Native Plant ‘Virtual’ Swap – Week 2
by Lorelei Stierlen

This is week 2 of our plant swap, and I hope folks are finding some great additions for their garden! Remember, if you have excess volunteers in your garden, just send me, Lorelei, an email at lorstierlen@gmail.com with your list and preferred contact information. If you see something in the newsletters you want, you can then reach out to members and arrange to pick up some beautiful native plants (from their front porch for example). This way everyone can continue to maintain a safe social distance and get some great plants for free. This week’s additions are:

- Pink evening primrose, annual clasping coneflower, Canada Crazy Topped Onions, Gulf Coast Penstemon, Rattlesnake Master, Purple Skullcap and Zexmenia – contact Carol Clark carol@r-d-clark.com
- Yellow TX columbine, pinkish white flowering gaura and sweet autumn clematis – contact Debbie Doyle ddoyle@kittytoes.net
- Oenothera speciosa (aka Pink Evening Primrose or Pink Ladies) – contact Jean Suplick jean.suplick@gmail.com
- Gaura, Venus’ looking glass, and Melanie also bought a flat of green milkweed and is offering her extra plants for $2 each - contact Melanie Schuchart mschuchart@aol.com

What’s This?
See answer on page 6
Onions aren’t just for eating, they’re also beautiful. Did you know that the onion family has 13 genera and 600 species? I didn’t until now, and that’s impressive. We have just four species/subspecies that appear on Dr. Nelson Rich’s list of Collin County natives, *allium canadense*, *allium canadense var hyacinthoides*, *allium drummondii* and *allium (or nothoscordum) bivalve* (Bivalve? I hear you say – no it’s nothing to do with clams!) I am very lucky as I have two of these beauties growing in my gardens. I hope some of you were able to get one of the *allium canadense var hyacinthoides* from Bill Freiheit’s collection at last year’s native plant sale. I did, and this is one happy plant this spring. And the fragrance is as far from onion as you can get!

It took two years, but finally my *allium (or nothoscordum) bivalve* has bloomed! This amazing little native is called false garlic or crow poison, and no, the crows in my gardens haven’t been harmed by it. I’ve not seen plants being sold, but you can sometimes get seeds for these early bloomers from Native American Seed (these aren’t edible, so please don’t add them to your stir-fry).

What unusual spring flowers are you seeing?
I have to admit right up front that I have developed a bit of a mania to try to understand how to work with our clay soil. In the 1969 publication Soil Survey: Collin County Texas, the USDA said of our Houston Black clay soil: “rated fair as a source of topsoil”, “not well suited to gardening and landscaping”, “rated poor as a source of road fill”, “risky for building foundations or for pipelines”, and “does not provide good reservoir areas”.

When this clay soil gets wet, it is quite expansive (about 30%) with the soil rising 2” from a dry spell to a wet year. When the soil is wet, it is almost impervious to water soaking in (maybe 0.2”/day soaking in). It is alkaline (pH: 7.4 to 8.4) and quite corrosive to pipes.

We add compost to improve the soil in our gardens, but what about the hardscape? What if we want to put a fence to hide a service area in our yard? Do we know how to work our clay soil?

In the example below left, the uphill house has a foundation watering system that (apparently) overwaters. To make things worse, a nearby large water main appears to have changed the way the subsurface water moves. The area between the houses was wet all summer long. The near end of downhill house had been raised almost an inch compared to the far end. After a French Drain was installed (over 6’ deep), most of most foundation problems were resolved.

A driveway has been settling on one side – well over an inch so far (above right). The soil under the alley maintains a fairly constant moisture level. However, near the edge of the drive, the soil moisture level is affected by the dry weather and any drainage problems. What does he do now?

I was driving through a neighborhood several days after a rain and I noticed water still standing where the street had dipped near the curb in front yards that have several trees (above). I found that (something like) 90% of the houses with several trees had a puddle in front but only (maybe) 10% of the houses with none or one tree had a puddle in front.

I recall a study that noted the addition (or removal) of a large tree will affect the equilibrium moisture level of our clay which will cause the clay to shrink (or expand). The tree pulls more moisture from the soil than “normal” and the soil level drops as the dryer clay shrinks. (Conversely, removing a tree allows the moisture level to increase and the area rises – up to three inches.) It appears in this area anyway, that the way the streets were built allowed low spots to form as the trees grew up (and used more ground water).
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Retaining walls can “fall over” (below). The tall block wall (center) has already tilted about 20°. As the soil under the back edge (garden side) of the wall improves due to microbial activity in the bed soil, it becomes softer than the clay under the outer edge. The improved soil doesn’t expand as much when wet as the clay on the outer edge and the wall eventually falls in.

Many posts set in our clay get pushed up out of the soil (above). The poles were vertical and the pipe fence was straight but many posts have been pushed up so that the concrete is showing. Usually, we dig a post hole that is wider at the top. The expansion of the clay tends to push it up. An “inverted cone” hole is harder to dig, but works well in our clay.

How deep should the edging material go around a planting bed? Grass spreads by runners (rhizomes) below the soil line as well as runners (stolens) above the soil line. Johnsongrass and other weed roots can run very deep and very far underground. When I make a garden bed, I use a tall (but cheap) plastic edging below ground to stop the roots and runners below ground. Then I use decorative stone or steel edging above ground.

Do those cracks that form in your yard during the long drought (completely) heal with the rains? Well, mine don’t (below). Pasture grasses tend to be clump grasses rather than forming a dense patch like Bermuda. Dense patch grasses hold the soil together than clump grasses. Cracks form between the clumps where the ground is almost bare.

Even after the rains, the remaining cracks are as much as 12 inches deep and are still as much as 6 inches wide and some are 6 feet long. Eventually the sides will cave in and I’m left with a low spot that will hold water after a rain.

Jolly is studying the cracks and questioning my horticulture skills.

Native Plant Society of Texas – Collin County Chapter
It was an Ice Age squirrel's treasure chamber - a burrow containing fruit and seeds that had been stuck in the Siberian permafrost for over 30,000 years. From the fruit tissues, a team of Russian scientists managed to resurrect an entire plant.

The *Silene Stenophylla* is the oldest plant ever to be regenerated, the researchers said, and it is fertile, producing white flowers and viable seeds.

"We consider it essential to continue permafrost studies in search of an ancient genetic pool, that of pre-existing life, which hypothetically has long since vanished from the earth's surface," the scientists said in the article.

Svetlana Yashina of the Institute of Cell Biophysics of the Russian Academy Of Sciences, who led the regeneration effort, said the revived plant looked very similar to its modern version, which still grows in the same area in northeastern Siberia.

"It's a very viable plant, and it adapts really well," she told The Associated Press in a telephone interview from the Russian town of Pushchino where her lab is located. She voiced hope the team could continue its work and regenerate more plant species.

The Russian research team recovered the fruit after investigating dozens of fossil burrows hidden in ice deposits on the right bank of the lower Kolyma River in northeastern Siberia, the sediments dating back 30,000-32,000 years.

The sediments were firmly cemented together and often totally filled with ice, making any water infiltration impossible - creating a natural freezing chamber fully isolated from the surface.

"The squirrels dug the frozen ground to build their burrows, which are about the size of a soccer ball, putting in hay first and then animal fur for a perfect storage chamber," said Stanislav Gubin, one of the authors of the study, who spent years rummaging through the area for squirrel burrows. "It's a natural cryobank."
Thoughts for the Day

✓ Gardening begins at daybreak, and ends at back break.
✓ I appreciate the misunderstanding I have had with Nature over my perennial border. I think it is a flower garden; she thinks it is a meadow lacking grass, and tries to correct the error. — Sara Stein
✓ A weed is a plant that has mastered every survival skill except for learning how to grow in rows. — Doug Larson

Collin County NPSOT General information

The Collin County chapter of the Native Plant Society of Texas meets the first Tuesday of January through October, in Laughlin Hall at the Heard Museum. Unless otherwise noted, doors open before 7:00pm and the program starts at 7:15pm.

The Native Plant Society of Texas is a non-profit organization with the goal to promote the conservation, research, and utilization of the native plants and plant habitats of Texas, through education, research, and example.

Thanks for your support.

email: collinctownpsot@gmail.com
website: http://www.npsot.org/CollinCounty/

Answer to “What’s This?”

Did you recognize it as a potato blossom?