NOVEMBER 2019 NEWSLETTER CLIMATE VULNERABILITY EDITION



The party is over We can find better ways to have fun

It looks as though the fossil fuel-crazed party that has been in progress for well over a century has gone completely off the rails. As the consequences of this oil-binge hit home in ever more apparent ways, even the kids are now calling the cops on the reckless adults in the room before they burn down the house.

While it's not news to Audubon members that thoughtless indulgence in fossil fuels has been heading in a bad direction for a long time, more and more partygoers are seeing the need to cut off the booze, turn up the lights and start cleaning this mess up—NOW. We're finally beginning to see proposals that are big enough and bold enough to put an end to our petroleum madness and set our society on the road to sustainability.

Two such initiatives dovetail particularly well with the work Madison Audubon has long advanced. First, the United Nations has declared the years 2021 through 2030 as the UN Decade on Ecosystem Restoration, aiming to "massively



scale up the restoration of degraded and destroyed ecosystems as a proven measure to fight the climate crisis and enhance food security, water supply, and biodiversity." Second, several promising variations on a Green New Deal have been advanced to address the intertwined problems of climate change and economic inequality.

Madison Audubon has dedicated the last five decades to ecosystem restoration, so we're all set to lean in on a massive push over the next decade. Working at Goose Pond, Faville Grove and other parks and private properties in south-central Wisconsin, we have developed the expertise needed to implement, on a landscape scale, some of the most diverse ecological restorations. That diversity has been shown to be key to restoring ecosystem functions including, among many other functions, carbon storage in the soil.

The party, continued

For more than two decades, Madison Audubon has provided internship opportunities in restoration ecology for college students. More than 200 former interns are now in positions where they are using the knowledge and perspective they gained to advance, in many different ways, societal and ecological sustainability. We're going to need their expertise over the course of the Decade on Ecosystem Restoration and beyond.

Like the internship program, Madison Audubon's education programs are building badly needed social capital. By introducing hundreds of young people from diverse backgrounds to the wonders of science and the outdoors, these programs are developing the engaged citizenry that will live and breathe the Green New Deal, so that we, and all creatures with which we share this amazing planet, may continue to live and breathe.

Let's get on with it. A world in which both people and planet are treated with respect will be much more fun than the drunken frenzy we're leaving behind.

Roger Packard, board president rpackard@uwalumni.com



Climate vulnerable

On Oct. 10, 2019, National Audubon released its new and groundbreaking report, "Survival by Degrees: 389 Bird Species on the Brink," which compiled 140 million bird records to determine which species are most at risk due to climate change. Wisconsin is home to up to 44 Highly Vulnerable Species, including those pictured above. Learn more at climate.audubon.org.



The cogs and wheels

Faville Grove's restorations focus on the details

Expanding our landscape-scale restorations at Faville Grove has meant a continued push to conserve and restore biodiversity—to keep, as Aldo Leopold said, "every cog and wheel." In the past year or so, with the help of volunteers, interns, and neighboring land conservancies, we have noticed a wealth of cogs reintroduced onto the landscape due to our efforts.

On a sandy glacial outwash plain, planted last year and known as the Sahara, we've already seen species with strong preferences for sandy soil like wild lupine, partridge pea, dotted horsemint, and wild petunia. Most of these species were likely extinct within Jefferson County save for a few individuals in the far southeast of the county in the Kettle Moraine.

Ambling up a rolling recessional moraine east of Helga's Prairie, almost 20 years old now, is a three-year-old restoration where a number of species of dry and delicate habitat have appeared, clawing their way out of gravelly ground that is likely limestone rich. These species include silky aster, grooved yellow flax, upland white goldenrod, and wormwood. Though just three years old, this prairie already harbors almost 18 species per square meter, providing nectar for pollinators throughout the growing season, and abundant hosts for different caterpillar and grasshopper species, which in turn feed a suite of grassland birds and spiders.

Faville Grove, continued

Other treasured species include dwarf blazing star and stiff aster. Dwarf blazing star is a state-threatened species, a short-statured inhabitant of dry prairies. Its magnificent little pink flower with wavy styles draws radiance from its dry and droughty surroundings, illuminating the rocky ground with subtle brilliance, unlike its ostentatious Liatris counterparts. Stiff aster is another species of dry prairies. I found this species this year with the interns, and because the plant was a non-flowering specimen just three inches tall, they asked, "How could you possibly know what that is?" The answer, I suppose, is that I've spent years collecting it, and have looked for this species on numerous occasions (without finding it). Upon seeing this little sprout, I knew that a cog within that prairie system had been restored.





This is not just lip service to biodiversity conservation. While seeing the diminutive stiff aster restored may seem trivial, it is decidedly not. Study after study have shown the value of biodiversity on our landscapes. In a prairie, each species of plant can support nearly ten species of insect. Recent research has shown that high diversity remnants—with different depths of roots resulting in highly porous soil—store much more carbon than simple restorations. Which brings us to the kicker: these individual cogs will help sequester carbon and are an admittedly small tool in the fight against climate change. However, increasing the biodiversity of the local landscape will make it more resilient as we move into these challenging climate scenarios. With highly diverse seed, some of it collected from areas well south of Lake Mills (which may help in a warming climate), we hope the systems we have put together can weather the storm.

Drew Harry, Faville Grove Sanctuary land steward

faville@madisonaudubon.org

Monarchs galore

A September to remember at Goose Pond Sanctuary

What a pleasure it is to live and work at Goose Pond, a place so vibrantly alive that monarch butterfly migration can be as remarkable as it was this year. These beautiful insects travel at least 1,745 miles from Goose Pond to their wintering grounds in Mexico, though many begin their journey farther north than Goose Pond and fly in a meandering zig-zagged route along the way. We began tagging monarchs in 2012, and this year added a number of extraordinary records for monarch migration at Goose Pond.



Record #1: Monarchs Tagged

In 2018, we tagged 1,061 monarchs and easily broke that record this year by tagging 2,100 butterflies. In the past eight years, 5,456 monarchs have been tagged at Goose Pond and partners tagged another 1,123 in the

Madison area. In the past seven years, 39 (1%) of our tagged monarchs have been recovered at the monarch reserves in Mexico.

Record #2: Monarch Taggers

A record number 220 people attended our nine tagging sessions. Participant ages ranged from five to 84 years old and all really enjoyed the events, especially the 85 people who caught 735 monarchs on Sept. 14!

Record #3: Monarch Roosts

In 2018, we found monarchs roosting in the yard on only three days, with a high of 107 and average of 39. This September, we conducted 20 roost counts with an average of 920 monarchs. On Sept. 9, there was a record 1,800 monarchs all in a single spruce tree buffered from the wind. On the morning of Sept. 16, we counted another 1,800. That day, there was a major migration and the following day only 32 monarchs remained.

Record #4: Most Monarchs per Hour

One sunny Sunday, Mark, JD Arnston, Arlene Koziol, and Arlene's grand-daughter tagged monarchs for one hour. JD netted 69 monarchs on just a half-acre of prairie! Mark tagged the butterflies and handed them to the youngster who released them, saying to each, "Have a safe journey to

Goose Pond, continued

Mexico," while Arlene recorded the data. This was an experience a young nature-lover will never forget. Her record of releasing 69 monarchs in one hour will be hard to beat.

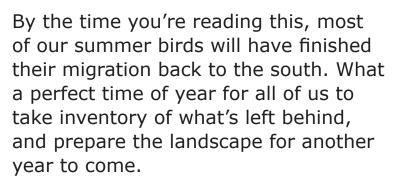
In addition to all these awesome, record-setting experiences, we also continue to work hard on advancing the Wisconsin Monarch Collaborative's work to add 119 million new stems of milkweed on the landscape by 2038. If nature were left to her own devices, this would hardly be a record number of milkweeds, but in our modern society it just might be. You can report your new milkweed additions ("new"

starting in 2014) by downloading HabiTally on your iOS smartphone, or by emailing brenna.jones@wisconsin.gov for Android or non-smartphone users. Help us be record-breakers for monarch conservation in our state!

Hopefully monarchs will have an excellent winter and breeding season next year, and we will find even higher numbers in 2020.

Mark Martin and Susan Foote-Martin, Goose Pond Sanctuary resident co-managers goosep@madisonaudubon.org

Coming soon: End-of-Migration Appeal



We invite you to prepare for the next year too! Soon, you will receive a letter in your mailbox from Madison Audubon asking for your help in advancing our work in 2020 by making a financial contribution. If you already donate to National Audubon, we hope you will

consider a separate, direct donation to Madison Audubon that supports local conservation right here in southcentral Wisconsin.

We have a lot of work to do together. From climate change to window collisions, habitat destruction to pesticide use, there is plenty to keep us all busy. Please take a moment to support local habitat restoration, environmental education, and bird conservation.

Thank you, and Flappy Holidays!

Your climate crisis pep-talk

Worn out by the doom and gloom? Read on.

The climate crisis is heavy stuff, and sometimes the deluge of data can be overwhelming. While it is important to understand and appreciate the gravity of the situation, we need to take care not to succumb to "apocalypse fatigue." We can neither be apathetic nor despair. So what's a person to feel? Hope. Motivation. Camaraderie.

Together, we can do this. There are real and tangible steps we can all take to limit global temperature rise to 1.5 degrees Celsius, which the recent Audubon climate change report (referenced on page 2) shows as the best-case scenario. Our individual actions really can make a difference. The action that will make the biggest impact is voting for candidates who will advocate for our planet. Our priorities and actions as a nation are more important now than ever.

Why do I think we can conquer this problem? We've done it before!

- Concerned citizens raised their voices against the reckless use of bird feathers for fashion, and formed the very first Audubon Society.
- We closed the ozone hole through international partnerships.
- The first Earth Day was a bipartisan event, and resulted in the creation of the Environmental Protection Agency, the Clean Water Act, and the Clean Air Act.
- We banned DDT, stopping eggshell thinning in raptors, allowing their

populations to rebound.

 We have successfully brought wildlife back from the brink of extinction: whooping crane, gray wolf, American crocodile, grizzly bear, white rhino.

I'm still hopeful. When I teach kids about the climate crisis, I emphasize that a lot of really smart people are working tirelessly to come up with solutions to this problem. What we all need is to know that others care about climate change too and we can work together to fix it. Our individual actions, our loud, confident, thoughtful voices, and our support of each others' efforts can be monumental. So remember—there is still hope. We can still hand off to the next generation an earth with functioning ecosystems.

It will be hard work, and it will require us to make some personal sacrifices. We still have time to act, but we must act now. And we must act together.

Carolyn Byers, education director carolyn.byers@madisonaudubon.org



Brisk, beneficial birding

Citizen science opportunities for the warmly dressed

When it's snowy, chilly, and there's a tempting book (or Madison Audubon newsletter!) to read, bundling up to go birding can be a big ask. However, some of our best citizen science projects occur in the winter months, so you can strap on your snow boots knowing it's for a good cause. Join us for one of these meaningful birding activities this season.

Christmas Bird Count — Dec. 14, 2019

This 120-year-old citizen science project takes a census of bird populations throughout the continent. To participate, join a local "circle" like the one in Madison, coordinated by our office. The Madison circle is divided into 23 areas, each with a captain. Those captains need volunteers to help survey their areas, counting the species and individual birds they find. New and experienced birders are welcome. The Madison-area count is Dec. 14, beginning early (6am-ish) and ending mid-afternoon. Visit madisonaudubon.org/cbc to sign up.

Bald Eagle Nest Watch — Feb.-Jun. 2020

Watch a bald eagle family grow!
Volunteers make weekly, hour-long
visits to a nearby bald eagle nest and
document what's happening with the
nesting pair and their young. The data
are shared with the WDNR, and in
some cases, these reports are the only
information the WDNR will get about

those nests. New and experienced birders are welcome, and training is provided. The season begins in February and goes through June or early July. Visit madisonaudubon.org/benw to volunteer.

Bird Collision Corps expansion team — Begins Jan. 2020

Our excellent BCC volunteers have completed a fourth survey period studying bird-window collisions on the UW-Madison campus. They continue to collect extremely valuable information about the types of buildings, landscaping styles, and window orientations that pose the greatest threat to birds. We would now like to expand the project beyond campus and need a team of dedicated volunteers to help strategize the process and serve as liaisons to the community. Visit madisonaudubon.org/bcc to learn more about the project, and email Brenna at comm@madisonaudubon.org to volunteer for the expansion team. In-person meetings and independent work would be required.



Board update

A slate of candidates up for renewal

The Madison Audubon board of directors consists of 13 members, four of whom are currently up for reelection. Those members are Galen Hasler, Joanne Jones, David Rihn, and John Shillinglaw. Candidate statements are available at madisonaudubon.org/board-statements.

The bylaws allow for members to nominate additional candidates. You may do so by submitting a brief statement from each nominee signed by at least 25 Madison Audubon members in good standing as of Nov. 1, 2019. Member nominations are due to the Madison Audubon office no later than Dec. 9.

Watch for ballots to appear in the February newsletter and please vote!

Last chance to register: Birding in Belize

Warm weather and tropical birds await

Trip date: Mar. 8-15, 2020

Deadline to register: Nov. 27, 2019

Eight days, infinite memories. This incredible nature-based experience gets you out of the doldrums of winter and into the exciting tropical world of Belize, where you will visit a variety of wildlife sanctuaries, parks, and gardens. Set your sights on hundreds of neotropical species you'd never get to see in Wisconsin, and dive deep into discussions around scarlet macaw conservation and ecotourism. This trip is coordinated by Holbrook Travel. Holbrook takes care of all the details for you, including activities, lodging, meals, in-country transportation, and language translation.

Registration costs include a small donation to Madison Audubon.

Trip details, costs, and registration at: holbrook.travel/madison-bz20



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Learn more about leaving your legacy to birds, habitat, and education through Madison Audubon's Legacy Society:

madisonaudubon.org/legacy-society

Holiday shopping

A shirt, a hat, or a membership for your beloved bird lover

If you have a bird-lover on your list, and \$20 to spend, we've got you covered. All of the items listed below are \$20 each (tax included, shipping is additional) and are the bee's knees. Shop online (madisonaudubon.org/store) or in our office (1400 E. Washington Ave., but please call ahead if you would like to stop by for in-person shopping: 608-255-2473).

GIFT MEMBERSHIP: An annual membership to Madison Audubon is truly a gift that keeps on giving. Your loved one will get access to members-only activities and classes, early notice on special trips, the quarterly newsletter delivered to their mailbox, and more. This lucky person would receive the card below left.







WOW! All of our t-shirts are printed on material consisting of 50% recycled plastic bottles, 37% organic cotton, and 13% rayon, made in the USA and hand-printed right here in Madison (hooray for smaller carbon footprints!)

Note: Owl shirts are available in women's, unisex, youth, and toddler sizes. Madison Audubon shirts are available in women's and unisex sizes. Hats are one-size fits all.







Want to learn more about our changing climate's impact on birds?



Audubon's report on climate vulnerable birds can be found at climate.audubon.org, and a look at three Wisconsin examples can be found at madisonaudubon.org/news

PHOTO CREDITS

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