ANGELINA MASTER GARDENERS

TYLER WAYLAND/For The Lufkin Daily News

Native plants under a powerline right of way at the Winston 8 Tree Farm. The East Texas Natives Project is part of Texas Native Seeds Program, a nonprofit program that develops adapted native seeds for sale to enable large-scale restoration.

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A bee explores a rattlesnake master, a perennial forb once common in East Texas.

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A flowering seed head of Indiangrass, a prairie grass with blue-green summer foliage that turns gold in the fall.

East Texas Natives Project working to mitigate loss of habitat

A connection to the natural world improves our quality of life.

ELAINE CAMERON

This past week, Bill and I enjoyed fishing on Lake Sam Rayburn. On the way to the lake, white rain lilies in ditches caught the light from our headlights. Two bald eagles put on a show near our boat as they flew and swooped to find their breakfast. Their colors of black and white were spectacular against the bright blue October sky.

Later we noticed large numbers of admiral butterflies in the willow trees. Admiral butterflies resemble monarchs in appearance but are a little smaller and they use willow trees for host plants. We enjoyed our view of nature as much as the fishing.

Earlier in the week, I talked to Tyler Wayland, assistant director of East Texas Natives Project, and my experience at the lake reinforced the importance of Wayland's work. ETN is a "collaborative project to develop regionally adapted native seed sources for restoration in East Texas."

Wayland defines native plants as those that were here before Europeans arrived. East Texas was once a pine savanna, or plain, where a man could ride horseback for miles without losing his hat. Tall pine trees had an understory of native grasses and plants that provided cover and food for wildlife and birds. The deep roots of bunch grasses helped filter water and prevented erosion. Natural fires controlled the underbrush.

Development fragmented the forests and natural areas. Settlers plowed fields and removed native grasses. When forests are fragmented, vines and underbrush that grow on the edges take more space. Removing habitat causes a decline in wildlife. Over the next 40 years, development will take 800,000 acres of rangeland. Pipelines will disturb more land.

To mitigate the loss of habitat, native plants can be used to revegetate and restore land on pipelines, utility rights of way, roadsides and edges of cropland.

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An evaluation plot of silver bluestem at the East Texas Plant Material Center in Nacogdoches. The East Texas Natives Project uses the common garden study method to identify and select regionally adapted native plant populations that have characteristics that will adapt to restoration plantings and commercial seed production

In 2000, landowners in South Texas expressed interest in restoring their land with native grasses and plants to support native wildlife. Their desires highlighted the need to increase availability of regionally adapted native seed sources. They received assistance from the Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville and established the South Texas Natives Project.

Researchers for the project focused on collecting native seed from wild populations, identifying the strong, well-adapted populations, and providing seed to commercial seed producers for large-scale seed production. The end results are landowners have a reliable source for the native seeds needed for restoration.

Locally sourced seed is important to successful land restoration. For instance, Indiangrass, Sorghastrum nutans, is native to most of North America. However, growing conditions vary widely. Seed from plants native to a region will give sustainable results, whereas seed from distant locations will not do well in the long term. In East Texas, there are very few regionally sourced and adapted seed sources available in the quantities needed to meet demand. Land restoration requires a large investment and landowners need seed that will produce plants that will work for the long haul.

Wayland is the director of the East Texas project modeled from the successful South Texas initiative. His team collects native seeds from public land, along railroads, in old cemeteries and from private land all over East Texas. Once enough collections are made of a species of interest, the seeds are started in greenhouses with each collection kept separate from the rest.

Then seedlings are transplanted into evaluation plots across the region where they are evaluated for a two to three years. ETN uses the common garden study method to identify and select regionally adapted native plant populations that have characteristics that will adapt to restoration plantings and commercial seed production.

The project is in its fourth year and has made more than 630 native plant seed collections from 59 counties in East Texas. ETN has four evaluation sites that include the NRCS East Texas Plant Material Center in Nacogdoches, Boggy Slough Conservation Area in Trinity County, Riverby Ranch in Fannin County, and Daisy Farms Dairy in Paris.

These sites represent the Pineywoods, Oak Woods and Prairies and Blackland Prairie ecosystems of East Texas. Multiple evaluation sites ensure the selected populations are widely adapted for uses throughout the region.

After the study completion, the best performing plant populations are selected and grown in seed increase fields to produce enough seed for commercial growers to scale production. Research findings are then published, and the seed sources are released to commercial seed producers as certified Texas Native Germplasm releases.

For ETN, the first five native plant species in line for release include Indiangrass, silver bluestem, purpletop tridens, rattlesnake master and spotted beebalm.

After commercial production fields are established, seed companies will have seed to sell to restore utility rights of way, pipeline, highway roadsides and private acreages. Pipelines will become "pipeline prairies" with the native grass and flowers that will support wildlife, such as wild turkey and quail. Pipelines and utility rights of way also will connect fragmented habitat for wildlife.

The East Texas Natives Project is part of Texas Native Seeds Program, a nonprofit program that develops adapted native seeds for sale to enable large scale restoration. There are six regional projects across the state.

In 2004, because of a lack of seed sources, Texas Department of Transportation seeded the roadsides with a mix of five to six native and non-native species. By 2014, because of the work of TNS and their partners, rural seeding specifications were changed to include diverse, regionally adapted, native-only seed mixes for two-thirds of the state. The remaining one-third includes East Texas and the Coastal Prairies regions.

The ETN was established in early 2018 with funding and sustained support from Ellen Temple in memory of Buddy Temple along with Joan and Rufus Duncan, Amanda Haralson and Thomas Livesay, Jim Brown, Susan Temple, the Winston 8 Ranch, Mitchell Foundation, Pineywoods Foundation, East Texas Community Foundation, Texas Department of Transportation, USDA Natural Resources and Conservation Service, and the U.S. Forest Service.

You may wonder why I am writing about this topic in a garden column. Increasing habitat by restoring large acreages will affect the quality of life of all East Texas residents.

When TxDOT has access to native seeds adapted to East Texas, the roadsides will be alive with our beautiful wildflowers and grasses that are second to none and currently under appreciated. Imagine folks coming to our area to enjoy our wildflowers and the positive economic impact that will bring.

All of us live on land that was once native habitat. Its important for all landowners, whether one-quarter of an acre or thousands of acres, to be good stewards of the land. Our wildlife needs native plants for food and shelter and as we develop more land, covered with concrete and sterile foreign plants, our bird and wildlife populations will continue to decline. By including native plants in your home and business landscapes, you are helping to replace habitat.

When seed companies have East Texas seed available, eventually there will be seeds available for those who live on small lots as well as those who own thousands of acres. As Wayland said, "A rising tide lifts all boats." Seeing beautiful stands of native plants will increase interest and more native plants will be available in local nurseries.

Wayland shared this interesting statistic from "Forest Action Plan" by Texas A&M Forest Service: "In East Texas, 92% of the timberland is privately owned. East Texas now has more than 200,000 family forest owners. More than 80% of this group own less than 50 acres, representing 5.1 million acres."

If we all do our part to use native plants the impact on the preservation and restoration of our native ecosystem will be huge.

Elaine Cameron is an Angelina County Master Gardener. Her email address is cameronelaine634@gmail.com.