The Wild Side!

October 2014

Cover Photo

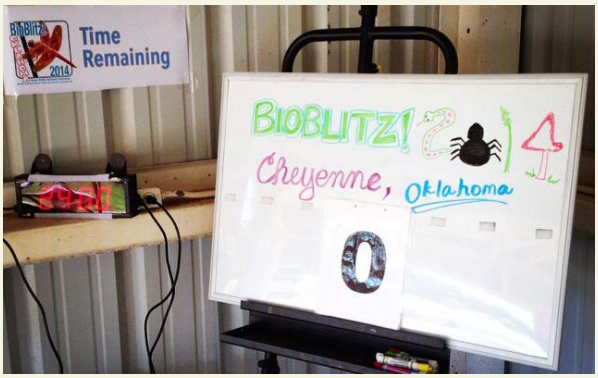
The Gulf Fritillary (*Agraulis vanillae*) is migrating through Oklahoma this fall. Be on the lookout for this colorful butterfly in your backyard garden! Photo by Jena Donnell.

Upcoming Events

Haunted Hike
Martin Park Nature Center
Oklahoma City
Nov. 1, 2014
Hikes leave every half hour beginning at 7 p.m.

What creatures dwell deep in the Martin Park woods at night? Come find out as naturalists talk about night crawlers - friends and foe - during a Martin Park Nature Center Haunted Hike. Grab a flashlight (a headlamp will do), and wear weather-appropriate clothing, and join in a spooky trek through on the Martin Park Trails. Last hike begins at 9 p.m. Cost: $5 per person. Register here!

Greetings Wildlife Enthusiasts!



What do you call an event that brings biologists and citizen scientists together for a rapid inventory of Oklahoma's biological diversity? BioBlitz! of course! The name is well earned; volunteers have 24 hours to complete their tally and there's no limit to the types of organisms counted. Every year, a regional biodiversity hotspot is scoured by beginning nature enthusiasts, biologists and university professors for mammals, lichens and everything in between. The inventory provides local volunteers an eye-opening look at the natural diversity that can be found in their backyard.

This year, base camp was located in Cheyenne, Okla. Over 290 volunteers explored the nearby mixed-grass prairie habitat of Black Kettle National Grasslands and Washita Battlefield National Historic Site. The event started Friday, Oct. 3, with the sounding of the official starting horn. From there, attendees set small mammal traps, searched for birds, collected diatoms, gathered insects, looked for lichens, mist-netted bats, unearthed soil invertebrates, caught dragonflies, hunted for herps, seined fish and snatched snails. After the final tally scramble Saturday evening, volunteers had identified 665 species!

BioBlitz! serves as a fun, hands-on way to learn about Oklahoma's biological diversity. The national program got its start in 1996 and was invented by scientists from the National Park Service. Volunteers have been inventorying Oklahoma's diversity since 2001.

To see past BioBlitz! results, check out the Oklahoma Biological Survey website!

Oklahoma's BioBlitz! is a project of the Oklahoma Biological Survey and the University of Oklahoma.

Species Profile: Northern Harrier

While many Oklahomans are familiar with the sight of a hawk "making lazy circles in the sky," they may not know the slender raptor hovering over low-growing brush could be the graceful northern harrier (Circus cyaneus), more commonly known as the marsh hawk.

The Northern Harrier is often recognized by its low, slow flights over shrubs. A female harrier is shown in this photo. Photo by U.S. Fish and Wildlife-Northeast Region. (License)

Harriers are fairly unique among hawks; male and female harriers differ not only in size but also in coloration. The larger female is dark brown above and primarily buff to off-white underneath. The undersides of her wings are dark brown near the body with much paler primaries or "fingertips." The smaller adult male is light gray above and nearly solid white underneath with black wingtips. Regardless of these differences, harriers can be identified from other hawks by their long narrow wings, flat owl-shaped face, and noticeably buoyant flight. Even so, both beginning and experienced birders rely on the most common field mark, the unmistakable white rump patch.

Harriers patrol brushy prairies and marshes looking for small rodents, birds and even insects. Skimming over low-growing shrubs or motts of plum or sumac, this resourceful predator flushes its prey from cover and then captures it in flight. The Old English root of the word "harrier" reflects this unrelenting hunting behavior, literally translating to "harass."

Northern harriers have a distinctive disc-shaped face. A male harrier is shown in this photo. Photo by Paulo Philippidis. (License)

Unlike many hawks, harriers hunt by both sight and sound. The owl-like facial disk concentrates sound waves to the ear openings, allowing harriers to hunt much later in the day than other hawks. In fact, harriers are often compared to the nocturnal short-eared owl. With the exception of hunting time, these birds have similar prey items, hunting behavior and even hunting grounds.

While many other species of hawks nest in trees, harriers prefer nesting on or near the ground. Their reed and stick nest is generally 15 to 30 inches in diameter and is built by both the male and female. Mating takes place in late May to early June. Four to nine eggs are laid shortly after mating and chicks hatch one month later. Nestlings are able to fly 30 to 35 days after hatching. Though an uncommon breeder in Oklahoma, nests were confirmed during the 1997 to 2001 survey for the Oklahoma Breeding Bird Atlas project.

Northern harriers can be found across much of North America, depending on time of year. Even though these birds are in the northern half of the contiguous United States year-round, they can summer as far north as Alaska and winter as far south as Mexico. Harriers typically begin arriving in Oklahoma in mid-September and most are on the wintering grounds by November. Immature harriers tend to migrate before adults, and females typically arrive before males. Not only do male and female harriers arrive at different times but they may also choose different winter hunting grounds. One study showed that females preferred open grasslands while males chose more brushy areas including weedy fencerows.

Want to learn more about the birds wintering in Oklahoma, especially those known to visit backyard bird feeders? Check out our website OK Winter Birds!

State Wildlife Grant Action Report: A Survey of Alligator Snapping Turtles and Other Turtle Species in Three Northeastern Oklahoma Rivers

The State Wildlife Grants Program is a solution to the nation's ever-growing number of threatened and endangered species.

The Alligator Snapping Turtle is Oklahoma's largest species of turtle (some reaching impressive weights of 250 pounds) and is considered a top predator in the rivers, lakes and sloughs where it still inhabits. In an effort to offset the long-term decline, 246 turtles have been raised at the Tishomingo National Fish Hatchery and reintroduced into the upper reaches of the Caney River in Osage County. As with any reintroduction effort, monitoring is an important aspect of the release. In 2010, Day Ligon and associates with Missouri State University's Department of Biology received a State Wildlife Grant to recapture released turtles and measure growth rates, body condition and estimate annual survival rates. To accomplish this, researchers set hoop net traps near the reintroduction sites and took length and weight measurements of any recaptured turtle.

Researchers with Missouri State University have been monitoring turtle populations in three Northeastern Oklahoma rivers. Photo provided by Day Ligon.

Turtles were captured using hoop nets, identified and released. Photo provided by Day Ligon.

Because each turtle was fitted with an identifying tag before the release, researchers were able to track the recaptured turtles' growth. Over the course of the study, 71 Alligator Snapping Turtles were recaptured. While this only represents 28 percent of the released turtles, the low-recapture probability is well-documented for Alligator Snapping Turtles. Those turtles that were recaptured were comparable in size and condition to turtles that remained in captivity and fed generously. Because of the substantial and consistent growth reported in the study, it seems reintroduced turtles were able to successfully and quickly locate resources needed to survive and flourish.

A second project of the larger study was an inventory of freshwater turtles in the Caney, Verdigris and Spring Rivers of northeastern Oklahoma. These turtles play a vital role in energy and nutrient flow in freshwater ecosystems. Surveys were conducted from 2011 to the summer of 2014. Nine species of turtles were identified; a total of 3,793 turtles were captured and released. As expected, Red-eared Sliders, the most abundant turtle in Oklahoma, were captured more than any other species, followed by the Ouachita Map Turtle and Spiny Softshell. When surveying, researchers also identified habitat variables associated with captured species. Eastern Snapping Turtles seem to be closely tied to sites with plentiful basking structure and increasing water depth. Conversely, the Midland Smooth Softshell seems to be associated with sites of decreasing water depths and was only captured along the most upstream survey sites of Spring River.

While surveying the existing turtle community, researchers were also cataloguing potential sites for future Alligator Snapping Turtle releases.

Tools of the Trade: Small Mammal Live Traps

One of the most popular tools utilized in small mammal research is the H.B. Sherman live trap. Named Sherman after the man who created them, these traps have become the leading tools in live animal trapping since their invention in the 1920s. The traps are used primarily for small mammal trapping and allow the animal to be caught and released without any intentional threat to the animal's well-being.

Animals are lured into the open trap door with suitable bait and step on a pan. Once the pan is stepped on, the pan triggers the door which then closes behind the animal. Traps come in a variety of sizes and shapes depending on the species you hope to catch.

Sherman traps are lightweight and made with quality aluminum, which has its positives and negatives. Sherman traps are quite durable and can be used repeatedly over several years; however, traps are rather temperature sensitive, heating and cooling easily. One of the most attractive qualities of Sherman traps is their ability to collapse and store easily. This feature makes it possible to carry many traps at once; allowing biologists to set more traps, potentially yielding a higher catch rate.

Want to learn more about the tradition of Sherman traps? Click here!

Article by Marli Claytor, Wildlife Diversity Intern

The Sherman live trap is a lightweight, durable trap often used in small mammal research projects. Photo by Jena Donnell.

The Wild Side e-newsletter is a project of the Oklahoma Department of Wildlife Conservation Wildlife Diversity Program. The Wildlife Diversity Program monitors, manages and promotes rare, declining and endangered wildlife as well as common wildlife not fished or hunted. It is primarily funded by the sales of Department of Wildlife license plates, publication sales and private donors.
Visit wildlifedepartment.com for more wildlife diversity information and events.
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