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THE NATURALIST

THE HISTORIC RIVERS CHAPTER OF VIRGINIA MASTER NATURALISTS

Virginia Master Naturalist

President's Message

by Rick Brown

Ruminations on the Road to Normal

It is early on a quiet, cool morning as I sit here writing this. I look out the sliding glass doors in our family room to the woods behind our house in Queens Lake. Nothing much is moving as the sun comes up so it's a good time to do this and also a good time to contemplate how much has happened and how much I have learned in the past year. Sometimes these monthly messages are announcements, other times, ruminations. This message is several ruminations. I actually think we are beginning to approach, it's hard to even utter the word, "normal". We can once again get together in groups without having to wear masks, or visually calibrate 6 feet, or fear touching another person. These are small victories that mean a lot more now than they would have a year ago. Here are some random memories of the past month as we emerge.

I recently spent an afternoon, with many others, on a field trip at Deb and Mike Woodward's house. It was one of the best experiences I have enjoyed lately. I'm sitting there, listening to the folks from AWARE talk about their ambassador animals, when a dove lands on Keith Navia's head. And I think, where else could this be possible? A mourning dove lands on his head and Keith doesn't even flinch. But what really impressed me during the visit was the level of concern and commitment that Deb and her friends lovingly and unselfishly pour into their work with these wild animals. The sheer amount of time required to hand-feed and raise baby birds is amazing. I am awed by that level of devotion to nature. So it turns out that a dove landing on Keith's head is just another day on the road to "normal".

Photo: Judy Jones

I look at a photo, one of many, that Jim Easton posts on Facebook, of a squirrel flying along a fence

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with a peanut butter jar in its mouth and appreciate the amount of time I know it took for him to watch that squirrel to get that shot. I look at a group of photos that Judy Jones posts of a skulk of young foxes (yes, I looked that up) and can't imagine the number of photos she must have taken to get those perfect poses. I get some photos of birds from Nancy Barnhart that she took at Bassett Trace Trail and know that she spent the morning, by herself, walking and waiting and listening and then locating each of those birds before she got each picture. None of these friends are remotely aware that they, by their actions, are teaching me the art of patience. That is certainly a commodity that was not in my limited repertoire a year ago. The patience required to master such skills makes me envious. But I'm working on it because I see what they, and many others, achieve by being patient. I have also discovered an added benefit; along with patience comes quietude.

I recently watched a documentary film that won an Academy Award this year, My Octopus Teacher. Who knew that an octopus had a personality? Again, I was fascinated with the time, devotion, patience and work it took for one man, Craig Foster, to complete that movie. If you haven't seen it, look it up. Making that film involved the same skills and curiosity that the Chapter members I mentioned above, and many others of you, employ each and every day.

Watching what our members do when they don't even know they are being observed and studying for clues of how to improve the daily lives of others has brought me attitudinal changes. I acknowledge that "normal" for me is not the same as it was before the pandemic. During this past year we have all endured previously unimagined levels of inconvenience and have adapted because we were forced to. While the world fought over whether to wear masks, or get a protective vaccine, this Chapter just adapted and moved calmly forward. So this morning the thoughts of contributions of all of our members, working together during these times overwhelms me. I am looking forward to meetings together; the fall picnic; the holiday party, with a much greater appreciation for that anticipated personal contact. But I will also continue to look back, fondly, at the memories of the things that my Naturalist friends did in the last year that meant so much and helped to bring me closer to my own "normal". *-Rick*

Photo: Jim Easton

Photo: Judy Jones

Photo: Nancy Barnhart

Grasses for the Masses: The Perfect Pandemic Project

by Claire White

After receiving an email in December from the Chesapeake Bay Foundation (CBF) about "Grasses for the Masses," a hands-on "signature underwater grasses program", I registered to join a January 6th Zoom meeting to learn more. Less than a week after the information session I'd paid the $50 fee and picked up my growing kit in the Williamsburg Library parking lot. For the next few months I monitored the growing of wild celery (Vallisneria american), a type of underwater grass, in my home.

It was the perfect pandemic project. I watched the slow steady growth of my seedlings while I learned how to adjust the air pump, heater and lights just so for optimal growth. Daily tasks included refilling the tank with water and removing algae and cyanobacteria by hand and using whatever tools worked best at the time. I found a mini-microfiber cloth great.

A little over three months later I was ready to plant with fellow growers. Saturday, May 1st I joined a socially distanced group at Chickahominy Riverfront Park in the morning. While in sneakers I waded into the grass enclosure set up in the shallow part of the river and proceeded to scoop my grasses out of their bins like it was a thick slice of lasagna, then created a v-shape with my hands to keep the scoop intact. I submerged my grass filled hands into the water and once I reached the bottom I let the riverbed sediments suck the roots into the wedge I'd created. If you're interested in doing this project next year don't miss out on the planting- it is so satisfying and makes up for the days where you carefully wiped blue-green slime off the delicate blades of grass.

Learn more on Better Impact (project S3c) or on the CBF program page (https://www.cbf.org/how-we-save-the-bay/programs-initiatives/virginia/grasses-for-the-masses/index.html).

Pictures:

(1) January 19th- Tank setup up with 3 growing trays filled with soil/seed mixture and 2 lights.
(2) February 20th- Seedlings after a month of growing.
(3) May 1st- Long grasses ready to go to the river for planting.

Photo: Claire White

Photo: Claire White

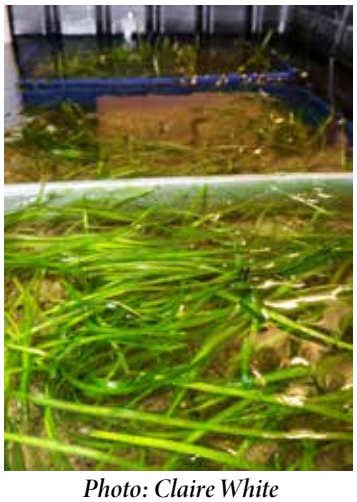

Photo: Claire White

"Green Eggs and Sand" Field Trip

by Judy Kinshaw-Ellis

If you have spent much time at the beach, you have probably seen a horseshoe crab. But did you know that the largest breeding ground in the world for this ancient creature is just up the East Coast in the Delaware Bay? May 24 and 25, HRC members trekked up the coast to witness the crabs' annual shuffle to the beach and to see the migrating birds that count on crab eggs to nourish them as they head to Arctic breeding grounds.

About half of the 22 naturalists attending drove up on Monday to scout beaches to determine the best location for the main event on Tuesday evening. The Delaware Bay is dotted with small beaches that are reached by one or two roads and have limited parking and facilities. One group of volunteers started at the south end of the bay checking out beaches while others started at the north end. The perfect beach for the Tuesday evening program, Bowers Beach, was found by a scouting group that went out after dinner.

The early arrivals spent Tuesday morning at the Ted Harvey Wildlife Area where the horseshoe crabs were plentiful, but the number shore birds was spectacular. Thousands of Semipalmated Sandpipers thrilled the group with their movement on the beach and in flight. For many of the less experienced naturalists, it was the largest flock of shorebirds they had ever seen.

The morning at Ted Harvey also turned into a crab rescue. "The poor things can be stranded when they're flipped on their backs or stuck in the sand," said Jeanette Navia. "This seems like a poor evolutionary design, but then horseshoe crabs have been around since before the dinosaurs, so it can't be too bad." If the crabs cannot right themselves, they will dry out and die, so many people were giving them a hand.

After a break for lunch, the group traveled to the DuPont Nature Center where they were joined by the rest of the naturalists. A wonderful interpretive center provided a thorough overview of the horseshoe

Daylight viewing includes piles of horseshoe crabs at the shoreline and farther up the beach. A female is surrounded by males who are waiting to fertilize the thousands of eggs the female will release. It appears that there are many more males than females, but the ratio is thought to be close to 1:1. The females retreat into deeper water after spawning while the males wait for more females to come ashore | Judy Kinshaw-Ellis

It takes keen eyesight to locate the tiny round green eggs of the horseshoe crab along the shoreline | Judy Kinshaw-Ellis

A live cam at DuPont Nature Center lets people locate birds and then head out to the deck to spot them with scopes and binoculars | Judy Kinshaw-Ellis

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crab and included live cams of the shoreline and an active Osprey nest. The live cam let birders see Ruddy Turnstones, Black-necked Stilts, and American Oystercatchers, so they could then go out on the deck and spot them through scopes and binoculars.

Tuesday evening at Bowers Beach did not disappoint. The group arrived at the beach before five, parked, and set up beach chairs. The pizza arrived and the horseshoe crab-shaped cookies hand cut by Alice Kopinitz were consumed. Once the treats were finished, the sun began to set and the scene changed. "I was fascinated with the emergence of the horseshoe crabs as the tide rose," said Karen Hines. "At first they seemed to be coming in one by one, but that changed to clumps of crabs as many males swarmed to a single female. It was fascinating, and a perfect evening for observation."

Wednesday morning wrapped up the trip with a demonstration on LAL (limulus amebocyte lysate)testing, which detects bacteria in solutions, and a practice field count at Kitts Hummock Beach with Laurel Sullivan, an education coordinator with the National Estuarine Research Reserve. "Their blood is blue and can be used to check for impurities in medical supplies," explained Jeanette. "The experiment checking for impurities using our spit was pretty interesting." The experiment compared reaction

Photo: Judy Kinshaw-Ellis

to distilled water (not reactive) and saliva (reactive).

The final activity of the trip at Kitts Hummock Beach was primer for people who might want to return to Delaware Bay as volunteers next year. Naturalists learned to pace off 20 yards on the beach, identify gender, and count crabs within a square yard made of PVC pipe and set down over the crabs.

Ginny Broome echoed the feelings of many in summarizing the trip: "Green Eggs and Sand was also ticks, biting flies, long hours, and an amazing moonrise. Flipping stranded Horseshoe Crabs at Ted Harvey conservation area was a definite highlight for me. I can't wait to go back!"

Sea Bindweed

by James Webb

While strolling around College Park Landing, here in Williamsburg, I came across this flowering vine growing along the shoreline. After photographing the flowering vine, I looked it up using the app, i-Naturalist. Based on the color of the flower and the selection offered by the app, I determined it to be the Sea Bindweed (*Calystelegia soldanella*).

The sea bindweed goes by other names, such as seashore false bindweed, shore bindweed, shore convolvulus, and beach morning glory. It is a perennial vine which grows in beach sand and other coastal habitats in temperate regions. According to the map of observation on the app, i-naturalist, it can be found all along the Pacific coast and appears to be fairly predominate along the coastal shores of Virginia and North Carolina.

Sea Bindweed (Calystelegia soldanella). | ***James Webb***

Is It Warmer or Cooler This Spring Than Last Year?

by Linda Cole

At our April membership meeting, Erin Posthumus with the Nation Phenology Network asked us this question. We found out that sometimes our intuition doesn't serve us well. Most members indicated that it is warmer this spring than on average. Erin showed us the data.

In the 23188-zipcode, our spring is coming later this year; about 7 days later than average and almost double than from 2020.This data is easily accessible on the USA-NPN website, https://data.usanpn.org/vis-tool/#/ by typing in your zipcode.

What is phenology? The Webster's Encyclopedic Unabridged Dictionary of the English Language, 1989 edition, defines phenology as "the science dealing with the influence of climate on the recurrence of such annual phenomena of animal and

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plant life as bird migrations, budding, etc." Phenology is a key component in the web-of-life.

According to the website https://www.usanpn.org/about/why-phenology, changes "in phenological events like flowering and animal migration are among the most sensitive biological responses to climate change. Across the world, many spring events are occurring earlier – and fall events are happening later – than they did in the past. However, not all species are changing at the same rate or direction, leading to mismatches. How plans and animals respond can help us predict whether their populations will grow or shrink – making phenology a "leading indicator" on climate change impacts."

So, do you want to know when the prothonotary warblers (*Protonotaria citrea*) likely will be in our area? Their best chance of success happens with the insects that they feed upon like caterpillars, mayflies, midges, etc. are available in abundance. When is moss available to line their nests? Since they are forest gleaners, when are the trees leafing? All of these things are a part of the phenological year.

Are you monitoring the abundance of monarch butterflies (*Danaus plexippus*)? Will there be nectar sources to sustain them? When are host plants available for their eggs? All of these things are a part of the phenological year.

Robert Marsham is considered to be the father of phenology. In the 1700s he kept detailed records of weather, flowering dates, leafing dates, and much, much more. Thomas Jefferson kept records of daily weather observation in 99 separate locations including Paris, France, from the late 1700s to the early 1800s. Henry David Thoreau kept records in the 1850 of the flowering dates of local Massachusetts wildflowers. Researchers use this data still today.

Want to be a part of history as well as science? The USA-NPN has established a cadre of citizen scientists who provide their observations via Nature's Notebook. Want to know more? Visit https://www.usanpn.org/natures-notebook and find out how to participate. Consider participating in an existing campaign such as Green Wave, Nectar Connectors, or Lilacs & Dogwoods. Pick a plant or two in your own backyard and concentrate on them.

Dogwood (Cornus florida) | **Linda Cole**

I took this picture (a complete and sincere apology to our nature photographers) of a native dogwood (*Cornus florida*) in my backyard.

Observing the flowers at the center of the white bracts, I'd observe that 5-24% of the buds are open (because the male stamens or female pistils are visible). Want to sign up for USA-NPN newsletters: The Leaflet, Nature's Notebook Narrative, The Connection, or Education Quarterly? Visit https://www.usanpn.org/nn/connect/newsletters.

I've been spending some time at a local retention pond, where herons (green & great blue), lots of songbirds, and muskrats hang out. I've enjoyed watching this muskrat spend much of his time chewing grasses, and seeing his teeth closeup I was prompted to find out why they are that orange color. Turns out they have a layer of very strong enamel, allowing them to chew those tough grasses, and sometimes defend themselves from predators.

-Jim Easton

Muskrat (Ondatra zibethicus) | | ***Jim Easton***

The Naturalist *is the monthly newsletter of the Historic Rivers Chapter of Virginia Master Naturalists. It is a membership benefit for current members of HRC.*

Newsletter contributions are due by the 15th of the month for inclusion in the issue distributed to the HRC Google Group by the end of the month. Send your ready-to-publish photos, notices, stories, or reports to The Naturalist's newsletter editor at:

HRCenewsletter@gmail.com

Make sure your work is formatted and labeled properly. Please make sure your copy is error-free. We are happy to help you if you have questions!

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