



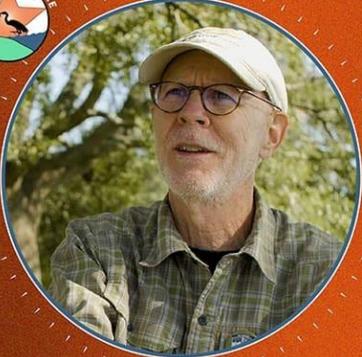
Naturalist Notes

My Leaf

Green
 Symmetrical
 Very brittle
 Two small holes
 A dry scablike patch
 I feel its rough texture
 The veins start at a single point
 I love the sound – a rustly sound.
 Smells fresh- like a garden after rain
 Harder, but also easier than I thought it would be.
 I examine the leaf much closer and look for more details.
 Why did I hate to crush my leaf? Why did I care?
 The leaf stem has very fine hairs
 The stem is round
 Breaking
 The
 stem
 releases
 a
 much
 stronger
 smell

Found Word Poem from “Try Out Nature
 Journaling” Presentation, Irmi
 Willcockson





Episode 8:
Exploration Green
 – It's How You
 Build Beauty,
 Nature and
 Flood Control,
 With Jerry Hamby
houstonnature.com/8

Sky of the Month

Legend has it that Frigga, the Norse goddess of the atmosphere, spins cirrus clouds on a jeweled spinning wheel in the hall of mists in her home.

Cirrus clouds are the highest of the common clouds, usually above 24,000 ft in temperate regions. They are also the fastest moving. Because they are so high in the atmosphere, cirrus clouds appear stationary. These clouds are composed entirely of ice crystals. No precipitation reaches the ground from cirrus clouds, and they usually don't affect the brightness of the day.

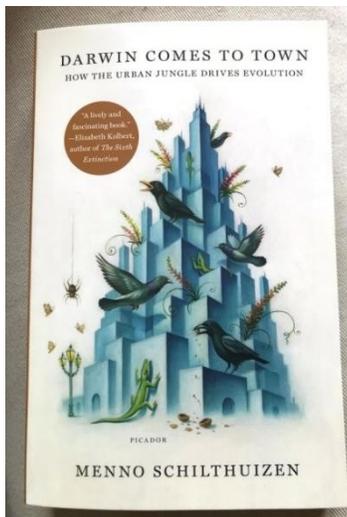
Cirrus clouds can look like fish vertebrae, lines with hooks, or even small clumps with crenellated tops. The picture shows what looks like twisted clouds, named intortus. It was taken November 2nd, 2019.



International Bat Week Oct 24-31

In honor of bat week, here are 10 interesting facts about the bats living in the Houston area:

- Rafinesque's Big-Eared bats can hunt by gleaning, finding insects in shrubs or on cave walls.
- Southern Yellow bats roost primarily under dead palm fronds.
- The tail membrane of most bats extends to the tip of the tail.
- The hoary bat is the most widespread bat species, from Argentina and Chile to Canada.
- White nose syndrome affects bats that hibernate.
- All bats in the Houston area are insectivorous.
- Seminole bats roost in Spanish moss, individually or a female with young.
- Mexican free-tailed bats fly at altitudes of 1,000-10,000 feet to catch migrating moths.
- Most bat species have only one pup per year.
- Little brown myotis bats frequently roost in buildings, attics, and other man-made structures.



Book Review

Darwin Comes To Town - How the urban jungle drives evolution

Menno Schilthuizen, 2018. Picador. Amazon and Houston Public Library

“While we all have been focusing on the vanishing quantity of unspoiled nature, urban ecosystems have been evolving behind our backs, right in the cities that we have been turning up our naturalist noses at. While we have been trying to save the world’s crumbling pre-urban ecosystem, we have been ignoring the fact that nature has already been putting up the scaffolds to build novel, urban ecosystems of the future.” (City Portal)

So begins a fascinating journey through urban ecosystems all over the world. Menno Schilthuizen reminds us that evolution happens when there are novel niches to be filled. He introduces HIREC (human induced rapid evolutionary change), showing through multiple examples that evolution in cities is both real and rapid. For example, mosquitoes in the London underground differ genetically and behaviorally from mosquitos living above ground. Furthermore, mosquitoes from one tunnel of the underground differ from those in another tunnel! Clearly this evolution must have happened since the underground (as well as cellars and basements) were developed.

But cities are not only full of new niches, but also pollutants such as heavy metals. Feather color, like skin color, is partly determined by the pigment melanin. Melanin binds heavy metals such as zinc. The feral pigeons (*Columba livia*) living in cities have evolved to produce more melanin, which allows them to store more zinc in their feathers. So, on average, pigeons living in cities are becoming darker.

In the second to last chapter, Design With Darwin, Schilthuizen goes into ways cities can be designed to support evolution. While he values natural areas with native flora and fauna, he also suggests allowing space for introduced plants and animals. He makes a case for more citizen scientists to participate in studying urban wildlife and its evolution.

I highly recommend this book as a different look at the ecosystem many of us call home!



Houston Climate Action Plan

On the 50th Anniversary of Earth Day, April 22nd 2020, Houston adopted a Climate Action Plan. The Focus Areas & Goals are listed on the following page.

FOCUS AREAS & GOALS

The Climate Action Plan consists of 4 FOCUS AREAS, with 3 GOALS each

TRANSPORTATION



Goal 1: Shift regional fleet to electric and low-emission vehicles.



Goal 2: Reduce vehicle miles traveled (VMT) per capita.



Goal 3: Provide equitable and safe mobility choices.

ENERGY TRANSITION



Goal 1: Grow Houston's investment in renewable and resilient energy.



Goal 2: Make Houston the leader in carbon capture technology and energy innovation.



Goal 3: Restore, protect, and enhance Houston's natural ability to capture and store carbon.

BUILDING OPTIMIZATION



Goal 1: Reduce building energy use and maximize savings.



Goal 2: Expand investment in energy efficiency.



Goal 3: Invest in skilled local jobs to optimize building operations.

MATERIALS MANAGEMENT



Goal 1: Reduce waste and transform the circular economy.



Goal 2: Optimize waste operations and create power from waste.



Goal 3: Ensure safe and cost-effective long-term disposal capacity.

Annual Meeting Recap

The first virtual statewide annual meeting had record attendance, with the same number of sessions as the in-person meetings. Every official chapter was represented. Here are some take-aways by our members:

Favorite lecture: Doug Talamy's Nature's Best Hope - Restoring Nature's Relationships. It re-energized me to stay on track with my little urban pollinator gardens and reminded me they are worthwhile. Favorite speaker? Sam from TPWD talking about moths..... his enthusiasm was contagious! I enjoyed the whole conference and all the lectures. It was a lot of fun even without the social gatherings.

Julia Trimble

This year, 2020, has been extraordinary in so many ways, and the herculean efforts and resulting excellent virtual TXMN Conference are an uplifting example!

I prefer to focus on the virtual conference format advantages / positives, and would hope that future conferences offer some elements of the same, regardless of the environment at the time:

- Larger than prior membership attendance,
- Representation from all the Texas chapters,
- High quality speakers from across the country,
- The ability to switch sessions, if one inadvertently signed up for the “wrong” one,
- The ability to revisit the recorded sessions after the conference – including those you were not signed up for.

I thoroughly enjoyed the conference content, and applaud those that enabled a seamless, professional virtual event.

Julie d’Ablaing

- Jaime González:
 - "Before there was oil, there was soil." (in regard to the Houston region)
 - "Nature is not a luxury. It is a necessity. It is an equity issue."
 - "Every child should have access to awe."
- Sam Kieschnick on Moths:
 - "If you want birds, you need moths."
 - "Moth diversity correlates with biodiversity."

- "Doc" McAlister in the *Doc and Martha* documentary:
 - "Pretty quickly you will learn that nature is where you are. All you have to do is look out and take advantage of it. It's a matter of awakening a comprehension of what's around you in the outdoors.... "
 - "So when you look at the [black] mangroves, think about them as something that's got something going for it [the root system in the case of the mangroves]. And any bird, any mammal, any reptile, and any plants you see, you can ask the same questions about it and learn its ecology. And you don't have to go to Africa. You can do it right here...."
 - "Awaken a sense that you don't have to go to Africa or South America or anywhere else. Just go right outside and start looking at what's around you. And pretty quick you'll learn that nature is where you are. All you have to do is look out and take advantage of it. It's a matter of awakening a comprehension of what's around you and the outdoors and the notion that it's fragile yet worth saving. Make those points continually while you're out with a group. And it begins to sink in."
 - "It's real hard to do nothin'. You know you feel like you gotta get out and chop something down or do something each day. And it's hard to leave it alone and walk around it and leave it the way it was when you came."
 - "We don't push. We don't shove. We just...."
- Merlin Tuttle on bats:
 - "The real problem for bats is that we fear them so much."
 - "Win friends, not battles. It's important that we respect people's fears. Ask them why they think the way they do."
- Ricky Linx on pollinators and native plants:
 - "The real managers of wildlife habitat are pollinators. It takes pollinators to manage the plants."
- Travis Longcore on ecologically sensitive lighting:
 - "Our diurnal bias has allowed us to ignore the obvious."
 - "Light is carving up our landscape into smaller bits ."
 - "Light makes a difference to conservation."
- Douglas Tallamy:
 - "Nature is a series of specialized relationships."
 - "The oldest task in human history is to live on a piece of land without spoiling it."
 - "Living with nature is the only viable option left to us."
 - On restoring nature: "To reestablish the relationships in nature, start with rebuilding food webs."
 - "Light pollution is one of the major causes of insect decline."
 - "Every square inch has ecological significance."
 - "Save biodiversity where you live."

Bob Romero

 **Organism of the Month**
Blue Mistflower (*Conoclinium coelestinum*)

Mistflowers (*Conoclinium coelestinum*) are in Aster family of plants. Blue mistflowers grow up to 3 feet high, but often lower, with leaves opposite, somewhat triangular in shape, and bluntly toothed. At the top of the plant the branches, with their short-stemmed clusters of flowers, form an almost flat top. Disk flowers are bright blue or violet, about 1/4 inch long. There are no ray flowers. Blue Mistflower attracts bees and butterflies. Blue mistflower is good as a border plant or as a colonizing groundcover. The fluffy-edged flowers are a magnet for late-season butterflies. However, this wildflower spreads quickly and can become a pest. They bloom in late summer and fall which can add some color to your garden during this time.



credit Adrian Medellin

I personally have seen them available at native plant sales as well. It does well with medium water, part shade sun, and moist loam, sand, or clay soil. Also, in addition to attracting native bees, it provides biological control by attracting predatory or parasitoid insects that prey upon pests insects

Source: Wildflowers.org



Best little carpenter-bee ranch in Texas

In my Texas fantasy, I own a small ranch in the Hill Country where I raise longhorns. In my Texas reality, I own a small private nature preserve just north of the Park and I raise carpenter bees. I did not set out to raise carpenter bees, but my haphazard land stewardship could stand as a guide to the care and feeding of the carpenter bee. The component the amateur carpenter bee rancher always neglects is the brush pile. We maintain an unsightly berm of branches, stumps and assorted smaller sticks piled ever higher in a far-off corner of the preserve. It is out back, near the failed experimental prairie.

I believe this berm is key to the preserve's abundant carpenter bee population. It is also home to a whole small scurrying ecosystem. But this is about carpenter bees.

Carpenter bees nest in tunnels they dig in wood. They like softer wood if possible, branches or stumps that have started to break down. They got their name from their propensity for woodworking. They also have really strong jaws that let them bore holes in wood. These jaws are also used to slit holes in flowers too narrow for the big bees to get into. They just cut their way in and drink as they like. These holes are used by other bees who want a quick nectar pick me up without all the work. (More on nectar robbing in another post.)

The tunnel nests carpenter bees create are divided into apartments. In New York, where I grew up, we referred to this living arrangement as a railroad flat. It is a row of rooms connected one to the next, like a train. Each egg gets its own room where it can hatch and then snack on that loaf of bee bread (a combination of nectar, pollen and saliva that mom prepares and carefully places next to each egg). The new carpenter bee will stay in its apartment as it grows and transforms through its larval stages into the fuzzy pollinator we all know and love.

Sometimes people try to mimic these nests with store-bought tube bundles. I imagine that people have some success with this and they do look neater, but I'm pretty sure the bees prefer stumps. They don't need only the hole, they also need the chewed up wood that used to be the hole. When mom digs that tunnel, she mixes the wood she has chewed with her saliva to make a kind of particle board she uses to divide her tunnel into rooms.

With many insects, it isn't easy to tell males from females at a glance. But carpenter bees are one of the species that really flaunt their gender. And, as is so often the case, it's the boys who get to have all the fun. Male carpenter bees have amusing markings on their faces. The females of their species can look almost identical but will lack the facial markings (note those Eastern carpenter bees above). Facial markings are so prevalent in carpenter bees and so absent elsewhere in the bee world that if you see a bee with markings on its face, it is quite likely a carpenter bee.

Allisa Kline

<https://buffalobayou.org/blog/best-little-carpenter-bee-ranch-in-texas/>



Left – male Carpenter bee with square yellow facial marking. Right – female Carpenter bee, no facial marking. Credit Alisa Kline



Front Porch Getaway

Saturday morning. Front Porch Getaway.

Drawing practice, mindful uncluttering



Time

Time to look at the tree, the drawing
Thinking time
Focused time

Time

Return, refreshed, remember: Laundry!

Irmir Willcockson, July 25th, 2020

Live oak, trunk, moss, resurrection fern
Knot in the main trunk and one branch
Bark changes where branches emerge,
Stretch marks, stole