



IOWA DEPARTMENT OF NATURAL RESOURCES

Wildlife Diversity News

Conservation and Recreation

December 31st, 2021

Reflections on 2021

Hard to believe but another year is ending and the wildlife diversity program is taking a look back at what this past year meant for us and the work we do for Iowa's wildlife. I hope you enjoy these reflections from each of our staff. Thanks for reading and your interest in wildlife diversity news!

Karen Kinkead | Program Coordinator

As much as I want to say that everything was back to normal in 2021 for the Wildlife Diversity Program, it just wasn't. At times we approached normal, especially with field work and data collection, but our face to face interactions and meeting attendance is certainly still mostly in the virtual world. While the virtual capabilities we have all developed these last two years will help us be more accessible in the future, we are still looking forward to being able to meet in person more often.

A few of our accomplishments this past year include working with other Midwest states to create a list of [Regional Species of Greatest Conservation Need](#), with Iowa State University to survey 73 properties with our Multiple Species Inventory & Monitoring Program (MSIM; if you know someone interested in working for MSIM, applications are being accepted now by ISU for 2022 ([birders](#) and [others](#)), and with the Conservation Corps Minnesota & Iowa to expand Iowa's [monarch butterfly surveying effort](#).

We helped implement two Competitive State Wildlife Grants (CSWG) we received in 2020; one to continue the work we do for Wood Turtles with the University of Northern Iowa and another to establish [MOTUS towers](#) in Iowa (see Anna's update below).



Using funds from our Natural Resource License Plates, we helped replace the [wildlife viewing platform at Riverton WMA](#). If you get a chance, you should check it out – the views are amazing.

Looking forward to 2022, we received 3 new CSWGs in 2021 which will:

- Expand our work with the MSIM program (with ISU).

- Assist private landowners with forest management to benefit bats as well as expand the [NABat](#) monitoring program in Iowa (with DNR partners and Iowa Natural Heritage Foundation)
- Work for Blanding's turtles to create additional habitat, head-start baby turtles, and follow the turtles to see where they prefer to live (with Blank Park Zoo and ISU).

The diversity program will also be helping to host the [Midwest Fish and Wildlife Conference](#) in Des Moines February 13-16, 2022 (come see us!), we are hoping (fingers crossed!!) to unveil a new Natural Resource License Plate or two, and we will still be applying for those CSWGs hoping to bring additional opportunities to Iowa.

The WDP is obviously all about teamwork and we couldn't do the wonderful things we do without help from our partners and supporters like you, so THANK YOU and Happy Holidays.

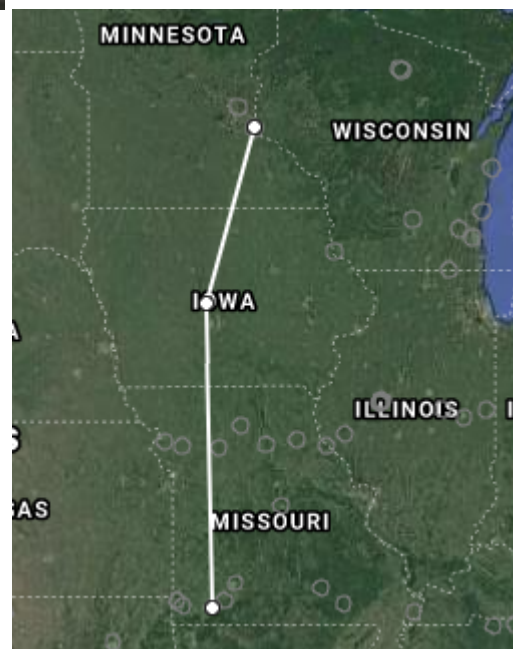
Anna Buckardt Thomas | Avian Ecologist

As a wildlife biologist, I don't often use vocabulary like coaxial cable, megahertz, and socket wrench, but 2021 changed that. This past year, I had the opportunity to become well-versed in the lingo and installation of radio communication systems, all in the name of bird conservation! As part of a collaborative effort across the Midwest, I worked with Iowa State Park and Wildlife Unit staff to install 5 automated radio telemetry receiver stations as part of the [Motus Wildlife Tracking Network](#). The project was made possible by a U.S. Fish and Wildlife Service Competitive State Wildlife Grant that provided funds for 50 new telemetry receiver stations in the Midwest and several more in Central and South America.

The Motus system relies on a large collaboration of independent researchers across the Western Hemisphere that use two specific radio frequencies to track wildlife movements (166.4MHz or 434MHz). Radio transmitters (tags deployed on wildlife that emit a radio signal) operating on each of these frequencies are micro-coded so thousands of unique individuals can be identified while only having to listen for one or two frequencies. This makes it possible to set up a system of automated radio receiver stations that are always listening. When a bird, bat, insect, or other critter tagged on the Motus frequencies comes close enough to a receiver station (within 9 miles for our stations), it is recorded and identified. All the data from animals tagged and detected on the system goes into a centralized database, allowing researchers to collaboratively track large-scale movements of individual wildlife. So, for example, a Wood Thrush tagged by researchers in Panama in March could later be detected by an Iowa receiver station in May. Multiple detections of individuals across time can be combined, point by point, to learn about the path, timing, and speed of small animal movements.



Receiver stations in Iowa are dual-listening and can detect tags on either of the Motus frequencies. So far, highlights from the project have been the detection of two American Kestrels that were tagged in St. Paul, MN and detected at our receiver station in Boone, IA in late summer 2021 and a Rusty Blackbird that was tagged near Duluth, MN, and detected at Pikes Peak State Park at the end of October. The receiver stations we installed will be permanent fixtures, always listening for tagged wildlife in Iowa. This lays the groundwork for future Wildlife Diversity Program research on the movements and migrations of Iowa's birds, bats, and possibly even insects. We are thrilled to be



contributing to this hemisphere-wide effort to better understand migration, and will use that collective knowledge to improve our conservation efforts here in Iowa.

Paul Frese | Multiple Species Inventory and Monitoring Technician

Reflecting back on 2021, I remember a drought that enveloped much of the Midwest, including Iowa. Anyone that has spent time in Iowa understands that the weather here is highly variable, but this year was exceptional in its lack of precipitation coupled with an existing deficit in soil moisture. There are good and bad effects from a drought that affect

fish and wildlife in different ways. Most noticeably, wetlands, streams, and lakes suffer from low water levels or dry up completely, leaving species that use these habitats without a place to live. Plants and trees are stressed from low soil moisture and some don't produce seeds or fruits. It may seem like all doom and gloom when a landscape is locked in a drought, but Iowa's fish and wildlife species have dealt with periodic dry conditions for thousands of years. Many species actually thrive in dry conditions! Personally I would rather deal with dry conditions vs. flooding. I like mowing less, roads are better (but dusty!), and there are fewer mosquitoes!

I work primarily with the Multiple Species Inventory and Monitoring (MSIM) Project and this year was interesting. Many of our field sites were completely dry by early summer, which doesn't help with our amphibian surveys or dragonfly and damselfly surveys.



However, we were able to complete over 18 stream samples using electrofishing methods because of the low water levels in many of our streams. John Olson is our resident ichthyologist and had great success this season. He documented the Western Sand Darter on the West Fork of the Cedar River and Pirate Perch from a

small creek in Louisa County, which are both on [Iowa's Threatened, Endangered and Special Concern Species List](#).

Even though a lack of water in wetlands plagued us in 2021, our reptile surveys were quite successful as we documented many Blanding's Turtles this season as well as several Smooth Green Snake, Graham's Crayfish Snake, and Lined Snake locations. We documented several Meadow Jumping Mouse locations and a new site for Grasshopper Mice too.



MSIM Crew having "Fun With Waders"!

Our surveys weren't as successful with dragonflies, damselflies, or butterflies in 2021, but that's why the MSIM Project is a long-term project. We are out there sampling these species in droughts, floods and everything in between! Who knows, maybe 2022 will bring another round of epic floods....?

Carolyn Moore | Multiple Species Inventory and Monitoring Biologist



2021 was my first full field season with MSIM. I have learned so much about our state and its species over this last year. I enjoyed exploring and assisting our crews in surveying new properties. Even though it was a dry year, I still found plenty of chances to put my waders on to assist with aquatic trapping and electrofishing.

Reflecting back on the year, it is the learning opportunities and training the next generation of field technicians that fills me with the greatest pride.



Many of our technicians this year had prior experience with some of the species but the vast majority had never worked with dragonflies, damselflies, nor butterflies. The crews excelled in learning species identification and were very proud to report interesting dragonfly sightings of a Great spreadwing and Shadow darter. Crew member Noah Nei documented a Silver-bordered Fritillary

(pictured) a species that is considered a Species of Greatest Conservation Need (SGCN) in Iowa as of 2015.

Learning about new species and then identifying them in the field is what motivates our crews and me. I'm excited to see what interesting and rare finds our 2022 season will bring.

Stephanie Shepherd | Wildlife Diversity Biologist

It's been such a busy year! I feel like I was making up for 2020's lost time. Two new field projects and talks given at four conferences, three in person and one virtual. This is more than usual and it felt good diving into some new endeavors even if now at the end of the year I feel like I am behind on everything. It was still worth it!

In February and March, roughly 135 new [Volunteer Wildlife Monitoring Program \(VWMP\)](#) volunteers were trained using zoom. It was successful enough that I think we can offer both in person AND virtual trainings in the future to provide more opportunity. Through a partnership with Iowa State, we've also been able to expand our efforts monitoring Iowa's bats. There aren't enough thanks in the world for our volunteers who devote a significant amount of time and gas money to help us monitor these wildlife in need. You all are the best!



Stephanie hunting butterflies (or bumblebees) in a prairie.

A good chunk of June and July were spent roaming prairies (see picture above) looking for two elusive species of butterflies: the endangered Poweshiek Skipperling and the species of concern Regal Fritillary. Both are only found on remnant (never been plowed) prairies and it was definitely a highlight of the year to explore these gorgeous prairies, many of which were new to me. We also finished up the last year of surveys for the Rusty-patched bumblebee in July and August.

While remnant prairies and woodlands are refuges of wildlife diversity, my year has been somewhat defined by an increasing interest in a more impacted landscape: Cities and Towns. Conservation efforts for the monarch butterfly and rusty-patched bumblebee have illustrated that urban areas can be important conservation spaces. I had the opportunity to talk about this with a group of enthusiastic city leaders at the [Iowa League of Cities](#) conference, as well as groups of environmental education professionals at two separate conferences. There is so much potential to increase the well being of both humans and wildlife in urban areas and a lot of good work already being done.

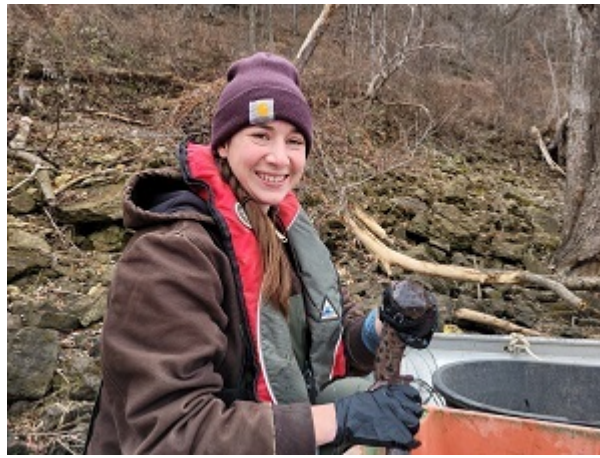


I hope to continue and expand work in this area in 2022!

Who knows what the next year will bring except change and I hope to continue to be able to adapt and do my best to address the conservation needs of Iowa's wildlife. Thanks to all the volunteers and other partners which are so vital to this mission! I look forward to continuing to work together through the next year!

Jenny Frederickson | Wildlife Diversity Technician

After the challenges we all experienced in 2020, it was a nice change to spend more time working with people outdoors during the past year. One of the projects that stands out the most to me was expanding my knowledge of Iowa's butterflies with the help of Wildlife Diversity Biologist Stephanie Shepherd. This involved going out during June and July to some of the state's most interesting remnant and restored prairies to search for rare species and practice my butterfly identification and netting skills! Later on during the Fall, I had my first experience ever on the Mississippi River helping DNR Fisheries staff trap mudpuppy salamanders. Mudpuppies are a state threatened species, so assisting with efforts to estimate and monitor their populations was an incredible experience.



Jenny with a mudpuppy

In addition to time spent outside surveying wildlife, I also spent quite a bit of time this year managing and analyzing data that DNR staff and volunteers collect. Helping to share information about Iowa's nongame wildlife with internal staff and the public is definitely a highlight of my position in the DNR. In particular, I enjoyed summarizing the MSIM efforts for the different management areas of the state, wrangling annual Osprey and Peregrine Falcon nest data from volunteer monitors, and analyzing decades of nocturnal call survey data to estimate changes in presence of Iowa's frog and toad species. I am looking forward to other exciting wildlife experiences in 2022!

Happy New Year everyone! We hope nature has brought you joy this year and will continue to do so in the years to come!

- Karen, Stephanie, Anna, Paul, Jenny, and Carolyn



Want to financially support Wildlife Diversity in Iowa?

There are a couple of easy ways to do so. Make a donation while doing your state tax form by assigning part of your tax refund to the Fish/Wildlife Fund (probably on line 57 or 58) on the 1040 form. This "chickadee check-off" has been an easy way to help wildlife since the early 1980s!

Want to show everyone that you support wildlife in Iowa? Consider getting one of the Natural Resources plate designs on your car! A portion of the funds from these plates goes directly to wildlife conservation efforts in Iowa. You can get the plate by reaching out to your county treasurer or downloading and mailing in [the special plate application form on DOT's website](#).

