

Natural Area Preservation Year End Report 2023

Conservation Ops Team 2023

CURRENT STAFF LIST

Becky Hand, Stewardship Supervisor
Dana Novak, Workday Coordinator
Eleva Potter, Environmental Education and Engagement Coordinator
Em Livingston, Conservation Crew
Gabby DeMott, Conservation Crew
George Hammond, Field Biologist
Jess Einck, Conservation Crew
Josh Doyle, Conservation Crew
Juliet Berger, Ornithologist
Leah Jones, Outreach Assistant
Matthew Spoor, Park Steward Coordinator
Rachel Maranto, Stewardship Supervisor
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 2023

Brady Friss, Crew Leader
Chloe Hernandez, Conservation Crew
Kirstin Palumbo, Conservation Crew
Mike Hahn, Stewardship Specialist

Decades of Conservation

The City of Ann Arbor is home to two exceptional conservation ventures: the Natural Area Preservation (NAP) division of Parks & Recreation which stewards and restores our natural communities, and the pioneering Greenbelt program that permanently protects agricultural and natural lands surrounding Ann Arbor. The overlapping visions of these efforts were born of exceptional investments from a community deeply grounded in conservation. Both programs saw a future rooted in the stewardship and protection of our natural resources and understood these ventures offered solutions to the challenges we faced in the decades ahead.

Each trailblazing for their time – with NAP’s inception in 1993, and the Greenbelt’s a decade later in 2003 – the programs have worked diligently and persistently for decades, growing into what are now exemplary pillars of conservation in our community.

NAP, now thirty years on, and the Greenbelt at twenty years, are all but static undertakings. The programs, the staff, and the spirit are dynamic, evolving, and innovative. This past year serves as a potent example of these program’s dedication to their conservation missions and to progress.

The Greenbelt broke new ground in 2023. Years in the making, the Greenbelt launched its first-ever buy-protect-sell (BPS) affordable farmland purchasing opportunity. BPS is a new acquisition framework that fulfills the Greenbelt’s primary objective of permanent land conservation, while also providing for secondary outcomes aimed at addressing farmland insecurity and local food system development in the Ann Arbor area.

The nature of BPS acquisitions results in greater risk and complexity for the Greenbelt to navigate, but – all the same – staff have carried out these innovations with grace and proficiency. At their last meeting of the calendar year, City Council approved the sale of the Greenbelt’s first two BPS properties, signaling the final City-approval needed to conclude this proof-of-concept project.

NAP underwent its first-ever strategic planning process; engaging partners, stakeholders, focus groups, and the public yielded crucial feedback that reinforced the values NAP has long embodied, and offered us new ideas to leverage as the mission adapts to shifting ecological and social conditions. This process came across several staffing transitions, testing the division’s ability to balance delivering consistent programming while also looking toward the future with openness and resolve.

I couldn’t be prouder to say that NAP struck that balance, showed unwavering commitment to growth, and is – at long last – operating at full capacity once again. My sincerest thanks for the staff and the public that took part in this necessary process to define NAP’s guiding start for the decades ahead.

All this is to say, new opportunities and developments are rising from the City’s conservation horizon. As pillars of our community’s conservation ethic, both NAP and the Greenbelt are unrelenting in their dedication to visioning, building out, and sustaining this community’s conservation success story. This year’s accomplishments exemplify that ardent work.

- Remy Long, Deputy Manager, NAP and Land Acquisition

Conservation Crew

CONSERVATION CREW - BY THE NUMBERS:

2,749 hours worked

Invasive species control – 70%

Controlled burns – 13%

Revegetation – 1%

Trail work – 17%; includes 95 [tree-over-trail blockages](#) cleared

Stewardship Workday Feedback

WORKDAY FEEDBACK QUOTES FROM VOLUNTEERS:

“We were well prepared by our guide to do good service and learned a lot along the way.”

“We very much appreciated how the staff were both professional and friendly. Their approach made the event purposeful and enjoyable. We love that this city has such programs and the people making it happen are wonderful. Thanks!”

“It was great, thank you!! Hopefully I will see you all soon! My arms and legs definitely have been hurting for the last two days but it was totally worth it :)”

Park Stewards

PARK STEWARDS BY THE NUMBERS:

3,704 hours volunteered

43 stewards

27 parks

PARK STEWARDS LIST

Molly Brookshire

Mark Charles

David Clipner

Dave Crockett

Brooks Curtis

Robin Damschroder

Tim Damschroder

Libby Davenport

Rob Davenport

Mary Duff-Silverman

Ron Emaus

Jason Frenzel

Richard Gaglio

Donald Giacherio

Liz Giessner

Brian Glass

Ted Hejka

Ann Hubbard

Ray Hunter

Stephanie Hunter

Lisa Johnson

Margot Mehringer

Rita Mitchell
Karin Monnett
Tiffany Ng
Jeannine Palms
Jonathan Parker
Walter Parry
Alyssa Pozniak
Catherine Riseng
Bill Rosen
Scott Rosencrans
Eric Russell
Jennifer Rutkiewicz
Judy Schmidt
Manfred Schmidt
Peter Smith
Deb Vandenbroek
Curtis Vincze
Jim Vincze
Ellen Ward
Doug Wood
Jim Young

Controlled Burns

CONTROLLED BURNS BY THE NUMBERS:

213 hours volunteered
42 acres
11 parks
42 volunteers

Check out this [photo essay](#) from The Michigan Daily from a controlled burn at Leslie Woods Nature Area in November.

New Tools for Land Management

These photos are products of the City of Ann Arbor Parks drone, purchased a couple years ago. After staff earned a Commercial Drone License, NAP has used the drone to get another perspective of its natural areas, promote our burn work, and test its potential to aid land management.

Stewardship Workday Feedback

WORKDAY FEEBACK QUOTES FROM VOLUNTEERS:

“Our expectations were exceeded as we received a lot of useful information and our kiddos, seven and nine years old, were treated as part of the working team. We will be signing up for future events!”

“The workday leader was charismatic and kind and made the workday fun.”

Amphibian and Reptile Surveys

FROG & TOAD SURVEY

200 hours volunteered

45 volunteers

From March through June, volunteers visited listening points around the city 502 times. We recorded all 7 of the frog species we hope to find, and our one valiant toad, the American toad.

SALAMANDER SURVEY

240 hours volunteered

42 volunteers

Special find: Volunteer Dan found a **blue-spotted salamander** at one of our frog listening points—where we had no idea salamanders might be breeding. This could be a new salamander site for us! We’ll follow up next spring with some live-traps to see what’s going on.

TURTLE STEWARDS

358 hours volunteered

68 volunteers

Special find: Volunteer Keith found a **yellow-bellied slider** turtle in Argo Pond. This is a close relative of the more common and widely-released red-eared slider (the two are subspecies of the same species). Neither subspecies is native to Michigan, so it’s a safe bet that this slider was released here or is descended from turtles brought here in the recent past. It’s a new type of turtle to watch for!

SNAKE OBSERVATIONS

Volunteer Antoni found a couple of juvenile [eastern milk snakes](#) just outside of Oakwoods Nature Area. This species is not rare in the state, but very rare in the city. These snakes were at a site he has been checking for years, why there now? Could they be released captives? Another mystery.

A Special Wildlife Find

QUEENS OF THE HURON

Queen Snake, *Regina septemvittata*

Regina (queen)

Septemvittata (seven-striped)

One of the highlights of 2023 has been to see a few [queen snakes](#) basking along the banks of the Huron River. These harmless snakes are rare in Michigan, and we are lucky to have a small population of them in the city.

The [Michigan Natural Features Inventory](#) has rated them a Species of Special Concern, and they are a Species of Greatest Conservation Need, both in the state and across the Midwest region.

NAP first learned of **queen snakes** in the city from a snake-savvy volunteer who spotted them on a stream close to the river. We searched for them at that site for years with little success, following the advice of guidebooks that emphasize how they like rocky streams. Then just in the last couple of years park visitors and NAP staff have discovered that they are along the river itself too. They are not easy to find – they spend most of their time in the water or under rocks, but they will climb up on shrubs and tree branches at the water’s edge to bask on sunny days. We have been surprised to find some of them several yards up. If a potential predator (like a person) gets too close, they quickly drop into the water and swim away.

Nobody is quite sure why this snake got the regal moniker, Regina. The seven stripes, however, are easy to find on juveniles. Four stripes run down the belly, and the three stripes on a young snake’s back will fade to a darker color as it matures.

Queen snakes look a bit like garter snakes but lack the light-colored stripe down the middle of the back, and unlike any other Michigan snake, they have stripes running down their bellies. If you see a snake along the river, we’d be glad to know about it, and we’d love to see a picture if you can get one. It might be a queen! Can you find all three queen snakes in the honeysuckle on this page?

Queen snakes are specialists – they need particular habitat types and are very picky eaters. Like all snakes they are predators, but these snakes pretty much only eat one kind of prey. More than 90% of their diet is [freshly-molted crayfish](#). The snakes seek out these “softshell” crayfish in streams and near the shores of ponds and lakes, especially in rocky narrow streams where crayfish flourish in the pools

and can hide in the rocks. Human activity has greatly reduced the quality of these habitats, and so the species seems to be in decline.

Breeding Bird Survey

BBS BY THE NUMBERS:

172 species
495 hours volunteered
55 volunteers

[Black-crowned Night-herons](#) (SC) at Mary Beth Doyle continue to be the stars of twilight, with several youngsters and adults showing well throughout the breeding season. [Marsh Wrens](#) (SC) nested at Swift Run pond this year, with at least 5 males singing in the cattails through the season. [Red-shouldered Hawks](#) (SC) continued at Wheeler Service Center. [Trumpeter Swans](#) (SC) had 2 nesting attempts, one at Wheeler Service Center, and one at the Water Treatment Plant settling pond, both of which failed.

We also spotted an immature [Red-headed Woodpecker](#) (SC) at the Wheeler Service Center, leading us to presume that we have provided habitat for this rare woodpecker to nest.

E, Endangered - In danger of extinction.

T, Threatened - Likely to become endangered.

E and T species are protected under the Endangered Species Act of the State of Michigan.

SC, Special Concern - SC species are not protected. Should these species continue to decline, they would be recommended for T or E status.

SC species are designated by the Michigan Department of Natural Resources.

NEST BOX MONITORING

73 hours volunteered
11 volunteers

Our new Nest Box Monitoring program was a huge success, fledging at least **39 young [Eastern Bluebirds](#)** from **12 nesting attempts!**

[Black-capped Chickadees](#), [House Wrens](#), and [Tree Swallows](#) had a successful year, as well, with many nests and fledglings.

Cutting Edge Science: Motus Tower Installation

In cooperation with the Kalamazoo Valley Bird Observatory and the Kalamazoo Nature Center, NAP facilitated the installation of a wildlife tracking tower at Huron Hills Golf Course. Called a Motus tower, it was installed as part of a U.S. Fish and Wildlife Service grant to establish towers across the state of Michigan. Ann Arbor was the last gap in the chain of towers that needed to be filled, so NAP was excited to facilitate the project.

Motus antennae detect birds and other organisms fitted with transmitter tags within a 15 km radius of each tower. Our tower has already detected two state listed birds: [Eastern Whip-poor-will](#) (T), and [Kirtland's Warbler](#) (E).

Information gained from Motus towers has immensely expanded researchers' knowledge of migration patterns in various species of birds, bats, and insects like [Monarch butterflies](#) and dragonflies. Knowing migration patterns will help us to better protect critical habitat for the migrating animals we love.

Check out this Michigan Radio article covering the tower installation: '[Wildlife tracking tower in Ann Arbor fills gap in statewide network.](#)'

Photo Monitoring

PHOTO MONITORING BY THE NUMBERS:

- 209 hours volunteered
- 567 photos
- 26 parks
- 31 volunteers

[Photos of Miller Nature Area Precise Point 11](#); Progress from Shrub Cutting by Park Stewards:

September 6, 2022 – A jumble of green shrubs and vines completely obscures the forest

April 18, 2023 – A forest looks open and without shrubs blocking the view of tree trunks. It appears that work done by Park Stewards has removed the dominant invasive shrubs.

[Photos of Leslie Woods Nature Area Precise Point 38](#); Honeysuckle After a Fall Burn:

September 6, 2022 – A shrub with green leaves and red berries dominates an area of a forest.

April 18, 2023 – A forest with trees and leaves looks yellowed and burned. The shrub from November, 2023 seems to have been killed by a controlled burn.

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

Butterfly Survey

BUTTERFLY SURVEY BY THE NUMBERS:

302 butterflies observed
37 species
80 hours volunteered
62 surveys completed
7 volunteers

Butterfly volunteers traversed a total of 51 trail miles while conducting surveys!

Featured species:

Eastern tiger swallowtail – *native species observed at the most parks* – a pale yellow butterfly with black markings on the margins of the wings and white body with black spots on a purple flower.

Pearl crescent – *most observed native species* – a butterfly with bright orange and black markings sits on a yellow flower.

Environmental Education

CREATIVE ADVENTURES WITH THE NATURAL WORLD

Local K-5 students and their families spent time outside this fall engaging with nature by thinking like a squirrel, identifying insect habitat, and practicing fire-building techniques. Fun nature crafts tied the learning together with hands-on practice and mementos to bring home.

ARTISTIC EXPLORATION AND ENRICHMENT

Adults at the Ann Arbor Senior Center painted, printed, and journaled their way to a deeper appreciation of nature.

Recreating what we've observed in nature through creative practice can help reinforce the knowledge we've gained.

Painting native bird species can help break down the visual cues we use to identify them in the field.

Carving a leaf to create a block print allows the shape, lines, and textures to stand out in our mind's eye.

Constructing a journal for nature observations strengthens our connections to nature and our time spent there.

These simple techniques can bring much beauty and joy to artists and naturalists at any level.

Greenbelt and Parkland Acquisition

In 2003, residents of Ann Arbor approved the Open Space and Parkland Preservation Millage, authorizing a 30- year, 0.5 mil tax levy to provide funds for the preservation and protection of public and private open space, natural habitats, and agricultural lands in the Greenbelt area surrounding Ann Arbor.

BUY-PROTECT-SELL, SUCCESS

After a year of planning, the City of Ann Arbor Greenbelt program issued its first-ever Request for Proposal (RFP) over the summer for farmers interested in purchasing conserved farmland at a reduced price via the Greenbelt’s buy-protect-sell (BPS) initiative, a new effort to create equitable and affordable farmland purchasing opportunities surrounding Ann Arbor, adding more social benefits on top of continued land preservation.

This first purchasing opportunity was a farm on Nollar Road in Northfield Township being sold in two parts: a 20-acre “North Parcel” and a 34 -acre “South Parcel.” Applicants could submit proposals to purchase either parcel, or both. Proposals mostly consisted of a business plan; the sale prices of the parcels were fixed. Six complete, competitive proposals from all local applicants were received.

At their December 18th meeting, City Council [passed resolutions](#) to sell the North Parcel to Matt Demmon and the South Parcel to Kristen Muelhauser. Both awardees operate their successful, five-year-old businesses on leased land and have not been able to access the costly land ownership market.

To date, the Greenbelt program has successfully helped to preserve 7,600+ acres of land.

Demmon’s business, Feral Flora, grows native plants and seed for use in restoration projects and landscaping. Kristen’s business, Raindance Organic Farm, grows vegetables and flowers and sells them at the Ann Arbor Farmers Market. Both will now be able to invest in the health of their land, have greater stability, and grow their businesses.

Stewardship Workday Feedback

WORKDAY FEEBACK QUOTES FROM VOLUNTEERS:

“Appreciate the nature talk after and during the work. I can apply what I learnt in my own backyard.”

“It was a great event!”

“Well organized and lots of good energy from the staff and lead volunteer. The nature walk was information packed.”

“I thought the staff did an excellent job leading this event. They were especially great at emphasizing the value/importance of the work we had done which I think was particularly good for the youngest volunteers.”

Stewardship Workdays

STEWARDSHIP WORKDAYS BY THE NUMBERS:

6,055 hours volunteered
 4,471 public
 1,584 private
1,314 workday volunteers
 654 public
 660 private
125 workdays
 90 public
 35 private

Private Group Volunteering

PRIVATE GROUP VOLUNTEERING BY THE NUMBERS:

49 private groups
2,839 hours volunteered

PRIVATE GROUPS FROM 2022

Arbor Psychology Group
Community High School
Concordia University Cardinals Baseball
Concordia University
Criteo
Cub Scout Pack 131
EMU Women's Swim & Dive
EMU The Goats
Everactive
Friends of Dicken Woods

General Motors GPD Track Team
Girl Scout Troop 7
Girl Scout Troup 40739
Girl Scout Troup 41602
Greenhills School
Hebrew Day School of Ann Arbor
LGBT Outdoors
Navitas Systems
Singh & Kaur Foundation
St. Mary Student Parish

TRC
Tree Town Trail Runners
UM AKA Beta Eta
UM Alpha Epsilon Delta
UM Alpha Tau Pi
UM Beta Mu Epsilon
UM Cernak Lab
UM Chi Epsilon
UM Chi Psi
UM Delta Gamma
UM Epsilon Eta
UM Ford School of Public Policy
UM Global CO2 Initiative Student Assoc.
UM LSA Student Government

UM Medical Scientist Training Program
UM Michigan Community Scholars
UM Net Impact Undergraduate Chapter
UM Program in the Environment Club
UM Redefined
UM Running Club/Mrun
UM Sigma Gamma Tau
UM Tau Beta Pi
UM Tau Beta Sigma
Verizon
Washtenaw Audubon Society
Yale Day of Service
Youth for Understanding
Youth Volunteer Corps

Links and Sources

Conservation Crew

- Clark, Nathan. "Storm downs trees throughout Washtenaw County, blocking roads." *Mlive.com*, Jul. 26, 2023, <https://www.mlive.com/news/ann-arbor/2023/07/storm-downs-trees-throughout-washtenaw-county-blocking-roads.html>

Controlled Burns

- Turner, Lila. "Photo Essay: Controlled ecological burns in Ann Arbor" *MichiganDaily.com*, Dec. 6, 2023, <https://www.michigandaily.com/multimedia/photos/photo-essay-controlled-ecological-burns-in-ann-arbor/>

Amphibian & Reptile Surveys

- Blue-spotted salamander - <https://www.inaturalist.org/taxa/52354-Ambystoma-laterale>
- Yellow-bellied slider - <https://www.inaturalist.org/taxa/39793-Trachemys-scripta-scripta>
- Eastern milksnake - <https://www.inaturalist.org/taxa/515419-Lampropeltis-triangulum>

Queen Snakes

- Michigan Natural Features Inventory, queen snakes - <https://mnfi.anr.msu.edu/species/description/11511/regina-septemvittata>
- Queen snake - <https://www.inaturalist.org/taxa/28850-Regina-septemvittata>
- Eastern garter snake - <https://www.inaturalist.org/taxa/28362-Thamnophis-sirtalis>
- Schroeder, Brandon; Glon, Mael; Smith, Kelley. "Explore Michigan's wonderful world of crayfish." *Michigan State University Extension*, Dec. 12, 2016, https://www.canr.msu.edu/news/explore_michigans_wonderful_world_of_crayfish_msg16_schroeder16

Breeding Bird Survey and Nest Box Monitoring

- Black-crowned Night Heron - <https://ebird.org/species/bcnher>
- Marsh Wren - <https://ebird.org/species/marwre/>
- Red-shouldered Hawk - <https://ebird.org/species/reshaw>

- Trumpeter Swan - <https://ebird.org/species/truswa>
- Red-headed Woodpecker - <https://ebird.org/species/rehwoo/>
- Eastern Bluebird - <https://ebird.org/species/easblu/>
- Black-capped Chickadee – <https://ebird.org/species/bkcchi/>
- House Wren – <https://ebird.org/species/houwre/>
- Tree Swallow - <https://ebird.org/species/treswa/>

Motus Tower Installation

- Weiler, Beth. “Wildlife tracking tower in Ann Arbor fills gap in statewide network.” *Michiganpublic.org*, Oct. 5, 2023, <https://www.michiganpublic.org/environment-climate-change/2023-10-05/wildlife-tracking-tower-in-ann-arbor-fills-gap-in-statewide-network>
- Eastern Whip-poor-will - <https://ebird.org/species/easwpw1/>
- Kirtland’s Warbler - <https://ebird.org/species/kirwar/>
- Monarch butterfly - <https://www.inaturalist.org/taxa/48662-Danaus-plexippus>

Photo Monitoring

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

Butterfly Survey

- Eastern tiger swallowtail - <https://www.inaturalist.org/taxa/60551-Papilio-glaucus>
- Pearl crescent - <https://www.inaturalist.org/taxa/52925-Phyciodes-tharos>

Greenbelt and Land Acquisition

- Stanton, Ryan, “U-Pick flowers and organic crops among plans for 2 Ann Arbor greenbelt farms.” *MLive.com*, Dec. 27, 2023, <https://www.mlive.com/news/ann-arbor/2023/12/u-pick-flowers-and-organic-crops-among-plans-for-2-ann-arbor-greenbelt-farms.html>
- Greenbelt interactive map - <https://www2.a2gov.org/GIS/MapAnnArbor/Greenbelt/>

Private Group Volunteering

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