

# Natural Area Preservation Year End Report 2022

*Cover photo: Autumnal wetland scene with open water reflecting a cloudy sky, taken at Mary Beth Doyle Park. The prairie in the foreground and the wooded area in the background are full of fall colors.*

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## Conservation Ops Team 2022

### CURRENT STAFF LIST

Becky Hand, Stewardship Specialist  
Beth Weiler, Conservation Crew  
Brady Friss, Crew Leader  
Chloe Hernandez, Conservation Crew  
Dana Novak, Workday Coordinator  
George Hammond, Field Biologist  
Jessica Einck, Conservation Crew  
Juliet Berger, Field Biologist  
Kirstin Palumbo, Conservation Crew  
Leah Jones, Outreach Assistant  
Matthew Spoor, Park Steward Coordinator  
Megan Livingston, Conservation Crew  
Mike Hahn, Stewardship Specialist  
Remy Long, Deputy Manager, NAP and Land Acquisition  
Renée Hytinen, PR and Special Events  
Rosie Pahl Donaldson, Land Acquisition Supervisor  
Tina Stephens, Volunteer and Outreach Coordinator

### LEFT NAP IN 2022

Dave Borneman, Deputy Manager, NAP  
Ethan Glassman, Conservation Crew  
Kathryn Beauchamp, Workday Coordinator  
Morgan Boyer, Conservation Crew  
Murphy Harrington, Conservation Crew  
Travis Wilcox, Conservation Crew

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## Conservation Crew

### CONSERVATION CREW - BY THE NUMBERS:

2,814 hours worked

Invasive species control – 73%

Controlled burns – 15%

Revegetation – 4%

Trail work – 8%; includes 54+ tree-over-trail blockages cleared

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## Stewardship Workday Feedback

*Photo 1: Summer woodland scene at Bird Hills Nature Area. A scattered group of volunteers pauses working with long-handled loppers to give a thumbs-up.*

*Photo 2: Mid-summer on a trail at Bluffs Nature Area. Three volunteers work together to haul a massive, rusty piece of trash - the inner frame and springs from a pickup truck seat dumped in the park decades ago.*

### WORKDAY FEEDBACK QUOTES FROM VOLUNTEERS:

“I’ve already signed up for two more events. The work was hard but rewarding.”

“This was our second volunteer day with NAP and we loved it. Always a great time enjoying the outdoors, learning new things, and helping preserve our parks! Thank you for another successful event.”

“I had a really lovely time. It was great to be in the woods, and to help with the restoration of the natural area. I think the leaders did a really good job putting our work in context and talking about the importance of invasive species removal.”

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## Park Stewards

*Photo: September prairie at Barton Nature Area with blooming goldenrod and a blue sky with puffy white clouds.*

### PARK STEWARDS BY THE NUMBERS:

2,862 hours volunteered

53 stewards

19 parks

## PARK STEWARDS LIST

Alyssa Pozniak  
Ann Hubbard  
Bill Rosen  
Brian Glass  
Brooks Curtis  
Catherine Riseng  
Curtis Vincze  
David Clipner  
David McAlpine Deb  
Vandenbroek Don  
Giacherio Doug  
Wood Douglas Allen  
Ellen Ward  
Eric Russell  
Jason Frenzel  
Jason Shellhaas  
Jean Kluge  
Jeannine Palms  
Jeff Vornhagen  
Jen Rutkiewicz  
Jim Vincze  
Jim Young  
Joann Constantindes  
John Lawter  
Jonathan Parker  
Judy Schmidt  
Karin Monnett  
Libby Davenport  
Lisa Johnson  
Liz Giessner  
Manfred Schmidt  
Margot Mehringer  
Mary Duff-Silverman  
Molly Brookshire  
Peter Allen  
Peter Smith  
Ray Hunter  
Richard Geglio  
Rita Mitchell  
Rob Davenport  
Robin Damschroder  
Ron Emaus  
Scott Rosencrans  
Shannan Gibb-Randall  
Shawn Severance  
Stacie Printon  
Stephanie Hunter  
Ted Hejka

Tiffany Ng  
Tim Damschroder  
Tom Armstrong  
Victor Morales-Rios

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## Controlled Burns

*Photo 1: March at Argo Cascades – clear blue sky, railroad trestle in the background – three burn crew walk on a wide paved path. One crew member lays a line of fire with a drip-torch along the side of the pavement.*

*Photo 2: Massive flames from burning phragmites reach 18-20 feet in the air, reflected in the water at South Pond Nature Area.*

*Photo 3: During a summer burn, Conservation Crew intern Indira turns and smiles at the camera holding a red drip torch and wearing yellow protective gear.*

*Photo 4: Seven burn crew members wearing yellow protective gear gather for a photo in a (cooled-off) blackened, burned area with smoke still visible around them.*

## CONTROLLED BURNS BY THE NUMBERS:

154 hours volunteered  
69 acres  
11 parks  
20 volunteers

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## Stewardship Workday Feedback

*Photo 1: Volunteers holding orange plastic garbage bags pause pulling weeds at Miller Nature Area to watch a demonstration talk by Park Steward Lisa Johnson.*

*Photo 2: At Miller Nature Area during an early spring workday, a parent stoops to help a young volunteer learn to use long-handled loppers.*

## WORKDAY FEEDBACK QUOTES FROM VOLUNTEERS:

“It was wonderful to see how Miller Park is so much improved since my last work day, maybe 4 years ago. These efforts really make a difference! Love the rain garden too!”

“The workday leader was great with our group and we had a great time volunteering with NAP!”

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## Herpetological Surveys

*Photo 1: An adult dark-bodied salamander with a wide red stripe stretching from head to tail hides among amid leaf litter.*

*Photo 2: A conservation crew member’s gloved hand is seen palm-open with a tiny brown snake.*

### HERP SURVEYS BY THE NUMBERS:

- 2,341 observations
- 1,810 visual observations
- 531 listening observations (frogs)
- Species observed:
  - 8 frog & toad
  - 6 salamander
  - 6 turtle
  - 5 snake
- 995 hours volunteered
- Volunteers by type:
  - 28 frog & toad
  - 41 salamander
  - 21 turtle
- 48 sites

2022 MLive article about NAP Inventory programs: [‘Did you know Ann Arbor employs experts to track turtles, birds and frogs?’](#)

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## Herpetological Surveys Program Updates

*Photo 1: A teenager wears a bucket hat and green t-shirt with lizards, standing in the foreground of a mountain vista in Poland.*

*Photo 2: Butler’s garter snake – a dark brown snake with highly contrasted tan stripes running from head to tail.*

*Photo 3: Eastern garter snake – a dark brown snake with highly contrasted tan stripes running from head to tail.*

*Photo 4: Blue spotted salamander – a dark-bodied salamander with small cornflower-blue spots hides amid leaf litter.*

#### HERP SURVEY VOLUNTEER ANTONI

Over the last 3 years, a very knowledgeable and enthusiastic high school volunteer, **Antoni Wierzbicki**, has put in hundreds of hours surveying for reptiles and amphibians in our parks. Antoni has found species we didn't know were present in some parks and has especially added to our knowledge of the wildlife in parks in the northeast part of the city.

One of the species Antoni has been helpful in finding is [Butler's garter snake](#), which is listed by the State of Michigan as a Species of Special Concern. We now have records of it in half a dozen different nature areas, and we know it is breeding in at least two (and probably the others). This snake looks a lot like the much more common [eastern garter snake](#), and Antoni is adept at looking closely at the position of the stripes on the snake's sides and the shape of the head to tell them apart.

#### BLUE-SPOTTED SALAMANDER

The salamander survey identified a new breeding site for blue-spotted salamanders in a city nature area! We knew the pool existed, we didn't know salamanders were breeding there. The pool is in an unrestored lower priority area; we recently started removing invasive shrubs so that eventually the whole area around the pool will have a more natural community of shrubs and trees, better for bugs and the salamanders that eat them.

#### SURVEYING FROM THE WATER

This year the Turtle Stewards program had more volunteers surveying from kayaks and canoes on the river than ever before. This is very helpful, as turtles are less afraid of people approaching from the water, so you can often get closer and make a more accurate identification from a boat than you can on land.

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## Breeding Bird Survey

### BBS BY THE NUMBERS:

12,610 observations

197 species

45 parks

559 hours volunteered

49 volunteers

2022 MLive article about NAP Inventory programs: [‘Did you know Ann Arbor employs experts to track turtles, birds and frogs?’](#)

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## Breeding Bird Survey: Endangered, Threatened, and Special Concern Bird Species

In 2022, Ann Arbor Parks and properties hosted these 8 special avian species:

1. **Osprey** - After almost succumbing to DDT in the mid-20<sup>th</sup> century, this species was reintroduced and has come roaring back. They feed on fish, and in our area, get many of their prey along the Huron River. The river goes through many of our parks and preserves in which NAP has restored habitat.
2. **Trumpeter Swan** - After having been reintroduced in Washtenaw County in the 1990’s, Trumpeter Swans are doing well in our region. Last summer a pair of Trumpeter Swans nested at the Ann Arbor Water Treatment Plant settling pond. Three adorable young hatched from their nest. You can tell a Trumpeter Swan from the invasive Mute Swan by looking at their bills. Mute Swans have an orange bill with a black knob, and Trumpeters have a sloping, all-black bill.
3. **Black-crowned Night Heron** - These fun looking plume-headed birds show up at dusk during the summer at Mary Beth Doyle Park. This year we think they had at least one nest nearby. We saw two young-of-the-year feeding alongside their parents and another sub-adult, in the shallow ponds. Thanks to the work of NAP and the Washtenaw County Water Resources Commission, this wetland habitat was created in the early 2000’s and the resulting ponds are used by troves of wildlife.
4. **Red-shouldered Hawk** - A threatened species in Michigan, these hawks find refuge in swampy woods, feeding on small mammals, snakes, amphibians and even fish. A pair of Red-shouldered Hawks has nested at the Wheeler Service Center for at least the last 4 years.
5. **Dickcissel** - Lots of male and female Dickcissels arrived at the Ann Arbor Airport to nest this summer. Grassland species are declining faster than any other habitat specific birds in North America, so it’s great to know Dickcissels have a safe place to nest in Ann Arbor.
6. **Marsh Wren** - This species nested in good numbers at Mary Beth Doyle Wetland and Nature Preserve in the cattail marsh. Marsh Wrens need an expansive marsh in which to nest, without invading trees and broad-leaved plants. The restoration work that NAP does in conducting prescribed burns in the marsh here helped the Marsh Wrens to find a suitable home for nesting.
7. **Henslow’s Sparrow** - Henslow’s Sparrow nested again this year at the Ann Arbor Airport. This species is endangered in Michigan, and NAP has an agreement with the airport about managing

the grasslands there. Generally the southeast corner of the Airport is left unmowed until late summer so that grassland birds can nest and thrive.

8. **Hooded Warbler** - This colorful yellow warbler with a black hood nests in mature woodlands with shrubby understory and ravines. Traditionally found at Marshall Nature Area, this species nested at Bluffs and Bird Hills Nature Areas in 2022. Thanks to the work NAP does restoring native species to our woodlands, this Species of Special Concern for Michigan has a welcoming place to nest.

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## Wildlife Success Story

*Photo 1: A brown beaver moves through shallow water toward a mass of sticks and branches.*

*Photo 2: Close detail of black alder tree bark – light gray smooth bark with short horizontal groups of lenticels (small raised pores on stems of woody plants).*

*Photo 3: A tree stump on a water bank with green grasses and leaf litter. The stump has visible, deep, patterned grooves covering the soft inner wood, obviously made by beaver teeth.*

### BEAVERS ALONG THE HURON RIVER

Over the past four-to-five years, NAP staff and volunteers have seen increasing signs of beaver activity in Ann Arbor natural areas, along the river and in wetlands. October of this year brought a big jump in beaver signs, specifically signs of feeding; the NAP crew reported seeing numerous black alders – some as large as 15 inches in diameter – with the telltale gnawed-hourglass shape left behind by fall-foraging beavers at the [Gallup Park wet prairie](#), and all along the river at [Furstenberg Nature Area](#). Additional sightings have been made at [South Pond Nature Area](#) and other parts of Gallup.

The recent feeding signs are the most accessible (to human observation) we've seen and are visible from the river as well as on land. So much feeding activity in the area means there is probably at least one family living nearby – while in the past it was likely just isolated individuals. This is especially exciting because a beaver family might mean beaver babies in the spring!

*During spring and summer, beavers generally eat shrubs, ferns, aquatic plants, grasses, and blackberries. When these food sources drop in supply during fall and winter, beavers focus more on the inner bark and twigs of soft deciduous trees like aspen, alder, cottonwood, and willow.*

Black alder, also called European alder, is invasive in Michigan. NAP has been working to remove black alder and other woody species that thrive in wet areas. The opened space in the Gallup wet prairie has been especially helpful in allowing beavers to access more of their preferred food sources. Because black alder is a soft wood, beavers are more than willing to use their own removal technique of gnawing with very large, very sharp incisors. A few NAP crew members noted that it's almost as if the beavers have paid forward the extra help by chopping down even more of the invasive alders. It's been remarkable to witness the changes the beavers have brought to the landscape.



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## Photo Monitoring

### PHOTO MONITORING BY THE NUMBERS:

165 hours volunteered  
563 photos  
26 parks  
23 volunteers

### Photos of Hilltop Nature Area Precise Point 1; before and after spring controlled burn 2022:

April 27 – a late spring view of a trail bisecting a small open area with leaf litter and dormant shrubs surrounded by mature, leafless trees.

April 29 – immediately after controlled burn – a trail bisects dramatically blackened (burned) open areas, with leafless, mature trees surrounding.

May 18 – mature trees with buds and small leaves surround an open area bisected by a trail. Less than a month after a controlled burn, the ground in the open areas has started to turn vibrant spring green with emerging native plants.

July 20 – three months after a controlled burn, a lush green clearing full of tall, thriving native grasses almost hides the walking trail from this vantage point.

August 24 – four months after a controlled burn, the sandy-colored seed-heads of very tall native grasses are illuminated by sunlight streaming into a clearing, contrasted by surrounding shady wooded areas.

To see full galleries of photos taken at precise points in Ann Arbor natural areas, check out the [Photo Monitoring Web Map!](#)

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## Butterfly Survey

### BUTTERFLY SURVEY BY THE NUMBERS:

88 hours volunteered  
6 volunteers  
11 parks  
41 species

156 observations

*Featured species photos:*

**Acadian hairstreak butterfly** – a light gray small butterfly, showing sparsely-distributed black streaks that start midway back and approach the white edging of the wings, and an orange smudge on the lower part of the wing near the back edge.

**Red-spotted purple butterfly** – a very colorful butterfly with a range of and bright blue and rusty brown areas, punctuated by medium-sized glowing orange spots with deep black edges and borders. A thick black, white, and light blue striped pattern runs along the back of the wings from top to bottom.

**Harvester butterfly** – caramel and brown wings with large, brown spots thinly edged in white. Some dark brown edging on the wings, a bright white body with black mask.

**Cecropia moth caterpillar** – a blueish gray body with subtle segment grooves. Tiny, colorful, columnar protrusions (each crowned with a handful of eyelash-like hairs) run the length of head and body. Two rows of yellow down the middle of the back, a row of blue along each side of the body, and on the head, slightly larger, and red.

**Eastern tiger swallowtail** – pale yellow wings edged in black, with black tiger stripes running across the top half of the wings, parallel to the body. The bottom edges of the wings are serrated with yellow spots on black, with two extended tips forming the “swallow tail.”

**Saddleback caterpillar moth** – a green caterpillar with a large brown spot on the back, resembling a saddle. Furry/hairy along the bottom edge of the body, this caterpillar also has four large, distinctive, spined projections at the front and back.

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## Greenbelt and Parkland Acquisition

*Photo: Autumn scene at Mary Beth Doyle Park showing wetland plants and a distant woodland, all in fall colors below a dramatic blue sky with large clouds.*

### ABOUT GREENBELT

The [Greenbelt](#) program is an innovative land preservation program that has protected thousands of acres of farmland and open space surrounding the city of Ann Arbor, and has leveraged millions through grants, landowner donations and other locally funded programs.

More about the Greenbelt and Parkland Acquisition:

[FY2022 Report](#)

[Greenbelt Strategic Plan](#)

Check out this [interactive map](#) of the Greenbelt properties.

## THE ROLE OF THE LAND ACQUISITION SUPERVISOR

In 2022, Parks and Recreation welcomed **Rosie Pahl Donaldson** as Land Acquisition Supervisor for the Open Space and Parkland Preservation program – commonly called the Greenbelt. While the Greenbelt and Parkland Acquisitions aren't NAP (and the programs are still funded by separate millages) we are now one Conservation Operations team. The Land Acquisition Supervisor's role has been positioned closely with NAP so that we can collaborate more fluidly on our common missions: **land preservation and protection**. In this report, we are keen to highlight some accomplishments by our Greenbelt colleagues from Fiscal Year 2022.

## PARKLAND ACQUISITION: MARY BETH DOYLE PARK EXPANSION

City Council unanimously authorized the purchase of a 3.77-acre property adjacent to [Mary Beth Doyle Park](#) – the property scored in the 96<sup>th</sup> percentile of all parkland acquisition applications on record. The City closed on the \$1.48M purchase in August 2021, increasing the size of Mary Beth Doyle to 85.17 acres and the City's total parkland to a staggering 2,210 acres.

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## Greenbelt Acquisition: Maisel Property

*Photos from Maisel Greenbelt application: Wooded area with leafless trees and a massive, gnarled red maple; Aerial view photograph with property outlined in red; The edge of a forested area bleeds into a lush meadow; A green farm field with trees in the background and a cloudless blue sky; Oak hickory wooded area with dormant trees casting dramatic shadows on the forest floor.*

## ABOUT THE MAISEL ACQUISITION

The 220 acre property in Northfield Township presented the rare opportunity to purchase **more than 200 contiguous acres** at once, including 90 acres of what is likely primary growth forest. The very large block of forests contains many **swamps, vernal pools, buttonbush shrub swamps**, but also **oak forests** – both wet and dry systems. There are also known **heron rookeries** nearby.

MLive article about Greenbelt's purchase of Maisel property: ["\\$1.44M conservation purchase sets up one of largest nature preserves in Ann Arbor area"](#)

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## Greenbelt Acquisition: Maisel Property Carbon

In 2021, the Greenbelt worked with a [UM SEAS](#) team to assess the carbon storage capacity of the Greenbelt's portfolio of protected lands. The [assessment](#) calculated carbon storage of forested and wetland acres, both above and belowground.

### ABOVEGROUND CARBON STORAGE ON THE MAISEL PROPERTY

*Using the SEAS assessment with the [EPA Carbon Equivalencies Calculator](#):*

If the property was clear-cut, slashed-and-burned (not the kind of burns NAP conducts), the 10,803,518 kilograms of carbon stored aboveground at the Maisel Property would be released as 39,613.26 metric tons of carbon dioxide.

39,613.26 metric tons of carbon dioxide is equivalent to greenhouse gas emissions from 98,327,359 miles driven by an average gasoline-powered passenger vehicle, or the lifetime miles of 492 cars (i.e. average gasoline-powered passenger vehicles).

This is equivalent to the carbon sequestered by 655,003 tree seedlings grown for 10 years, or 46, 879 acres of U.S. forests in one year.

#### *Social cost of carbon*

*The social cost of carbon represents the societal costs, in terms of the long-term damage done to both the environment and human health, that are associated with the emission of one extra ton of CO<sub>2</sub> (U.S. EPA, 2016).*

2021 EPA social cost of carbon (metric tons of carbon dioxide): **\$51**

Total EPA social cost of carbon on Maisel site: **\$1,010,138.12**

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## Stewardship Workday Feedback

*Photo 1: Two volunteers wearing work gloves pause cutting down invasive shrubs to smile for the camera.*

*Photo 2: A pair of friends dressed for early spring give a thumbs up to the camera while wearing leather work gloves.*

*Photo 3: At a spring workday pulling invasive weeds, two volunteers smile for the camera.*

### WORKDAY FEEBACK QUOTES FROM VOLUNTEERS:

*"I love how I always learn stuff at these events, both from staff as well as other volunteers."*

*"Great learning experience."*

*“I really appreciated how educational the experience was. Especially the nature walk at the end.”*

*“This was great! I appreciated getting to hear about volunteer prescribed burn crews from the event leader and another volunteer and hope to get involved. We saw nesting red-tailed hawks and an oriole! It was a great morning.”*

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## Stewardship Workdays

*Photo 1: Elementary-age kids wearing masks lift orange plastic garbage bags over their heads to celebrate the load of invasive weeds they pulled at a summer workday.*

*Photo 2: In a wooded area during the summer, a group of college-age friends pose holding long handled loppers over their heads and smile for the camera.*

### STEWARDSHIP WORKDAYS BY THE NUMBERS:

- 5,758 hours volunteered
  - 3,854 public
  - 1,904 private
- 1,601 workday volunteers
  - 1,023 public
  - 578 private
- 105 workdays
  - 84 public
  - 21 private

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## Witnessing Restoration

*Photo: A large sunlit prairie at Ruthven Nature Area kame, rich with native grasses and flowers.*

### WHAT DOES 20 YEARS OF WORK LOOK LIKE?

Many natural areas look completely different than when NAP started restoration work in 1993. One volunteer recently attended a workday at Ruthven Nature Area – returning after working with NAP at the park 20 years ago! He told us he found the event on social media and was curious what the park looked like all these years later. He was more than impressed with the change he saw, specifically at the

kame, which is now completely cleared of the buckthorn shrubs that used to cover the glacially-formed hill. "I didn't remember it looking like this!"

Ruthven is one of the staff's favorite success stories as well, after many years of "Ruthven Fridays" where the conservation crew dedicated every Friday to cutting and removing more of the buckthorn shrubs on the kame. Now anyone can witness the impact of the countless hours put in by volunteers and staff alike – cutting invasive shrubs and conducting controlled burns - the hill is now covered in thriving native grasses and flowers, busy with pollinators and other wildlife.

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## Private Group Volunteering

*Photos: EMU Women's Swim and Dive Team at Marshall, October 2022; Indian American Student Association at Mary Beth Doyle, October 2022; UM Muslim Chaplaincy at Furstenberg, July 2022; Community High School volunteers at Sunset Brooks, May 2022; UM Delta Epsilon Mu at Argo, September 2022; EMU Delta Zeta at Fuller, March 2022; Criteo at Bird Hills, September 2022; UM Running Club at Bluffs, April 2022; UM Chi Psi at Bluffs, April 2022*

### PRIVATE GROUP VOLUNTEERING BY THE NUMBERS:

34 private groups  
1,904 hours volunteered

### PRIVATE GROUPS FROM 2022

Community High School	UM Indian American Student Association
Criteo	UM Kappa Alpha Pi
Emerson Eagle Corps	UM Michigan Community Scholars Program
Emerson School	UM Mosher Jordan Residence Hall
EMU Beta Alpha Psi/Accounting Club	UM Muslim Chaplaincy Ann Arbor
EMU Delta Zeta	UM Neuroscience Student Association
EMU Women's Swim & Dive Parks Project	UM Program in the Environment Club
Relief Society Latter Day Saints	UM Redefined
St. Mary Student Parish	UM Running Club/Mrun
Stantec Architecture	UM Sigma Gamma Tau Aerospace Eng. Honor Society
Toyota R&D Saline	UM Sigma Nu
Treetown Tech	UM Tau Beta Pi
Girl Scout Troop 7	UM Theta Alpha Psi
UM Beta Alpha Rho	UM Treasurer's Office
UM Chi Psi	Youth for Understanding
UM Delta Epsilon Mu	Youth Volunteer Corps
UM Epsilon Eta	

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## Best of Both Worlds

*Photo 1: A dozen volunteers sit on a wooded hillside at Onder Park pulling invasive weeds in early spring, with orange plastic garbage bags scattered throughout.*

*Photo 2: A volunteer sits alone – with other isolated volunteers in the background – pulling invasive weeds from the prairie at Furstenberg Nature Area.*

### SOCIALIZING (OR NOT) AT WORKDAYS

Many volunteers have found that NAP workdays offer even more than conservation activities. Once the training and orientation are done, and volunteers start cutting shrubs or pulling weeds, relationships begin to form. “The volunteers are sort of bound together and forced to interact,” noted one staff member, “everyone has something in common, they just need enough time to figure out what it is.”

Workday leaders experience this at most events – overhearing or participating in conversations where people are finding shared interests and then exchanging contact information. A wide range of connections have been made, prompted by everything from chatting about mountain biking, to students new to the area simply breaking the ice. “There are also the people who just want to put their headphones in and find some isolation and peace. It’s cool that we can offer the best of both the social aspect and the chance to be somewhat alone in nature.”

### WORKDAY FEEDBACK QUOTE FROM A VOLUNTEER:

*“I think I enjoyed this event the most out of the several I've participated in (all great). This one stood out though because there was a lot of interaction among the volunteers and there were quite a few children present. I think the increased socializing was because many of us had worked together before, but also because the work didn't require us to be spread out very much (also some aspects required people to work together).”*

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## Discovering Nearby Nature

*Photo 1: Late summer brightly-blooming goldenrod and very tall big bluestem grasses in the foreground, with a small child running away from the camera deeper into the grasses.*

*Photo 2: Ironweed in focus. Vibrant pink-purple flower with a wide inner ring of very thin petals, with pairs of longer petals, spaced at intervals, shooting out from the sides.*

*Photo 3: An area of goldenseal - low-growing, large, green, compound leaves with a few small red seed clusters.*

“I LIVE RIGHT HERE, AND DIDN’T KNOW IT WAS HERE”

NAP workdays can introduce parks and natural areas to people who may not have discovered these places otherwise. We get a fair number of folks who come to workdays because they are required by their university to participate in volunteer activities or even conservation work. These volunteers often remark that they are thankful to discover parks and natural areas accessible from campus, or in the part of town where they live. Even people who have lived in Ann Arbor their whole lives have mentioned that “I live right here and didn’t know it was here.”

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## Links and Sources

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- Eastern red-backed salamander - <https://www.inaturalist.org/taxa/27186-Plethodon-cinereus>
- Brown snake - <https://www.inaturalist.org/taxa/28562-Storeria-dekayi>
- Stanton, Ryan. “Did you know Ann Arbor employs experts to track turtles, birds and frogs?” *Mlive.com*, Aug. 01, 2022, <https://www.mlive.com/news/ann-arbor/2022/08/did-you-know-ann-arbor-employs-experts-to-track-turtles-birds-and-frogs.html>. Accessed Wednesday, Dec. 21, 2022.

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- Butler’s garter snake - <https://www.inaturalist.org/taxa/28423-Thamnophis-butleri>
- Eastern garter snake - <https://www.inaturalist.org/taxa/28362-Thamnophis-sirtalis>
- Blue-spotted salamander - <https://www.inaturalist.org/taxa/52354-Ambystoma-laterale>
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- Stanton, Ryan. “Did you know Ann Arbor employs experts to track turtles, birds and frogs?” *Mlive.com*, Aug. 01, 2022, <https://www.mlive.com/news/ann-arbor/2022/08/did-you-know-ann-arbor-employs-experts-to-track-turtles-birds-and-frogs.html>. Accessed Wednesday, Dec. 21, 2022.

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- Osprey - <https://ebird.org/species/osprey>
- Trumpeter Swan - <https://ebird.org/species/truswa>
- Black-crowned Night Heron - <https://ebird.org/species/bcnher>
- Red-shouldered Hawk - <https://ebird.org/species/reshaw>

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- Dickcissel - <https://ebird.org/species/dickci/>



- Marsh Wren - <https://ebird.org/species/marwre/>
- Henslow's Sparrow - <https://ebird.org/species/henspa/>
- Hooded Warbler - <https://ebird.org/species/hoowar/>

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- Gallup Park - <https://www.a2gov.org/departments/Parks-Recreation/parks-places/Pages/Gallup.aspx>
- Furstenberg Nature Area - <https://www.a2gov.org/departments/Parks-Recreation/parks-places/Pages/Furstenberg.aspx>
- South Pond Nature Area - <https://www.a2gov.org/departments/Parks-Recreation/parks-places/Pages/SouthPond.aspx>

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- Photo Monitoring Web Map – <https://experience.arcgis.com/experience/2ab179c8b6c24b4ebb0de0ce31692262>

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- Acadian hairstreak - <https://www.inaturalist.org/taxa/198805-Satyrium-acadica>
- Red-spotted purple - <https://www.inaturalist.org/taxa/58585-Limenitis-arthemis-astyanax>
- Harvester - <https://www.inaturalist.org/taxa/81729-Feniseca-tarquinius>
- Cecropia moth caterpillar - <https://www.inaturalist.org/taxa/81582-Hyalophora-cecropia>
- Eastern tiger swallowtail - <https://www.inaturalist.org/taxa/60551-Papilio-glaucus>
- Saddleback caterpillar moth - <https://www.inaturalist.org/taxa/122228-Acharia-stimulea>

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- Ann Arbor's Greenbelt program - <https://www.a2gov.org/greenbelt/Pages/greenbelthome.aspx>
- Greenbelt and Parkland Acquisition FY2022 Report - <https://www.a2gov.org/greenbelt/Documents/FY%202022%20Annual%20Report.pdf>
- Greenbelt Strategic Plan - [https://www.a2gov.org/greenbelt/Documents/Greenbelt Strategic Plan 2019.pdf](https://www.a2gov.org/greenbelt/Documents/Greenbelt%20Strategic%20Plan%202019.pdf)
- Greenbelt map - <https://www2.a2gov.org/GIS/MapAnnArbor/Greenbelt/>
- Mary Beth Doyle Park - <https://www.a2gov.org/departments/Parks-Recreation/parks-places/Pages/Brown.aspx>

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- University of Michigan School of Environment and Sustainability - <https://seas.umich.edu/>
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University of Michigan, <https://deepblue.lib.umich.edu/handle/2027.42/167368>. Accessed Wednesday, December 21, 2022.

- Environmental Protection Agency Carbon Equivalencies Calculator - <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

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- Ruthven Nature Area - <https://www.a2gov.org/departments/Parks-Recreation/parks-places/pages/ruthven.aspx>
- Can you find the native fauna hiding on this page: bats, a songbird, a spider web, butterflies, moths, a dragonfly, bees, a rabbit, a snake, a grasshopper, and a vole?

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- NAP Group Volunteering Form - <https://www.a2gov.org/departments/Parks-Recreation/NAP/volunteering/Pages/Volunteer-Sign-Up-Form.aspx>

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## Photo Credits

Cover

- Mary Beth Doyle Park, October 2022, by Photo Monitoring volunteer, Alena Aniskiewicz

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- Furstenberg prairie, July 2022, by NAP Photographer

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- Bee balm and black-eyed Susan at Ruthven, July 2022, by NAP Photographer

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- Volunteers hauling large trash out of Bluffs, March 2022, by NAP Photographer
- Volunteers at Bird Hills, October 2022, by NAP Photographer

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Barton Precise Point 39, September 2022, NAP Photo Monitoring volunteer Lissa Spitz

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- Argo Cascades Burn, March 2022, by NAP Staff
- South Pond Burn, March 2022, by NAP Staff
- Conservation Crew Intern Indira Sankaran at Furstenberg Burn, August 2022, by NAP Staff
- Burn Crew at Kuebler Langford Burn, March 2022, by NAP Staff

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- Volunteers during nature walk with Park Steward Lisa Johnson at Miller, April 2022, by NAP Staff
- Junior volunteer gets lopper training at Miller, March 2022, by NAP Staff

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- Eastern red-backed salamander by Conservation Crew
- Brown snake by Conservation Crew

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- Herp Survey volunteer Antoni Wierzbicki, courtesy of Antoni
- [Butler's garter snake](#) © Josh Vandermeulen ([CC BY-NC-ND 4.0](#)), via [iNaturalist](#)
- [Eastern garter snake](#) ©Patrick Randall ([CC BY-NC-SA](#)), via flickr

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- Black-crowned Night Heron at Mary Beth Doyle, August 2022, by Breeding Bird Survey volunteer Corey Haselhuhn

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- *Osprey Dad Bringing Dinner*, by Jane Purslow from NAP's 2008 Photo Contest
- Trumpeter Swan at Gallup, 2018, by Photo Monitoring volunteer Harry Frank
- Black-crowned Night Heron at Mary Beth Doyle, August 2022, by Corey Haselhuhn
- [Red-shouldered Hawk](#) © Andy Morffew ([CC BY 2.0](#)), via Wikimedia Commons

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- [North American beaver](#), public domain, Glacier National Park Service
- Bark detail of black alder, by former NAP staff Amy Lipson
- Beaver gnawed aspen stump in a pond © Arbyreed ([CC BY-NC-SA 2.0](#)), via flickr

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- Photos from NAP Photo Monitoring Program

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- Acadian hairstreak, by NAP Photographer
- Red-spotted purple, Shutterstock
- Harvester at Black Pond Woods by Ronda Spink of the Michigan Butterfly Network
- Cecropia moth caterpillar by NAP Photographer
- *Tiger Swallowtail Sweet Landing*, by Michael Gay from NAP's 2008 Photo Contest

- Saddleback caterpillar moth, by former NAP staff Steven Parrish

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- Mary Beth Doyle Park, October 2022, by Photo Monitoring volunteer Alena Aniskiewicz

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- Photos from Maisel Property Greenbelt Application

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- Volunteers smiling at Bandemer, October 2022, by NAP Staff
- friends giving a thumbs up at Miller, March 2022, by NAP Staff
- Community High School students give a thumbs up, May 2022, by NAP Staff

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- Emerson School students celebrate at Olson Park, June 2022, by NAP Staff
- UM Indian American Student Association volunteers pose at Mary Beth Doyle Park, October 2022, by NAP Staff

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- Ruthven Nature Area kame, July 2022, by NAP Photo Monitoring volunteer Mike Stander

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All by NAP Staff:

- EMU Women's Swim and Dive Team at Marshall, October 2022
- Indian American Student Association at Mary Beth Doyle, October 2022
- UM Muslim Chaplaincy at Furstenberg, July 2022
- Community High School volunteers at Sunset Brooks, May 2022
- UM Delta Epsilon Mu at Argo, September 2022
- EMU Delta Zeta at Fuller, March 2022
- Criteo at Bird Hills, September 2022
- UM Running Club at Bluffs, April 2022
- UM Chi Psi at Bluffs, April 2022

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- Volunteers pull weeds at Onder, April 2022, by NAP Staff
- Park Steward Liz Geissner at Furstenberg prairie, July 2022, by NAP Staff

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- Barton Nature Area tall grass the summer after a fall burn, September 2021, by NAP Photo Monitoring volunteer Shifrah Nenner
- Kuebler Langford Nature Area ironweed, August 2022, by Photo Monitoring volunteer Steve Lyskawa

