Lost Pines Chapter

Texas Master Naturalist

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Everything's Bigger in Texas!

by Larry Gfeller

It was one of those lovely lazy days—the sun sprinkled diamonds on the sand bars and painted jewelry across the water. Carol Brown and her husband Bob had put their canoe into the Colorado River for a pleasant float and a little fishing. They had recently moved to Bastrop. The chosen route was just east of the Lost Pines Nature Trails, headed toward Smithville. For those who know it, it's a challenging good five-hour paddle. For grins, a lure attached to a fishing pole trailed along behind the boat.

Shortly after launch, as they approached the high cliff known as Red Bluff to their left, the boat lurched suddenly. A VERY large gar broadsided the boat, nearly knocking them both overboard!

In the splash and spray it glistened in shades of green before plummeting out of sight in a swirl of bubbles. Had they just been attacked by a gar? It was probably attracted by the fish following the lure, not by the boaters. Regardless, it was enough to make a permanent image on their memory card—it was a close encounter with a very frightening fish and the trip had only just begun.

While we can never be sure, Bob and Carol Brown that day most likely met the ugliest granddaddy of Texas rivers—the alligator gar (*Atractosteus spatula*).

Attitudes about what we consider "ugly" in fish are pretty much uniform. An ugly fish is usually dark olive green dorsally, fading to gray down the sides and white ventrally, shaped like a torpedo . . . and large. Throw in a couple rows of sharp teeth and you've got the star of a reality TV series like "River Monsters."

Like some prehistoric throw-back to a swimming lizard, a gator gar is the biggest gar species. It is generally greenish-brown and comes complete with a long, slender cylindrical body, what appears to be armor plating and a long, tooth-filled snout. Oh, and I should mention they can grow up to 8 feet long and weigh 300 pounds!

These gargantuan fish are rare, but they do exist.

Most of the gars I've encountered were 3 or 4 feet long, probably not alligator gars, caught in bank line nets in Kansas. There are seven known gar species (five of which live in the U.S.) but it is the alligator gar that grows into the biggest, baddest and ugliest of them all. Growing very quickly when young, their growth slows with age. As a generalization, for every additional foot in length

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In This Issue

Bigger in Texas, cont.

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the fish grows, its age doubles. The world record alligator gar was caught in Mississippi in 2011. It weighed 327 lbs. and was believed to be at least 95 years old.

The prehistoric relatives of this megafish inhabited many parts of the world, but today gars live only in North and Central America. The tooth-filled mouth and wide alligator-like snout are the reason for the name.

Gator gars have tight, hard, interlocking enamel-like, diamond-shaped scales (ganoid), often with serrated edges. This armor system is nearly impenetrable. It helps protect small gar from predation by larger fish and makes the big ones almost indestructible. Native Americans and Caribbean peoples used these ganoid scales for arrow heads, breastplates and as shielding to cover plows.

We have fossils of this fish going back over a hundred million years ago.

Some people still refer to them as "living fossils" because they have a spiral valve intestine (like sharks) and they can breathe both air and water. While they certainly rely on gills, alligator gars have a highly useful swim bladder that not only provides buoyancy but also lets them breathe in air, making it feasible for them to inhabit bodies of water in which ordinary fish could not survive.

Although the alligator gar has disappeared or is declining in the southeastern United States overall, Texas has a strong population. They are found in large rivers and reservoirs as well as coastal bays, mostly in east and south Texas, but they also occupy a stretch of the Red River. Bow fishermen and rod and reel anglers have landed several specimens in excess of 200 lbs. in Texas. The Texas state record is 302 lbs., caught on a trotline in 1953.

For years, gar have been considered by many as "trash fish," not good for eating and a general nuisance.

There are fish fables about gar getting caught in nets and eating most of the rest of the catch. Then there is the common nightmare of anglers getting bitten by the fish's sharp teeth (with scant documentation). Finally, because they mainly eat fish, there is the view that alligator gar are bad because they destroy other gamefish.

According to Dan Bennett, a fisheries biologist with TPWD, studies have proved that these gar pose no real threat to gamefish populations: "The majority of their diet consists of rough fish, like carp and shad," Bennett said. "They're opportunistic feeders, so they're going to eat what swims within reach of the bottom. Bass are stationary, which means a gar would have to hunt them down. Most of the gar we sampled actually had empty stomachs."

Even though gar are not considered prime sport fish, they are gaining popularity.

That's why TPWD imposed a one-per-day bag limit on alligator gar in 2009. Their meat is not easy to separate from the bone, but it is considered good food—at least in Louisiana and Mexico. Stay away from gar eggs, however; they are poisonous and will make you sick if you try to eat them.

The reproductive cycle of alligator gar is delicate and complex.

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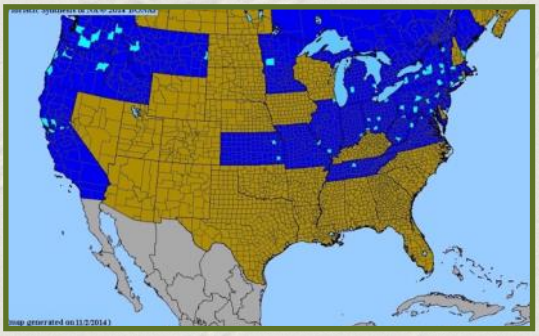
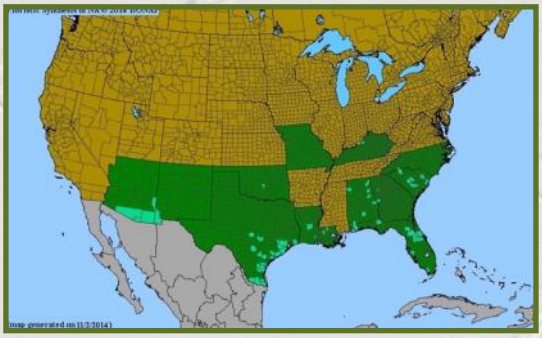
What's Blooming?

by Liz Pullman & Judy Turner

End of year TIME magazine chooses a person-of-the-year; we chose two-plants-of-the-year. In this case, both of them caused a great deal of searching and puzzlement before identification. One of them is an exotic (check the blue map) and could be an escapee from horticulture, while the other one (green map) is also cultivated but is a native (east of the Mississippi). Given where they appeared, we wonder how they got there. You can see on the maps they are not exactly common.





First, last May during the spring clean up of trails and overgrown places out at the Estes place in Caldwell County, a *weird* little blue flower with balloon-like seed pods was discovered in a few places mixed in with grass. This plant was totally new to everyone and a Family connection was not obvious. After a great deal of net surfing, I was able to name it and after even more surfing found that it has been around for a long time, appearing and disappearing at different places in the upper 48. Looking far back, it was described in Fernald's 8th edition of Gray's Manual of Botany as a Eurasian garden plant that spreads locally and sometimes persists. It is described as a species along with a sketch in Gleason's Britton and Brown Illustrated Flora of the Northeast noting that it is an Old World species. In Flora of West Virginia, Core calls its appearance spontaneous - he also has a good illustration. In the newly published Flora of Virginia, Weakley mentions the plant but does not describe it. Here is the outcome. Family—Buttercup or Crowfoot, *Ranunculaceae*. Scientific name—*Nigella damascena*. Two common names—Love-in-the-Mist and Fennel-flower. Judy notes the *Nigella* refers to black seed and the species means "from Damascus." Take a look at the image. Have you encountered this plant before? A specimen was taken and sent to the UT-Austin herbarium so it will, at some time, appear in a Texas database.

The second plant-of-the-year was a mystery plant for 2 months this summer since I had to patiently wait for it to bloom. I was preparing some 4-inch pots for transplanting a few little plants out of starter pots. I filled the pots from a new bag of potting mix and set them aside. When I finally got around to transplanting, I realized that several of the prepared pots already had something growing - leaves of a strange shade of pale green. I waited . . . and waited. They kept growing in their pots while I endured sarcastic remarks such as, "Growing some lettuce, Liz?" Finally, in early September, a flower stalk emerged and guess what . . . not lettuce. Soon pink appeared in the buds that opened into little five petalled pink flowers. The ripe seed pods are sort of ruby-colored and the seeds are shiny black. Easy to identify as Family—*Talinaceae—Talinum paniculatum*, common names being Fameflower or Jewels of Opar. Very classy-looking plant and also used in horticulture and native east of the Mississippi. Why on my patio? In Williamson County? Judy also has a Fameflower that grew in a pot of fennel over in Bastrop County. Did these seeds blow in on a wind or they were the Miracle in my MiracleGro potting mix? This species has been reported nearby in Bexar, Travis and McLennon counties.

Send either Judy or me a message if you start seeing either.

Meet Kelly Alecci
by Larry Gfeller

Under a cloudless sky tender with morning sunlight, on that auspicious day in 1284, the Pied Piper wreaked his revenge on the little village of Hamelin, Germany by attracting the town's children with his melody. One hundred and thirty children followed him out of town and into a cave and were never seen again—or that, at least, according to the Brothers Grimm. People with that kind of influence over children have a gift. Captain Kangeroo had it, Bert and Ernie have it and so does Kelly Alecci. That's why she was chosen to get our Junior Master Naturalist Program vetted and established as a permanent chapter program.

I watched Kelly captivate a group of toddlers 2 years ago as she promoted the rudiments of plant biology for Bastrop's Early Head Start Program. This is like holding the attention of a bunch of ferrets high on caffeine—but Kelly did it. Sensing that audience patience with root systems was running thin, she deftly switched to a physical activity. . . "Everyone put their hands down like this and let your parents draw an outline on the paper," she said. Mission accomplished—renewed intensity in a new direction!

It's not just small children she enchants. Last summer, Boy Scout Troop 190 out of San Antonio gave notice of a trip to Bastrop State Park. They had been studying animal tracks and poisonous plants and asked for an interpretative program that would support those studies. Kelly was the selected hike leader and she opened with, "Today we are going to look at plants that can bite, sting and kill you." Twenty-four eyes, like holes pierced in a furnace, stared in rapt attention.

Kelly remains one of the most accomplished interpretative hike leaders in the chapter—from the first season since her graduation in 2012. She can wow any crowd with any theme at any venue at any time. She's great with adults but even better with children.

One of her sons, George (age 11), is already a legendary assistant hike leader and Junior Master Naturalist. Oscar is not far behind. Because George and Oscar grew up exploring the beaches, ocean and rainforests of the Caribbean, understanding the ecosystems of Buescher, Bastrop and Lockhart State parks was a natural extension. Kelly takes her boys with her when leading hikes. "They both love to help me when we lead interpretive hikes. I always give George a chance to show off his knowledge. The first time he broke in to speak on a hike, I was blown away by everything he had learned from previous hikes." So was everyone else!

Hiking is a family pastime: "My favorite place to be is out on a trail in the woods. I was so happy when I moved here, to find pine trees, like I grew up with in Montana . . . people always seem to be happier in the woods." From her childhood days hiking and backpacking the mountains of Montana, she has always been at home outdoors. Once, while Kelly was cross-country skiing with her mom, it was snowing so hard that tracks were covered almost

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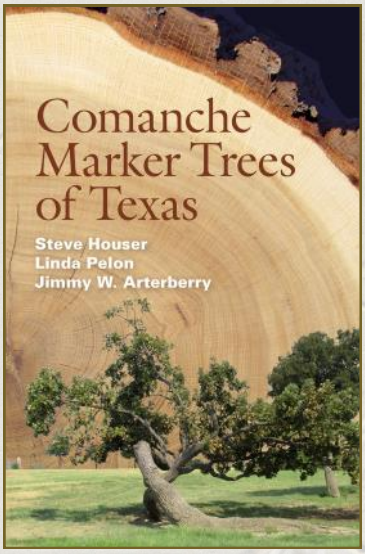
Brooks on Books - Native American Marker Trees of Texas

by Bill Brooks

Thanks to my brother and the Texas A&M Press book sale last month, I finally got my hands on the new (published in 2016) book, "Comanche Marker Trees of Texas" by Steve Houser, an arborist, Linda Pelon, a professor of anthropology, and Jimmy W. Arterberry, a tribal historic preservation officer for the Comanche Nation.



The book is written in an interesting manner. Each author writes short portions of this book drawing on their expertise.

The scope of the book is narrow, as the title implies. You can find out more about marker trees in other parts of the country by researching publications easily found on the Internet.

This book is only about Comanche marker trees because the Comanche are the only tribe that has officially said they shaped and used marker trees. The Texas Historic Tree Coalition (TxHTC.org, an all volunteer non-profit), working with the Comanche Nation, is trying to find and verify the existence of marker trees before these trees reach the end of their lives and disappear forever. As explained in this book, the TxHTC has very vigorous and exact requirements for marker trees. Among other requirements, no tree is a designated marker tree until the Comanche Nation verifies it. As of the date of publication, only six Comanche marker trees have been officially designated in Texas. All six trees are described in this book.

We have a potential marker tree in our neighborhood. If you take an easy walk down the Ridge Trail, not far from the McKinney Roughs LCRA Park Visitor's Center, you will come to an Escarpment Oak potential marker tree. See this tree while you can. It died about 3 years ago and is rotting away, returning to and rejuvenating the soil. This tree could be a marker to the high point trail between the Colorado River crossings where Bastrop and Austin are now located.

Nicholas Cowey, naturalist at McKinney Roughs, has told me that there were once two potential marker trees in the park. The second tree was a Blackjack Oak and the two trees pointed toward each other. Between them is a wet weather sulfur spring. Early writings tell of a medical (sulfur) spring in the area that is now within the park. This second tree died about 9 years ago and is all but gone.

Like pictographs, marker trees are a legacy of the past that has a limited life span.

Another Recommended Book about Westcave Preserve

This year the Texas A&M Press also published "Discovering Westcave, The Natural & Human History of a Hill Country Nature Preserve" by S. Christopher Caran and Elaine Davenport. If you haven't visited this hill country gem, you should. It's easy to make a day of it visiting Reimer's Ranch, a fishing and rock climbing park, Hamilton Pool, a county swim park (and once a cliff diving spot), and Westcave, where you can go on a hike with a leader to one of the most lovely places in central Texas. All three of these special parks are within a few short miles of each other.

The book expertly covers the education center, geology, aquatics, and archeology of the area. However, much of this book is a deserving tribute to the long time caretaker and naturalist John Ahrns. Even though he had no idea who I was, I considered him a friend. He was like that to lots of folks.

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Kelly, cont.

(Continued from page 4)

as fast as they were made—a landscape in motion. The storm roiled around them. Kelly remembers, "After a few hours we realized we were lost. The only thing that was recurring was the remains of a deer carcass that had been taken down by a bear. About every hour we would circle that carcass, worrying that we might be next."

So how did Kelly come to live in Texas? Blame it all on a Punk Rock show. Two years into a history degree at the University of Montana, along came this guy named Joe, who swept Kelly off her feet. They took off and pursued a bohemian lifestyle together, going places and doing things that pinged their zest for life.

Joe and Kelly dated for 5 years and were married for ten years before having children. "We had a lot of time to explore and travel as a couple," Kelly says. In those days, the Aleccis lived away from conventional American life, searching for something different. There were 3 years in Japan, followed by a year of traveling Southeast Asia. When the money ran out, it was back to Seattle (Joe's home) to replenish the treasury so the couple could, once again, travel in Mexico and Central America. Next stop? The land of sugarcane and rum!

"We followed our love of scuba diving to St. Croix in the U.S. Virgin Islands, where we lived for 5 years, working in my father's scuba shop," Kelly says. "Our first son, George was born in our 2nd year there, and Oscar a year and a half later." It was here, among the tropical breezes and endless blue skies, that Joe met an entrepreneur from Smithville, Texas who was researching waste dumped into the ocean at St. Croix for use in making rum back in Texas. The Aleccis moved to Texas in 2008 in search of a distillery dream. The breakthrough never materialized, but Joe soon met another business partner and they started Bone Spirits, Inc. in 2010 at a facility in Smithville.

While the early part of Kelly's married life was carefree adventure, most of her energies today are directed at family and school-related activities. She home-schooled Oscar and George until they came of age and that experience unleashed something deep inside—a need to nurture others. It's a critical source of fulfillment that she still thrives on today.

Even in college, Kelly was drawn to childhood development and mental health. It was in her genes all along. Today she is a behavioral coach at Bastrop Independent School District, working with kindergarten through 4th graders, with an onerous caseload. Kelly describes it this way, "It is a difficult but rewarding job. I always hope that I am helping my kiddos to find a way to adjust to school life, and be effective students. I really relish being their advocate . . . I love my job."

Because of the demands of that job Kelly recently stepped down as the leader of our Junior Master Naturalist Program. "Kim (Iberg) and Kathryn (Hedges) will do a wonderful job," Kelly replies. "They appreciate the importance of working with the next generation."

Even with a lightened LPMN burden, family life around the Alecci household is frantic. There are the after-school activities of 2 sons, caring for 3 dogs, 30 chickens, 2 goats and 1 hedgehog, shopping and planning meals, the laundry and unstoppable household chores—modern homemaking has become an extreme sport; but BY GOD there's gonna be a family meal every evening! All things grind to a stop for an hour or so while

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Kelly, cont.

(Continued from page 6)

the entire family sits down together . . . no TV, no smart phones, just conversation. Kelly smiles and says, "Somehow I'm getting through it all, but not very gracefully, I feel."

Grace manifests in different guises. Refreshing the soul is an act of grace. Kelly relaxes by knitting a Christmas present, listening to a Civil War audio book or by cooking an unhurried delicious family meal. Summertime is a favorite time of the year for the family, usually taken up by tubing in the San Marcos, diving at Blue Hole or dropping from a rope into Krausse Springs. Raising a family this way—the hard way—is, in itself, an act of grace. It comes from pioneer lineage, from mothers who struggled from dawn to dusk, put three nutritious meals on the table and still found time to teach strong values and love their family.

I asked Kelly what she sees as the biggest misconception people hold about her. "People think I'm organized . . . my desk at home is a landfill. It's a struggle for me, but I keep trying." So even though you will never see her give advice to the organizationally challenged, Kelly will offer advice to new LPMN members. "That's easy," she says, "when you hear about a volunteer activity that interests you, go for it! All of the people who are offering up these opportunities are just you a year or two down the road . . . one more thing: start keeping track of your hours right away, get into the habit. I'm still trying to build that habit!"

From a Martha Stewart antonym to someone who once feared the laws of gravity would fail, spiraling her off into space, Kelly Alecci has come a long way since her jaunty early days. But there's a reason she doesn't need uniformity and order: like Bert and Ernie, she has the gift of helping others understand. She has the ability to touch, to connect. It's been said that people must have feeling themselves to touch others. "I wish people would be kinder to each other," Kelly laments, "I wish there was more empathy for each other. Diplomacy is highly underrated!" And so is grace.

Brooks, cont.

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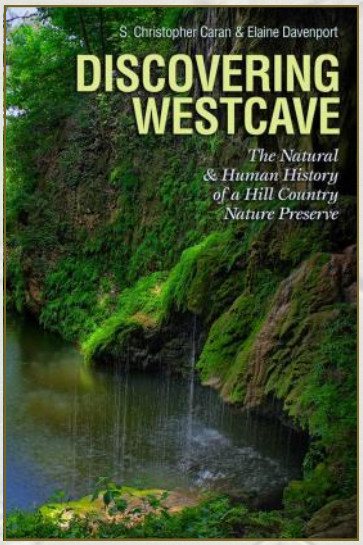

Author Chris Caran is a long time Austin geologist. Currently, he is working for the Texas Water Development Board. He is also co-author of the 1994 book, "Birds & Other Wildlife of South Central Texas." Chris and I grew up together in San Antonio. He was the first youth head of the Junior Membership Program at the Witte Museum. I took over the program from him in the '60s.

Author Elaine Davenport is a writer and member of the Capital Area Master Naturalists in Austin. Full disclosure insists that I tell you Elaine interviewed me for the book. I told the story of my first trip to Westcave before it was a preserve and I was trespassing on privately owned property back in the early '70s. My little story in the book is on the same page as a picture of well known Austin musician Marcia Ball when she first visited Westcave. Marcia is one of my favorites so I feel I'm in great company.

Read on and enjoy!

Butterfly Bounty of Thanksgiving Week at McKinney Roughs Nature Park

by Nicholas Cowey

During the month of November there were unusually high numbers of butterflies in the park. Some species like the Common Mestra that are usually seen in smaller numbers, were seen by the thousands along Riverside and Ridge trails in the open meadows. These were the meadows that were burned in the 2008 wildfire and recently cleared, by our Conservation Team, in our brush reduction plan.

In the month of November, the least likely month for seeing butterflies, we saw almost half (45%) of all the known species that have ever occurred in Bastrop County. Eleven of these sightings were the first time that these species had been observed in Bastrop County.

Butterflies by the numbers:

842—# species in U.S.

476—# species in Texas

113—# species in Bastrop County

51—# species at McKinney Roughs during the month of November

40—# species that were seen at McKinney Roughs in one week, starting with Thanksgiving Day

28—# of 1st photo-documented observations added to the County records on the BAMONA site, which is the national inventory of butterfly and moth species

10—# of new butterfly species recorded for Bastrop County

8—# of new moth species recorded for Bastrop County

Many people have asked what might be the cause of this natural phenomenon. Butterfly populations have natural cycles of "boom & bust" that are mostly dependent on rainfall and vegetation growth. After an extended drought is broken by more than normal amounts of rainfall, like this spring and early summer, butterfly populations soar. In addition, warmer temperatures extended further into November this year, causing butterflies to forage for nectar further north than usual. We had quite a few species from Mexico and the Tropics.

The species that were new records for Bastrop County are listed below.

Silver-banded Hairstreak (*Chlorostrymon simaethis*)

Mallow-scrub Hairstreak

Tropical Buckeye

Desert Checkered Skipper

Sickle-winged Skipper

Laviana White Skipper

Mimosa Yellow

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Butterfly Bounty, cont.

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Rounded Metalmark

Texan Crescent

Ceraunus Blue

Well known author and nature photographer, Greg Lasley, came to the park to see the butterflies and to photograph the most northward occurrence of Silver-banded Hairstreaks. Lasley said, "This butterfly is considered a good find from the tropics in the Lower Rio Grande Valley, but this far north is extremely rare." He got some great photos of the Hairstreak, which is bright green with silver metallic bands.

Another good find in the park was the Orange Sulphur. They are like the "canaries in the mine." A decline in this species in often associated with habitat loss and degradation, so an influx of Orange Sulphurs indicates improved habitat and range conditions.

This affirms what we have already seen in our prairie restoration areas, which include observations of Bobwhite and Wild Turkeys.

The ecology of McKinney Roughs is truly unique among the LCRA Parks and is always turning up new surprises. The butterflies may be reaching the end of their stronghold as winter cold fronts arrive. Many are heading back south; others will try to tough it out and die off when hard freezes hit Central Texas.

Newsletter Deadline

Submission deadline for the next issue is February 17, 2017. We welcome relevant contributions, photos, announcements, or other material relating to the mission of the Texas Master Naturalist program, particularly those pertaining to our local area. Submissions may be edited for clarity, grammar, spelling, and space requirements. Please send information to the editor at Roxanne.M.Hernandez@gmail.com.

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Bigger in Texas, cont.

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First, they are slow to mature; they usually don't spawn until they are about 10 years old. Also, these fish need flooded woods and fields to spawn. Flood-control measures such as dams and dikes have dramatically altered their riverine ecosystems and largely eliminated their preferred spawning habitats across North America. Bottom line: if no flood events, no new gar. Add in overfishing and it's easy to understand why the longevity of this fish is important to its survival. It also means that populations could take decades to recover from effects of overfishing.

Dave Buckmeier, research biologist for the Heart of the Hills Fisheries Science Center, says "Reproduction in large water systems can be tied to 'flood pulses.'" He said 2015 may be the first year since 2007 to see a boost in the gar population. In east Texas, Dawson Hefner, an experienced fishing guide, when speaking about the floods of 2015 said, "When the waters receded, I saw baby gar by the hundreds. "The future gar population will be in great shape because of the floods."

Large alligator gars appear sluggish, but don't be fooled.

They are voracious ambush predators. Often they will lay still in the water like an old decommissioned warship adrift on a dark river until an unsuspecting fish swims by . . . and WHAM! It lunges forward, lashing its great head from side to side—fish taco for lunch.

The main diet of alligator gar is other fish but they can also prey on waterfowl and other birds, small mammals, turtles and carrion. Large alligator gars have been reported to attack duck decoys and gobble up injured waterfowl shot by hunters . . . probably wouldn't do a retriever much good either. After attaining about 3 feet in length, the only real predators of gator gar are man and the American alligator.

For a creature already steeped in mystery and curiosity, the animal certainly has some weird habits.

First, alligator gar (along with other gar species) are frequently observed surfacing for air. Some say this is a form of obligate breathing to supplement low dissolved oxygen conditions; others assign multiple purposes for the behavior. Alligator gar are commonly heard and seen blowing bubbles and making gulping sounds together—another little conundrum. Group communication, territorial posturing, gestalt therapy? The fact is, we don't really know.

Apparently, gator gars are pretty lazy homebodies.

Recently on the lower Trinity River, the 112-mile stretch between the Lake Livingston dam and Trinity Bay, researchers tagged 51 fish with ultrasonic transmitters and used telemetry to follow them for 22 months. They made note of when the fish hung in deep water, when they moved into shallows and how far they travelled during the study period. Most appeared to have home ranges of less than 40 miles. Scientists think the river may contain distinct groups of gar that don't mix much—sorta like our political parties.

What was that noise? See the swirling bubbles? The next time you float the Colorado, know that you are not alone. Especially respect the deep waters. Nobody wants a close call like the Browns had. It was Carol Brown's curiosity that caused her to suggest this article . . . so Carol, this Bud's for you; thanks for sharing the experience. Texas clichés are cheap and plentiful, but this one seems to ring true: Everything's bigger in Texas!

Bill's Snippets

SANTA CRUZ ISLAND INVASIVES

Invasive species have always been a problem on the Galapagos Islands. The Giant African Land Snails (GALS) invaded Santa Cruz Island in 2010. Two Dogs for Conservation have been trained to detect the snails and help their human trainers remove them. One of these dogs came from Travis County.

LIGHT OPTICS

Plant stems send light to their roots, helping them grow, according to a study published in Science Signaling. The light, which moves through the stem as if through a fiber optic cable, spurs production of the protein HY5, which boosts root health.

MAYBE I'LL VACCUUM TODAY...

Researchers sampling the dust in 730 houses found a wide diversity of indoor arthropods, a group of animals with exoskeletons that includes insects and spiders. Although 72 percent of homes in the study had fewer than five genera, some had as many as 40. Three factors that were linked with more diversity included living in a rural area, having a basement, or owning a cat or a dog. "We're seeing food webs play out within our own homes," Madden said. "We're seeing predator, prey, parasitoids, all within these dust samples."

HERE KITTY, KITTY

One of the largest Sabor-toothed Cat yet to be found has been found in the 8.3 million year old rocks of the Longjiagou Basin in China. Named *Machairodus horribilis*, its body mass was estimated to be over 892 pounds!

DID YOU KNOW?

A.M. in Latin stands for “ante meridiem” or “before noon”. P.M. means “post meridiem” or “after noon”.

AMETHYST-THROATED HUMMINGBIRD SIGHTING

The West Texas Hummingbird Cam has captured a historic visitor: the first-ever Amethyst-throated Hummingbird reported in the United States! This species is native to Mexico, Guatemala, El Salvador, and Honduras. The bird was seen twice on the cam and then disappeared. But you can still share the excitement by watching video captured during the bird's stopover. Notably, there is another, unaccepted, record of what was presumed by some to be this species from San Benito, Texas, in July, 2006. Photos of that bird are inconclusive. (Image credit, Knut Eisermann)

THAT'S SOME WATERSHED

The Mississippi River watershed covers 1.2 million square miles or about the size of two Alaskas.

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Snippets, cont.

(Continued from page 11)

WISH I HAD SOME OPPOSUM GENES

"Scientists have known since the 1940s that Virginia opossums (*Didelphis virginiana*) possessed some level of immunity to snake venom. Other mammals, such as ground squirrels and honey badgers, also have natural immunity to venom."

WELL, NOT EVERYTHING IS BIGGER IN TEXAS...

Palo Duro Canyon in North Texas is the second largest canyon in the United States. The canyon is 120 miles long, 20 miles wide, and in places 800 feet deep. The state park's 28,000 acres takes up a mere fraction of the canyon. Palo Duro is Spanish for "hard wood," referring to the Rocky Mountain Junipers found there (Texas Parks & Wildlife magazine, Dec. 2016, pgs. 28-31).

HOW BIRDS MIGRATE

Scientists have often wondered whether birds learned their migration routs from others in the flock or if it is encoded in their genes. Two subgroups of Swainson's Thrush have given us a clue. One subgroup hugs the west coast when traveling from Western Canada to Mexico. The other subgroup flies through Alabama on its way to Mexico. These two subgroups occasionally interbreed. These hybrid offspring travel a route between the other two group's routs (Smithsonian, Oct. 2016, pg. 14).

ART FROM A SURPISING PLACE

Just something cool to check out… Caddisflies make stunningly lovely jewelry, according to French artist Hubert Duprat. According to Duprat, he "collaborated" with caddis larvae by gently placing them in an environment full of gold, pearls and semi-precious stones. Without other material available, the flies spin these materials into their casings to produce breathtaking jewelencrusted covers.

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