

# Texas Master Naturalists ROLLING PLAINS CHAPTER

## NEWSLETTER

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<http://txmn.org/rollingplains>

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### President's Report

There is a spirit of change in the discussions of our TMN Chapter Presidents' meetings as a response to the protests of racism in our country. Our TMN organization is working on a statement and they want each chapter to consider stating a mission to include diversity and inclusion. You might ask how these issues affect our chapter? An incident involving a white woman accusing an African American man, a birdwatcher, of threatening her life when he asked her to leash her dog, was publicized on national news. Audubon magazine published an article "It's Time to Build a Truly Inclusive Outdoors" written by Corina Newsome, biology graduate student at Georgia Southern University. In her article she expresses that many Black birders have experienced the suspicious and fearful behavior of white people when meeting them on the trail.

Corina Newsome is encouraging white people to join in the online events and conversations at hash tags like #BlackinNature, BirdingWhileBlack, and #BlackWomenWhoBird. I encourage you to read this article and read the North Texas Master Naturalist website's article "Diversity and Inclusion at North Texas Master Naturalist" written by Whitney Wolf. This chapter has committed themselves to increasing diversity, providing equity, and promoting inclusion in their membership, programming, and activities.

Shouldn't the joy and solace of the outdoors be there for everyone? In planning future activities let us be inspired to consider embracing a more diverse culture.

### It's Time to Build a Truly Inclusive Outdoors

**As the nation continues to confront racism, the birding community must embrace difficult conversations.**

by Corina Newsome, Contributor, Audubon Magazine

It's early April and American Woodcocks have begun twilight mating displays, making whistling, twirling falls from the sky.

You've seen them before with friends, but to abide by social distancing rules you decide on a solo trip. Then you recall the sound of gravel behind you as a police car followed you to a trail head the other day. You



quickly but calmly grabbed your binoculars and pointed them to a nearby tree. Not because you saw a bird, but to prove your innocence—to de-escalate what you feared could unfold.

It's cold outside and will be colder tonight when the woodcocks dance. You should layer up with your hoodie, but you know how that makes you look.

### LOCALS

**AUGUST 4:** Rolling Plains Chapter Meeting - 7:00pm on Zoom - log in a little early so we can start the program at 7:00pm. A Zoom link will be sent out one hour before the meeting. Hope to see you all there!

**The program:** Ricky Linex, a wildlife biologist for the Natural Resources Conservation Service will be our speaker.

Especially at night. Especially alone. You decide it's better not to go.

Every detail of this scenario is based on events experienced by me and my Black birding friends—and our fear is not for nothing. Law enforcement and vigilantes have endangered or taken Black lives more times than we can count. Names ring in our ears: Tamir, Breonna, George, Ahmaud. We have also seen the discomfort of white hikers and birders when they encounter us, sometimes suspicious or fearful, other times shocked we're even there. To raise our concerns, we've reached out to our birding communities. But instead of finding listening ears, we've been told that discussion is too political. Nature exploration is "neutral territory." How dare we bring race into birding.

Through online events and conversations at hash tags like #BlackInNature, #BirdingWhileBlack, and #BlackWomenWhoBird, hundreds

of thousands of people saw, heard, and celebrated Black birders. Large organizations amplified our message; we were no longer silenced. Even as the pandemic kept many apart, we saw more fellow Black birders, scientists, and hikers than ever before.

Still, our efforts must continue—and

white people must join. We are at the cusp of a turning point that embraces human diversity as joyfully as the diversity of feathered creatures. To get there, white people must value Black lives and hear our voices—and lean into uncomfortable conversations about racism and privilege that follow. The birding community must show

that it is not neutral. Neutrality is dangerous, and this is our protest.

*Corina Newsome is a biology graduate student at Georgia Southern University. She has worked in wildlife conservation for eight years, and is currently a field biologist studying the MacGillivray's Seaside Sparrow.*

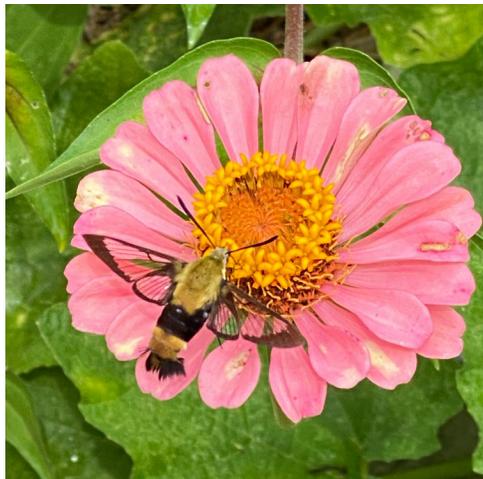
## Hummingbirds and Hummingbird Moths

### What do they have in common?

*A friend of mine, Nancy Arnold, posted photos on facebook of a clearwing hummingbird moth hovering around her zinnias at her Springfield, TN home. I was only familiar with the White-lined sphinx hummingbird moth, so her photo of the clearwing hummingbird moth pricked my interests. I found this article on [hummingbirdsplus.org](http://hummingbirdsplus.org) and thought I would share it with the chapter members.*

— Paula

Nature works in strange ways and the hummingbird moths are a fascinating example of this! Two creatures from two different species with entirely different lineages and yet they come to resemble each other so much not only in looks, but in be-



havior, feeding habits and other things as well, and this is simply awesome! So, below are some interesting facts about hummingbird moths that may help you to better understand as also appreciate this strange phenomenon of nature.

#### Facts about the Hummingbird Moth **Convergence evolution**

First of all, this strange resemblance between an insect and a bird has come to take place courtesy an evolutionary phenomenon known as convergent evolution. To get somewhat technical, this convergence is the cause of homoplasy whereby two creatures from different families and orders come to develop analogous structures that perform the same functions as well.

Put more plainly, it is as a survival mechanism that hummingbird moths have evolved as a species so closely mimicking the looks and functions of the hummingbirds. First of all, unlike most species of moths, the hummingbird moths are diurnal rather than nocturnal species. This makes them more vulnerable to predators. On top of that, their colorful appearance, no matter how pleasing to the human eye, is not good at all as camouflage.

So, by dint of mimicking a bird, they are able to stay relatively safe from the predators and are able to ensure the survival of the species.

#### **How close is a hummingbird moth to an actual hum-**

#### **mingbird?**

Well, as with hummingbirds themselves, there are different species of hummingbird moths as well (more on that later). However, all these species have many things in common (which is why they are all called hummingbird moths, after all!). In general, these moths, just like hummingbirds, have extremely strong wings and are able to seep nectar from flowers while hovering over them.

Hummingbirds, as many of you may know, can beat their wings more than 80 times per second. So, when they hover over flowers, their wings are flapping so rapidly that it is impossible to have a clear view of the wings with naked eyes. Now, hummingbird moths have similarly strong wings. The flapping motion of their wings are not as fast as that of the hummingbirds, still it is pretty fast and is enough to make them hold their position while they are hovering over and seeping nectar off the flowers. The rapidly flapping wings of these moths mean that they do not only look and act as the hummingbirds, but make the similar humming sound as well! Commonly, the wingspan of a hummingbird moth is around 1.6-1.8 inches, although one of the species, namely the White-lined

Sphinx, boasts of a larger wingspan (2-3 inches).

#### **Size and structure**

The hummer moths are normally 1-2 inches smaller than the hummingbirds. As for their body components, the moths have large blackish eyes as well as larger abdomens and wings compared to most other moths. Among other things, it is their larger size that makes it difficult to differentiate them from actual hummingbirds.

The moths also have three pairs of legs but the legs are so tiny that it is difficult to spot them with naked eye, especially with all that hovering and flapping going on!

As insects, these moths have a soft and curled proboscis that comes in and out of their mouth as and when needed. Hummingbirds, on the other hand, have stiff pointed beaks as proboscis.

The hummingbird moths also have two small antennae at the top of their heads, but again they are so small compared to their overall size that it is not easy to locate them until looked from up close. Hummingbirds, on the other hand, of course have no antennae but some of the species do have crests.

Another difference is that the moths, in addition to their forewings, also have two smaller anterior wings.

#### **What do these moths eat?**

As for their diet, most of these hummingbird moths, especially those that are found in the US and are able to live in the colder northern latitude, prefer seeping nectars from pretty much the same flowers as do the hummingbirds of this region. In particular, they relish flowers like cardinals, butterfly bush, red valerian, salvia and verbenas. However, as we all know, the nectar is only one part of the diet of the hummingbirds while the other and more important part of their diet consists of various insects. The moths, on the other hand, thrive exclusively on the nectar from the flowers.

#### **Different Species of Hummingbird Moths**

Generally, there are three different

species of hummingbird moths belonging to three separate genera. These are generally known as Hummingbird Hawk-moths, Clearwing Hummingbird Moths and the White-lined Sphinx.

### **Hummingbird hawk-moths**



These moths from the *Macroglossum* genus are a resident of the warmer climates and are most commonly found in North Africa, Asia and parts of Southern Europe. During winter, they migrate to places that experience mild winters. These hawk-moths normally seep nectars from flowers of plants such as *Viola*, *Buddleia*, *Nicotiana*, *Jasminum*, *Verbena*, *Centranthus*, *Phlox* and *Primula*.

Apart from their preference for warmer climates, one thing that sets these moths apart from other species of hummingbird moths is the fact that they can sustain their flight considerably longer than the other types and can hover and feed even while it is raining. Their prominently diurnal nature has also led many scientists to opine that these hawk-moths possess superior color-learning abilities and vision.

### **Clearwing hummingbird moth**



If you've seen a hummingbird moth in the US, most likely it is a Clearwing. Belonging to the genus *Hemaris*, these clearwing moths share many similarities with the above hawk-moths.

However, unlike the hawks, these moths are able to survive in considerably colder climates. These hummingbird moths are found in many regions of both North and South America, although they too migrate to warmer

parts during the winters. Apart from the Americas, the Clearwings are also found in select parts of Europe, in UK for example, where they are commonly known as Bee Hawk moths.

These moths are slightly different from both hummingbirds as well as other species of hummingbird moths in that they have clear or transparent wings, contrary to the opaque wings of the birds and the moths of other species. However, it may be worthwhile to mention here that, out of the 17 known species of the moths of the *Hemaris* genus, two- *Hemaris croatica* and *Hemaris rubra*- do not have transparent or clear wings.

### **White-lined sphinx**



This hummingbird moth comes from the genus *Hyles* and sports the most colorful and attractive appearance of all hummingbird moths. Both wings and the body of these moths are covered with striking white, pink and tan stripes.

In the US, it is most commonly found in the state of California and this species is known as the main pollinator of the famous lemon lily plant. Apart from the US, they are also found abundantly all over Central America, West Indies and parts of Mexico as well as in the warmer regions of Canada.

The species has a somewhat larger wingspan (2-3 inches) compared to other hummingbird moths.

### **Life Cycle of Hummingbird Moths**

Save little differences, life cycles of all the different species of hummingbird moths are pretty similar and follow pretty much the same patterns. So, we'll discuss mainly the life cycle of hummingbird hawk-moth.

A female hawk-moth produces two broods each year, laying about 200 small, spherical, pale green eggs during each brood on the *Galium* plant. The eggs take approx 6-8 days to hatch.

In the larvae stage, the caterpillars sport a pale yellow color and then turn green upon maturing. In the last instar phase, the larvae develop maroon or brown horns at the rear and these gradually turn to blue with reddish specks in the last stage of development. The caterpillars or the larvae feed on *Epilobium*, *Stellaria*, *Centranthus*, *Rubiaceae*, *madders*, *bedstraw* and so on. This stage lasts for about three weeks.

Then in the pupae stage, the pupae stay safely enclosed within delicate thread like cocoons and their brown color act as an effective camouflage. The cocoons stay either among dead leaves or near the plant's base. The debris of the plant and the dying leaves help hide the cocoons. It is also at this pupae stage that the moth develops its proboscis, jutting out of the top of the cocoon, as well as two spiky horns at the rear, evolved as a defense weapon against potential predators.

Once the adult hawk-moth emerges out of the pupae, it has two sets of wings—the strong forewings and smaller hindwings, three pairs of legs, a large and broad abdomen and with its rear covered in setae.

### **Lifespan of hummingbird moths**

While hummingbirds live between 5-8 years, the lifespan of hummingbird moths is much shorter. The longest living moths live up to 7 months whereas some of the species live as little as 3-5 weeks.

### **Species FAQ**

#### ***Is the hummingbird moth rare?***

Four species of it exist in North America, the main ones being hummingbird clearwing, and snowberry clearwing, common in the East and West of the United States respectively. The hummers, unlike most moths, are most active during daytime hours or around dusk. They also fly at dusk and dawn, as well as when it is raining.

#### ***What attracts hummingbird moths?***

The late summer attracts them, during which several species hawk moths, which feed on nectar from hosta blossoms and deep throated blossoms, drift in midair and flit from one flower to the other. They sip nectar from flowers with their long tongues.

#### ***Are hummingbird moths dangerous?***

They are not dangerous or pose any threat to human beings as they do not bite or sting; however, they may pose problems in the garden, as large num-

bers of them are undesirable to plant life. Adult Hummingbird moths do not cause direct problems to flowers or plants.

### **What is the difference between a hummingbird and a hummingbird moth?**

Many people mistake this enchanted insect for a hummingbird. But this is not the truth although they do resemble it. There are two species of such moths: The Clearwing Moth whose wings are either brownish with reddish veins or solid red. There are no scales in the inner portions of its wings, giving them its name. They typically have an olive green colored body with reddish bands on its lower parts. The other one is the White-lined Sphinx. It is easy to distinguish it, thanks to its

white stripes and dark brown wings. The latter version is found throughout Central America.

### **What caterpillar turns into a hummingbird moth?**

After feeding as well as mating, the female lays eggs on the leaves of small vines and shrubs, the favorites being cherries, hawthorns, viburnums, snowberries, and honeysuckles. These eggs hatch into caterpillars that love to munch on leaves. As with many species of sphinx and hawk moths, hummingbird caterpillars have a rather dramatic horn on the tip of its tail, and are commonly referred to as hornworms. After several weeks on consuming leaves, the caterpillars disperse and move to the ground to form rather ordinary pupae.

### **Is a sphinx moth a hummingbird moth?**

These moths are members of the Sphingidae (sphinx moth family), which have long front wings and heavy bodies. These moths have a clear wings with a brown or black border. They are nearly invisible when they fly. The males boast of a flared tail, very much like that of a hovering hummingbird. The size is the obvious difference. While the birds can be as long as three inches, the moths are typically half that size.

### **Do these moths pollinate?**

They do pollinate! Their long and tubular tongues are appropriate for sipping nectar from long-necked blossoms.

## Time for a Change

Dear members of the Rolling Plains Chapter,

I believe it's time for a change, both for my benefit and the benefit of the membership. Therefore, I will not accept nomination nor will I serve as your Treasurer after this year's term ends.

This term will end at elections and will also end ten years of my service as treasurer. It has been my honor to serve the chapter for that many years. I wanted to end it last year but agreed to serve for an additional year.

The job of treasurer is probably one of the easiest jobs on the chapter board if all you do is the treasurer responsibility. I took on more than just that responsibility, it'll be up to the new treasurer to determine how much more, if any, they want to take on.

Speaking of taking on more than just your job; I will also be closing another phase of my life. I will be ending my term as hours keeper at the end of this year as well. I've been doing that job for, I think, nine years. Jane McGough might have a better handle on when she relinquished those duties. We've taken the chapter, successfully, from paper recording of hours to the current Volunteer Management System. Most of that success is because of you, the chapter members, being willing to change. I thank you for that.

The hours keeper job isn't that difficult either. There are some things you must pay close attention too, but it's relatively easy to do. If you just go in once a week to approve our members hours, that's the bulk of the duties. There's a dedicated VMS administrative group within the Texas Master Naturalist organization. They will help you with training and any problems you run into. Being a relatively small chapter the job is simple.

Overall, it has been my pleasure to serve. But, frankly, I'm burned out, and I fear that if I don't surrender these jobs now, I'm going to be burned out completely on the Master Naturalist program. I can already feel that as I don't participate in programs like I once did. I don't want to get to the point where I don't want to do anything at all. Them quail would miss me.

Again, thank you for allowing me to serve y'all in both these capacities over the years, but it truly is time for a change. If you have any interest in either of these positions within the chapter, you should contact any of the other board members.

Larry Snyder, Treasurer and Hours Czar  
Rolling Plains Chapter, TMN

## The Texas Master Naturalist 2020 Annual Meeting Goes Virtual!

### **Registration will open August 5th!**

The cost for the event is a **flat rate of \$55** for all attendees for the full virtual conference. Registration will include access to all virtually offered technical sessions, the general sessions and some fun surprises offered the weeks surrounding the Annual Meeting. While we're not able to offer discounts this year, we are happy to offer this lower registration price for our meeting with the new virtual platform. Due to the virtual format and reduced registration fees for this year's Annual Meeting, **there will be no refunds** available.

As an added bonus this year, the first 250 registrants will be mailed a Virtual Registration Box with fun desk and connect from home items. Included in the Virtual Registration Box will be a \*surprise\* naturalist-themed book donated by our sponsor, TAMU Press. These items will be mailed mid to late September with arrival time prior to the Annual Meeting. For those not able to register early, don't worry – we'll have additional TMN Annual Meeting and general Master Naturalist items available for sale in our AgriLife Bookstore (aka General Store) as we normally would with an in-person meeting!

**More information coming soon!**

# FACTS FUN

Owls have unique feathers that break down turbulence into smaller mini currents, which reduces sound to the point where they basically fly silently. Owls are the ghosts of birds.



The male orb weaver spider has a detachable penis. When its time to mate, he will abandon it inside his partner and flee, knowing that she'll try to eat him. Female golden orb weavers are 10 times the size of the males. After breeding, the female spins an egg sac to hold 100 to 300 eggs, which she attaches underneath a leaf.

Adult Luna moths develop without a mouth. Their only purpose is to mate within their 7-day life span after which they die of starvation. Where the luna moth lives determines how many broods it will have. The female can lay 400 to 600 eggs, four to six eggs at a time on the underside of leaves. Luna moths wrap their cocoons in leaves.



## Ignorant Pet Owners Allow Popular Turtle to Go Wild

Pet owners are a source of invasive animals when they release pets they no longer want. This is the likely route of introduction for, for example, the lionfish (*Pterois volitans*) in the Caribbean and Gulf of Mexico and the Burmese python (*Python bivittatus*) in Florida. It is also the source of red-eared sliders (*Trachemys scripta elegans*) found outside their native range in the Southeast and south-central United States and northern Mexico. Red-eared sliders can live to over 30 years, so it's not surprising that owners will tire of them and



release them into local waterways. In fact, the turtle is considered one of the world's 100 most invasive species by the International Union for the Conservation of

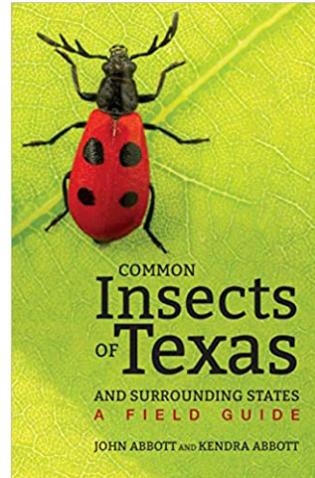
Nature.

One of the states that has attempted to reduce the likelihood that red-eared sliders are released outside of their native range is Rhode Island. The species is still legal to buy in Rhode Island, but with restrictions. However, not everyone follows the restrictions. Clearly, public education is needed.

# RESOURCE CORNER

## *Common Insects of Texas and Surrounding States: A Field Guide*

by John and Kendra Abbott  
Paperback: 448 pages  
ISBN-13: 978-1477310359  
Price: \$24.95 on Amazon  
Release date: October 2020



Thanks to its size and geographic position, Texas is home to nearly 30,000 species of insects, likely making its insect population the most diverse in the nation.

Ranging from eastern and western to temperate and tropical species, this vast array of insects can be difficult to identify. In *Common Insects of Texas and Surrounding States*, John and Kendra Abbott have created the state's most comprehensive field guide to help readers recognize and understand these fascinating creatures.

Containing 1,300 species and more than 2,700 photographs, this guide offers a wealth of information about the characteristics and behaviors of Texas's insects. Each chapter introduces an order with a discussion of general natural history and a description of other qualities helpful in distinguishing its various species, while every species' entry provides a state map showing where it is most likely to be found, a key displaying its seasonal distribution, information about its habitat, and corresponding photos. Featuring colored tabs for quick reference, a glossary, and information about other arthropods, this guide is the perfect companion for anyone wanting to identify and learn more about the many insects of Texas.

**Release date: October 2020**

### Chapter Contacts:

Kay Murphy, President 704-0406, [kay\\_vince@sbcglobal.net](mailto:kay_vince@sbcglobal.net); Debra Halter, Vice President 632-8557, [chickadeekes@aol.com](mailto:chickadeekes@aol.com); Lynn Seman, Secretary, 867-3006, [rlynnseman@gmail.com](mailto:rlynnseman@gmail.com); Larry Snyder, Treasurer 569-4534, [lastime64@gmail.com](mailto:lastime64@gmail.com)

### Committees Chairperson:

Paula Savage, Newsletter Editor and Designer 691-0231, [pasavage15@gmail.com](mailto:pasavage15@gmail.com); Debra Halter, Website Manager 632-8557, [chickadeekes@aol.com](mailto:chickadeekes@aol.com); Lisa Taylor, Communication Chair 781-9695, [nothingb-blueskz@gmail.com](mailto:nothingb-blueskz@gmail.com)

**Advisor:** Robert Mauk, TPWD Advisor 766-2383, [Robert.Mauk@tpwd.Texas.gov](mailto:Robert.Mauk@tpwd.Texas.gov)