



IOWA DEPARTMENT OF NATURAL RESOURCES

Iowa DNR News

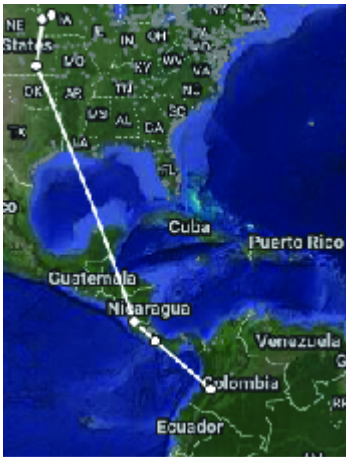
Conservation and Recreation

FOR IMMEDIATE RELEASE

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Growing network of radio stations provide important data on small animal migration



Iowa joined other Midwestern states, and researchers in Canada and Central and South America to create a network of radio receiver stations to learn more about the long-distance migration patterns of birds, bats and insects.

The Motus Wildlife Tracking System, motus being the Latin word for movement, began in 2013 by Birds Canada near Toronto. Motus is a system of coordinated automated radio telemetry stations used to track long-distance movements of small animals.

Automated antenna array connected to radio receivers are being installed throughout the Western hemisphere and birds, bats and insects are netted and trapped then outfitted with small tags that emit a radio signal every few seconds. When the tagged animal passes near a receiver station, it records the tag and identifies the animal to which it was attached. So multiple detections over time can build a map of migration for a tagged individual.

Iowa is an important flyway for migrating birds and as the state works to fill in its east-west radio receiver station fence, more birds will be detected providing more information on migration patterns that can inform conservation decision making.

“We’re trying to increase the number of stations in Iowa and the Midwest to benefit current and future research,” said Anna Buckardt Thomas, avian ecologist with the Iowa Department of Natural Resources (DNR).

Iowa began installing stations in August 2021 as part of a Fish and Wildlife Service Grant that funded equipment for 40 stations in the Midwest and a dozen in Central and South America. The Iowa stations are located in areas that met elevation requirements and

were placed on buildings owned or leased by the Iowa DNR, including at Lewis and Clark State Park, and near the towns of Early, Boone, Swisher, McGregor, Wapello, and Burlington.

“We are planning to install one more station this fall, and once our partners install their stations, we could have a dozen up and running in Iowa, collecting data, then we could begin to ask our own questions, do our own tagging research while still contributing to the larger, hemisphere-wide migration effort,” she said.

Stations cost about \$4,000 each, are designed to fit the site and expected to last for 10 years. The requirements to host a site is, its location in relation to other stations, elevation in the surrounding area, and an internet connection.

The stations are automated and have four antennas set to receive two radio frequencies. The larger antennas have a detection range of 15 kilometers, the smaller antennas can cover 10 kilometers. Once the system is installed it is fairly low maintenance and is always on and ready to detect tags nearby.

So far, Iowa has had 20 detections, including eight different bird species and at least one detection by six of the seven stations. The station near the town of Early, on the Blackhawk Wildlife Unit building, has had three detections – a lesser yellowlegs tagged at its wintering grounds in Columbia; a golden-winged warbler tagged at its wintering grounds in Costa Rica; and an American kestrel tagged on the breeding grounds in Minnesota.

The lesser yellowlegs was tagged in Columbia on April 19. It was detected in southern Costa Rica on May 4 traveling an estimated 78 kilometers per hour (48.5 miles per hour), then was detected in Kansas on May 7, then again on May 7 at the Missouri River Wildlife Unit for two minutes, then at the Blackhawk Wildlife Unit for five seconds.

“All that information is fed into one database so we can detect animals that were tagged by any other researcher in the database, and they will be able to detect any tags we put out in the future. We’re adding an interesting and vital piece to the story of these birds,” Buckardt Thomas said.

Information on the project is available to the public and can be seen at motus.org. The stations are automatically updating the database so the data on the website is always current.

While Iowa hasn’t started tagging animals yet, that is the next step once more stations are up and running. Tagging birds is regulated by the Bird Banding Laboratory with the United State Geological Service that outlines specific requirements and limitations associated with bird tagging and authorizes required permits to avoid negatively impacting the bird’s life.

“We have a much better chance of detecting a tagged bird than to recapturing a bird that is only banded,” she said. “We will learn a lot about the birds’ migration routes and timing when they move through the area, and which Iowa habitats they are using.”

Media Contact: Anna Buckardt Thomas, Avian Ecologist, Iowa Department of Natural Resources, 515- 823-3945.

M. U. Payne Wildlife Area is a great place for water bird watching, duck hunting, and hiking often with little competition



M. U. Payne, in Fremont County, can be dry all summer, then its excavations can fill with water in two days if the Missouri River passes 16 feet of elevation. If the floodwaters are not too high, it could have 400 acres of shallow water on the area. Photo courtesy of the Iowa DNR.

Hidden behind a levee paralleling I-29, six miles northwest of Hamburg in the Missouri River floodplain, is the nearly 1,300-acre M. U. Payne Wildlife Area.

Given its location, flooding is a fairly regular occurrence and an important source of water to recharge the shallow wetlands that make the public wildlife area so popular for shorebirds and waterfowl during the spring and fall migrations.

“If we have water in here in the spring, it can be a good place to go kayaking and great for water bird watching,” said Matt Dollison, wildlife biologist for the Iowa Department of Natural Resources’ Nishnabotna Wildlife Unit in southwest Iowa.

The area became public after the 2011 flood when the U.S. Army Corps of Engineers bought the land from the Payne and Moyer families so it could move the levee further east to hold more Missouri River floodwater and better protect nearby private property and public infrastructure.

The new 2.6-mile-long levee section was topped with gravel making it an excellent place to hike or ride a mountain bike. The only access is from the parking lot on the southeast side of the area.

“The levee is a great place to view migrating waterfowl, shorebirds, deer or hear pheasants, quail, and more,” said Dollison. “Riverton is a hub for birders, but M. U. Payne is somewhere they need to work in to their rotation, along with Copeland Bend and Forney Lake. It’s a great place to watch the spring duck migration - throw in a kayak and you can get up close and personal with the birds.”

With its location adjacent to the Missouri River in Fremont County, several western shorebird species, like American avocets, Wilson’s phalaropes, and willets, can be found at M. U. Payne.

“M. U. Payne can be dry all summer and if we get two days of 16+ foot elevation on the Missouri River, many of the excavations will be full,” he said. “If the river doesn’t flood it too high, it can be really nice in here, we could have 400 acres of shallow water, making for great duck hunting conditions.”

Flooding changes the landscape

Flooding is fairly common here with water reaching the bottom of the levee five or six times since August 2013.

“After the 2019 flood, the area resembled a moonscape – there was bare sand as far as you could see” he said. “Management planning can be a challenging when you don’t know whether to expect an eight-year gap between catastrophic flood events, like the last two, or closer to the almost 60-year gap that followed the last flood of similar magnitude in 1952. That being said though there was a silver lining, because the flood created a huge amount of specialized habitat for rare species, and almost none of the wetland excavations were impacted by the sand deposition.”

Rare species found

A hispid cotton rat was found at M. U. Payne in 2016 by a crew working as part of the Multiple Species Inventory and Monitoring (MSIM) program within the Wildlife Diversity Program. The only other time it was found in Iowa was in owl pellets at nearby Waubonsie State Park in the 1970s.

Several other rare and important species were found at M. U. Payne by the MSIM staff from 2014 to 2016 and others since. These include piping plovers, king rails, black terns, least terns, northern harriers and wild indigo duskywing butterflies.

Paddlers take note

Need a stopover spot on a Missouri River paddling adventure? The Hamburg-Mitchell boat ramp is only three miles downriver from M. U. Payne so people could throw a boat in there and pretty quickly get to the very far end of the property which is almost two miles from the nearest vehicle access. That area along the river is also where visitors would find the best mushroom hunting.

Media Contact: Matt Dollison, Wildlife Biologist, Iowa Department of Natural Resources, 712-350-0147.

Learn to Hunt program opens registration for dove hunting for beginner's webinar

DES MOINES - The Iowa Department of Natural Resources (DNR) is offering a program to teach skills needed to hunt, field dress and cook mourning doves to individuals who have little to no dove hunting experience.

The July 14 workshop will feature a two-hour virtual knowledge and skills building sessions with instructors that will teach the basics.

“For those interested in the challenge of dove hunting as a means of sourcing their own protein, this program provides the opportunity to learn the skills and knowledge it takes to do it all yourself,” said Jamie Cook, Hunter Education coordinator with the Iowa DNR.

Participants will learn basic strategies for hunting mourning doves such as proper equipment, where to hunt, safe shooting practices, and how to field dress, butcher and cook them.

The course runs from 6 to 8 p.m. and is designed for participants 16 years of age and older. The course is free and will be held via Zoom. To register, go to https://us02web.zoom.us/webinar/register/WN_sAoozZTASs2Zyl-ptwTOvg. Space is limited so early registration is encouraged.

The program is provided through a partnership with the Iowa DNR and Backcountry Hunters and Anglers. It is part of a national effort to recruit, retain and reactivate hunters due to the overall decline in hunting and outdoor recreation.

Media Contact: Jamie Cook, Iowa Department of Natural Resources, 515.350.8091

Public Meeting to discuss Browns Lake

SALIX – The Iowa Department of Natural Resources (DNR) and Woodbury County Conservation Board will host a public meeting at 5:30 p.m., June 21, at the lodge at Bigelow Park to discuss Browns Lake.

Iowa DNR staff will share the results of a recently completed water balance study.

Any person attending the public meeting and has special requirements such as those related to mobility or hearing impairments should contact the DNR or ADA Coordinator at 515-725-8200, Relay Iowa TTY Service 800-735-7942, or Webmaster@dnr.iowa.gov, and advise of specific needs.

Media Contact: Ben Wallace, Fisheries Management Biologist, Iowa Department of Natural Resources, 712-657-2638.