



April 2024

Chapter News – in Brief

CONTENTS Vol. 24 No. 4

The April 10 General Meeting will be a hybrid: attend in person at the Texas AgriLIFE Extension Service, 21017 County Road 171, Angleton, TX, or virtually via e-mail invite. Visitors and guests are welcome.

8:30 – 9:00 a.m.	Social Time and Refreshments (in person)
9:00 – 9:15 a.m.	Welcome, Awards and Outreach
9:15 – 10:15 a.m.	Advanced Training Speaker: Craig Hensley, “Acoustic Monitoring of Texas Bats: A Community Service Project for TMNs”. [Hours for Advanced Training (AT) TBD at close of meeting]
10:30 – 11:00 a.m.	General Membership Meeting [Hours for Volunteer Time (VT) TBD at close of meeting]

Page 1
Upcoming General Meeting
Our Speaker, Craig Hensley

Page 2
Volunteer Hours, Certifications,
Milestones, & Impact Data

Page 3
Entomology Corner

Pages 4
March Beach Sweep

Pages 5
Intern Program
Volunteer Opportunities

Pages 6
Outreach Opportunities
Bug of the Month



Craig Hensley has been with Texas Parks and Wildlife Department for more than nine years, serving as Park Interpreter and Resource Specialist for Guadalupe River State Park/Honey Creek SNA for nearly eight of those years. He currently works with The Texas Nature Trackers program as one of two biologists. He has deep roots in environmental education, having worked at nature centers from Minnesota and Nebraska to Missouri and Kansas.

Craig has given a variety of talks to Master Naturalists across Texas, including a number of presentations at TXMN Annual Meetings. He is a licensed bird bander, lifelong educator and naturalist, a chaser of all things wild, and, most importantly the father of two talented children and granddad of four beautiful granddaughters. (Courtesy of TMN – Elm Fork Chapter, <https://media.efctmn.org/>).



<https://facebook.com/TMN.COT>

Website <https://txmn.org/tmncot/>

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The Texas Master Naturalist program is coordinated by Texas A&M AgriLIFE Extension Service and Texas Parks and Wildlife Department.

TMN programs serve all people without regard to socio-economic level, race, color, sex, disability, religion, age, or national origin.

Masthead image by Charles Jesse Miller Jr., in Oyster Creek.

REMINDERS

Beach Sweep, Quintana Jetties – Monday, April 1 (weather permitting), 8:00 a.m. – 10:00 a.m.; contact Jimmy or Luanne Salinas.

DEEP – April 2 and 4, and May 14 and 16, 8:30 a.m. – 2:30 p.m.; contact Ed Barrios.

Sea Center Nature Day – Saturday, April 6; contact Ruby Lewis.

Brookside Village Farmers Market – Sunday, April 14 (tree give-away, 9:00 a.m. – 2:00 p.m.; contact Kathy Pittman.

27th Annual Migration Celebration, San Bernard Wildlife Refuge – April 27 & 28, 11:00 a.m. – 4:00 p.m.; contact Barbara Whatley.

VOLUNTEER HOURS, CERTIFICATIONS & MILESTONES - John Boettiger

Recertifications:

Oron Atkins Melanie Hollenshead
Angela Griffin Brenda Stitt



Milestones

2,500 Hours!!
Melanie Hollenshead



Pictured L to Right: Dick Schaffhausen, Amanda Gabehart, Melanie Hollenshead, Angela Griffin, Oron Atkins & Kathy Pittman

4,000 Hours!!
Amanda Gabehart



Photos courtesy of Angela Griffin & Dick Schaffhausen



5,000 Hours!!
Richard (Dick) Schaffhausen



IMPACT DATA REPORT - Dave Brandes, Data Manager

Impact Data – February*

	Month	YTD
Hours:		
VT	975	2,010
AT	<u>24</u>	<u>453</u>
Total	1,216	2,463

Impact Data		
Adults	44	185
Youth	<u>252</u>	<u>1,159</u>
Total	296	1,344

2023 Final – by the Numbers

Hours:	
VT	15,007
AT	<u>2,049</u>
Total	17,056

Impact Data	
Adults	5,026
Youth	<u>17,517</u>
Total	22,543

* data not considered final until mid-April

Entomology Corner: Entomoph -WHAT?

by Barbara Whaley

Entomophagy – Miriam-Webster definition: The practice of eating insects.

Many cultures around the world eat insects as a delicacy or as a normal part of their everyday diet. Up to 80% of the world's nations eat insects, with higher concentrations in the tropical locations.

For example, 23 countries in the Americas do. In Mexico, you'll find Agave worm, grasshoppers and ant eggs as options in street taco carts.

11 countries in Europe do.

36 countries in Africa do. In Ghana, winged termites are a popular dish and are prepared in a variety of ways. In South Africa, locusts add a crunch to the cornmeal porridge.

29 countries in Asia do. In Thailand, fried bugs can be found at the local bar, replacing peanuts as the salty snack.

In Australia, roasted witchetty grub is a standard in the aboriginal diet and when roasted, tastes like almonds.

14 countries in Oceania do.

And guess what? You do too!

Passive entomophagy is the art of eating insects, but not on purpose. Active entomophagy is the art of eating insects and knowing it.

The FDA's Food Defect Levels Handbook describes the types of defects that are allowed in over 100 foods. Here are the four (4) most common defects mentioned:

- **Insects in various forms** – (71 mentions)
 - Canned and frozen berries can contain up to 10 whole insects per 500 grams;
 - Cornmeal can contain up to 25 insect parts per 25 grams;
 - Black olives – up to 10 percent of imported black olives can have insect damage.
- **Mold** - (33 mentions)
 - Cocoa beans – up to 4% can be moldy;
 - Salt-cured olives – up to 25% can be moldy;
 - Canned pineapple – can have an average mold count of up to 20%.
- **Rodent filth** – (23 mentions)
 - Apple butter can contain up to 4 rodent hairs per 100 grams;
 - Ground marjoram can contain up to 8 rodent hairs per 10 grams;
 - Macaroni noodles can contain up to 4.5 rodent hairs per 225 grams.

Have you had enough? Not yet, one more:

- **Mammalian Excreta** – (15 mentions)
 - Sesame seeds can contain up to 5 milligrams per pound;
 - Cocoa beans can contain up to 10 milligrams per pound;
 - Whole ginger can contain up to 3 milligrams per pound.

What about popular processed foods? Well, let me tell you:

- Canned mushrooms are allowed to contain up to 20 maggots per 3.5 ounces;
- Chocolate can contain up to 16 insect parts per 3.5 ounces;
- Frozen broccoli can contain up to 60 aphids, thrips and mites per 3.5 ounces;
- Peanut butter can contain up to 30 insect parts per 3.5 ounces.

There are so many more, too many to add here. I cannot do that to you.

(See Entomoph -WHAT?, continued Page 4)

Entomoph -WHAT?

(continued from Pg. 2, Entomology Corner)

So, why are so many insect parts allowed in food? It is impossible to remove insects from the food process. This occurs during pre-harvest and during harvest; storage; processing.

Insects are actually healthy to eat. They are high in protein; contain all nine (9) essential amino acids; low in saturated fats and contain omega 3 fatty acids; and are rich in micronutrients such as iron, magnesium, zinc, calcium and vitamins B6 and B12. They are also very water efficient. Crickets only use one (1) gallon of water to produce one (1) lb. of protein, compared to cattle using 1,000 gallons of water to produce one (1) lb. of protein and chickens use 150 gallons of water to produce one (1) lb. of protein.

They are sustainable. Cows require 10 lbs. of feed to produce one (1) lb. of protein, while crickets only require two (2) lbs. They are environmentally friendly. Crickets produce 80 times less methane than cattle. Methane is a greenhouse gas, which is 20 times more potent than carbon dioxide.

Seventy percent (70%) of arable land goes to meat production, either for pastureland or for growing feed for livestock. Insect farming on average requires much less land.

Did you know more than one (1) billion people do not get enough to eat. Four-hundred (400) million are chronically malnourished. Food production needs to increase by 70% to nourish everyone. A disproportionate amount of the world's land is set aside for beef, pork and chicken production, or growing their feed.

Are insects the answer?

March Beach Sweep at Quintana Jetties

Ocean Conservancy

Thank you for cleaning up with **Clean Swell!**

Here's a summary of your recent cleanup:

Date	2024-03-04
Duration	1 hours 57 minutes
Number of People	2
Weight of Trash Picked Up	791.326 lbs
Group Name	Team Q
Distance Covered	0 Miles

A total of 10 people picked up the recorded 791.326 lbs. of trash in just under 2 hours.

Amy from the TMN Gulf Coast Chapter seated to the left of Kathy Purvis.



Photo by Jimmy Salinas

Gary and Jody (from Walden on Lake Conroe) who were staying at Quintana RV Park and David McGinity (from Freeport and who has attended our Chapter meetings) also joined our crew.



Photo by Kyle Purvis

Our Intern Graduate, Anna Loonam,
certified & re-certified!




Mark your calendars: Spring
Graduation for the Intern Class
will be held on Saturday, April
13!!


Nash Prairie Preserve Intern field trip
photos from Saturday, March 2, 2024

People photos: Barbara Whaley

Flora/Fauna photos: Angela Griffin

Post courtesy of Facebook 



Post courtesy of Facebook 



Volunteer Opportunities – Oron Atkins

- Sea Turtle Patrol (PAIS & local training required) - daily, April 1 - July 14, contact Roland Davis.
- Spring Fling (registration required) - April 6 - 5/05, two (2) shifts daily (9:00 a.m. - 12:30 p.m.) and (12:30 p.m. - 4:00 p.m.), contact Celeste Silling. Volunteers are still needed for some half-day slots.
- City Nature Challenge - April 26 - 29 (photos) and April 30 - May 5 (identification) - self-directed.
- Bat Monitoring Project - contact Mickey Dufilho (dufilhos@hotmail.com).
- Urban Wildlife Monitoring Project - contact Oron Atkins (oronatkins@comcast.net).

A poster for an Earth Day event. The top part has a blue background with white and yellow shapes. The text is in red and black. It says "EARTH DAY BEACH CLEAN UP" in large letters. Below that, it says "COME & JOIN US TO KEEP OUR BEACH WASTE FREE EAST BEACH GALVESTON". The date is "THURSDAY APRIL 18" and it starts at "0900". There is a "SCHEDULE:" section with times: "0900 Muster at East Beach Entrance", "0915 - 1030 Clean-up of East Beach", and "1100 - 0130 Sports/Field Day - USMC and USCG". At the bottom, it says "FOOD AND DRINKS TO FOLLOW AND COAST GUARD AND MARINE SPORTING EVENT". There are logos for the USMC and the Coast Guard at the bottom.

Post courtesy of Facebook 



Outreach Opportunities

- Brookside Village Farmers Market - Sunday, April 14, at Lawhon Elementary, tree give-away, 9:00 a.m. - 1:00 p.m.; contact Kathy Pittman.
- Migration Celebration, April 27 - 28, 11:00 a.m. - 4:00 p.m.- The Kickoff Lunch will be held Sunday, April 14, from 12:00 Noon - 2:00 p.m. at MacLean Park in Lake Jackson. Volunteers are needed. Contact Barbara Whaley, Volunteer Coordinator, for information (babswhaley@gmail.com).
- Old Pearland Farmers Market - May 18, 9:00 a.m. - 1:00 p.m. at Independence Park (topic TBA).

PUBLIC OUTREACH — Ruby Lewis rublewis77515@ymail.com

Bug of the Month for April by Barbara Whaley

I went out to walk my dogs before bedtime the other night and saw a very bright green beetle with a blob of stuff in front it.



I could see its mandibles moving, like it was eating something. I was mesmerized and a little intimidated at the same time. I asked some fellow insect lovers, “WHAT is going on here?” It turns out it was a Fiery Searcher.

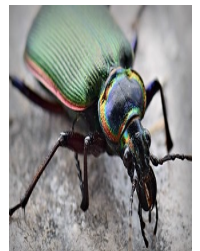
The Fiery Searcher (*Calosoma scrutator*) is in the Coleoptera Order, a Beetle. It is a large, brilliantly colored ground beetle with a dark head, pronotum (prominent plate-like structure that covers all or part of the dorsal surface of the thorax) dark blue or violet with red and gold edges. Elytra (tough forewings) is shiny green with reddish-gold edges. Legs are dark, but femora (third segment of the leg, typically the longest and thickest) has blue metallic luster. The mandibles are curved, pointed at the tips and separated into distal grasping and proximal crushing areas. The mouthparts also contain a large pointed structure at the back of each side which is used for food manipulation.

Adults and larvae prey on caterpillars, specifically tent caterpillars, gypsy moth caterpillars and pupae, as well as larvae of many Noctuidae (owlet moths, cutworms or armyworms – a family of moths), Geometridae (geometer moths) and other lepidopteran (winged insects that include moths and butterflies) forest species. Both adults and larvae climb shrubs and trees in search of prey, with a preference to hunt at night. It usually spends the daytime under rocks, logs or in crevices. An individual larvae will consume approximately 50 caterpillars during the three-instar development period. A single adult consumes hundreds of caterpillars during its lifetime. It overpowers its prey and starts to shred it to pieces with its powerful jaws. I guess that is what I saw happening.

Although striking in appearance, they should be approached with care. They can give a nasty bite as well as being equipped with scent bladders/glands that defensively release a fluid with a strong musky odor that can be left lingering. I guess I was lucky, as I hovered over it with a flashlight. It seemed pretty involved with its prey.

The Fiery Searcher is carnivorous and considered beneficial in controlling populations of destructive pests such as gypsy moths and tent caterpillars. Their natural predators are insectivorous birds, toads, foxes, skunks, racoons and shrews.

The photo (see bottom right) was taken from online, as my photos are a little dark and hard to see the beauty of this creature.



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- Send messages to TMN-COT@googlegroups.com
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- Subscribe listserv@listserv.tamu.edu
- All messages are held for moderation by the TMN State Coordinator.

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