

Conservation Connection

Johnson County Conservation Newsletter

Climate Change Initiatives

Brad Freidhof - Conservation Program Manager

The Johnson County Conservation Board (JCCB) has invested in equipment and facility improvements to address energy use and greenhouse gas emissions. In 2019, JCCB converted traditional incandescent and fluorescent light bulbs and fixtures to energy efficient LED bulbs. This large scale conversion not only reduced energy use at these facilities, it provided better lighting and improved workplace safety.

Following the energy savings provided by the LED conversion, the JCCB installed its first solar array at the Sutliff Operations Center in 2020. This new system will join several other solar arrays already installed by Johnson County. The new 10kW solar array will help off-set energy use at the facility and help charge an electric Gator UTV

and electric car the staff use in the management of conservation properties. The public can view the energy production from the solar array at the Sutliff Operation Center at the following link: <https://tinyurl.com/JCCSutliffsolar>

The Conservation Board is now preparing to add a 34 kW solar array on the Conservation headquarters and maintenance facility at F.W. Kent Park and a 10 kW solar array at the Pechman Creek Delta maintenance facility this summer. The energy produced will be used to power two electric Polaris Ranger UTVs used for park maintenance and an electric Chevy Bolt car and help off-set energy demand from the electrical providers at both sites. The Board will also be completing a study to determine where other solar arrays can be sited at Hills Access and additional locations at F.W. Kent Park to further reduce our reliance on fossil fuels. The energy production for these sites will also be available to the public as they come on-line.



Energy saved by the installation of solar at the Sutliff Operations Center has already resulted in the following environmental savings...

- Equivalent trees planted: 27
- Equivalent CO² emissions saved in miles driven: 3,547

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A Note from the Director



As another growing season is upon us, we are preparing for another busy season in the parks, trails, and natural areas. The COVID pandemic has refocused Americans on the outdoors with usage of parks and recreation areas up across the country. In Johnson County, our traffic counters stationed at various areas, including trails, are documenting an average

increase of 165% in visitation. Which is a great thing as people take advantage of their public areas. Our staff and Board are excited that so many people are using the areas we take care of!

We spent this entire winter, December through March, cleaning up from the derecho. We removed dangerous leaning trees, hangers (otherwise known as widow makers), and many tangled areas of limbs and branches from six different conservation areas and trails. To give you an idea of the damage done by that storm, we salvaged 81 saw logs for reuse and processed 107 semi-loads of mulch from fallen trees. Tree species included black walnut, hickory, white, red and black oak, black cherry, ash, American elm, and river birch. The logs ranged in size from 16" diameter to a massive 36" diameter black oak from Ciha Fen. Most of the trees ranged in age from 100 to 122 years of age.

The last few weeks have been wonderful after enduring the winter, with much of the ice melting and the migration of waterfowl. The first two weeks in March we were treated with about 60 trumpeter and tundra swans and thousands of ducks and geese using the new wetlands at Cedar River Crossing. The ranger staff reports that ice fishing was great all winter in Kent Park Lake and we are looking forward to outstanding fishing in the lake this season. Hopefully, the pandemic will be behind us soon and we can all return to a somewhat normal lifestyle. Our thoughts are with those that have lost loved ones during this past year.



JCC Welcomes New Staff and Board Members

Alicia Claus-Bartels - JCC Operations and Maintenance Staff

I grew up in Anamosa, Iowa where I would explore the woods and creek behind my house with my brother. I have always loved being in the outdoors with activities such as hiking, camping, biking, and fishing. My whole life I have had a wide variety of pets but currently just have my cat, python, and tortoise. I also have a strong interest in plants and have a home full of house plants.

I graduated from Kirkwood with an AAS in Parks and Natural Resources and am currently working on my bachelors online. My past related work history is working one season with Jones County Conservation as an Naturalist Intern, one summer with the U.S. Army Corps of Engineers as a park ranger, and three seasons with Johnson County Conservation as a seasonal employee with the Operations and Maintenance crew.

My work at Johnson County consists of providing presentable, clean, and safe environments for the users of Kent Park, maintenance work,

and helping in various projects such as lake restoration. I am happy to be part of the team here at Johnson County and know you will enjoy spending time in any of our beautiful locations.



Bonnie Winslow-Garvin - JCC Board Member

I was born in a cabin in the middle of the Big Woods. Well, that would be cool but in fact, I was born and raised on a farm in Poweshiek County. It is a small farm by today's standards but it had a little of everything and plenty of room to roam; to chase butterflies and watch goldfinches on a thistle, catch a fish for breakfast, wade in the cool mud of the creek, play crack the whip skating on the farm pond or contemplate the clouds above from resting in the middle of a hayfield. On this farm, I fell in love with the natural world.

My pursuit of this passion has been through traveling, hiking, photography, planting prairie, reading, camping, cross country skiing and sharing these interests with like-minded friends. I am a school psychologist by trade and love working with children. I have two grown children who are off pursuing their interests of nursing and education. I am thrilled to be a new member of the Johnson County Conservation Board.



The fascinating lives of solitary bees

Frances Owen - Naturalist

Most people are familiar with our industrious invertebrate friend, the honey bee. Known for their ability to produce sweet honey and help pollinate our crops, what's not to love? But did you know there is a whole other magnificently diverse world of bees out there that are even more important for pollination than honeybees? Welcome to the world of the humble solitary bee.

There are an estimated 400 species of solitary bee in Iowa. Unlike their colonial cousin the queen honey bee, which thrives in hives with 10,000 or more workers and drones, the female solitary bee works alone, creating nests and gathering food for her young. Though some solitary bees will nest in aggregate, with many neighbors, they do not share the duties of food gathering and rearing young.

The locations, shapes, and size of solitary bee nests varies depending on the species. Most nest in tunnels they dig out in the ground. These ground nesting bees will create tunnels with many small chambers. Around one-third of all solitary bees will nest in above ground cavities,

such as hollowed out tree branches, plant stems, or decaying logs. For both ground nesters and cavity nesters, the reproductive cycle will be pretty much the same.

Pictured below: Some mining bees like to nest in groups. Each female excavating their own tunnel. Solitary bees are docile and are either unable (in many cases) or unlikely to sting since they do not aggressively protect their nests.



The solitary female will create many chambers. Inside each individual chamber, she will collect pollen and lay a single egg. A bee larva will hatch from the egg and feed on the pollen until it is large enough to pupate. The pupa will stay put until the following year, only then emerging as an adult bee.

Consider the following before getting a bee hotel...

- Nesting chambers should be around 6 inches deep for most species.
- Bee Hotels need to be cleaned out completely every year (or at least every other year) to prevent buildup of disease. Choose designs that are easy to clean, or cheap to replace.
- Choose a smaller hotel with fewer nesting

chambers. Large "luxury hotels" with hundreds of nesting chambers look visually appealing, but can attract predators, parasites, and disease. These bees do not typically nest in close quarters with other bees, so this is very unnatural for them.

- Firmly attach your hotel to a surface in a south facing direction. Free swinging hotels can repeatedly knock larva off their pollen supply, making it difficult for them to feed and develop.

The female solitary bee can choose whether to lay male or female eggs. Particularly with cavity nesting species, this allows her to place females in the back of the nest, and males closer to the entrance. Male bees will emerge before the females, and if the nest should be attacked by a predator or parasite, the females will be safe to lay more eggs the following year. Unfortunately for the males, they are somewhat expendable. This fun fact of their biology becomes really important when we consider the efficacy of many commercially available bee hotels and DIY crafts. If the nesting chamber provided is too shallow, the ratio of females to males will skew toward more males, decreasing reproductive success in the following generation. If you decide to set up a bee hotel in your yard consider the guidelines for solitary bee hotels in the blue section at the bottom of this article.

If reading about their fascinating lifecycle and behaviors wasn't enough to get you jazzed about solitary bees, they are also incredibly efficient at pollination – the process of transporting pollen from one flower to another. Most plants require pollinators to produce seeds and fruit and over three-quarters of our food crops require animal pollinators (many of those bees!) In most cases, our native, solitary bees are more efficient at pollinating than honeybees, sometimes up to 90 times more efficient! So it seems in our best interest to protect and enhance our solitary bee populations as best we can. Here are some actions you can take at home and in your community to protect bees and other pollinators:

1) Create habitat and plant native! Our native

bees and native plants have co-evolved for millions of years. During that time they have developed relationships in which many plants depend on bees to transport pollen, and the bees depend on pollen and nectar for food. Some popular ornamental plants don't provide nectar, pollen or both. Some plants can even be toxic to bees! You can also leave bare patches of dirt in a couple sunny places for helpful ground nesting bees, and tuck some stumps away in your yard where they can decompose for natural cavities.

2) Avoid applying pesticides and purchasing plants with pesticide residues. Do what you can to limit pesticide use in your yard. If it becomes necessary, use selectively and if possible, apply later in the afternoon or evening, after most bees have gone to bed. Some plants available for sale have been treated with neonicotinoids which can be extremely toxic to a whole host of helpful insects.

3) Leave your leaves, and while you're at it, leave dead plant stems standing too! Many bees will nest inside the stems of dried dead plants in your garden. Leave them standing until June, especially if you see signs of bees nesting in them (broken stem ends capped with mud or leaves). If you need to clean things up, leave all the dried stems piled in a sheltered area of your yard until about June, when most solitary bees have emerged.

Providing good insect habitat will bring in other desirables to your yard, such as nesting songbirds! Not to mention the help you'll get in your vegetable garden this year.

Bee hotels are super fun to watch, and it can be especially exciting to view their lifecycle in real time. They are best thought of as an educational tool, and are not a good conservation practice on their own.

Check out the instructions uploaded on our blog: jccnaturenotes.wordpress.com/ for making your own "observation" hotel (pictured right). This bee hotel has a clear plexiglass window that allows you to watch the larva develop. Don't rely on a hotel to save the bees. See the main article above for more bee helpful tips!



Left: A sheet of plexiglass allows you to watch bees nest inside this bee hotel.

Below Left: Mud chambers, eggs, and piles of pollen left behind by a mason bee. How many chambers do you see?

An Update on Johnson County Trails

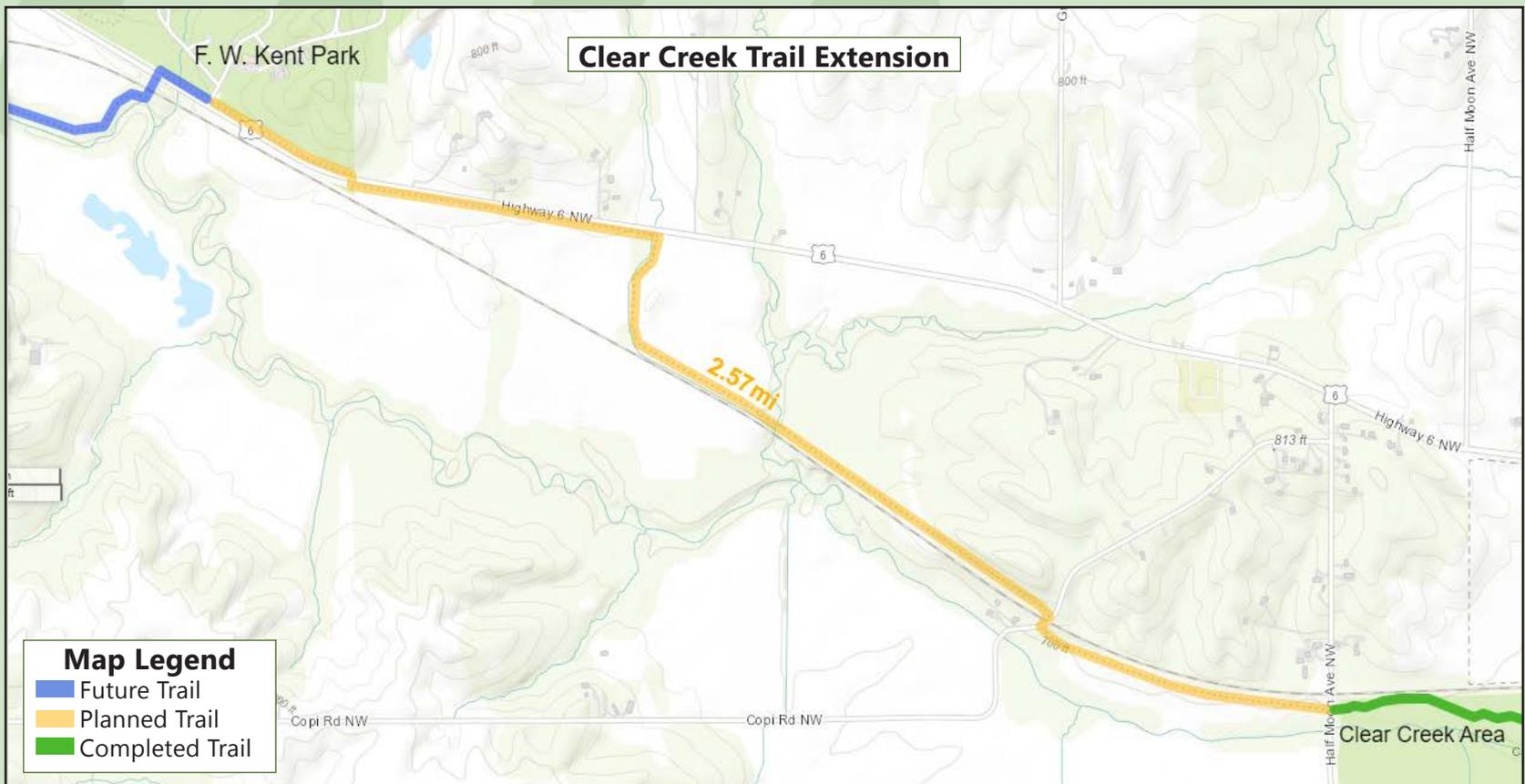
Brad Freidhof - Conservation Program Manager

For years we have shared updates in the Conservation Connection on the development and construction of the Hoover Trail between Solon and Ely. There have been numerous grants and hours of planning and construction, but this year we will be closing out all of the project phases being managed by the Conservation Department that make up the segment of the Hoover Trail between Solon and Seven Sisters Road. The underpass for Ely Road is scheduled to be completed with the upcoming Ely Road improvements, but even with this remaining component to be completed, the Hoover Trail is seeing heavy use.

To keep trail development progressing in Johnson County, the focus will be switching over to the Clear Creek Trail west of Tiffin. Currently, the Clear Creek Trail terminates at Half Moon Avenue. The long range goal for the Clear Creek Trail has

always been to reach F.W. Kent Park in Oxford, and possibly all the way to the Amana Colonies. The Conservation Board received a \$337,260 Iowa Transportation Alternatives Program grant in late 2019 to assist with the design, engineering and permitting necessary for the 2.5 mile extension of the Clear Creek Trail to F.W. Kent Park. Engineers plan to begin work on this project in March or April of this year. Due to the complexity of this project, it is anticipated to take two construction seasons to complete the trail to Kent Park, barring any significant delays. The Conservation Bond, passed in 2008, is providing the funding to leverage grants for the trails program.

The staff and Board are excited about the connection of F.W. Kent Park to the metropolitan area trail systems of Tiffin, Coralville, and Iowa City.





WELCOME HOME MONARCHS!

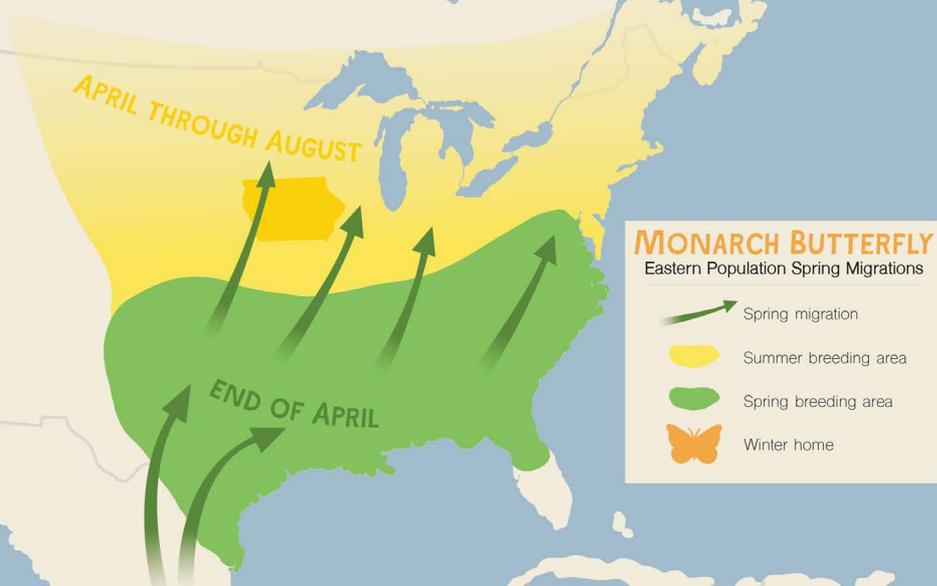
Frances Owen - Naturalist

If you have been following the news about monarch butterflies over the past decade, you will already know their populations have been declining steadily over the past 30 years, both east and west of the Rocky Mountains. Fortunately, over that same amount of time, we have gained a much better understanding of what is important to their health and survival as a species. As we patiently wait for the descendants of last year's migrants to make the approximately 2,000 mile journey back to Iowa, check out some ways you can welcome monarch butterflies back to your community and own backyard! Also, if you are looking for more information about the current status of monarch butterflies in the Midwest, check out www.monarchwatch.org/blog and subscribe to their newsletter.

① CREATE YOUR OWN MONARCH WAY STATION! A LEADING CAUSE OF MONARCH DECLINE IS LOSS OF HABITAT. THEY NEED NECTAR AND MILKWEED (THEIR LARVAL HOST PLANT). LEARN MORE ABOUT THE PROCESS HERE: WWW.MONARCHWATCH.ORG/WAYSTATIONS

② REDUCE OR STOP USING HERBICIDES AND PESTICIDES AROUND YOUR HOME. IF ABSOLUTELY NECESSARY, BE MINDFUL OF THE LOCATION AND TYPE OF CHEMICALS YOU ARE APPLYING.

③ ADVOCATE FOR THE USE OF NATIVE PLANTS IN YOUR CITY'S LANDSCAPING. THINK ABOUT HOW SPACE AT YOUR BUSINESS, SCHOOL, CHURCH, ETC. COULD BE USED AS A HAVEN FOR MONARCHS AND OTHER BENEFICIAL INSECTS WHICH POLLINATE AND PROVIDE FOOD FOR OTHER ANIMALS LIKE NESTING BIRDS.



HELP US MONITOR MONARCHS!

Volunteer with Johnson County Conservation as we continue our participation in the Integrated Monarch Monitoring Program (IMMP). IMMP is a volunteer citizen science program that provides information on habitat, eggs, larva, and adult monarch surveys, as well as tracking fun things like parasitism and monarch survival by raising larva in captivity. This is a national program, with volunteers all over the United States. We need dedicated volunteers to make this program successful and would love for you to become involved in this research with us! Contact Marci Trana at mtrana@johnsoncountyiowa.gov or call 319-645-1011 to learn more. Let's work together to ensure monarch butterflies continue to make their amazing journey.

Swamp Milkweed



Common Milkweed

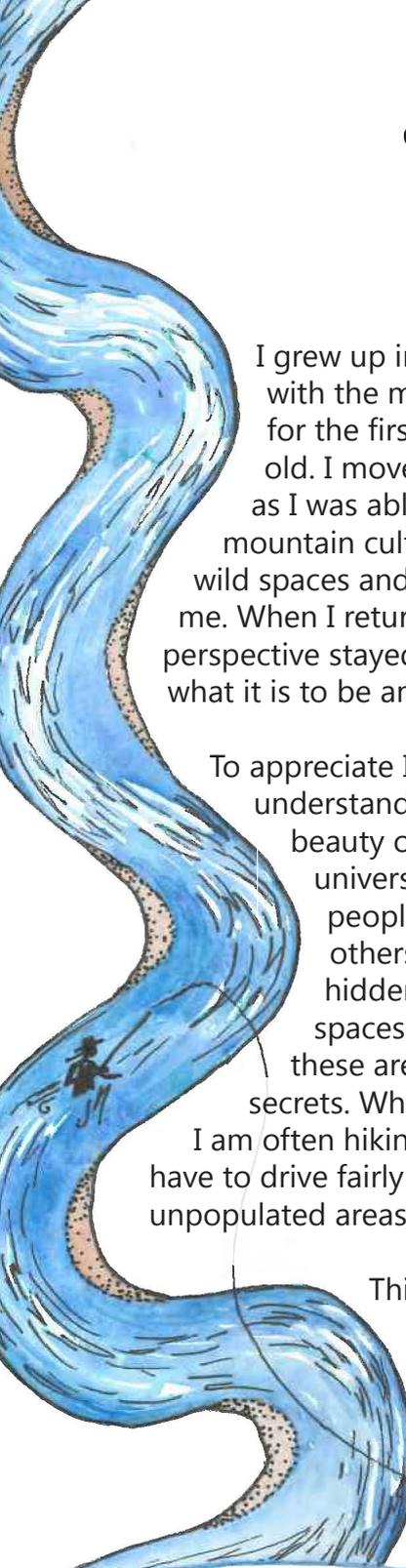


Butterfly Milkweed



Solitude, Secrets, and the Pursuit of Fly Fishing

Marci Trana - Naturalist



I grew up in Iowa, but instantly fell in love with the mountains after seeing them for the first time when I was eight years old. I moved to the mountains as soon as I was able and became fascinated with mountain culture. The constant pursuit of wild spaces and solitude formed a habit in me. When I returned to Iowa, this "mountain" perspective stayed with me and has redefined what it is to be an Iowan.

To appreciate Iowa in full, you need to understand how unique it truly is. The beauty of Iowa is captured most universally by the kindness of the people. But to me and several others I know, Iowa represents the hidden and seldom visited wild spaces. I say seldom visited because these areas have remained well kept secrets. When I visit wild spaces in Iowa, I am often hiking alone. Out West you would have to drive fairly far from home to seek remote unpopulated areas in order to truly be alone.

This solitude is what many think of when they think of fishing, and particularly fly fishing. I've been pursuing a better understanding of fly fishing and hope to learn it well enough fill my freezer with fish. In my pursuit of

this skill I keep hearing and reading of seldom traveled, best kept secret fly fishing streams in Iowa. I've not yet been to these areas and I hope to come to you with an article on my experience fishing in these places in the future. These local places are where I dream of taking my girls to fly fish for long weekends year after year.

Nationwide, few people know there are fly fishing streams in Iowa, but locals and professionals boast of their quality, solitude, and beauty. Cool fresh water streams filled with trout are isolated mostly to the northeast quadrant of Iowa. There is a geological reason for these trout/fly fishing worthy streams. Essentially, this area remains untouched by the last glacial period. The lime stone formations exist currently as they did more than 10,000 years ago. There are plant and animal species that were thought to be extinct only to be rediscovered in this region of Iowa (Iowa pleistocene snail and northern monkshood).

I've not spent much time in the driftless area, but I am thrilled at the possibility of grabbing my rod and immersing myself in a newfound pastime that should not only be reserved for those periodic adventures out West. To me, this is Iowa - full of surprises, if only you take a minute to look. Don't be quick to dismiss an outdoor pursuit often reserved for other places. Iowa has much to offer the outdoors person.



- Brook trout is Iowa's only native trout species.

Illustration by Kristen Morrow



Yeti Hunting

Kristen Morrow - Naturalist

This winter, a yeti was on the loose, roaming through some of the wildest corners of Johnson County. Though eight foot tall and four feet wide, she stayed fairly well hidden amongst the deep drifts of snow, yielding her whereabouts with clues alone. Yetis are not native to Iowa, of course, but this one traveled here with a mission: draw people out to explore new places in a season that makes it all too easy to stay in. The seekers showed up in droves, breathing life, new *human* life, into quiet JCC parks and preserves. Though the yeti originally aimed to rekindle the adventurous spirits of adults, many children sought her too - often pulled in sleds or carried in packs, but sometimes making the two to three mile trek on their own. The yeti's success has been a delight for JCC, and it has been so wonderful to see so many people out enjoying parks that few know about or use. Folks can look forward to more challenges like this in the future.

Though the yeti may not return, there have been other great suggestions. A four year old seeker advised us that, really, there should be a saber toothed tiger out on the loose.

Yeti Hunting in the Words of the Seekers

"We loved that the yeti hunt gave us a great excuse to bundle up and brave the elements when we otherwise might've just been hanging out indoors. We also explored new parks that we didn't realize existed! We saw a bunch of otter tracks and slides at Pechman Creek Delta which was really cool - I'll definitely be back to try to see a river otter in action. An owl swooped right over our heads at Frytown which was beautiful. It was super snowy the day we went to Cedar River Crossing and it really felt like we were exploring uncharted territory." - Murray Family

"My favorite part of the yeti hunt was the challenge, not only solve a fun puzzle but also to get outside during a time of year when many chose to stay home. Exploring the woods in the winter was magical. The quiet air, the fresh snow, the sense of accomplishment of getting outside that was only heightened by the discovery of the yeti. Getting out in the winter, skiing with my youngest, made me feel so very capable and the alive. Cedar River Crossing is a park I likely would not have visited without the motivation of the yeti hunt. It was wonderful to explore and I would love to see it in the summer." - Bigler Family

"I loved this program because it actually made me not only go out and hike, but hike at parks I have never visited. And then there's the thrill of the hunt - some hikes, a smile would appear when I spotted the yeti and other hikes, I would think, *YES, finally!* I'm looking forward to visiting all the locations during other seasons."
-Susan McCoy



Spring Program Updates

This season, JCC's education team is pausing most in-person educational programming in order to focus on making updates to the Conservation Education Center displays and promotional materials for the department. Programming will resume with adult, family, and youth-focused activities this summer. There will still be plenty of ways to find enrichment this season, however, with options outlined below.

*Do you require any specific accessibility measures in order to comfortably participate in these programs? Reach out to us at 319-645-1011 to discuss.

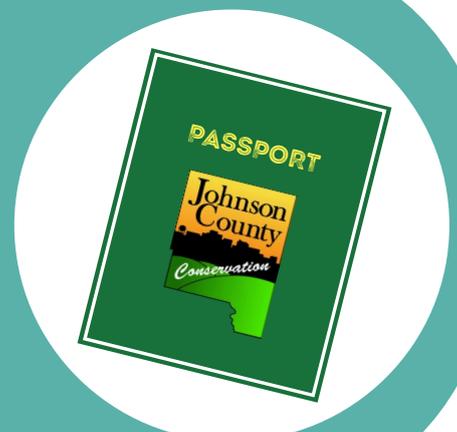
Storybook Trail To Begin in April

The Storybook Trail was a new feature added to Kent Park in 2020. From its June start to the end of the season in December, the trail was visited by a near constant stream of both families with young kids and adults out to enjoy a cute tale. This year, JCC will be starting the Storybook Trail season two months earlier with the first story posted by early April. Books will be updated every two weeks until the weekly summer rotation starts in June. The trail starts on the west end of the trail loop around the Conservation Education Center in F.W. Kent Park. The limestone trail is a half mile long and is accessible for strollers, walkers, and wheelchairs most of the time but can be a little soft after heavy rains.



Johnson County Conservation Passports

This season, you have an extra reason to head out and explore all of JCC's parks and preserves: JCC is launching a passport for kids and adults alike to track their visits to the fifteen different properties owned and managed by JCC. The passport features a basic overview for each property, a place for taking notes or making journal entries, and a place to stamp the passport (a stamp is attached to the entrance sign at each property). Once an individual has visited each property and stamped their passport with the unique stamp, they can receive a nature patch from JCC's education team. [Download your passport here](#). For those unable to print a passport, contact mtrana@johnsoncountyiowa.gov.



Nature Subscription Bags

JCC's new Nature Subscription Bags allow families to continue engaging with environmental education from their own homes. The bags are created once per season and covers a seasonal topic perfect for young explorers. The inaugural bag explored animal tracks and signs, and included activities such as owl pellet dissection, seed ball making, and even a chocolate scat recipe, complete with ingredients! Each bag also includes prompts for exploring your backyard, neighborhood parks, and county-wide natural areas. Activities are designed with preK through upper elementary kiddos in mind. To learn more and to sign up, contact Marci Trana at mtrana@johnsoncountyiowa.gov.

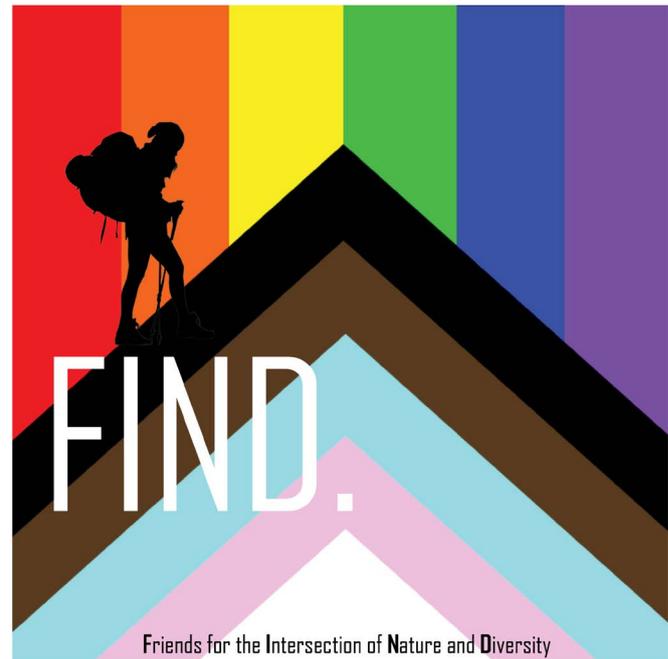


LGBTQ Adventure/Nature Group

JCC and dedicated members from the public are thrilled to be launching an outdoor adventure group dedicated to the LGBTQ and allies community. LGBTQ members from the public will be heavily involved in organizing the group to keep interested parties in the loop on the dates and times of events.

Event activities and topics will be inspired from within the group in order to capture the interests and skills of the group. Marci Trana will serve as the group's dedicated county naturalist.

If you are interested in joining please email Marci at: mtrana@johnsoncountyiowa.gov



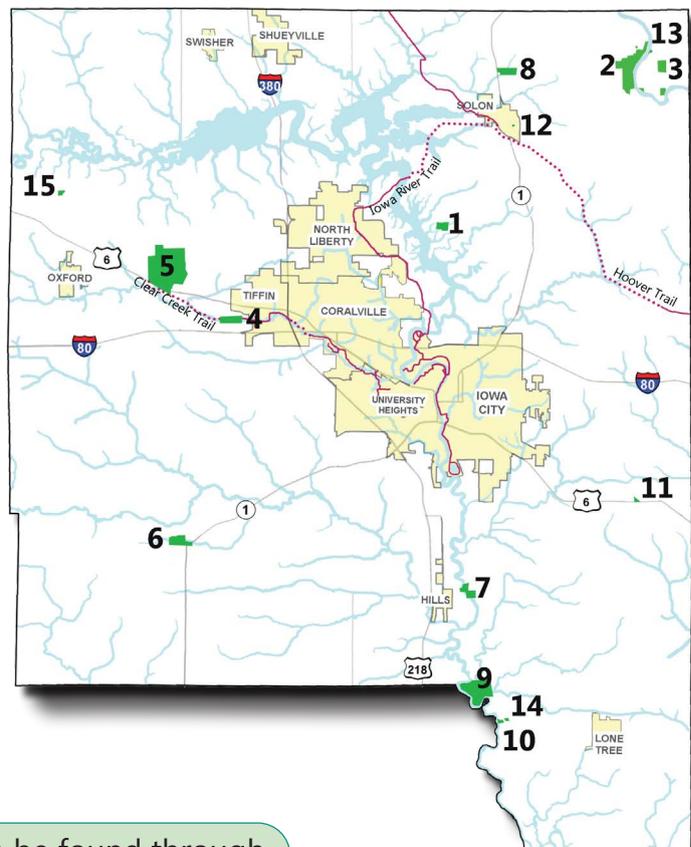
Quotes from a couple of our Johnson County LGBTQ community members:

"I am so proud to live in a county that is dedicated to cultivating connection to nature for the LGBTQ community. We are looking forward to participating in the welcoming and affirming events that 'FIND' will offer!" - Jamie

"FIND offers a safe space for LGBTQ+ people like me to explore the outdoors with friends, without judgment" - Amrei

JCCB Public Use Areas

1. Cangleska Wakan	132 acres
2. Cedar River Crossing	560 acres
3. Ciha Fen	81 acres
4. Clear Creek Area	87 acres
5. F.W. Kent Park	1,062 acres
6. Frytown Conservation Area	94 acres
7. Hills Access	40 acres
8. Malinda Reif Reilly Fen & Prairie	100 acres
9. Pechman Creek Delta	380 acres
10. River Junction Access	12 acres
11. Scott Church Park	5 acres
12. Solon Prairie	3 acres
13. Sutliff Bridge & Access	1/2 acre
14. Walker Park	3 acres
15. Williams Prairie Preserve	21 acres



More information about JCC public use areas can be found through our website: www.johnsoncountyiowa.gov/conservation



Johnson County Conservation
2048 HWY 6 NW
Oxford, IA 52332

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by visiting: <http://bit.ly/JCCNewsletter>

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Photo credit: Dan Cohen

Skunk Cabbage is rare in Johnson County but its range extends throughout Iowa. It is one of the first plants to emerge in spring. The final line in Mary Oliver's poem namesake describes this plant well... "What blazes the trail is not necessarily pretty." Though, you might argue that it is rather beautiful.