

January 2021 Summary for the Big Year Eco-Challenge

Despite the winter weather, the Big Year Eco-Challenge (BYEC) is off to a hot start. Teams hit the ground running on January 1st and new observations have been coming in daily ever since. The eight sites that are participating in the BYEC have collectively observed more than 500 different species so far! Who knew that we would be able to find so much life (or tracks/signs of life at least) during one of the coldest months of the year? Here is a quick breakdown on the standings so far in the BYEC:

Top Sites at the end of January:

Elephant Swamp Trail – 267 species

Ceres Park – 231 species

Riverwinds – 158 species

Tall Pines Preserve – 113 species

Otto Armleder Park – 33 species

Piney Hollow Preservation Area – 15 species

Vinegar Hill Wildlife Management Area – 15 species



Lion's Mane Mushroom

Top 10 Individuals at the end of January:

Jeff Mollenhauer – 239 species

Marilyn Henry – 164 species

Bob & Debbie Barsotti – 112 species

Gale Cannon – 85 species

Dan Ceravolo – 58 species

Nicole Lloyd – 57 species

Chris Herz – 50 species

Rich Dilks – 48 species

Kristina Mollenhauer – 45 species

Jayne Rhynard – 43 species



Bumpy rim-lichen



Wasp's Nest Slime Mold

I am very impressed at how well many of our sites did this month, especially Ceres Park which is just a few species behind the Elephant Swamp Trail. This definitely shows the time that Marilyn Henry and others have been putting into the project and the diversity/quality of the habitat at Ceres Park. I will admit to having a slight advantage along the Elephant Swamp Trail since I surveyed the site in the fall and remember the locations of many plants and fungi. Were it not for the hard work of Debbie and Bob Barsotti, who have been tirelessly uncovering new species along the Elephant Swamp Trail, I'm sure that the Ceres Park team would be in the lead right now. What is also amazing is that even sites that do not have many observations yet have already found at least one species that no other site has found whether it is Shagbark Hickory, Dryad's Saddle, or Sheep Laurel. While our sites may be fairly close in proximity and share many species, it is interesting to see some of these differences.

Elephant Swamp Trail Highlights

I have already seen more than 70 species that I did not find during the fall and these included new plants, fungi, lichens, insects, arachnids, gastropods, birds, and even 2 new mammal species! It is amazing to me that even in the cold of winter, it is still possible to make new discoveries every time I visit the trail. The two new mammals were found by Rio, my 3 year-old Australian Shepherd-Springer Spaniel mix, who apparently has a great nose for finding a Short-tailed Shrew carcass and River Otter scat. Of course, we had different opinions of what to do with our new mammal findings, but we eventually decided (much to his disgust) that taking pictures was better than rolling in them. Some of my other favorite new sightings included: Lion's Mane Mushroom, Bumpy-rim lichen, Wasp's Nest Slime Mold, Spiny Rose Gall Wasp, and a Snowflea! I feel that there have already been so many personal highlights for me in the first month that it has been difficult to condense it into one paragraph and so many species have been left out.

If you happen to drive by the Elephant Swamp Trail and see a pair of people searching for insects underneath picnic tables with so much gear that they may need a sherpa, it will probably be Debbie and Bob Barsotti! I have been so impressed by the number of new species that they are finding in areas that I thought I had searched well. Apparently they have a knack for thinking outside the box and searching places that I had not considered such as under the picnic tables! Lo and behold there were some interesting looking, tiny moth cocoons underneath those picnic tables that have yet to be identified, but are almost certain to be a new species for the site. A few other nice findings by the Barsotti's were: Organ-pipe Mud-dauber Wasp tubes, Blueberry Stem Gall, and Basilica Orbweaver egg cases.

Debbie and Bob write *"what we've learned from this first month of the BYEC is that there is a lot to learn. While the bare landscape makes it easier to train our eyes on the things often hidden by leaves and blossoms, we didn't know what we should be looking for. But we started looking closer. We examined, photographed, and submitted our finds on iNaturalist. That's when we felt that we'd really taken on the role of "citizen scientists".*

The recognition technology of iNaturalist allows us to take an educated guess about our observations. Then, thanks to the expertise of locals who know this southern NJ area well, we begin to learn the particularities of this natural world.

Now we look to other resources to name our finds and understand what makes one lichen, twig, cocoon, or withered berry different from another. We think about how to capture the images so that we have good reference points for correct identification. We share info with our team and on our Facebook page. We pay closer attention to the birding resources we have. We join the Native Plant Society of NJ.

We've become students again, and our walks will never be the same."



Organ-Pipe Mud-dauber Wasp tubes

My parents, Erik and Kris Mollenhauer, have also been searching the Elephant Swamp Trail frequently. Mom has a keen eye for spotting new leaf galls and mosses, while dad's almost encyclopedic knowledge of the natural world is constantly pushing our team in search of new areas of exploration such as leaf miners. Kris writes *"the BYEC reminds me of all creatures great and small. It's so much fun discovering things I have been walking past and not noticing. Last week I discovered a large, old tree, which turned out to be a White Cedar. The only one we have seen in our study area! So I need to look up for birds and trees, look down for mosses and springtails, and look at eye level for lichens and galls. Even on these cold winter days there are many amazing finds."*



Atlantic White Cedar

Ceres Park Highlights

Marilyn Henry is constantly adding new species of all types to their list. Little known fact, she is currently the leading liverwort observer in the BYEC with at least 3 different species of liverworts observed at Ceres Park! When Marilyn isn't discovering new liverworts, she is finding all sort of interesting small things such as jumping spiders, springtails, and oak galls. I've been told that her keen powers of observation have come in handy around the house too, especially when you have to make that difficult decision: is it a ladybug or is it a spot of jelly? Jayne Rhynard has been contributing a variety of nice bird photos from her backyard including some nice Cooper's and Red-shouldered Hawk photos. I was very jealous of her photo of a Barometer Earthstar fungus...I've



Barometer Earthstar

been looking for one like that! Nicole Lloyd has been busy using her microscope to tackle the mosses which can be difficult to identify without a microscope or macro photography of the tiny leaves. I was also astonished to see Nicole post a photo of an oak gall wasp on January 16! Despite all of the wasp galls that I discovered during the fall and winter, I still have yet to see an adult oak gall wasp myself. Very exciting!

Riverwinds Highlights

The Ceravolo family, McIntyre family, and Karl Anderson & Gale Cannon have documented a number of species not found by any other sites in the project yet. If you should bump into someone at Riverwinds willing to stick their fingers dangerously close to a raccoon scat to show scale, you have probably found Gale and Karl. I'm pretty sure when I told everyone to go out and find some good scat, the Riverwinds team thought I meant it literally. Some of their other nice finds not documented at other sites yet include Coyote scat, Stalkless Cladonia lichen, Sweet Flag, and Eastern Cottonwood. I visited Riverwinds on January 18 with Karl & Gale and was excited to find several Fusiform Oak Apple Galls as I have only seen them



Fusiform Oak Apple Gall

at Elephant Swamp and there are only 22 observations of this species on iNaturalist. I'm sure there must be more out there at some of our other sites so keep your eyes out for them (especially on Southern Red Oaks) as they have a very unique shape. Karl continues to be an amazing resource for the project and has been providing identifications and useful comments on many of the

plant and lichen observations. He really knows his scat too! His insight and knowledge are always much appreciated and if you ever have an opportunity to walk with him at your site, I highly recommend it. Thanks Karl!

Tall Pines Highlights

Their numbers continue to grow, and not just the number of species observed, but also the number of participants. They currently have more than 15 participants, which is too many for me to highlight everyone individually! I am optimistic that their species numbers will jump in the spring with all of those eyes out there searching. Marie Hageman and Chris Herz have been posting some beautiful photos of the winter resident birds at Tall Pines such as Yellow-bellied Sapsucker, Northern Flicker, and Dark-eyed Junco. Rich Dilks has been adding interesting observations of plants such as Beech Drops, a parasitic plant species that grows only on the roots of beech trees. Chris Herz reports *"I have been pleasantly surprised by birds seen at Tall Pines and find the morning a better time to see more birds. My bird*

highlights included Yellow-bellied sapsucker, Yellow-rumped warbler, and a Pileated woodpecker which seen and heard but was only able to capture a faint recording of it calling."



Northern Flicker

Otto Armleder Memorial Park (Cincinnati, OH) Highlights

Sandra Keller reports difficulties finding Gray Squirrels. I think many of us out searching areas away from bird feeders can relate to this story from Sandra. *"I hadn't seen a squirrel there until a week ago. I thought they weren't there for some reason! Then at dawn one day I see one! Quickly running across the road and into the brush! I excitedly grabbed my camera and took a shot! Not realizing I had left the camera on flight shot settings. Needless to say, I didn't get anything but a dark screen.... At least I now know they do occur there!"* I would also like to highlight that Sandra found a number of species that have not been reported at other sites including Hackberry Petiole Gall Pysllid, Dryad's Saddle, and White-

crowned Sparrow. Personally, I was super excited when she found the hackberry gall because we have been reading about hackberry trees and the insects that rely on them. I'm really hoping that Sandra will find us a Hackberry Emperor butterfly in the summer as well!



Hackberry Petiole Gall Pysllid

Vinegar Hill Wildlife Management Area (Lexington, NY) Highlights

Bev Dezan and her team only joined the project halfway through the month and their site has been buried under snow, which has slowed their effort to survey. However, this team is so dedicated that they take to their site on snowshoes and search for anything that can be found above the snow! It has been fun to see species like Shagbark Hickory, Paper Birch, and Eastern Hemlock pop up in the BYEC project. It will be fun to see what this team can find later in the year when the snow melts and they can search the ground for



Bev on snowshoes at Vinegar Hill WMA

plants and other organisms.

Piney Hollow Preservation Area Highlights

Piney Hollow is off to a bit of a slow start, but they have seen some nice species so far, many of which are unique for the BYEC project due to the location of the site in the pine barrens of southern New Jersey. Jon Stippick posted some amazing photos of a group of River Otters poking their heads out of the water in old cranberry bogs at Piney Hollow on January 24. Meanwhile Joe Arsenault has been adding a few plants into the mix such as Poverty Oat Grass and Dangleberry.



River Otters

What to Expect in February?

It is hard to believe that we are already a month into 2021 as I'm not sure where the time went. I must be having too much fun with the BYEC and hopefully you all are too! I'm looking forward to seeing what February brings as it certainly won't be more of the same. I'm almost always able to find a least a few new things every time that I go out and as conditions and the time of year change so do our opportunities. For example wet weather means the opportunity to photograph wet moss, which looks completely different than dry moss which can make identifications even more challenging. And the fruiting bodies of fungi often appear after wet weather as well, which means more springtail activity on the fungi. As much as our world may look the same after a day or two of rain, these small worlds that live under our feet are completely different.

Currently, I am excited by the opportunities presented to us by the snow that is falling in southern New Jersey. The snow may take away our ability to see the ground as well, but it also provides us the opportunity to search for animal tracks and snowfleas...which aren't really fleas at all, they are springtails! And if you think squirrels can be hard to find, wait until you try to find a rabbit. I still haven't found one at the Elephant Swamp Trail yet (going back to August now), but I am hoping that perhaps there will be some tracks in the snow this week. I was super jealous when I saw Barb Bassett post a photo of a rabbit skull last week at Ceres Park. Too easy!

Though it may not feel like it this week, spring is just around the corner. The days are slowly getting longer and before we know it the American Woodcock will begin displaying again at dawn/dusk, the Tufted Titmice will be singing, and the Snow Drops will be pushing their way out of the soil. So good luck to all the teams in February and I look forward to seeing what else we can find together!

Sincerely,

Jeff Mollenhauer