



NOVEMBER 2017

Chapter News

A MESSAGE FROM PRESIDENT KRISTINE RIVERS

I am pleased to report that our chapter's presentations and field trip at the TMN State Meeting were a rousing success! We received feedback from participants that our presentations were some of the best they had seen and that they learned a great deal by attending. Everyone was excited to receive the boxes of takeaway samples that Peggy and Pete Romfh put together.

The buzz about the fact that we were going to have live snakes and alligators in our final presentation started a day early, and by the time the session began, it was standing room only. The state even posted on social media about it! I am so very proud of our presentation team, which included Phil Huxford, Neal McLain, Mike Mullenweg, Lisa Myers, Peggy and Pete Romfh, Jimmy Salinas, Rich Tillman, and me.

The State Meeting also recognized attendees who had reached VT milestones this year prior to the meeting: Lisa Myers, for 500 hours; Peggy Romfh, for 4,000 hours; Justina Dent, for 5,000 hours; and me for 250 hours. It was great for everyone to be recognized in front of people from throughout the state.

Neal McLain has posted some photos from the meeting on our website, some are included in this issue, and we're still sorting through many more photos and videos from the event that we intend to share with you soon.

This was my first year attending, and I enjoyed the opportunity to receive AT on a variety of topics as well as meeting so many people from other chapters. If you

haven't been yet, I hope you will consider attending in 2018—when we'll be celebrating TMN's 20th Anniversary—they promised us that it will be a huge party! The meeting is scheduled for October 26-28, at the Sheraton Georgetown in Austin.

For those of you who experienced flooding during Hurricane Harvey, I want to let you know that the state has offered to replace your certification pins for all years if you lost them along with your other belongings. Just let Peggy and Pete know, and they will contact the state TMN Program Office for your replacement pins.

We're already working on plans for the full day of AT that is scheduled for Saturday, January 20th. We're eager to share our State Meeting presentations with you and to provide members the opportunity to obtain almost all of the AT hours needed for 2018 recertification right at the beginning of the year. You'll be hearing more about these sessions soon!

Finally, the membership elects officers at the December General Meeting. Jill Carroll is stepping down as VP and Bill Ahlstrom has accepted the nomination. Nominations for all positions will also be accepted from the floor before the December election.

Kristine Rivers is the president of the Cradle of Texas Chapter. She can be reached at rivers@tmn-cot.org.



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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 socio-economic level, race, color, sex, disability, religion, age, or national origin.

Masthead photo by P&P Romfh.

Texas Master Naturalist Program
Cradle of Texas Chapter
Chapter News – November 2017

A new edition of the Discovery Environmental Education Program (DEEP) Student Field Journal, published by Friends of Brazoria Wildlife Refuges, is now available at:

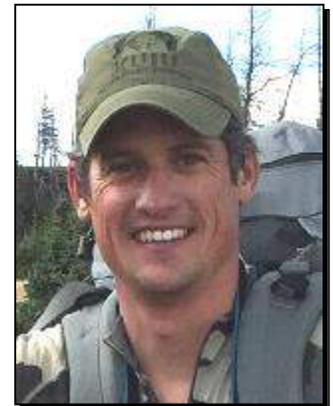
http://tmn-cot.org/DEEP/DEEP_Student-Field-Journal.compressed.pdf

Texas Master Naturalist Program—Cradle of Texas Chapter
General Meeting and Advanced Training
Wednesday, November 8, 2017
Texas AgriLife Extension Building
21017 County Road 171
Angleton, Texas 77515-8903

8:30 AM – 9:00 AM	Fun and Fellowship Snack Team: Anne Bettinger, Mary Holler, Rainbo Johnson, Georgia Monnerat, Laurel Owen, Ken Sluis, and Linda Sluis
9:00 AM – 10:00 AM	General Meeting and Nature Notes <i>This meeting is approved for 1.00 hour volunteer time</i> Nature Notes: “Monk Parrots” by Candace Novak
10:15 AM – 12:00 PM	Speaker: Shane Bonnot, Advocacy Director, Coastal Conservation Association Texas Topic: Hatcheries and Shellfish Aquaculture

Shane Bonnot is the Advocacy Director for the Coastal Conservation Association (CCA) of Texas, working closely with CCA committees, members and staff on interests and policies that are vital to the long-term sustainability of coastal marine resources.

As a sixth generation Texan, Shane grew up in Wharton, where he spent his childhood in the woods, on the water, playing sandlot baseball, catching snakes, and mostly driving his parents crazy. He received a Bachelor of Science degree from Texas A&M University in Animal Science in 2000 and a Master of Science degree from Texas A&M University-Corpus Christi in 2003. After college, he worked for the Virginia Institute of Marine Science for three years as the oyster hatchery manager. In 2006, he moved back to Texas to work for Texas Parks and Wildlife Department Coastal Fisheries Division in the stock-enhancement program at Sea Center Texas, spending five years as hatchery biologist and another five years as hatchery manager.



Shane Bonnot

Source: <http://www.ccatexas.org/who-we-are/>



Coastal Conservation Association Texas (CCA Texas) is a non-profit marine conservation organization comprised of tens of thousands of recreational anglers and coastal outdoor enthusiasts. Founded in 1977, CCA Texas started in the great state of Texas and has grown incredibly to a national organization. An unmatched breadth and depth of volunteer involvement has made CCA Texas the largest marine conservation group of its kind. The Association has enacted positive change on all levels of coastal marine conservation and management, including a state net ban, gamefish status for speckled trout and redfish, bycatch reduction for Gulf and bay shrimp trawls, flounder conservation measures, limited entry into commercial fisheries, and Gulf fisheries management initiatives.

Membership Report by Pete and Peggy Romfh, Membership Directors

Congratulations to those receiving awards in November:

Initial Certification (Dragonfly Pin)
Victor Wade

Recertification (Turtle Pin)
Roger Allen Chris Kneupper
John Boettiger Rich Tillman
Denis James

500 Hours Milestone (Silver Dragonfly Pin)
Herb Myers Kristine Rivers

5,000 Hours Milestone (Polished Gold with Diamond Dragonfly Pin)
Justina Dent

Impact Data—January-October

14,091 Adults 32,752 Youth 46,843 Total

Hours Totals—January-October

14,364 hours VT 1,517 hours AT 116 Volunteers

At the October 11, regular chapter meeting held at the Texas A&M AgriLife Extension Service, six members recertified, including: Ed Barrios, Jill Carroll, Mickey Dufilho, Donna Graham, Phil Huxford, and Bob Whitmarsh.



Recertification pins presented at October General Meeting: President Kristine Rivers, Jill Carroll, Membership Directors Pete and Peggy Romfh, Ed Barrios, and Phil Huxford. Not pictured: Mickey Dufilho, Donna Graham, and Bob Whitmarsh. Photo by Dick Schaffhausen.

60-Year-Old Alligator Gar is New Brazos River Record—TPWD News Release 13 October 2017



Photo © Texas Parks and Wildlife Department.

AUSTIN—Texas Parks and Wildlife Department (TPWD) research biologists have confirmed the new, alligator gar, bow-fishing, water-body record for the Brazos River is 60-years..., among the oldest fish aged and documented by the department.

Angler Isaac Avery of Longview caught the 197-pound, 7.39-foot alligator gar [while] bow fishing in the Brazos River Sept. 9—beating the previous record by more than [four] pounds.

...Avery called TPWD Inland Fisheries district biologist Michael Baird, who previously tagged the fish in March 2012. According to Baird, tags returned by anglers provide biologists with information on harvest, abundance, size structure and survival.

"I tagged this fish near Tawakoni Creek, a large Brazos River tributary just down from Waco, back in March 2012, while doing a mark-recapture study," Baird said. "It appears she hadn't moved much ..., and she grew approximately 65 mm (2.55 inches) since tagging."

After weighing the fish, taking measurements and collecting the otoliths (bony structures found in the alligator gar's inner ear), the data was sent to the Heart of the Hills Fisheries Science Center (HOHFSC), where researchers are conducting studies to learn more about key population characteristics of alligator gar. Researchers then used the

otoliths to age the fish by counting growth rings similar to those on a tree.

"We aged the fish at 60, which indicates it hatched in 1957," said research biologist David Buckmeier. "I looked at the gauge data from Waco around that time and sure enough there was a huge flood from April to July in 1957. What we've seen is that fish over the age of 50 typically come from times when these huge flood pulses occurred, and those events likely create giant year classes of these fish."

According to Buckmeier, alligator gar typically do not spawn every year but prefer spawning habitat created by seasonal inundation of low-lying areas of vegetation—like the floods of 1957. Research on the Trinity River confirmed that the years of highest reproductive success of alligator gar coincided with years of good spring rains.

As big as this fish was, other Texas rivers and lakes hold trophy alligator gar that are even bigger. Angler Marty McClellan set the state bow-fishing record for alligator gar in 2001 with an [eight]-foot, 290-pound fish from the Trinity River—a record that still stands... The world record, caught in Mississippi in 2011, measured [eight] feet [five] inches and weighed 327 pounds. TPWD researchers examined otoliths from that fish and estimated its age at 95 years.

[The] HOHFSC biologists are conducting several studies to learn more about Texas alligator gar populations with the goal of providing management recommendations for the sustainability of this species for present and future anglers. Past and ongoing research projects include sampling alligator gar populations in five river systems, tagging individual fish and recording their movements, and working with gar anglers to learn how they use the fishery.

Currently, Texas permits the harvest of one alligator gar per day with no minimum length limit. <https://tinyurl.com/RecordGar>

TPWD Completes Oyster Restoration in Galveston Bay—TPWD News Release, 9 October 2017

Biologists assessing Hurricane Harvey impacts to oysters



A long-arm track hoe deposits oyster culch material to create a reef. © TPWD.

HOUSTON—The Texas Parks and Wildlife Department (TPWD) has completed oyster restoration efforts at four areas in Galveston Bay to enhance public oyster reefs benefit recreational anglers.

The current restoration work began

in September 2016. This year, TPWD is using culch mounds to make the reefs more resilient to storm surges and commercial fishing gear. By the end of September 2017, fresh culch was planted over 41.5 acres. This work adds to the TPWD oyster restoration efforts begun in 2008, bringing the total oyster reef restored through culch planting to over 480 acres.

Oyster restoration locations include Todd's Dump Reef, South Redfish Reef and two locations on the north side of the Texas City Dike. About 9,670 cubic yards (11,604 tons) of reef building materials (known as culch) was [sic] placed at the four locations.

The Texas City Dike sites specifically include Mosquito Island, a sand/shell bar extending north from the Dike just east of the hurricane protection levee, and an area adjacent to the Dike's new fishing pier, which is located approximately 1.75 miles east of the levee.

The current work, which will cost about \$1.1 million, is being funded through a variety of sources... The TPWD Oyster Shell Recovery Fund is made up of proceeds from a

fee attached to every sack of oysters harvested in Texas. This year marks the first time these funds have been used for oyster reef restoration...

Besides the economic benefits for commercial and recreational fishermen, restoring oyster reefs has environmental benefits. These benefits include water filtration and provision of food and habitat for numerous fish and invertebrates.

In addition to restoration efforts, TPWD is assessing impacts to oysters from Hurricane Harvey. Over 30 inches of rain fell on the Houston metropolitan area, and the associated runoff dropped salinities to near 0, resulting in wide-spread mortality of oysters in Galveston Bay. Shell from these dead oysters, along with the culch provided by this restoration project, will be critical for recovery as larval oysters must have a clean, hard surface to attach to and grow.

Research shows prolonged low-salinity events can cause oysters to die, but it can also benefit the fishery by reducing the presence of pathogens and predators that threaten oyster populations.

"The full impact of Hurricane Harvey on Texas oyster populations will depend on factors such as how long salinities level remain [sic] low, the quantity and quality of the remaining oyster habitat, and the ability of the surviving oysters to spawn before water temperatures drop," said Lance Robinson, Coastal Fisheries Division Deputy Director; "The TPWD Coastal Fisheries Division continues to assess the impact on oysters and will have a better understanding of the how this resource is impacted in the coming months." Source: <https://tinyurl.com/GalBayOyster>

Link and Learn: Why do bird eggs have different shapes? Look to the wings—from the pages of The New York Times

In the most comprehensive study of egg shapes to date, scientists say that the best predictor of long or pointy eggs is a bird's flying ability. Source: <https://tinyurl.com/bird-egg-shape>



Eggs, from left to right, of: common murre, least sandpiper, wandering albatross, Eastern screech owl.

asymmetrical eggs, as do least sandpipers, which migrate long distances. Wandering albatrosses are one of the most far-ranging

Owls' are spherical, hummingbirds' are elliptical and sandpipers' are pointy. All bird eggs have the same function—to protect and nourish a growing chick. But they come in a brilliant array of shapes. This variety has puzzled biologists for centuries.

Now, in the most comprehensive study of egg shapes to date, a team of scientists has cataloged their natural variation in 1,400 bird species. They created a mathematical model to explain the variations and then looked for connections between egg shape and key traits. One of the best predictors of egg shape is flight ability, it turns out: Strong fliers tend to lay long or pointy eggs. Common murre, for instance, are fast, powerful fliers and have

fliers—some have been known to circumnavigate the Antarctic Ocean three times in a year—and have elliptical eggs. Eastern screech owls rarely move beyond their small territory, where they tend to fly in short, low-powered glides, and have almost spherical eggs.

Researchers had thought that perhaps cliff-nesting birds lay pointy eggs so that if the eggs are bumped, they spin in a circle rather than rolling off the cliff. Instead, egg shape is strongly correlated with a measure of wing shape, called the hand-wing index. Eggs must contain as many nutrients as possible, but birds also must maintain sleek bodies—meaning their eggs can't be too wide. Long or pointy eggs solve the problem.

2017 KBR Kids Day at Guadalupe Plaza Park

Despite the sweltering heat, TMN-COT volunteers and attendees had a blast at the 2017 KBR Kids Day, held this year on October 7 at Guadalupe Plaza Park in Houston.



Clockwise from top left: Carol Wenny introduces a hognose snake to attendees; adults and children alike enjoyed the butterfly tent; RV Volunteer Nadine Byram with the box turtles; Marty Cornell, alligator friend, and two new friends; Roy Morgan provides corn snake facts; Dick Schaffhausen and the big alligator; getting to know the big alligator; Steve Hody of Earthquest, with raptor, was assisted by Phil Huxford during the two Birds of Prey Programs they presented. Kids Day image by Buffalo Bayou Partnership; photos by Richard Schaffhausen via Facebook.



Sports team mascots and face painting were among the many fun attractions and activities.

Photos from 2017 Annual Meeting, Corpus Christi, Texas Training Sessions Presented by TMN-COT Members

By Neal McLain



It's a Wild, Wild Life on the Mid-Texas Coast

TMN-COT members conducted a series of seminars about wildlife and ecology of the Texas coast.



Rich Tillman presents *Ecology of the Coastline*. A former Brazoria County Texas A&M AgriLife, Coastal Marine Resources Agent and Sea Grant Agent, Rich is also a TMN-COT member, Class of 2001.



Mike Mullenweg after presenting *Beach Invertebrates*. Mike is Lead Interpreter, Events and Trails Coordinator, Brazoria County Parks; transferred from the Mid-Coast Chapter, Class of 2007, Mike is now a TMN-COT member.



Chapter President Kristine Rivers introduces Phil Huxford during the *Sea Turtles, Snakes & Alligators* session. Phil, class of 2001, is a founding member of the COT Chapter.



Phil Huxford discusses and demonstrates *Sea Turtles, Snakes & Alligators*.

Phil introduces visitors to a four-foot alligator.



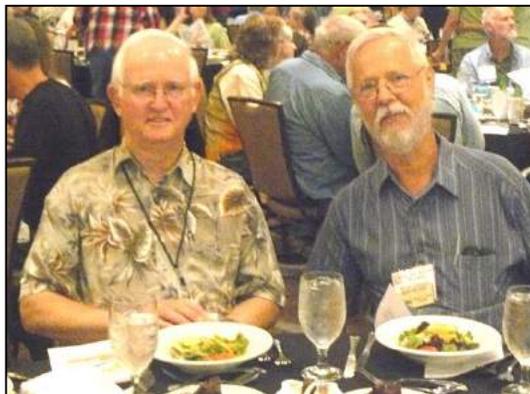
Attendees examine a corn snake.

Photos from 2017 Annual Meeting, Corpus Christi, Texas cont'd.

Lunch and Dinner in the Omni Ballroom



Lunch in the Omni Bayfront Hotel ballroom. From left: Phil Huxford, Rich Tillman, Peggy Romfh, Kristine Rivers, Jimmy Salinas, Mike Mullenweg (standing), Neal McLain, Lisa Myers.



Tom Morris, Rich Tillman



Justina Dent, Phil Huxford



Phil Huxford (standing), Lisa Myers, Kristine Rivers

Roger Allen, Neeta Allen

Kristine Rivers, Peggy Romfh, Pete Romfh



Photos from 2017 Annual Meeting, Corpus Christi, Texas cont'd. Awards Presentations



Michelle Haggerty, State Coordinator, Texas Master Naturalist Program, presented the awards. Photo: Neal McLain.



Members reaching 250 hours. Kristine Rivers, second row, second from right. Photo: State TMN Program



Members reaching 500 hours. Lisa Myers, second row, third from right. Photo: State TMN Program.



Members reaching 4000 hours. Peggy Romfh, front row, second from right. Photo: State TMN Program



Members reaching 5000 hours. Justina Dent, front row, center. Photo: State TMN Program.

Photos from 2017 Annual Meeting, Corpus Christi, Texas cont'd. Field Trip to the Shores of Mustang Island



Mustang Island is a barrier island on the west side of the Gulf of Mexico. It extends southward for more than a hundred miles, where it is also known as South Padre Island.

Inset photos clockwise from above: Seining on the beach of the Gulf of Mexico on the east side of Mustang Island; seining in an estuary on the west side of Mustang Island; large Cabbagehead Jelly; Snapping Shrimp; large Ghost Shrimp.

Photos by Pete Romfh.



Watching for sea turtles from Packery Island State Park on the west side of Mustang Island.

Photo by Mike Mullenweg.

Cradle of Texas Chapter Officers

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Chapter Advisor	John O'Connell (AgriLife Extension Service)
Newsletter Editor	Lisa Myers, Lake Jackson
Newsletter Contributors	Neal McLain (Chief Reporter, Editorial Advisor), Kristine Rivers, Peggy Romfh, Pete Romfh
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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 Texas Master Naturalist Cradle of Texas Chapter. Submissions are welcome; submission deadline is 5:00 PM on Friday before the General Meeting. Send submissions by email to *Chapter News* Editor at news@tmn-cot.org. Submissions may be edited for clarity and spacing.