

In the Glen

Fall 2021 | News and Activities of the Glen Helen Association

Leave It to Beavers

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Mysterious New Disease Impacts Birds

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Q&A with Our New Land Manager

In the Glen

In the Glen is published for Glen Helen Association members and friends.

Contributors:

Editor: Nick Boutis; Contributors: Zach Bollheimer, Sarah Cline, Rebecca Jaramillo, Betty Ross; Design: Bob Bingenheimer

Glen Helen Nature Preserve

Trails are open daily, sunrise to sunset. All wildlife, vegetation, and natural features are protected. For general information: 937-769-1902

Administrative Offices and Nature Shop

Located in the Vernet Ecological Center
405 Corry Street, Yellow Springs, OH 45387
Temporarily closed. Visit glenhelen.org for details.

Trailside Museum

505 Corry Street, Yellow Springs
Temporarily closed. Visit glenhelen.org for details.

Outdoor Education Center

Residential environmental education center for school groups and summer Ecocamps. 1075 State Route 343, Yellow Springs, 937-767-7648

Raptor Center

Raptor education and rehabilitation center
Visitors are welcome to visit the center and see the resident birds. Fall hours 9am-6pm. 1075 State Route 343, Yellow Springs 937-319-0148

Mission

The mission of the Glen Helen Association is to steward and strengthen Glen Helen nature preserve for present and future generations, safeguard the ecological, historical, and geological resources within its bounds, and utilize the preserve to offer life-shaping environmental learning to our students and visitors.

Glen Helen Association Board of Trustees

Bruce Bradtmiller, Ken Dahms, Emily Foubert, Scott Geisel (president), Ben Hooper, Jon Horvath, Jeremy Main (treasurer), Betty Ross (vice president), Dan Rudolf, Paul Sampson, Kat Walter (secretary)

Glen Helen Association Staff

Zach Bollheimer, Land Manager; Nick Boutis, Executive Director; Tom Clevenger, Assistant Director for Finance and Administration; Sarah Cline, Outdoor Education Center Director; Rebecca Jaramillo, Director, Raptor Center; Shannon Schenck, Outdoor Education Center Business Manager; Susan Smith, Ranger; Shahr Strolger, Property Manager

On the cover:

The Yellow Springs Creek beaver dam.
Photo by Bill McCuddy

From the Director

Tuesday morning, February 27, 2009. I remember this day because it was the first time that I saw a Black Vulture flying over Glen Helen. Fast forward a dozen years later and they are now a common winter resident in our area. Last year, when we held our annual Christmas Bird Count, we found 126 of them around Greene County.

It turns out that Black Vultures are one of a number of species that are expanding their range northward as winters become more mild. The vultures are native to North America, and as scavengers they play an important and beneficial role in a healthy environment. Other species are expanding their range as well; some of these are much less welcome. Ticks, and the diseases that they carry, appear to be rapidly colonizing new areas. Kudzu, which carpets forests in the southeastern United States is one of many invasive species heading north. As far as we know, it is not in Glen Helen. Yet.

Which brings me to climate change; what it means for the Glen, and how can we as a place of environmental learning make a difference in humanity's response to this global challenge.

As a student of science, I'm loathe to say that, definitively, climate change is the cause of this northward march of southern species. So, I'll say it less definitively: as our climate changes, it makes total sense that some species will be able to exploit habitats that they hadn't previously been able to survive in. It also makes sense that many species will lose habitat because their former home terrain is now too hot or too wet or too dry.

For a decent fraction of the diversity of life to survive the climate crisis, we're going to need to safeguard



quality habitats for native species. This speaks to how important natural areas are as repositories of biodiversity and resilience: Glen Helen, and other natural areas, are imperative for allowing us a chance at a viable future.

This also speaks to how important it is for folks to have access to quality environmental education, so that they are able to make informed choices with the Earth in mind. Children who attend our Outdoor Education Center programs work on environmental problem solving – helping them think through how they can be part of the solution to global problems. Homeowners flocked to the programs we hosted on rooftop solar. I'm well aware that programs like these are just small steps. But, they are small steps in the right direction, and we look forward to taking more and more small (and larger) steps in the coming years.. 🌱

A handwritten signature in black ink that reads "Nick Boutis".

– Nick Boutis, Director, Glen Helen Association

Thank You, Bethany!

All of us involved with the Glen owe a great debt of gratitude and sincere thanks to Bethany Gray for all she has done in just a few years to position us so well for the future.

She joined the Glen Helen Association Board of Trustees in July 2018, but she was not a stranger to the Glen. She had been an active volunteer in the Vernet Building, Nature Shop, and Trailside Museum, and was often seen at events or on the trails. She became the Board President in July 2019 at a critical time for the Glen.

She played a pivotal role in leading us through the acquisition process, working closely with our special ad hoc committee, our attorney, and the college. Transitioning the Glen Helen Association from a “friends” group to being the owner and governing entity for Glen Helen was no small task, and Bethany led us well through that process. She wanted every board member completely invested in the committee work and board meetings, so she spent time working on the structure, attended all meetings of the six board committees, and reached out to other non-profits in Yellow Springs and beyond, for advice on how best to govern and achieve our goals.

She played a major role in setting us up for success. No task was too small or too large for her to tackle, and she gave it her all. So, of course, it was understandable that she felt the need for a break, and stepped away from the board at the end of June. We were sad to see her go, but know how important it is to have time to rest and recover, and hope she will return to help us in our efforts.

Thank you, Bethany, from all of us, for your extraordinary efforts on behalf of the Glen!

– Betty Ross, Vice President, Glen Helen Association Board of Trustees



Bethany Gray

Top 10 Ways to Help the Glen! (How Many Have You Done Today?)

1. Support the Campaign to Secure the Future of Glen Helen.

Your contribution will help us finance the purchase of Glen Helen, restart programs, and reinvest in ecological stewardship of the preserve.

2. Sponsor a bird. For just \$100 a year, you can help us feed and care for the hawks, falcons, owls, and vultures of our Raptor Center.

3. Consider a planned gift to Glen Helen. No single act can do more to help us sustain our efforts.

4. Come to Ecocamp. A week in Glen Helen helps shape the lives of the kids who experience it.

5. Join the Glen Helen Association. Support from members allows us to maintain the preserve and all of our programs.

6. Rent the Glen. Think of the Glen for your next party, meeting, or memorial. The Vernet Ecological Center, the Outdoor Education Center, Camp Greene, or Birch Manor might be the spot you're looking for.

7. Volunteer. Whatever your interests, there is a volunteer project perfectly suited for you.

8. Explore some of our 15 miles of trails and track your sightings on www.inaturalist.org, to document the biodiversity of the preserve.

9. Specify Glen Helen Association through the Dorothy Lane Market Good Neighbor Program, the Kroger Rewards Program and the Amazon Smile Program.

10. Fulfill Our Wishes. We maintain a wish list for new and gently used items. Visit glenhelen.org for the current list of needed items. 🌿

Leave It to Beavers



Animal engineers set up shop in Glen Helen

The morning of April 21, 2021 was a rare spring day in Ohio. A brief cold front brought nearly three inches of snow to Yellow Springs, and newly leafed-out trees and wildflowers were buried under this ephemeral blanket. By morning, the sun was out, and it was, objectively, beautiful. It seemed like a great day to take some pictures in the Glen, so before heading into the office, I hiked down the long stone steps toward the Yellow Springs Creek. Nearing the creek, I heard the familiar sound of a gurgling stream. But wait: as wonderful as the Yellow Springs Creek is, it does not normally gurgle. When I reached the bridge over the creek, I immediately saw the reason. Beavers had begun a dam just upstream from the Inman Trail bridge, and water was audibly trickling through the structure.



The growing dam, seen in mid-June

Over the following months, the beavers made the dam larger, and larger still. As the dam grew, so did the pond behind it, stretching upstream and submerging the riparian wetlands of the Yellow Springs Creek valley. As I write this, the dam is now approximately 50 feet wide by about four feet tall. An impressive structure by any standard.

As visitors to the Glen have noticed the dam, we've received a string of social media messages about it, often reflecting strongly held opinions about the animals, coming from the perspective that beavers are a problem that

Perhaps more than any animal other than humans, beavers directly manipulate the environment where they live.

needs to be solved. Here is our take on that, starting with some background.

By a long shot, beavers are North America's largest rodents, growing to about 70 pounds. Rodents are the most biodiverse order of mammals, and the main attribute which sets them apart from other mammals like people or tigers or whales is that their front teeth grow continuously throughout their lives. They are born to gnaw!

In summer, they eat a broad range of plant material, including leaves, roots, and grasses. Come winter, their diet shifts more to tree bark and the cambium layer beneath. With their strong teeth, they can girdle, and eventually fell, trees multiple feet in diameter. They are territorial animals, and mark their home turf with a waxy secretion that we call castoreum.

Remember this point for later in the story: Those who have inhaled the musk of castoreum describe it as pungent, but with floral notes reminiscent of vanilla or perhaps raspberry.

Perhaps more than any animal other than humans, beavers directly manipulate the environment where they live. Their dams and feeding habits change the biodiversity in the areas where they take up residence.

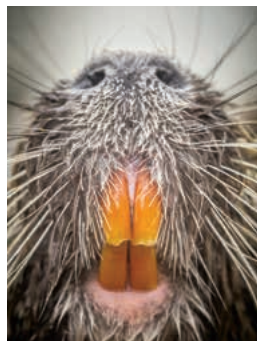
Beavers build dams for shelter, for protection, and to make it possible to float their food to their lodge. In the warm months, they live in a summer lodge, usually on the bank of the pond they impound. These will typically be low slung, a loose pile of sticks atop tunnels and holes. Their winter lodges are more likely the image that comes to your mind, if an image comes to your mind when you picture beaver lodges. Often built in the middle of their pond, winter mounds can stand six feet above the water level. They use mud and sticks to form a sealed roof that keeps out the elements. The entrance to the lodges will be underwater. This means that beavers need to be able to tolerate swimming in icy water. Their thick fur, waterproofed with a dollop of castoreum, allows them to thrive in water that would be unsurvivalably cold for us.

This thick fur and their castoreum were also nearly their undoing. Castoreum was sought



Photo: Bill McCuddy

We believe that this is the summer lodge for the beaver family. Note that the loose structure incorporates a plank of milled lumber, probably from an old bridge in the Glen.



Beavers have long incisors that get their characteristic orange color from an iron-rich protective coating of enamel. Their teeth grow continuously, but daily use helps trim them down.

after as a medicine, a food flavoring (thanks to those aromatic notes from their herbaceous diet), and a scent enhancer in perfumes. Beaver pelts were used to make the warmest of the warmest hats. The appetite for beaver pelts was astoundingly insatiable. Beaver trapping is widely credited as a main driver in the westward expansion of the United States! At the peak of the fur trade, in the 1860s, over 150,000 pelts were purchased annually. Unsurprisingly, beavers were nearly driven to extinction by this assault. They were totally wiped out of Ohio by 1850, and didn't return for 100 years. As beavers returned to Ohio, they entered a landscape taken over by, and changed by, human activity.

Now, in most areas of Ohio, a beaver dam is likely to create conflict because of their – and our – competing interests in the land. Beavers are often labeled as nuisance animals because they flood areas where people live or drive or recreate, they damage crops and trees, and they can be vectors for parasites. This, I suppose, is why people assumed that when beavers took up residence in the Glen, that we would want to forcibly evict them. They damage property, or to restate it with nuance, change property in a way that is different than

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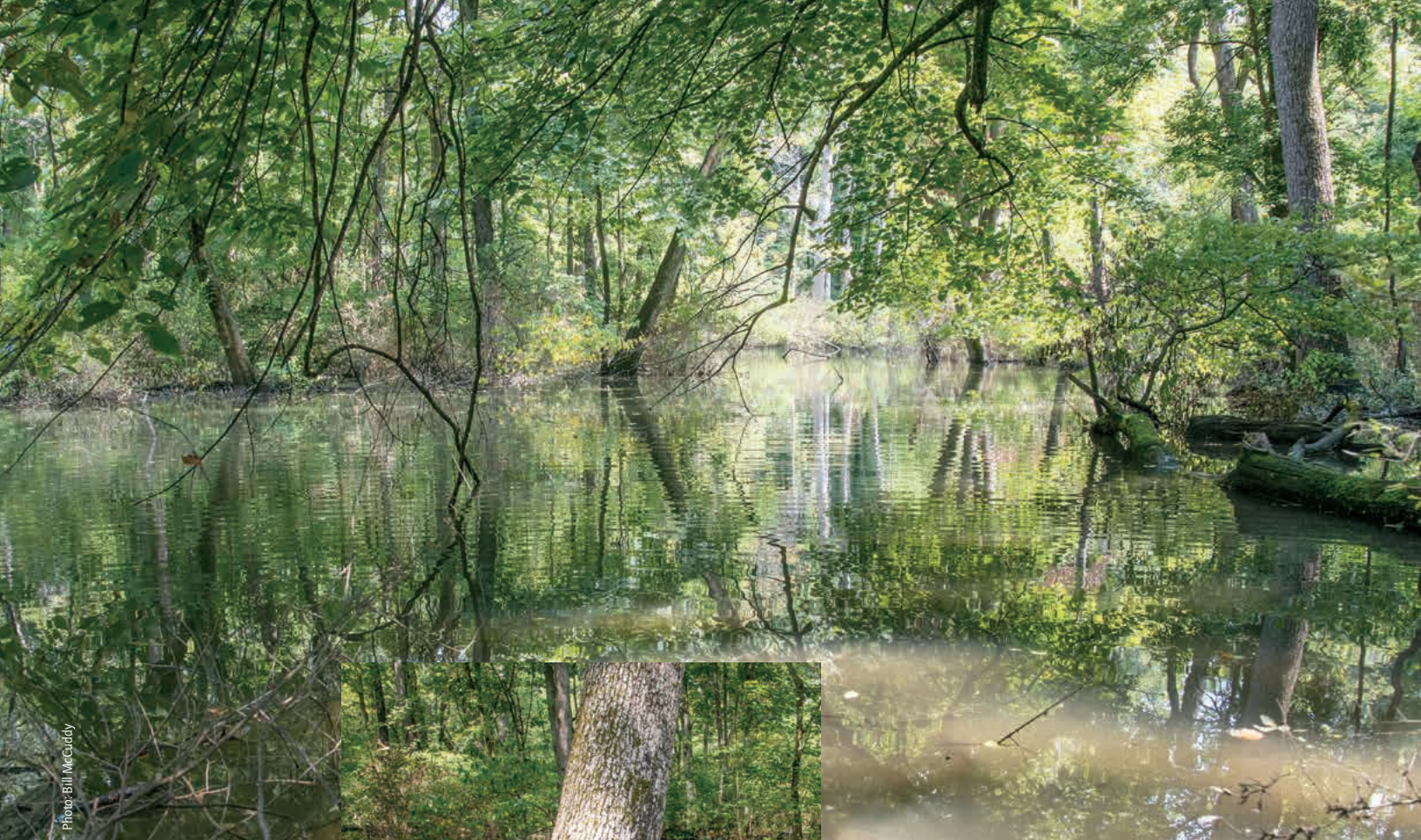


Photo: Bill McCuddy

Above: Looking downstream into the new beaver pond.

Right: A flooded and girdled tree.



their human neighbors had in mind.

The Ohio Department of Natural Resources conducts annual statewide population surveys for beaver. Their numbers have swelled from a couple hundred colonies in 1960 (around the time when hunting was reallowed) to about 6500 colonies today. They are found statewide, but are much more populous in northeastern Ohio. In and around the Glen, beaver activity has been on the rise in the last ten years. We have found gnawed trees around Grinnell Mill and Camp Greene, but don't know of a successful lodge there. Their lodge on the Yellow

Springs Creek may be the first one on the Yellow Springs Creek in nearly 200 years.

Their presence in the Glen is going to change the preserve, no doubt about it. They are going to girdle native trees that we have watched grow for decades, drown stands of native spicebush and skunk cabbage that thrive in the Yellow Springs Creek valley. They don't appear too interested in eating invasive species like honeysuckle and privet, which is a shame. We can live with that. They are a native species, creating natural habitat, and making the habitats of the Glen more like they were in the years before European settlement of Ohio. They are also expanding the wetlands along the creek, which will create habitat for species of fish, frogs, turtles, perhaps ducks, and others. The wetlands will perform a crucial ecological service, reducing sedimentation downstream.

We're fortunate that the beaver dam is located in an area where our trails are raised on boardwalks. So far, it looks like their pond, and our trail system, will be able to happily coexist. Floods may eventually topple the dam, or the beavers may choose to relocate. Until then, join us as we observe and marvel at the changes that they are creating. 🌿

Nick Boutis (nboutis@glenhelen.org)

Mysterious New Disease Impacts Birds

Just as we thought the COVID pandemic was starting to move behind us, a new plague has descended upon many counties in Ohio. This time it is our feathered friends that are suffering, and we can do something to help. A few months ago, songbirds, jays, and crows were showing up blind or with misshapen eyes around much of the Midwest. At first, scientists theorized the symptoms were due to increased pesticide use due to the 17-year cicada emergence. With further testing and data compilation, this theory has been dismissed in favor of some, as-of-yet-unidentified, disease that is capable of spreading from bird to bird.

Through testing of affected birds, the National Wildlife Health Center has ruled out nearly two dozen diseases, viruses, and fungi, but is still diligently searching for the correct identification of this “mystery disease.” In addition to the blindness and eye deformities seen, the birds appear to have neurological symptoms resulting in a loss of balance that evolves into seizures, spinning, and often death.

Though originally seen in certain songbirds, the Glen Helen Raptor Center was one of the first to report to state officials that raptor species, specifically Cooper’s hawks and Red-shouldered hawks, were exhibiting the neurological symptoms associated with this disease. Information from wildlife rehabilitators is often the first way that new diseases and population changes is noticed as we have daily hands-on opportunities with native wildlife. Though the eyes appeared normal, visual acuity was questioned, and the birds either died quickly from severe seizures, or slowly with progressively degenerative bal-



Photo: Courtesy of Blue Ridge Wildlife Center

A young Blue Jay admitted to the Blue Ridge Wildlife Center in Virginia with an unknown illness.



Two young Cooper's hawks admitted to the Raptor Center this year.

ance that ended in the bird unable to move without uncontrollable spinning. These patients were sent to the national wildlife lab, and are being compared with asymptomatic representatives of the same species.

So what can we do to help? If you see a bird acting as though it cannot see or has poor balance, fill out the

Ohio Division of Natural Resources wildlife species sighting form: <https://apps.ohiodnr.gov/wildlife/species-sighting/> with as much information as possible. Pictures and video can also be included.

Additionally, the Ohio Division of Wildlife has requested that all bird feeders and bird baths be taken down until this disease is better understood and controlled. Bird feeders and baths are locations where birds will congregate and potentially spread diseases from sick to healthy birds even if the sick bird shows no symptoms. Ordinarily, proper cleaning and disinfecting of bird feeders and baths should be a weekly routine, but during times of high disease spread the safest thing to do is take them down completely until further notified.

While I can certainly understand the disappointment in a quiet backyard typically full of the bright colors and cheerful songs of our backyard birds, there is plenty of food and water for our wild friends available in their natural environment currently and our responsibility is to keep our wild offerings clean and disease free. As we learned last year, no lockdown lasts forever, and soon enough our yards will hopefully be full of life once again.

Rebecca Jaramillo (rjaramillo@glenhelen.org)

Proper weekly cleaning of bird feeders and bird baths:

- » Empty seeds and water
- » Scrub with a 10% bleach water solution
- » Allow to dry complete
- » Refill and rehang feeders and baths (When notified by the Ohio Division of Wildlife)

Ecocamp Returns!



In the months after our initial quarantine period last spring, I experienced a wave of outdoor recreation and nature enthusiasm pass across my social media feed. It seemed like many people were coming to appreciate an idea that I distinctly remember as the 'new kid' feeling that accompanied my first week as an Ecocamp staff person. Watching campers in the registration line reunite with friends they hadn't seen since the previous summer and listening to naturalists talk about the best moments of past seasons, it was easy to see the community built during those summer weeks in the Glen.

One of the highlights of my summer this year was feeling the sense of community return. It was wonderful to welcome back so many familiar faces and see friends reconnecting, despite the longer than normal break. To my mind, this summer's Ecocamp staff was particularly strong evidence of our community – over half of our team were former campers! They brought with them a love of the Glen, enthusiasm for our Ecocamp traditions, and a deep commitment to providing the same memorable experience they cherish for their campers. I think they nailed it! I asked them what keeps



Ellie and campers on the Cascades bridge.

them coming back to the Glen year after year, their responses made me happy, and I got permission to share them below.

From the bottom of my heart, I'd like to thank Ellie, Haden, Emily, Autumn, Andy, Kristen, and Shannon for their extraordinary hard work and kindness this summer! We're grateful to our campers and their families for sharing their summer with us, helping us keep everyone safe and healthy, and bringing so much life back to the Outdoor Education Center. We'll see you next summer!

Sarah Cline (scline@glenhelen.org)

Ellie

Hometown: Columbus, Ohio

Favorite Spot in the Glen: Stepping Stones

What's your history with Ecocamp?

When I was in 4th grade I attended Outdoor School during the school year and then I came back for Ecocamp's Nocturnal Camp program for 4 years.

What kept you coming back?

I always did Ecocamp with the same friend and it was a blast! Nocturnal Camp especially had a very specific vibe that was unlike any other summer camp I had ever done. We got to see a version of the Glen that no other groups saw. I also just like Glen Helen's character. It feels very

nostalgic every time you return. The skits and songs that the counselors put on for the evening program are always very familiar to returners and give it a homey vibe. Traditions are great in Glen Helen!

What is it like being on the other side of the camper naturalist relationship?

I have a lot more respect for my naturalists after being one myself. They must have been exhausted! I have more respect for their clearly thought out lesson plans that were always fun and educational.

It made me realize that you never really feel ready for things in life and that growth only happens when it is pushing you to be more than what you

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have been in the past. It makes you realize that you have it in you to be more of a grown up than you previously realized.

What's your most memorable moment of Summer '21?

I think I have two. My first one is going to sound cliché. It was when my first-ever camper arrived, the daughter of one of the Glen's staff. I was kind of nervous and not sure what to expect, but I was pretty good (I hope!) at hiding how awkward I felt. We started chatting as the rest of the group showed up one by one. I remember thinking about summer camp in so many different ways, more than I ever had. How this really is a transitional time in life for everyone. I was thinking about what kind of naturalist I wanted to be and how it would seem from the kids' perspective. I was even thinking about what the parents were thinking as they were dropping their kids off. The weight of my responsibilities hit me all at once, but the campers opened up easily and I felt confident as they got comfortable and trusted me.

My second moment was on the last day of camp during a thunderstorm-filled afternoon. I was the naturalist for the 5- and 6-year-olds that week. We had been trapped inside for most of the

day and everyone was starting to get antsy. We have wooden sticks that we play sticks with at camp, but the kids always find them and just start banging them together which can be annoying. This time I decided to run with it (I am currently going to college to pursue a jazz performance degree in percussion) and we turned our random banging into a band. Some of my campers knew songs from one of my favorite bands, Queen. We pulled off 'We will Rock You' along with many other songs. It was a blast and so much fun to share my passion!

Haden, aka Bob the Cat

Hometown: Oxford, Ohio
Favorite Spot in the Glen: School Forest Meadow

What's your history with Ecocamp?

I've been attending Ecocamp since 2012, and before that Outdoor School since 2009. I was a Leader-in-Training for two years and worked as the Kitchen Assistant in 2019.

What kept you coming back?

There is just something about the Glen that I can't put my finger on. Maybe it's the people. Maybe it's the atmosphere. Maybe it's that I have a lot of formative memories here. Maybe it's that for seven weeks of the summer I can pretend time isn't passing by so fast and the problems and frustrations of my everyday life don't exist.

What is it like being on the other side of the camper naturalist relationship?

I'm realizing now that I was probably not an easy camper to have. Fun, but

difficult. You think about things a lot more and differently when you're the responsible one, but I do have to say that being a Leader-in-Training helped prepare me for that.

What's your most memorable moment of Summer '21?

Less of a moment, more of a person. There was one particular camper that I'd had trouble connecting with during previous summers and I had concerns about being their naturalist. I felt like this year I was really able to see them and recognize that they are a lot like I was as a kid, difficult at times, but fun. This summer gave me the perspective to connect with them and to appreciate their growth into an amazing and wonderful young person. I'm so proud of them! 🍀



Haden and campers take a sheltered break on a rainy day.

Q&A

Getting to know Zach Bollheimer, our new land manager

Q: Why is land stewardship important to you?

To me, there isn't a more logical thing to do than to take care of the space we live in and the things we need. Clean air, water, and soil.

Q: What would you like people to know about your experience in managing natural areas?

In my experience in conducting the management of ecosystems, I have often seen shortcuts taken, priorities altered, or management tactics changed due to circumstances out of one's control, and all to the detriment of the ecosystem and its health. Lack of funds, staffing, time, or knowledge are all common causes. But by being strategic, organized, and prioritizing the right things, you can ensure you are doing your best work possible as a land manager entrusted with a space. There is only so much time in the day, but a little more time in the office can result in a lot more effectiveness and success in the field.

Q: Do you have a favorite part of the Glen?

Although I am currently still getting to know the Glen and all of its nooks and crannies, my current favorite place is the Traveler's Spring area. What's not to like about a groundwater-fed stream, lined with the occasional skunk cabbage, that pours over eroded limestone cobble all along the way, before spilling into the Little Miami River?

Q: What do you think is the biggest challenge before us?

Balancing access to natural areas with conserving and protecting ecosystems. Access to spaces inherently brings many of the issues we face in the world of ecological land manage-

ment, but without trails and facilities, we have no visitors, whom we rely upon to support us and our goals of protecting Glen Helen.

Q: What is something that you think everyone should know about land management?

The hardest part about land management is actually about coming up



with your strategy and management plan and how you are going to conduct your work. The easiest part is the physical aspects and enacting that plan, whether it's removing invasive species or assessing forest canopies or replacing planks in a boardwalk. They are the most physically demanding parts of course, but with good strategy, you can make things easier for yourself.

Q: What do you enjoy doing when you're not taking care of the Glen?

I enjoy seeing live music (in a post-pandemic world), eating Central and South American food, and working on DIY projects around my home.

Q: What local invasive species most gets your ire up, and why?

Wintercreeper (*Euonymus fortunei*).

It's probably the most difficult species to get rid of, physically speaking, particularly if you prefer not to utilize herbicides. And we've got it particularly bad in places, including out my office window.

Q: How can visitors to the Glen help support you in your land stewardship work?

Stay on the trails, financially support the land stewardship department of Glen Helen, and volunteer for one of the invasive species removal events I will be hosting in the coming months!

Q: What is something that you're really looking forward to accomplishing here?

I look forward to working on a revision of our land management plan (as I mentioned above, I'm all about strategy and planning!), and using that to really make a measurable dent in our invasive species issues. 🌿



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From the Archives



What a difference 140 years make. This photo, from sometime around 1880, shows the Yellow Spring in the foreground looking up the hill to what we call the White Oak Triangle – the upland area between the Birch and Yellow Springs Creeks where the oldest trees in Glen Helen can be found. Here, some of the great oaks are well over

400 years old. But wow, look at the severely impacted landscape depicted in this image. Large trees were left standing, but not much else. There are no young trees, no understory trees, no wildflowers. Those were evidently mowed down by the sheep visible in the frame. A bench placed around the closest White Oak offered a convenient

place to sit for resort visitors. This oak lived another 100 years, and died in the 1980s. In the early 2000s, a family of Great Horned Owls nested in a cavity at its top. Eventually the owls moved on, and the tree toppled the following year. Its remains can still be found up the hill from the Yellow Spring, gradually decaying back into soil. 🍁