

**Next Meeting: Saturday May 16, 2020, 10:30 am, Luigi's Italian Café, Mt. Pleasant**

## **Prescribed Burns Benefit Bees**

### **Science Daily**

Freshly burned longleaf pine forests have more than double the total number of bees and bee species than similar forests that have not burned in over 50 years, according to new research from North Carolina State University.

For many forests, fire is as essential as rainfall. But while several studies have outlined the benefits of human-controlled prescribed burns on forest ecosystems, little was understood about how prescribed burns, or fires in general, may impact pollinators.

"There is global concern about the decline of insects in general, and pollinators in particular, so it's really important for land managers to understand how prescribed fire affects insect communities," says Elsa Youngsteadt, co-author of a paper on the work and an assistant professor in NC State's Department of Applied Ecology.

"Given the importance of fire in maintaining longleaf pine ecosystems overall, you would expect it to be good for the region's native bees. But it's also easy to imagine small bees and their nests, especially nests in twigs and stems, just getting incinerated. We weren't sure where we would find the most robust pollinator community."

NC State researchers worked with the Walthour-Moss Foundation's longleaf pine savannah reserve, which was established to protect this endangered pine. The reserve regularly burns 90% of its plots in 3-year cycles, while the remaining 10% of plots have not been burned for at least 50 years. This provided an ideal opportunity to compare bee abundance and diversity between unmanaged and managed ecosystems.



*Photo Credit: bugguide.net*

"The southeastern U.S. has some of the highest lightning strike rates in the world, which used to contribute to low-intensity fires passing through the longleaf pine savannas every 2 or 3 years," Youngsteadt says. "But agriculture, development, and logging fragmented this landscape and blocked the movement of fire."

For this study, researchers placed bee "traps" at 16 sites: four that had been burned the year of sampling, four that had been burned one year before sampling, four that had been burned two years before sampling, and four unburned control sites.

The researchers found that burned sites supported 2.3 times more total pollinators than plots that had not burned in 50 years. Burned sites also had 2.1 times as many different bee species as unburned sites. Within those burned areas, bee abundance and diversity tended to be greatest at sites that were most recently burned, and this abundance and diversity decreased with time since the last fire.

But why?

Fires maintain openings in the forest canopy, reduce ground cover and release nutrients into soils at the

same time, creating the perfect environment for large blooms, increasing the flower resources pollinators rely on. The study also found that the low-intensity prescribed burns did not reduce the amount of nesting material for above-ground nesting pollinators, and the abundance of above-ground nesting pollinators was not impacted by the fires. Meanwhile, below-ground nesting species appeared to benefit from the increased access to bare soil.

"It's great news that prescribed fire, as currently used in longleaf pine savannas, is helping to support the pollinator community," Youngsteadt says. "But there's still a lot to learn. For example, the fires in this study were set in the winter, but many land managers use summer burns. Knowing the effects of fire in different seasons will be an important next step, as will knowing the optimal area of land to burn at any one time."

## **Record Number of Acres Treated with Prescribed Fire in Texas**

### **Texas A&M Forest Service**

Texans are using prescribed fire more than ever to manage land and mitigate wildfires. Now there is data to support this. A recent statewide survey found that 402,017 acres were treated with prescribed fire in Texas during 2018.

That's up by nearly 50,000 acres from the previous year for two reasons - Texans are using prescribed fire to manage their land in one of the most successful and cost-effective ways, and they are also doing a better job at reporting that use.

"In a state as vast as Texas, no one agency has the sole responsibility of conducting and reporting all prescribed burning," said Andy McCrady, Texas A&M Forest Service Fuels Coordinator. "We take a collaborative approach to land and fire management."



*Photo Credit: John Warner*

"We take a collaborative approach to land and fire management."

In the spring of 2019, more than 60 stakeholders came together to create the Texas Prescribed Fire Council. Partners recognized that there is a significant amount of forest and rangeland in Texas – most of it privately owned – and that it takes everyone working together to conserve and protect our resources and communities.

The council is helping to guide the use of prescribed fire in the state, and together with Texas A&M Forest Service and Texas A&M AgriLife Research conducted the survey of prescribed fire use in Texas for 2018.

The survey was disseminated via email to hundreds of professional land managers, governmental agencies and landowner groups - the majority of whom replied.

"The level of collaboration we are seeing across the state regarding prescribed burning has increased participation in filling out these surveys and reporting acres burned," McCrady said. "This data collection is providing a clearer picture of how extensively Texans are using prescribed fire."

This regularly occurring snapshot of prescribed fire in Texas will continually be part of a national report conducted by the National Association of State Foresters and The Coalition of Prescribed Fire Councils.

Their report has historically shown that across the country, states in the Southeast conduct 70% of all prescribed burning activity.

In the South, prescribed fire is used for multiple reasons, including managing forestlands, rangelands, and watersheds, maintaining wildlife habitat and mitigating future wildfires.

“By using fire in a prescriptive way, land managers can reduce hazardous fuel buildups - simultaneously meeting land management goals and moderating risk of severe wildfire in a cost effective way,” said McCrady. “Fire is a natural part of the Texas landscape, and when landowners use prescribed fire, they help make our land safer for all Texans.”

Learn more by visiting [Texas A&M Forest Service-Prescribed Fires](#) or [Texas A&M Agrilife- Texas Prescribed Burn Handbook](#).

## Fluorescent Pink Flying Squirrels?

**By: Laura Muntean, Texas A&M University AgriLife Extension**

The North American flying squirrel fluoresces pink at night under ultraviolet light, but the purpose of the pink color is still a mystery to researchers.

Allison Kohler, a graduate student in the Texas A&M University wildlife and fisheries department in College Station, helped make this discovery as well as affirm other flying squirrels do in fact fluoresce pink.

Kohler’s undergraduate professor Dr. Jon Martin, associate professor of forestry at Northland College in Wisconsin, was doing an exploratory forest survey with an ultraviolet flashlight in his backyard. Initially, he was looking at different lichens, mosses and plants to see what fluoresced. By chance, a flying squirrel happened to be at his bird feeder. When he saw it under the ultraviolet light, it was hot pink.

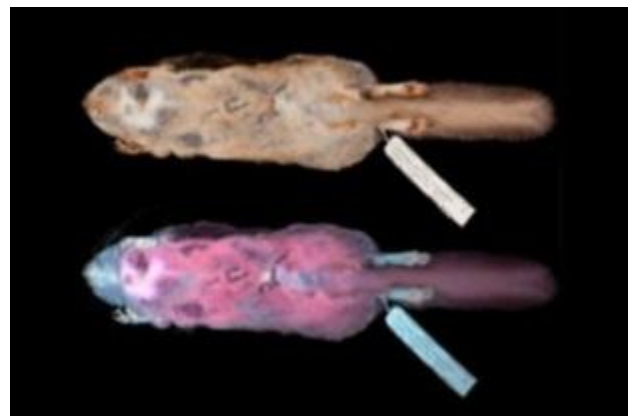
A team to investigate this discovery was formed and included Martin, Kohler and two of Martin’s colleagues at Northland College: Dr. Paula Anich, associate professor of natural resources, and Dr. Erik Olson, assistant professor of natural resources.

With access to a museum collection at the Minnesota Science Museum, Martin asked Kohler to take the lead on the project and develop a protocol to help further investigate exactly what it was they had found.

“I looked at a ton of different specimens that they had there,” Kohler said. “They were stuffed flying squirrels that they had collected over time, and every single one that I saw fluoresced hot pink in some intensity or another.”

In order to expand the search, the team went to the Field Museum of Natural History in Chicago and gathered more specimens. In all, they researched over 100 specimens ranging across numerous states, all confirming their “pink theory.” They also looked at five additional live specimens.

“We tested all three of the North American flying squirrel species: the Northern flying squirrel, the Southern flying squirrel and the Humboldt’s flying squirrel, and all three of them fluoresced,” she said.



*Photographs of a flying squirrel under visible light and ultraviolet light show what the specimen looks like to the human eye and with the aid of a UV light to fluoresce pink.*

*Photo Credit: Allison Kohler*

After comparing the flying species to other squirrels, like the American red squirrel and gray squirrel, the team found that the pink color is unique to the flying squirrel.

The reasons for the squirrels to fluoresce pink is still under investigation, but communication and camouflage are two top contenders for why this might be happening, the team has hypothesized.

“They could be communicating with members of their own species by showing off their fluorescence to each other, or it might be a sort of mating display,” Kohler said. “The other hypothesis is that they could be using this fluorescence as an anti-predator trait to communicate with other species, avoiding predation by other species by blending in or dealing with their potentially ultraviolet-saturated environments.”

As the research develops, she said, the importance of this find will present itself more clearly. Kohler plans to continue her research while pursuing her master’s degree at Texas A&M. Further research will look firmly at the implications of the team’s find.

“It could potentially help with the conservation of the species or other species, and it could also relate to wildlife management,” Kohler said. “The more that we know about the species, the more we can understand it and help it. This is opening a new door to the realm of nocturnal-crepuscular, or active during twilight, communication in animals.”

## **Western Chicken Turtle Research**

### **Texas Comptroller’s Natural Resources Program**

The western chicken turtle is an elusive freshwater turtle historically found in ephemeral wetlands dispersed across multiple states, from the Guadalupe to the Mississippi River. They vary from the other two subspecies of chicken turtles, exhibiting an omnivorous diet and an earlier aestivation, or dormancy, period. Despite its charismatic name, the current distribution and status of the species is not well understood. With sufficient time before the U.S. Fish and Wildlife Service makes a listing decision on the species in 2024, the Comptroller’s office has partnered with the Environmental Institute of Houston at the University of Houston - Clear Lake to conduct surveys for the western chicken turtle in Texas to address important data gaps. This research began in January 2020, starting with efforts by the Comptroller’s office and researchers to obtain access to private land to carry out surveys.



*Photo Credit: Texas A&M Natural Resources Institute*

If you are interested in having this research conducted on your property please contact Mandi Gordon (email: [Gordon@uhcl.edu](mailto:Gordon@uhcl.edu) or office:281-283-3794).

## Websites of Interest

texasforestinfo.tamu.edu

- Find a variety of landowner tools that assist you in answering your land management questions.

tpwd.texas.gov

- Find out a variety of information on topics related to wildlife and fisheries in the state of Texas.

NRCS.usda.gov

- Find out more information on the importance of soils and various federal programs.

tfsweb.tamu.edu

- Interested in reading more about land and tree care? Visit the Texas A&M Forest Service website to find more information on a variety of topics relating to land and tree management.

## Market Report– November/December 2019

Product	Statewide Ave. Price		Previous Ave. Price		Price/ Ton Difference	
	Weight	Volume	Weight	Volume		
Pine- Sawlogs	\$25.81/Ton	\$206.48/MBF	\$28.27/Ton	\$218.72/MBF	-9%	↓
Pine-Pulpwood	\$7.92/Ton	\$21.39/Cord	\$7.79/Ton	\$20.92/Cord	2%	↑
Pine-Chip-n-saw	\$14.61/Ton	\$39.46/Cord	\$13.34/Ton	\$36.01/Cord	10%	↑
Mixed Hardwood-Sawlogs	\$33.96/Ton	\$305.66/MBF	\$34.76/Ton	\$325.21/MBF	-2%	↓
Hardwood- Pulpwood	\$13.25/Ton	\$37.11/Cord	\$12.13/Ton	\$33.97/Cord	9%	↑

Texas Timber Price Trends is a bimonthly publication reporting average prices paid for standing timber in Texas. This report is intended only as a guide to general price levels. It should not be used to judge the fair market value of a specific timber sale, which may vary considerably due to many factors. It is recommended that you use the services of a professional consulting forester in managing any timber sale. Important factors affecting timber prices include the type, quality and volume of timber for sale, accessibility, distance to mills/markets, weather conditions, economy/market conditions, who is handling the sale or is buying the timber, and contract requirements by the landowner. The complete Texas Timber Price Trends can be viewed at <http://tfsweb.tamu.edu/timberpricetrends>.

## **NRCS Announces 2020 Deadline for Conservation Assistance Funding**

The USDA-Natural Resources Conservation Service (NRCS) in Texas has announced the first funding application deadline of **April 3, 2020**, for the Environmental Quality Incentives Program (EQUIP). If additional financial assistance funds are still available, a second funding application deadline will be scheduled for **May 15, 2020**.

Applications are taken year around for NRCS programs, but deadlines are announced to rank and fund eligible conservation projects. Producers interested in signing up for EQUIP should submit applications to their local USDA service center. If already a USDA client, a producer can submit applications online via Conservation Client Gateway.

EQUIP is a voluntary program that provides financial and technical assistance to agricultural producers. Technical assistance is provided without a fee from NRCS specialists to help landowners and land managers plan and implement conservation practices to help them meet their land management goals, address natural resource concerns and improve soil, water, plant, animal, air, and related resources on agriculture land and non-industrial private forestland.

For additional information visit the NRCS Texas website at [www.tx.nrcs.usda.gov](http://www.tx.nrcs.usda.gov) . Applications for EQUIP are accepted on a continuous basis. Producers interested in EQUIP can contact their local USDA service center or visit the NRCS EQUIP web page.

## **Upcoming Events**

**Monday, March 16, 2020– Owning your piece of Texas-Key Laws Texas Landowners need to Know 9am-3pm** –Location: Lone Star Conventions Center and Expo 9055 Airport Rd., Conroe, TX. This program will provide attendees with information on a broad number of common issues facing landowners. Lunch is provided. Cost \$75. For more information visit <https://tfsweb.tamu.edu/content/article.aspx?id=30739>

**Saturday, March 21, 2020– Tyler County Forest Landowner Meeting 8:30 am– 2:30pm**– Location: Texas A&M AgriLife Extension Service Nutrition Center, 201 Veterans Way, Woodville, TX. Topics will include Sustainable Forestry Initiative, land values in East Texas, water quality, tree planting, cost share programs and more!! Cost is free. Please RSVP by March 16 by calling Texas A&M Forest Service, Kountze Office (409)246-2484.

## NETFLA Officers

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Tandy Wheeler, Gilmer

(903) 734-7007

### NETFLA WEB SITE:

[www.netxforest.org](http://www.netxforest.org)

## Northeast Texas Forest Landowners Association Newsletter Quarter I 2020

### Next Meeting: 10:30 am Saturday, May 16, 2020

Texas A&M Forest Service Law Enforcement will present the Program. The primary topic addressed will be "Timber Theft". The goal of the program will be to inform landowners of new regulations for selling timber in Texas, examples of how timber is being harvested without the landowner receiving full compensation, and best practices for minimizing the risk of theft.

The meeting will be held at **Luigi's Italian Café in Mt. Pleasant**. Luigi's is located at 2213 West Ferguson (TX Hwy 49). It is on the south side of the street near the intersection of Ferguson with the new US Hwy 271 bypass around Mount Pleasant. Momentum Motorsports is diagonal across the street.

### August/September 2020 Program:

The Board is exploring several topics including pine seedling genetics, a tour of the Gilmer Hixon lumber mill, feral hogs and an update of the proposed Marvin Nichols Reservoir for this meeting. Please contact a board member if you have an issue that you would like addressed at a future meeting.

### NETFLA Contact and Membership Dues Information

Thank you for your NETFLA membership in past years. We hope that Newsletters, Programs and Quarterly Meetings have provided you with useful information that has helped you manage your timber property. We encourage you to continue your membership. Membership dues are \$15.00 per calendar year. If you have not yet renewed your membership for 2020, you can renew at a meeting or mail your check to: **NETFLA, P.O. Box 343, Daingerfield, TX 75638-0343**. Thank you.

Contact: Judy Weiss (903) 645-3782, or e-mail [gjweiss@windstream.net](mailto:gjweiss@windstream.net)