



The Wild Side!

April 2016

Indian paintbrush is a common roadside wildflower. Watch for this and other wildflowers growing as you journey across Oklahoma this spring.

Upcoming Events

Bird Walk

[Arcadia Conservation Education Area](#)

April 29, 2016
8:30-10:30 a.m.

RSVP with Jena Donnell at (405) 496-0350 or at jena.donnell@odwc.ok.gov

The Plants of Pontotoc Ridge

Pontotoc Ridge Preserve
April 30, 2016

Learn about the plant community of Pontotoc Ridge Preserve. After two years, the Oklahoma Biological Survey has completed a Flora of Pontotoc Ridge Preserve survey. Results of this research will be presented at 1 p.m. Afterwards, guests can enjoy a field trip with botanist Amy Buthod. Bring suitable hiking gear, camera, binoculars, drinks, snacks, sunscreen and insect repellent.

2016 Marks 100 Years of Bird Conservation

Migratory birds have been making long and arduous flights from their southern winter homes to their more northern summer homes - and back again - for generations. But unbeknownst to the birds, their long distance travels may cross international borders and political areas with varying environmental policies and conservation measures. A Migratory Bird Treaty, signed on August 16, 1916 by the United States and Great Britain on behalf of Canada, helps protect these incredible fliers as they make their annual journeys.

This treaty, along with the three that followed with Mexico, Japan and Russia, forms the cornerstone of our efforts to conserve birds that migrate across international borders. These agreements connect many partners who share a long, successful history of conserving, protecting and managing migratory bird populations and their habitats.

At least 473 species of birds have been documented in our state throughout the year, many of which are migratory. A member state of the [Central Flyway](#), Oklahoma hosts many species of shorebirds, cranes, waterfowl and grassland songbirds from spring through fall. Our state is the destination for some of these migratory bird species while other species, like the whooping crane, only pass through the state as they journey to their more northern breeding grounds. In addition to these prairie birds, eastern Oklahoma also shares several species of songbirds (especially warblers) with the [Mississippi Flyway](#).

The Wildlife Diversity Program will be celebrating the Centennial on April 29, 2016 from 8:30-10:30 a.m. with a bird walk at the Arcadia Conservation Education Area. RSVP with Jena Donnell at (405) 496-0350 or jena.donnell@odwc.ok.gov.



Learn more about the Migratory Bird Treaty Centennial in the U.S. Fish and Wildlife Service's "[Nestbox](#)" website.

Species Profile: Spotted Sandpiper

Jim Hudgins/USFWS



The spotted sandpiper is just one of the many migratory birds that visits Oklahoma during its breeding season. Touted as the most widespread breeding sandpiper in North America, this [killdeer](#)-sized bird is frequently found in freshwater marshes and along shorelines of streams, rivers and lakes.

In addition to being one of the most widespread of sandpipers, it is also one of the easiest to identify. While identification of many sandpipers depends on bill length, size, and leg color (which are often covered in mud) the spotted sandpiper boasts a heavily spotted breast and belly in the breeding season. Their bill is mostly orange but has a noticeable black tip. Even if you don't get a close look, spotted sandpipers also have a distinctive bobbing gait that is noticeable at a distance, leading to their nickname "teeter-peep." (Sandpipers are so difficult to distinguish, especially the five smallest species, that they are often referred to as "peeps.")

Like other shorebirds, spotted sandpipers will probe the soft sand with their bills for small aquatic invertebrates. Along with probing, they actively forage for these insects, snapping and lunging at their prey.

Female spotted sandpipers arrive on the breeding grounds before the males, setting up territories in early spring. From May to July, the female will lay eggs in one to four nests that are tended by her male mates. Chicks hatch 20-24 days later and begin the distinctive teetering gait almost immediately.

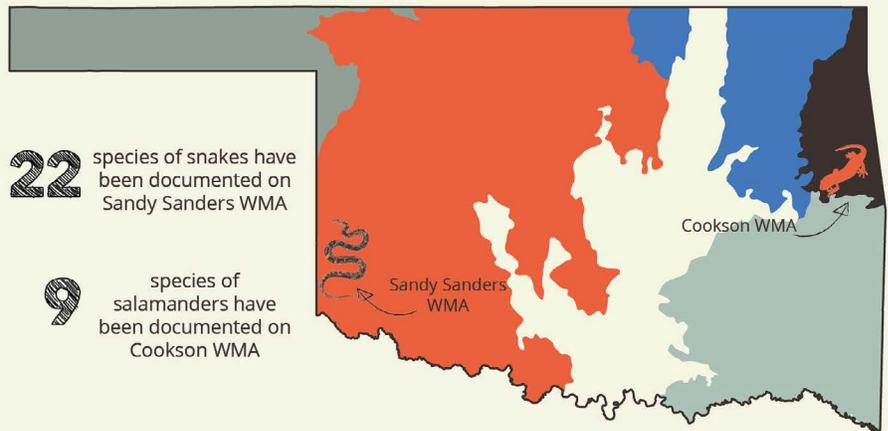
Spotted Sandpiper
Actitis macularia



Searching for Salamanders and Snakes on Wildlife Management Areas

If things that slither or are slimy intrigue you, a trip to Cookson or Sandy Sanders WMAs may be in order. On top of impressive views and ample hunting prospects, both of these Wildlife Management Areas offer outstanding wildlife watching opportunities - especially for reptiles and amphibians.

Situated on opposite sides of the state with drastic differences in vegetation and annual rainfall, these WMAs showcase Oklahoma's diverse "herp" communities. While the forested Cookson WMA has a much stronger showing of salamanders, the grassy and rock-laden Sandy Sanders practically slithers in snake diversity.



Cookson and Sandy Sanders WMA's are great places to observe snakes and salamanders, but they also host several other reptiles and amphibians. Find a full list of species documented on these public areas at wildlifedepartment.com.

Slimy Salamanders at Cookson WMA

A number of streams trickle through Cookson WMA's rocky hillsides in eastern Oklahoma's Ozark Mountains, creating first-rate salamander habitat. Larval salamanders (complete with gills and a finned tail) can be found in the clear streams while the adults have plenty of rocks and rotting logs to burrow under to stay moist. Cookson WMA also has several fishless "borrow" ponds that serve as amphibian breeding sites. Salamanders (and frogs) can travel to these ponds after rains to mate and lay eggs without the threat of predation from fish.

Nine species of salamanders have been documented at Cookson WMA. Visit wildlifedepartment.com to learn more about these salamanders, including the [dark-sided salamander](#), and the many other amphibians and reptiles documented on this forested WMA.

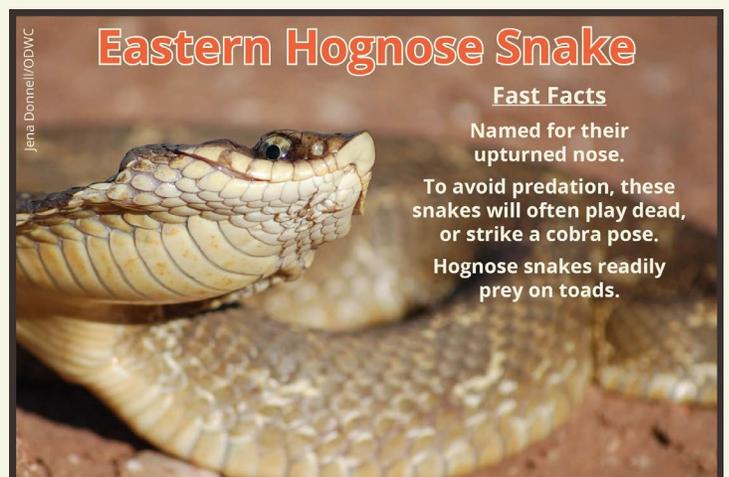


Slithering Snakes at Sandy Sanders WMA

A rugged mixture of mesquite and redberry juniper, exposed gypsum, and mixed-grass prairie, Sandy Sanders WMA offers habitat for a wide range of reptiles and amphibians, but especially for snakes. While most snake stories associated with Sandy Sanders revolve around rattlesnakes, 19 nonvenomous snakes may also be encountered.

Roads are a common place to find snakes on the WMA (they are a great place for the reptiles to warm up in the morning and evening and often serve as travel corridors for prey species), but snakes can be seen across the public hunting area. During the heat of the day, many snakes retreat under rocks, or flat objects. Some species become nocturnal during summer months.

Twenty-two species of snakes have been documented at Sandy Sanders WMA. Visit wildlifedepartment.com to learn more about these reptiles, including the [eastern hognose snake](#) and the many other herps documented on this rocky WMA.



U.S. Fish and Wildlife Service Bands Threatened Bats

At least 10 species of bats have been documented in the Ozark Mountains of Adair County and researchers at [Ozark Plateau National Wildlife Refuge](#) are interested in how many of these bats, especially the threatened northern long-eared bat, are using the Refuge's largest cave system as a winter hibernation site.

While counts have been conducted during their hibernation, the bats of interest are notoriously hard to sample as they prefer small crevices and may be easily overlooked. Previous winter counts of this cave by experienced bat biologists have revealed fewer than 50 northern long-eared bats.



To get a better understanding of the population, researchers have placed specialized traps and mist-nets at the mouth of three of the cave systems' entrances, twice in the fall and again in the spring. When the bats emerge from their cave they are caught in the traps and nets, processed and released on site. So far, more than 500 northern long-eared bats have been captured as part of this ongoing study.

As soon as the bats are captured, they are identified and weighed, and a numbered band, or cuff, is attached to their forearm. Should the bat be captured in future trapping efforts, the band will help the researchers track the bats' movements as well as determine a percentage of the population that has been banded. This percentage gives the researchers an estimate of the total population using the cave.

The [northern long-eared bat](#) has been protected by the Endangered Species Act as federally threatened since May, 2015.

Introduction

Data represent the first of four sampling periods (two fall swarming, two spring staging) that will be used to estimate the overwintering population numbers of northern long-eared bats (MYSE) in a single cave system in the Ozark Plateau National Wildlife Refuge (OPNWR) in Adair County, Oklahoma. This cave system has 11 known entrances, three are the areas of interest for this survey.

Ozark Plateau NWR
Sally Bull Hollow Unit

In fall of 2015, 488 bats were captured including 300 northern long-eared (MYSE), 130 tri-colored (PESU), 55 gray (MYGR), 2 Ozark big-eared (COTO), and one eastern red bat. Although the focus is on MYSE and all 300 were banded for later mark/recapture efforts, our efforts also include monitoring changes in the mensural characteristics and sex ratios of the three most common bat species among sampling periods and between the data from the cave and those collected on the landscape during the summer Bat Blitz of 2013 from the same general area.

Methods

Bats were captured at three cave entrances in the Ozark Plateau NWR during the nights of 29 and 30 September 2015 using harp traps at cave entrances and mist-nets strategically placed around those same cave entrances. All equipment, traps, poles, nets, cloth bat bags, and processing gear were new. No vehicles were used that had been in WNS positive areas. Standard decontamination protocols were followed.

CHARACTERISTICS OF BATS AT A CAVE IN EASTERN OKLAHOMA: FALL SWARMING

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Results

Figure 1 shows the relative sex ratios of the three species from fall and summer. Figures 2, 3, and 4 show the distribution of mass measurements for fall and summer for MYSE, PESU, and MYGR respectively. Two COTOs, 1 male, 1 female and one red bat, male, were captured in mist-nets near the cave entrance. All fall captures were within the first two hours after sundown, and only adults were used for comparisons.

Species	Summer	Fall
MYSE	60.0%	51.3%
PESU	85.1%	75.4%
MYGR	96.4%	65.6%

CAPTURES

MYSE Northern Long-Eared Bat (*Myotis septentrionalis*)

PESU Tri-Colored Bat (*Perimyotis subflavus*)

MYGR Gray Bat (*Myotis grisescens*)

COTO Ozark Big-Eared Bat (*Corynorhinus townsendi ingens*)

Discussion

Previous winter surveys of this cave counted <50 NLEBs (Stark, pers. com.). Although we captured and banded 300 individuals, many bats were seen inside and around the cave entrances and we stopped the surveys each night long before the bats stopped their activity. We estimated >1000 individuals. A cold front came through on the second night, and the activity of PESU increased to a point that we took down the nets and traps. A small number of MYGR are known to use the cave during the summer and it is likely that these MYGR (96% male) leave this cave for other hibernacula. Figures 2 and 3 show significant mass increase between summer and fall for both MYSE and PESU as they prepare for hibernation, but no significant difference in MYGR, possibly because the fall bats are in transit or have not departed for their hibernacula and future mass increase. Data presented here will also be used as a basis for determining changes over the next two years that may be related to the future presence of WNS.

Environmental Solutions & Innovations, Inc. **ESI**

www.ENVSI.com

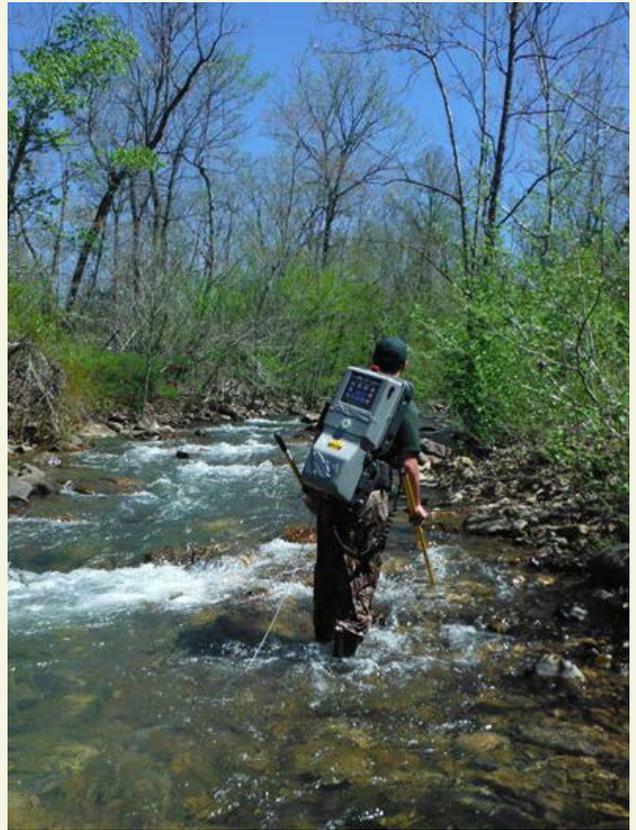
The Nature Conservancy Samples Fish at Cucumber Creek Preserve

Fisheries biologists with [The Nature Conservancy](#) and the Oklahoma Department of Wildlife Conservation recently surveyed the fish community of Cucumber Creek in LeFlore County. To survey, the team used a backpack electroshocker to temporarily stun the fish so they could be captured, identified and released. Twelve species of fish were detected in this survey.

In addition to common species like the bigeye shiner and bluntnose minnow, the team also found the slender madtom, which is a member of the catfish family. This fish has declined in much of its range in the U.S. because of siltation, turbidity and hydropower operations. Cucumber creek offers high quality habitat and water quality for the slender madtom to thrive in this watershed. Slender madtoms were found during the day, rare because these fish are most active at night and hide under rocks or aquatic vegetation during the day.

Cucumber Creek is a mountain headwater creek that feeds into Big Eagle Creek, which is a tributary of the Upper Mountain Fork River. These larger waterways both contain the federally threatened [leopard darter](#) and a diverse assemblage of other fishes.

[Cucumber Creek Preserve](#) is just one of the many properties owned and managed by The Oklahoma Chapter of The Nature Conservancy. Located in southeastern Oklahoma, this preserve covers more than 3,200 acres in the Cucumber Creek watershed. This preserve is only open to the public during events hosted by The Nature Conservancy, such as their field trips.



Backpack electroshockers are used to temporarily stun fish so they can be captured and identified. (Kim Elkin/TNC)



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. For questions or comments, please email jena.donnell@odwc.ok.gov

This program operates free from discrimination on the basis of political or religious opinion or affiliation, race, creed, color, gender, age, ancestry, marital status or disability. A person who feels he or she may have been discriminated against or would like further information should write:
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or Office of Equal Opportunity, U.S. Department of Interior, Washington D.C. 20240