



Naturalist Notes

President's Note

Gulf Coast Members,

It was great to see so many of you at the September chapter meeting. We had a great turnout and a great speaker. We are still meeting at the Houston Arboretum! We are working around the construction and they are making room for us.

For those of you who have not yet heard, I am stepping down as Gulf Coast Chapter President, effective immediately. Our amazing Vice President, Rebecca Lloyd, will assume the position of President and will finish out my term through 2020. I have enjoyed the last 2.5 years as President, but for personal reasons, I am unable to finish out my second term.

You will still see me around. I will remain on the board as Immediate Past President, and I will still be active leading the Speakers Bureau Committee and helping with the Training Committee.

Rebecca and I worked well together as President and Vice President. We will continue to work well together as President and Past President and I look forward to this new role.

Please congratulate Rebecca and welcome her to her new role when you see her. I know she will be an outstanding President, and have every confidence that our board and our chapter will continue to move forward as we volunteer together.

I hope to see you soon,
Julia Trimble , Immediate Past President
Gulf Coast Chapter
julia.trimble@txgcmn.org



Upcoming Outreach Events

- **Baytown Nurture Nature Festival Saturday, October 12, 2019, 10 AM to 4 PM** at Baytown Nurture Center 6213 Bayway Dr., Baytown, TX 77520 (Rebecca LLOYD)
- **Nature Fest event at Seabourne Creek Nature Park Saturday, November 2, 10 AM - 4 PM** at Seabourne Creek Nature Park, 3831 TX-36, Rosenberg, TX 77471 (TJ Butler, Bob Romero)

President's Note

Hello Gulf Coast Chapter members,
Our last chapter meeting was fantastic. We had a great speaker with a timely topic and a huge turnout as a result. Thank you to all of you that braved the construction both on the highway and at the Arboretum.

As Julia just mentioned, we are shifting our leadership a little. When Julia first approached me about this I was understandably apprehensive, not because I didn't want to serve out her term, but because Julia has left such a mark on the position. She's led our chapter with such strength and clarity, not only as president but in many other roles within the chapter. My only hope is that I can continue to be the leader the chapter needs.

It has been a pleasure to work with Julia these past 2.5 years. She made me a better Vice President. I have always looked up to her and respected her natural ability to lead. We've overcome challenges together and celebrated milestones and I wouldn't change any of it. I would like to thank her for ALL of her service to this chapter and I hope you all do as well!! We would not be where we are today without her guidance.

I am so very happy that she will continue to serve as the Past President as I will continue to look to her as I navigate this new role. I will also look for feedback from all of you. Do not hesitate to let me know what I can do to better our chapter and continue doing the wonderful things Julia set into motion. Together let's continue strengthening our chapter and look forward to another 20 years of volunteer service.

Cheers,
Rebecca Lloyd, President
Gulf Coast Chapter



Bird Trivia, in honor of Houston Audubon's 50th Anniversary

- 1) Who was the first person to band birds in North America?
- 2) What is a group of ravens called?
- 3) Which act protects birds as well as bird parts?
- 4) The part of a feather that connects the feather to the skin is called _____.
- 5) A bald eagle's call is surprisingly weak. Which bird's call is used in movies instead?


Organism of the Month
Loggerhead Shrike (*Lanius ludovicianus*)

Inexperienced birders may confuse the loggerhead shrike with the more common mockingbird. However, the shrike is more compact, has a more robust beak, and a dark eye stripe, making the bird look like it's wearing a mask.

Their preferred habitat is open country with short vegetation and well-spaced shrubs or small trees. Loggerhead shrikes require lookout posts such as wires, fences, trees, or shrubs. Loggerhead shrikes are carnivores, consuming primarily insects, but also larger prey such as rodents, bats, and small birds. While their talons are small and weak, they can kill prey larger than themselves by spearing the head or neck of the animal and twisting. Prey may be impaled on barbed wire fences or small branches to facilitate killing and eating.

Loggerhead shrike populations have declined steeply throughout most of their range. The reasons for the decline are unclear, lack of prey due to pesticide use, human disturbance, habitat loss, and climate change, have been suggested. Populations in our area are a combination of resident, breeding pairs, and migrants coming from the north to spend the winter.



Loggerhead Shrike at Willow Waterhole 2015
credit Irmi Willcockson

The Gulf Coast Bird Observatory is initiating a study examining how resident and migrant shrikes interact and how they use urban and suburban habitats. In the spring, the study will include banding birds, determining whether they are resident or migrant, and following their habitat use and productivity.

Sources: Gulf Coast Bird Observatory, allaboutbirds.org, audobon.org



“I often think the woods the only place in which I truly *live*.”

John James Audubon

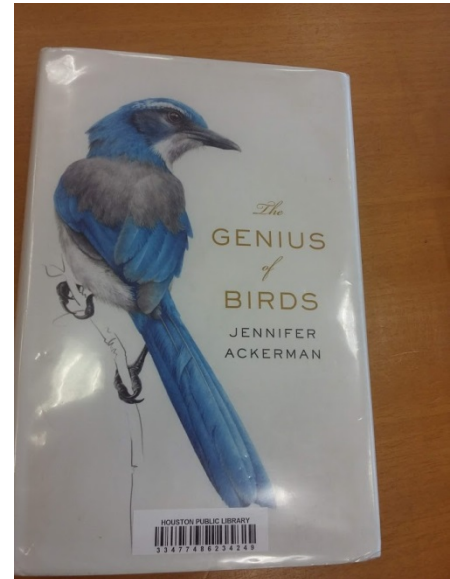
Book Review

The Genius of Birds

Jennifer Ackerman, 2016, Penguin Press

Amazon and Houston Public Library

“The expression ‘bird brain’ for a stupid, foolish, or scatterbrained person, entered the English language in the early 1920’s because people thought of birds as mere flying, pecking automatons, with brains so small they had no capacity for thought at all.” (Introduction) In the eight chapters that follow, the author examines bird intelligence along multiple lines, from anatomy and technical prowess to social intelligence, song complexity and flexibility to the ability to adapt to novel environments and circumstances.



For example, on Barbados, two closely related species, bullfinches (*Loxigilla barbadensis*) and black-faced grassquits (*Tiaris bicolor*), occur. Bullfinches are eager to try new food sources, quickly exploiting the restaurants. Grassquits, on the other hand, don’t. When a researcher throws out a handful of bird seed, grackles are the first to notice. Doves arrive, more grackles, and bullfinches. The grassquits, meanwhile, continue to feed some distance away, apparently completely oblivious to the commotion. Bullfinches have larger, more flexible brains.

Opportunistic feeding can get you in trouble, however. Dark chocolate, stingrays, and other novel foods have proven fatal to birds. It appears that some species can switch over time, from first trying everything in a new habitat to generations later being less adventurous.

The writing style is straightforward, but engaging. What I found most valuable was the compilation and interpretation of information from many different sources, and from all over the globe. A fascinating read for anyone interested in birds!



Answers to bird trivia: 1) John James Audubon 2) Unkindness or conspiracy 3) Migratory bird treaty act of 1918 4) Quill or calamus 5) Ted-tailed hawk

The jigsaw puzzle problem

Over the past year and a half writing this blog, I have become aware of what I've taken to calling the jigsaw puzzle problem. Until I began looking at plants and animals in detail, I didn't realize how interdependent the whole enterprise of life is.

Monarch butterflies are a familiar example. Monarchs have to lay their eggs on milkweed plants because their caterpillars cannot eat any other plant. Put them on a lovely petunia and they will starve. This state of affairs is not atypical in the butterfly world. Most butterfly caterpillars can eat the leaves of only a select group of plants and the job of the female butterfly is to find those plants and lay her eggs there and only there.

This seems unnecessarily complicated. If I were designing the world from scratch, I might simplify things and make all plants edible by caterpillars. Except then, there might get to be so many caterpillars that they ate all the plants. This world could collapse from no food for anyone.

The way we got to our current selective eating situation is that plants and insects have been locked in a love hate relationship for as long as there have been insects and plants. Plants need insects to reproduce, so they need to draw them in. However, insects eat plants. Plants do not like this. Over eons some plant mutated and produced a chemical that killed caterpillars. That plant was no longer eaten and spread far and wide. But eventually, a caterpillar mutated in a way that allowed it to eat the formerly poisonous plant. That caterpillar then had access to an abundant food source that was his alone...until one of those plants mutated and started killing that caterpillar.

This dynamic has played out over and over on every living thing throughout the history of life on earth until we have an entire planet where every single living creature became who it is by bumping up against every other creature looking for a comfy spot to prosper.

This is basic biology. But I didn't understand how deeply woven into life all this was until someone pointed me at a book *Napoleon's Buttons: How 17 Molecules Changed History*. The book looks at history through the lens of 17 molecules. As a naturalist (and an amateur one at that), I tend to look at the world as an interconnected network of plants, animals and the structures that support them. This book looks at a tiny part of all that — a molecule — and it made me realize that the jigsaw puzzle problem is bigger than I realized.

For example, one of the molecules the book covers is glucose. We like it. I dare say that almost every creature on earth likes glucose. It forms the basis for much of what nourishes the world. It is bioadaptive to like sugar because when you seek it out, you are seeking out nourishing food. Forget for a moment that we now manufacture sugars and stuff everything with them and this is not good. I'm thinking of sugars naturally produced by plants. Think of bees sipping nectar or bears eating honey or me with a tree full of peaches.

The reason we crave sugar is very physical. We have chemical receptors on our tongues that exactly fit the glucose molecule. When that molecule fills the receptor on our tongue, it completes a circuit and a signal is sent to the brain that this is sweet and the brain makes sure we want to eat as much of that as we can. This was highly adaptive when we were wandering around, naked, trying to find food.

It's also highly adaptive for the plants that produce the sugars we crave. For the most part, the sweets are concentrated in fruits which, from the plant's point of view are seeds. The sugar prompts you to take the ripe seed (because they are only sweet when they are mature) and, once you have enjoyed the sweet part, toss the seed somewhere far away from the tree that produced it. Now, you have spread that tree's genes far and wide.

Sweet is good, sweet is nourishing, sweet is tasty. Sweet is a promise that this food is good to eat. It is a pretty reliable principle because we all evolved together, plants trying to get their seeds spread and animals craving the sugar those seeds come packed in. There's no evolutionary advantage in making sugar that harms because the plant that did so would be harming the very creatures the plant needs to reproduce.

Antifreeze will kill you.

It isn't made by a plant, it is ethylene glycol and it is made in a factory. It isn't food, it's poison. But it happens that the molecule ethylene glycol is exactly the same shape as glucose, so when an ethylene glycol molecule hits your tongue your brain says "sweet, more" and then you die. Except we are smarter than that. Dogs however are notorious for not reading labels and are therefore frequently poisoned by antifreeze.

This is how the jigsaw puzzle works. Sweet things are good to eat and we find them because our tongues and brains are specially adapted to locate and eat sugar. There is nothing that requires sweet things to be nourishing (for instance that antifreeze). It's just that here on earth, we have evolved to crave sugar and that craving is used by plants for reproduction and that's the way it is. The reason I think of this as the jigsaw puzzle *problem* is that there are so many of us that we are screwing with the jigsaw puzzle. Pieces are missing or no longer fit. My recent [insect rant](#) discusses this in some detail.

If you imagine that we will one day leave earth and roam the galaxy landing on inviting planet after inviting planet, don't. Those planets will not be inviting. Inviting is when everything has evolved over eons to all survive together. The great likelihood is that life there evolved completely differently and by this time, nothing there would be life sustaining for us.

So perhaps we bring a tender assortment of seeds and baby trees and set about making things we can eat. Nope. Those things won't grow without the help of an incredibly complex web of fungi and bacteria specifically evolved to nourish and be nourished by plant roots.

In other words. It won't work. None of it. Fortunately, this is also true in reverse, so hooray! Likelihood of alien invasion quite low.

This complicated place is our one and only planet. Just thought I might mention that on another day when it is too hot for me to spend hours outside in the Park.

Alisa Kline

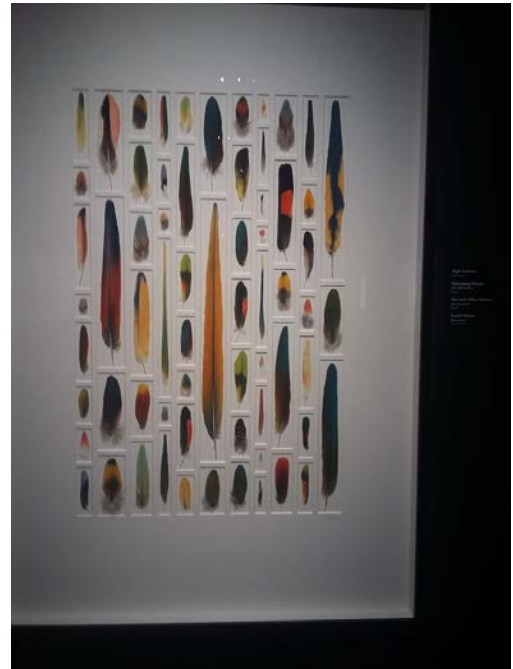
<https://buffalobayou.org/blog/the-jigsaw-puzzle-problem/>

Biophilia

Biophilia is a condition that, to one degree or another, affects all of humanity. It is not a disease (though if it were, I'd have a raging case of it) but an instinctive sense of kinship with the rest of the living, breathing world; it is, literally translated, "love of life".

Whether or not we consider ourselves nature enthusiasts, Biophilia affects us all. We are an inextricable part of the natural world. Instinctively, we are inclined to care for it, to understand it, and to be good stewards of it. We are no more predisposed to be disdainful of nature or to wish it harm than we are to disdain ourselves or to do ourselves harm.

Christopher Marley, Artist and Naturalist
www.christophermarley.com



Flight Feathers
credit Irmi Willcockson

Note: Christopher Marley uses only reclaimed vertebrates in his art. Animals that die naturally in zoos, breeding facilities, or museums are sent to him to use in his artwork.



Harris County Precinct 4
Commissioner R. Jack Cagle

<https://www.hcp4.net/tap/>

The Trails as Parks Division is a mobile team that strives to connect people to nature through outdoor recreation, ecotourism, and environmental education throughout Harris County. Check out events at the link. I've enjoyed canoeing Cypress creek with guides and equipment provided FREE.