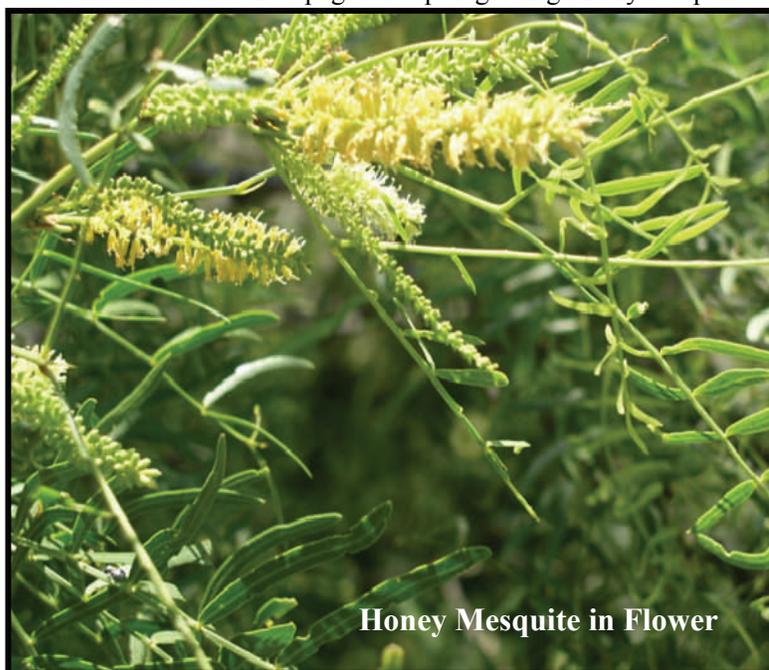
First, he notes that mesquite was originally collected by Dr. Edwin James. James was the first botanical collector to gather plant specimens in what is now Texas. He was on the north bank of the Canadian River in the year 1820. James was the naturalist and surgeon for Colonel Stephen Long's exploration of the Rocky Mountains during 1819-1820.

At the time of the collection, Colonel Long thought he was on the Red River, which was the boundary between the Louisiana Purchase and New Spain, but he was actually on the Canadian. James' collection of mesquite would have occurred in what is now New Mexico or Texas. In his *Account of an Expedition from Pittsburgh to the Rocky Mountains, Performed in the*

Years 1819, 1820 in Volume II on page 279 in his notes for August 2, 1820 he describes mesquite, as it was collected. Upon the return of the expedition to Fort Smith, Arkansas Territory, the plants collected were delivered to Dr. John Torrey in New York.

Dr. Torrey was a professor of Botany and Chemistry at the State University of New York. He was the foremost botanist in the United States at that time. He published his description of *Prosopis glandulosa* in the *Annals of the Lyceum of Natural History of New York* Volume II pp. 161-254, the paper being titled, *Some Account of a Collection of Plants Made During a Journey to and from the Rocky Mountains in the summer of 1820, by Edwin P. James, M.D. Assistant Surgeon U. S. Army* by John Torrey. Read December 11, 1826, that date is the one for his presentation of the paper before members of the Lyceum. The actual description is on pages 192 and 193 with drawings on Plate II.

Marcy goes on to say that "Between the twenty-sixth and thirty-sixth parallels of north latitude, within the ninety-seventh and one hundred and third meridians of longitude, it is found abundantly, often constituting vast tracts of wood land, and is, indeed, almost the only siloa of the section."



Honey Mesquite in Flower

Photo Credit: USDA-NRCS Photo Database

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Marcy notes more useful properties of mesquite. For example, its value for fuel, calling it the best fuel I have ever seen, hickory not accepted. The durability of mesquite wood, its value in identifying soils suitable for farming, the value of mesquite beans as forage for horses and mules while affording sustenance to wild horses, deer, antelope, and turkeys, and the value of the beans for human consumption in making a cooling and pleasant beverage (atole') and when used to pulverize and press them into cakes (pinole').

Now, I know what you are thinking - Huber thinks mesquite is native. Actually it is far worse than that, for I don't think it matters. If you are looking for a non-native animal vector in the propagation of mesquite, I think the horse is the most likely candidate, but why not native deer, turkey, quail, coyote, pronghorn, or even humans. Whether cows pooped it or God planted it is largely a matter of conjecture, the fact is that mesquite is here and has been for a very long time. Some people like it and some do not. Management of mesquite across the landscape is completely under the control of, and at the behest of, the landowners that manage the property where it grows. And that is exactly as it should be.

That said, here is a little more about the history of European immigration into the Americas. In 1820, Dr. James was gadding about plucking vegetation on the Great Plains, and a time that we think of as ancient history, it had been 301 years since the conquest of the Aztecs in 1519 by Hernan Cortes de Monroy y Pizzaro. The Spanish immigrants (about 750,000 of them over the years) brought their horses, cows, pigs, goats, chickens, burros, and who knows what else with them. There were only two domesticated animals native to the Americas, which are the dog and the llama. Of those domesticated animals that the Spanish brought swine, burros and horses are the most successful in becoming feral. Ever wonder why there isn't a wild cow problem in our National Parks? The introduction of the horse had widespread and devastating impacts on native cultures in the Americas. It allowed cultures that successfully used the horse to dominate and destroy cultures that did not. The whole fabric of Native American culture on the Great Plains had been rent to tatters by 1820. Cattle? No, they were a little known commodity in Texas.

Even as late as 1834, the year Richard Henry Dana left Boston on the clipper *Pilgrim*, America's need for tallow and hides was being filled by the Mexican ranchos of California. In Dana's book, *Two Years before the Mast*, he details a sailor's life and the hide trade in California. In the 1840s and 1850s there was an attempt to develop a hide trade in Texas, but without great success. In fact, by the 1850s Texans would be driving cattle to California to feed the '49ers.

According to Walter Prescott Webb, in his classic book *The Great Plains*, cattle were restricted to that region south of San Antonio and west of Houston in the 1820s. Marcy mentions many things in his 1856 report, but does not mention cattle or wild cattle. The spread of cattle up the Great Plains was a post-Civil War phenomenon, according to Theodore Roosevelt's book published in 1886 called *Ranch Life and the Hunting-Trail*. By at least 1780, horses were widespread on the Great Plains and were among tribes with no written language. There is no historical record of movement of mesquite by horses prior to 1820, and it was north of the Red River at that time.

So, who knows if mesquite is native to north Texas, and why exactly should we care so much? Perhaps, that is the better question.



Honey Mesquite Beans



FLATWOODS PLUM

(Hog Plum, Sloe, Black Sloe)
Story and Photos by Ed Schwillie
Retired NRCS Texas Wildlife Biologist

The Rose family is the largest group of shrubs and trees found native to the United States. Prunus is the genera for plums along with Crataegus (Hawthorns), Pyrus (Pears), Sorbus (Mountain-Ash), Amelanchier (Service-Berry), Peraphyllium (Squaw-Apple), Pyracantha (Firethorn), Eriobotrya (Loquat), Geobalanus (Gopher-Apple), Potentilla (Cinquefoil), Purshia (Bitter-Brush), Cercocarpus (Mountain Mahogany), Rosa (Rose), and berries among others.

These plants come in many shapes and sizes, and they can be evergreen while others are deciduous (shed their leaves during warm season). Some are short (six inches) and are tall (over 40-feet) in height; they can also grow in colonies or remain solitary; bear edible fruit and some do not; they can be found on dry, well-drained soils or moist-wet soils; some grow on prairies or in the mountains; grow in bright sunlight, and some in the shade.

What about Flatwoods plum (*Prunus umbellata*), which is sometimes called Hog Plum, Sloe or Black Sloe. This solitary small, twiggy, flat or round-topped tree has an average height of around 12 -16 feet, but rarely is over 20-feet tall.

During March to May, small clusters of two-four small white flowers, less than 1-inch across on short pedicels. The petals are five, rounded, and clawed at the base about ½ inch long. The fruit is sometimes called drupes, and usually dark purple in color, or with a red or yellow skin. The fruit is about 1/2 inch long, tough, rough, grooved stone (liked a cherry seed). The white clustered flowers can be visible in wooded areas and along rural roads. Also, the fruit matures from July – September and is tart and rich in pectin and used to make jellies, preserves or jams.

Leaves begin to form following flowering. They will be simple, alternate, deciduous, yet hardly over 2.5 inches long. The leaf can be oblong, lanceolate or sometimes oval, and found on slender dark reddish brown to gray twigs. Tree bark is typically thin, smooth and reddish dark brown as other plums. The wood is hard close-grained and not of commercial value.

Generally, Flatwoods plum is found on well-drained sandy soils, limestone or other soils in the Central-North Central areas of Texas. These plums can also be found in the southern United States, including Oklahoma, Arkansas and Louisiana.

Some confusion may exist when comparing Flatwoods plum with Reverchon Hog Plum (*Prunus reverchonii*). Reverchon Hog Plum is normally a short bushy shrub and two-six feet in height. Leaves may be more lanceolate. There is some thought that these two plants may hybridize or cross in the wild. Flatwoods Plum has several varieties in other southern states.

Flatwoods plum fruit is a food source for white-tailed deer, raccoons, squirrels, and many species of birds. These animals do aid in the disbursement of seed, for young and tender twigs are browsed by deer when they are within reach of the animal.



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In the past nine weeks working for the Natural Resources Conservation Service, I have learned more than a person would imagine. I started this summer employment program knowing nothing more than the grass in my yard needed to be mowed about every weekend. Besides that I was clueless. In that short amount of time, I have gained knowledge not only about many types of grasses, but how to establish them and the proper grazing management that goes with that management.

My favorite part of this experience would be going to landowner's properties and visiting with them about how they would like to improve their land, and visiting properties that have already been improved and seeing how good the land looks. There are always things to be learned when it comes to improving the land, and I have only learned the very basics in my short time with the NRCS.



Taylor Malley
Soil Conservation Aid
Weatherford College

I am working on my second summer with the NRCS, and I have been very blessed to be a part of the SCEP program. The program has provided me with many training opportunities and has increased my confidence as a conservationist. There are many things that I enjoyed about this job during the summer, but my favorite was meeting with and establishing relationships with producers and landowners. I have learned much from these interactions, by mostly finding out how individuals manage their land and the practices that work best for them.

It is also very rewarding to be able to present some alternative ideas that promote conservation to a land manager, and then see the positive results when those practices are implemented. Also, I have really enjoyed the beautiful landscapes and scenery that I have encountered during my summer travels with NRCS. I am looking forward to a career within the NRCS, and I am very excited about the places this job will lead me.



Alexandra Verrillo, Senior Major: Natural Resources & Wildlife Mgmt.
Abilene Christian Univ.

I have learned a great deal about the Natural Resources Conservation Service throughout this last summer. As I have come to understand, there is never a time one stops learning in this field of work, which is very enticing to me. I greatly enjoyed being in the field while meeting different ranchers and producers. This part of the job was the most enjoyable.

I got to see different ranching and wildlife management practices, and how they differ from one another. I am very interested in the grazing land conservation planning, and learning the different practices to better improve grazing for cattle and habitat for wildlife. Working with different producers and giving technical assistance to help improve their operations was a great experience. Helping with conserving rangelands gives me a feeling that I am giving back to the land in which we have taken away for so many years past. Though it will never be the same as it once was, every little bit helps. I want to thank all the employees who have helped me to learn so much this summer.



Dillon Dixon, Soph. Major: Range Mgmt.
Tarleton State Univ.



A group of student trainees and new hires, left, for NRCS Texas takes a moment during Threatened and Endangered Species training for a photograph.
(Photo Credit: Ricky Linex, NRCS Texas)



Weatherford College Field Day

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I had a great summer experience working with Clyde Hogue, NRCS district conservationist and team leader in McKinney, and who was very enthusiastic about his work. In addition, my colleague Mackenzie Moore, NRCS rangeland management specialist, is very knowledgeable about native grasses and rangeland management. Since the first day, they showed me many aspects of being prepared as a soil conservationist. I want to thank NRCS for giving me this opportunity. This internship opened my eyes, and I have obtained hands-on skills, including participating in several technical assistance sessions in the field; recognizing native plants and ecosystems on native grasslands; surveying terraces using engineering equipment; documenting Highly Erodible Land (HEL) fields; using Revised Universal Soil Loss Equation (RUSLE 2); and using the customer Toolkit and producing maps for various purposes.



Chinling Chen, Masters
Major: Environmental
Economics & Policy
Duke University

I have had the privilege of working with the NRCS through the SWCD for several years. This is where I began to work with landowners, and learn how to identify plants. I love being out in the field with the producers as they are driving us around looking at their land, and we are helping them identify their plants. We always talk about Big Bluestem, and how to graze it when you put it into a native mix. However, this is a plant I have never found in a pasture on its own until this summer, working as a student intern with the NRCS.

Big bluestem is one of those plants that you never find because livestock prefer it and tend to overgraze it. Finding this plant in the field is a sign of someone doing the job right. This property has several pastures below the hills where he grazes his livestock in the summer months.

In the winter time he runs them up into the hills on the native rangeland. When you get up on top of the hill it has all the native mix of grass you want to see, including sideoats grama, Indian grass, little bluestem, and big bluestem.

Touring a producer's ranch and talking with the landowner about the ground and natural resources is one of the most important things we will be doing as a conservationist. The best part of this summer has absolutely been the opportunity to visit with different producers and applying all the knowledge I have gained in class and in the field. I look forward to another summer, and the chance to meet new people and identify more plants.



Rebecca Svoboda
Soil Conservation Aid
Tarleton State Univ.

During my second summer as a student trainee, I received a wide-range of training experiences. I learned a lot in the Jacksboro field office from Matt Gregory, Wynne Whitworth, and Joe Ray Burkett, my former Ag teacher. I helped stake ponds, determine drainage areas, do canopy counts, and received plant identification training. I had many opportunities to travel to other counties for training and field work as well. I helped stake terraces outside Seymour with Joe Coufal and David Seedig from Vernon, and I got to put Rotenone in a pond with the Vernon team. Using Rotenone was a neat and rare experience.

What I enjoyed most though was the camaraderie shared between NRCS employees. I love going to training sessions, and meetings while talking with fellow NRCS employees. Many of whom I have known since working for the Jack SWCD in high school. It is very nice to be able to work for an organization that acts like a big family.



Caitlyn Cooper, Junior
Major: Range Mgmt.
Tarleton State Univ.

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This was my first summer to work for the NRCS and I have had a blast! I have learned so much working in the Graham field office with all the employees. Even with the days I sat in the office, I still had plenty of opportunities to learn new things. I loved getting to go out in the field to look at grass seeding, tree dozing and learning the ins and outs of the different management practices.

My favorite part was getting to learn new plants. I already knew several plants from the 4-H Range Judging Contests, but there are always more to discover. And it's always fun to find something that totally stumps everyone, and spend hours on the computer trying to find what on earth is growing in some landowner's field. Overall, I had a great time and I am looking forward to working with the NRCS next summer again.



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Plant of the Month: Low Wildmercury by [Dr. Dale Rollins](#)

Now, here's one you probably don't know, nor appreciate its significance to quail. Low wildmercury (*Argythamnia humilis*), aka "low silverbush", is a native, perennial herb in the Euphorbiaceae (spurge) family. Often overlooked due to its nondescript, prostrate growth, this forb seems to respond well to summer burning at RPQRR. I've seen it growing on "hotspots" where cedar slash was burned, and it's common on our summer glyphosate + burn plots. The seeds are about the size of No. 4 shot and are often found in quail crops.

****Many thanks to Dr. Dale Rollins and the Rolling Plains Quail Research Ranch (RPQRR), San Angelo, Texas, for this submission and photograph from the e-Quail Newsletter.****



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