



Chapter News

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Officers and Directors

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

Texas Master Naturalist programs serve all people without regard to socioeconomic level, race, color, sex, disability, religion, age, or national origin.



15-year anniversary approaching. We're planning something special for our meeting that month, so stay tuned.

Pete and Peggy Romfh have been busy putting together an exciting and comprehensive hands-on 4-station session on water for Jennifer Janis with a STEM Academy program at Brazosport College. They have targeted 9th graders, who will discover there's more to water than being wet. Several of our members will help execute this July 12th. Maybe they can tell us a little about it at our meeting.

Ruby and her faithful brigade will continue the library programs this month. They do an outstanding job bringing local nature to kids of all ages and the adults that accompany them. Thanks Ruby.

Invasives News: It seems Zebra mussels are still on the move. In our general area, Lake Livingston has been added to the of lakes affected by them. As we head into the peak summer season be sure to "Clean, Drain and Dry" your boats, trailers and gear every time you travel from one lake to another.

Since I mentioned boating, here's a factoid: 40% of water or boating fatalities in Texas involve paddle craft. Many of us kayak and canoe, so please wear your life jacket and be aware of what's happening around you.

Baby it's ~~cold~~ HOT! outside... I get the feeling Mother Nature is just not happy. First she washes us off really good, then she puts us in the oven to bake. I sure hope her mood gets a little better SOON.

As you know our chapter was established in September 2001, so that means we have a

OK, I'm sure you've had enough of this, so I won't talk about the effect of invasive Giant Reed on ground arthropod communities in our riparian habitats. Otherwise I would have told you that research has found that the abundance, body size and diversity of macroarthropods at order and family levels decreased. But hey, they did find more springtails.

I'm off to a GREAT summer, and I hope all of you are too. One of effects of all the rain followed by this warm humid air is the plants have gone crazy, and so have the insects. I'm seeing a large variety of butterflies in my yard in large numbers (at least compared to recent years). Monarchs are munching on my butterfly weed and Gulf Fritillaries are chowing down on my passionflower. Birds are all over my feeders and hawks are all over the birds. Maybe all of this will make Mother nature feel better. We'll see.

Another fun and educational general meeting is coming up. Amanda Anderson will be talking with us about her research on beach nesting birds. Please note that we will not be doing awards and certifications this month with Jerry and Jane having way too much fun in Europe. We'll catch up in August. Isn't August usually hotter than July? On...my...gosh...

Alright, hope to see you at our general meeting.

Dave Brandes is the president of Texas Master Naturalist Cradle of Texas Chapter. He can be reached at brandes@tmn-cot.org



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

**Texas Master Naturalist Program
Cradle of Texas Chapter
General Meeting and Advanced Training
Wednesday, July 13 2016
Texas AgriLife Extension Building
21017 County Road 171
Angleton, Texas 77515-8903**



8:30 AM – 9:00 AM	Fun and Fellowship Refreshment Team: Ed Johnson, John Minkert, Elaine Crews
9:00 AM – 9:50 AM	General Meeting <i>This meeting is approved for 1.00 hour Volunteer Time.</i>
10:15 AM – 12:00 PM	Program: <ul style="list-style-type: none"> • Speaker: Amanda Anderson, Shorebird Technician, Gulf Coast Bird Observatory • Topic: <i>Beach Nesting Birds at Bryan Beach and Matagorda Bay Nature Park</i>

Amanda Anderson (left) with Susan Heath, Avian Conservation Biologist, GCBO
Photo: GCBO



Amanda Anderson is the shorebird technician at Gulf Coast Bird Observatory. In this capacity she monitors Wilson's Plovers and other beach-nesting birds for the Beach Nesting Birds project, a joint effort by GCBO, Houston Audubon and the Coastal Bend Bays and Estuaries Program. The primary sites are Bryan Beach and the mouth of the Colorado River by the Matagorda Bay Nature Park. Anderson holds a Masters of Science degree from The university of Houston Clear Lake

Source: Susan Heath: Beach Nesting Birds Project 2016: Update 1. April 2016.
<http://tinyurl.com/GCBO-ANA-1>

TEXAS MASTER NATURALIST 2016 STATE MEETING INFORMATION



The Texas Master Naturalist 17th Annual Meeting will be held October 21-23, 2016, at La Torretta Lake Resort & Spa, located on Lake Conroe, one hour north of downtown Houston.

Registration has not yet been announced. Registration information will be posted here when available

For further information see the meeting website at:

<http://txmn.org/2016-annual-meeting/>

For information about La Torretta see:

<http://www.latorrettalakeresort.com/>

CLASS OF 2016 GRADUATION

By the Editors. Photo by Richard Schaffhausen.

Editors note: as reported in the June issue of *Chapter News*, members of the Intern Training Class of 2016 graduated at our May meeting and were certified as Texas Master Naturalists. Three teams presented field reports at that meeting. The fourth team, reporting on **Nash Prairie Preserve**, did not present its report due to the absence of Team Leader Larry Peterson.

Peterson presented the team's field report at the June meeting. The Team's PowerPoint presentation is posted here <http://tinyurl.com/NPP-Team-2016>

ANGLETON, TEXAS – June 8, 2016. At its regular monthly meeting, held here today at the Texas A&M AgriLife Extension Service building, Larry Peterson, Team Leader of the **Nash Prairie Preserve** team presented the team's field report on behalf of team members Melba Beken, Marshana Gill and Susan Safely, Team mentors were Susan Conaty and Chris Kneupper. Peterson noted that, after documenting their expectations of what they may find, the team made its first visit to Nash Prairie Preserve February 10, 2016, .

The team's PowerPoint presentation highlights general prairie information, Nash Prairie specifics, animals and plants found on at the Preserve,. A gallery of over 40 photographs accompanied the presentation. Peterson noted that "As a result of participating on this project, the team members have developed a special and lasting connection to this 'Thin Place Where Heaven and Earth Meet'".



Nash Prairie Preserve Team. Clockwise from left: Susan Conaty (mentor); Larry Peterson (Team Leader), Chris Kneupper (Mentor), Suzie Safley, Melba Beken. Not shown: Marshana Gill.

NESTING LOGGERHEAD SEA TURTLE FOUND AT MATAGORDA PENNINSULA



Loggerhead nesting at Matagorda Peninsula, June 2016.

Photo by Cynthia Priesmeyer

Vicky Adams, co-coordinator for the San Bernard NWR segment of the Gulf Coast Sea Turtle Program, sent the accompanying photo.

According to Vicky.

A female loggerhead nest at Matagorda Peninsula was a joint effort and great adventure for Cynthia Priesmeyer and her husband observing the nesting turtle during the evening and returning to confirm the tracks in the morning. The nest location was confirmed and 144 eggs were excavated by Julianne Thompson. Julianne had already been on the beach earlier that morning checking on another nest and returned to help us out. Awesome job everyone!

See Page 6 for more information about the 2016 San Bernard NWR Turtle Patrol Program.

VOLUNTEERS NEEDED in JULY and AUGUST

By the Editors

JULY LIBRARY PROGRAM JULY 5 – JULY 29

Monday	Tuesday	Wednesday	Thursday	Friday
July 4 CLOSED	5 BRA 2 pm	6	7 SWE 2 pm	8
11 WES 2 pm	12 ANG 2 pm	13	14 MAN 2 pm	15
18	19 DAN 3 pm	20	21 CLU 1:30 pm	22
25 FRE 2 pm	26	27 LAK 2 pm	28 ALV 2 pm	29 PEA 2 pm

To volunteer contact

Ruby Lewis, BCLS program administrator.
979-549-0940
rubylewis77515@gmail.com

VMS coding for library program:

Each session is approved for up to 3.00 hours of VT + Travel Time
VMS Code: PO: Public Outreach
Type: Service Project
Description: BCLS: Location" (of the library)

JULY TURTLE PATROL ONGOING UNTIL JULY 15

To volunteer contact

Vicky or Bryan Adams.
San Bernard Sea Turtle Patrol
sanbernardseaturtle@gmail.com

VMS coding for turtle patrol:

VMS code: RM: Managing Natural Resource Areas & Wildlife
Type: Service Project
Description: USFWS: Turtle Patrol

SUMMER BIRD CAMP AT GCBO AUGUST 1-5 (rescheduled due to flooding)

To volunteer contact

Reba Tibbits
979-480-0999
rtibbits@gcbo.org

VMS coding for Bird Camp volunteers

VMS code: TR: I Trained Others Type: Service Project
Type: Serviced Project
Description: GCBO Bird Camp

2016 JULY						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

www.print-2016-calendar.com

2016 AUGUST						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

www.print-2016-calendar.com

CATERPILLARS!

By Peggy Romfh, Photo Gallery Editor

Caterpillars, the larvae of butterflies and moths, are an important part of the food web, providing tasty morsels for song birds and assisting with decomposition of leaves, fruits, and dead wood. Varying in size from a few to over 100 mm, caterpillars may limit their diets to a single plant or feast on a wide variety of foliage and plants. Caterpillars are fun to photograph, but they should be handled with caution as the hair and spines may be noxious or allergenic.



Live Oak Tussock Moth caterpillar (*Orgyia detrita*).
Common foodplants: live oak
Photo by Dick Schaffhausen



Smartweed caterpillar (Smeared Dagger moth) (*Acronicta obliqua*).
Common foodplants: shrubs, trees, smartweed.
Photo by Pete Romfh



Gulf Fritillary caterpillar (*Agraulis vanillae*).
Common foodplants: passion-vine.
Photo by Susan Conaty



Fall Webworm Moth caterpillar (*Hyphantria cunea*).
Common foodplants: 120 species of hardwood trees such as ash, oak, pecan, redbud, sweetgum
Photo by Peggy Romfh



Pipevine swallowtail caterpillar (*Batus philenor*).
Common foodplants: pipevine
Photo by Pete Romfh



Regal Moth caterpillar (Hickory Horned Devil) (*Citheronia regalis*).
Common foodplants: leaves of trees such as ash, hickory, pecan, persimmon, sycamore
Photo by Pete Romfh



Monarch caterpillar (*Danaus plexippus*)
Common foodplants: milkweed
Photo by Dave Brandes



Flag of Scotland

St. Andrew's Cross



St. Andrew's Cross was photographed on the Nash Prairie Preserve by Susan Conaty..

The flower of St. Andrew's Cross (*Hypericum hypericoides*) is shaped like a cross resembling the letter X. This same X shape is seen in many flags such as that of Scotland (shown).

Native American tribes used St. Andrew's cross for medicinal purpose. It was thought that infants would learn to walk at an earlier age if they were bathed in tea made from the roots. Infusions of roots and branches were used to treat dysentery, ulcerations, sore eyes, pain during childbirth, colic, and toothaches.

The plant was also used to treat horses that were bitten by snakes. [Source: USDA/NRCS Plant Guide]

THE SCRAMBLE TO SAVE THE KEMP'S RIDLEY SEA TURTLE

By Bryan Adams

There are seven or eight species of sea turtles world-wide, depending on whether you're a lumper or a splitter. Five of these occur in the Gulf of Mexico, with the Kemp's Ridley producing most of the nests found on the Texas coast. The Kemp's Ridley is the smallest of all sea turtles with an average length of 23 to 28 inches and an average mature weight of around 100 pounds. Of greatest concern for the sea turtle recovery program is that the Kemp's is the most critically endangered of all sea turtles.

The historic nesting range of this turtle extends from Mustang Island, Texas south to Veracruz, Mexico, with most nesting occurring in Mexico. Amateur video recorded near Rancho Nuevo in Tamaulipas, Mexico, in 1947 shows roughly 40,000 Kemp's Ridley sea turtles nesting in one day along an approximately 16 mile stretch of beach. This illustrates a sea turtle nesting behavior found only among the Kemp's Ridley and the Olive Ridley (which is not found in the Gulf of Mexico). This behavior, called an "arribada", occurs when a large number of turtles come on shore to nest during the same day. The trigger for the arribada has not been determined.

Several factors are believed to have caused the catastrophic decline in the Kemp's Ridleys, including extreme human predation in Mexico and large numbers of deaths from drowning of turtles trapped in shrimp trawls. These nets accounted for an estimated 76% of Ridley deaths prior to the advent of turtle excluder devices. That mortality rate is now estimated to be only 4%.

In the mid-1960s Mexico began to protect its nesting beaches, but the decline continued and the total number of nests dropped to 702 by 1985. International programs, first proposed by the National Park Service in 1974 and implemented in 1978, were developed to increase nesting at Padre Island National Seashore, with Mexico providing large numbers of eggs to be used toward the Padre Island sea turtle recovery project. At first the recovery was an agonizingly slow process with only a handful of nests being found on the Texas coast each year through 2001. Since then there has been an encouraging increase in annual nesting, with, of course, some ups and downs. As you can see below, major declines occurred in 2013 and 2014, with a recovery beginning in 2015.

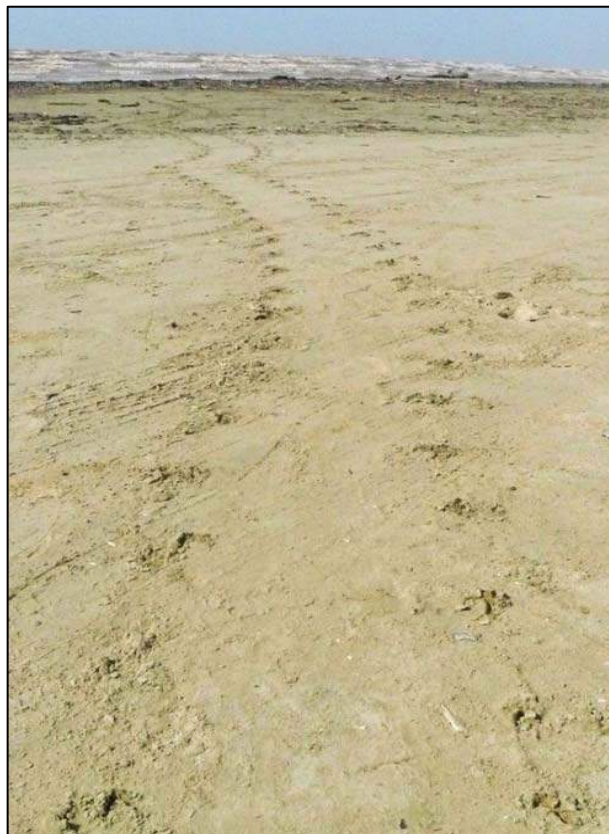
Date	Nests Located
2012:	209
2013:	153
2014:	118
2015:	159
2016	185 (as of July 2)

There are many suspects for the decline, including a massive oil spill, a major river flooding event which affects temperature and salinity, and blue crab populations in foraging areas near the Gulf coast.

Kemp's Ridley adults are found mainly in the Gulf of Mexico, but the young may be found as far north on the Atlantic coast as Nova Scotia, probably having been carried by ocean currents.

Upon emerging from their nest, hatchlings crawl into the surf and are believed to swim a few miles offshore to floating beds of sargassum. There they remain for perhaps two years, feeding on marine invertebrates and algae and reaching a carapace length of around eight inches. At this point they are less vulnerable to predators and swim back closer to shore, foraging mainly on crabs.

Continued....



Turtle tracks at Quintana Beach, 2015



Nest excavation at Quintana Beach, 2016

Photo: Bryan Adams

THE SCRAMBLE TO SAVE THE KEMP'S RIDLEY SEA TURTLE continued

Adulthood is reached at 10 to 15 years. Males never return to shore but mature females will emerge onto the beach approximately every two years, dig nests, and deposit 50 to 130 eggs, usually remaining on shore no more than 45 minutes. The female will produce two to three clutches during the nesting season, mainly June through July. Unlike most species of sea turtles, Ridelys prefer to nest during daylight hours. Incubation is typically between 48 and 62 days, and, as with many other reptiles and amphibians, the sex of the hatchlings is influenced by the temperature during incubation, with a higher proportion of females being produced at warmer temperatures.

Since many clutches of eggs are destroyed by predators and other factors, an intensive effort is being made to locate the nests, excavate the eggs (following a special protocol), and transport these eggs to South Padre Island National Seashore where they will be incubated in a dedicated facility. Upon hatching the young will be released to make their journey to the water.

Nests are located by following the tracks the adult left when she crossed the sand on the way to nest. These tracks will be approximately two feet wide with a more-or-less smooth area in the middle caused by the dragging of the plastron and “check” marks on each side made by the flippers. If you happen upon these types of tracks, please report the location immediately to

1-866-TURTLE-5.

Remember that sea turtles and their nests are protected under the Endangered Species Act and should not be disturbed. Try to protect the area until a trained excavator can arrive.

Regions of the Texas coast are patrolled by different entities. The Turtle Island Restoration Network is responsible for the Bolivar Peninsula to the Surfside jetties. San Bernard NWR is assigned the beaches from the Quintana jetties through the Matagorda Peninsula, while Padre Island National Seashore patrols from St. Joseph Island through North Padre Island, and Sea Turtle, Inc covers the beaches of South Padre Island and Boca Chica Beach. However, all these groups can be reached by calling the same number, **1-866-TURTLE 5**.

The success of this project depends heavily on trained volunteers, and who better fits that description than TMN-COT members? We will be holding training sessions for volunteers around the beginning of April next year. Even if you can't patrol yourself, you are an emissary to the community. Both we and the Kemp's Ridley sea turtles need your help.

A SUCCESS STORY

Thanks to the help of Padre Island National Seashore Biological Technician Tom Backof, a Kemp's Ridley turtle was able to nest at the southern end of the National Seashore today. She is missing a right rear flipper and tried to nest here yesterday, but gave up and returned to the water after trying to dig three nest chambers. Today, Tom quietly came up behind her and helped scoop out sand when her right rear flipper would have been digging, being careful not to disturb her or touch her other rear flipper. Together they formed a nest chamber that was suitable and she laid 58 eggs, covered the nest, and returned to the Gulf of Mexico.

—Padre Island National Seashore:

Bryan Adams is the co-coordinator for Sea Turtle Monitoring Program for the San Bernard National Wildlife Refuge segment of the Gulf Coast (Quintana Jetty to Matagorda Peninsula). Adams is retired from the U.S. Fish and Wildlife Service.



Nest excavation at Quintana Beach, 2016

Photo: Bryan Adams



Eggs from Quintana beach being prepared for transportation to South Padre Island National Seashore

Photo: Bryan Adams

PARTNER NEWS: SEA CENTER TEXAS

News from the Texas Parks and Wildlife Department

Sea Center Texas Celebrates 20 Years

By Julie Hagan ^[1]

Founded in Lake Jackson in 1996, Sea Center Texas celebrated 20 years of operations as an aquarium and hatchery in March, 2016. More than 1.2 million people have passed through Sea Center's doors since its opening. The center's size, daily operations and free admission require a large volunteer base to support staff.

This year's annual banquet honored these volunteers, including seven who have served since the beginning. Two volunteers have even worked the same Thursday afternoon shift together since 1996 — and have no plans of quitting anytime soon. Volunteers of all ages come to Sea Center to not only give back to their community but also to have a little fun.

While their primary mission is to educate visitors about marine life and the Gulf of Mexico, they forge many human connections as well. The greeters, tour guides and gift shop attendants are whom the visitors remember long after their visit is complete. They are the true face of the organization.



South elevation of the Sea Center Texas office and exhibit building showing solar panels on roof.

Photo: Green Mountain Energy. ©2016 Green Mountain Energy Company.

Sea Center Texas Solar Panel Installation

TPWD Press Release

HOUSTON TEXAS — June 15, 2016 — Texas Parks and Wildlife (TPWD) and Green Mountain Energy Company today announced a major milestone in their sustainable business partnership with the full completion of a new solar array at TPWD's Sea Center Texas. The 21-kilowatt rooftop solar system is expected to generate approximately 27,000 kWh of electricity for the facility each year. Through the partnership, Green Mountain also provides additional energy solutions to TPWD, including 100 percent renewable energy to all of TPWD's facilities in deregulated service areas and energy management software for facilities across the state.

"Sea Center Texas is proud to be the newest beneficiary of the sustainability business partnership between Texas Parks and Wildlife and Green Mountain Energy Company," said David Abrego, facility director, Sea Center Texas. "As a facility that is strongly committed to the conservation of our natural resources, the adoption of solar power will provide clean energy and serve as a powerful tool for our educational and outreach programs."



Solar panels on roof of Sea Center Texas office and exhibit building, looking south.

Photo: Connie Stolte/Flickr ©Texas Parks and Wildlife Department



Green Mountain Energy Company is a fast-paced, rapidly growing company headquartered in Austin, Texas. Our mission is to change the way power is made, and we're looking for smart, talented, passionate influencers to help us achieve this important goal. Our business is accelerating a clean energy future. We power consumers and businesses in select markets with renewable electricity made from sources like wind, solar, and hydro. Plus we also offer carbon offset products and sustainable business solutions nationwide. We offering these options to customers as an alternative to traditional sources of energy, we are helping accelerate a clean energy future.^[2]






[1] Hagan, Julie *Sea Center Texas Celebrates 20 Years*. Texas Parks & Wildlife, April 2016, 12

[2] Green Mountain Energy Company. LinkedIn, 2016 <http://tinyurl.com/gwtjg3w>

WHERE CAN I BUY A SHIRT? A CAP? A LOST NAMETAG MAGNET?

By Neal McLain, Editor

I've heard that question several times recently. So here it is folks: your handy guide to finding books, shirts, caps, nametags, and replacement nametag magnets.

PUBLICATIONS Books, eBooks, brochures, calendars	AgriLife Bookstore. http://www.agrilifebookstore.org/ Search for desired item	
NAMETAGS Engraved nametags and replacement magnets.	G&J Trophy 102 Garland Drive Lake Jackson, TX 77566 979-297-5340 http://tinyurl.com/Supplier-GJT Map: https://goo.gl/maps/xBCUiCVTb9o	<div style="background-color: yellow; padding: 5px;"> When purchasing items from G&J Trophy, please pay with cash or check, not a credit or debit card. The transaction fee for using a card leaves very little profit for G&J's efforts. </div>
GREEN POLO SHIRTS with TMN-COT logo	Presently unavailable. The chapter plans to place a group shirt order in 2017 for the members of the Intern Class of 2017. All chapter members may place orders at discounted prices at that time.	
OTHER CLOTHING with generic TMN logo (including green polo shirts)	AgriLife Bookstore. http://www.agrilifebookstore.org/ Search for desired item (shirts, lanyards, patches, backpacks, project signs, sweatshirts, vests, aprons, etc.)	
BASEBALL CAPS all fabric	AgriLife Bookstore. http://www.agrilifebookstore.org/ Search for TMN-3510 Photo: copyright ©2016 Texas A&M AgriLife Extension Service	
BASEBALL CAPS fabric and mesh	AgriLife Bookstore. http://www.agrilifebookstore.org/ Search for TMN-3513 Photo: copyright ©2016 Texas A&M AgriLife Extension Service	

CRADLE OF TEXAS CHAPTER OFFICERS

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Facebook	http://facebook.com/TMN.COT
E-mail Listserv	http://tinyurl.com/TMN-COT-Mail



MASTER NATURALIST EMAIL LISTS

TMN-COT Chapter list

- Instructions http://tmn-cot.org/Email_Lists/index.html
- Send messages to TMN-COT@googlegroups.com
- Message Archive <http://tinyurl.com/TMN-COT-Mail>
- All messages are sent immediately.

State Master Naturalist list

- Instructions <http://txmn.org/staying-connected/sign-up-for-tmn-listserv/>
- Subscribe listserv@listserv.tamu.edu
- All messages are held for moderation by the TMN State Coordinator

Chapter News is published monthly on Monday before the General Meeting by the Master Naturalist Cradle of Texas Chapter. Submissions are welcome. Submission deadline is 5:00 PM on Saturday before the General Meeting. Submissions should be sent by email to *Chapter News* Editor at tmn.cot@gmail.com. Submissions may be edited for clarity and spacing.