Rolling Plains Chapter NEWSLETTER

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The Rolling Plains Chapter partners with River Bend Nature Center and Wild Bird Rescue, Inc. in Wichita Falls; Lake Arrowhead State Park in Clay County; Copper Breaks State Park in Hardeman Count;, Whiteside Museum of Natural History in Seymour; and Comanche Springs Astronomy Campus in Crowell. Our Chapter covers Archer, Baylor, Clay, Foard, Hardeman, Jack, Montague, Wichita, Wilbarger, and Young Counties.

JULY 4: ***Rolling Plains Chapter Meeting - NO CHAPTER MEETING FOR JULY!!!***

AT JULY 6: ***Ranchland Friend or Foe Webinar*** Much of our ranch efforts involve management of plants and animals, but it can be difficult to decide which battles to pick. In this webinar, we will highlight a few of the many plant and animal species we see on our ranchlands and discuss which are invasive, aggressive natives, or simply a misunderstood native species that might deserve a bit more of our appreciation. ** ***$35.00 fee required.*** **

FR JULY 7: ***Texas Stream Team Water Testing 9:00-11am*** Water testing will be conducted at Lake Wichita and the Wichita River. This event will be held the second Friday

Just because we don't have a meeting in July doesn't mean you have to sit inside with your feet up on the coffee table. We have lots of things to keep you entertained!

Our Spring Training class will be wrapping up at the end of June and to celebrate, we will be having a "Trail Mixer" Celebration at River Bend Nature Center on Friday, July 7th at 7:00 pm. Bring your family and make your own trail mix, walk the trail, and celebrate the accomplishments of the 2022 and 2023 training classes. Gabe King is also going to set up the Moth Cloth and see what kind of insects we can find. I hope you will come and help us celebrate. Please RSVP ASAP via text (or a voicemail) so I can get you on the list. My phone number is (940)733-4467.

Several opportunities are available online and in the air conditioned comfort of your home. This month's TMN Tuesday on July 11 is all about the eclipse that is coming later this year. You will want to keep an eye on the Chapter Events page of the website as Debra keeps adding more events as they are approved.

For those willing to brave the heat, we have a Bird Outing at Lake Arrowhead on July 8th (8:00 am) and our monthly hike for July will be a Horned Lizard Hike at Copper Breaks State Park on Saturday, July 29th at 9:00 am. I believe that Lynn has some water testing scheduled this month as well. No matter what you do outdoors, please take care... drink lots of water, wear a hat and sunscreen and be careful!

Don't forget about the Summer Scavenger Hunt. Get 60 points or more by July 31 and you will be put in a drawing for your own Monarch Tagging Kit. We will draw for the winner at the August 1st meeting. (The Monarch Tagging Kit will be delivered at the September meeting.)

As always, watch your email and check the website calendar for more events and opportunities.

Our next meeting will be August 1st at 7:00 PM. We will be in person at Bolin Science Hall, Room 209 at Midwestern State University and also on Zoom at the same time. (Watch for a link in your email.) We have rescheduled Dr. Rossco and his presentation on Paleontology

of each month, unless noted otherwise.

JULY 7: ***Trail Mixer*** Join us at River Bend Nature Center under the pavilion, for a celebration and training class graduation. Come walk the trail and make a trail mix. Moth hunting afterwards. Friends and family welcome. Please ***RSVP with how many will attend to rollingplainstmn@gmail.com.***

PO July 8: ***Monthly Bird Outing 8:00-10am NEW LOCATION: Meet at Lake Arrowhead State Park at the building by the boat slips and fishing pier.*** Join Penny Miller, other members and guests at Lake Arrowhead State Park for a bird outing. Look for and identify birds found at the park. This is a leisurely hike on level ground (handicap accessible). Binoculars helpful, but not required.

AT JULY 11: ***Texas Stream Team Webinar 6:30-7:30 pm*** Texas Waters Specialist webinar with Ally Schlandt, Program and Outreach Specialist with The Meadows Center for Water and the Environment.

AT JULY 11: ***TMN Tuesday12:00-1:00pm*** TMN Texas is unique-

for our program this month. Don't forget to bring your Summer Scavenger Hunt Scorecards! —Laura

Some Insects Taste With Their Feet and Hear With Their Wings

Insects put their senses in strange places, from ears on their bellies to noses on their legs—and eyes on their genitalia.

by LIZ LANGLEY • Published September 14, 2018 • National Geographic

Ah, the breezy life of a butterfly. You're outside all day, you have pretty wings and life is all about flowers.

One drawback: Your feet have taste receptors on them, which seems like it could get pretty unpleasant depending where you land.

The idea of walking around tasting our floor tile all day made us wonder: What are some of the other strange places insects have their sensory organs? It's a human-centric question, but well, we're only human.

Moms with Taste

For a butterfly, tasting with your feet isn't gross. In fact, it's a great way to find a delicious place to eat—and that's why it's how they shop for daycare for their offspring.

"You've got to make sure you're getting those babies on the right plant," says Katy Prudic, an entomologist at the University of Arizona. Butterflies can taste whether the plant they are standing on will be alright for their baby caterpillars to eat.

Similarly, crickets and locusts have taste receptors in their ovipositor, an organ that deposits eggs, so they can detect whether the dirt they're using as a nursery is good for their offspring.

Parasitoid wasps can do a similar taste test with their antennae, and also perform antennae drumming on the surface of eggs where they might lay their eggs.

"It's a lick, with rhythm and blues," Prudic says.

Sound and Scent

Some moths have a kind of ear, called a tympanum, on their abdomen that can "detect the echolocation of bats hunting them," says Adrian Carper, an entomologist at the Museum of Natural History at the University of Colorado in Boulder.

Three families of moths have this "ear" on their bellies—geometer and looper moths, snout moths, and hooktip and false owlet moths—making them ultrasensitive to ultrasound.

One species, the greater wax moth, can hear at 300 kHz, a higher frequency than any other animal. Some of these species will stop flying when they hear ultrasound.

"Katydids have ears on their knees, which is fun," Carper says, and in fact their relatives—grasshoppers, locusts and crickets—all have a tympanum just below the knee.

Smell Ya Later

"Smell helps insects find love, food and friends all while avoiding being eaten," Prudic says, but alas, "they don't have noses."

So how do they smell?

"Awful!" you may say, if you've heard that old joke, but actually insects can pick up on

ly situated with the crossroads of two major astronomical events crisscrossing the state in the coming year – an Annular Solar Eclipse October 14th, 2023 and a Total Solar Eclipse April 8th, 2024. All Texas Master Naturalist volunteers are welcome to learn about these upcoming natural events, how to safely watch them, and other programs our partners at NASA are hosting. This is the only webinar series where you can count watching the recording.This is the only webinar that you can count watching the recording.

PO JULY 29: ***Monthly Hike 9:00-10:30 am*** Join members at Copper Breaks State Park for this month's hike to learn about, and possibly see, the Texas Horned Lizard. The park is a 1.5 hour drive from Wichita Falls. Meet at Bull Canyon trailhead. Carpooling may be available. ** ***Park entrance fee is required.*** **

scent with their antennae, legs and even to have olfactory receptors on their genitals, Prudic says.

You See With Your What?

And as if insects are out to prove that you can do more than one thing with your nether regions, yellow swallowtail butterflies can see with their genitals.

Kentaro Arikawa of the Graduate University for Advanced Studies in Japan discovered photoreceptor cells in the genitalia of swallowtails in 1980. In a 2001 paper, he explains that this ability to see light is important for the insects' reproduction.

Yellow swallowtails mate facing away from each other, and the male appears to use this light-sensitive organ to line up with the female. Arikawa found that when the photoreceptors were covered up, mating success decreased significantly, from 66 percent to around 28 percent.

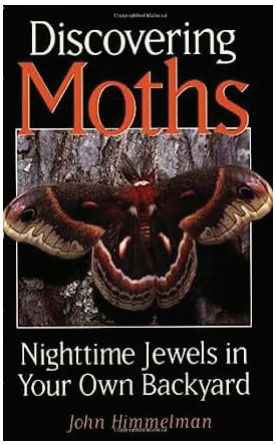
Similarly, when females' genital "eyes" were blacked out before they laid eggs, they had trouble detecting the surface of the leaf and attaching their eggs to it. When they couldn't "see," their success rate plummeted from 80 percent to about 15 percent or less.

In the paper Arikawa refers to butterflies seeing with their genitals as "hindsight."

But we still don't know whether genital hindsight is 20/20.

Discovering Moths: Nighttime Jewels in Your Own Backyard

by John Himmelman



In lively, accessible prose, he explains the intricacy of moths' life cycle, their importance in nature, and how just a tiny handful of the many moth species are truly pests to humans. He tells how to attract moths with lights and bait, when and where to observe them, and how best to photograph these tiny subjects. Entertaining personal anecdotes and short profiles of some of the country's foremost mothers add human interest.

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