



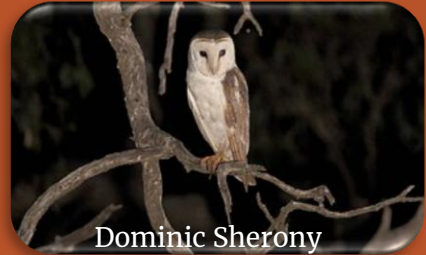
# NATURALIST NOTES

## August 2025



The last **Purple Martin Watch Party** is Saturday, August 23<sup>rd</sup> at 8 pm at the Old Navy Parking lot in Stafford. Address is 12634 Fountain Lake Circle. Please register with Houston Audubon.

Save the Date! Fall Plant Sale at the Natives Nursery at Edith L. Moore on Saturday, October 11<sup>th</sup> from 8 am to 11 am. Park in the church parking lot.



Dominic Sherony

### Why do Barn Owls have White Bellies?

Two possibilities have been proposed – camouflage during the full moon and ‘shock and awe’ immobilizing their vole prey. White bellied owls were more efficient hunters during a full moon, but voles also freeze longer with white bellied owls. Maybe both, depending on moon phase.

Learn about bats both Friday and Saturday evenings at the **Waugh Bridge Bat Colony**. You have one more weekend to learn from knowledgeable guides about the Mexican Free-Tailed Bats living under Waugh Bridge. Bats emerge around sunset, plan to arrive about 30 minutes prior.

## Organism of the Month – Turk’s Cap (*Malvaviscus arboreus* var. *drummondii*)

Red flowers reminiscent of hibiscus on shrubs thriving in the shade. Turk’s Cap gets its common name from its resemblance to a Turkish turban. A spreading shrub often as wide as it is tall, Turk’s Cap prefers at least some shade during the day. To prevent it from getting out of hand, late winter trimming helps.



Image by Lee Page, Lady Bird Johnson Wildflower Center

The flowers never fully open, instead the overlapping petals form a tube with the staminal column protruding from the flower. Dark red edible berries grow in late summer to early fall.

Turk’s Cap is a drought and cold tolerant shrub. During hard freezes it does back to about 5-6 in, then grows to full size during the summer. It is not usually used as a hedge.

Turk’s Cap flowers attract a variety of nectar eaters – hummingbirds, butterflies, moths, bees, and other insects. Large bees cannot fit into the flower to drink the nectar. Instead, they make a small hole in the base of the flower from the outside and drink the nectar. The flowers rely on other insects for pollination. The fruit is eaten by both mammals and birds. Humans can eat the fruit either raw or cooked. The taste is described as similar to apples.

Sources: Lady Bird Johnson Wildflower Center

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I’ve been using Haiku as a daily journal. Here is my July 30<sup>th</sup> poem.

Oak leaf munched by bugs  
unknown. Mauve leaf margin – plum trees  
bearing blushing fruit.

Irmi Willcockson



## Weather – How Clouds Influence Weather

### Clouds

Clouds form when water vapor evaporates and condenses in the atmosphere. Most clouds take one of three shapes – cumulus, cirrus, or stratus. When clouds bring rain, they are often referred to as either cumulonimbus or nimbostratus. Cirrus clouds don't produce rain on their own.

### Clouds in the Daytime

High level, wispy clouds allow sunlight to penetrate but prevent heat from escaping. This warms the air closer to the Earth's surface. Low level, thick clouds reflect a portion of the sunlight and keep the temperature cooler.



### Clouds at Night

At night, the warm air near Earth's surface rises in a process called radiative cooling. When a layer of clouds is present, the rising air is trapped. Air temperature near the surface remains warmer.

### Clouds do more than bring Rain

While most people associate clouds with rain, clouds have more subtle influences on air temperature and therefore weather.

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“The question is not what you look at, but what you see.”

Henry David Thoreau

## The Night Naturalists

### What I've Learned After More Than Two Years of Monthly "Moth Nights" – Part 1



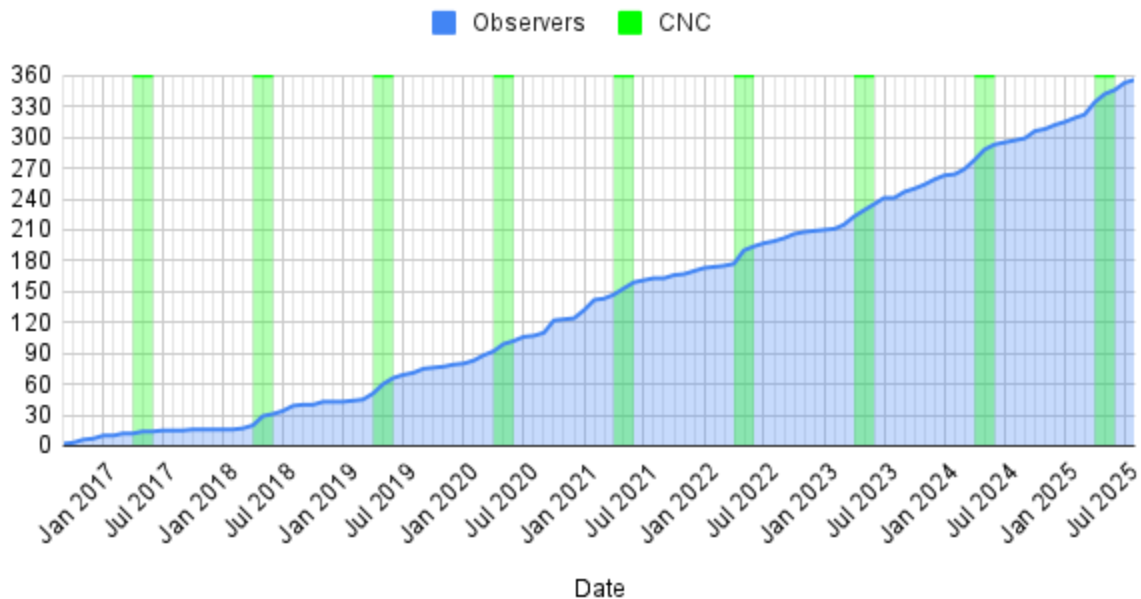
Most summertime sunsets at Exploration Green begin the same way: the walkers, joggers, and cyclists wrap up their exercises, the chimney swifts end their hunt and return to their towers, the whistling ducks' signature calls soften to a croon. While many of the animals settle in their habitats and our fellow humans head indoors for the evening, a few folks are only just arriving at the park. These unusual characters are hauling 55-gallon white plastic barrels in their wagons, carrying bedsheets and shepherds hooks on their shoulders, and their tote bags are stuffed with LED blacklights, power banks, and camera lenses. Many Master Naturalists—especially those who have attended an Annual Conference in recent years—likely know what these strange people are up to.

I recall first hearing about “mothing” or “blacklighting” from an event held at Deer Park Prairie seven or eight years ago. It came as a forward to my Master Naturalist inbox and the premise sounded charmingly niche. Blacklight stations set up late at night for folks to come see the insects of the prairie? Who does that?? Well, apparently I do. I drove the twenty minutes from Clear Lake to Deer Park, expecting little more than a few other curious night owls willing to poke around in the dark for insects. Of course, I should have known not to underestimate Texas Master Naturalists and their idea of a boppin’ Saturday Night out. The turnout was so grand that I could barely get close enough to see around excited photographers as insect after insect landed on the glowing purple sheets mounted around the house which serves as a small nature center for the prairie. While I enjoyed the evening and the chance to spend time engaged in chat with fellow Master Naturalists, I had hoped to find a bit more space to sit and observe the insects at the sheets. Despite that, I left inspired by how creative, yet simple (and even cozy) this event had been. As a fairly new Master Naturalist at the time this was my first glimpse at a subset of the TMN community that I now lovingly call “The Night Naturalists.” It would still be a few more years before I realized my own place in the Night Naturalist community.

Prior to joining the Texas Master Naturalist program in 2016, I was one of the original volunteers when Exploration Green first started organizing in early 2014. For the first few years my volunteer hours were almost entirely spent in the on-site tree nursery where we continually looked after and raised the small, donated trees that would eventually be planted across the entire 200 acres of the property. It was here that I learned about the TMN program from volunteers I met and friends I made who ultimately convinced me to sign up for the training. For years my volunteer work in Exploration Green continued in the tree nursery, then with the tree plantings, and then among the various community engagement events. Thanks to the wonderful tool that is iNaturalist, I was becoming a lot more confident at identification and was even starting to lead interpretive tours around the first of the five wetland phases that exist today. I find this to be the most fulfilling of all the volunteer work I do.

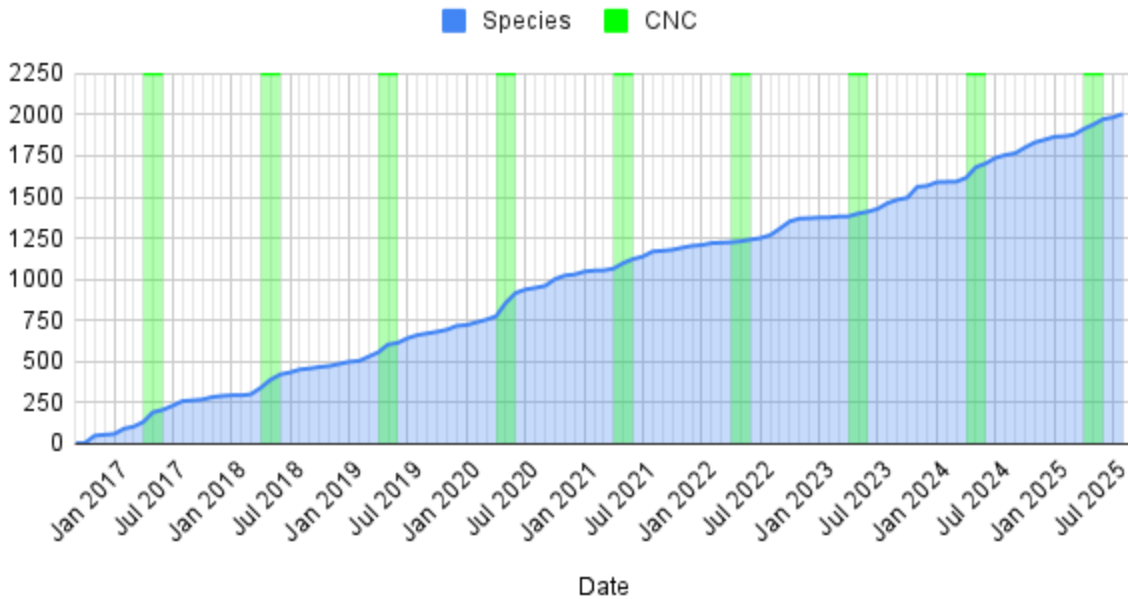
Outside of our time volunteering together, my fellow Exploration Green volunteers: Jerry Hamby, Rich Sommer, and Paige Sommer had also been documenting as many of the plants, animals, and other lifeforms present in the park. We set up a geofence (an invisible, digital, geographic boundary that uses the GPS coordinates to include or exclude data) for the entire Exploration Green acreage on iNaturalist and the four of us together accounted for over two thirds of the nearly 10,000 observations made in the park by the end of 2022. As the app has percolated into the phones of people across every corner of the earth, it’s revealed so much to us about our small, neighborhood park in ways that still surprise me.

## Observers and City Nature Challenge Events



The chart above shows only observers who have made an observation in Exploration Green's geofence. The vertical green bars show the months of April and May, when a worldwide competition called "City Nature Challenge" takes place that asks participants around the globe to observe as much as they can in their city's zone of influence. (Houston has always been a top contender in this competition!) The event brings a host of new observers to the park which can be seen as small leaps in the chart. Of course, the event also causes a surge in new species added to the park's checklist thanks to all the bioblitz events held during that last weekend in April. Those species numbers are seen in the chart below.

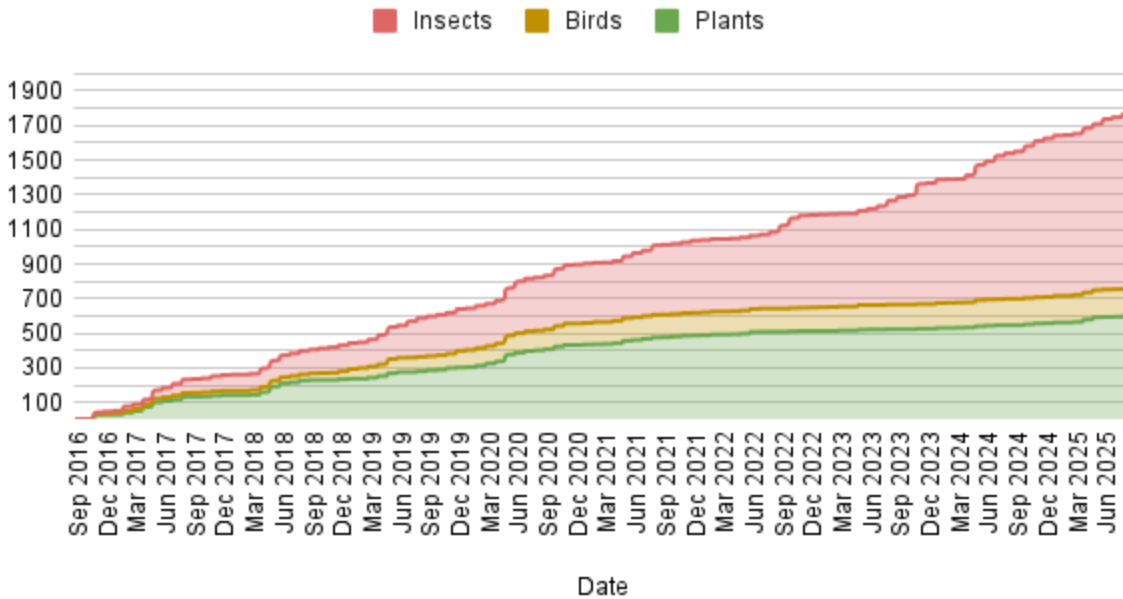
## Species and City Nature Challenge Events



What may not be quite so immediately detectable in these charts is that, as more and more people turn out to identify birds and plants, insects and reptiles, fish and mushrooms, inevitably there's a plateau. While we are certainly missing a number of local species that will surely be caught by an observer one of these days, the remaining pool of birds to sight and plants to identify is beginning to dwindle. In Exploration Green, the list of bird and plant species (two of the taxons that are popular among visitors and capturable with a smart phone camera) is visibly plateauing as seen in the green (bottom color) and yellow (middle color) in the chart below.



## Species Counts for Plants, Birds and Insects



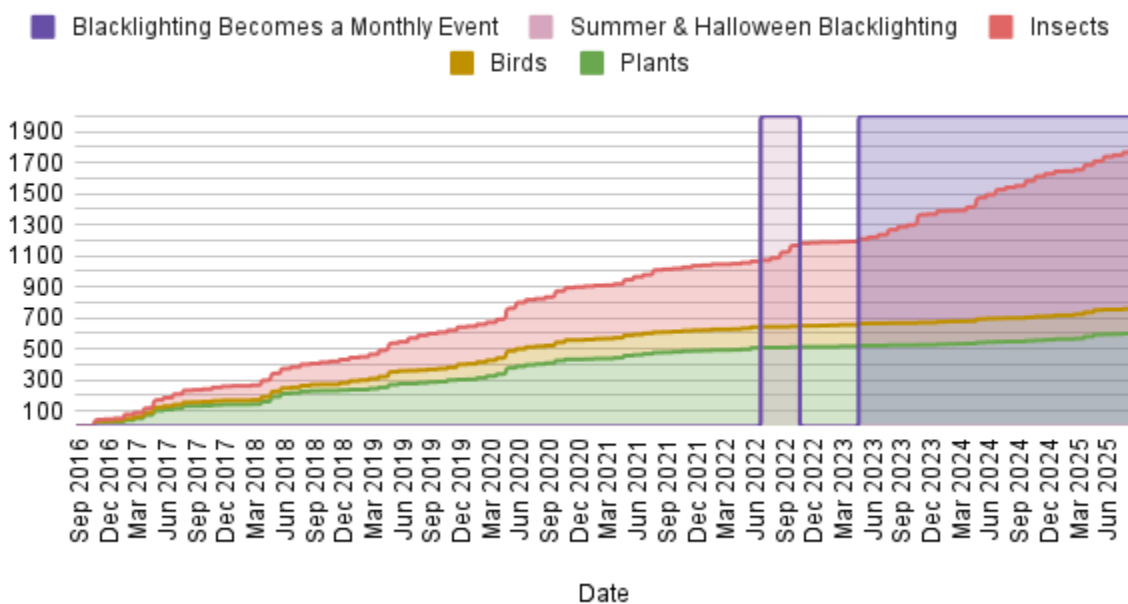
The red (top color) represents Exploration Green’s insect species totals. Our count started to plateau around 2021–2022 along with plants and birds. As you can probably imagine, by that point we’d already seen many of our region’s butterflies, grasshoppers, dragonflies, plant hoppers, and other species that can cross our path on a day of volunteering or a walk around the trails. Then came 2023, and suddenly our plateau shifted back to a steady slope, a slope that is relatively consistent even as I write this in August of 2025.

Over the years I thought a lot about the Moth Night I had attended in Deer Park and the community it brought together that evening. The Exploration Green Conservancy similarly has always been encouraging and supportive of community events including Wetland Walkabouts, Halloween’s Glow the Green, Earth Day, and the Christmas Bird Count. If you asked me how Rich Sommer and I began tossing around the idea of hosting our own Exploration Green Moth Nights, I honestly couldn’t tell you. I just know he and I had both come to the conclusion that we’d have an excellent venue for it and the support of the Exploration Green Conservancy to pull it off. It started as a one-off event, and then a summer months series, and now it occurs at least monthly. Much like the one I attended at Deer Park Prairie, it brings out “The Night Naturalists” and the surrounding community. There are Texas Master Naturalists, kids & their parents, and a few late night walkers who stumbled into us organically on the trails.



We learned the tricks to keeping the sheets stable, keeping the barrels glowing, and spacing things out so as many people as possible can enjoy the event. Beyond the joy of seeing the community (especially the children) learn to appreciate the often-shunned insect life, there's still citizen science happening in the background. The Night Naturalists, ever observant with cameras and smartphones in hand, are always documenting the cast of insect characters that arrive, a cast that can rotate monthly and change in response to each year's climatological differences.

## Species Counts for Plants, Birds and Insects



Taking a second look at that graph, and focusing on the beginning of our regular Moth Night or “Moth Mania” events, it becomes evident that the resistance to the plateau effect among our insect species is correlated with the onset of our moth nights. Not only have these events given us access to observe the nocturnal species in Exploration Green, but the shared knowledge from fellow Night Naturalists has expanded the tools at our disposal. Perhaps the most important tool introduced to me by another TMN is a simple clip on macro lens and selfie ring light combo that can turn any smartphone camera into a powerful tool for capturing the smallest of insects. With this setup (and a good headlamp) I’ve found a few species that have less than 100 or even less than ten observations total on all of iNaturalist for the entire globe.



Exploration Green is a relatively “fresh” natural space that reflects the best of what dedicated volunteers and supportive partners can achieve in the middle of a suburban neighborhood. Even with those limits it faces, Exploration Green’s wildlife diversity continues to surprise me, and I return to co-host “Moth Mania” every month with Rich Sommer and our other Night Naturalist friends because I know this rabbit hole goes deeper. I’ve had the privilege to take our blacklight stations to other settings around the Houston-Galveston region like Long Point Ranch, Brazos Bend State Park, a private acreage in rural Santa Fe, a wetland plant farm in Alvin, and the beaches of Galveston Island. Compared to the species we see in our small, suburban Exploration Green, the diversity at these locations is joyously overwhelming, but observing them all is limited by the accessibility, time, and the amount of battery charge one can muster for a night of photography in the wild.

This leads to perhaps my favorite little brag about our blacklight efforts at Exploration Green: Despite taking up only .0032% of our region's area we over-represent insect observations with more than 1.5% of the insect observations made in our entire nine-counties area. Essentially for every 1,000 insects uploaded to iNaturalist for our region, 15 of them are from Exploration Green.

Insect Observations in the Houston-Galveston Region (as of Aug 15, 2025)				
Location	Area (acres)	Area as a percentage of the Houston-Galveston nine-counties region	Insect Observations	Insect observations as a percentage of the Houston-Galveston nine-counties region total
Exploration Green	200	0.0032%	8,356	1.5017%

Among those many observations, a few species were quite rare!

Research Grade	Species	Observed in EG	Observed in Houston Area	Observed in Texas	Observed in the World
Yes	<i>Euwallacea similis</i>	1	1	2	12
Yea	<i>Amercaenis ridens</i>	1	2	3	3
Yes	<i>Notolomus bicolor</i>	1	2	4	34
Yes	<i>Chrysotus picticornis</i>	1	2	6	22
Yes	<i>Saccharosydne saccharivora</i>	1	2	7	102
Yes	<i>Epuraea luteola</i>	3	4	8	48
Yes	<i>Brachydeutera longipes</i>	1	3	8	29
Yes	<i>Paria fragariae</i>	2	2	10	121
Yes	<i>Suphisellus bicolor</i>	1	6	11	15
Yes	<i>Epuraea ocularis</i>	1	4	11	382
Yes	<i>Lissorhoptrus oryzophilus</i>	1	6	12	118
Yes	<i>Chaoborus maculipes</i>	2	7	14	38
Yes	<i>Ips grandicollis</i>	1	5	20	86
Yes	<i>Symplecta pilipes</i>	1	1	21	1444
Yes	<i>Echmepteryx hageni</i>	1	10	23	611
Yes	<i>Notiobia sayi</i>	2	5	24	71
Yes	<i>Chaetarthria</i>	2	4	25	67
Yes	<i>Eutanyacra melanotarsis</i>	2	2	26	27
Yes	<i>Homaemus parvulus</i>	1	5	27	131
Yes	<i>Graminella villica</i>	1	10	27	623
Yes	<i>Tyloderma sphaerocarpace</i>	2	4	40	50
Yes	<i>Coelotanypus atus</i>	3	6	65	85
Yes	<i>Orthotylus ornatus</i>	3	12	102	114
Yes	<i>Sacodes pulchella</i>	4	6	234	608

One of these days we're sure to hit that species plateau again; it's inevitable, but by no means something I perceive as disappointing or frustrating. After all, the numbers game and the thrill of a new find is only half the fun. Watching the way these insects behave, observing the effects of temperature, humidity, and wind on insect turnout, and seeing a growing interest in backyard entomology among the community is enriching. In my earliest days as a Master Naturalist, this Aldo Leopold quote lived rent-free in my mind:

"One of the penalties of an ecological education is that one lives alone in a world of wounds. Much of the damage inflicted on land is quite invisible to laymen. An ecologist must either harden his shell and make believe that the consequences of science are none of his business, or he must be the doctor who sees the marks of death in a community that believes itself well and does not want to be told otherwise."

— Aldo Leopold, *A Sand County Almanac*

Those words resonated with me because they (quite poetically) described the heartache I often felt as I learned to interpret the land and see the suffering that used to be quite invisible to me. My "Night Naturalists" friends and our blacklight adventures have been my antidote to this. On a sticky Houston night, it's hard to be anything but cheerful sharing these moments with folks who care for nature and share that care with others. Texas Master Naturalists operate in a crucial moment where the technological tools to observe and contribute to citizen science have intersected with a society that's beginning to understand that insects need their help. There are communities of Night Naturalists popping up at parks in their neighborhoods, ready to introduce the curious neighbor to a fantastic world that has existed in the dark all along, waiting to be seen.

Brian Schrock

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